



Financial Strategies for Nation Building

(Alternative title: “Capitalizing future fiscal revenues”)

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Contrast:

Great Empires of 1600 AD vs Nations in debt

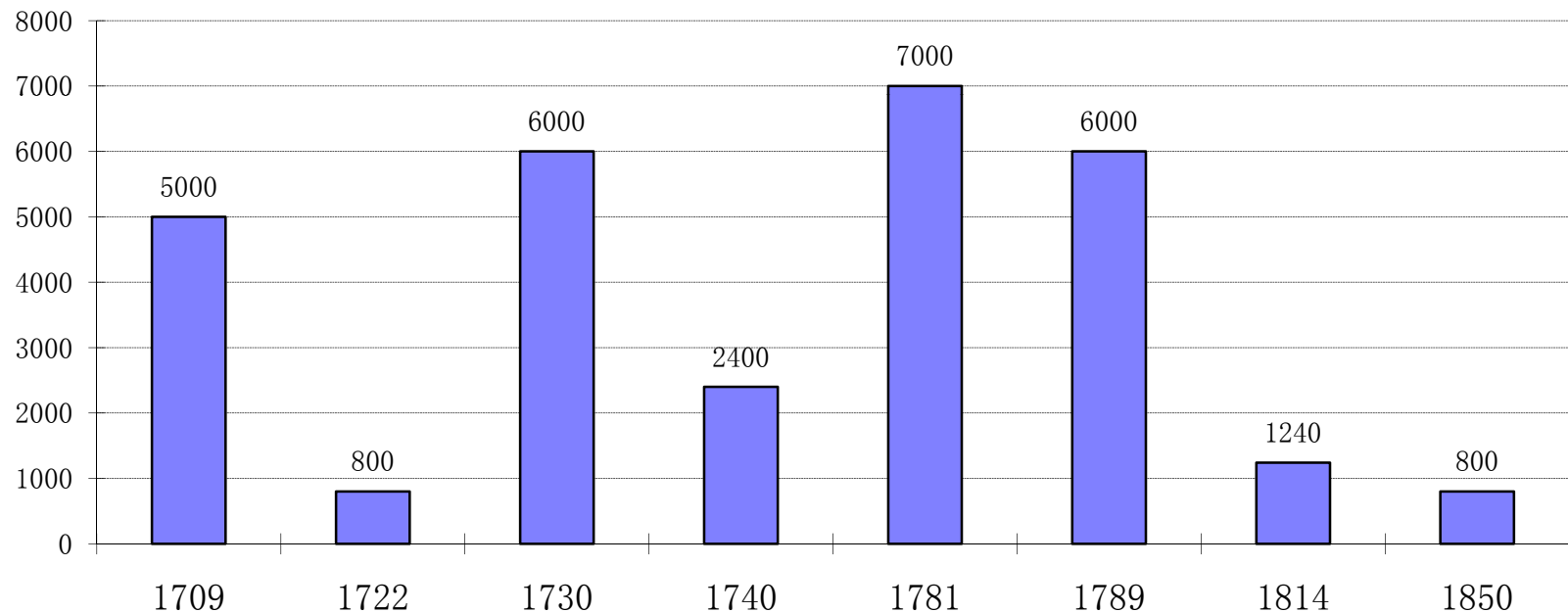
	Millions of gold ducats
Moghul India	62
Ottoman Turkey	16
Ming China	15
Tokugawa Japan	10.3
Habsburg Spain	-68

Data: McDonald (2003), *A free nation deep in debt*, p. 131 ₂



National Treasury's Silver Holdings during Qing China

10,000s silver taels

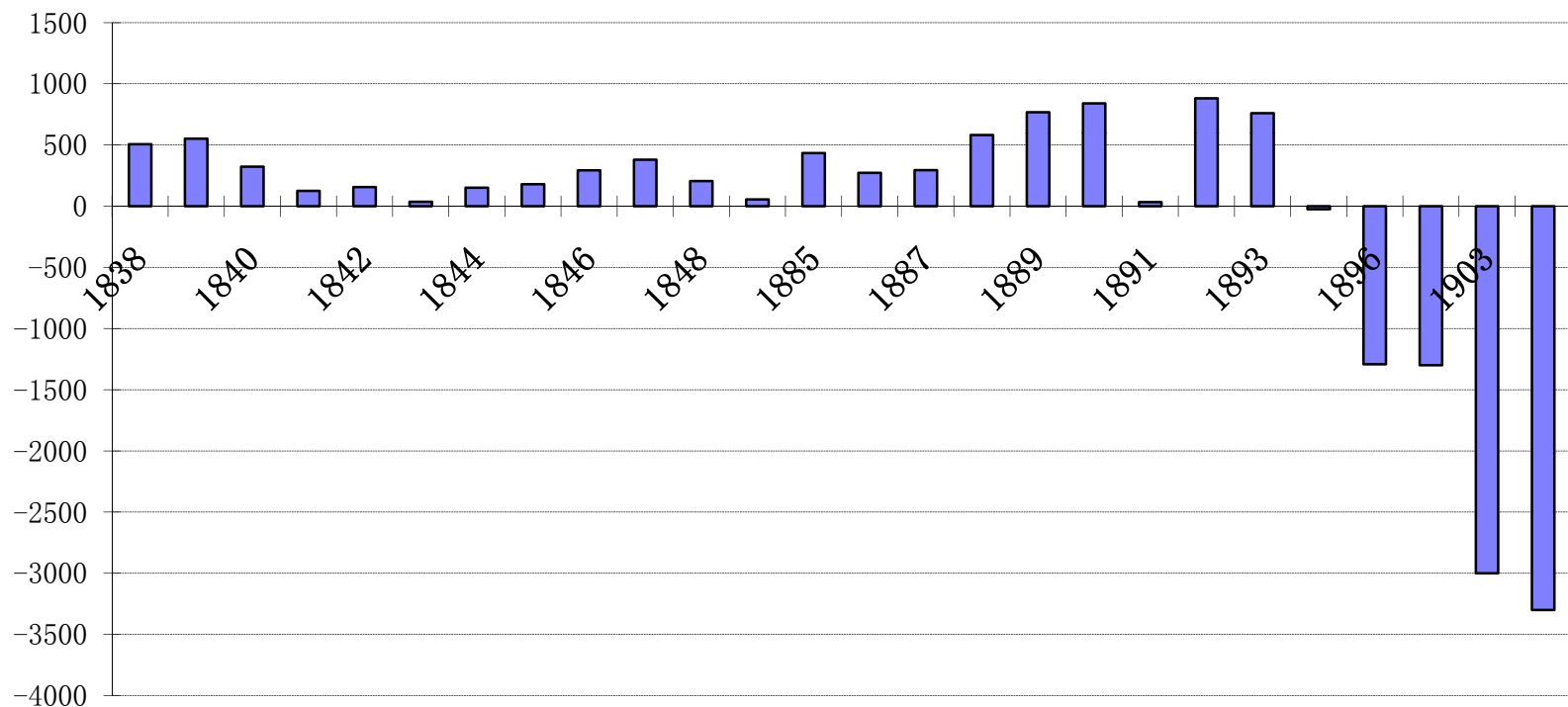


Data: 郑备军, 《中国近代厘金制度研究》, 2004



Fiscal surplus during Qing China

10,000s silver taels



Data source: 1885-1894年以及1899-1909, 收入数据来自: 申学锋, 《清代财政收入规模与结构变化述论》, 《北京社会科学》2002年第一期。1885-1894年开支数据: 陈锋, 《清代财政支出政策与支出结构的变动》, 《江汉论坛》, 2000.5。

表 2-2 晚清各直省实征地丁、盐课、关税、
杂税等项岁入岁出表*
(1838 ~ 1849 年)

单位：银两

年份	岁入	岁出	收支两抵
1838 (道光十八年)	41 272 732.659	36 209 382.386	5 063 350.273
1839 (道光十九年)	40 307 372.41	34 787 590.447	5 519 860.96
1840 (道光二十年)	39 035 229.796	35 805 162.109	3 230 067.687
1841 (道光二十一年)	38 597 458.73	37 341 583.492	1 255 875.238
1842 (道光二十二年)	38 715 060.818	37 149 811.287	1 565 249.531
1843 (道光二十三年)	42 264 528.629	41 904 903.693	359 624.936
1844 (道光二十四年)	40 163 854.832	38 651 694.514	1 512 160.318
1845 (道光二十五年)	40 612 280.774	38 815 891.185	1 796 389.589
1846 (道光二十六年)	39 222 630.42	36 287 159.329	2 935 470.713
1847 (道光二十七年)	39 387 316.116	35 584 467.837	3 802 848.279
1848 (道光二十八年)	37 940 093.827	35 889 872.079	2 050 221.748
1849 (道光二十九年)	37 000 019.041	36 443 909.923	556 109.118

资料来源：1. 1838 ~ 1848 年见《道光十八年至二十八年岁入岁出册》，北京图书馆翁同龢家抄本，转见《中国近代货币史资料》，第一辑，上册，第 172 页；

2. 1849 年数字见王庆云，《石渠余记》，卷三，第 47 页

■ 晚清政府贫困化与中国早期现代化的受挫 ■

唐贤兴 卢向国 牛纪伟

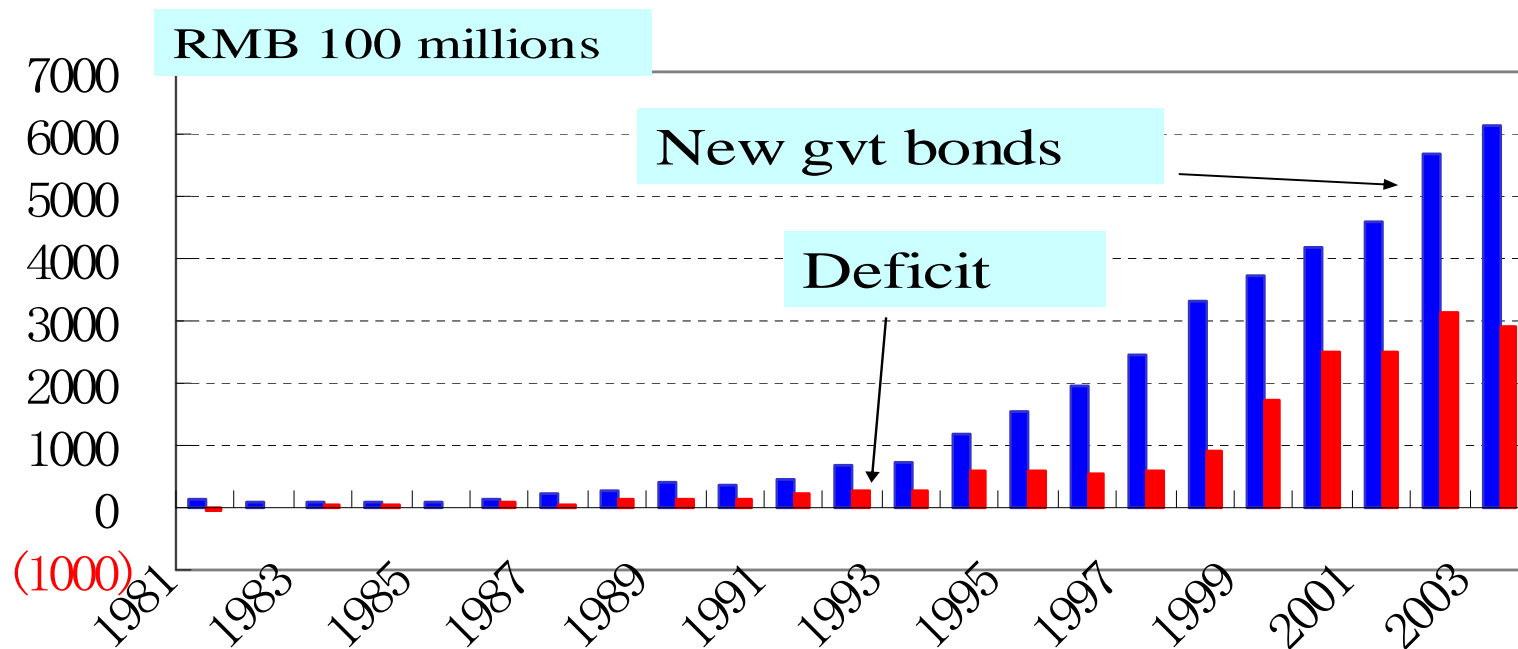
〔内容提要〕 晚清政府的贫困化,集中表现为政府财政的破落。而政府贫困化又主要是由政府政策失败、政府能力低下以及连年战争和主权逐步丧失等因素综合作用造成的。政治体系的原因导致了政府贫困化;而政府贫困化反过来又进一步削弱了政治体系的权威和能量。晚清政府的贫困化使晚清王朝的政治职能不能得以发挥,使得它在政治上、经济上的一些现代化变革因此而流产。

〔关键词〕 晚清 政府贫困化 现代化



In contrast, China's deficit & government borrowing over the last 25 years

历年财政赤字与新发国债



数据来源：国家统计局，《中国统计年鉴》



How bad is today's deficit relative to Qing times?

- **At end of 2004, outstanding national debt = RMB 3 trillion, 22% of GDP.**
- **In 2004, fiscal deficit = 2.5% of GDP**
- **In 1903 (one of Qing's worst), deficit = 1% of GDP. (when taxation = 3.5% of GDP).**
- **So, today's China should be relatively weaker.**
But,

How can we explain all of these?

- Difference in state finance led to divergence in state power
- State power lies in large disposable surplus of wealth
- State power not only trumps over individual rights, but also stifles the development of rights institutions



Back in Classical Greece

- Athens maintained no fiscal surplus
- Even revenues from silver mines – communal property – were divided among citizens
- In 483 BC, proposal was put before the assembly:

“The Athenians being wont to divide up the revenue from the silver mines at Lauteion, [Themistocles] alone dared to come before the people and say that they should forgo this division and should build with this money triremes for the war against Aigina.”(quoted in McDonald 2003, p 32)

No taxation, but quasi-obligatory gifts to the state

- The Greeks rejected direct taxation
- Instead, citizens were asked to freely “offer service with their bodies and their money”.
- Liturgies were quasi-voluntarily offered by citizens, especially rich ones, to fund special expenses, e.g., festivals, public works, and war expenditures
- As such, not much surplus accumulation would be possible

The Roman Republic (509 BC – 29 BC)

- Followed the Greek model of voluntary contributions, not coercive taxation
- But, the two Punic Wars (264-241 and 218-201 BC) damaged state finance, forcing it to borrow from citizens
- Used contingent loans – installment payments conditional on war victory. E.g., in 204 BC, 1/3 paid in each of 204, 202 and 200 BC, for loans from 210. (Macdonal 2003, p. 47)



How in debt was the Roman Republic?

- According to Macdonald (2003, p49), by 200BC, public debt outstanding was more than 50%, possible 60%, of GNP!
- Also practiced currency debasement as a way to reduce debt

In contrast, all Bronze Age civilizations taxed and accumulated large surpluses

- In Mesopotamia, Medes, and China, ...
- Public storehouses contained both financial assets such as gold and silver, but also consumptions goods.
- Ran a system of state granaries as a system of supply management and intertemporal smoothing



Ancient China

- Land tax, head tax, salt monopoly, copper mines
...
- State granaries lent **money** at rates ranging from 26%, and **grain** at rates as high as 150% (L.S. Yang, *Money and Credit in China*, 1952)
- During the Song, Wang Anshi in 1068 initiated “Young Crops Law” (青苗法) : state lent in spring at rates 20% - 40% and repaid during harvest



Which is better?

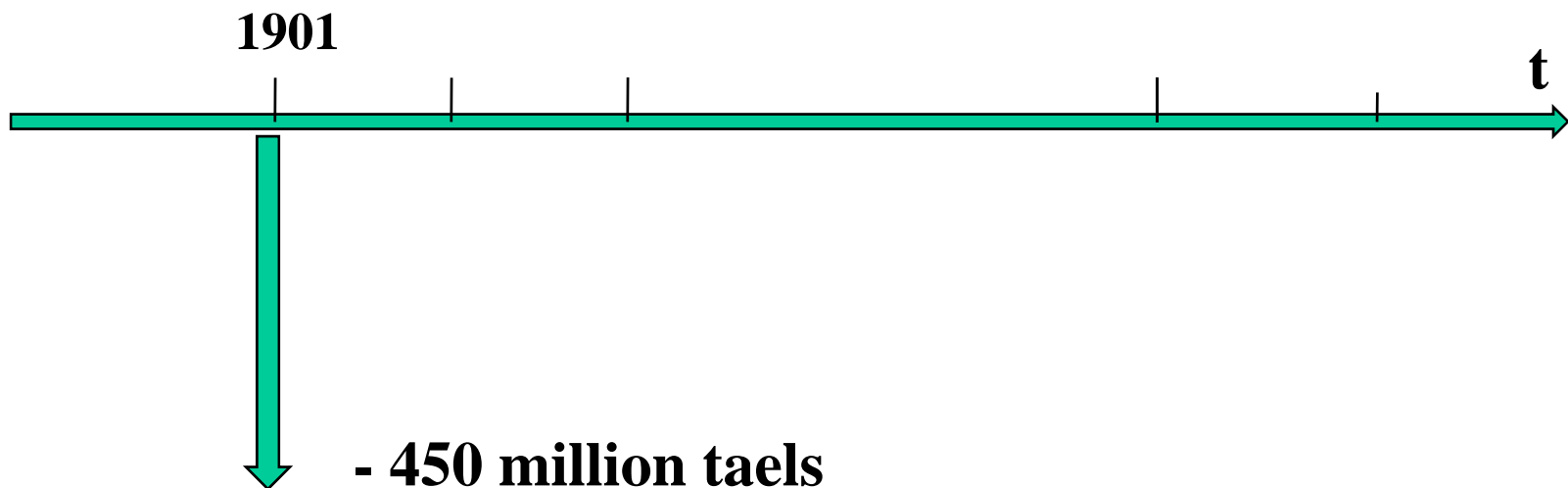
- Tax heavily now, accumulate large surpluses of wealth in state treasury, and run state granaries to effectively tax again
- Have barely enough revenue to pay for ordinary expenses, run a deficit sometimes, and borrow against the future and maintain a public debt

Analytical Framework: *capitalizing future revenues*

- Physical wealth in the treasury and storehouses: **past income** (not necessarily liquid)
- National debt (or national credit): capitalization and monetization of **future revenue flows**, increasing capital supply and de-physicalization of money.
Positive for economic growth & institutional development

Analytical framework: *how to smooth a fiscal shock?*

Example: In 1901, Boxer Uprising Indemnity of 450 million silver taels (\$330 million), about 4 times of annual fiscal revenue and 20% of GDP





4 options at times of fiscal shocks

- **Raise taxes (tax increase of 3 times over? Tax shock therapy?)**
- **Debase currency**
- **Don't pay payables (e.g., soldier and officer wages)**
- **Borrow from banks or via bond issues**



Debasing currency practiced throughout history

- Ancient Rome back in 2th century BC
- King Philip III of Spain introduced Vellon as a substitute for silver coins in 1600-1626
- In 12th, 13th century Song China, government bureaucracy expanded fast and had to debase coins multiple times
- During Yuan, Ming and Qing China, again ...

Raising taxes & Delaying payables often led to ending of dynasty

- After Ming Emperor Wan Li raised 3 times, Emperor Zhong Zhen hiked land tax by 30% in 1628.
- As peasant wars spread and threat from the north increased, Zhong Zhen had to cut and delay payments to soldiers along the borders,

Leading to Ming's collapse in 1638.



As a result

- All Chinese emperors tried to “save for rainy days”
- bad “insurance” policy, because it sacrifices current nation building potential
- In contrast, maximizing today’s spending using financing tools not only helps spread payment pressure over time, but *changes future growth opportunities*

When is it optimal to issue bonds instead of raising taxes for development?

- Borrowing rates in historical China: 30+%
- Investment yield in land: 8% to 10% during the Republican period
- With such high borrowing costs, unless in emergency, would not make sense to borrow. Optimal to save pre-cautionarily.



Taxation or Government Borrowing?

- Government borrowing costs are typically much lower than for individuals and corp.
- At times of growth opportunities, better for government to borrow and leave income with the private sector



An example

- ● Assume tax rate = 20%, public borrowing cost = 5%, private investment return = 6% ■
- For each \$1000 of private income not taxed, the before-tax income increment in year 1 = 60, implying an additional \$12 tax
- Reinvesting original plus new after-tax income led to \$62.8 more before-tax income, in year 2. ...
- As a result, government tax revenue will grow at 4.8%, yielding an additional perpetual cashflow
- NPV for the state is almost \$5K.

Early development in China's government borrowing market

- 2600 years ago, during the Warring Nations period, Guan Zi advised Qi to finance war expenditures by borrowing.
- But, never developed further.
- During the Taiping Rebellion in 1853, Qing Court tried to impose mandatory loans on the rich, but fell far short
- In 1898, tried to raise 100 million taels through “ZhaoXin bonds”, but achieved 10% of goal

Qing government had to borrow from foreign banks (starting 1865) and issue overseas bonds (1885)



- These bonds offered by Deutsch-Asiatische Bank in Berlin and HSBC in London in equal amounts of £8,000,000 at 90%.

The bonds were secured on customs revenues and have been in default since September 1939.



Public bond market in China

- Started in 1914 during the early Republican years
- Issued 27 bonds, raising 600+ million yuan, between 1914 – 26
- But ended in the 1950's
- Resumed in 1982



Another interesting case

- What role did bond markets play in determining the fate of Britain vs France in the 18th and 19th centuries?

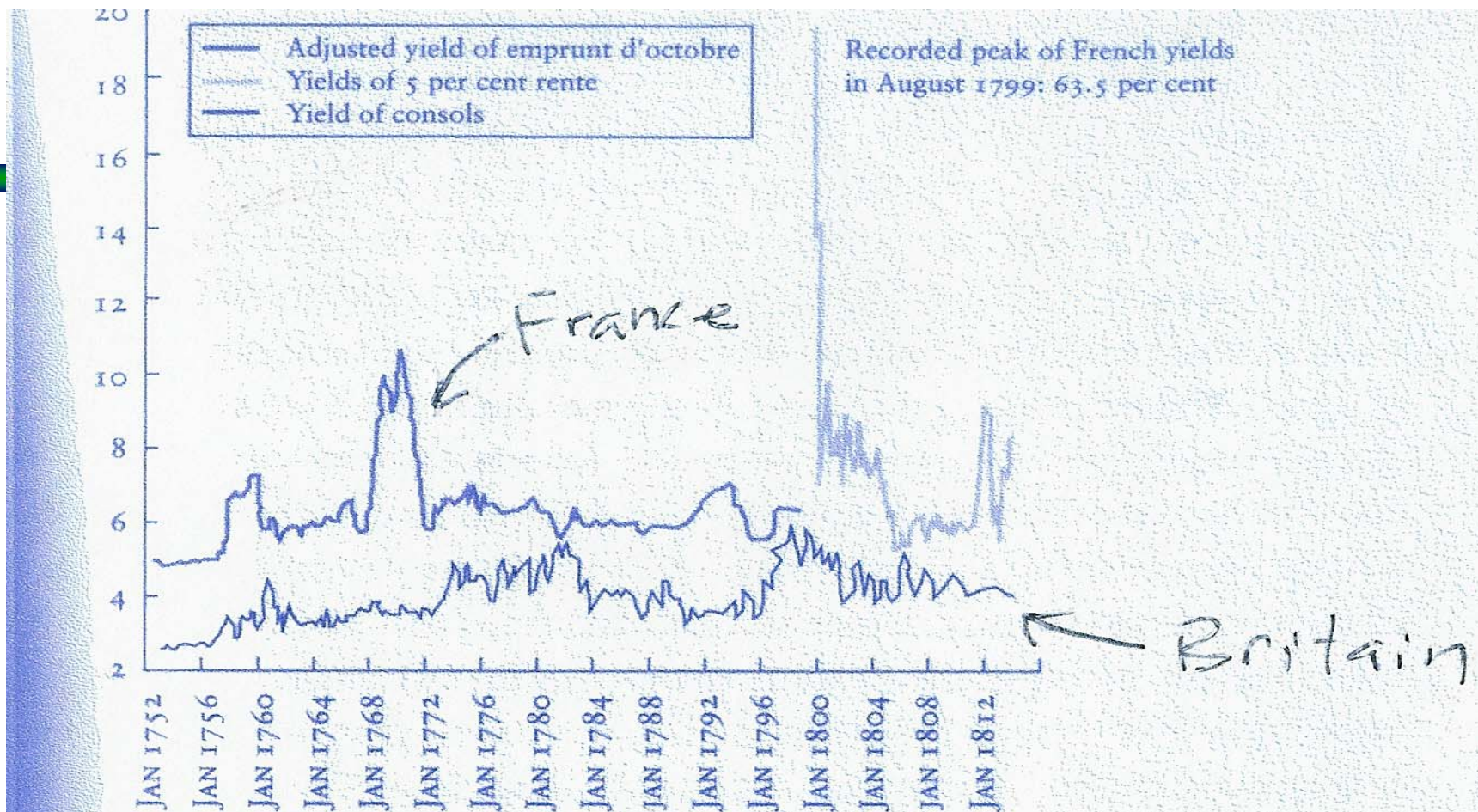


Fig. 12. British and French bond yields, 1752-1815

Source: Neal, *Rise of Financial Capitalism*, pp. 241-57, for consol prices; French yields kindly supplied by François Velde.



What difference did bond markets make to Britain vs France?

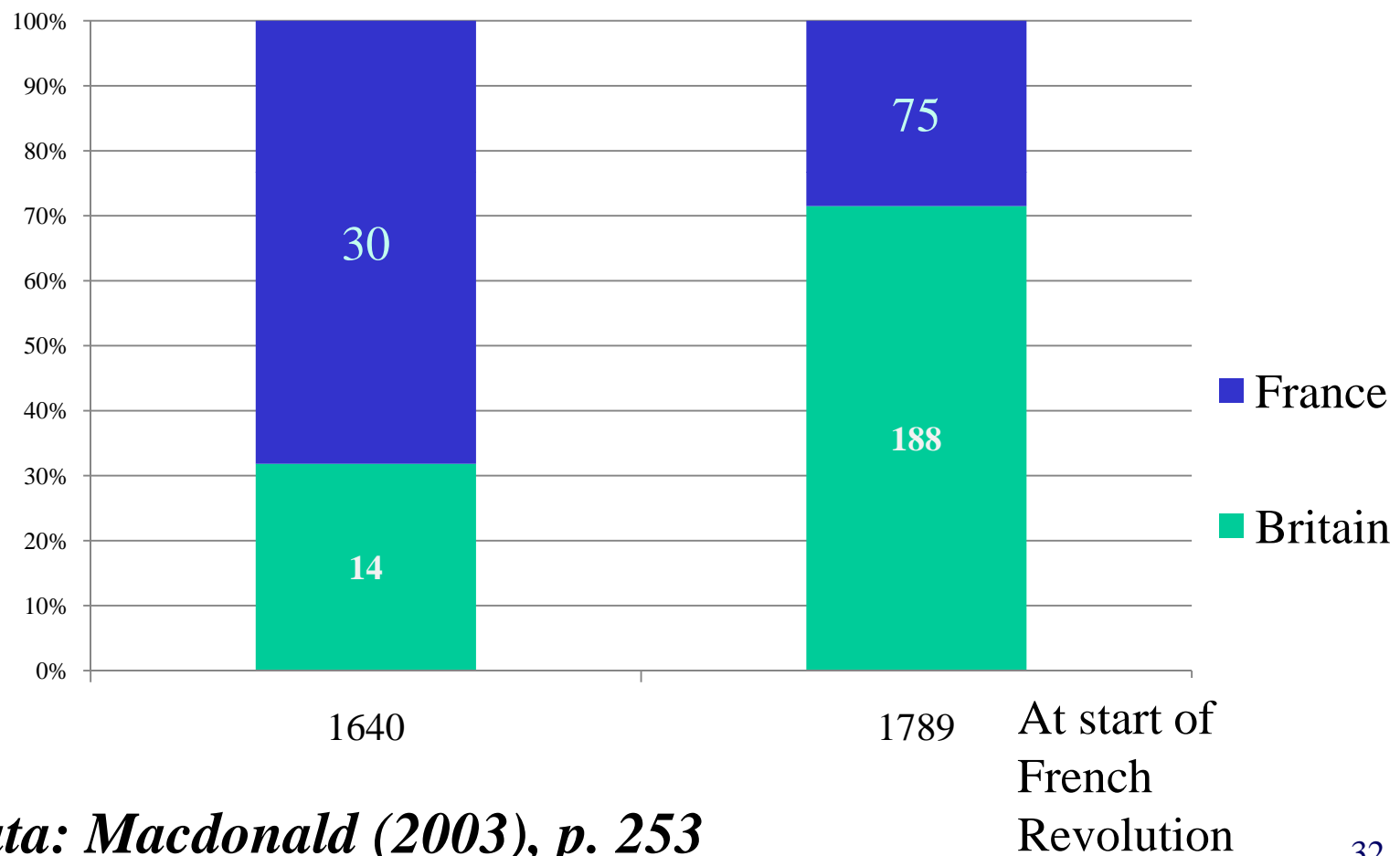
Data: Macdonald (2003), p. 252

	1725 (in L sterling millions)		1788	
	France	Britain	France	Britain
Taxes	7.5	6	19	16.8
Debt service	3.5	2.5	12.2	8.1
Free revenue	4	3.5	6.8	8.7



Relative Taxation in Britain and France

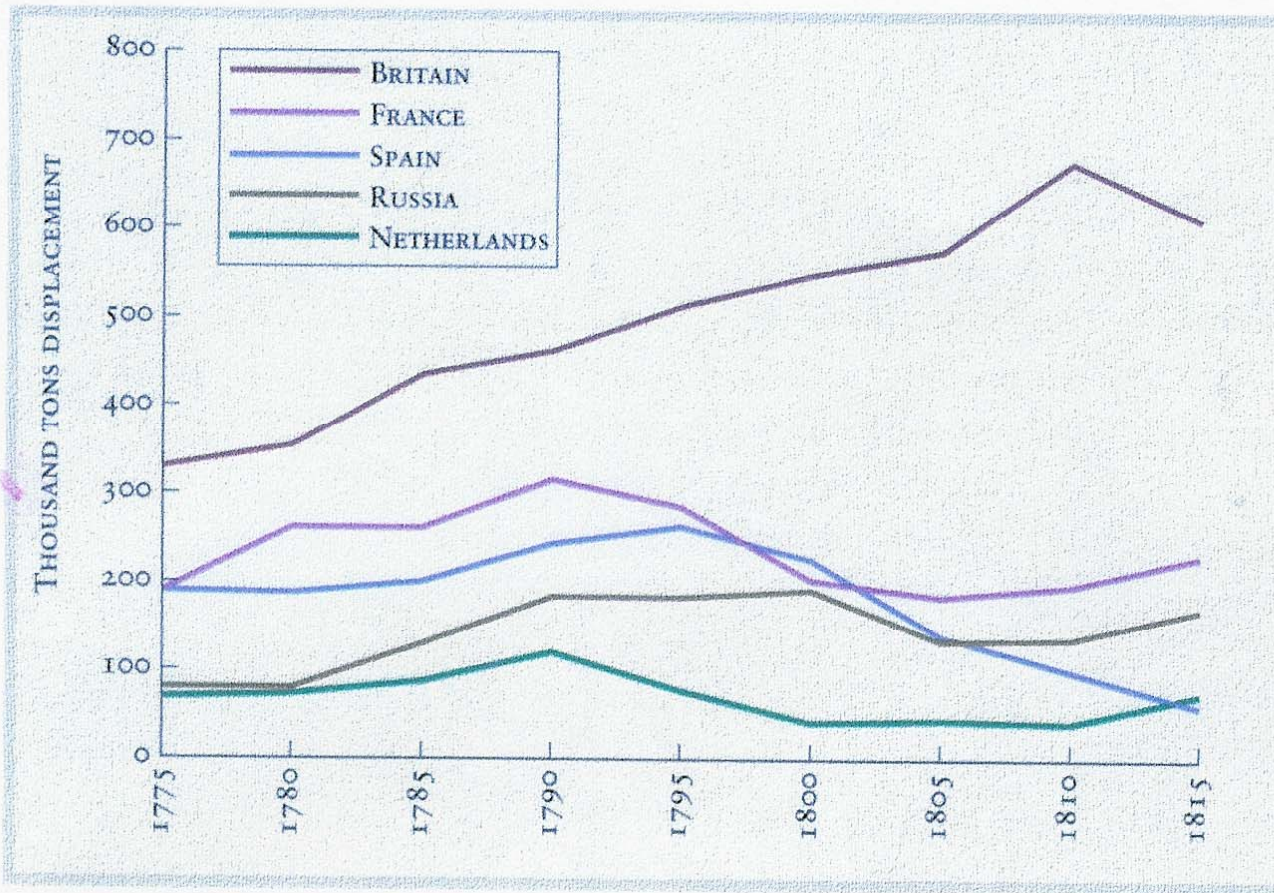
Grams of silver per capita



Data: Macdonald (2003), p. 253



Impact of government financing ability on naval power



European navies: total tonnage of vessels above 500 tons, 1815. By the end of the eighteenth century, Britannia truly ran the waves

Ferguson (2002): *Empire*