

The Economics of the Revolution

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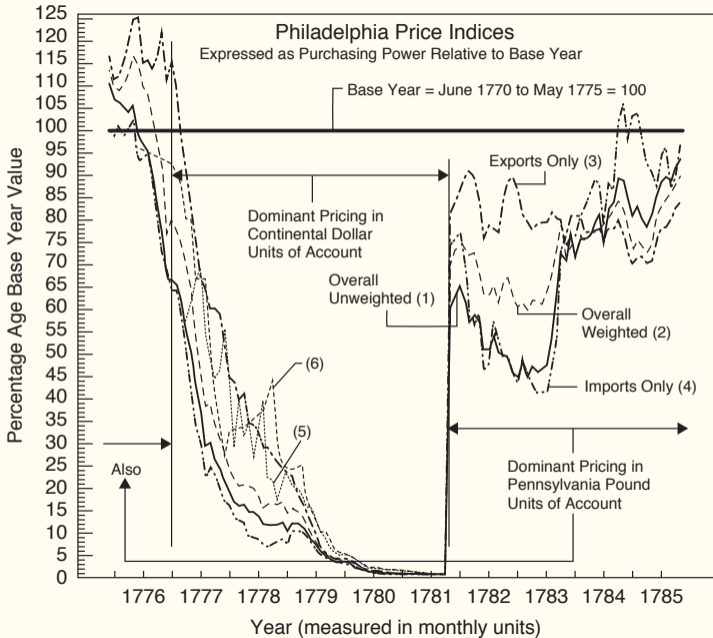
April 21, 2024

¹University of Pennsylvania

- Economic forces play a central role in fostering the Revolution.
- Objective level: Economic growth in British North America triggers profound tensions between London and the colonies that lead to the Revolution.
- Subjective level: Economic growth in British North America makes separation thinkable because the scale and diversity of the economy offers the possibility of living outside the British Empire.
 1. Colonists number a little more than 2.1 million people (\approx the population of the Dutch Republic) and have a higher GDP per capita than Britain.
 2. However, the colonies are not as technologically sophisticated or militarily capable as Britain, and their financial sector is extremely limited.

Main ideas, II

- The costs of the Revolution –both direct and indirect– are much higher than anticipated.
- The Revolutionary War lasts for over eight years (1775-1783), with around 150,000 deaths and 80,000 loyalists leaving the U.S. (\approx 3% of the population).
- High inflation and massive debt.
- Loss of international markets and fragmentation of internal markets.
- These costs accentuate the disenchantment with the Articles of Confederation, eventually leading to the Constitutional Convention and a much more powerful federal government than anyone had foreseen.
- It is likely that the U.S. would not have survived if Britain offered independence after the Battle of Saratoga.
- Also, with better financing, Benedict Arnold might have never become a traitor.



The economy on the eve of the Revolution

Economic agents

- Economic growth leads to a self-conscious, powerful elite:
 1. Merchants and financiers linked by networks of credit, business, and trade in the “port complex” of Boston-New York-Philadelphia.
 2. Southern plantation owners.
- But also many other agents:
 - Growing professional class.
 - “Mechanics” at large costal towns.
 - Independent farmers.
 - Settlers in the western frontier.
- Not all of these agents agree on how to redefine the relationship with London.

The ultimate cause

- Increasingly, the colonies lean toward a vision of an American empire under a republican government responsive to their interests:
 1. Protect American commerce.
 2. Encourage agriculture and industry.
 3. Promote western settlement.
- Franklin, while spending 17 years in England before the Revolution, is arguably the first to think as an American:
 - He sees the colonies as potentially the biggest and most dynamic part of the Empire.
 - He has little hope that Parliament will be foresighted enough to see this and react accordingly.

"DAZZLING . . . An elegant tour de force, beautifully written and tightly crafted. It is the work of a historian at the height of his powers."

—John Brewer, *The New York Review of Books*

The
AMERICANIZATION
of
BENJAMIN
FRANKLIN

GORDON S. WOOD

WINNER of the PULITZER PRIZE



The proximate causes

- Colonial grievances are mainly economic:
 1. British economic policy in the 1760s and 1770s inhibits economic growth and expansion into new activities and territories: Navigation Acts, Royal Proclamation of 1763.
 2. Reduced expenditures in the colonies and fewer subsidies for migration.
 3. Britain limits colonial attempts to counter a credit crisis by prohibiting colonial money from having legal tender. Currency Acts of 1751 and 1764.
 4. Taxation.
- However, the consensus among historians is that these economic concerns, per se, were not large (or could have been negotiated away).

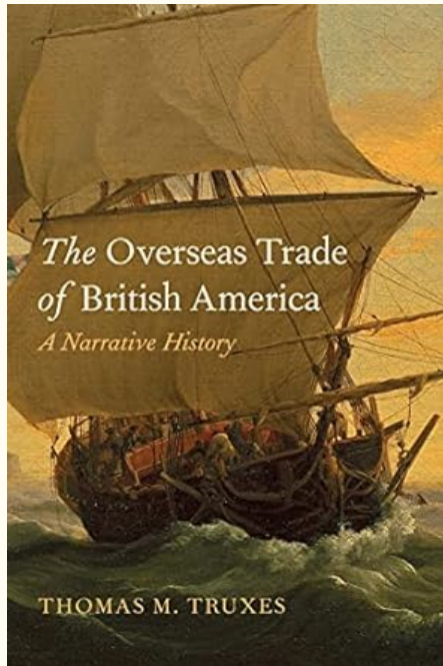
Irreconcilable differences

- Disagreement centers not on this or that particular regulation or tax but on “who would determine the shape of things to come, on who would determine the future of the British Empire in America” (McCusker and Menard, 1985).
- Several forces amplified colonial fear of British rule and its economic implications.
- The opinions surrounding these issues fundamentally differ between Britain and the colonies, with each thinking that their policies and responses to them were eminently justified.
- Eventually, these constitutional differences would prove irreconcilable.
- The major ground-shaking change is direct taxation of goods and services: the colonists view Parliamentary taxation as depriving them of their property and liberty.

A case study: The Navigation Acts

The growing costs of empire

- On the eve of the Revolution, the colonies have established trading relationships with other countries, some direct while others indirectly relying on reexport from Britain.
- Colonies enjoy prosperity in agriculture, improved organizational skills, and the beginning of a manufacturing sector.
- As the scale of production increases, Britain's mercantilist policies become more costly. A lot of money is thought to be on the table.
- Revolutionary thinkers extrapolate that unencumbered by mercantilism, they would grow even faster.
- But were the navigation acts really that burdensome at the time?



*The Overseas Trade
of British America*

A Narrative History

THOMAS M. TRUXES

The cost of the Navigation Acts, I

- Irwin (2017) calculates that Navigation Acts cost around 2% of GDP and being part of the empire brought significant economic benefits.
- It is true that specie flowed to Britain because of the Acts, but the flow was not large, contrary to what is portrayed in most history books.
- Offsetting benefits included the protection of the Royal Navy and the large British market. Adding up costs and benefits yields a very small net cost.
- If the Navigation Acts had been that costly, the growth seen in the 18th century would have been impossible.

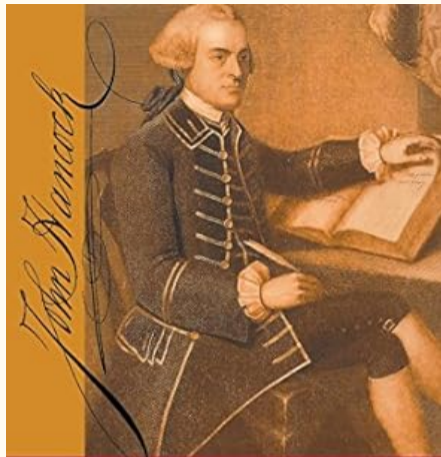
The cost of the Navigation Acts, II

- There is, therefore, substantial evidence that the Acts themselves were not enough to tip the balance.
- Colonists, such as New England shippers, understood the value of belonging to a large trading area.
- The First Continental Congress approved the navigation system in its resolutions.
- Also, Benjamin Franklin offered to have the Acts reenacted by every colonial legislature and to guarantee them for 100 years if Britain abandoned efforts to tax the colonies directly.
- While it is significant that those most economically affected by the Navigation Acts are among the strongest proponents of separation, it is unlikely that the cost was large enough to justify their actions.

The British perspective

The British perspective

- The British interpret the colonial protests as an attempt to weaken the Navigation Acts and to evade responsibility for paying their share of supporting the empire and funding military engagements.
- Parliamentary provisions go beyond taxation:
 - Lowered the tax on French West Indies molasses from 6 to 3 pence per gallon but was strictly enforced. Also taxed sugar, certain wines, coffee, and a few other goods.
 - Severely affected the rum industry (New England) and sharply reduced trade with the Azores, Canary Islands, and French West Indies.
 - Reduced sources of revenue by which colonies could purchase necessary British manufactured goods.
- Recall also the political economy within Britain (Parliament vs. the Crown).
- British policy radicalizes first Boston merchants, e.g., John Hancock.



JOHN HANCOCK

MERCHANT KING AND AMERICAN PATRIOT

Harlow Giles Unger

The Townsend Acts of 1767, I

- A series of separate Acts (in order of approval):
 1. Revenue Act: Taxes glass, lead, painters' colors, and paper. It also gives the right to issue "writs of assistance" allowing for searching private property for smuggled goods. Controversial because English law established the right to be secure in one's private property.
 2. Commissioners of Customs Act: Establishes a customs board located in the colonies to increase tax revenue and reduce smuggling. Conflict over its application eventually leads to the occupation of Boston and the Boston Massacre.
 3. New York Restraining Act: Forbids passing any new bills unless New York provides housing, food, and supplies to British Troops. It never applied as the colonial assembly acquiesced.
 4. Indemnity Act: Lowers the taxes for the British East India Company when it reexports tea to the colonies, driving out the profits of largely smuggled tea from elsewhere.
 5. Vice Admiralty Court Act (1768): Gives naval courts rather than colonial courts jurisdiction in matters involving customs duties and smuggling.

The Townsend Acts of 1767, II

- Partial repeal of the Revenue Act in 1770.
- But colonials keep questioning the right to tax and regulate trade and challenge the Declaratory Act, 1766, asserting Parliament's complete authority to make laws binding on the colonies "in all cases whatsoever."
- There became increasing momentum for the idea that colonial commerce should be the province of republican government lodged in the colonial legislatures.

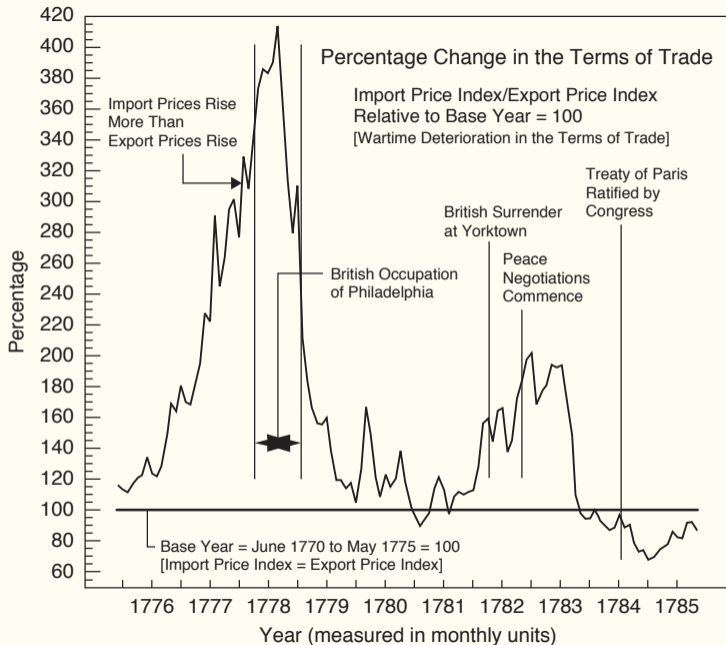
The Revolutionary War

The costs of the war

- The Revolutionary War is a risky undertaking: the war has a potential high return but a significant probability of losing.
- Furthermore, the economic consequences of the Revolution are felt immediately.
- Between 1774–1781, the economy declines by 15% or more.
- The contraction continues throughout the 1780s, representing perhaps the largest economic decline in the U.S. history.

Trade collapse

- First Continental Congress passes “The Association” on October 20, 1774: bans British imported goods starting December 1, 1774, and all exports to Britain starting September 10, 1775.
- Rest of trade collapses with the British occupation of major cities: Boston, Newport, New York, and Philadelphia.
- Furthermore, the Royal Navy denies the U.S. access to overseas markets and allows rapid deployment and resupply of British troops.
- Also, Britain confiscates 30,000 enslaved persons and levies stiff duties on tobacco, leading to 20% lower production in 1784 than in 1774.
- Some recovery when the British withdraws from Boston (1776) and Philadelphia (1778) and France and Spain enter the war.
- But tonnage through Philadelphia in 1780 is 1/3 of its value in 1770, and New York is occupied until 1783.



In Irons

*Britain's Naval Supremacy and the
American Revolutionary Economy*



RICHARD BUEL JR.

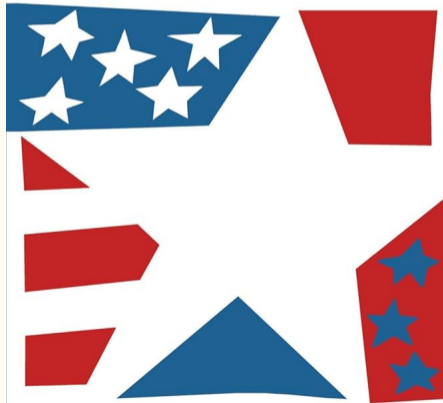
Financing the Revolutionary War

- Congress has to improvise a fiscal and monetary policy.
- Legitimacy is not clear: Second Continental Congress is an *ad hoc* body, and the Articles of Confederation are not adopted until November 15, 1777, and not ratified until March 1, 1781, when Maryland finally approves them after Virginia's western claims are settled.
- Despite these challenges, throughout the war, the Continental Congress spends \$87 million Spanish dollars, raises about \$47 million (\$40 million from Continentals, or around 84% of total), and accumulates \$41 million in specie-denominated debt and interest in arrears.
- Most of the expenditure was to finance the war, but \$10 million was spent on establishing a post office, payments to the Native American population, and financing diplomatic ventures.

The Articles of Confederation

An interpretation of the
social-constitutional history of the
American Revolution 1774-1781

by Merrill Jensen



The limits of the Continental Congress

- War goes on for so long because there are not enough resources to fight on multiple fronts. It becomes a conflict of attrition.
- Continental Congress has no taxing authority but must rely on the states contributing funds.
 - Based on population? Land? Changes during the war.
- Free rider problem of the public good of independence:
 1. All states benefit from winning the war, but if the other 12 states pay resources and my state withholds, I still benefit a lot.
 2. Incentive to underpay my share (think about the provision of effort when production is a team effort and the incentive to shirk).
 3. The problem is, however, symmetrical, and hence everyone underpays.

Debt and some desperate measures

- Very little tax revenue is raised.
- Continental Congress is forced to borrow abroad and issue debt and large quantities of a bill of credit that we know as Continental dollars.
 - Before we move on: the first thing that comes to mind when we talk about the Continental dollar (the expression “Not Worth a Continental”) belongs to the same category as Washington’s cherry tree, a fanciful anecdote created by later book writers to embellish their points.
 - No reference in print to this expression before 1851.
- As a last resort, Congress authorized the army to confiscate property, and some states organized conventions to establish wage and price controls.

TABLE 6.3 Percentage distribution of congressional monies spent, 1775–79, estimated by source and measured in Continental dollars (face value)

Source	1775	1776	1777	1778	1779	Total
Continental dollars emitted	100.00%	99.03%	58.79%	74.69%	76.66%	76.68%
Domestic loans	0.00%	0.00%	33.20%	5.50%	16.62%	12.80%
Foreign loans and gift aid	0.00%	0.97%	8.01%	19.81%	6.72%	10.52%
Total	\$6,000,000	\$19,122,420	\$22,113,250	\$85,017,038	\$128,564,501	\$260,817,209
Converted to Spanish dollars (specie value)	\$6,000,000	\$19,122,420	\$7,371,083	\$17,003,408	\$6,428,225	\$55,925,136

TABLE 6.4 Congressional troop costs in just soldier salaries: Expressed in Continental dollars (face value) per year, 1775–79

	1775*	1776	1777	1778	1779
Number of men in Continental pay	27,443	46,901	34,820	32,899	27,699
Biased-low annualized expected troop pay	\$1,380,874	\$8,106,346	\$6,018,272	\$5,686,247	\$4,787,481
As a percentage of Continental dollars emitted that year	23.01%	42.81%	46.29%	8.95%	4.86%

TABLE 6.5 Yearly distribution of congressional spending by type of expense, 1775-80

Type of expense	Percentage of total spent per year				
	June 1775- 1776	1777	1778	1779	1780 ^a
1. Spending that was relatively "current" war-theater specific					
Army recruiting, pay, and other contingencies	46.71%	36.45%	22.00%	10.55%	23.30%
Commissary Department	12.66	21.78	31.36	35.52	40.32
Quartermaster Department	3.82	11.86	26.59	37.94	16.88
Clothing, Hospital, and Prisoner Departments	3.37	5.81	7.30	6.21	4.04
Special Expedition against Detroit	0	0	1.39	0	0
Subtotal	66.56%	75.90%	88.64%	90.22%	84.54%
2. Spending that was less "current" war-theater specific					
Military Stores and Barrackmaster Departments	0	0.09	0.87	2.55	6.39
Indian Affairs and Post Office	0.21	0.13	0.03	0.06	0.37
Contingent expenses and civil list	1.53	1.57	1.82	0.39	2.38
Marine Committee	7.21	3.61	1.79	1.10	1.31
Secret Committee	6.43	2.51	0	0	0
Commercial Committee	0	0	0.54	0.56	0.61
Advances to the states	18.07	15.22	6.30	5.11	4.38
Subtotal	33.45%	23.13%	11.35%	9.77%	15.44%
Total spending in Continental dollars (face value)	\$20,064,667	\$26,426,333	\$66,965,269	\$149,793,857	\$82,908,320 ^a
Authorized emissions of Continental dollars by Congress (face value)	\$19,037,220 [June 1775-July 1776]	\$18,000,000 [Nov. 1776-Dec. 1777]	\$63,500,300 [Jan. 1778-Dec. 1778]	\$98,552,480 [Jan. 1779-Nov. 1779]	0
Deficit of Continental dollars (face value)	\$127,447	\$8,426,333	\$3,464,969	\$51,151,377	\$82,908,320 ^a

TABLE 6.5 (continued)

Type of expense	Percentage of total spent per year				
	June 1775– 1776	1777	1778	1779	1780 ^a
Made up for by: domestic interest-bearing loans (bonds) in Continental dollars (face value)	0	\$7,342,275 [Before Mar. 1778]	\$4,675,113 [Mar. 1778 to Sept. 1778]	\$21,372,021 [Sept. 1778 to Sept. 1779]	\$13,169,826 [Sept. 1779 to Mar. 1780]
Domestic deficit in Continental dollars (face value)	\$127,447	\$1,084,058	+\$1,210,144 [surplus]	\$29,779,356	\$69,738,494 ^a
Made up for by (?): Foreign loans and gift aid (in Spanish dollars) ^b	\$185,200	\$590,325	\$3,368,325	\$432,000	\$555,600
Converted to Continental dollars (face value) ^c	\$185,200	\$1,770,975	\$16,841,625	\$8,640,000	\$22,224,000
Residual deficit—made up for by (?): [Quartermaster notes, indents, warrants (IOUs), and direct state loans in Continental dollars at face value, plus confiscations]	+\$57,753 [surplus applied to 1777]	+\$744,760 [surplus applied to 1778]	+\$18,796,529 [surplus applied to 1779]	\$2,342,827	\$47,514,494 ^a

THE
*Power of
the Purse*

A History of American Public Finance
1776-1790

E. JAMES FERGUSON



Money from abroad

Foreign aid and loans

- The U.S. gets much help from abroad.
- Covert French and Spanish help starts in 1775: Roderigue Hortalez and Company, managed by Pierre Beaumarchais. Each country contributes 270,000 pesos.
- Direct delivery of weapons and supplies by France and Spain.
- Importance of the Declaration of Independence in terms of borrowing: convinces France and Dutch bankers that the colonies are committed.
- French loans of over \$2 million.
- Spanish help of at least 1,216,000 pesos. Particularly important to allow French Admiral de Grasse to take his fleet to Yorktown.
- Dutch loan in 1782 negotiated by John Adams.





The Continental dollar

The “money” problem

- The absence of reliable and adequate means of payment has been a problem for the colonies from the start.
- For example, in 1715, North Carolina designated 16 commodities as legal tender, including cheese, butter, feathers, and whale oil.
- In fact, this is a constant bone of contention between English America and Britain.
- Few circulating gold and silver coins, mostly Spanish pesos (also known as Spanish dollars).
- And it has led to many monetary experiments: the first forms of paper money.

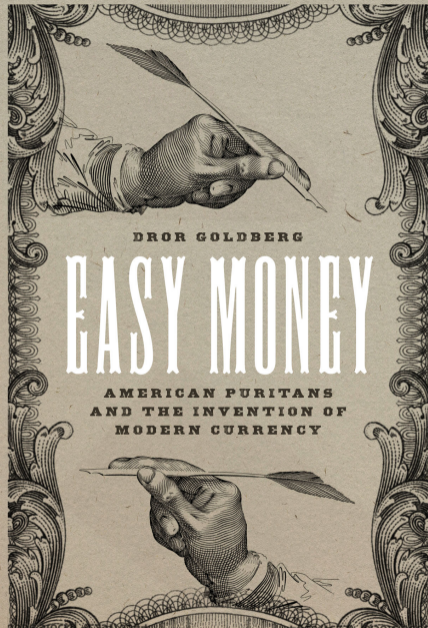




THE CURRENCY OF
EMPIRE

MONEY AND POWER
IN SEVENTEENTH-CENTURY ENGLISH AMERICA

JONATHAN BARTH



DROR GOLDBERG

EASY MONEY

**AMERICAN PURITANS
AND THE INVENTION OF
MODERN CURRENCY**

The U.S. first national currency

- On May 11, 1775, Massachusetts informs Congress that it will issue interest-bearing bonds redeemable in two years at face value in specie to pay for its emergency war expense.
- New Hampshire gives Massachusetts's bonds legal tender value in June.
- New York opposes generalizing these issuances or giving them legal tender value.
- On June 23, 1775, Congress adopts New York's recommendation, and it creates a currency union: the Continental dollar.
- Strictly speaking, the Continental dollar is a bill of credit, an unbacked IOU issued by a government that the holder can redeem in the future. Often circulates much like currency.
- Although individual states keep their sovereign power to issue their own paper money (only eliminated by the Constitution).



THE CONTINENTAL DOLLAR

*How the American Revolution Was
Financed with Paper Money*

FARLEY GRUBB

The Continental dollar as a zero-coupon bond

- States commit to redeem the dollars at face value (in Spanish milled dollars) in gold or silver after the Revolution and cover any shortfall (Congress, however, does not have the power to compel states to do so).
- No legal tender (except for soldiers and other Congressional employees) and large denominations.
 - From 1777 to 1781, Congress asks the individual states to make the Continental dollar legal tender.
 - Recall that \$1 in 1775 is about \$50 in 2023.
- Minimal provision of replacement bills to swap worn and ragged Continental dollars.
- Thus, the best way to think about the Continental dollars is as bearer zero-coupon bonds.
- Well understood by contemporaries. Check, in particular, James Madison's *Treaty on Money* (<https://founders.archives.gov/documents/Madison/01-01-02-0103>).

ON THE UNITED STATES OF AMERICA
THE UNITED STATES OF AMERICA

ONE DOLLAR.

No. 39925

THIS Bill entitles the
BEARER to receive
ONE SPANISH MILL-
ED DOLLAR, or the
Value thereof in Gold or
Silver, according to a Re-
solution of CONGRESS,
passed at PHILADELPHIA
November 29, 1775.



Algeron
Watkins Junr

ONE DOLLAR.

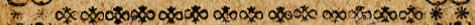
ONE OF THE UNITED STATES OF AMERICA
CONFIDENTIAL SECURITY
DOLLAR

ON THE UNITED STATES OF AMERICA
THE UNITED STATES OF AMERICA

CONFIDENTIAL SECURITY
DOLLAR



+ ONE DOLLAR. +



PHILADELPHIA:

Printed by HALL and SEL-

TERS. 1775.



In Congress, Thursday, June 22, 1775.

RESOLVED, That a sum not exceeding two millions of Spanish milled dollars be granted by the Congress in bills of credit for the defence of America.

That the several commissioners be charged for the redemption of the bills of credit now circulating to be emitted for the defence of America.

June 21. *Resolved*, That the number and denomination of the bills to be emitted be as follows, viz.

45,000 bills of 1 dol. each	45,000
45,000 do. 5 ds.	225,000
45,000 do. 6 ds.	270,000
45,000 do. 3 ds.	135,000
45,000 do. 4 ds.	180,000
45,000 do. 3 ds.	135,000
45,000 do. 2 ds.	90,000
45,000 do. 1 ds.	45,000
11,500 do. 20 ds.	230,000
	1,800,000
450 lbs.	

That the form of the bill be as follows.

Continental Currency.

N. B.

This bill is void in the hands of the holder if it is not presented to the Treasury within six months of the date of its issue, and in Philadelphia, on the 1st of Nov. A. D. 1775.

Resolved, That *Mr. Adams, Mr. Rutledge, Mr. Bland, Mr. Franklin, and Mr. Wilson* be a committee to prepare plans, proposals, and accounts to be presented to the Congress for the above bill.

Resolved, That *Mr. Richard Bache, Mr. Robert Paton, and Mr. Michael Willson* be appointed to superintend the press, and to have the oversight and care of printing the bills of credit ordered to be struck by the Congress.

Resolved, That a number from a printing in the value of one million of Spanish milled dollars in bills of every dollar each be emitted.

As the printing of great numbers of bills has been ordered, and that by the Congress will require some time that the number can be printed down in their behalf, and that with the attention due to the public service.

Resolved, That the following gentlemen be appointed and fully authorized to sign the bills, viz. *John Adams, Samuel Horsley, James Parke, James Murray, Francis Kell, Richard Smith, James Oswald, John Lewis, John Mays, Thomas Lancaster, David Green, Thomas Bepko, John Mervyn, John Tice, Richard Willson, George Thomas, James Wilson, John Hancock, Robert Adams, Andrew Bland, Mervyn Lewis, George Willson, Robert Taylor, Andrew Bland, William Taylor, Joseph Smith, James Willson, and James Boyd.*

That each of the Continental Bills be numbered and signed by two of the above gentlemen.

That each gentleman, who signs the Continental bill, be allowed and paid out of the Continental Treasury one dollar and one third of a dollar for each and every thousand bills printed and numbered by him.

That the gentleman appointed to number and sign the bills do give this receipt for the same, viz. *I have the number and denomination of them, and the number and quantity of them, and the value and quality of them, and do deliver the same to the Continental Treasury, taking their receipts for the bills so delivered.*

July 29. *Resolved*, That *Michael Willson, and George Cannon, Esqrs.* be, and they are hereby authorized, the members of the United Colonies; That the committee order in Philadelphia; and that they shall give bond with security to the United Colonies of the value of five hundred thousand dollars.

Resolved, That *John Hancock, Henry Middleton, John Willson, John Parke, James Parke, Richard Bache, Esq.* and *John Willson, Esq.* and the two or more, or all of them, be and they are authorized, do each of them a counter for their respective

collates, and take sufficient security for the faithful performance of the said.

That each colony provide ways and means to discharge in payment of the bills ordered to be emitted by the Congress, in such manner as may be most beneficial and best adapted to the condition, circumstances, and usual mode of laying taxes in each colony.

That the proportion or quota of each colony be determined according to the number of inhabitants of all ages, including negroes and mulattoes, in each colony, but in such manner, as to provide, by adjustment, that the quota of the several colonies be settled for the present as follows, to undergo a review and correction, when the list of each colony is returned.

New Hampshire,	110,000
Massachusetts Bay,	450,444
Rhode Island,	70,000
Connecticut,	145,119
New York,	245,119
New Jersey,	110,000
Pennsylvania,	512,000
Delaware,	57,000
Maryland,	101,000
Virginia,	495,000
North Carolina,	145,119
South Carolina,	145,119

That each colony pay in respect to quota in four equal annual payments, the first payment to be made on or before the 1st day of November, which will be in the year of our Lord one thousand seven hundred and seventy seven, the second on or before the 1st day of November 1780, the third on or before the 1st day of November 1783, and the fourth and last, on or before the 1st day of November 1786.

And that for this end the several provincial assemblies, or conventions, power be having and levying taxes in their respective provinces or colonies, towards discharging the continental bills.

That the first bill be emitted by the said colonies, paid into the hands of the provincial assemblies with all such other moneys, as they may receive in lieu of the continental bills, which other moneys the said provincial assemblies shall endeavor to get exchanged for continental bills; and where that cannot be done, shall tend in the continental moneys, the deficiency to be made up in the bills, making up the quota in the bank in the year ending on or before the 31st of December, at one inch diameter, or less in each bill, and at equal time, thereby to make them acceptable, though the sum at value is certain being legal.

And that the provincial assemblies, as well as they receive the said quota, shall, with the assistance of a committee of five persons, to be appointed by the Congress, if necessary, order the said bills to be printed at the expense of the said assemblies, and to the printer of the said colonies, here and beyond these.

And the Over and gold has done, to make up the deficiencies, or quota, they shall remain in their hands until demanded in conformity of continental bills, that may be brought in to discharge the purposes which bills so ordered, they shall be bound to deliver, in payment of the said continental bills. And that the provincial assemblies they have bills or gold in their hands, for the redemption of continental bills, shall allow the same, knowing that they are ready to give bills as gold for each bill, to all persons requiring the exchange.

That the continental treasury be allowed in their first year, five hundred thousand dollars each.

Done from the minutes, Charles Thompson, Sec'y.

- Total of 11 emissions (with several tranches).
- Each new emission has a different engraving and authorization stamp to make the point that their value is different:
- Problem to use the Continental dollar as a unit of account: different value depending on the redemption date (usefulness of legal tender laws?).

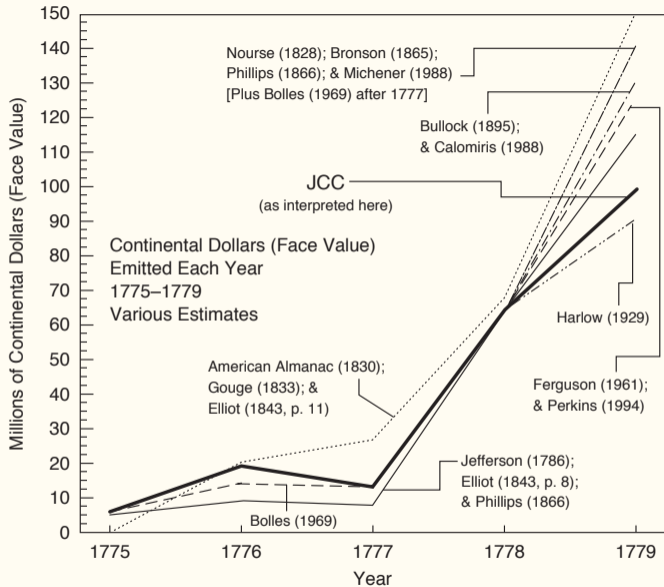


FIGURE A.I. Net new Continental dollars emitted each year from 1775 through 1779 (face value)—various estimates

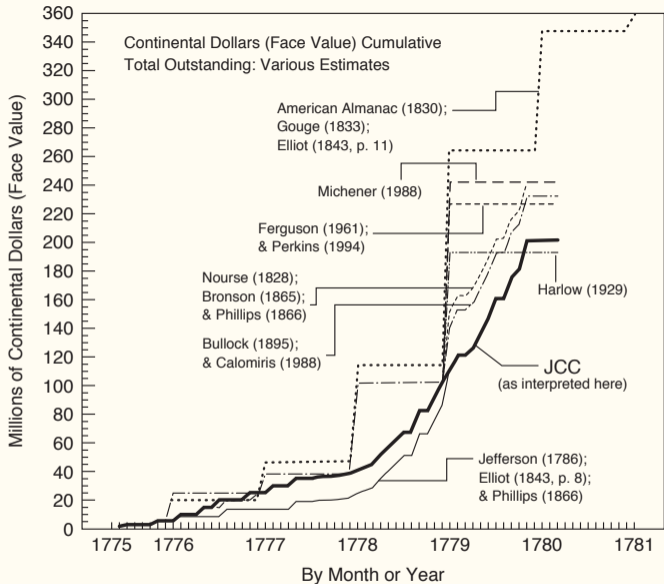


FIGURE A.2. The Continental dollar: cumulative total net new emissions outstanding to date (face value), 1775–81—various estimates

TABLE I.1 Continental dollar redemption/maturity dates set by congressional legislation

Procedural authorization dates	Date printed on the bill (emission no.)	Specie redemption option	Redemption/maturity dates	Current new emission	Redemption order applied to other emissions
July 29, 1775	May 10, 1775 (emission no. 1)	Yes	¼ on or before Nov. 30, 1779 ¼ on or before Nov. 30, 1780 ¼ on or before Nov. 30, 1781 ¼ on or before Nov. 30, 1782	\$1,000,000 ^d	to \$2,000,000 from June 22, 1775
Dec. 26, 1775	Nov. 29, 1775 (emission no. 2)	Yes	¼ on or before Nov. 30, 1783 ¼ on or before Nov. 30, 1784 ¼ on or before Nov. 30, 1785 ¼ on or before Nov. 30, 1786	\$3,000,000	
Feb. 21, 1776	Feb. 17, 1776 (emission no. 3)	—	“[O]n the same security as the sums of money heretofore emitted”	\$3,937,220	
May 22, 1776	May 9, 1776 (emission no. 4)	Yes ^a	“[I]n such manner . . . as Congress shall hereafter direct” ^a	\$5,000,000	
Aug. 13, 1776	July 22, 1776 (emission no. 5)	Yes ^a	“	\$5,000,000	
Nov. 2, 1776	Nov. 2, 1776 (emission no. 6)	—	“	\$5,000,000	
Feb. 26, 1777	Feb. 26, 1777 (emission no. 7)	—	“[P]eriods . . . that shall be fixed by Congress” ^a	\$5,000,000	
May 22, 1777	May 20, 1777 (emission no. 8)	—	Nothing mentioned	\$5,000,000	
Aug. 15, 1777	“	—	“	\$1,000,000	
Nov. 7, 1777	“	—	“	\$1,000,000	
Dec. 3, 1777	“	—	“	\$1,000,000	
Jan. 8, 1778	“	—	“	\$1,000,000	
Jan. 22, 1778	“	—	“	\$2,000,000	
Feb. 16, 1778	“	—	“	\$2,000,000	
Mar. 5, 1778	“	—	“	\$2,000,000	
Apr. 4, 1778	“	—	“	\$1,000,000	
Apr. 11, 1778	Apr. 11, 1778 (emission no. 9)	—	“	\$5,000,000	
Apr. 18, 1778	May 20, 1777 (emission no. 8)	—	“	\$500,000	
May 22, 1778	Apr. 11, 1778 (emission no. 9)	—	“	\$5,000,000	
June 20, 1778	“	—	“	\$5,000,000	
July 30, 1778	“	—	“	\$5,000,000	
Sept. 5, 1778	“	—	“	\$5,000,000	
Sept. 26, 1778	Sept. 26, 1778 (emission no. 10)	—	“	\$10,000,100	

Nov. 4, 1778	“	—	“	\$10,000,100	
Dec. 14, 1778	“	—	“	\$10,000,100	
Jan. 2, 1779	Jan. 14, 1779 (Emission no. 11)	Yes ^b	\$15,000,000 for 1779 and annually \$6,000,000 for 18 years to Jan. 1, 1797, with any additional emissions in 1779 redeemed in the same manner and within the same time period ^c	\$8,500,395	To all prior emissions and to all subsequent emissions to 1780
Feb. 3, 1779	Sept. 26, 1778 (emission no. 10)	Yes ^b	nothing new added	\$5,000,160	
Feb. 19, 1779	“	Yes ^b	“	\$5,000,160	
Apr. 1, 1779	“	Yes ^b	“	\$5,000,160	
May 5, 1779	“	Yes ^b	“	\$10,000,100	
June 4, 1779	“	Yes ^b	“	\$10,000,100	
July 17, 1779	Jan. 14, 1779 (emission no. 11)	Yes ^b	“	\$5,000,180	
July 17, 1779	Sept. 26, 1778 (Emission no. 10)	Yes ^b	“	\$10,000,100	
Sept. 17, 1779	Jan. 14, 1779 (emission no. 11)	Yes ^b	“	\$15,000,260	
Oct. 14, 1779	“	Yes ^b	“	\$5,000,180	
Nov. 17, 1779	“	Yes ^b	“	\$10,050,540	
Nov. 29, 1779	“	Yes ^b	“	\$10,000,140	

A \$7 note?

- Bizarre denomination structure (e.g., in first emission \$7 note but not \$10!).
- Probably aimed at making the Continental dollar hard to use as a medium of exchange.
- When, on November 22, 1777, Congress asks the states to limit their emission of state paper monies, it explicitly exempts small-value state currencies because of their usefulness as small change instead of Continental dollars.

TABLE 3.1 **Denominational spacing**

<i>Colony/nation</i>			
Currency	Factor average	Factor mode	Factor range
<i>Modern Nations</i>			
US dollar	2.41	2.00	2.00 to 5.00
Euro	2.18	2.00	2.00 to 2.50
Yen	3.06	2.00	2.00 to 5.00
<i>1775–79 (American Revolution)</i>			
US Continental dollar	1.36	1.50	1.08 to 2.50
<i>1775–77 (American Revolution)</i>			
Virginia currency	1.39	1.25	1.20 to 2.00
Pennsylvania currency	1.30	1.25/1.33	1.07 to 1.60
New Jersey currency	1.84	2.00	1.25 to 2.00
New York currency	1.60	1.50	1.33 to 2.00
<i>1755–64 (Seven Years' War)</i>			
Virginia currency	1.82	2.00	1.25 to 2.00
Pennsylvania currency	1.62	1.33/1.50	1.25 to 2.50
New Jersey currency	1.84	2.00	1.25 to 2.00
New York currency	1.73	2.00	1.25 to 2.00

Sources: Derived from tables B.1, B.2, and B.3.

Notes: The factor spacing is calculated by taking the value (X_t) of a denomination (d_t) at location (t) and dividing it into the value of the next higher denomination, i.e., ($X_{t+1}d_{t+1} / X_t d_t$). The average factor spacing is the summation of factor spacing across the full range of denominations emitted into circulation, i.e.,

N

$[\sum (X_{t+1}d_{t+1} / X_t d_t)] / (N - 1)$, where N = the complete sequential list of denominations.

$t = 1$

TABLE 3.2 **Distribution of denominational sizes by number of units emitted**

Currency	Measured in 2012 US dollar equivalents					
	Percentage below				Percentage above	
	\$5	\$10	\$15	\$20	\$50	\$100
<i>1775–79 (American Revolution)</i>						
US Continental Dollar	0.00	3.69	7.38	11.07	81.91	69.27
<i>1775–77 (American Revolution)</i>						
Virginia currency	0.00	23.72	47.43	47.43	42.36	34.51
Pennsylvania currency	56.00	65.40	72.90	74.80	18.70	11.40
New Jersey currency	0.00	41.40	41.40	55.80	31.80	11.90
New York currency	31.90	53.80	57.80	76.40	14.40	7.20
<i>1755–64 (Seven Years' War)</i>						
Virginia currency	0.00	31.20	48.00	48.00	35.30	22.40
Pennsylvania currency	26.80	38.80	50.20	50.20	36.10	14.20
New Jersey currency	0.00	41.00	41.00	50.30	53.00	27.20
New York currency	0.00	0.00	0.00	0.00	95.70	91.60

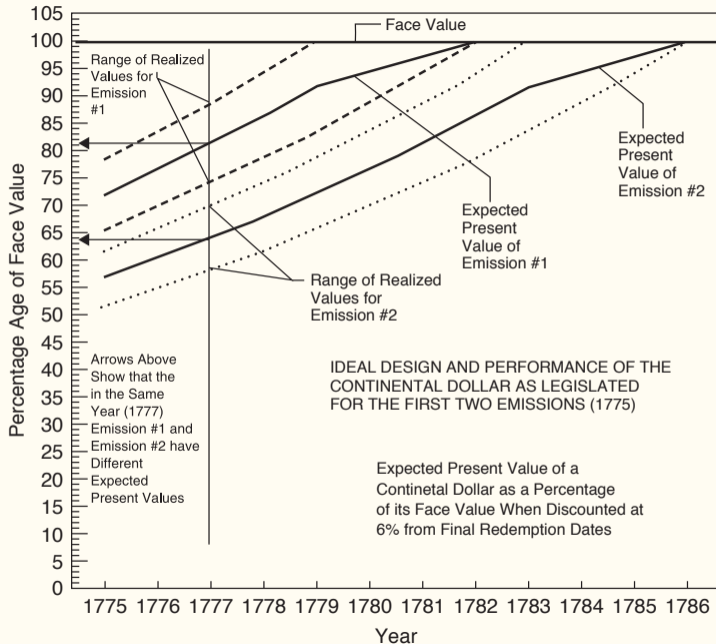
Sources: Derived from tables B.1, B.2, and B.3.

The value of a Continental dollar

James Madison, Treatise on Money

Being engaged in a necessary war without specie to defray the expence, or to support paper emissions for that purpose redeemable on demand, and being at the same time unable to borrow, no resource was left, but to emit bills of credit to be redeemed in future. The inferiority of these bills to specie was therefore incident to their very nature. If they had been exchangeable on demand for specie, they would have been equivalent to it; as they were not exchangeable on demand, they were inferior to it. The degree of their inferiority must consequently be estimated by the time of their becoming exchangeable for specie, that is the time of their redemption.

- Continental dollar must circulate at a discount even if the probability of redemption is 1.
 - With a 6% discount rate, a dollar issued in 1775 to be redeemed in 1779 has a value of around 78 cents.
 - Interestingly, this makes the pay of a Continental private (\$62 a year; the main use of the Continental dollars) roughly equivalent to that of a British one (\$55 a year in specie).



Counterfeit continentals

Thomas Paine to General Sir William Howe

England will hereafter abound in forgeries, to which art the practitioners were first initiated under your authority in America. You, sir, have the honor of adding a new vice to the military catalogue; and the reason, perhaps, why the invention was reserved for you, is, because no general before was mean enough even to think of it.

- The British undertake a covert program of counterfeiting the Continental dollar.
- Starts the HMS Phoenix, a gunboat anchored in New York harbor.
- Stephen Holland, from Londonderry, N.H., organizes a network of friends and acquaintances to pass counterfeit Continental dollars.

Counterfeiting IN COLONIAL AMERICA



KENNETH SCOTT

Foreword by David R. Johnson

FROM CRIME TO PUNISHMENT

COUNTERFEIT AND DEBASED CURRENCIES
IN COLONIAL AND PRE-FEDERAL AMERICA



PHILIP L. MOSSMAN

NUMISMATIC STUDIES 27

THE AMERICAN NUMISMATIC SOCIETY

Continental coins?

- A few Continental dollar coins (Fugio or Franklin dollar) might have been minted in 1776 on pewter, brass, and silver planchets.
- Documentation about them is scarce.
- Some authors even denied they existed. Commemorative tokens?



A reasonable basic design

- Basic economics tells you you want to finance a war by issuing debt and smooth taxes over time. Also, consistent with the idea of a zero coupon.
- Redemptions quotas were roughly allocated by population shares.
- States were free to determine how to tax and redeem the Continental dollars. Citizens from states that would no longer redeem Continental dollars could redeem directly from the Treasury (geographical heterogeneity in Congressional spending due to military campaigns).
- Redemption windows were emission-specific and linked to reasonable tax revenue expectations (per-white-capita tax level of \approx \$0.33).
- States could make up shortfalls in specie.
- The whole Continental dollar design is fully consistent with the fiscal theory of the price level.

TABLE 6.1 Percentage distribution across the states of fiscal, monetary, and military quotas, 1775–83: Congressional resource and revenue demands

State	1780 % of population: total {white only}	Initial Continental dollar (1775) redemption quota %	Recommended Nov. 22, 1777, funding %	Troop quota %			Remaining Continental dollar (1781) redemption quota %	Funding % set Apr. 1783
				1777	1778	1779 & 1780		
New Hampshire	3.16 {3.96}	4.14	4.00	3.41	3.49	3.75	2.67	3.51
Massachusetts	11.43 {14.17}	14.47	16.40	17.07	17.44	18.75	15.33	14.96
Rhode Island	1.90 {2.28}	2.40	2.00	2.27	1.16	2.50	1.33	2.15
Connecticut	7.43 {9.11}	8.27	12.00	9.09	9.30	10.00	11.33	8.81
New York	9.29 {10.75}	8.27	4.00	4.55	5.81	6.25	5.00	8.55
New Jersey	5.02 {5.86}	5.38	5.40	4.55	4.65	3.75	6.00	5.56
Pennsylvania	11.77 {14.49}	12.41	12.40	13.64	11.62	13.75	15.33	13.68
Delaware	1.63 {1.92}	1.24	1.20	1.14	1.16	1.25	1.13	1.50
Maryland	8.83 {7.48}	10.34	10.40	9.09	9.30	10.00	10.53	9.43
Virginia	20.97 {16.11}	16.54	16.00	17.05	17.44	13.75	16.67	17.10
North Carolina	10.08 {8.51}	8.27	5.00	10.23	10.47	7.50	6.67	7.27
South Carolina	6.47 {3.76}	8.27	10.00	6.82	6.98	7.50	8.00	6.41
Georgia	2.02 {1.60}	—	1.20	1.14	1.16	1.25	—	1.07
Respective totals	2,708,369 {2,204,949}	\$3,000,000	\$5,000,000	59,840	44,892	83,520	\$195,000,000	\$1,500,000 (annually)

Who came up with this design?

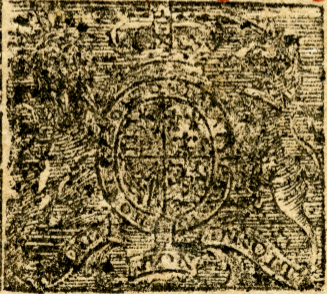
- Some indication that Congress thought carefully about these issues.
- Committee on paper money created on November 23, 1775.
- Probable role of Richard Smith (1735–1803), delegate from New Jersey.
 1. Present in all relevant sessions.
 2. Talks about technical issues of the Continental dollar in his diary (the proceedings from September 12 to October 1, 1775, and from December 12, 1775, to March 30, 1776).
 3. Brother of New Jersey state treasurer.
 4. Similitudes between New Jersey paper money and Continental dollar.



S. W. H. U. T. W. L. L. L. U. I. V. N. E. G. U. S.

TWELVE SHILLINGS. ●● No. 31174

THIS BILL of TWELVE SHILLINGS
Proclamation, is emitted by a Law of the Colony of
NEW-JERSEY, passed in the Fourteenth Year of the Reign of
his Majesty King George the Third. Dated March 25, 1776.



✻ TWELVE Shillings. ✻

Twelve Shillings.

Robt Smith
John Hart
John Jun

Twelve Shillings
New Jersey

Twelve Shillings



Loan office certificates

- Congress borrowed back Continental dollars through loan certificates.
- Nominative.
- Explicit issuance and redemption dates and interest rates.
- Large denominations.
- Around one-third of Continental dollars were borrowed back by Congress and re-spent.

N^o 592.

RECEIVED of JOHN LAWRENCE, Commissioner of the Loan Office
for the State of Connecticut, *one Set of Bills of Exchange*
for Eighteen
Dollars — it being for the Interest arisen on *one*
Continental Certificate, in favour of *Genl. William Luard*
from the 10th of Sep^r 1778 to the 10th of Sep^r 1779

The Numbers of said Certificate are *is*
one of Three Hundred Dollars
I say, received at Hartford, this 2nd Day of *Sept^r 1779*
as by Indorsement on said Certificate to said *10th of Sept^r 1779*

My Bill in the Name
of Doct^r Amos Mead } By
1 of 300. 1 Star

Amos Mead

TABLE 8.1 Loan office certificates: Amounts, conditions, and dates authorized

Authorization no. Date	Amount authorized in Continental dollars	Purpose	Years to maturity	Annual interest rate	Medium in which interest will be paid	Borrowing media	Unrestricted bearer bond?
No. 1 Oct. 3, 1776	\$5,000,000	Borrow and spend	3	6% ^a	In specie via bills of exchange on France ^b	Continental dollars only	Yes
No. 2 Jan. 1, 1777	2,000,000	"	Unstated (3)	6% ^a	"	Also local state bills of credit	"
No. 3 Feb. 22, 1777	13,000,000	"	" ^j	6% ^a	"	Unstated (same as no. 1 and no. 2)	"
No. 4 Jan. 7, 1778	10,000,000	"	"	6%	"	"	"
No. 5 May 2, 1778	250,000	Lottery payoff	"	4% ^g	Unstated (in Continental dollars)	"	"
No. 6 Feb. 3, 1779	20,000,000	Borrow and spend	"	6% ^{+g}	"	Continental dollars only ^d	No
No. 7 Apr. 27, 1779	4,000,000	Denomination swap ^e	"	6% ^{+g}	"	"	"
No. 8 June 29, 1779	20,000,000 ^h	Borrow and spend	3 ^{+f}	6% ^{+f}	"	"	?
No. 9 Oct. 30, 1779	600,000	Lottery payoff	5	6% ^{+g}	"	"	?
No. 10 Jan. 2, 1781	850,000	"	Unstated	6%	"	"	?
Borrow-and-spend total	71,283,600 to 74,000,000 ^h						
Lottery payoff total	1,700,000 ⁱ						
Grand total	72,983,600 to 75,700,000 ^h						

TABLE 8.2 Loan office certificates issued for Continental dollars by state to March 3, 1783

State	Face value: beginning— Feb. 28, 1778	Face value: Mar. 1, 1778— Sept. 10, 1779	Face value: Sept. 10, 1779—Dec. 31, 1779 ^a	Face value: Dec. 31, 1779—Sept. 30, 1780 ^b	Face value: cumulative total as of Nov. 10, 1780 ^b	Face value: Nov. 10, 1780— Mar. 3, 1783 ^m	Face value: cumulative total as of Mar. 3, 1783 ⁿ	Residual on hand and unlent ^o
New Hampshire	\$350,000	\$445,717	\$34,283	\$142,700	\$972,700	\$0	\$972,700	\$602,300
Per white capita	\$4.01	\$5.11	\$0.39	\$1.64	\$10.63	\$0.00	\$10.63	\$6.90
Massachusetts	2,068,200	3,075,000	1,115,200	987,700 [1,287,700]	7,246,100 [7,546,100]	846,807 [546,807]	8,092,907	50,893
Per white capita	6.71	0.98	3.57	3.16–4.12	23.19–24.15	1.75–2.71	25.90	0.16
Rhode Island	608,846	857,841	236,013	164,000 ^c	1,866,700 ^c	100	1,866,800	1,109,500
Per white capita	12.11	17.06	4.69	3.26	37.13	0.00	37.13	22.07
Connecticut	947,375	2,286,600	551,025	508,200	4,293,200	0	4,293,200	250,300
Per white capita	4.72	11.39	2.74	2.53	21.38	0.00	21.38	1.25
New York	850,000	1,660,723	369,277 ^d	625,800 ^c	3,505,800 ^c	4,000	3,509,800	851,200
Per white capita	3.59	7.01	1.56	2.64	14.79	1.69	14.81	3.59
New Jersey	370,900	1,298,724	2,708,276 ^f	—	4,377,900 ^f	172,000	4,549,900	193,600
Per white capita	2.87	10.05	20.97	—	33.89	1.33	35.22	1.50
Pennsylvania	2,074,400	10,316,300	4,739,300	9,281,600 ^g	26,411,600 ^g	2,110,900	28,522,500	311,800
Per white capita	6.49	32.29	14.84	29.05	82.68	6.61	89.29	0.98
Delaware	39,176	221,731	142,793	92,200 ^f [107,700]	495,900 ^f [511,400]	41,100 [25,600]	537,000	273,500
Per white capita	0.92	5.23	3.37	2.18–2.54	11.70–12.06	0.60–0.97	12.67	6.45
Maryland	93,600	2,691,400	273,400	807,900	3,866,300	127,000	3,993,300	448,900
Per white capita	0.57	16.32	1.66	4.90	23.44	0.77	24.21	2.72
Virginia	57,000	3,068,200	-275,100 ^h	57,200 ⁱ	2,907,300 ^h [3,182,400]	52,500 [-222,600] ^h	2,959,800	477,200

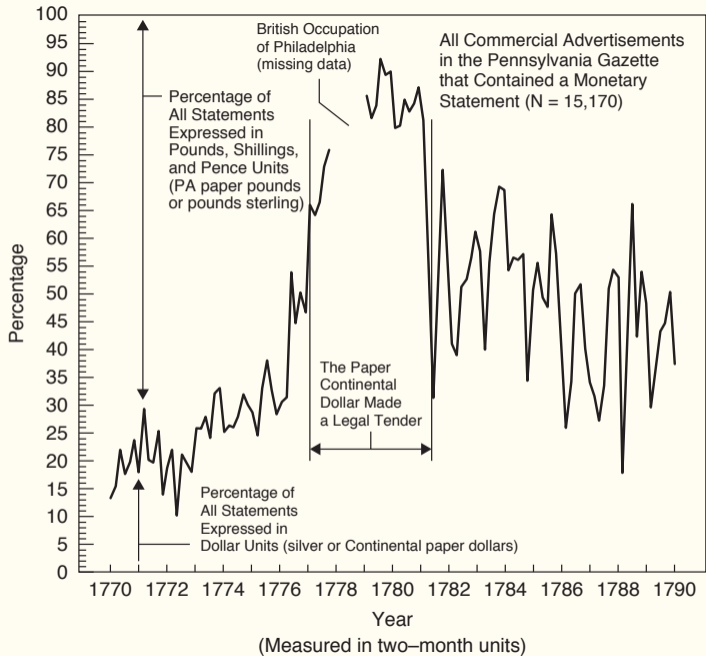
Per white capita	0.18	9.67	?	0.18	9.16–10.03	0.00–0.17	9.32	1.50
North Carolina	33,700	33,000	—	—	66,700 ^l [740,000] [756,000]	1,143,100 [469,800] [453,800]	1,209,800	474,700
Per white capita	0.19	0.18			0.37–4.22	2.53–6.38	6.75	2.65
South Carolina	52,000	31,250	3,181,208 ^k	—	3,264,458	581,947	3,846,405	720,595
Per white capita	0.63	0.38	38.33		39.33	7.01	46.34	8.68
Georgia	—	—	—	—	—	951,000	951,000	151,000
Per white capita						26.99	26.99	4.28
Total sum	\$7,545,197	\$25,986,486	\$13,075,675	\$12,667,300	\$59,229,658 ^l	\$6,075,454 ^m	\$65,305,112	\$5,915,488
Per white capita	\$3.50	\$12.04	\$6.06	\$5.87	\$27.44	\$2.81	\$30.25	\$2.74
Maximum Alternative totals		[\$26,188,909] \$12.13	\$13,350,775 \$6.18	\$12,982,800 \$6.01	\$60,509,558 ^l \$28.03	\$4,795,554 \$2.22		
Lottery loan office certificates issued							\$1,763,000	
Per white capita							\$0.82	
Grand total for all loan office certificates issued or paid out							\$67,068,112	
per white capita							\$31.07	
Grand total of all loan office certificates printed ^p							\$72,983,600	
Per white capita							\$33.81	

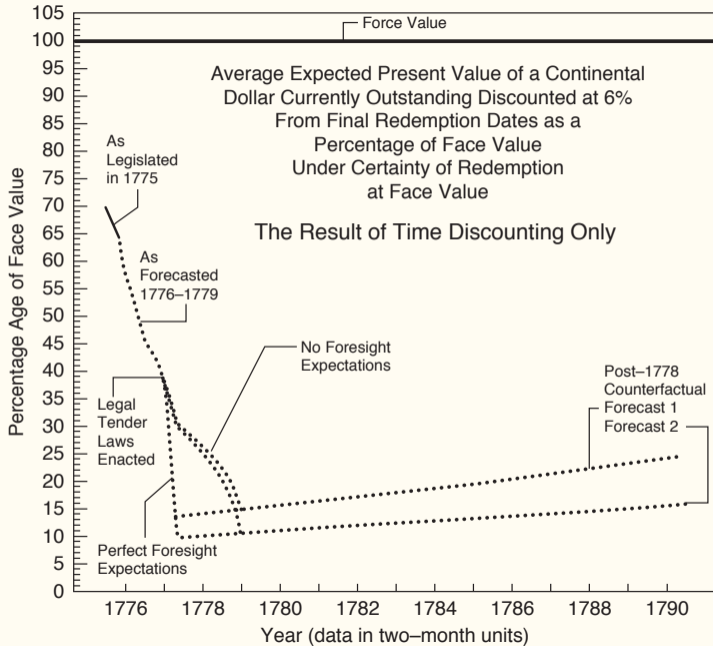
TABLE 8.3 Loan office certificates still on hand and unlent by state as of November 10, 1780

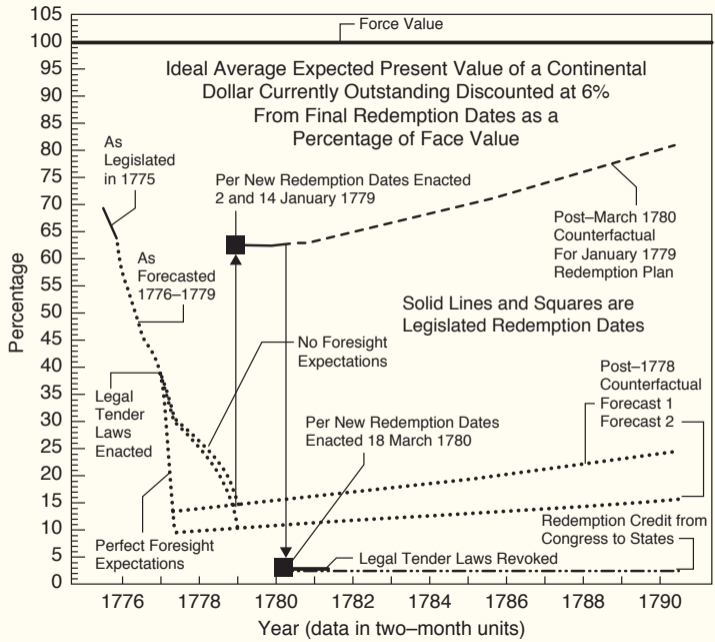
State	As of	Total nominal (face) value	Per white capita	As a percentage of total certificates lent and remaining on hand ^b
New Hampshire	Sept. 30, 1780	\$602,300	6.90	39.37%
Massachusetts	Sept. 30, 1780	597,700	1.91	7.34
Rhode Island	July 31, 1780	1,109,600	22.07	37.28
Connecticut	Aug. 31, 1780	250,300	1.25	5.51
New York	July 31, 1780	855,200	3.61	19.61
New Jersey	Aug. 31, 1780	368,600	2.85	7.77
Pennsylvania	Oct. 31, 1780	2,422,700	7.58	8.40
Delaware	Aug. 31, 1780	299,100	7.06	36.90
Maryland	Sept. 30, 1780	575,900	3.49	12.96
Virginia	Sept. 30, 1780	529,700	1.67	14.27
North Carolina	Sept. 10, 1779	628,000	3.51	45.38
	Nov. 10, 1780	(306,500) ^a	(5.22) ^a	(55.28)
South Carolina	May 6, 1780	1,302,542	15.69	28.52
Georgia	No returns reported	(1,102,000) ^a	(31.27) ^a	(100.00)
Total		\$9,541,642) (\$10,950,142) ^a	4.42 (5.07) ^a	13.62 (15.32)

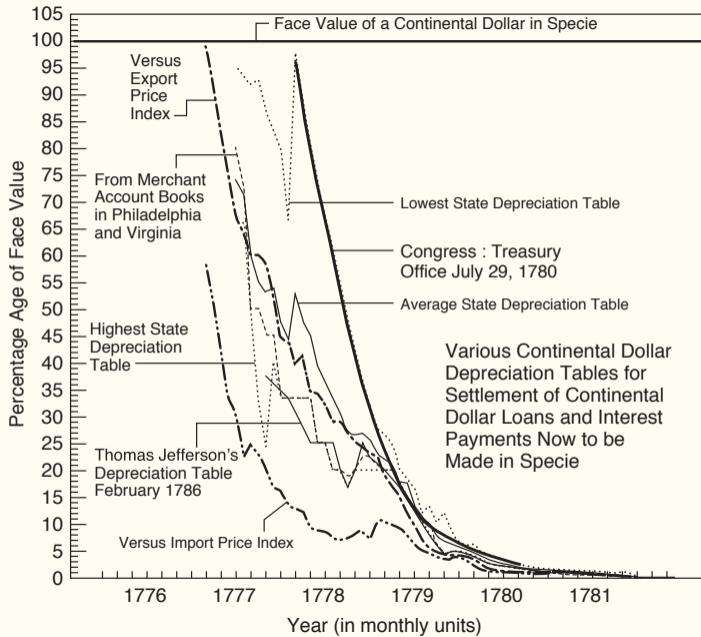
Did the Continental dollar work?

- Continental dollars fulfilled their role: up to 1779, Continental dollars paid for 77% of Congress expenditures.
- After 1779, the value of the Continental was destroyed by a combination of a long war and poor policy choices by Congress:
 - January 2, 1779 redemption rule.
 - March 20, 1780 redemption rule and introduction of state-issued Continental dollars.
 - Why? New personnel (John Adams, Benjamin Franklin, John Jay, John Hancock, Thomas Jefferson, Henry Laurens, Robert Morris, and Richard Smith are gone)? Debt hawks? Private gains?.
- Lack of fiscal credibility.
- By 1781, the exchange rate was \$225 in paper money for \$1 of hard specie. Circulation largely ends.









- Financing situation reaches a breaking point in January 1781: Pennsylvania Line Mutiny, ten Continental Army regiments demand higher pay and better housing from Congress.
- Robert Morris becomes the Superintendent of Finance in May 1781.
- In turn, to students' complaints for generations, he appointed Gouverneur Morris as his deputy.
- Role in the Newburgh Conspiracy?
- Corruption?

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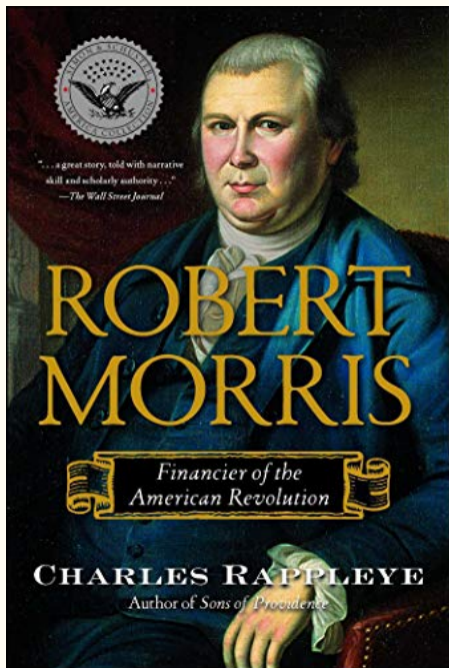
1890 *125 Years* 2015

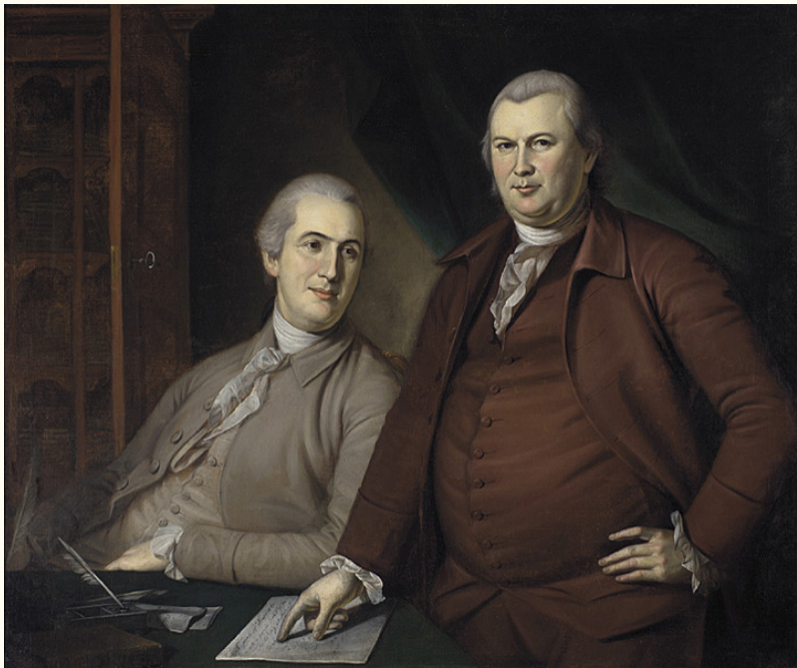
ANNIVERSARY COLLECTION

Robert Morris

Revolutionary Financier, with an Analysis
of His Earlier Career

Clarence L. Ver Steeg





The financier

- Morris tries to set up a more permanent basis for the financial affairs of the U.S.
- Two principles:
 1. He believes in markets.
 2. He is a strong nationalist (personal interests and experience).
- Morris creates the Bank of North America (307 Chestnut Street in Philadelphia).
 1. The legal successor is Wells Fargo.
 2. For some time, the largest shareholder is John Paul Jones.
- Start of a long struggle in the U.S. constitutional and political thought about the role of central banking.
- Recall that what we understand as “central banking” has changed over time.

- By 1790, the states had redeemed and removed 60% of all Continental dollars.
- Rest of Continental dollars were partially defaulted by the 1790 Funding Act.
- See slides on Hamilton's debt program.

A partial recovery

The recovery from the War

- The recovery of economic activity from the War is painfully slow:
 - **McCusker and Menard (1985)** estimate that GDP per capita declines by 46% in 1790 compared to 1774. In comparison, the decline during the Great Depression was 48%.
 - More recently, **Lindert and Williamson (2016)** document a decline in income between 15% and 20% between 1774 and 1800. Since income grew in the 1790s (e.g., 1% a year), the decline between 1774 and 1790 must have been around 36%
 - Wealth per capita is \approx 15% lower in 1805 than in 1774.
 - Exports 25% lower in 1791 compared to 1768-72. The South is hit the hardest.
- However, we need to be a bit skeptical about the size of the economic decline:
 - It is hard to find the type of agonizing accounts of poverty that are plentiful concerning the Great Depression.
 - Some authors, such as **Middlekauff (2007)**, defend that recovery was rapid though uneven.

Regional heterogeneity

- The mid-Atlantic states appear to have recovered the most quickly, substituting a growing local market for the loss of some foreign markets.
 - Also increased the degree of manufacturing, some of which is shipped to the south.
- New England's recovery was somewhat slower. It could not replace the demand for cod, whale oil, or shipping that took place with the British West Indies. By 1786, cod fishing was still only 80% of its pre-War level.
 - French West Indies, Portugal, and Spain provide some substitute markets.
 - Some activity is re-directed to trade with the South.
- Southern states recovered slowly. Lost the rice bounty supplied by Great Britain, and indigo production fell. Carolina planters struggled.

Imperial trade

James Madison

The Revolution has robbed us of our trade with the West Indies, the only one which yielded us a favorable balance without opening any other channels to compensate for it... In every point of view, the trade of this country is in a deplorable condition.

- Loss of privileged trade access to Empire is not offset by new markets.
- After the end of the war, the British Government bans U.S. ships in the British West Indies and imposes duties on certain goods.
- The 5 million pound trade deficit with the British over 1784-86 can no longer be made up with trade to British West Indies.
- Loss of 1.3 million pounds of specie leads to deflation of 12% in 1783.
- This loss of trade also has a serious impact on the British West Indies, with widespread food shortages.

The bright spots

- However, overseas trade outside the British Empire regains life with remarkable ease.
- Other countries welcome U.S. ships, and although the British West Indies were excluded, Great Britain itself accepts U.S. ships on the same footing as they did from her colonies.
- Virginia's Planters can now sell tobacco directly to Europe. Tobacco sales were lower in the 1780s than before the war, but full recovery was not far off.
- Prices for tobacco and wheat remained high in the 1780s.

TABLE 7.1 AVERAGE ANNUAL REAL EXPORTS TO OVERSEAS AREAS FROM THE 13 COLONIES, 1768–1772, AND THE UNITED STATES, 1790–1792 (IN THOUSANDS OF POUNDS STERLING, 1768–1772 PRICES)

DESTINATION	PERCENTAGE		PERCENTAGE	
	1768–1772	OF TOTAL	1790–1792	OF TOTAL
Great Britain and Ireland	1,616	58	1,234	31
Northern Europe	—	—	643	16
Southern Europe	406	14	557	14
British West Indies	759	27	402	10
Foreign West Indies	—	—	956	24
Africa	21	1	42	1
Canadian Colonies	—	—	60	2
Other	—	—	59	2
Total	2,802	100%	3,953	100%

Note: —, not applicable.

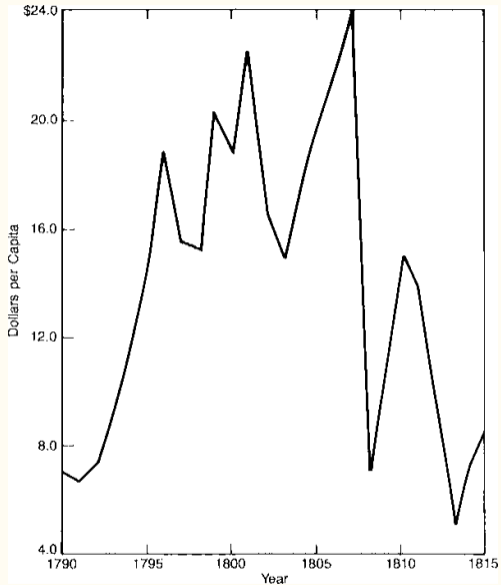
Source: Adapted from Shepherd and Walton 1976.

TABLE 7.2 AVERAGE ANNUAL EXPORTS FROM THE 13 COLONIES, 1768–1772, AND THE UNITED STATES, 1791–1792 (IN THOUSANDS OF POUNDS STERLING, 1768–1772 PRICES)

ORIGIN	1768–1772			1791–1792		
	TOTAL EXPORTS	PERCENTAGE OF TOTAL	PER CAPITA EXPORTS	TOTAL EXPORTS	PERCENTAGE OF TOTAL	PER CAPITA EXPORTS
New England	477	17	0.82	842	22	0.83
New Hampshire	46	2	0.74	33	1	0.23
Massachusetts	258	9	0.97	542	14	1.14
Rhode Island	81	3	1.39	119	3	1.72
Connecticut	92	3	0.50	148	4	0.62
Middle Atlantic	560	20	1.01	1,127	30	1.11
New York	187	7	1.15	512	14	1.51
New Jersey	2	—	0.02	5	—	0.03
Pennsylvania	353	13	1.47	584	16	1.34
Delaware	18	1	0.51	26	1	0.44
Upper South	1,162	41	1.79	1,160	31	1.09
Maryland	392	14	1.93	482	13	1.51
Virginia	770	27	1.72	678	18	0.91
Lower South	604	22	1.75	637	17	0.88
North Carolina	75	3	0.38	104	3	0.27
South Carolina	455	16	3.66	436	12	1.75
Georgia	74	3	3.17	97	3	1.17
Total, all regions	2,803	100	1.31	3,766	100	0.99

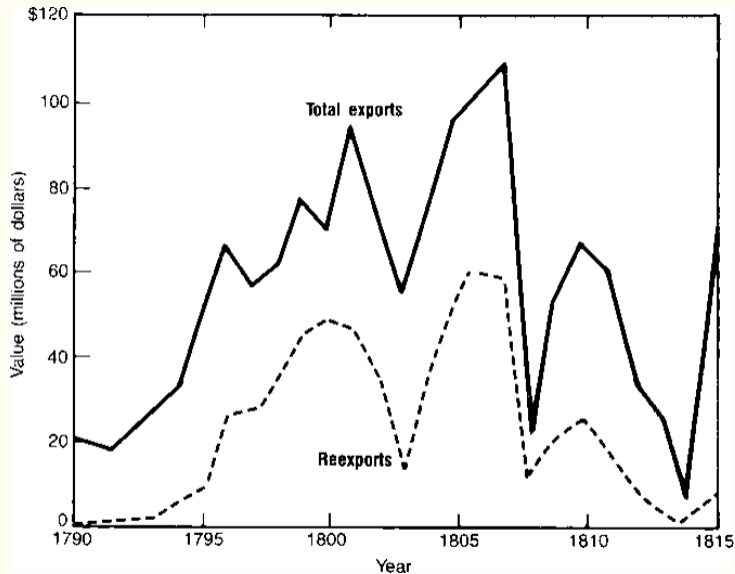
Source: Adapted from Shepherd and Walton 1976.

FIGURE 7.1
Per Capita Credits in the
U.S. Balance of Payments,
1790-1815



Source: North, Douglass Cecil. "Early National Income Estimates for the United States." *Economic Development and Cultural Change* 9(3), April 1961. Reprinted by permission of the University of Chicago Press.

FIGURE 7.3
Values of Exports and
Reexports from the
United States, 1790–1815



Source: North, Douglass Cecil, *Economic Growth of the United States 1790–1860, 1st Edition*, © 1961, pp. 26, 28. Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

Changes within the States, I

- The colonies had a system of “corporate” representation in the colonial legislatures: a town, parish, or county was the basis of representation.
- In none of the 13 colonial legislatures was representation apportioned based on population.
- Situation grows worse as colonies expand into the interior. Also, an English Royal Proclamation in 1765 forbade the colonial legislatures from reapportioning representation.
- Tensions clearly seen in Pennsylvania and South Carolina.

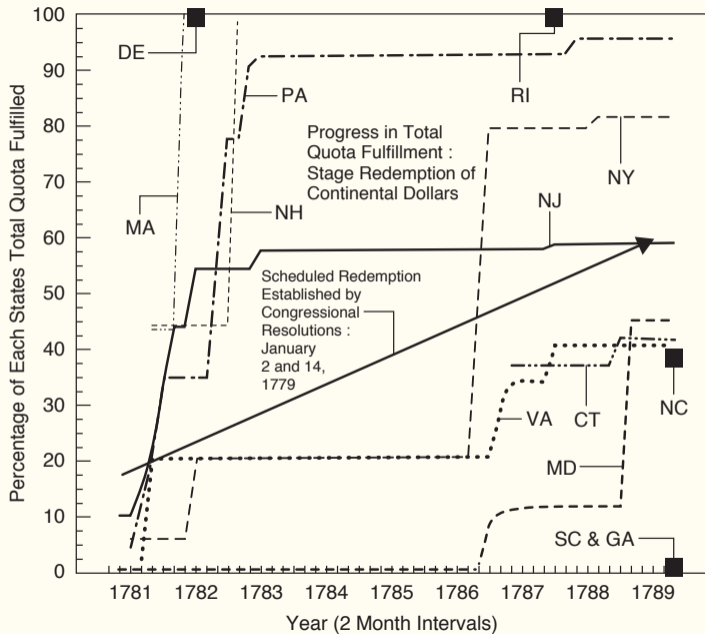
Changes within the States, II

- Resolutions of May 10, 1776: The Second Continental Congress asks each colony to create new governing structures by writing their first sovereign constitutions.
- Massachusetts, New Hampshire, New York, and Pennsylvania pick a proportional-apportionment system based on population and regularly scheduled reapportionment.
- Why? States with fewer workers and less profitable cash crops.
- The remaining nine states continued with a corporate basis of representation.
- Long-run consequences: education investment.

Toward to the Constitution

Public debt and political uncertainty

- The Revolutionary War causes the accumulation of large debts to France and the Dutch Republic.
- States severely in arrears on payments to Congress.
- Without a reliable revenue stream, Congress cannot borrow nor fund an army to deal with the British occupation of western forts.
- Congress stops interest payments to France in 1785 and defaults on principal payments in 1787 (account not settled until 1795).
- Congress requests amending the Articles to levy a 5% import duty to pay interest and principal on the debt. But Rhode Island and New York reject. Thus, measure cannot obtain unanimous consent.
- In 1787, Congress sets aside all requirements in favor of having the states pay their debts in any way they chose.



Prices and political uncertainty

- As mentioned before, the U.S. experiences deflation as specie flow out of the country.
- Seven states resort to printing money (common goods problems).
- Public debt and monetary disarray lead to high uncertainty.
- There are serious doubts concerning the viability of the political experiment.
- Uncertainty leads to the Convention.

The problems of the Confederation

- Articles of Confederation are a hindrance.
- Article 2: “Each state retains its sovereignty, freedom, and independence, and every power, jurisdiction, and right, which is not by this Confederation expressly delegated to the United States, in Congress assembled.”
- And control of trade policy was not delegated to Congress: “no treaty of commerce shall be made whereby the legislative power of the respected States shall be restrained from imposing such imposts and duties on foreigners as their own people are subjected to, or from prohibiting the exportation or importation of any species of goods or commodities whatsoever.”
- Great Britain is uninterested in a trade deal as it commands a strategic advantage. Congress cannot regulate trade and hence cannot retaliate against British trade policies.

George William Van Cleve

**WE HAVE
NOT A
GOVERNMENT**

THE
ARTICLES
OF
CONFEDERATION
AND
THE ROAD TO
THE
CONSTITUTION

Consequences

- For example, when Massachusetts prohibits British ships from loading cargo in its ports, the British switch to New Haven.
- British magazine calls them 13 Dis-united States.
- Collective action problem with no obvious solution.
- Mercantilism is entrenched, and the U.S. is demanding an end to mercantilism and special considerations that no country has granted to any other.
- There was little interest among the French or other European countries to enact trade deals.

Alexander Hamilton

The vesting of Congress with the power of regulating trade ought to have been a principal object of the Confederation for a variety of reasons. ...it is necessary for the purpose of commerce and revenue.

The call for a new Constitution

James Madison

If it be necessary to regulate trade at all, it surely is necessary to lodge the power, where trade can be regulated with effect...

the present system neither has nor deserves advocates...

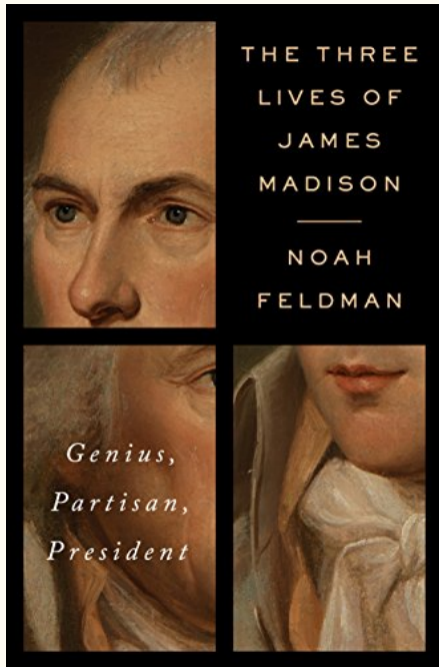
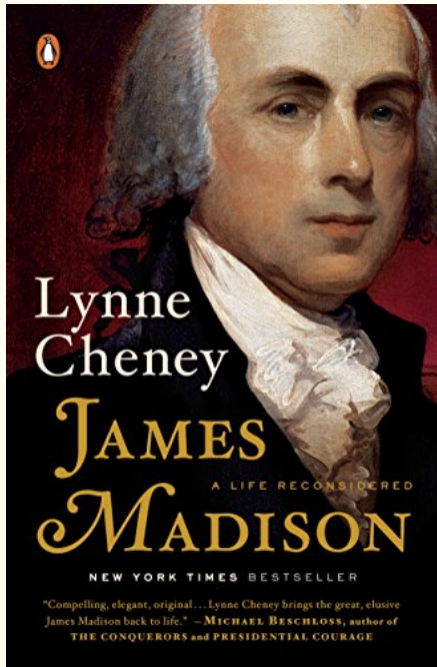
James Madison writing to Thomas Jefferson

Most of our political evils may be traced to commercial ones.

Letter on Hamilton's funding Proposals dated New York, Feb. 3, 1790

The situation of our public debts and the very great embarrassments which attended all our concerns on that account, were the principal causes, of that revolution which has given us the Constitution.

- Economic woes surrounding trade and public debt strongly influence the move toward a Constitutional Convention.
- But other factors are at play as well.



Shays' rebellion

- The situation is particularly critical in Massachusetts.
- The state did not pass pro-debtor laws (such as forgiveness of debt), no large printings of money inflate away those debts, and taxes are comparatively high.
- Western Massachusetts farmers who cannot pay their debt are having their lands seized.
- A revolt ensues between August 29, 1786, and June 1787. Under the leadership of Daniel Shays, courts are closed, and debtors are released from prison.
- It does not take much on Massachusetts's part to end the rebellion, but it does underline the ineffectiveness of the current political arrangement.
- The rebellion deeply worries many of the political leaders at the time, and it is a significant force in convincing many of the desirability of a constitutional convention.

"Carefully argued and spiritedly told."—*Boston Globe*



Shays's Rebellion

THE AMERICAN
REVOLUTION'S
FINAL BATTLE

LEONARD L. RICHARDS