# Managing a Pension Portfolio in the Nineteenth Century: The U.S. Navy Pension Fund, 1800-1840

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Given the current expected shortfall of Social Security retirement funding, there are considerations to privatize all or some of the Social Security trust fund's "portfolio." Although it is often assumed that this is a new idea, the nation has had experience with privatization of federal pensions extending back to the U.S. Navy Pension Fund almost 200 years ago. This experience provides lessons in terms of the potential for higher portfolio returns, administrative efficiency, conflicts of interest, and the ultimate responsibility for risk bearing. Understanding the experience of the navy pension fund might be helpful in resolving some of the current policy issues over the investment of Social Security trust funds in private equities.

During the Revolutionary War, the Continental Congress moved to provide disability pensions for military personnel. Although a fund for navy pensions was created in 1775, it did not survive the Revolution, and by the 1790s naval pensions were paid, like those for army veterans, from the general fund of the U.S. Treasury. Pensions were paid to seamen who had been totally or partially disabled in the line of duty, and the amount was not to exceed half pay for offi-

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cers nor five dollars a month for enlisted personnel. Additional legislation passed in 1799 and 1800 established an autonomous fund for naval personnel that was financed by the sale of prizes taken by the navy [Clark *et al.*, 1999]. After the claims of the crew and prize courts were honored, the residual from the sale of ships and/or contraband seized from enemy or quarantined vessels was placed in the navy pension fund.<sup>1</sup> The 1799 legislation stated that the managers of the fund should invest all monies in "six percent or other stock [bonds] of the United States, as a majority of them, from time to time, shall determine to be most advantageous" [Seybert, 1818, p. 692]. The 1800 legislation prescribed the eligibility for the receipt of a pension, the administrative structure of the fund, and the managers of the portfolio as the Secretaries of the Navy, Treasury, and the War Department. The 1800 legislation also authorized the commissioners to invest the funds "in any manner which a majority of them might deem most advantageous" [Seybert, 1818, p. 692], giving the secretaries complete freedom in managing the fund's portfolio.

The history of the navy pension fund's management demonstrates the unpredictability of revenues from prizes and shows that the liabilities of the fund were dependent on legislation determining eligibility for pensions. In addition, after 1808, private equities composed a substantial proportion of the fund's portfolio. The acquisition of these assets may have constituted a conflict of interest for some of the parties involved in the transactions, and ultimately, the bankruptcy of the corporations in which the fund held a position would have led to the fund's insolvency had it not been for taxpayer-funded bailouts - on two separate occasions! Also, there was considerable malfeasance associated with the fund's management. We conclude that efforts to privatize Social Security would face similar political forces and moral hazards.

### The Portfolio of the Navy Pension Fund

Initially, there was no actuarial basis for predicting either the number of eligible beneficiaries or the expected costs of disability liabilities of the navy pension fund. Potential assets, as well as liabilities, fluctuated with the fortunes of war and peace. Furthermore, most of the trustees of the fund had little or no experience in the management of such a portfolio. There were no rules for prudent investment for such a pension fund, especially regarding the uncertainty of inflows and outflows.

Table 1 provides a detailed account of the fund's portfolio from its inception in 1800 through its insolvency in 1840. In 1800 the fund began investing in interest yielding securities. Although the prize monies which provided the basic capital of the fund are not consistently reported, the available data on those monies show great irregularity and extreme variance from year to year. A basic portfolio strategy would have been to convert the prize proceeds into a regular income flow so as to match the payment amounts to pensioners, which were more regular than the flow of new monies into the fund. The fund

<sup>&</sup>lt;sup>1</sup> A portion of the residual was reserved in a separate fund for privateer's pensions.

followed this strategy from 1800 through 1808 when it invested in U.S. government securities with a mix of coupon amounts ranging from 3% to 8%, at prices yielding around 7% on the portfolio as a whole.

Surprisingly, in 1809, proceeds from the redemption of some of the national debt were invested in the stock of a local bank, the Bank of Columbia. Additional shares of Columbia Bank, as it was often called, were purchased in 1810, and the stocks of two other D.C. banks - Union Bank and Washington Bank - were purchased in 1811 and 1812 in what appears to be in each case an "initial public offering." Over the period 1809-1813, \$89,703 had been expended on the purchases of these local bank stocks, which represented 44% of the portfolio of the fund in private, locally traded, securities. There were plentiful opportunities for buying securities that were nationally and internationally traded between 1809 and 1813, with the U.S. debt alone being approximately \$50 million dollars [Elliott, 1845]. There is some evidence that commercial banks in the area were paying dividends on the order of 7-8%, and stock of the First Bank of the United States, which the fund did not acquire, had been paying annual dividends of between 8% and 10% of par value [Elliott, 1845; Hammond, 1957; and Perkins, 1994]; however, from the fund's records of income from investments, we estimate that Columbia Bank paid dividends yielding only 6.2%.

By purchasing these three bank stocks, the commissioners of the fund for-feited liquidity and accepted further risk for the hope of receiving an additional one percent yield over U.S. bonds. Given the nature of the fund's liabilities and the uncertainty of prize monies, these investments seem curious. In addition, the acquisition of these bank stocks were in "half" shares and "whole" shares, with the subscription schedule for the initial capital providing a type of time purchase plan for acquiring the stocks. It is difficult to determine whether the market price was paid in these transactions or whether these purchases were arranged in some manner consistent with the initial offerings of the capital stock. All of these, and subsequent transactions in bank stocks were through the agent George Macdaniel, who, as we note below, simultaneously traded on his own account, which suggests that insider trading may have been involved in the acquisition of the bank stocks.

In any case, prizes taken during the War of 1812 allowed the fund to more than double in size between 1813 and 1814, moving from a total of \$206,076 to \$484,852, and it continued to grow thereafter to almost \$1,000,000 by 1829. The assets purchased in 1814, and continuing through 1824, were concentrated in six-percent U.S. bonds issued to finance the War of 1812. Yet, there were additional purchases of shares of the Bank of Columbia in 1815, 1818, and 1819, bringing the total expenditures for Columbia stock to \$99,503 (plus \$29,763 of stock in Washington Bank and Union Bank). Many of these purchases were made at the exclusion of stock in the Second Bank of the United States, which was chartered and began operations in January 1817.

According to the authorized amount of capitalization of Columbia Bank of one million dollars, the fund owned almost 10% of the bank, making its total

holdings of private securities \$129,266 in 1819, which was 15% of the portfolio; however, in 1823-24, Columbia Bank became defunct.<sup>2</sup> Although the fund continued to carry Columbia bank stock on its books valued either at cost or par, the stock was worthless, and we have excluded those assets as of year-end 1824 in Table 1. Interestingly, in 1834 the U.S.Treasury transferred \$167,164 to the navy pension fund as reimbursement and foregone dividends for the fund's losses on Columbia stock. In essence the taxpayers bailed out the fund. This would not be the last time such a bailout took place.

Between 1819 and 1829, the U.S. government retired and consolidated into new issues much of its debt, and by the end of 1829, the majority of the fund was invested in the new securities with 4.5% and 5% coupons. The years after 1829 witnessed a great deal of shuffling of the fund's portfolio, which was due to the fact that almost all of the U.S. debt was being redeemed (see Table 1). As a result, beginning in 1829, the fund purchased some stock in the municipal debt of Washington Corporation, which went under various names over a few years. In 1832, as the federal government debt continued to be redeemed, the fund was directed to make large purchases of stock in the Second Bank of the United States, which is listed in the column labeled "Private Equities" in Table 1. Also, the state debt of Maryland and of Pennsylvania had been acquired, along with the local debt of Cincinnati, all of which paid a 5% coupon. Except for the stock in the Second Bank, which the treasury sold to the fund at par, practically all of the securities acquired by the fund were purchased at a premium. In 1838, the fund added Illinois bonds and a small additional amount of the local debt of Washington to its portfolio. These acquisitions occurred during the demise of the charter of the Second Bank of the United States. Over the period 1830-1836, the total amount of the portfolio remained around \$1 million, but fell sharply by 1838 to \$390,832, as assets had to be sold in order to meet the increased pension obligations of the fund, and the value of the fund's portfolio continued to decline thereafter.

In the Annual Report of the Secretary of the Navy dated November 20, 1841, the condition of the fund is described by Commissioner of Pensions, J. L. Edwards, who explained that the obligations of the fund far exceeded the sum of anticipated income and capital, noting that: "The only stocks which now remain of the navy pension fund are 700 shares of the Bank of Washington, the nominal amount of which is \$14,000, and stock of the Union Bank of Georgetown, the nominal amount of which is \$9,600. The latter institution is closing its concerns, and, as soon as collections can be made, the directors will pay from the dividends of its capital stock the amount due to the navy pension fund. The stock of the Bank of Washington cannot now be sold at advantage, and the amount of interest which it yields is so inconsiderable that I have not introduced into the present report as available" [U.S. Senate, 1841]. Shortly after this report was submitted, the fund was formally liquidated, and Congress

<sup>&</sup>lt;sup>2</sup> The demise of Columbia Bank was associated with poor management and a series of bad loans [Cole, 1959; Walsh, 1940].

began paying navy pensions from the general fund of the treasury.

# Annual Outlays and Liabilities of the Fund

Of course, the fund's balance sheet has two sides, and Congress was in charge of determining the outlays of the fund. In 1801, the fund began operations with 22 pensioners and annual liability payments of roughly \$1,500. With an investment of \$50,000 yielding an interest income that comfortably exceeded any immediate payouts, the fund was sound in any actuarial sense. The last two columns of Table 1 provide a summary of the annual outlays and the number of pensioners. On the whole, the income from the fund's assets was consistent with the market yields over the period, despite there being no record of dividend income received from any of the commercial bank stocks for the years 1813, 1816, and 1823-1824, with questionable returns in other years. It should also be kept in mind that capital gains and losses are excluded because these values are impossible to ascertain. Also note that the data in Table 1 are largely based on either cost or par value, as opposed to what might now be referred to as net asset value. Also, the value of the fund's cash position, which at various times was quite large, is omitted.

The number of pensioners increased slowly at first, then jumped sharply, doubling between 1810 and 1815, then doubling again by 1824. This growth resulted from new legislation concerning the eligibility of a pensioner's dependents. Beginning in 1813, benefits were extended to the widows and orphans of navy personnel who died as a result of wounds received in the line of duty. The benefits were for one-half the monthly pay of the deceased, paid semi-annually, for a period of five years, and if no surviving widow existed, might be extended for an additional term of five years. In 1816, the commissioners were authorized to provide benefits of more than one-half pay in hardship cases. In 1817, the benefits to widows and orphans were further expanded to include husbands or fathers who contracted disabilities due to disease or injuries. Adding widows and orphans to the pension rolls involved more than just increasing the number of pensioners at the time. An added actuarial complexity was the longevity of the obligation. In 1824, the "widow-and-orphan" benefit was discontinued, but this edict was not made retroactive to those already receiving benefits.

In 1837, Congress restored the widow's and orphan's benefit and required the fund to pay pensions from the date at which the seaman's disability had originally occurred. This legislation resulted in some cases of very high liabilities of back payments, as high as \$6,000 to \$8,000 dollars in some cases. These "extraordinary" payments nearly doubled the outlays of the fund [Clark et al., 1999]. The impact of the added liabilities eventually overwhelmed the asset side of the fund's balance sheet.

Whereas the fund had to wait for years to receive revenues from the sale of prizes, if they were received at all, and had not received in a timely manner the dividends paid from the Banks of Columbia, Washington, and Union, the

commissioners now found themselves faced with paying for disabilities incurred in previous years. This difference between flows into and out of the fund, given the timing of the ups and downs in the market around 1837 ultimately led to the fund's demise after 1840.

#### Problems with the Administration of the Fund

The basic organizational flaw with the navy pension fund, which was not apparent at the fund's inception but which ultimately proved fatal, was the division of the responsibilities of determining eligibility for the receipt and amount of a pension from the determination of flows into the pension fund. This situation left the managers of the portfolio somewhat vulnerable to temptation to maximize returns from their investments in the face of a shifting demands on outlays.

As noted above, in 1809, the navy pension fund began acquiring stock in Columbia Bank, Washington Bank, and Union Bank, which were traded only locally in the Baltimore market. Also, these stocks were narrowly held, and traded infrequently. Our search for price quotations in the Baltimore Price Current provided only sporadic quotes, and those quotes obscure whether the prices were for half shares or whole shares. It is not possible to ascertain what the market prices were for the shares, especially Columbia Bank, or whether the market value was ever as high as par value. These shares simply did not have the same kind of liquidity as, for example, the shares in the First and Second Bank over the period. The final recapitulations show that the total par value of the accumulated stock in Columbia Bank was \$92,600 which had been acquired at a cost of \$99,903, representing a net premium over par of 7.9%. The Union Bank stock acquired had a total par value of the stock of \$15,000 which was bought at a cost of \$15,340, or a net premium of 3.0%. The Washington Bank stock had a cost based value of \$14,260 for the par value amount of \$14,000, or a premium of 1.86%.

With the benefit of hindsight, we can say that the two greatest errors of commission were the initial purchase and increase in the portfolio position of Columbia Bank between 1809 and 1819, and the position taken to invest only in the Second Bank of the United States in 1835-1836 after the bid to re-charter the bank failed. The two greatest errors of omission in managing the portfolio were the failure to buy stock in the First Bank of the United States in 1800, and the failure to get in on the ground floor of the issuing of stock in the Second Bank of the United States in 1816. The grand prize for timing error in the management of the portfolio was getting into the Second Bank at the exact time a prudent, and informed, investor would have gotten out.<sup>3</sup> Second place for poor market timing goes to the additions of stock in Columbia Bank on the verge of its demise. The reaction of Congress to these last two errors was similar in each case. Just as the treasury had reimbursed the fund for its losses in

<sup>&</sup>lt;sup>3</sup> It should be noted that this stock was purchased from the treasury at par, which represented a subsidy, since the stock was trading at a premium at that time.

Columbia Bank stock, in 1837 and 1838 the treasury sent a total of \$510,354 to the fund to compensate it for losses in stock of the Second Bank of the United States. This was the second taxpayer-funded bailout of the fund.

The only rationale that we can suggest for buying locally traded stock in Washington banks, that traded infrequently at prices that were at wide bid-asked spreads, instead of the U.S. Bank stocks that were active in all American markets, as well as in London and Amsterdam, is that either politics or malfeasance was involved. Thomas Jefferson, secretary of state at the time of its charter, strongly opposed the First Bank, and ultimately mustered the political forces to prevent its re-charter. Similarly, President Andrew Jackson was opposed to the Second Bank (and most other banks) and vetoed the bill to re-charter it. From the documentation we have been able to find on the management of the navy pension fund, there is no evidence that these matters were ever discussed, and we can only speculate that the errors of omission of the federal banks' stocks from the portfolio of the fund from 1800 through 1834 have political implications.

Another shortcoming in the management of the fund seemed to be the lack of timely reinvestment of surplus revenues. This shortcoming was apparent from the beginning of the fund. Two of the earliest assets of the fund required quarterly maintenance in reinvestment, and a keen accounting of reimbursement versus net revenue flows. The original Sixes - i.e. bonds with a 6% coupon - and Deferreds - i.e. bonds on which the interest was deferred paid interest quarterly, the Sixes from their inception in 1791 and the Deferreds after ten years. By the time the fund began operations, having acquired the Sixes in 1800 and the Deferreds in 1801, these instruments had been converted to eight per cent annuities. At the time the original debt was issued, Hamilton established a sinking fund to buy these instruments back on the open market at the rate of two percent per annum. Holding the assets in an account receiving the interest from the repurchased bonds and making the two percent redemption compound quarterly would have retired the debt in 23.79 years. However, the open market purchase plan fell behind schedule, and Congress legislated a mechanized plan in which the bonds were converted into annuities, with the Sixes and Deferreds to be fully redeemed by 1818 and 1824, respectively.

The basic idea was as follows: For each \$100 par the quarterly payments would be \$1.50 for the first three quarters and \$3.50 in the last quarter, for a return of \$8.00. The next year began with a principal of \$98.00, with the same schedule of payments, but each \$1.50 quarterly payment represented a partial percentage redemption of principal in addition to the \$3.50 end of year payment based on the initial value of \$98.00 and so forth. The determination, each quarter, of the amount of the coupon payment representing "income" and the amount representing "redemption" was a complex matter, since each year the "income" portion was declining and the "redemption" portion was increasing. Indeed, by the end of the tenth year of these cycles, which would have been 1805 for the Sixes held by the fund and 1811 for the Deferreds, of the \$8.00

annual flows to the holders of these instruments, \$3.57 would have represented "redemption" and \$4.43 "income", as opposed to the original \$2.00 redemption and \$6.00 interest amounts in the initial year [Sylla and Wilson, 1999]. To manage the fund's portfolio in a reasonably efficient manner, the funds from redemption would need to be identified and promptly reinvested, along with any excess of "income" over outlays, each quarter; however, the fund did not do so.

In fact, it is doubtful if the managers of the fund paid much attention to dividend or coupon bond income, since an audit found that the fund had no record of any dividends received from Columbia Bank, Washington Bank, or Union Bank for the years 1816, 1823, and 1824, and from Washington and Union Banks for 1828. In addition to missing these bank dividend flows entirely, the fund was criticized for failure to reinvest excess cash balances in income producing assets.

In one specific instance regarding prompt investment of idle balances, Congress had directed the navy pension fund to respond to several specific inquiries in 1829 [ASP-NA, vol. ii, p. 525]. Congress asked the Secretary of the Navy, Samuel Southard, to account for the 1828 annual report where "... it appears that more than \$250,000 lay uninvested for six months, ..., without any explanation of the cause, or in whose hands the money lay idle. In no one of these statements can I find what premium or commission was paid on the purchases of any of these stocks." During this same inquiry, Congress was trying to obtain from the navy the amount and cause of a loss ranging from a minimum estimate of \$142,899.58 to a maximum estimate of \$293,823.50 [ASP-NA, vol. ii, p. 527]. The accounts were in such bad shape that the fund could have not have been managed in an efficient manner even by the financial standards of the day.

In 1829, the House of Representatives directed the Secretary of the Navy to provide a complete accounting of the fund in terms of losses, operation costs, monies received from prizes, and so forth annually from 1814 through 1828. The Navy's response to this directive reveals much information that was not available from the annual reports [ASP-NA, vol.ii, pp. 322-26]. There ensued a series of correspondence between the Secretary of the Navy and the House of Representatives that revealed that the navy pension fund had not done a very good job in managing its portfolio. Among these items of neglect was the failure of the fund to receive the bank dividends for several of the years covered in the accounting. All of the foregone dividends to the fund had been paid to "late" agents of the fund, and had never been credited back to the fund's portfolio.

Another item of concern was the custom, in operation since 1800, of paying commissions to the agent who acquired an asset for the fund. The typical charges were 0.25%, and in some cases 0.50%. These commission charges were in keeping with those charged by brokers in New York at the time [Werner and Smith, 1991]. In the case of George Macdaniel's purchase of Columbia Bank stock in seven transactions with five different persons between July 29, 1809

and September 1, 1809, there was a commission charge of 0.50% of the total dollar volume, with the detail of the individual vouchers available for the record [ASP-NA, vol. i, p. 209-11]; however, there were also some cases when the commission charged was higher than that reported above. The agents George Macdaniel and Benjamin Homans charged up to 1.0% on some of their asset purchases; whereas, John Boyle, who had served as the manager of the navy privateer pension fund, had never charged a commission over the period of his transfers from 1819-1829. The navy pension fund was relieved of paying commission charges as of 1829 [ASP-NA, vol. ii, p. 535].

Finally, George Macdaniel's account for the period also listed his receipt of a half years dividend from Columbia Bank on 283 full shares and 343 short shares, totalling \$1,680.80. Also in Macdaniel's hands were balances from paying pensioners and from an account to buy stocks. With this account was a note from Thomas Turner, Navy Accountant's Office, to Macdaniel: "The Treasurer of the United States will be pleased to receive of George Macdaniel the above two thousand and eleven dollars thirty-seven cents, and pass it to the credit of the Navy Pension Fund" [ASP-NA, vol. i, pp. 209-211]. This note suggests that the agent's dealing in stock transactions was intertwined with pension disbursement payments, commissions for making purchases of stocks, and that the dividends of Columbia Bank stock were being made to the agent instead of either directly to the treasury or the fund. Given the "thin" market for this particular security, Macdaniel's handling of these transactions was at best fraught with moral hazard.

#### Summary and Conclusions

The U.S. Navy Pension Fund represents the first attempt in the United States of handling a portfolio of securities to pay disability pensions. The pensions were funded by prizes captured by the navy. As long as the fund was receiving income and prize monies that exceeded the outlays to pensioners, the fund was autonomous and retained any surpluses, but, when the fund's investments lost their value, or when Congress increased pension benefits beyond the ability of the fund to honor the commitment, the U.S. Treasury was obliged to bail the fund out of its predicament. Ultimately, federal taxpayers bore the risk of potential failure, for whatever reason, of the navy pension fund, and they were called upon to do so twice, before the fund was finally liquidated.

A conflict resulted from the fact that, though the commissioners of the fund made decisions about portfolio management, decisions concerning eligibility for pensions and the amount awarded were the responsibility of Congress. Although it seems true that the commissioners usually provided input into whether the fund could sustain proposed increases in pension coverage, their input did not thwart Congress from expanding both the number of beneficiaries and, through the "arrears act", the average benefit.

The internal management of the navy pension fund did not enhance the probability of success in maximizing returns from the investments. Income

was not promptly reinvested in order to maximize portfolio returns. There is no evidence that some income received from investments ever reached the fund. The agents, though under salary contracts of the fund to disburse pension payments, began and continued to charge a commission for their services of buying securities for the fund. Normal commissions on stock transactions for brokers was 0.25%, but on many stock and bond purchases the agents charged from 0.50% to 1.00%. In addition, it seems that the purchases were made in the names of the agents, to which income payments from the stock were directed - with the agents being negligent in remitting these dividends to the fund. In short, the fund was not well managed. Eventually, the demands placed upon the fund overwhelmed its ability to continue operations, and in 1841 Congress directly assumed the liabilities of the fund.

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Table 1

Annual Value of the Navy Pension Fund Portfolio, by Type of Asset, Outlays, and Number of Pensioners, 1800-1840

Year	U.S. Debt	State Debt	Local Debt	Private Equities	Total Portfolio	Annual Outlays	Number of Pensioners
1800	\$26,552	\$0	\$0	\$0	\$26,552		
1801	56,556	0	0	0	56,556	\$1,605	22
1802	79,056	0	0	0	79,056	,	
1803	126,325	0	0	0	126,325	3,567	37
1804	129,712	0	0	0	129,712	3,261	37
1805	164,596	0	0	0	164,595	4,413	49
1806	201,363 (a)	) 0	0	0	165,963	5,298	65
1807	174,094	0	0	0	177,344	6,396	78
1808	172,210	0	0	0	175,460	6,863	85
1809	168,624	0	0	48,523	220,397	6,671	90
1810	129,455	0	0	60,103	192,809	7,043	93
1811	125,354	0	0	78,993	206,076	8,045	107
1812	120,997	0	0	89,703	210,701	9,287	122
1813	116,372	0	0	89,703	206,076	11,273	148
1814	395,148	0	0	89,703	484,852	13,667	176
1815	499,854	0	0	98,703	598,557	20,547	252
1816	495,338	0	0	98,703	594,041	27,627	327
1817	626,246	0	0	98,703	724,950	32,036	358
1818	758,133	0	0	119,266	877,236	34,970	•
1819	744,569	0	0	129,266	874,672	39,340	438
1820	741,758	0	0	129,266	870,862	43,863	480
1821	762,792	0	0	129,266	891,895	44,488	491
1822	777,509	0	0	129,266	906,662	38,772	431
1823	781,412	0	0	129,266	910,515	37,248	423
1824	789,836	0	0	29,763	819,436		524
1825	870,566	0	0	29,763	900,166		524
1826	888,302	0	0	29,763	917,902	49,653	533
1827	881,652	0	0	29,763	911,252	•	534
1828	613,033	0	0	29,763	641,633		570
1829	864,576	0	56,499	29,763	950,675		596
1830	878,609	0	59,472	29,000	1,059,773 (b)	31,938	536
1831	915,408	0	59,472	29,000	1,003,880		536
1832	227,985	352,690	159,472	196,900	937,047		
1833	149,483	352,690	159,472	285,900	947,565		
1834	0	352,690	159,472	630,300	1,142,462		
1835	0	352,690	159,472	648,000	1,160,262	54,083	442
1836	0	313,566	159,472	670,600	1,143,639	58,009	466
1837	0	197,469	166,163	670,600	1,049,232 (c)	87,768	678
1838	0	197,469	166,163	27,200	390,832	103,120	847
1839	0	70,000	157,739	25,400	253,139	110,123	901
1840	0	0	133,389	25,400	158,739	108,750	914

#### Sources:

American State Papers, Naval Affairs; and Annual Report of the Secretary of the Navy, various volumes and years.

#### Notes:

In some years, the total value of the portfolio does not equal the sum of its components due to rounding and/or occasional inconsistencies in the original sources. (a)The discrepancy between the end-of-year total and holdings of U.S. debt represents \$35,400 in six-percent bonds redeemed during the year. (b)The \$92,692 discrepancy between the sum of the portfolio's assets and the total reported in the government accounts appears to be from the practice of continuing to carry Columbia Bank as an asset of the fund. (c) This figures reflects an apparent double counting of \$15,000 in stock in the Union Bank.