<u>Introduction to Economic History:</u> Capital, Inequality, Growth

(Master APE & PPD) (EHESS & Paris School of Economics) Thomas Piketty Academic year 2025-2026

Lecture 4: Colonial societies, state formation and comparative development (India, China, Japan)

(check on line for updated version)

Roadmap of the lecture

- The rise of Europe & the development of fiscal-military states
- Unequal Exchange and North-South Relations: Evidence from Global Trade Flows and the World Balance of Payment, 1800-2025
- India and the origins of the caste system (Manusmriti, 2c BC)
- British colonial censuses (1871-1941) and the rigidification of caste
- Post-independance India: reservations, inequality & redistribution
- Colonialism, ternary ideology and modernization: India, Japan, China

The rise of Europe, state capacity & the development of fiscal-military states

- Slavery and colonial domination played a central role in the rise of Europe and the industrial revolution. In 1860, 75% of cotton used in European textile factories came from US South slavery plantations.
- Of course this does not mean that slavery-colonialism was a necessary condition for industrialization & development, which certainly could have happenned with a more equitable labour regime and a less hierarchical international order. But this is the way it happened, largely because of European military domination (& ideology justifying using it).
- See K. Pomeranz, The Great Divergence China, Europe and the Making of the Modern World Economy, PUP 2000 (Intro.-Chap.5-6)
- Until 1750-1800, very comparable development level between the most advanced regions of Europe, China, Japan or India (proto-industrialization)

- Pomeranz also stresses the role of « ecological constraint ». Very fast deforestation in Europe 1500-1800 (& China-Japan-India).
- The « discovery » of America & the development of Atlantic slavery allowed for large scale imports of raw materials (cotton, wood, sugar, etc.)
- In 1830s, total English imports = equivalent to 10 millions hectares of land, i.e. 1.5-2 additional Britain in arable land.
- Modern economic developement is the product of globalization and could hardly have happened without it (i.e. without the world division of labour).
 The interesting question is to explore the alternative ways globalization could have been organized in past centuries (& could be organized in the future).
- Armed trade and military domination also played key role in financial innovation: public debt, colonial companies (EIC, VOC, etc.)
- Not at all the Smithian recipe: low taxes, no debt, peaceful trade, etc.

- See S. Beckert, Empire of Cotton. A Global History, Penguin 2014
- Until 1500-1600, cotton and textiles had always been produced locally. Things started to change with the Great Discoveries and the military expansion of Europe: the West appropriated land in America, sent slaves from Africa in order to produce raw cottons and finally banned Indian textiles → by 1800-1850, Europe was able to gradually take control of global textile manufacturing
- Key role of slavery: half of the slaves transported over the 1492-1888 period were transported after 1780, and especially in 1780-1820; huge acceleration of the slavery system in 1780-1860
- See P. Parthasarathi, Why Europe Grew Rich and Asia Did Not: Global Economic Divergence 1600-1850, CUP 2011.
- Key role of British bans on Indian textiles. Chine-India: 55% of world manufacturing output in 1800, down to 5% by 1900.

 Some on-going research on the ecological and colonial dimensions of the Industrial Revolution and its long-run impact:

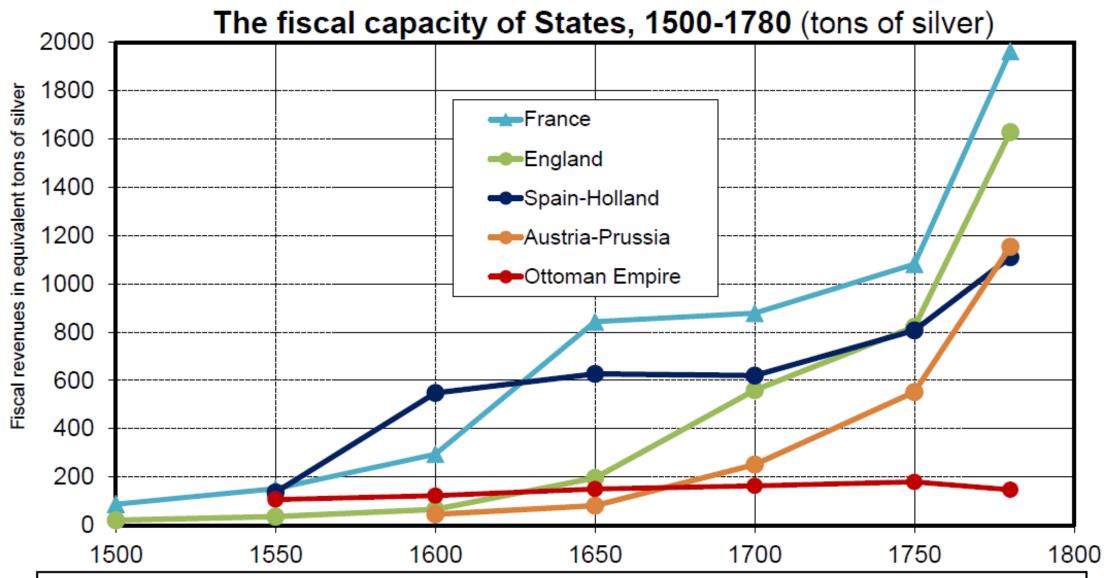
• L. Chancel, « Global Carbon Inequality in the Long Run », 2021 on the world distribution of energy consumption and carbon emissions since the Industrial Revolution

• P. Nogues-Marco, « Measuring Colonial Extraction: the East India Company's Rule and the Drain of Wealth (1757-1858) », 2020

 M. Stelzner, S. Beckert, « <u>The Contribution of Enslaved Workers to</u> <u>Output and Growth in the Antebellum United States</u> », 2021

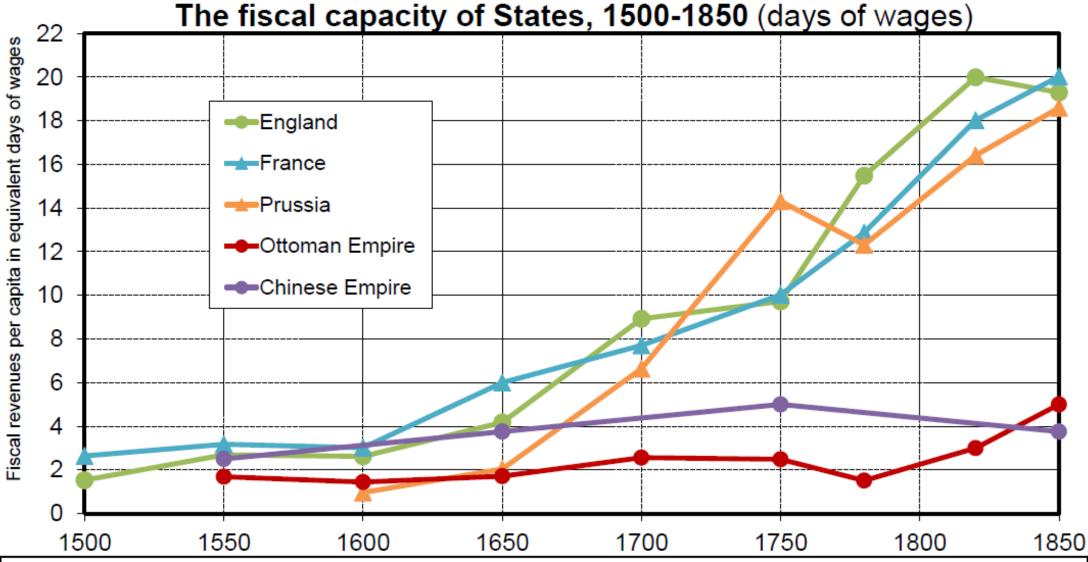
- See also Rosenthal-Wong, Before and Beyond Divergence: The Politics and Economic Change in China & Europe, HUP 2011
- They stress the role played by the size of political communities (polities)
- Europe: smaller polities → more competition between small nationsstates, more military innovation → colonial domination, rise of the West. But also self-destruction of Europe in 20c, and major coordination pb today within the EU
- China: larger polity → less military innovation in 17c-19c, too Smithian (low taxes, no debt, peaceful trade) → defeat in Opium wars 1839-1842 and 1856-1860 against Britain & France → war tributes, unequal treaties. But maybe better in the long-run

- The rise of strong military and fiscal capacity in Europe: consequence of interstate competition. Until 15c-16c all states in the world were weak (<1%-2% GDP in tax revenues). But in 17c-18c state capacity grew to 6%-8% GDP in Europe, thereby creating a gap with Ottoman or Chinese states (1%-2%)
- Main explanation: long term process of state-building and ideological change (from trifonctional local elites to proprietarian centralized state).
 Acceleration of the process due to interstate competition and permanent war in Europe (90%-95% of the time during 16c-17c, 78% during 18c)
- See K. Karaman, S. Pamuk, <u>Ottoman State Finances in European Perspective</u>, Journal of Economic History 2010
- See also M. Dincecco, The Rise of Effective States in Europe, JEH 2015



Interpretation. Around 1500-1550, the fiscal revenues of the main European States and of the Ottoman Empire were at a level equivalent to about 100-200 silver tons per year. In the 1780s, the fiscal revenus of France and England were between 1600 and 2000 tons of sliver per year, while those of the Ottoman Empire were less than 200 tons.

Sources and series: see piketty.pse.ens.fr/ideology (figure 9.1).



Interpretation. Around 1500-1600, tax revenues per inhabitant the main European States were between 2 and 4 days of urban unskilled maneuver wages; in 1750-1780, they were between 10 and 20 days of unskilled wages. Per inhabitant fiscal revenues remained around 2-5 days of wages in the Ottoman Empire as well as in the Chinese Empire. With a per inhabitant national income estimated to be around 250 days of unskilled urban wage, this implies that tax revenues have stagnated around 1%-2% of national incime in Chinese and Ottoman Empires, while they rose from 1%-2% to 6%-8% of national income in Europe. Sources and series: see piketty.pse.ens.fr/ideology (figure 9.2).



EVIDENCE FROM GLOBAL TRADE FLOWS AND THE WORLD BALANCE OF PAYMENTS 1800-2025

GASTÓN NIEVAS THOMAS PIKETTY

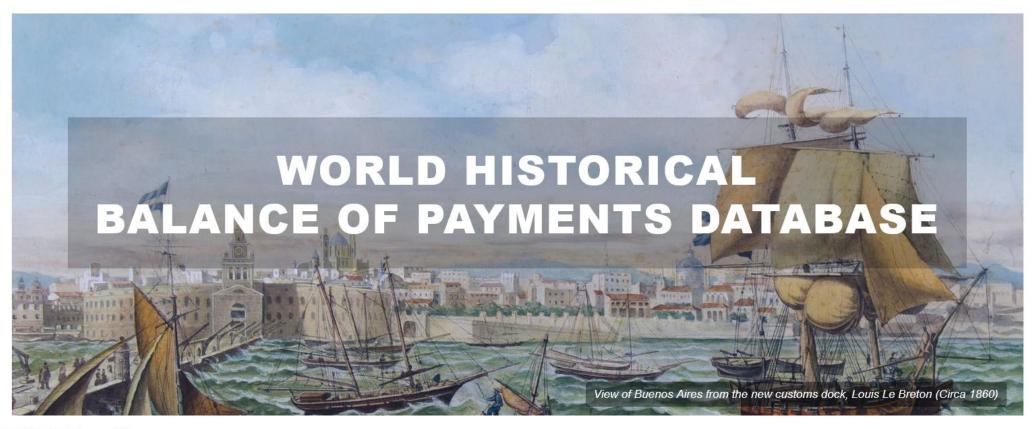
WORKING PAPER N°2025/11



A new database on global trade flows and the world balance of payment (including goods, services, income and transfers) over 1800-2025 period

This allows us to construct consistent global series on world trade imbalances, current account surplus/deficit and net foreign wealth over more than two centuries

WBOP Research Data History Contact Us



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A new global dataset covering international transactions from 1800 to the present.

Developed by Gastón Nievas and Thomas Piketty, WBOP harmonizes balance of payments data across time and countries, enabling long-run comparative analysis of trade, capital flows, and foreign wealth accumulation.

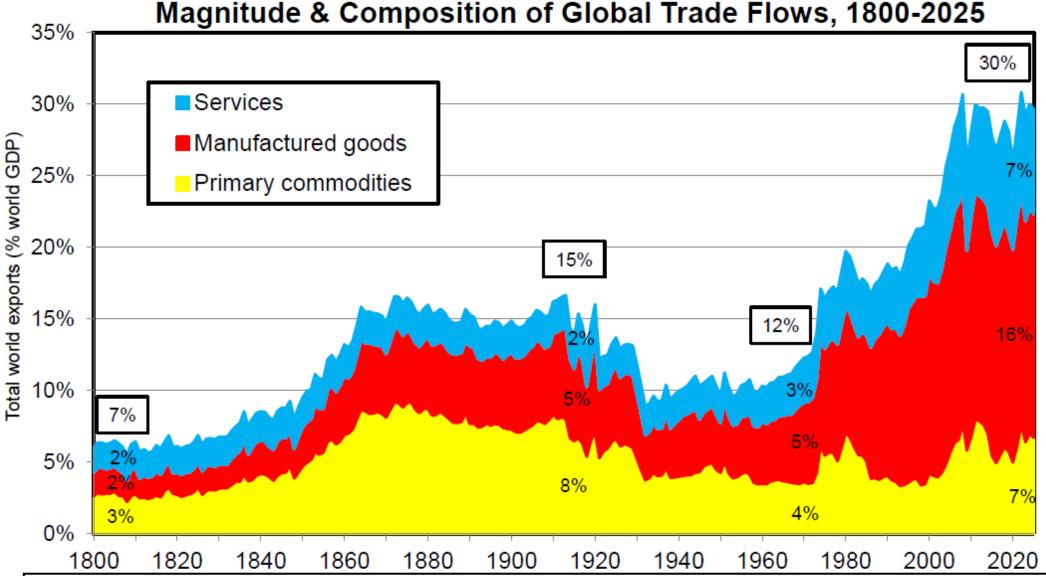
Magnitude & composition of global trade and BoP flows 1800-2025

The **U-shaped pattern of global trade**:

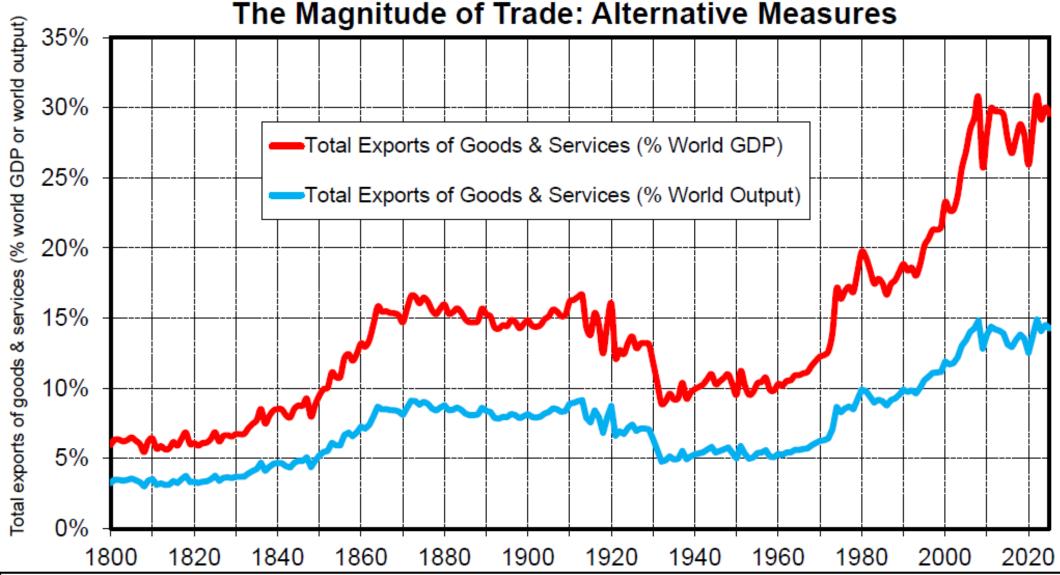
1800-1914 个, 1914-1970↓, 1970-2025个

The changing composition of global trade: primary commodities, manufactured goods, services

The changing magnitude and composition of foreign income flows and foreign transfer flows

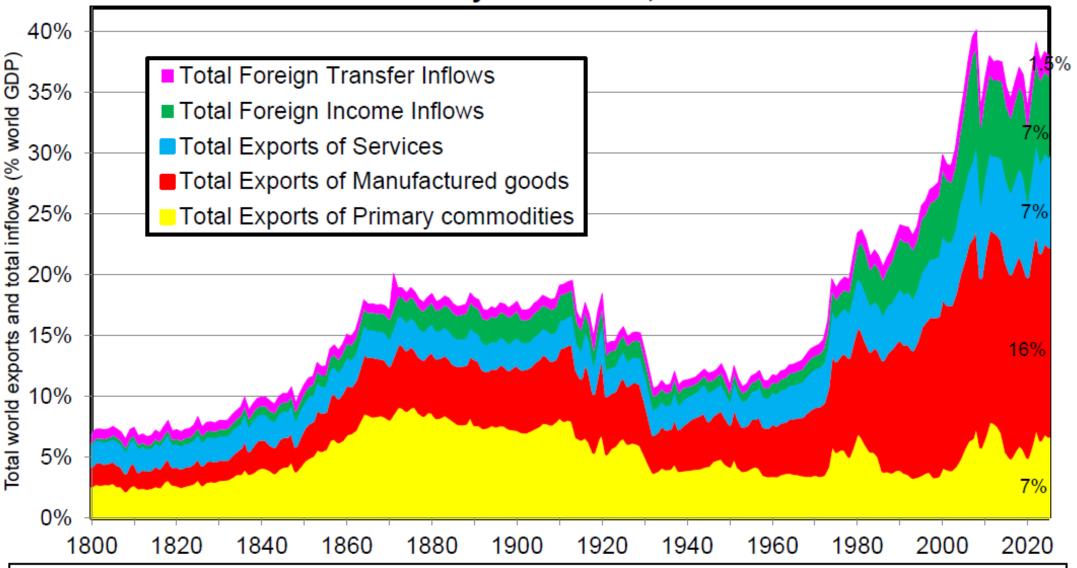


Interpretation. Total world exports have risen from about 7% of world GDP in 1800 to about 15% in 1914, 12% in 1970 and 30% in 2025, with a collapse in the 1930s, a steep rise in the 1970s (oil price shock) and a plateau since the 2008 financial crisis. Primary commodities include agricultural products, fuels and mining products (SITC 0-4 + 68). Manufactured goods include all other goods. Services include transport/freight (about 1.5% of world GDP in 2025, vs 1% in 1970), travel/tourism (about 1.5% in 2025, vs 1% in 1970) and other services (insurance, banking, consulting, digital, etc) (about 4% in 2025, vs 1% in 1970). Sources and series: wid.world



Interpretation. If we divide total exports by world output rather than by world GDP, then the magnitude of trade is approximately divided by two. This comes from the fact that world output is about twice as large as world GDP (i.e. about 50% of total output is used as intermediate input to produce other goods and services, with relatively little change over time). If we are interested in the fraction of productive inputs (labour and capital) that is used for exports, then it is arguably more justified to use total output as denominator. **Sources and series**: see wid.world

The World Balance of Payment: Trade, Income & Transfer Flows

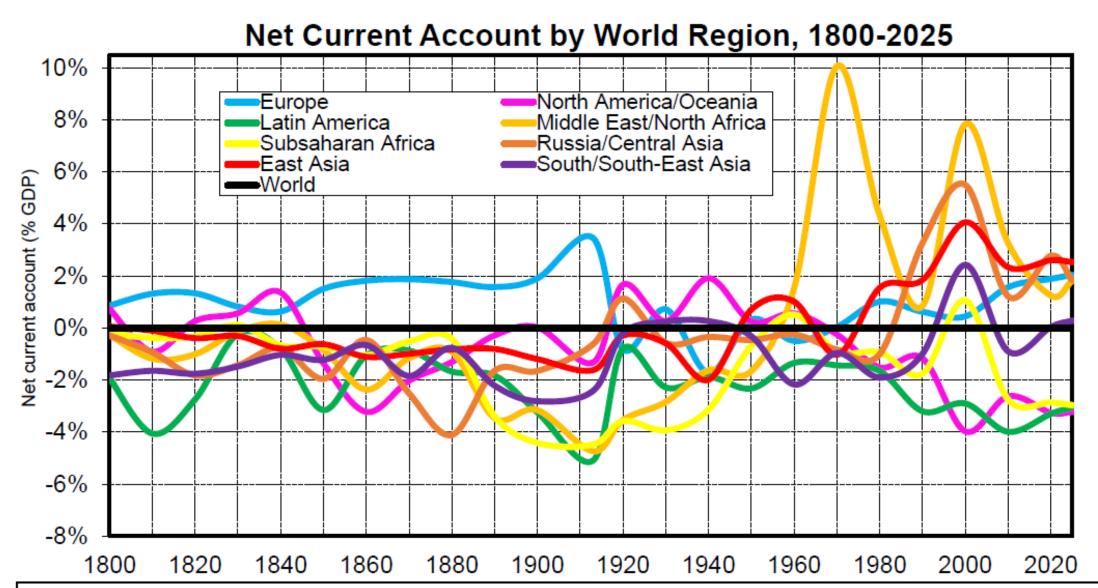


Interpretation. Gross flows of foreign income (in practice mostly capital income) and foreign transfers (private and public) have always been smaller in magnitude than gross trade flows, but they have increased over time. Income flows now make about 7% of world GDP (vs 0.1% in 1800, 2% in 1914 & 1% in 1970), reflecting an enormous rise in gross foreign assets and liabilities (cross-border ownership). Transfer flows now make about 1.5% of world GDP (mostly private remittances going from North to South, and to a lesser extent public aid), vs 0.5-1% in 1800-1914 (mostly public colonial transfers from South to North) and in 1970 (mostly private remittances). **Sources and series**: wid.world

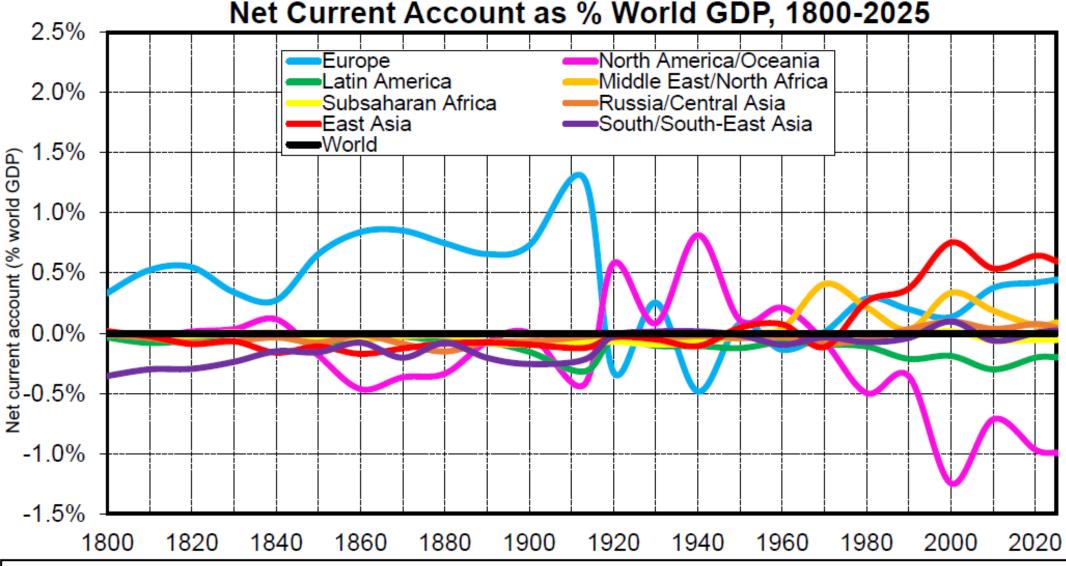
Global pattern of current account surpluses/deficits and foreign wealth accumulation across world regions 1800-2025

In 1800-1914 Europe accumulates large current account surpluses and foreign wealth holdings in the rest of the world

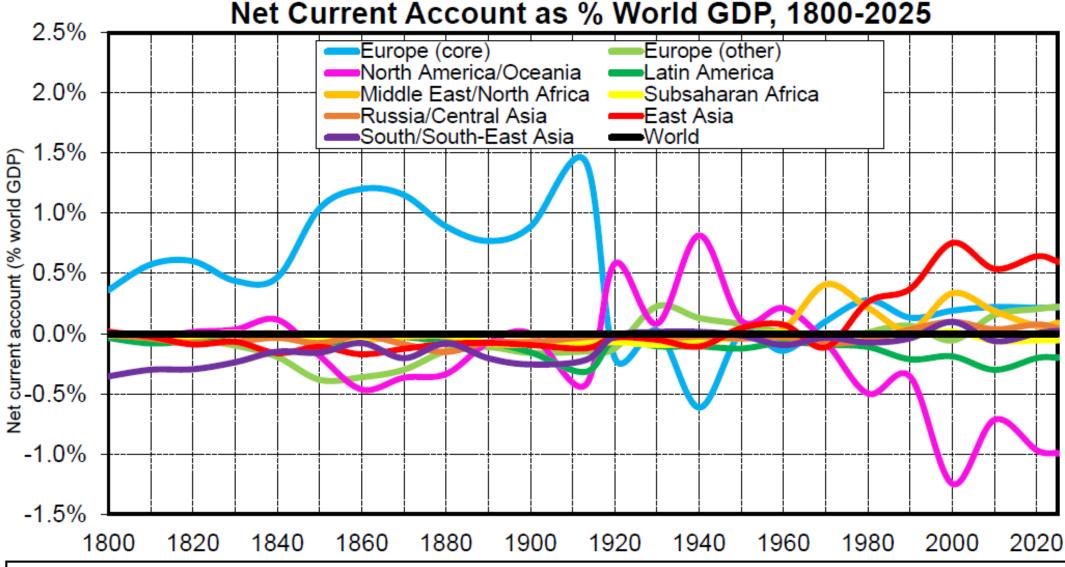
Like East Asia (and oil countries) **in 1970-2025**, but with a much larger magnitude relative to world GDP, and a very diversified world portolio in 1914



Interpretation. Between 1800 & 1914, Europe has a permanent current account surplus (close to 2% of its GDP on average, and rising over time) while the rest of the world has a permanent deficit. Since the 1970s-1980s, the main surpluses come from oil countries (Middle East, Russia) and East Asia. Note. The values reported here are decennial averages: 1800 refers to 1800-1809, 1810 to 1810-1819, etc. Sources and series: see wid.world

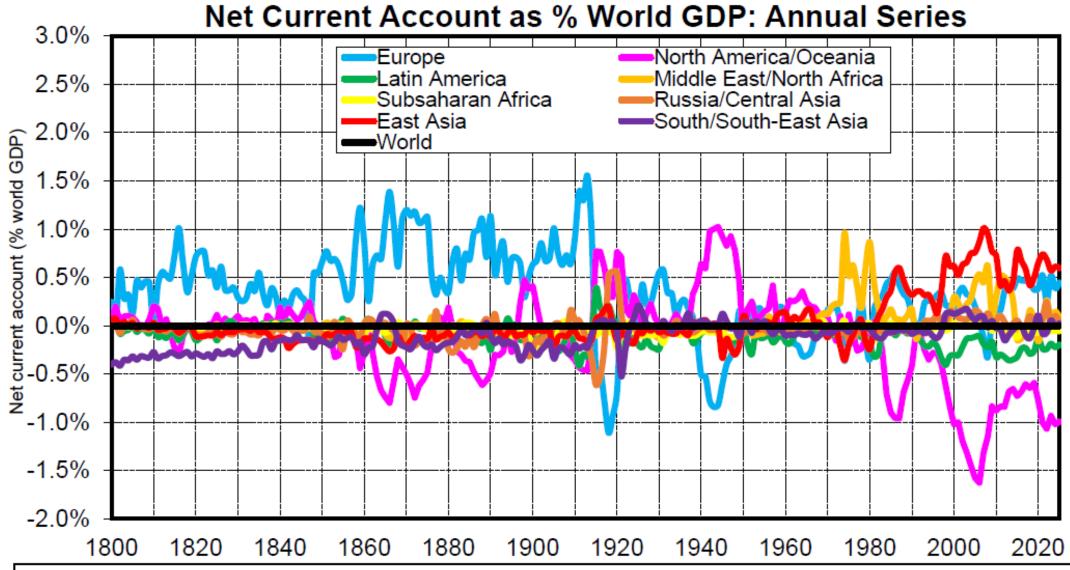


Interpretation. If we express current account as a fraction of world GDP (rather than as a fraction of the GDP of each country or region), we find that Europe's current account surplus between 1800 and 1914 was substantially larger than the surpluses of Middle East or Easr Asia since the 1970s-1980s. Note. The values reported here are decennial averages: 1800 refers to 1800-1809, 1810 to 1810-1819, etc. Sources and series: see wid.world

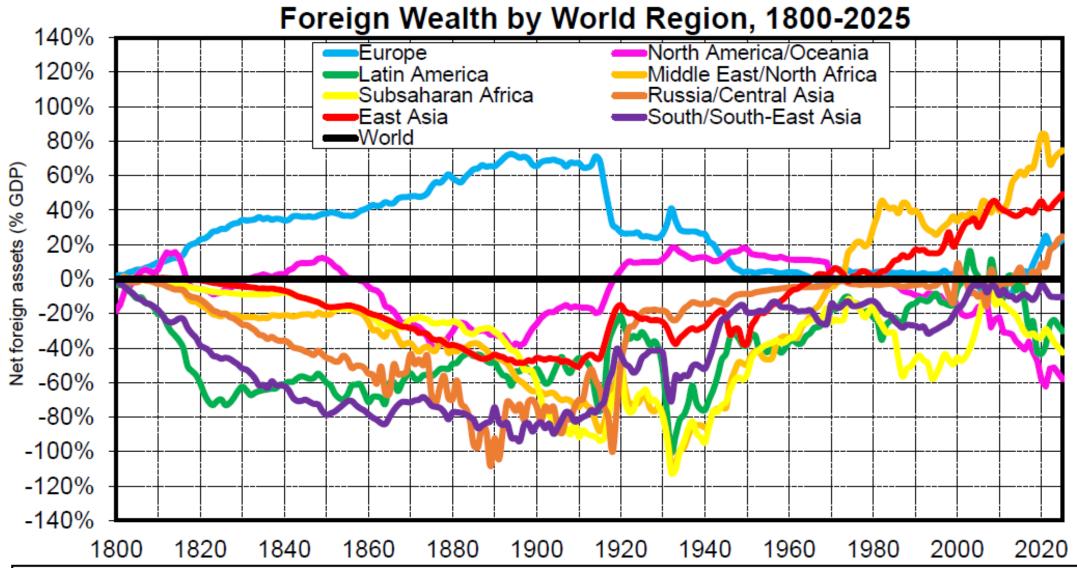


Interpretation. If we concentrate on core European colonial powers (Britain, France, Germany, Netherlands), we find that Europe's current account surplus between 1800 and 1914 looks even larger as compared to the surplus of East Asia and Middle East since the 1970s-1980s.

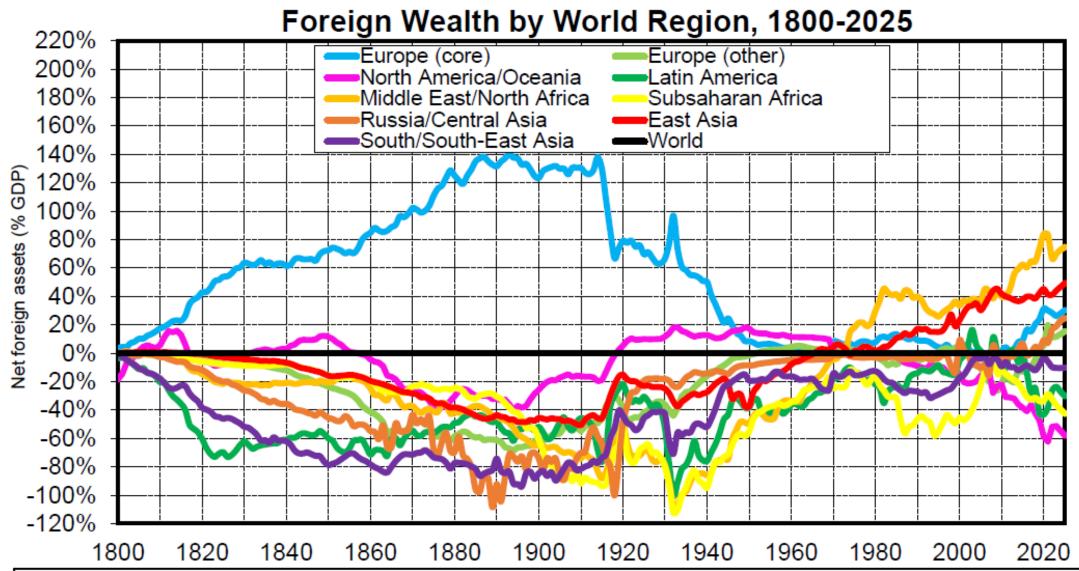
Note. The values reported here are decennial averages: 1800 refers to 1800-1809, 1810 to 1810-1819, etc. Sources and series: see wid.world



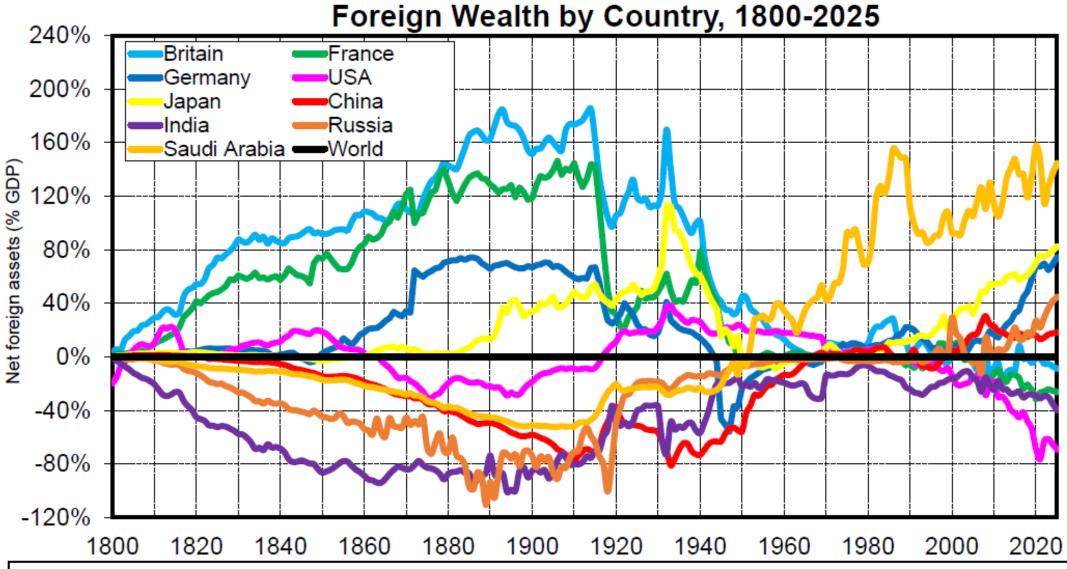
Interpretation. Annual series on current account surpluses and deficits are very bumpy, due to a large numbers of shocks (world wars, oil shocks, etc.), but they also show clear patterns: permanent European surplus between 1800 & 1914, large European deficits during wars (and US surpluses), large MENA and East Asia surpluses (and US deficits) since the 1970s-1980s. Sources and series: see wid.world



Interpretation. Between 1800 & 1914, Europe owns a rising fraction of the rest of the world. In 1914, Europe's foreign wealth (i.e. net foreign assets held by European residents in the rest of the world) reach about 70% of Europe's GDP. These foreign assets vanish between 1914 and 1950. They are partly replaced by foreign assets owned by the US between 1920 and 1970 and by oil countries (particularly in the Middle East) and East Asia since the 1970s-1980s. Sources and series: wid.world

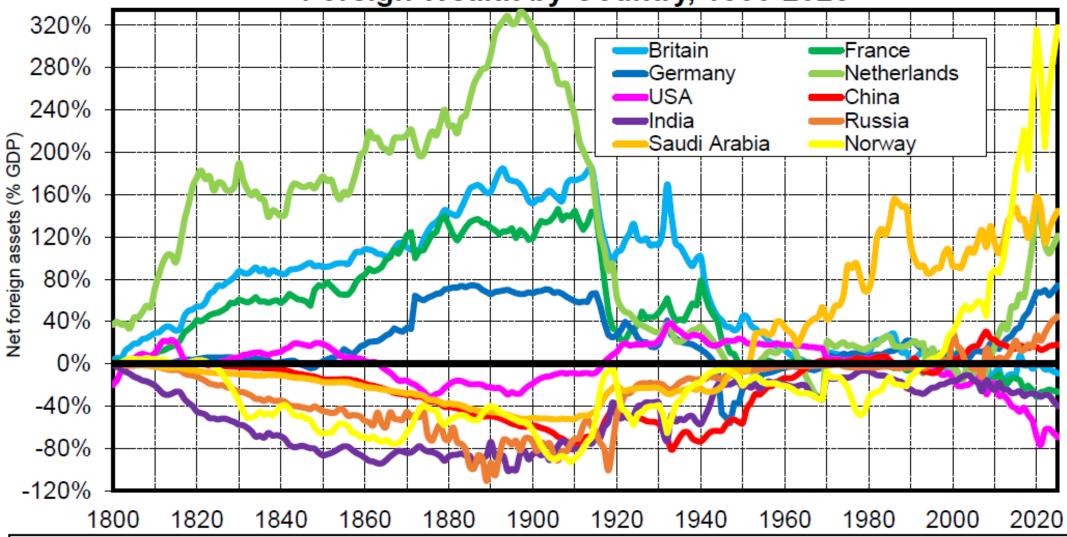


Interpretation. If we look at core European colonial powers (Britain, France, Germany, Netherlands, making 68% of Europe's GDP in 1914), we find that their net foreign assets reach almost 140% of their GDP in 1914. In contrast other European countries have large negative foreign wealth (approximately of the same magnitude as other parts of the world). I.e. core European powers own assets in South Europe, Eastern Europe and Nordic Europe with approximately the same proportions as in the rest of the world. Sources and series: wid.world



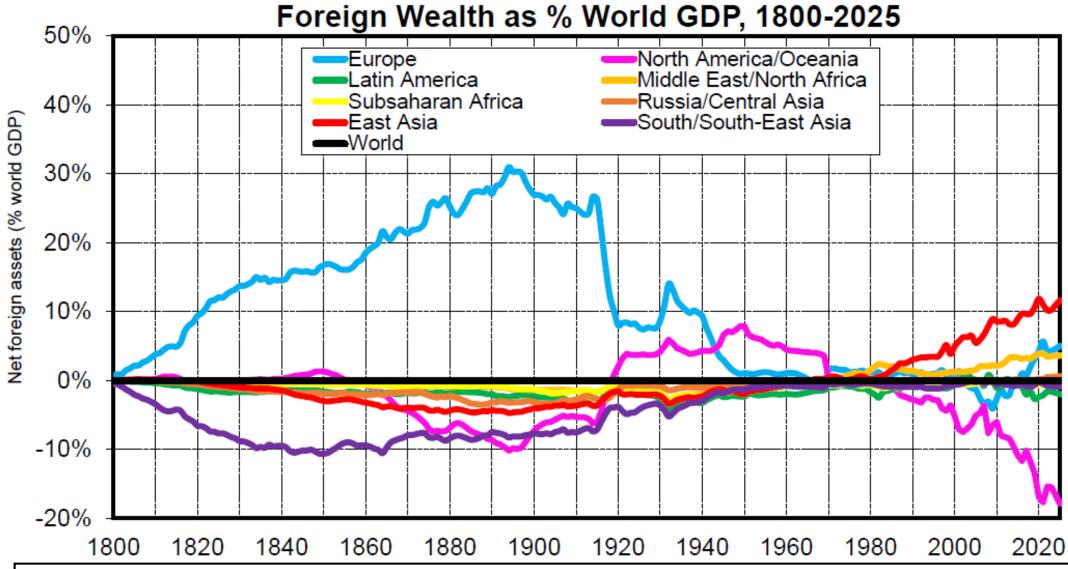
Interpretation. Between 1800 & 1914, Europe's accumulation of foreign assets is driven primarily by Britain (about 180% of GDP in 1914) and France (140%), and to a lesser extent Germany (70%). Since the 1970s-1980s, oil countries like Saudi Arabia have also accumulated very large foreign assets relative to their GDP (130% in 2025), but with a much smaller GDP relative to world GDP. Sources and series: wid.world

Foreign Wealth by Country, 1800-2025



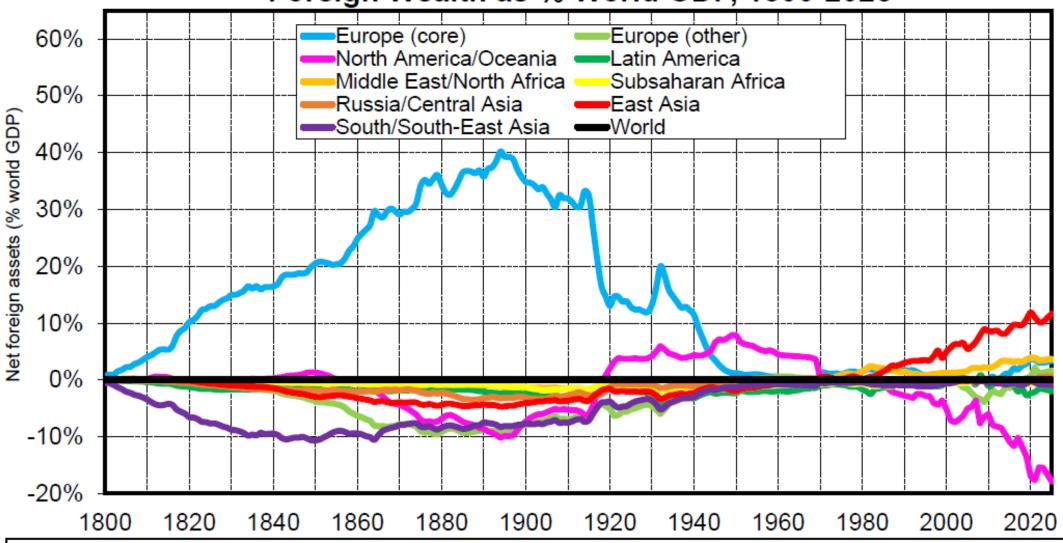
Interpretation. If we include smaller economies into the picture, we find that net foreign assets can be as large as 300% of a country's GDP or more, such as the Netherlands in 1900 (a small country with large colonial holdings in Indonesia) or Norway in 2025 (a small country with enormous oil and gas reserves that were transformed into a large sovereign fund in a recent decades).

Sources and series: wid.world

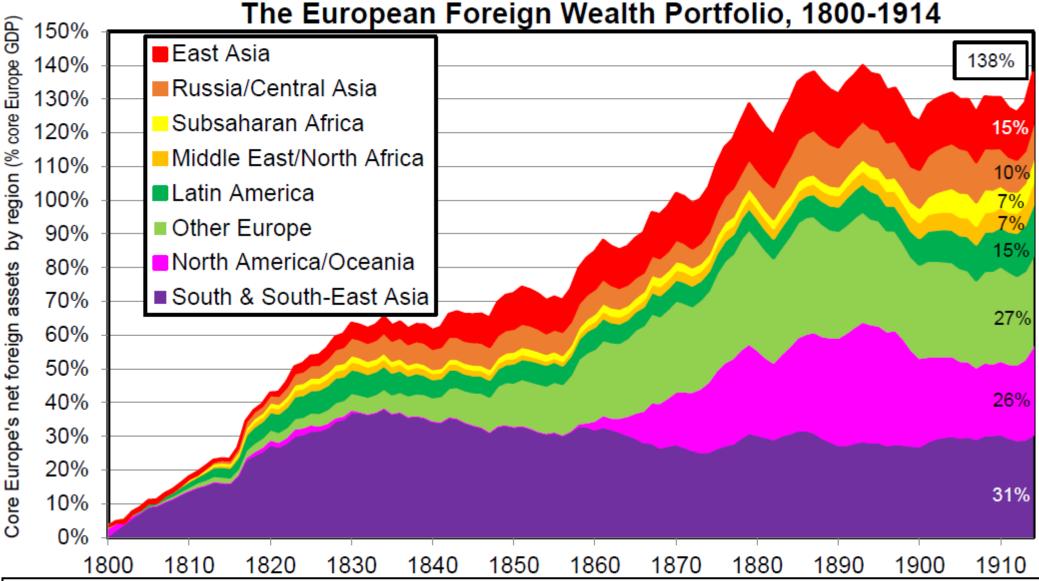


Interpretation. If we express net foreign assets as a fraction of world GDP (rather than as a fraction of the GDP of each country or region), then we find that Europe's pre-WW1 foreign wealth is about 2.5-3 times larger than East Asia's foreign wealth today (and 5-6 times larger than Middle East's foreign wealth today). Sources and series: wid.world

Foreign Wealth as % World GDP, 1800-2025



Interpretation. If we express net foreign assets as a fraction of world GDP (rather than as a fraction of the GDP of each country or region), then we find that pre-WW1 foreign wealth helf by core European colonial powers (Britain, France, Germany, Netherlands) is about 3-4 times larger than East Asia's foreign wealth today (and 8-10 times larger than Middle East's foreign wealth today). In effect, at the eve of WW1, European powers had a very balanced wealth portfolio across all other world regions. Sources and series: wid.world

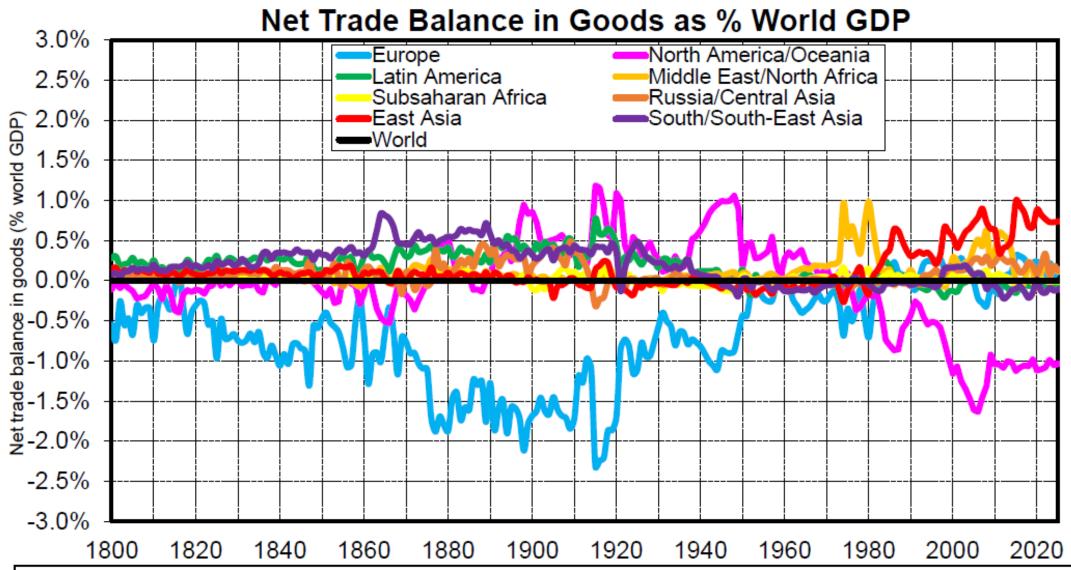


Interpretation. Between 1800 & 1914, core European colonial powers (Britain, France, Germany, Netherlands) accumulate a very large and diversified foreigh wealth porfolio in the rest of the world. By 1914, they own the equivalent of 138% of their GDP in net foreign assets. South & South-East Asia assets are particularly important in the 1800-1840 period - especially British and Dutch holdings in India & Indonesia. Other Europe (including South, Nordic and Eastern Europe), Russia/Central Asia and Middle East/North Africa play a very large role in French and German holdings in the 1880-1914 period. Sources and series: wid.world

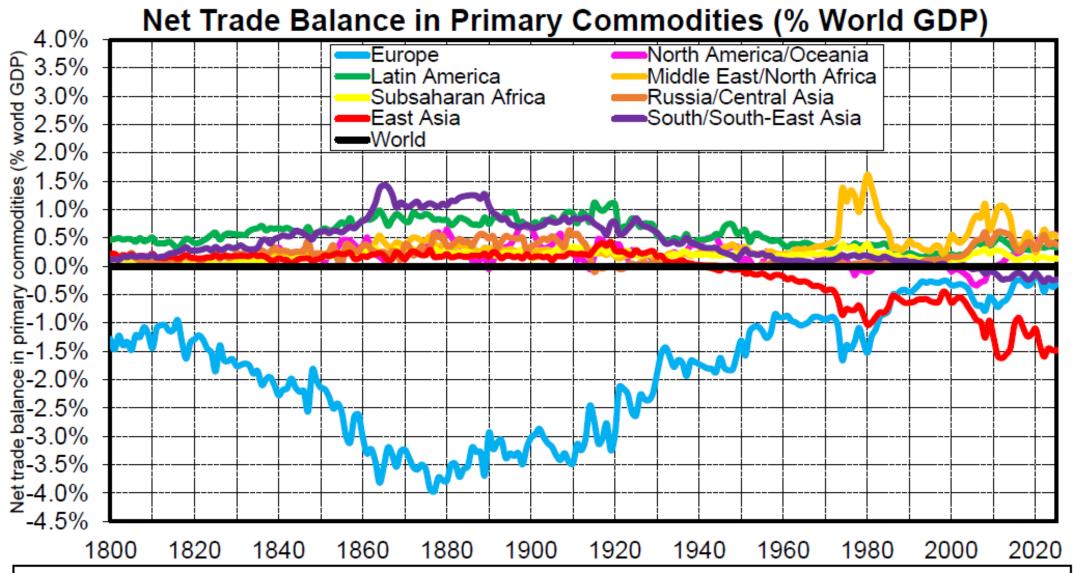
Decomposing global imbalances 1800-2025: primary commodities, manufactured goods, services, income flows, transfers

Key role of colonial transfers, low commodity prices (forced labour etc.) and capital income in order to build Europe's foreign wealth: **Europe never in trade surplus 1800-1914!**

Both in 1800-1914 & in 1970-2025, low commodity prices play a critical role for wealth accumulation by manufacturing power (Europe or East Asia)

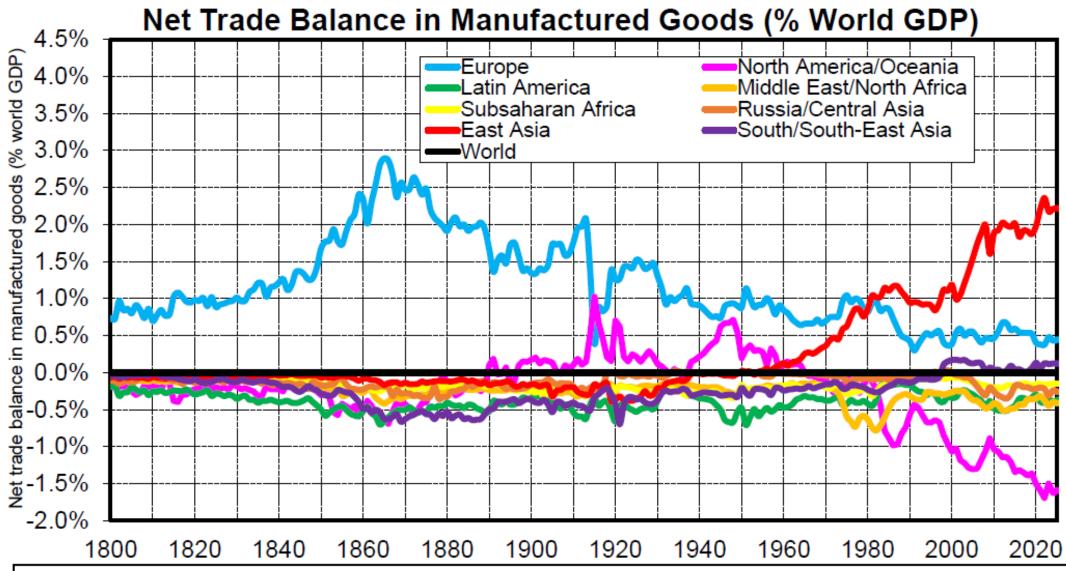


Interpretation. Between 1800 and 1914, Europe has a large permanent deficit in trade for goods. I.e. Europe's large current account surplus over this period comes entirely from other BoP items (services, income, transfers). In recent decades, US deficit in trade for goods has been of comparable magnitude, but with insufficient compensating items in the world balance of payment. Sources and series: see wid.world

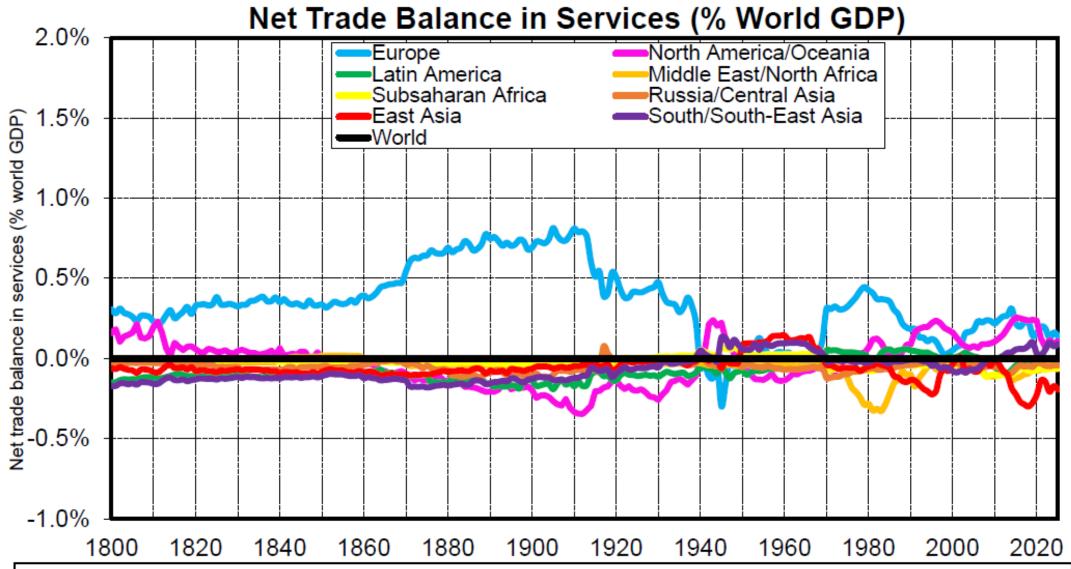


Interpretation. Between 1800 and 1914, the very large European deficit in trade of goods is entirely driven by an enormous deficit with primary commodities. In effect, the equivalent of over half of the world production of primary commidities is exported to Europe from the rest of the world. We observe a similar flow going to East Asia (Japan, China) in recent decades, albeit of smaller magnitude so far.

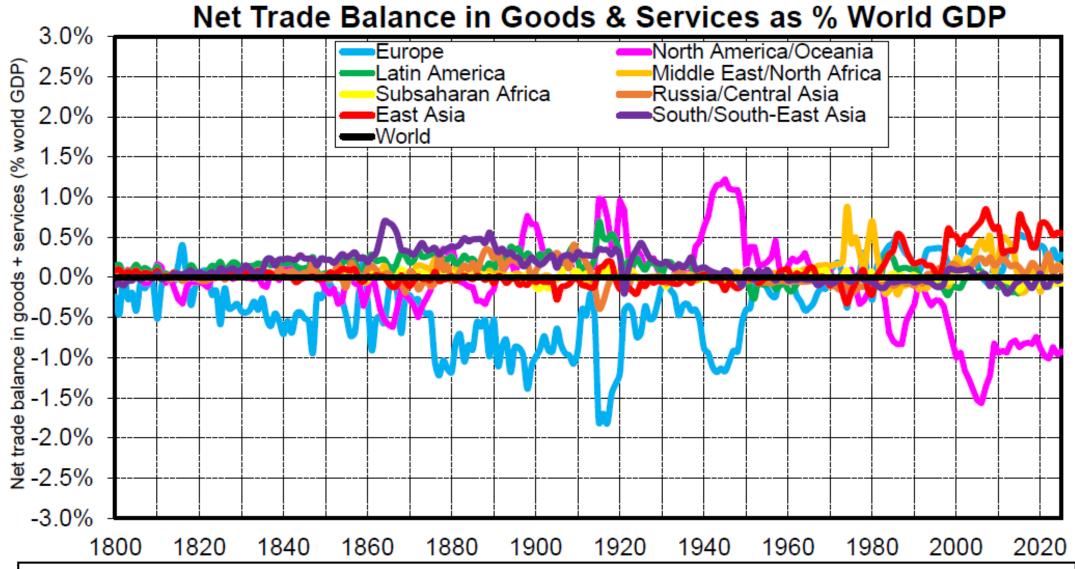
Sources and series: see wid.world



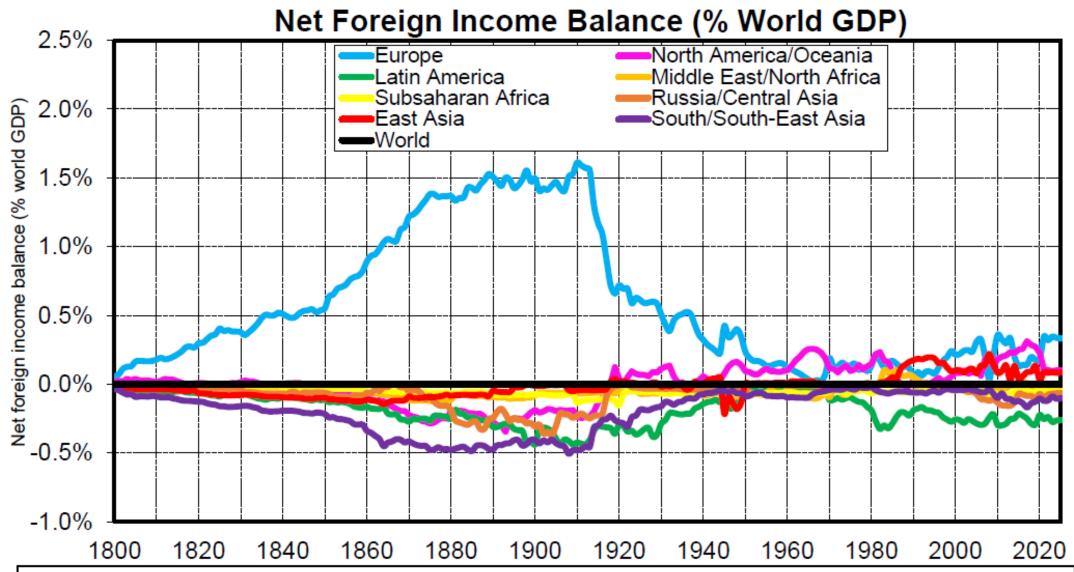
Interpretation. Between 1800 & 1914, Europe is making a large trade surplus in manufactured goods (especially Britain), but it is insufficient to compensate for the huge deficit in primary commodities. In contrast, the trade surplus in manufactured goods of East Asia in recent decades has been of sufficient magnitude to turn the primary commodities deficit into a net surplus. Sources and series: see wid.world



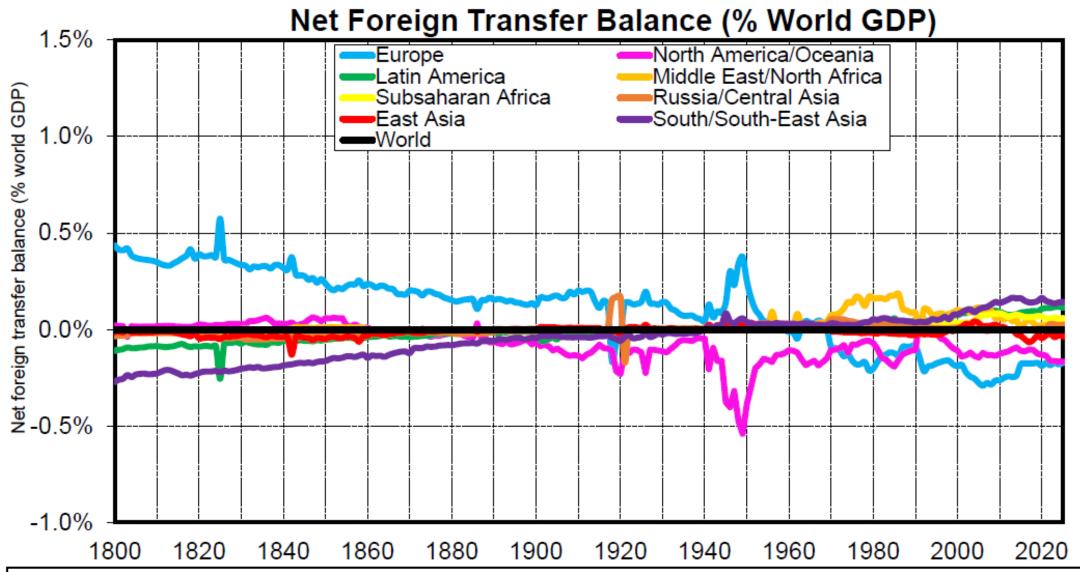
Interpretation. Between 1800 and 1914, Europe is making a permanent surplus in trade for services, particularly Britain in maritime transport, trading services, insurance, etc. (except during Napoleonic wars when US fleet gets a bigger share of freight). However this surplus alone is insufficient to compensate for the deficit in trade for goods. Sources and series: see wid.world



Interpretation. Between 1800 and 1914, Europe has a large permanent deficit in trade for goods, which is only partially compensated by the trade surplus in trade for services (in particular freight/insurance & trading services). I.e. Europe's large current account surplus over this period comes entirely from other BoP items (income, transfers). In recent decades, US deficit in trade for goods and services has been of comparable magnitude, but with insufficient compensating items in the world balance of payment. Sources and series: see wid.world



Interpretation. Between 1800 and 1914, Europe is receiving a rising share of world GDP as foreign capital income payments from the rest of the world. In 1880-1914, Europe receives the equivalent of 1.5% of world GDP in net income flow each year, enough to cover the trade deficit and obtain a large current account surplus. However this is not the case in 1800-1840 and 1840-1880, when net income flows alone are insufficient to cover the trade deficit. **Sources and series**: see wid.world



Interpretation. Between 1800 and 1914, Europe is earning a permanent the surplus in net foreign transfers, reflecting a combination of war and colonial tributes (French tribute to Haïti 1825, British tribute to China 1842, etc.) and permanent transfers via colonial budgets, especially from India to Britain (so-called "Home charges") and Indonesia to the Netherlands. Although this surplus is smaller in magnitude than the capital income surplus in 1880-1914, it plays a critical role to generate Europe's current account surpluses in 1800-1880. Sources and series: see wid.world

Sources of Europe's foreign wealth accumulation, 1800-1914 Decomposition of Net foreign assets/GDP ratio at time t+n (% GDP t+n) Net foreign assets Cumulated trade surplus or deficit **Cumulated Cumulated** Cumulated (% GDP) including Initial (goods) trade foreign foreign cumulated surplus or transfer foreign income excess Primary Manufactured wealth deficit inflow or inflow or β_t β_{t+n} Total yield commodities goods (services) outflow outflow Europe (GB-FR-DE-NL) 3% 138% 0% -141% -408% 267% 62% 201% 59% 22% 3% 185% 0% Great Britain -268% -653% 385% 118% 299% 118% 42%

Interpretation. The net foreign wealth of European powers (GB-FR-DE-NL) rose from 3% to 138% of GDP between 1800 and 1914. Their cumulated trade deficit for goods was equal to -141% but it was more compensated by invisible BoP items (trade in services, foreign income and foreign transfers). Sources & series: see wid.world.

-269%

-241%

-191%

225%

175%

55%

13%

42%

-15%

191%

78%

263%

27%

22%

-21%

-6%

17%

77%

France

Germany

Netherlands

1%

0%

37%

144%

66%

183%

0%

0%

5%

-44%

-66%

-136%

Sources of Europe's foreign wealth accumulation, 1800-1914 Decomposition of Net foreign assets/GDP ratio at time t+n (% GDP t+n) Net foreign assets Cumulated trade surplus or deficit **Cumulated Cumulated** Cumulated (% GDP) including (goods) Initial trade foreign foreign cumulated surplus or transfer foreign income excess Primary Manufactured deficit wealth inflow or inflow or β_t β_{t+n} Total yield commodities goods (services) outflow outflow

-408%

-163%

-285%

-151%

-300%

-241%

267%

119%

208%

-7%

233%

138%

201%

39%

54%

198%

120%

139%

62%

32%

49%

-8%

40%

38%

59%

10%

15%

103%

37%

41%

22%

33%

58%

85%

19%

7%

Interpretation. The net foreign wealth of European powers (GB-FR-DE-NL) rose from 3% to 138% of GDP between 1800 and 1914. Their cumulated trade deficit for goods was equal to -141% but it was more compensated by invisible BoP items (trade in services, foreign income and foreign transfers). Sources & series: see wid.world.

-141%

-44%

-77%

-158%

-67%

-103%

Europe (GB-FR-DE-NL)

1800-1840

Great Britain

Netherlands

1840-1880

1880-1914

3%

3%

3%

37%

61%

125%

138%

61%

85%

140%

125%

138%

0%

2%

1%

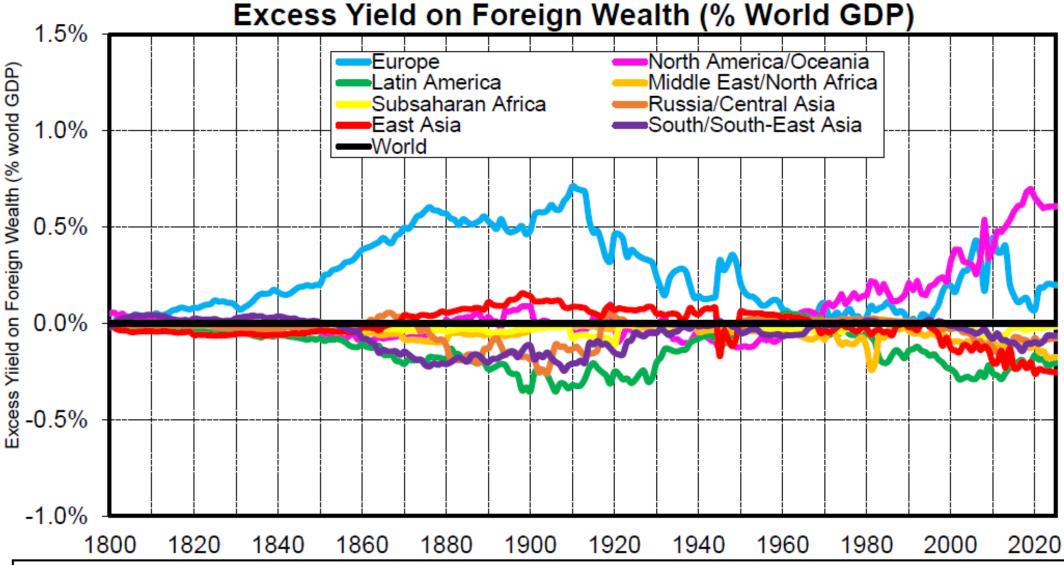
24%

27%

56%

Sources of foreign wealth accumulation, 1970-2025														
	Net foreign assets (% GDP)		Decomposition of Net foreign assets/GDP ratio at time t+n (% GDP t+n)											
			Initial foreign =	Cumula	Cumulated trade surplus or deficit (goods) Cumulated Cumulated included trade foreign surplus or income									
	β_{t}	β_t β_{t+n}		Total	Primary commodities			income inflow or outflow	excess yield	transfer inflow or outflow				
Europe	6%	23%	0%	6%	-42%	48%	18%	21%	18%	-19%				
North America/Oceania	1%	-58%	0%	-64%	11%	-75%	10%	10%	29%	-8%				
Middle East/North Africa	-5%	75%	0%	90%	255%	-165%	-35%	-6%	-43%	26%				
Subsaharan Africa	-24%	-42%	-1%	29%	198%	-169%	-77%	-55%	-29%	64%				
East Asia	5%	49%	0%	52%	-92%	144%	-12%	9%	-14%	-1%				

Interpretation. The net foreign wealth of East Asia rose from 5% to 49% of GDP between 1970 and 2025, largely due to its cumulated trade surplus. The net foreign wealth of North America/Oceania dropped from 1% to -58%, largely due to its cumulated trade deficit, and would have dropped even further without the positive foreign income coming from excess yield (differential between rates of return on foreign assets and liabilities). Sources & series: see wid.world.



Interpretation. In 2000-2025, USA and Europe are obtaining together about 0.5-1% of world GDP each year from the rest of world in excess yield on foreign wealth (i.e. due to the differential between their rate of return on gross foreign assets and gross foreign liabilities). We observe a similar surplus for Europe in 1800-1914, but due to data imperfections this might also reflect other terms (such as unmeasured colonial payments) rather than excess yield strictly speaking. Sources and series: see wid.world

Counterfactual simulations on foreign wealth accumulation under alternative trade & monetary regimes 1800-2025

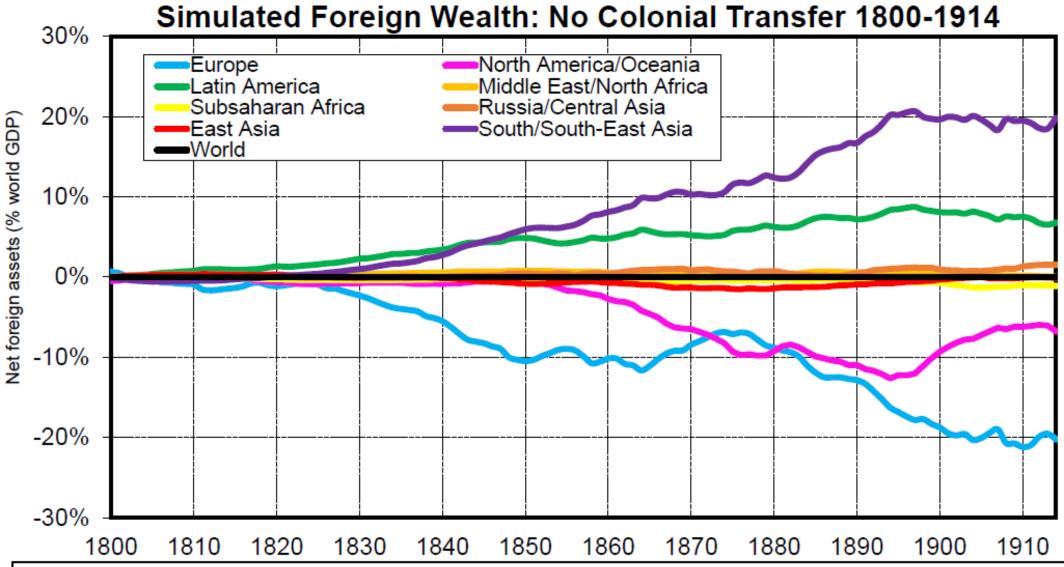
Financial simulations. We set colonial transfers to zero (or raise commodity prices) and leave all other flows unchanged, and look at impact on net foreign wealth in 1914 or 2025.

Economic simulations. Ideally we should also take into account the impact on domestic investment/productivity & global convergence in per capita GDP by 2025 (+ sectoral specialization/sustainability/carbon emissions) (ignored here, left for future research)

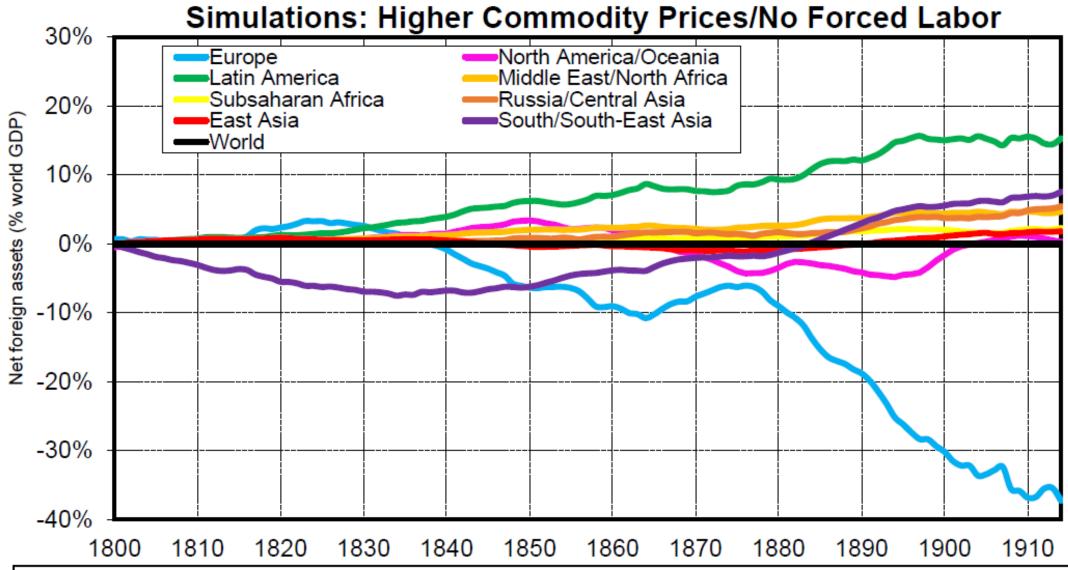
Main results from financial simulations.

1800-1914. If colonial transfers (war and colonial tributes) are set to zero, and/or primary commodity prices are raised by 20% (a lower bound estimate for the value of unpaid forced labor in export production of cotton, sugar, grain, etc.), then Europe ends up with huge negative foreign wealth in 1914.

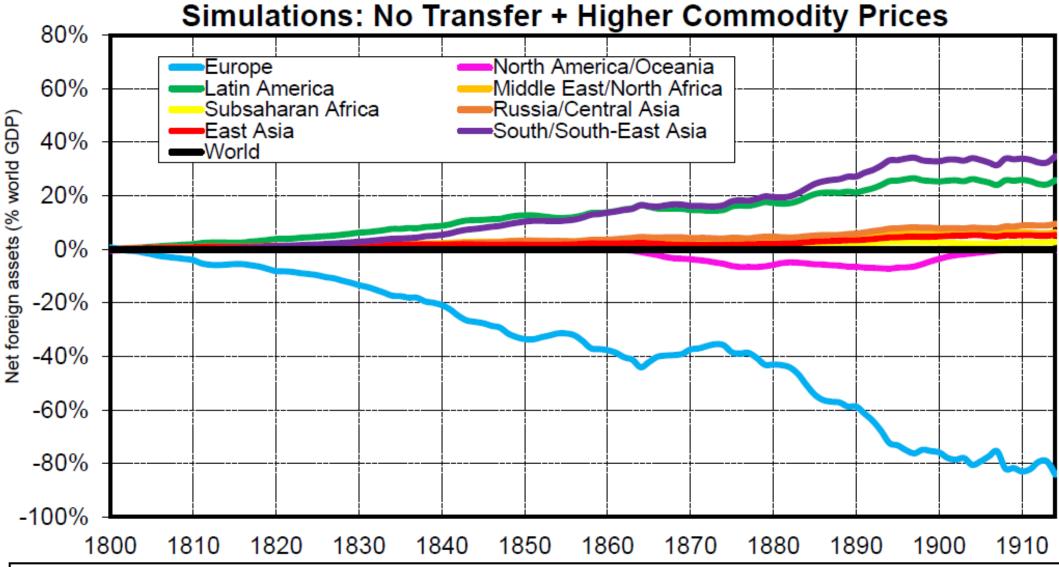
1970-2025. If primary commodity prices are raised by 20% (still a lot less than PPP), then Subsaharan Africa owns substantial positive foreign wealth in 2025 (larger than East Asia).



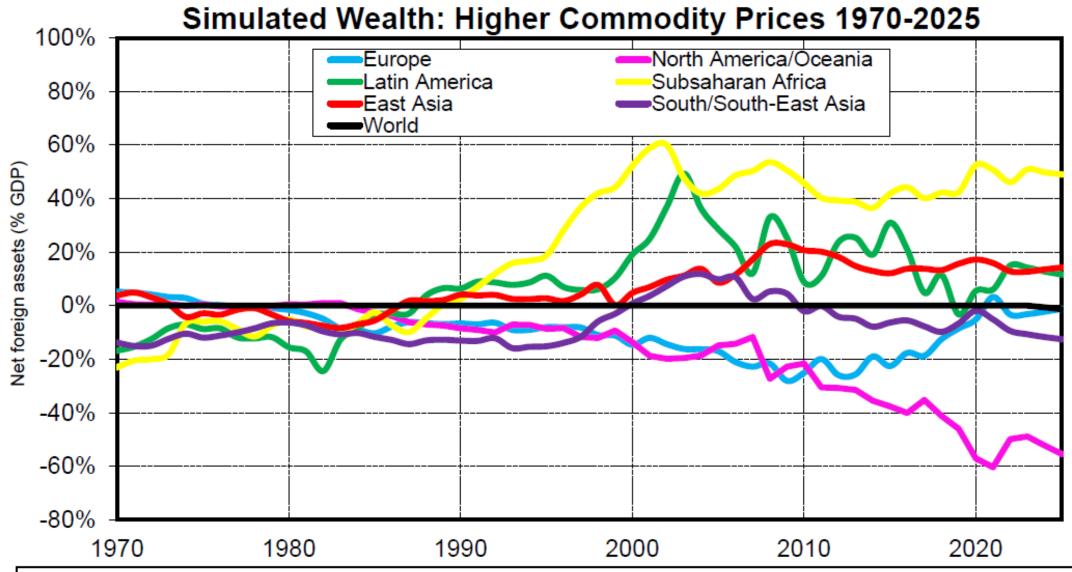
Interpretation. In the absence of the net transfer flows received by Europe in 1800-1914 (war tributes paid by Haïti and China to France and Britain, "Home charges" paid by India and Indonesia to Britain and the Netherlands, etc.)., and leaving all other flows unchanged, Europe would have had a very large negative wealth position by 1914, mostly to the benefit of South/South-East Asia (and to a lesser extent to Latin American, due to in particular to large transfer outflows from West Indies in 1800-1850). Sources and series: wid.world



Interpretation. Assuming that primary commodity prices would have been 20% higher than what they were betwen 1800 and 1914 (which corresponds to a lower bound estimate of the value of unpaid forced labor in the export production of cotton, sugar, grain, etc.. over this period), and leaving all other flows unchanged, Europe would have had a very large negative wealth position by 1914 (about -60% of world GDP, i.e. about -160% of Europe's GDP), to the benefit of all other regions (including North America/Oceania). Sources and series: wid.world



Interpretation. Assuming both no colonial transfers and higher commodity prices, and leaving all other flows unchanged, Europe would have had an enormous negative wealth position by 1914 (about -100% of world GDP, i.e. about -300% of Europe's GDP), to the benefit of all other regions. In particular, South & South East Asia would owen about 40% of world GDP in foreign assets (about 500% of their GDP) and Latin America about 30% of world GDP (over 700% of their GDP). Sources and series: wid.world



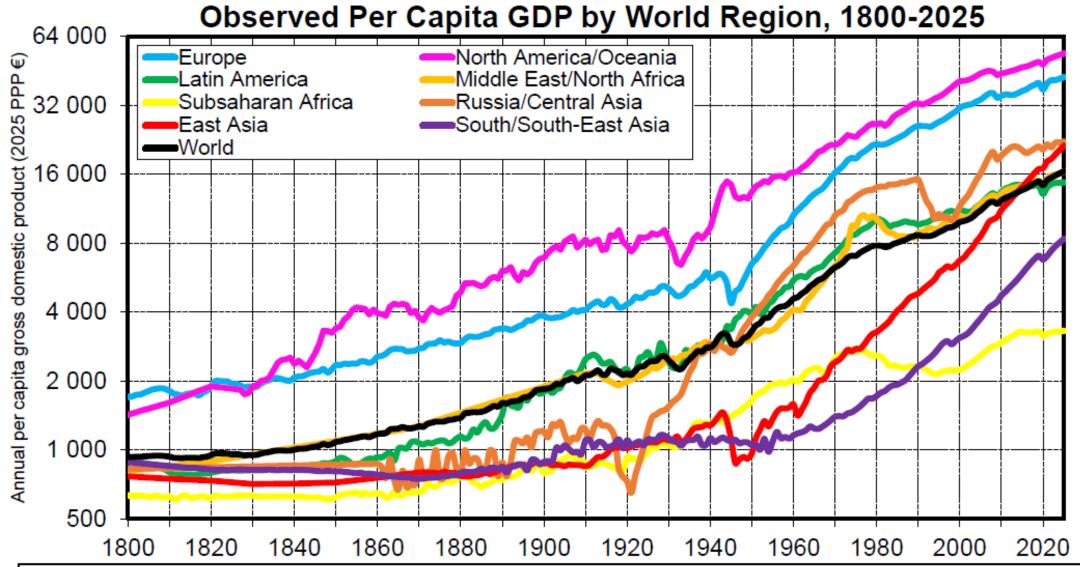
Interpretation. Assuming that primary commodity prices would have been 20% higher than what they were betwen 1970 and 2025, leaving all other flows unchanged, then Subsaharan Africa would own substantial foreign wealth (+48% of its GDP, vs -42% in reality), more than East Asia (+14% of its GDP, vs +49% in reality), and a lot more than Europe (+1% of its GDP, vs +24% in reality).

Sources and series: wid.world

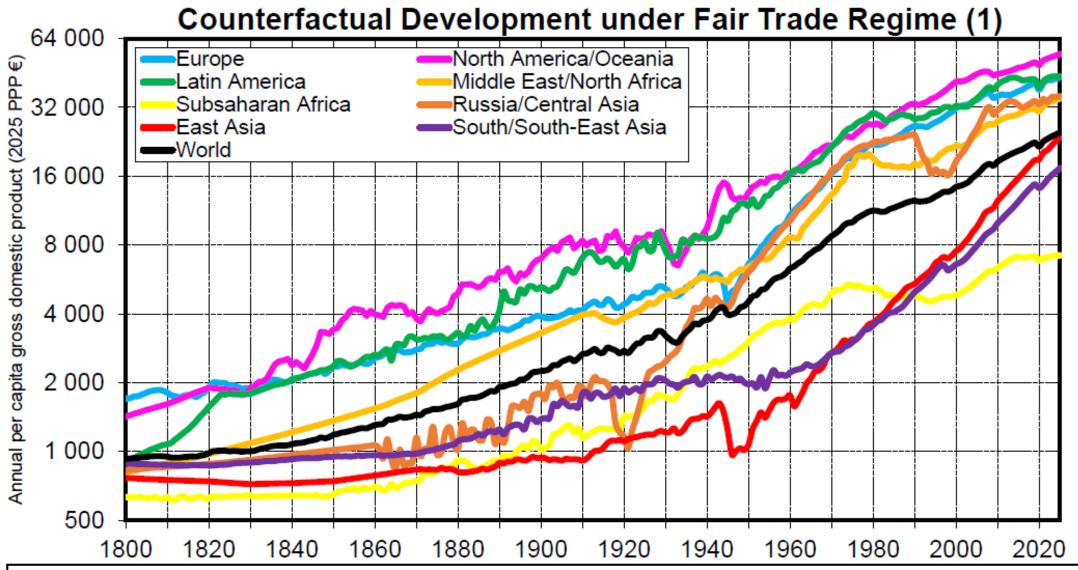
Main results from economic simulations.

1800-2025. If colonial transfers are set to zero and primary commodity prices are raised by 20%, and all corresponding revenues invested in domestic human capital accumulation in benefiting countries, then this brings us a long way toward global convergence in per capita GDP by 2025

1800-2025. In order to obtain further convergence (including for Subsaharan Africa), one also needs to assume a 30% rise in terms of exchange for poor countries, e.g. via Global Clearing Union and/or Common International Currency



Interpretation. Expressed in 2025 PPP €, annual per capita gross domestic product (GDP) rose from about 900€ in 1800 to about 16 000€ in 2025 at the global level, with large disparities across world region: about 3 000€ in Subsaharan Africa, vs 40 000-50 000€ in Europe and North America/Oceania. Between 1800 and 2025, per capita GDP was multiplied by about 18 at the world level in PPP terms, which corresponds to average annual real growth rate of 1,3% per year. Sources and series: see wid.world



Interpretation. Average per capita GDP at the world level would be substantially larger in 2025 (and inequality between world regions a lot smaller) under the following counterfactual development scenario: no colonial transfers over 1800-1914 period + higher commodity prices over 1800-2025 period (+20%) + the corresponding gains are invested in domestic human capital investment in the benefiting countries + the corresponding losses are absorbed by consumption cuts by the rich in other countries, in particular in Europe. Sources and series: see wid.world

India and the origins of the caste system

• India's ideal social structure according to Manusmriti (legal-political-philophical treatise written by a group of priests in the 2nd century BCE): **four basic classes (varnas)** instead of three in European trifunctionnal societies (but same basic logic)

Brahmins (priests/teachers)

Kshatriya (warriors/rulers)

Vaishya (traders/craftsmen) (≈skilled labor, free labor)

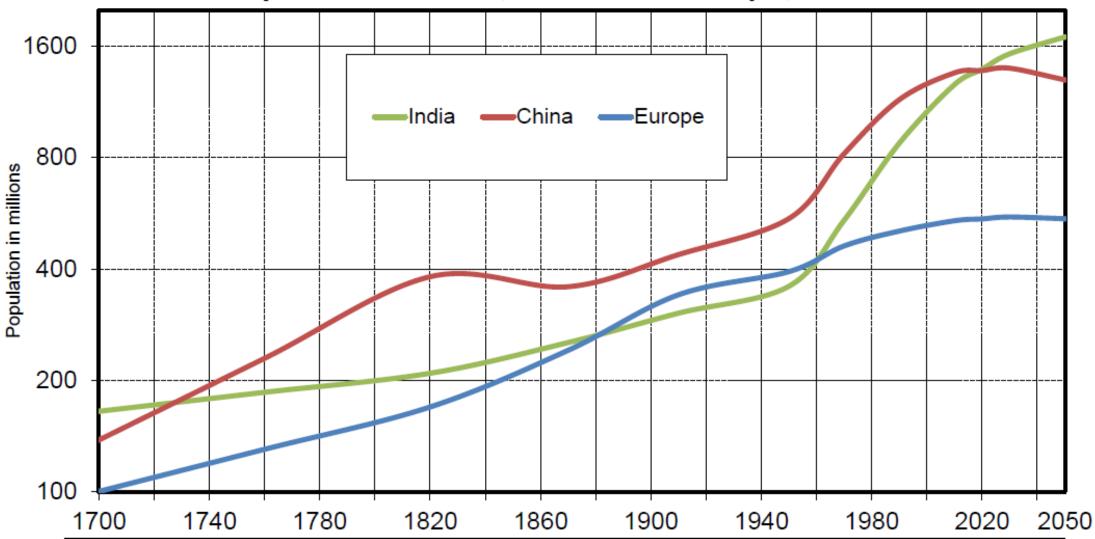
Shudra (laborers) (≈common labor, sometime forced labor, quasi-serfs)

(+ Dalits (untouchables), not mentionned in Manusmriti) (= specific occupations like working with leather and animal skin, cleaning, etc.) (Dalits = highly discriminated by other groups, like « uncivilized » aborigenal tribes living in forests and hills)

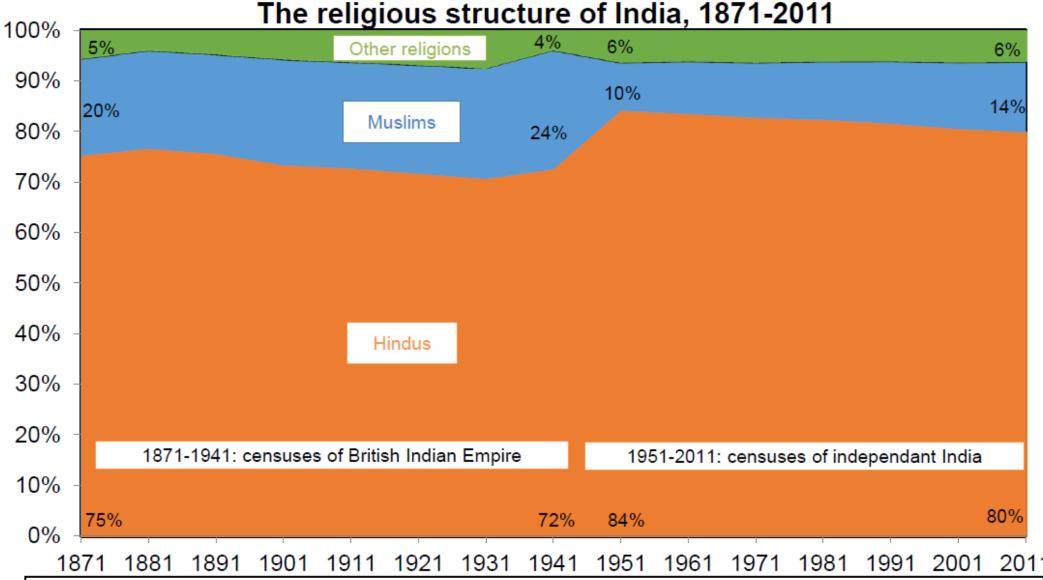
- The Manusmriti is not a sociological or historical description of India in 2c BC (or India in later periods): it is a normative statement written by a group of Hindu priests (brahmins) in order to describe how they believe a well organized Hindu kingdom should look like
- Basic statement: kings should come from a group of warriors (kshatryas) recognized as such by brahmins, and they should follow the advice of the wisest brahmins, in particular regarding wars, religious and family matters, property and inheritance division, etc. (very sophisticated legal code)
- It is comparable to 10c-11c AC texts written by European bishops describing the ideal trifunctionnal structure of society: priests vs warriors vs others
- In practice, the social and political reality is always more complex & chaotic: new groups of rulers kept replacing each other for centuries, both in India & in Europe (& elsewhere), and priests/intellectuals have always faced strong difficulties to put discipline on them & elicit respect for their vast knowledge

- In pre-colonial India (like in Europe), the social structure was in practice much more complex than a three-class or four-class structure: there were thousands of small occupational-regional-ethnic groups (jatis)
- E.g. Kerala shoe-makers, Bengali goat-raisers, Punjabi cultivator, etc.
- The European view of Indian castes has always been characterized by a major confusion between castes as varnas (the four theoretical classes of the Manusmriti) vs castes as jatis (the thousands of small social groups, with multiple and changing social identities and boundaries)
- There was no formalisation of the system until the Caste Censuses conducted in 1871-1941 under British colonial rule, which contributed to create rigid administrative categories out of a highly decentralized social structure
- In addition to the enormous regional, linguistic and ethnic diversity, India's complex social and political structure is also characterized by an early experience with **multiconfessionalism** (Islam plays important role since 12c)

Population in India, China and Europe, 1700-2050



Interpretation. Around 170, total population was about 170 millions inhabitants in India, 140 millions in China and 100 millions in Eruope (about 125 millions if one includes the territories corresponding to today's Russia, Belarus and Ukraine). In 2050, according to UN projections, total population will be 1,7 billion in India, 1,3 billion in China and 550 millions in Europe (EU+) (720 millions if one includes Russia, Belarus and Ukraine). Sources and series: see piketty.pse.ens.fr/ideology (figure 8.1).



Interpretation. in the 2011 census, 80% of India's population was reported as "hindus", 14% as "muslims" and 6% from another religion (sikhs, christians, buddhists, no religion, etc.). These figures were 75%, 20% and 5% in the colonial census of 1871; 72%, 24% and 4% in that of 1941; then 84%, 10% and 6% in the first census conducted by independant India in 1951 (given the partition with Pakistan and Bengladesh). Sources and series: voir piketty.pse.ens.fr/ideology (figure 8.2).

The structure of the population in censuses of India, 1871-2011

	1871	1881	1891	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
Hindus	75%	76%	76%	74%	73%	72%	71%	72%	84%	83%	83%	82%	81%	81%	80%
Muslims	20%	20%	20%	21%	21%	22%	22%	24%	10%	11%	11%	12%	13%	13%	14%
Other religions (sikhs, christians, buddhists, etc.)	5%	4%	4%	5%	6%	6%	7%	4%	6%	6%	6%	6%	6%	6%	6%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Scheduled castes (SC)									15%	15%	15%	16%	17%	16%	17%
Schedules tribes (ST)									6%	7%	7%	8%	8%	8%	9%
Total Indian population (millions)	239	254	287	294	314	316	351	387	361	439	548	683	846	1 029	1 211

Interpretation: The results reported here were obtained using the decennial censuses conducted in British colonial India between 1871 and 1941 and in independent India from 1951 to 2011. The proportion of Muslims falls from 24% in 1941 to 10% in 1951, due to the partition with Pakistan. Starting in 1951, censuses register "scheduled castes" (SC) and "scheduled tribes" (ST) (untouchables and aborigenal tribes formerly discriminated), which can belong to the various religions (mostly hindus and other religions). Sources and series: see piketty.pse.ens.fr/ideology (table 8.1).

- India 10c-19c: permanent competition beween multiple states of different confessions: Moghul empire (maximal extension 1526-1707, final fall 1858), various muslim sultanates and hindu kingdoms, including Maratha empire (1674-1818), Vijayanagara kingdom (Kerala), etc.
- British India: EIC 1757-1857 (East India Company), direct rule 1858-1947 (British Raj, but 562 princely states & various political entities until 1947)
- On the rapidly evolving social and political structure of 18c-19c India, see N. Dirks, Castes of Mind: Colonialism and the Making of Modern India, PUP 2001; S. Bayly, Caste, Society and Politics in India from the 18c to the Modern Age, CUP 1999
- On Europe's discovery of India, see S. Subrahmanyan, *The Career and Legend of Vasco de Gama*, CUP 1997 (*Vasco de Gama. Légendes et tribulations du vice-roi des Indes*, Alma 2012)

British colonial censuses (1871-1941) and the rigidification of caste

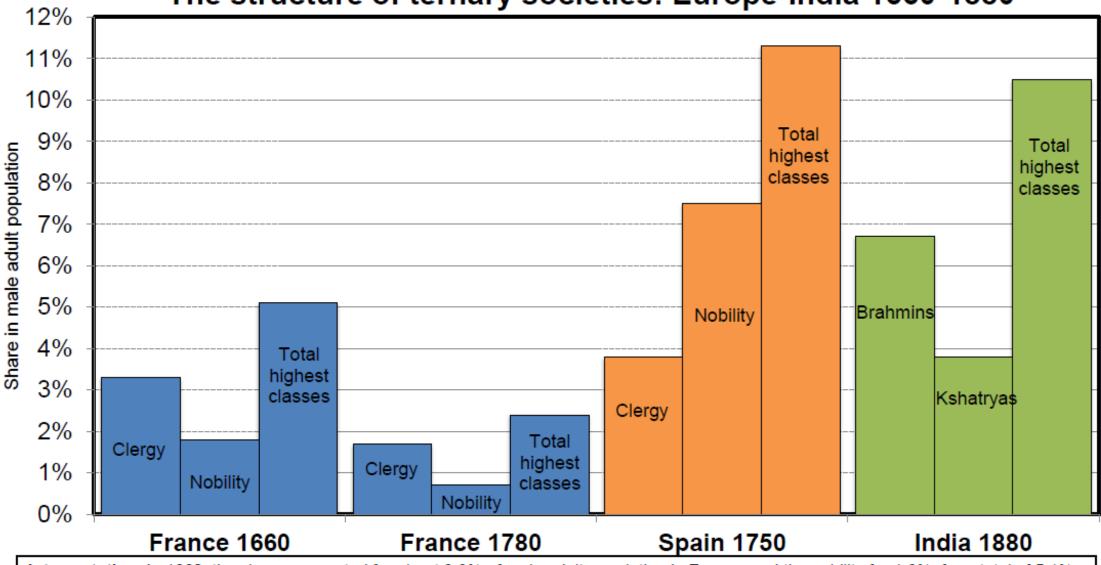
- After the Indian revolt 1857-1858, British rulers aimed to better control the country. In particular, they organize major decennial censuses (critical source of knowledge for organizing the tax system, maintaining social order, etc.)
- Pb: they did not know which social categories to use in order to describe and register Indian society. They started from the four varnas of the Manusmriti (brahmins, kshatryas, vaishyas, shudras), but they soon realized that these categories did not correspond at all to the way the various social groups describe and perceive themselves (people used jatis, not varnas).
- 1871 census: 3 208 jatis are counted
- 1881 census: 19 044 jatis and subjatis (<20 000 individuals per jati) (=very small local occupational-ethnic-linguistic categories)

- Imagine a situation where an Indian ruler takes over Europe in the 18c-19c and attempts to put the population of the entire continent into boxes: carpenters from Creuse, nannies from Britanny, Catalan grape-pickers, Scottish shepperds, Finnish fisherman, etc.
- British colonial administrators had no idea on how to classify these thousands of local jatis into broad meaningful categories
- See e.g. Nesfield, <u>Brief View of the Caste Sytem of the North-Western</u>
 <u>Provinces and Oudh, Together with an Examination of Names and Figures</u>

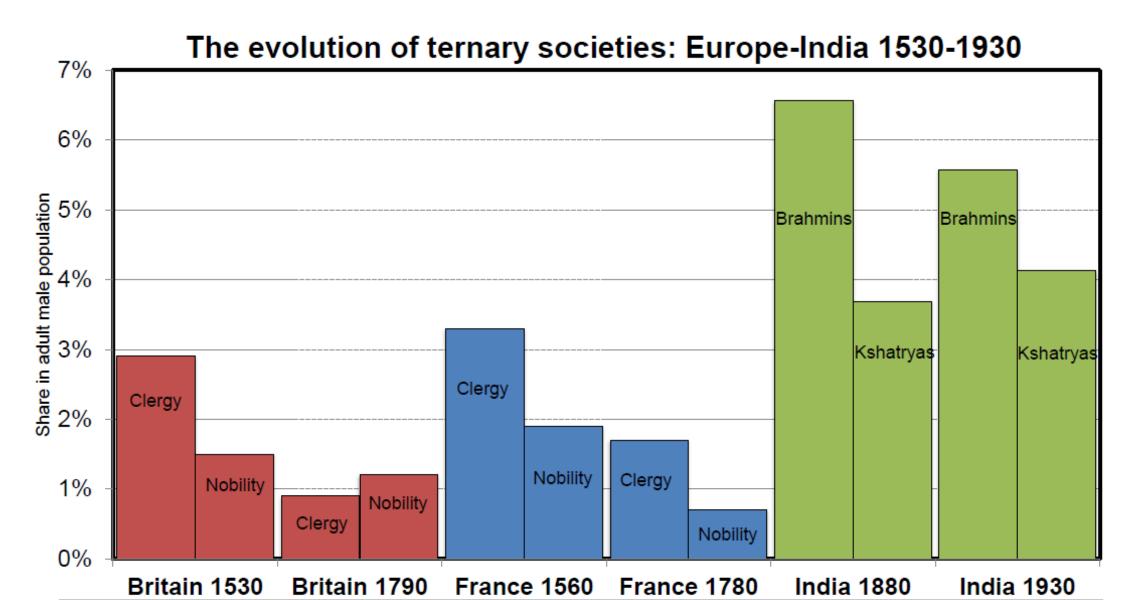
 <u>Shown in the Census Report 1882</u>, Allahabad 1885
- Interesting illustration of both the hesitations and the prejudices of colonial administrators against lower social groups (untouchables, aborigenals and other lower groups are accused of being dirty, permissive, thieves, etc.). In effect they just reproduce the prejudices of Indian upper classes against lower groups (like Victorian bourgeois prejudices against working classes)

- In colonial censuses 1871-1931, British administrators attempt to classify dozens of jatis into one unified category of « brahmins » (groups of former or current priests/teachers/doctors/landlords etc.), « kshatryas/rajputs » (groups of former or current soldiers/warriors/land owners etc.), « vaishyas/banyas » (traders, etc.), but in practice this is highly artificial, because the boundaries between the different social groups cannot always be classified in these terms
- See this directory for exemples of the statistical volumes of census results
- Using these definitions, one finds that the weight of brahmins and kshatryas in India 1871-1931 was comparable to the weight of the clergy and nobility in 16c-19c Europe: close to Spain (8%-10% of total pop), < France-UK (2%-5%)





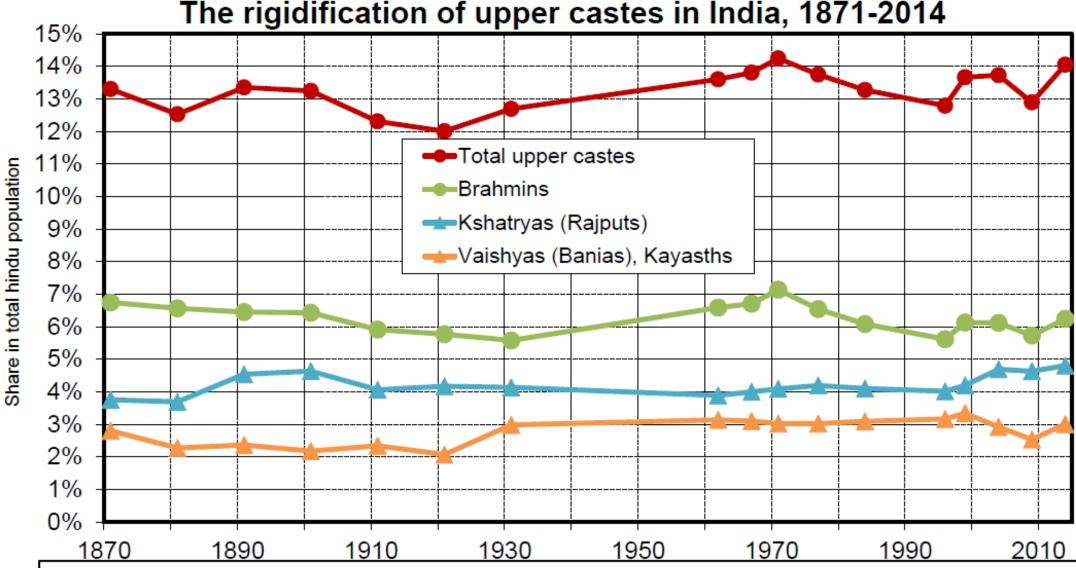
Interpretation. In 1660, the clergy accounted for about 3,3% of male adult population in France, and the nobility for 1,8%, for a total of 5,1% for the two dominant classes of the trifunctional society. In 1880, Brahmins (ancient class of priests, as measured by British colonial censuses) accounted for 6,7% of male adult population in India, and Kshatryas (ancient class of warriors) for 3,8%, for a total of 10,5% for the two dominant classes. **Sources and series**: see piketty.pse.ens.fr/ideology (figure 1.1).



Interpretation. In Britain and in France, the two dominant classes of the trifunctional society (clergy and nobility) had a declining numerical importance between the 16th and the 18th century. In India, the numerical signficance of brahmins and kshatryas (ancient classes of priests and warriors), as measured by British colonial censuses, dropped slightly between 1880 and 1930, albeit at significantly higher levels than the corresponding classes in Europe in the 16th-18th centuries. Sources and series: see piketty.pse.ens.fr/ideology (figure 8.3).

- In 1871-1931, British colonial censuses are used to distribute rights and duties and to maintain social orders: « brahmins » & « kshatryas/rajputs » are useful categories to hire administrators & policemen/soldiers, enforce social privileges and organize tax collections (indirect tax collection via local land-owning elites)
- Census questionnaires involve a complex mixture of self-reporting, identity manipulation, local council and administrative approval: see e.g. Cassan, « Identity based policies and identity manipulation: Evidence from Colonial Punjab », <u>AEJ 2014</u>
- Caste censuses were also used in order to register and criminalize dangerous lower groups: « Criminal Tribes Acts »

- Between 1871 and 1931, British rulers gradually realized that the rigidification and bureaucratization of caste identities contributes to create and exacerbate social conflicts, and was being strongly opposed by independence movements (Indian National Congress created in 1885)
- They finally decided to abandon the registration of upper castes in 1931: the 1941 census has no general questionnaire on castes
- Post-1947 Indian governments focused upon the correction of past discrimination against lower castes & stopped asking general questions about caste identities in censuses
- But the 1871-1931 experience with colonial censuses seems to have contributed to rigidify upper caste identities: in 1962-2014 electoral surveys, self-reported brahmins and other upper castes appear to account roughly for the same proportion of the population as in colonial censuses; upper caste identity still matters a lot today for political affiliation (BJP vote)



Interpretation. The results reported here were obtained from British colonial censuses conducted between 1871 and 1931 and from post-electoral surveys (self-declaration) conducted between 1962 and 2014. One observes a relative stability over time of the fraction of the population registered as brahmins (ancient class of priests and intellectuals), kshatryas (rajputs) (ancient class of warriors) and other upper castes: vaishyas (banias) (craftsmen, tradepeople) and kayasths (writers, accountants). Other local upper castes such as marathas (about 2% of total population) were not included here. Sources and series: see piketty.pse.ens.fr/ideology (figure 8.4).

The structure of upper castes in India, 1871-2014

	1871	1881	1891	1901	1911	1921	1931	1962	1967	1971	1977	1996	1999	2004	2009	2014
Total upper castes	13,3%	12,6%	13,4%	13,2%	12,3%	12,0%	12,7%	13,6%	13,8%	14,2%	13,7%	12,8%	13,6%	13,7%	12,8%	14,0%
incl. Brahmins (priests, intellectuals)	6,7%	6,6%	6,5%	6,4%	5,9%	5,8%	5,6%	6,6%	6,7%	7,1%	6,5%	5,6%	6,1%	6,1%	5,7%	6,2%
incl. Kshatryas (Rajputs) (warriors)	3,8%	3,7%	4,5%	4,6%	4,1%	4,2%	4,1%	3,9%	4,0%	4,1%	4,2%	4,0%	4,2%	4,7%	4,6%	4,8%
incl. other upper castes: Vaishyas (Banias), Kayasths	2,8%	2,3%	2,4%	2,2%	2,3%	2,1%	3,0%	3,1%	3,1%	3,0%	3,0%	3,2%	3,3%	2,9%	2,5%	3,0%
Total hindu population (millions)	179	194	217	217	228	226	247	375	419	453	519	759	800	870	939	1 012

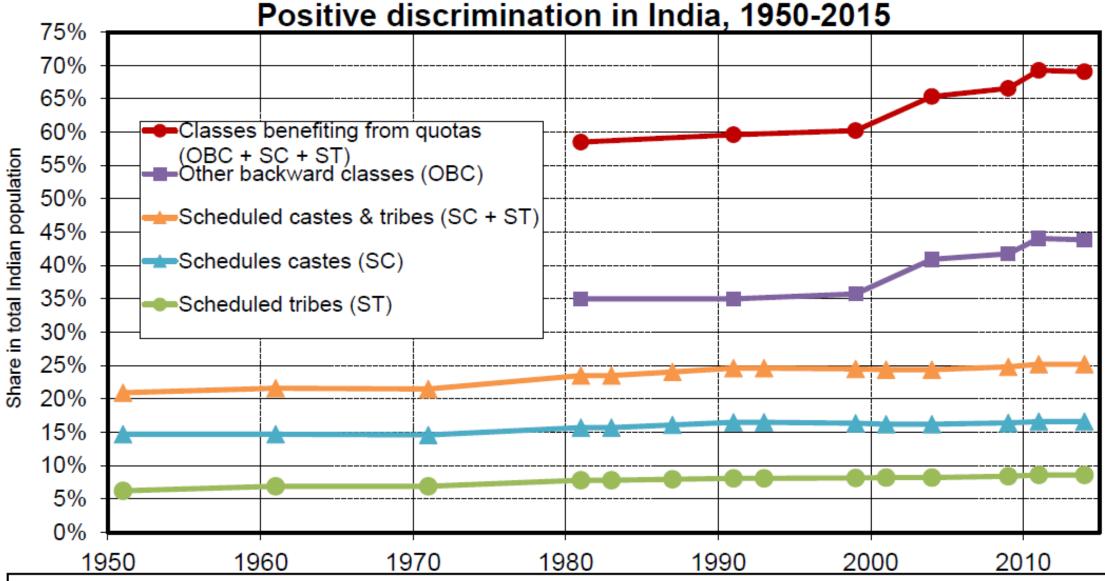
Interpretation: The results reported here were obtained using the British colonial censuses of India conducted between 1871 and 1931 and the post-electoral surveys (self-declaration) run from 1962 to 2014. One observes a relative stability of the proportion of the population registered as brahmins (former classes of priests and intellectuals), kshatryas (rajputs) (former classes of warriors) and other upper castes: vaishyas (banias) (craftsmen, tradespeople) and kayasths (writers, accountants). Other local upper castes such as the marathas (about 2% of population) were not included here. Sources and series: see piketty.pse.ens.fr/ideology (table 8.2).

- Some modern surveys still ask questions about caste identity and show that there is still a strong correlation (but with lots of exceptions) with socioeconomic inequality
- E.g. in the 1990s-2010s, like in colonial censuses 1871-1931, one observes that brahmins have very high education, property and income, while kshatryas/rajupts have high property and income (but lower education) (intellectual elite vs warrior/business elite) (see N. Bharti, Wealth Inequality, Class and Caste in India, 1961-2012, WID.world 2018) (long version)
- Quotas/reservations favouring access to university and high administrative positions started in princely states in ealy 20c: 1902 Kolhapur (local king humiliated by Brahmins due to his shudra origins → 50% quota for non-Brahmins), 1916 Madras, 1918 Mysore (non-Brahmin elites don't accept any more that 3% Brahmin population captures 70% of university seats and high civil servant positions), 1921 Tamil Nadu
- → British colonialism and state centralization did not create Indian inequality; but they gave a rigid administrative structure to caste and class in India (as well as a toolbox for self-correction, to some extent)

Post-independance India: reservations, inequality & redistribution

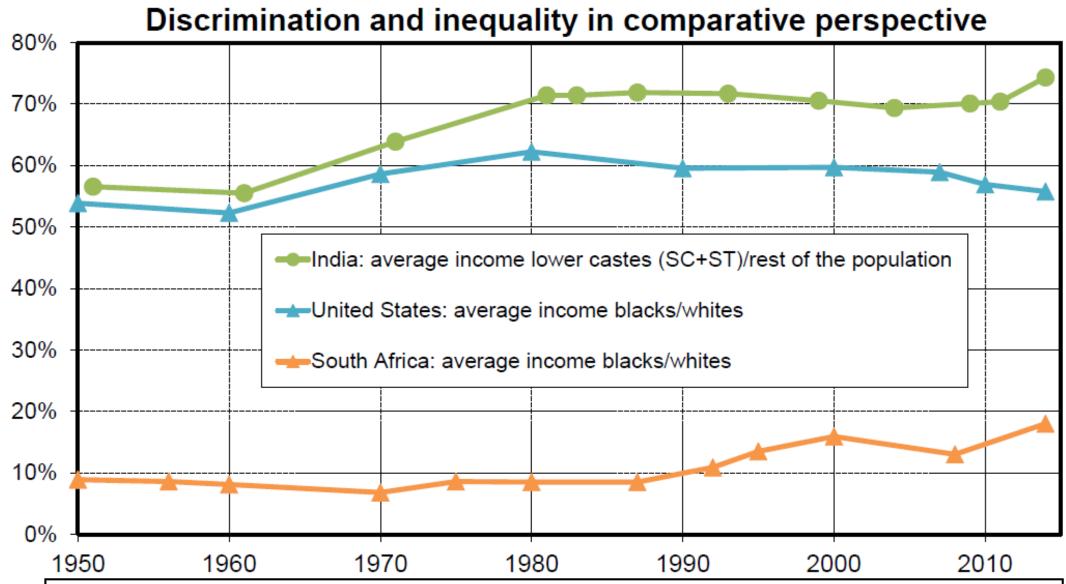
- 1950 Constitution: no state religion, abolition of all caste privileges, end of untouchability, open access to all temples & public spaces (art.14-15); but large state autonomy to regulate cow slaughtering (art.46) (→ lower castes & muslims regularly accused of illegal cow slaughtering → violent riots)
- Art.46: quotas/reservations for SC (scheduled castes: Dalits, former untouchables) and ST (scheduled tribes: former aborigenals) in higher education, public sector jobs and elected positions, in proportion to population share → these SC/ST reservations were implemented immediately (Poona Pact 1932 Ambedkar-Gandhi: no separate electorate for Dalits, but quota systems for elected positions; reserved seats drawn at random)
- Art.340: quotas/reservations should later be enacted for OBC (other backward classes) (= other social groups suffering from objective material deprivation education, income, housing, etc. but not due to specific past discrimination)

- In 1950-1992 the reservations only applied to SCs-STs at the federal level. In some states, they were gradually extended to OBCs, as well as to the poorest groups within Forward Castes (FC).
- Federal extension of quota systems to OBC (Other backward classes): Mandal Commission 1980, final validation & implementation in 1992
- The OBC extension deeply transformed the logic of quota systems: with quotas limited to SC-ST, only 20%-25% of seats in university and public sector were reserved for lower social groups (not a big threat for children of upper classes). But with OBC, up to 60%-70% of seats were potentially reserved for lower social groups (→ this became much more dangerous for upper class children)
- Indian Muslims (14% pop) did not benefit from SC-ST status but could benefit from OBC status. Major source of conflict with Hindu nationalist parties since the 1990s-2000s (→ rise of BJP), but also key factor of solidarity with lower caste hindus. Low-caste parties (BSP, JP) & INC are supported both by lower class muslims and lower class hindus.



Interpretation. The results reported here were obtained from the decennial censuses 1951-2011 and NSS surveys 1983-2014. Quotas for accessing universities and public sector jobs were enacted for "scheduled castes" (SC) and "scheduled tribes" (ST) (ancient discriminated groups of untouchables and aborigenal tribes) in 1950, before being gradually extended beginning in 1980-1990 to "other backward classes" (OBC) (ancient shudras), following the Mandal commission in 1979-1980. OBCs are registered in NSS surveys since 1999 only, so the estimates reported here for 1981 and 1991 (35% of population) are approximate. Sources and series: see piketty.pse.ens.fr/ideology (figure 8.5).

- Did Indian quotas work? Yes and no.
- **Yes.** Past discrimination against SC and ST was so large than it was necessary to use positive discrimination.
- It worked in politics: all parties now have 25% of SC-ST elected officials. This contributed to the inclusiveness of Indian democracy. See F. Jensenius, Social Justice through Inclusion: The Consequences of Electoral Quotas in India, OUP 2017
- See also Duflo et al, « <u>Powerful Women: Does Exposure Reduce Bias?</u> », QJE 2009, about declining steretorypes against women's political discourses among voters after being exposed to female politicians.
- It worked in economics: inequality between SC-ST and the rest of the population is still very large, but since 1950 is has declined a lot more for instance than black-white inequality in the US



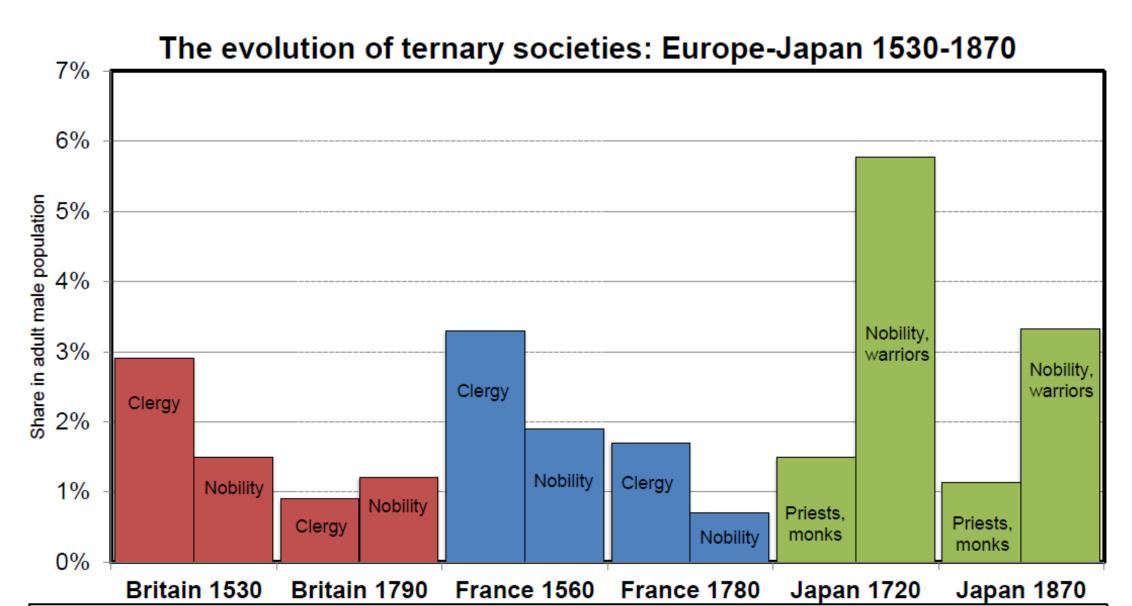
Interpretation. The ratio between the average income of lower castes in India (scheduled castes and tribes, SC+ST, ancient discriminated groups of untouchables and aborigenal tribes) and that of the rest of the population rise from 57% in 1950 to 74% in 2014. The ratio between the average income of Blacks and Whites rose over the same period from 54% to 56% in the United States, and from 9% to 18% in South Africa. **Sources et séries**: see piketty.pse.ens.fr/ideology (figure 8.6).

- Are quotas sufficient? No.
- Given the small number of seats in university, public sector jobs & elected positions, one cannot solve the Indian inequality problem simply by an approach based upon reservations. One would need more investment in basic social services (education, health), redistribution in land and other assets (limited land reform took place in Kerala and West Bengal), etc.
- 2010s: public health spending = 1% GDP in India, vs 3% China & 8% Europe
- For the Indian elite, support to the reservations system has sometime served as an excuse to avoid more ambitious redistributive policies
- Nehru-Gandhi and Ambedkar disagreed about quotas vs separate electorates, but shared fairly conservative view about taxation & property
- Education & health: India lagging behind China, Vietnam, Bengladesh.. J. Drèze, A. Sen, *An Uncertain Glory. India and its Contradictions*, PUP 2013 (see also *India. Economic Development and Social Opportunity*, OUP 1995)

- Ideally, quota systems should plan the conditions of their own transformation, as stereotypes gradually disappear.
 Otherwise there's a strong risk that quotas contribute to rigidify past categories and to perpetuate/exacerbate identity-based conflict.
- In 1993, « creamy layer » (household income > 800 000Rs, i.e. top 10%) were excluded from OBC status (& from SC-ST status since 2018).
- In 2019, new quotas were introduced for upper castes (FC) below 800 000Rs were introduced, to the expense of FCs above 800 000Rs.
- A « Socio-Economic and Caste Census » was conducted in 2011 in order to clarify the relation between caste, education, income, wealth, housing conditions & poverty (=first caste census since 1931 British census), but full results have not been published yet (very explosive issue)
- It is possible that India's caste-based reservation system has started a long process of transformation into an income- & wealth-based reservation system. But this will take time. Many lessons for the rest of the world.

Colonialism, ternary ideology and modernization: India, Japan, China

- Colonialism had a major impact on the modernization trajectories followed by the various societies and the way they evolved from trifonctionnal to proprietarian and post-proprieterian ideologies
- India: rigidification of caste via British colonial censuses 1871-1931
- Iran: muslim clergy managed to appear as the main force of resistance against colonialism and corrupt military-business elite
 → 1979 revolution, theocratic republic dominated by clergy
- Japan: major trauma after 1853-1854 humiliation by Western navy
 → Meiji era 1868, end of Shogun & traditional warrior class power,
 huge investment in industrialization and education (& military)



Interpretation. In Britain and in France, the two dominant classes of the trifunctional society (clergy and nobility) had a declining numerical significance between the 16th and the 18th century. In Japan, the numerical strength of the high nobility (daimyo) and of warriors endowed with fieldom was significantly higher than that of shinto priests and monks, but it dropped significantly between 1720 and 1870, according to the censuses conducted in Japan during Edo era and at the beginning of Meiji era. **Sources and series**: see piketty.pse.ens.fr/ideology (figure 9.3).

- In effect, this induced an acceleration of trifunctional-proprietarian transition & the modernization trajectory in Japan
- « Burakumin » in Japan (quasi-untouchables, see <u>Carré Annales HSS 2011</u>)
 were gradually integrated into the rest of society via modernization and the
 rise of the social and educational state in late 19c and early 20c
- Japan 1870-1940: very different strategy of development and social integration than India under British rule (colonial British rulers were happy to divide and rule Indian society and did not care much about equality, education and social integration, unlike Japanese rulers in Japan)
- Different trajectories and bifurcations are possible: the development state can put an end to historical prejudice and discrimination
- Roms in Europe: massive prejudice until today (comparable to Dalits in India) (=ex-serfs and slaves not integrated following emancipation in Romania 1865)

Trifonctional ideology, imperial regime & colonialism in 19c Imperial China

- Imperial China: very weak state (tax revenues<2% GDP), relying extensively on local elites (like in Europe until 16c-18c)
- Confucean intellectual-landowning elite vs Mandchu warrior elite
- Same ternary logic as Europe, India, Japan, Iran, etc. (but Confucianism was more a civic religion than a religion in the Christian, Hindu or Muslim sense)
- Very competitive exam to become top civil servants (mandarins)
- But 50% of the central govt positions were reserved for Mandchu warrior class (with their own dedicated channel for appointment)
- Out of the 50% of the seats opened through the standard exam, about half of the candidates were allowed to buy the shengyuan (bachelor degree) required to take the exam (see e.g. H. Yifei, <u>Social Mobility & Meritocracy:</u> <u>Lessons from Chinese Imperial Civil Service Examination</u>, CalTech 2016)
- → fragile mixture of intellectual, proprietarian and warrior-class ideology

- Legitimacy of imperial elites strongly damaged by Opium wars (1839-1842 and 1856-1860) and especially by Taiping revolt (1850-1864): 20-30 million people killed (>WW1). Taiping ideology: mixture of egalitarian land reform and Christian messianism. Major threat to the imperial regime, which might not have survived without the final support of European powers.
- Military defeat against Japan 1895, Boxers revolt 1899-1901 \rightarrow final loss of legitimacy of imperial regime \rightarrow 1911 Revolution
- Constitution of 1911: proprietarian-conservative republic (Mandchu warrior elite is suppressed, but intellectual-proprietarian elite is maintained, with no redistribution of land toward poor peasants)
- Civil war & colonial Japanese-European occupation 1911-1949 → Communist victory, People's Repubic of China established in 1949
- Like Russia, China shifted almost directly from trifunctionnal ideology to communist ideology during 20c

- General lesson (lectures 1-4): large diversity of modernization trajectories.
 The feudalism-capitalism transition (French Revolution, invention of modern property) is only one of many possible trajectories and often involves more complex evolutions (British Lords, Swedish voting rules, etc.).
 Key role of slavery & post-slavery trajectories (US, Brasil, Africa) and colonial & post-colonial bifurcations (India, Iran, Japan, China, etc.).

 Politics & ideology about the inequality structure matter: crisis & revolutions come again and again and can lead to many different alternative legal regimes & socio-economic systems.
- See lectures 5-6 on the fall of proprietarian and colonial societies during 20c and the rise of social-democratic, communist, post-communist and post-colonial societies in late 20c-early 21c