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The First Bank of the United States and the Securities Market Crash of 1792

DAVID J. COWEN

In 1791 the $10 million capitalization of the First Bank of the United States was vastly greater than the combined capital of all other banks. The Bank had an enormous impact on the economy within two months of opening its doors for business by flooding the market with its discounts and banknotes and then sharply reversing course and curtailing liquidity. Although the added liquidity initially helped push a rising securities market higher, the subsequent drain caused the first U.S. securities-market crash by forcing speculators to sell their stocks. Several reasons are analyzed for the Bank's credit restriction.

> *The tendency of a national bank is to increase public and private credit. The former gives power to the state for the protection of its rights and interests, and the latter facilitates and extends the operations of commerce among individuals. Industry is increased, commodities are multiplied, agriculture and manufactures flourish, and herein consists the true wealth and prosperity of a state.* [1]

Ten years after Alexander Hamilton penned these words, his vision was reality. In February 1791 the Bank of the United States received a unique national charter for 20 years.[2] Hamilton's brainchild, a semipublic national bank, was a crucial component in the building of the early U.S. economy. The Bank prospered for 20 years and performed traditional banking functions in exemplary fashion. With a main office in Philadelphia and eight branches nationwide to serve its customers, the Bank's influence stretched along the entire Atlantic seaboard from Boston to Charleston and Savannah and westward across the Gulf Coast to New Orleans. Historian James Wettereau likened the Bank to the "mainspring and regulator of the whole American business world."[3]

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This article highlights a chapter of my recent dissertation (see Cowen, "Origins"). I thank my dissertation committee, led by Richard Sylla and Irwin Unger of New York University, and also Howard Bodenhorn of Lafayette College, Robert Wright of the University of Virginia and two anonymous referees, for their valuable insights, inspiration, and comments.

[1] Alexander Hamilton to Robert Morris (30 April 1781), in Syrett, *Papers*, (hereafter *PAH*) vol. 2, p. 618.

[2] In this article I refer to the First Bank of the United States interchangeably as the national Bank, BUS, or simply the Bank.

[3] Wettereau, "New Light," p. 263.

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In the 1790s the Bank's $10 million in capital ($8 million private, $2 million U.S. government) was a colossal sum for the United States.[4] It was larger than the approximately $3 million combined capital of the five state-chartered banks that existed, the $3 million aggregate capital of the eight U.S. insurance companies present in 1796, and the $3 million combined capital of all 32 canal and turnpike companies formed by 1800.[5] It was also substantially larger than the original capital of 1.2 million pounds sterling (about $6 million) of the Bank of England, when it was founded a century earlier.[6]

A discussion of early U.S. credit markets has to consider the role played by the most formidable financial institution of the day, the Bank of the United States (BUS). Unfortunately, most of the Bank's internal records were destroyed in a fire at the Treasury Department in 1833. In the 1930s James Wettereau found the BUS's balance sheets for 1791 through 1800 in the Oliver Wolcott Papers (Wolcott succeeded Hamilton as Treasury Secretary in 1795) at the Connecticut Historical Society. In 1985 Stuart Bruchey published the records under Wettereau's name.[7] These data, when combined with published and archival materials relating to Treasury Secretaries and BUS officials (including minutes of board meetings in which policy decisions were made), offer fresh perspectives on U.S. financial and economic development during a period that has been referred to as the "Dark Age" of American economic history.[8]

I discuss one such perspective in this article. I show that when the BUS opened its doors for the first time in December 1791, it flooded the economy with credit. Two months later, however, the Bank reversed course by sharply curtailing its discounts (loans). The Bank's erratic behavior precipitated the first U.S. securities-market crash in 1792. The Bank's connection to the crash has remained obscure, even buried in history, for more than two centuries. The episode was neither the first nor the last in which overexpansion, followed by contraction, of credit on the part of a major financial institution had wider financial and economic consequences. It is one, however, that has heretofore escaped the attention of historians.

[4] The Bank issued 25,000 shares at a par value of $400, with $100 paid in specie, and $300 in U.S. debt securities. The subscription process commenced on 4 July 1791, when an initial $25 specie down payment was made for a scrip, or receipt, of one share of stock. There were four subsequent installments between 1791 and 1793. By early 1792 the BUS had $2.5 million in private capital collected ($3.125 million including the government's portion). By 1 July 1793 all $10 million of capital was paid-in.

[5] The five state-chartered banks were the Bank of North America, Bank of New York, Massachusetts Bank, Bank of Maryland, and Providence Bank. Other measures reinforce the relative impact of the Bank. For instance, in 1792 the total income of the federal government was $3.67 million and outlays were $5.08 million. The total indebtedness of the United States as of 1 January 1790 amounted to over $75 million (Bayley, *Report*).

[6] Clapham, *Bank of England*, vol. 1, p. 18.

[7] Wettereau, *Statistical Records*.

[8] Bjork, *Stagnation*, p. vi.

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BACKGROUND: THE BUBBLE AND CRASH

In December 1791 a speculative machination was hatched that would have serious implications for the Bank as well as the country. William Duer, in secret partnership with Alexander Macomb and others, borrowed large sums of money in an attempt to corner the markets in U.S. debt securities as well as the stocks of the BUS and the Bank of New York.[9] In the ensuing speculation, securities prices reached their peaks in late January 1792. Prices trended lower in February, fell off sharply in March, bottomed in April and recovered somewhat in May. From peak to trough prices dropped more than 20 percent. The dramatic price movement is displayed in Figure 1.

The March sell-off has been dubbed the "Panic of 1792." Duer's plan ended in personal disaster; his credit exhausted, he was unable to meet contracts for security purchases. Duer suspended payments of his obligations on 9 March. Making matters even worse for Duer at this time was a pending lawsuit instituted by the federal government for improprieties while he was Secretary of the Confederation-period Treasury Board during the 1780s. Duer's spectacular failure was shocking to contemporaries, one calling it "beyond all description—the sums he owes upon notes is unknown the least supposition is half a Million dollars. Last night he went to [jail]."[10] Duer's confederate Macomb joined him in jail soon thereafter, lamenting that:

> . . . I plainly write you the truth. I curse myself for my credulity in believing in Duer. You can scarcely imagine the present distress in the town, & all confidence lost, no credit, failures everyday, and when we burst, it will be as bad as Law's Mississippi Scheme, comparatively taken. At present every countenance is gloomy, all confidence between individuals is lost, credit at a stand, and distress and general bankruptcy to be daily expected—for everyone gambled more or less on these cursed speculations.[11]

How was the Bank of the United States Involved?

America's newly formed securities markets were facing their most severe test. Historians placed the blame for the financial crisis on William Duer, and his band of confederates.[12] But was the unwinding of Duer's speculative scheme the sole cause of the Panic in March? Evidence suggests that the BUS in Philadelphia inadvertently instigated the crash by sharply restricting

[9] For a general discussion of Duer's plan, see either Davis, *Essays*; McDonald, *Alexander Hamilton*; Matson, "Public Vices"; or Wright, *Banking*.

[10] Daniel McCormick to William Constable (24 March 1792). *Constable Papers*.

[11] Alexander Macomb to William Constable (7 April 1792). *Constable Papers*.

[12] The first detailed investigation of events is found in Davis, *Essays*. His definitive work in 1917 has been accepted as the basic interpretation of the Panic of 1792.

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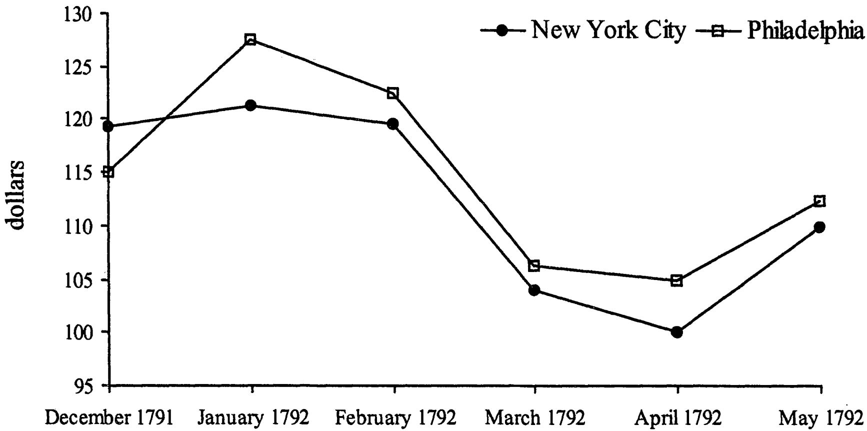

FIGURE 1
MONTH-END SECURITIES PRICES, 1792: U.S. 6 PERCENT BONDS

Note: Securities prices are from Sylla, Wilson, and Wright, "America's First Securities Markets." I thank Richard Sylla for bringing this material to my attention. Month-end prices to not fully expose the dramatic move, for 6 percent securities bottomed in Philadelphia at 100 on 7 April, or 6.25 points lower than the end March figure. See Table 3 for additional information on prices in the Boston securities market.

credit a full month before Duer's credit dried up, sending him into bankruptcy.[13] Previous discussions of the Panic assumed that when the crisis began in March 1792, the BUS along with the state banks restricted credit to protect themselves from financial loss.[14] The new evidence, however, indicates that the BUS was restricting credit in February, a full month before the crisis began. In most financial systems, such an action by a major source of credit could be expected to lead directly to lower security prices.[15] That

[13] The main office opened on 12 December 1791. The first four branches did not open until after the Panic started, with Boston commencing operations on 26 March 1792, New York and Charleston on 2 April, and Baltimore on 22 June.

[14] Davis, *Essays*, p. 309.

[15] Even at this time individuals were aware of the connection between bank credit and securities prices. In 1789 Seth Johnson wrote broker Andrew Craigie with respect to the loan curtailment by the Bank of New York, the sole bank in operation at that time in New York City: "there has been for a few Days past a good many securities offered for sale . . . indeed the reason is obvious—not a broker has any money & they are obligd to sell out their funds at what they cost or at less to make payments at the Bank [of New York] [as] the Bank [is] not discounting freely." Seth Johnson to Andrew Craigie (20 December 1789). *Craigie Papers*, American Antiquarian Society (copied from Wright, *Banking*, p. 204). In another example from six months before the BUS opened for business, Senator Rufus King of New York noted somewhat elliptically the cause-and-effect relationship between bank credit of the Bank of New York and securities prices: "I understand that it has been reported, that the late check has been produced by the bank's having refused [dealers] their usual discounts. This has by no means been the case. The Bank [of New York] has continued, & will continue, to discount as far as their safety will authorize. The present agitation will render them cautious, but they will not under the influence of that temper withhold those accommodations, which may be made with safety to the Bank, and which may likewise be essential in preventing a violent depression of the funds." Rufus King to Alexander Hamil-

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is exactly what happened in 1792. The remainder of this article presents the evidence supporting this interpretation of the Panic of 1792.

The BUS in Philadelphia inadvertently lit the match to the Duer powder keg through its abrupt lending-policy reversal that led directly to the securities-market slide in February. If securities prices had continued to increase in February, Duer (and other securities holders) would have been getting richer, not poorer. Duer was wounded that month by the Bank's credit restriction and securities-market sell-off, and then his subsequent failure in March triggered a snowball effect on other securities holders.[16]

Daniel McCormick Blames the BUS for the Securities- Market Fall

Archival sources corroborate the BUS's responsibility for the Panic. A Bank of New York (BONY) board member, Daniel McCormick, claimed in early March 1792 that the BUS was to blame for the fall in securities prices that began in February. McCormick wrote that in its early operations the national Bank in Philadelphia had:

> discounted without bounds at first setting out thinking their notes would circulate as cash over all the States, [and] finding their error, they have checked without mercy on Application for renewal and been the means of bringing a quantity of paper into the market suddenly and of course lowered the prices.[17]

McCormick, of course, might have been wrong in his interpretation. McCormick's contention is that after the Bank commenced operations in December 1791, it aggressively discounted (loaned money) that month and in January 1792, leading to a large infusion of its notes into U.S. markets. Then, McCormick indicates, the Bank abruptly reversed course. His contention would have to be treated as conjecture *unless* it was to be supported by convincing evidence. I find that the Bank's balance sheets provide such support. The Bank's actions are summarized in Table 1 and are explicated in the discussion that follows.

To test McCormick's allegation of a BUS-induced panic, we must investigate his two main assertions: that the BUS flooded the market with bank notes in January: "discounted without bounds at first thinking their notes would circulate as cash over all the States"; and that in February the BUS reversed course, and

ton (15 August 1791), *PAH*, vol. 9, pp. 60–61. Boston merchant Stephen Higginson also commented on the relationship of money to security prices some years hence: "our merchants are generally pressed so much for money, as to sell their stocks, after borrowing all they can from the banks. . . ." Stephen Higginson to Oliver Wolcott (25 June 1799). Gibbs, *Memoirs*, vol. 2, pp. 243–44.

[16] According to the editors of the *PAH*, "after reaching a high point in January, 1792, security prices declined for the next five weeks, and Duer was ruined." Vol. 11, p. 127. This investigation explains why the securities prices were declining.

[17] Daniel McCormick to William Constable (7 March 1792). *Constable Papers*.

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TABLE 1
SELECTED BALANCE-SHEET ITEMS: BUS, PHILADELPHIA

	29 December 1791	31 January 1792	9 March 1792
Outstanding Notes	134,268	886,684	891,873
Bills Discounted	964,260	2,675,441	2,051,564
Cash on Hand	706,048	510,345	244,371
Deposits:			
Individual	898,125	811,863	569,550
Government	133,000	467,178	599,869
Total	1,031,125	1,279,041	1,169,419

Note: The balance sheets do not break out aggregate deposits to individual and government deposits for two dates, 29 December and 31 January. I estimated the breakdown of deposits on both those dates based on the following: government deposits in the bank were stated by Hamilton to be $133,000 at year end (Cochran, *New American State Papers*, p. 182.). Therefore, for the 29 December balance sheet I used this figure and adjusted individual deposits accordingly. On the 31 January balance sheet several numbers were lumped together into a catch-all label of deposits, including those of the government, individuals, and the second of four specie payments due from stockholders for a total of $1,776,265.78 (stockholders paid for their shares in a proportion of 25 percent specie and 75 percent U.S. 6 percent securities, paid in four installments—see footnote 4). However, individual deposits can be closely estimated by backing out the second specie payment ($497,225) and government deposits, which were $467,177.68 as of 28 January. (Hamilton to the Board (28 January 1792). *PAH*, vol. 10, p. 572).
Source: All balance-sheet figures are from Wettereau, *Statistical Records*.

now rapidly curtailed the loans, calling them in rather than renewing them: "finding their error, they have checked without mercy upon application for renewal."

The First Claim: The Bank Flooded the Market with Bank Notes

The Bank's balance sheets corroborate Daniel McCormick's claim that a large sum of notes was issued during the month of January. The notes were issued in the course of the Bank's lending activity (or discounting), as the main method of making a bank loan at that time was to provide a borrower with bank notes. During the first two weeks after opening its doors in December, the BUS made loans of $964,260. Most of these loans were for 30 days and would mature in January. Speculators, according to John Pintard, a securities broker employed by William Duer and others, had no problem borrowing at the new BUS and were quite pleased at the prospect of easy money:

> I address myself to you on behalf of Mess. Duer, Verplanck and Alden whose business I transact in my capacity as Broker, and who have furnished me with [their personal] notes to be offered at the National Bank on Tuesday next for discount . . . this is a new business I trust the Direction from this city will excuse any want of regular form. . . . I cannot close without expressing the general satisfaction given in the market by the liberality of the Discounts hitherto made—from which we draw a happy passage of the utility of the institution to this country in general & to this stockholder in particular.[18]

[18] John Pintard to Nicholas Low (24 December 1791). *Low Papers*, Library of Congress. (Copied from *James O. Wettereau Papers*).

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TABLE 2
PHILADELPHIA'S NOTE ISSUANCE IN JANUARY 1792

Date	Post Notes	Bank Notes	Total Notes
2 January	54,866	100,850	155,716
10 January	248,537	162,340	410,877
13 January	365,434	260,040	625,474
17 January	488,563	295,355	783,918
20 January	655,355	308,925	964,280
23 January	524,818	336,895	861,713
31 January	530,324	356,360	886,684

Note: The notes of the Bank circulated as cash and took the form of either Bank notes or Post notes. Bank notes were payable to the bearer on demand, while Post notes were payable to specific individuals after a specified date, but could be endorsed to effect payments to others.
Source: See Table 1.

The Bank's explosive issuance of its notes continued unabated during the month of January and is summarized in Table 2. By the end of the month the main branch had issued a total of $886,684 in notes, an increase of $752,416, which was more than 6.5 times the amount outstanding from 29 December. The intramonth high of notes outstanding was $964,280.

Several additional pieces of evidence indicate that others besides McCormick and Pintard perceived the rapid expansion of the Bank's credit and note circulation. First, the Boston port collector advanced the view that BUS paper was abundant in mid-January:

> there is not the least prospect that the [balance] in my hands will be augmented in any other way than by the receipt of the Bank notes of the United States. There are such a flood of them now here that they are bought up at a depreciated value by the Gentlemen indebted to us for the payment of their bonds.[19]

Second, although the Boston branch had not yet opened for business, its newly appointed directors had been chosen and were alarmed enough about the influx of BUS paper to Boston in late January to write the parent Bank in Philadelphia. The Bostonians mentioned that huge quantities of BUS paper were not being locally accepted, and they wondered if they had not made a mistake in aligning themselves with an institution headquartered in Philadelphia.[20] Third, in New York, the Bank of New York provided a quantitative assessment to the amount of BUS paper flooding the local streets. Like Boston, New York was becoming inundated with BUS notes. The BONY's cashier reported to Treasury Secretary Hamilton in Philadelphia

[19] Benjamin Lincoln to Alexander Hamilton (17 January 1792), *PAH*, vol. 10, pp. 518–19.

[20] "[T]he national paper in great quantities is offering, but cannot be exchanged even at a discount of from two to five per cent—This delicate and unpleasant situation of the paper at so early a period of existence of the Bank, . . . have all united in alarming and rendering the Eastern Stockholders to a man uneasy and we think it our duty to add that many of them have entertained serious thoughts of selling their national interests and establishing another State Bank." Joseph Barrell, Christopher Gore, and Jonathan Mason, Jr. to the President and Directors of the Bank of the United States (28 January 1792). *Gratz Collection.*

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that it was engulfed in mid-January with almost $100,000 in BUS notes—and this at a time when speculators were demanding specie from the New York bank by presenting both BONY notes as well as the newly arrived BUS notes. In response to the drain of its vaults, the BONY in mid-January instituted a drastic measure: it stopped receiving BUS paper.[21]

Clearly the Bank of New York cashier, the Boston port collector, and the BUS Boston branch board members who collectively complained about the Bank's issuance knew what they were talking about. Within one month of the Bank's commencing operations, its paper was circulating countrywide, but was not receiving a warm welcome everywhere. It seems conservative to estimate that about 20 percent of this bank paper was outside of Philadelphia in just a few weeks time.[22]

If the BUS notes were flooding the country, then it follows that its bills discounted (loans) should have increased sharply in December and January. They did. Bills discounted exploded to $2,675,441 by the end of January from a level of $964,260 at the end of December (see Table 1). The $964,260 in December bills may have been renewed in January for another 30 days. If all of them were renewed, then the minimum amount of new bills, or credit, extended in January was $1,711,181.

Some Bank discounts were for "legitimate" business (financing commerce), but certainly some, as broker John Pintard has indicated, were to "accommodate" speculators in securities and other assets.[23] Some accommodation loans were likely taken out to pay for the U.S. debt securities to be tendered for the first and second of four installments on BUS stock subscriptions, which were due that January and the following July.[24] It is therefore probable that some Bank borrowers bought debt securities with their loans in order to pay for the debt portion of their subscriptions to the stock of the Bank, thereby pushing securities market prices higher in January.[25] Thomas Jefferson in early January complained that BUS credit was fueling securities

[21] William Seton to Alexander Hamilton (22 January 1792). *PAH*, vol. 10, pp. 528–30. (Also same to same 17 January 1792).

[22] In January, Seton of BONY mentioned that he had $100,000 in notes in New York City; and probably at least $50,000 in notes were in Boston (Hamilton mentioned that the quarterly interest on U.S. debt paid in Massachusetts was about $50,000 [Hamilton to President and Directors of the Bank of the United States (17 March 1792). *PAH*, vol. 11, p. 151]). Therefore at a minimum 20 percent was outside of Philadelphia ($150,000 / $625,474 = 23.98 percent). However this number may have been substantially higher in February, for Seton mentioned to Hamilton on 6 February that the balance was then $230,000 in notes (William Seton to Alexander Hamilton (6 February 1792). *PAH*, vol. 11, p. 18.), indicating that potentially 25 to 30 percent of BUS notes were circulating outside of Philadelphia, the capital city.

[23] Accommodation paper was akin to a personal loan. According to James Wettereau, much of the early Bank lending was on accommodation. Wettereau, "New Light," p. 281.

[24] See note 4.

[25] In January other asset prices were increasing as well: "The Rise in the Value of Land is Astonishing. . . ." Alexander Macomb to William Constable (5 February 1792). *Constable Papers*. Also see Wright, *Banking*, p. 145.

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speculation, as many merchants were taking out new loans from the Bank to buy stocks.[26] BUS lending practices, therefore, and perhaps unwittingly, helped push the securities market to its dizzying heights in January.

Daniel McCormick's claim that the BUS issued paper with abandon during January is well substantiated by both its balance sheets and the observations of numerous contemporary observers.

The Second Claim: The Bank Checked Without Mercy

McCormick's second assertion was that the Bank radically curtailed new loans during February. Comparing the 31 January balance sheet with the next balance sheet dated 9 March, the events of the interim period become clear (see Table 1), and McCormick's claim appears warranted. The Bank did not renew almost 25 percent of its 30-day loans.[27] Bills discounted shrank from $2,675,441 in late January to $2,051,564 in early March.

There is evidence that the credit restriction occurred in early February. On 2 February Clement Biddle, an informed Philadelphia broker, hinted that the Bank would soon be limiting loans.[28] By 15 February Biddle confirmed the curtailment he had predicted two weeks earlier by stating that "cash grows very scarce from both the [Philadelphia] Banks [BUS and the Bank of North America] withholding discounts" and then forecasted (correctly) that "every kind of stock [will] fall."[29] Several other contemporary letter writers mentioned the issue, including an agent of Dutch investors in a letter of 17 February.[30] William Duer's main confederate, Alexander Macomb, mentioned the restriction on 21 February while commenting about a new bank being debated in the New York state legislature:

> The Bank prayed for ["Million Bank"] ... makes a serious stir among us. Brockholst, and all the Livingstons except English Phil, are its promoters & forwarders joined

[26] Jefferson protested that: "The [BUS] gives money in exchange only for *merchant* notes: and on application to merchants I find that nothing will induce them to lend either their money or their credit to an individual. In fact they strain both to their utmost limits for their own purposes. The rage of gambling in the stocks, of various descriptions is such, and the profits *sometimes* made, and therefore always hoped in that line are so far beyond any interest which an individual can give, that all their money and credit is centered in their own views." Thomas Jefferson to J. P. P. Derieux (6 January 1792). Boyd, *Papers of Thomas Jefferson*, vol. 23, p. 27.

[27] Commenting on the course of events two months later, Macomb alluded to the "great discount made by the Bank of the U.S. & immediately refusing to renew the notes, which gave the stocks a fall by obliging the Holders to bring great sums into market to take up their notes." Macomb to Constable (11 April 1792). *American Antiquarian Society*. Macomb as quoted in Matson, *Public Vices*, p. 106.

[28] Clement Biddle to George Lewis, 2 February 1792, *Clement Biddle Letterbook*. Biddle suspected the upcoming curtailment: "The Bank US I believe will check the discounts of those concerned with the new Bank with you." I thank Robert Wright for bringing this archival source to my attention.

[29] Clement Biddle to George Lewis, 16 February 1792, *Clement Biddle Letterbook*.

[30] Cazenove to Stadnitski, 17 February 1792 (Cazenove's Copybooks), "announces the beginning of the credit restriction." Van Winter, *American Finance*, p. 475, fn. 72.

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> by Platt, Fowler & Co. and others. The National Bank have take[n] the conduct of things in such a light, that they refuse the paper of all those persons. The New York Bank does the same in a great degree.[31]

By 23 February in the *New York Daily Advertiser*, one writer, under the assumed name of Curtius, attacked the Bank for calling in its loans:

> *Why has the National Bank ceased its discounts* but because of its limited specie capital, ... If one or two daring individuals, by attempting to monopolize the debt and Bank stock of the United States, have given it a temporary and artificial value, far beyond every fair calculation and to which some must yet fall and sacrifice, what may not so powerful a banking company perform.[32]

These were among the responses to the almost $625,000 in loans that were called in, or not renewed, during February and early March of 1792, all during a period when bank notes outstanding had remained relatively constant, increasing only $5,000 to $892,000. Clearly the borrowers did not pay off their called-in loans with the outstanding bank notes, otherwise the BUS notes outstanding would have decreased. The notes remained in circulation.

How, then, did the borrowers repay the loans? One way would be to draw off their deposit accounts, and it appears that this accounted for some of the difference, as deposits on account of individuals on 31 January were approximately $811,863 and on 9 March were $569,550, a substantial decrease of $242,313. Yet even if all the change in deposits were credited against the $625,000 in loans called in, that still leaves approximately a $382,000 shortfall. The second method of paying off loans has important implications for securities markets: selling the securities that were purchased with the loans and using the proceeds to repay the loans. In particular, many accommodation borrowers might have chosen this course of action.[33] Therefore, securities prices should have fallen, due to the sudden sell-off of securities by those denied loan renewals.

The BUS balance sheets and contemporary observers confirm that the institution was reducing credit sharply in February. Contemporary securities prices lend support to the hypothesis that securities were liquidated to repay

[31] Alexander Macomb to William Constable (21 February 1792). *Constable Papers*, The "Million Bank" was one of several new banking schemes being debated by the state legislature. Macomb and Duer had planned to control the Million Bank, but withdrew support when the large number of subscriptions prevented them from accomplishing this goal, as shares were to be distributed pro rata.

[32] Emphasis added. *New York Daily Advertiser*, 23 February 1792.

[33] By the end of February, broker Biddle mentioned that only $1 in rollovers were granted for every $4 applied for: "Our Bank U.S. discounted more freely yesterday [than] they have for some weeks past but not above one fourth of what was asked for, it is expected they will be more liberal after next week as they have large payments to receive but plead for the necessity of providing for the establishment of Branches." Clement Biddle to William Rogers, 25 February 1792, *Clement Biddle Letterbook.*

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TABLE 3
MONTH-END SECURITY PRICES, 1792

	U.S. 6 Percent Bonds			U.S. 3 Percent Bonds		
	New York	Philadelphia	Boston	New York	Philadelphia	Boston
January	121.25	127.50	118.75	70.00	75.83	70.00
February	119.58	122.50	120.00	68.75	71.67	70.00
March	103.96	106.25	108.33	60.94	60.00	62.50

Source: See Figure 1

bank loans. If the BUS was curtailing credit abruptly in Philadelphia, securities prices in that city would probably move lower more quickly than prices in other cities, given the slow communications of that era. A recent working paper by Richard Sylla, Jack Wilson, and Robert Wright tends to confirm this intermarket pricing sequence (see Table 3).[34]

Prices in Philadelphia, home of the BUS, fell more sharply than in the other two cities between the end of January and the end of February. New York's price flow was similar to Philadelphia's. Information moved between New York and Philadelphia with a one-day lag. But the lag between New York and Boston was several days to a week. The Boston market, therefore, would have adjusted prices roughly with a one-week delay in response to price movements in Philadelphia and New York. Curiously, some Boston prices actually increased. However, it is known that an agent of Duer was in Boston with the specific intention of supporting prices; and it was reported that as of 15 February:

> The wild speculations of N York have reachd the Bostonians beneficially—they have in few, if any instances been purchasers—many & to large amounts have sold—the only purchasers in our markets have been the agents from New York.[35]

Daniel McCormick's second claim, like his first, appears warranted from the record. The Bank sharply reversed course in February, moving from a liberal discount policy to a restrictive one. And as a result, securities prices in Philadelphia—home of the BUS—fell most sharply that month, with the declines continuing and spreading to other city markets in March.

WHY DID THE BANK RESTRICT CREDIT IN FEBRUARY 1792?

If it is clear that the BUS sharply reduced discounts in February, then we may ask why the board felt the need to take such a radical step? One reason is that McCormick's first charge, that the bank had overissued, was true.

[34] With a common currency and instantaneous communications, arbitrage would tend to equalize prices of the same securities in different markets. The data in Table 3 do not show such equalization. But in 1792 communications were not instantaneous, there were still currency differences and exchange rates between the cities, and the dates of the prices in Table 3 vary, as dictated by the publication schedule of the newspapers from which prices are taken.

[35] Christopher Gore to Rufus King (15 February 1792), *Rufus King Papers*.

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Given that the Bank was concerned with creating a safe circulating paper medium, the board must have began to recognize that the opposite was occurring. The BONY, as noted above, had started to refuse BUS notes in January. The BUS shortly thereafter learned that its notes were trading at a sharp discount in Boston. To the chagrin of the directors, the Bank's liabilities were not being readily accepted at par nationwide. The specter loomed that BUS paper would come rapidly back to the Bank in dreaded cash calls, in other words, in calls for conversion of BUS notes to specie.

To an extent, that happened in February. Cash on hand began to decline in January and further deteriorated between 31 January and 9 March (see Table 1). The BUS on 9 March reported cash on hand as $244,371, against an end-of-January figure of $510,345.[36] Certainly the board must have been concerned that specie reserves were being depleted too quickly, with the threat of a run on its specie reserves imminent.

In addition, the Bank's branches in cities other than Philadelphia were to commence operations within two months. Total initial capital to be assigned to the branches was slated at $500,000. BUS President Thomas Willing found it necessary, however, to curtail the branch capital, probably in response to the Bank's weakening cash position and the uncertain times.[37] Secretary Hamilton bolstered the argument that branch concerns were involved in the decision-making process with respect to the Bank's reversal of loan policy.[38] Finally, it is quite possible that one of the board's self-imposed early warning systems, namely the appearance of a discounts to capital ratio above five to one, would have caused alarm bells to ring.[39]

The BUS board's response to these developments was dictated by common sense: they reversed earlier policies by curtailing the outstanding loans and cutting the amount of capital slated for the branches.

Was the Bank Acting Independently, in Conjunction with Other Banks, or at the Behest of the Secretary of the Treasury?

The credit reduction, although perhaps not its abrupt nature, certainly had the blessings of, and may have even been initiated by, Treasury Secretary Hamilton. By mid-January the Secretary was concerned about the state of the financial system and the rabid speculations, especially the plans for the

[36] There is also some anecdotal evidence that the Bank was trying to protect its cash position in February. One note discounter "went to the cashier, who desired to know in what he chose to receive the amount of his note—he replied in gold—was told they could not gratify him, but would supply a third part in gold." Christopher Gore to Rufus King (15 February 1792). *Rufus King Papers.*

[37] By 25 March Willing was withholding part of the New York branch's capital. Thomas Willing to President, Directors of the New York Office of Discount and Deposit (25 March 1792), *Gratz Collection.*

[38] Alexander Hamilton to William Short (16 April 1792), *PAH*, vol. 11, p. 289–91.

[39] Cowen, *Origins*, pp. 100–01.

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so-called Million Bank and other banking schemes under consideration in New York:

> I have learnt with infinite pain the circumstance of a new Bank having started up in your City. Its effects cannot but be in every view pernicious. These extravagant sallies of speculation do injury to the Government and to the whole system of public Credit, by disgusting all sober Citizens, and giving a wild air to every thing. It is impossible but that three great banks in one City must raise such a mass of artificial Credit, as must endanger every one of them & do harm in every view.[40]

The securities market had reached such dizzying heights that at the end of January, Hamilton's assistant at Treasury, Oliver Wolcott, commented:

> the sudden accumulation of wealth in the hands of individuals has introduced a mania which has led in some instances to an ostentatious display . . . [and] . . . has induced mad speculations on the part of the fortunate, and ebullitions [sic] of discontent from those who have been disappointed. The malignity of one party and the pride of the other will probably be cured by a few bankruptcies which may daily be expected, I had almost said, desired.[41]

By 10 February the Treasury Secretary wrote cashier William Seton of the BONY that:

> The state of things however requires unusual circumspection. *Every existing bank ought within prudent limits to abrige [sic] its operations*. The superstructure of Credit is now too vast for the foundation. It must be gradually brought within more reasonable dimensions or it will tumble.[42]

This letter was to the Bank of New York, but one can assume that Hamilton also would have stated his concerns to the BUS in Philadelphia, the capital, particularly as he mentioned "every existing bank."[43] The Secretary appeared to be using the influence of his office to encourage U.S. banks to restrain their credit creation. His words could be compared with Federal Reserve Chairman Greenspan's December 1996 comments about "irrational exuberance" in U.S. securities markets two centuries later.

A few days later broker Clement Biddle confirmed to a correspondent that the two banks in Philadelphia were withholding discounts. During the fol-

[40] Alexander Hamilton to William Seton (18 January 1792), *PAH*, vol. 10, p. 525. The three banks that the Secretary was alluding to were the BONY, the upcoming branch of the Bank of the United States due to open in the spring, and the proposed Million bank.

[41] Oliver Wolcott Jr. to Oliver Wolcott Sr. (30 January 1792). Gibbs, *Memoirs*, vol. 1, p. 72.

[42] Emphasis added. Alexander Hamilton to William Seton (10 February 1792). *PAH*, vol. 11, p. 28.

[43] Secretary Hamilton probably would have discussed this matter in person, as he explained to the Bank directors one month previously that: "There are various arrangements necessary to be made between the Government and the Bank of the United States, which will better be treated in personal conference than by writing. I request therefore that such proceedings as may appear proper to the Directors for that purpose may be adopted." Alexander Hamilton to President & Directors of the Bank of the United States, (18 January 1792). *PAH*, vol. 10, p. 521. The Treasury building and the Bank building were located within 100 yards of each other in Philadelphia.

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lowing weeks Biddle repeated several times the claim of a seemingly coordinated curtailment of lending by the BUS and the state banks, for example:

> . . . not only the National Bank but the Bank of NY & the Bank of N.A. all restrained their Discounts within very narrow limits about the same time wch. occasioned the greatest Demand for Money to take up Notes for which the givers had relied at least for a Renewal of a large proportion.[44]

Unfortunately, comparable balance sheets of the Bank of New York have not survived, so it is not possible to quantify the magnitude of their restriction.[45] Bank of New York board member Daniel McCormick verified that the institution was curtailing new loans by early March, for on the seventh he stated:

> Our Bank has had a tough time of it . . . and this week for the first time refused all new paper and made all old one's [sic] pay up a part. This has also helped to lower the Market and made a violent clamour against us.[46]

In a letter two weeks later McCormick suggested that the BONY had possibly been calling in old loans since February:

> From the run made on us when the plan of a New Bank [probably the Million Bank scheme in January] was proposed and the expected opening of the Branch with the probability of the Secretary's withdrawing the greater part of his deposits we have been drawing in for some time past . . . [By 7 March] the demand became so great on us for money that we came to a resolution to make no new loans to any person whatever until times grew better, and to make every person pay up a part of their old debts by this means being persued [sic] from that time we have got ourselves snug and safe.[47]

Although broker Biddle mentioned that the Bank of North America was curtailing concurrently with the other banks, preliminary balance sheet evidence suggests that the BNA did not commence curtailing until late in February, several weeks after the BUS. The Bank of North America, like other state banks, was a much smaller institution than the BUS. Nevertheless, the BNA radically changed course during early March and cut discounts almost in half between the end of February and 10 March.[48] The aggregate change

[44] Clement Biddle to George Gale, 18 March 1792, *Clement Biddle Letterbook.* The coordinated credit restriction was mentioned many times, for instance, 16 February to George Lewis, 19 February to George Lewis, 19 February to Capt. Campbell, and 4 March to William Rogers.

[45] On 2 February the Directors implemented a policy change, changing the cost of loans (discounts) from 7 percent to 6 percent. It is possible that the Bank of New York was adjusting its lending rate to coincide with that of the BUS. This would imply easier credit. However, the date of the move precedes Hamilton's letter. *Bank of New York Archives.*

[46] Daniel McCormick to William Constable, 7 March 1792, *Constable Papers.* The Treasury Secretary commented on the curtailment in mid-March: "It is strongly represented here, that you have restricted your operations so as to absolutely afford no accommodation in the present distress of the City." Hamilton to Seton, 19 March 1792, *PAH*, vol. 12, p. 154.

[47] Daniel McCormick to William Constable, 24 March 1792, *Constable Papers.*

[48] *Bank of North America Records.*

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from the end of February to mid-March was from $53,301 to $26,711, or $26,590. By the end of March, Dr. Benjamin Rush was attributing Duer's failure "to all the banks ceasing to discount and calling in their credits."[49]

The Bank of North America, however, had instituted a policy of curtailing new loans in November 1791 to prepare for the loss of business to the BUS when it opened in December:

> You could not have made an Application for discount at the Bank of North America at a worse time than the present or for 2 or 3 months to come for we are advancing all we can to prepare for the very heavy demand that will be made on it by the United States Bank, the Public and those individuals that may transfer their business from the former to the latter Bank.[50]

Were other state banks outside of Philadelphia and New York possibly restricting credit during February? In Boston there exists evidence that the Massachusetts Bank was curtailing discounts during February, commencing on the sixth of that month, so it is possible that Secretary Hamilton had sent that institution a letter like that to the BONY.[51] According to the general ledger of the Massachusetts Bank, the amount of the restriction appears to be about 35 percent of discounts.[52] While the percentage change paralleled the Bank of United States curtailment, in aggregate terms the Massachusetts Bank was reducing loans by only $2,000 as compared with almost $625,000 by the Bank of the United States. Philadelphia broker Biddle's claim that "all the Banks on the Continent" were involved in the restrictive process seems plausible.[53] The restriction was not exclusive to Philadelphia or the BUS, although the BUS was far larger than all the other banks as a group and clearly the dominant player in the banking system of 1792.

Were the three other state banks curtailing credit in response to a similar prompt from Secretary Hamilton such as the one the Bank of New York received? Hamilton was the one official who could have coordinated a pol-

[49] Davis, *Essays*, vol. 1, p. 309. Joseph Davis stated that "it was an exaggerated rumor that Benjamin Rush set down March 30, ascribing Duer's failure" to the Bank credit curtailment. But Rush's claim was not an exaggeration at all; in fact, Rush was correct. One reason Davis missed the restriction is that the balance sheets of the national bank were unavailable to him.

[50] Mordecai Brown to Nicholas Low, 25 November 1791, *Low Papers*, Library of Congress. (Copied from *James O. Wettereau Papers*).

[51] N. S. B. Gras, *Massachusetts First National Bank of Boston*, p. 48, p. 349. From the 6 February board meeting: "Agreed that renewals be admitted this Week, deducting 10 percent and that no money go out thereon" According to Gras, this situation lasted "from early in February until late in July, 1792, [when] there were few if any discounts. The directors ordered that no money go out of the Bank." Gore informed others soon thereafter of the decision: "The Massachusetts Bank have been and are still lessening their discounts." Christopher Gore to Rufus King, 15 February 1792, *Rufus King Papers*.

[52] General Ledger, 1792, Massachusetts Bank, *Fleet Bank Archives*. This number was calculated by comparing the end-of-January number for total amount of discounts received ($6,890) versus the end-of-February number ($4,494). The discount contraction continued in March ($3,352), April ($2,895), May ($2,888), and June ($3,137).

[53] Clement Biddle to William Campbell, 11 March 1792, *Clement Biddle Letterbook*.

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icy among the existing banks, the Treasury being the only institution that had relations with all of them as depositories for U.S. government funds. A possible scenario is that the Secretary saw a speculative "bubble" developing and tried to take preemptive action, similar to what modern-day central bankers might do.[54]

The Bank of the United States, however, did not follow the "gradual" prescription mentioned by Hamilton. Rather the Bank checked the markets abruptly in February. State banks followed suit either simultaneously or shortly thereafter. Therefore, when money became tight during the course of February and early March, the tripwire of credit contraction was activated. The first to feel the pain were accommodation borrowers, especially those who had borrowed to pay for stock, as their loans were called in and not renewed.[55] Their easiest recourse was to sell securities. Speculators likewise were caught in the liquidity squeeze in February, and commenced selling securities.

By March the selling turned into a rout for Duer and the other security holders. The short sellers, or bears, were "triumphing over this unfortunate Mans [Duer's, sic] distress and they are preying upon the vitals of public credit by every artifice & combination that can be devised to depress stocks."[56] On 24 March New York banker Daniel McCormick penned another letter succinctly summing up the course of events:

> My last to you was by the packett in which I mention that stocks were low and attributed their fall to the Directors of the National Bank discounting so largely at their first setting out and curtailing so much when the notes went in for renewal.[57]

CONCLUSIONS

When the Panic of 1792 is discussed, blame usually ends up squarely on the shoulders of William Duer. The role of banks in it has not been analyzed because information such as that in the BUS balance sheets was not previously accessible. Yet contemporaries such as Daniel McCormick, Clement Biddle, and Benjamin Rush knew what the balance sheets now appear to document: the Bank of the United States was a major factor in precipitating

[54] Another possibility exists, that the state banks were curtailing because the government deposits were being transferred to the national bank. However, Hamilton had written that he was well aware of the implications of transferring these deposits too quickly, and he had, as we saw, called for a "gradual" curtailment of bank credit in his 10 February 1792 letter to the BONY.

[55] According to historian Robert Wright, with respect to all banks the accommodation paper was called in first: "Trouble came during panics and other stringencies when banks were forced to 'curtail their discounts.' This sometimes referred to new discounts on 'real paper' but most often was an allusion to the stopping or 'calling in' of accommodation paper renewals." Wright, *Banking*, p. 725. In particular, the speculators in 1792 relied on bank credit. Wright, *Banking*, p. 208.

[56] Robert Troup to Alexander Hamilton (24 March 1792). *PAH*, vol. 26, pp. 655–56.

[57] Daniel McCormick to William Constable (24 March 1792). *Constable Papers*.

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the first securities-market crash in our nation's financial history by sharply contracting credit and causing speculators and others to sell their securities. The largest speculator caught in the web was William Duer, whose sensational failure in March temporarily paralyzed the credit markets.

Several considerations prompted the Bank's credit restriction, including a deteriorating cash position, a recognition that the BUS had added too much of its own paper to the market, a concern that new branches in April would be undercapitalized, and a discount-to-capital ratio higher than the board's prescribed limits. Yet the BUS was not alone in restricting loans. Compelling evidence demonstrates that at least two, if not three, of the five state banks then existing were also restricting credit. Although Secretary Hamilton warned one of these state banks to restrict credit gradually, the BUS reversed its loose-money policy abruptly; and the credit squeeze that followed lit the match to the Duer powder keg. While no letter exists from the Treasury Secretary asking the Bank of the United States to curtail loans, it seems likely that the national Bank, close by the Treasury in Philadelphia, would have been in discussions with Hamilton before initiating the curtailment. It is also likely that the Secretary was the only official in the country who could have coordinated multiple banks in a consistent policy of credit reduction. The possibility of Treasury-coordinated banking policy in the newly organized U.S. financial system in 1792 is, however, part of a larger story that merits discussion in a subsequent paper.[58]

The events of 1792 bring to mind other occasions in American history when the primary monetary authorities were accused of first pumping excess liquidity into the economy, and subsequently withdrawing it, with a resultant market crash. For example, in 1819 the Second Bank of the United States curtailed credit by abruptly reducing outstanding loans. The Bank was trying to cool speculative activity and restore specie convertibility after it was suspended in 1814, but their heavy-handed actions directly led to the Panic of 1819 and subsequent depression. A second example is the great crash of 1929, which economist and later Fed Chairman Alan Greenspan explained as follows:

> The excess credit which the Fed pumped into the economy spilled over into the stock market, triggering a fantastic speculative boom. Belatedly Federal Reserve officials attempted to sop up the excess reserves and finally succeeded in breaking the boom. But it was too late: By 1929 the speculative imbalances had become so overwhelming that the attempt precipitated a sharp retrenchment and a consequent demoralizing of business confidence.[59]

[58] Cowen, *Origins*, pp. 137–79.
[59] Alan Greenspan, as quoted in *Barrons*, 4 May 1998, MW18.

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The 1792 panic was not followed by a recession or depression, and therefore had less lasting effects than those of 1819 and 1929.[60] A better analogy might be to the events preceding 1987, wherein credit expansion fueled a large run-up in stock prices. The Fed instituted a credit restriction in August, which some claim led to the crash of stock prices on 19 October.[61] Although prices declined by more than 22 percent on that day, no marked slowdown, much less a depression, followed. The market recovered fairly quickly to pre-crash levels, as it did in 1792. In both cases the market's revival in some measure may be attributed to the reaction of the central monetary authorities in their capacity as lender of last resort. In 1987 Federal Reserve Chairman Alan Greenspan moved quickly to insert liquidity into the money markets. In 1792 Treasury Secretary Alexander Hamilton injected funds by buying securities directly and on behalf of the sinking fund, announced a newly secured Dutch loan that would augment the government's resources, and encouraged at least one bank to extend its discounts because "to relieve the distress and support the funds are primary objects."[62] While initially adopting a restrictive policy during the early part of the Panic, the Bank of the United States also recognized by April that adding liquidity was the antidote:

> In these stormy times it requires great attention and prudent cautious measures tempered at the same time with as liberal an extension of credit as the funds of the institution & other circumstances will admit of—Credit which was a short time ago pampered and overfed is now sick very sick indeed & requires tender nursing and renovating cordials to keep her from totally expiring.[63]

The financial markets responded to the measures of the monetary authorities and the 1792 crisis abated. By early May the *Gazette of the United States* reported that business conditions were returning to normal.[64] In both 1792 and 1987 the panics were indeed short-lived. History in 1987 was in some form, therefore, repeating events from 195 years earlier at the beginning of our financial markets.

[60] By the summer of 1792, 6 percent bonds were trading in Philadelphia at 110.00, a level comparable to the late fall of 1791.

[61] John Phelan, chairman of the New York Stock Exchange, blamed the crash on the fear of higher interest rates, as well as computerized trading, and the natural tendency for prices to correct after a long bull market. *Washington Post*, 20 October 1987, p. 1.

[62] Alexander Hamilton to William Seton, 25 March and 4 April 1792, *PAH*, vol. 11, pp. 190–92. 225–26. Hamilton's use of the sinking fund came despite Secretary of State Jefferson's dissenting vote on 26 March (Meeting of the Commissioners of the Sinking Fund, 26 March 1792, *PAH*, vol. 11, pp. 193–94). Hamilton's initial purchase of securities occurred on 19 March 1792 and continued thereafter into the spring. Cowen, *Origins*, pp. 110–13.

[63] John Kean to Jonathan Burrall, 16 April 1792, Manuscript Collection, NYHS, (Copied from *James O. Wettereau Papers*). Kean was the cashier of the main branch in Philadelphia, Burrall the cashier of the New York branch which had just opened its doors for business on 2 April 1792.

[64] The paper informed that "our prospects began to brighten up . . . there can be no doubt of a speedy return to confidence and credit, and that business will reassume its natural course." *Gazette of the United States*, 2 May 1792.

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