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THE JACKSONIANS, BANKING, AND ECONOMIC THEORY: A REINTERPRETATION

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Andrew Jackson's war upon the Second Bank of the United States and the economic consequences stemming from it badly need a new historical interpretation. The traditional interpretation asserts that Jackson's veto of the Bank re-charter and withdrawal of government deposits caused an inflation; Jackson's Specie Circular and the distribution of the surplus caused a panic and depression. Recent research has included much evidence that indicates that this traditional interpretation requires economic, and also political, revision. More importantly, however, the traditional interpretation suffers from a faulty economic theory.

In no other field is the relationship between theory and history more explicit than in economic history. The obvious effect different understandings of economic theory will have upon the interpretation and explanation of specific historical–economic events makes the importance of theory undeniable. It is also clear that, in most cases, the validity of the theory is decided *a priori* to history, on some other basis, and then is applied to the data. Rarely is history used to generate new economic theories.

I believe that the economic theory that has guided the traditional interpretation of Jackson's Bank war is wrong. In this paper, I will show the evolution of the traditional interpretation and then survey the recent research that makes it historically untenable. I will conclude with a reinterpretation based on an economic theory that is both theoretically sound and historically consistent.

I

The first economist to write about the Jacksonians and banking was William Graham Sumner. In his two books, *A History of Banking in the United States*[1] and *Andrew Jackson,*[2] Sumner presented an analysis that foreshadowed subsequent accounts and set the pattern for what developed into the traditional interpretation. That such should be the case is extremely ironic, for Sumner, himself a staunch advocate of *laissez-faire*, perceived that *laissez-faire* was the central ideological tendency of the Jacksonians. "The democratic party was for a generation, by tradition, a party of hard money, free trade, the non-interference theory of government, and no special legislation", he wrote.[3] However, he differed in that the Jacksonians were radicals, using democratic means to throw off the power of the state, while Sumner was a conservative, defending *laissez-faire* from the twin evils of plutocracy and mob rule. Sumner's animosity toward Jackson was a consequence of focusing on the democratic and egalitarian aspects of Jacksonianism. Sumner, and other members of what Charles Grier Sellers, Jr., calls the "Whig" school of historiography,[4] objected to the increased political role of the masses and the spoils system. Both of these were procedural changes in the form of government rather than substantive changes in its size and power, but Sumner saw them as creating a social environment hostile to the preservation of a limited government.

On the Bank war, despite his frequent moral judgments, Sumner was ambiguous, almost contradictory. He called the Bank war "one of the greatest struggles between democracy and the money power", a "premonition of the conflict between democracy and plutocracy",[5] and he applauded the bullionists of the Jacksonian party who "put a metallic currency high up on its banner".[6] Yet, he also felt that in

waging war on the Bank "Jackson's administration unjustly, passionately, ignorantly, and without regard to truth, assailed a great and valuable financial institution".[7] Sumner's praise for the Bank was not without reservation, and he accused Nicholas Biddle, president of the Bank, of insincerity, but on the whole he considered the Bank a successful restraint on the inflationary proclivities of the state banks. Sumner it should be noted, did not blame the economic instability of the years from 1829 to 1840 entirely on Jackson's policies. He mentioned international factors — British capital flows, the discount rate of the Bank of England, and changing cotton prices — as contributing to the inflation of 1835–1836 and the Panic of 1837.

Ralph C. H. Catterall, in *The Second Bank of the United States,*[8] filled in the details around Sumner's basic account, eliminating the ambiguity and balance. Catterall, who wrote prior to the Federal Reserve System, believed that the Second Bank had provided the United States with the soundest currency it had ever had and that the reasons given by Jackson for vetoing its charter were "in the main beneath contempt".[9] "Jackson and his supporters committed an offense against the nation when they destroyed the bank. . . . few greater enormities are chargeable to politicians than the destruction of the Bank of the United States."[10] Catterall did not carry his story through the later history of the Bank after it lost its national charter and became a state bank, but his praise of Biddle was also qualified. Catterall's book on the Bank was followed twenty years later by Reginald Charles McGrane's book on *The Panic of 1837.*[11] McGrane, like Catterall, blamed Jackson's ignorant policies for the Panic.

With the Progressive shift in American historiography at the turn of the century, the attitude of historians towards Jackson became friendlier. Interestingly enough, despite the change in outlook, the historical debate was still conducted within the terms originally laid down by Sumner and his "Whig" contemporaries. Sumner had condemned the Jacksonians for unleashing majority rule; Turner, Beard, and Schlesinger praised them for the same thing. Later, the acceptance of the Marxist notion of class converted Turner's sectional conflict into Schlesinger's class conflict and helped obscure Sumner's insight into the anti-statist thrust of Jacksonianism.[12] The Jacksonian opposition to state privilege was translated into an opposition to capitalism, and the Bank war was interpreted from that angle.

Arthur M. Schlesinger, Jr., in *The Age of Jackson,*[13] correctly evaluated Jackson's destruction of the Bank as part of a calculated hard-money campaign which included a change of the mint ratio between gold and silver to bring gold back into circulation, an effort to suppress bank notes of small denominations, the establishment of an independent treasury, and an attack on state banks. However, he saw this campaign as motivated by an underlying labor class consciousness. After the publication of Schlesinger's book, Joseph Dorfman wrote "The Jackson Wage-Earner Thesis",[14] an article demonstrating that the Jacksonians were not anti-capitalist, but really anti-government. It is indicative of the strength and pervasiveness of Marxist class analysis among American historians that Richard Hofstadter, in *The American Political Tradition,* managed to convert Dorfman's refutation of Schlesinger's class thesis into a new class interpretation — one with the Jacksonians as aspiring and rising entrepreneurs.[15]

While the political nature of Jacksoniansm was the subject of considerable disagreement, the economic account remained largely unaltered. Schlesinger admitted that "In destroying the Bank, Jackson had removed a valuable brake on credit expansion."[16] Hofstadter complained that Jackson "had left the nation committed to a currency and credit system even more inadequate than the one he had inherited".[17] During the next decade, four additional books dealing directly with the Bank war expanded and fortified the traditional interpretation. Walter Buckingham Smith, in *Economic Aspects of the Second Bank of the United States,*[18] portrayed the Bank as an effective central bank, although like Sumner, he also stressed international factors. Thomas Payne Govan, in the biography, *Nicholas Biddle: Nationalist and Public Banker, 1786–1844,*[19] praised Biddle as an astute central banker well ahead of his

time, as did Fritz Redlich, in his two volume *The Moulding of American Banking: Men and Ideas,*[20] a work which particularly emphasized the impact of the European banking tradition on America. The traditional interpretation received its most effective and popular presentation in Bray Hammond's highly overrated *Banks and Politics in America: From the Revolution to the Civil War.*[21] Hammond, who had developed his ideas in a previous series of articles, grafted the traditional economic interpretation to the Hofstadter entrepreneurial thesis.[22]

The economic theory to which Hammond, Redlich, Govan, Smith *et al.* adhere and which is at the heart of the traditional interpretation may be called the sound banking doctrine. Banks have always issued more notes or deposit liabilities than they have monetary reserves to cover. This process is called fractional reserve banking, and through it, banks create money. Thus, an ante-bellum bank which issued $1000 in notes with only $100 in specie (gold or silver bullion and coin) as reserves in its vault, had created $900 and had a reserve ratio of 10%. The sound banking doctrine holds that fractional reserve banking is necessary and beneficial for a prosperous economy. There are insufficient quantities of gold and silver in existence to satisfy monetary needs. Money creation by banks is a needed service. However, monetary creation can go too far. Banks will overissue their notes and deposits and reduce their reserve ratios to dangerous levels if governed solely by the banker's desire for profit. That leads to inflation, economic instability, and wildcat banking. People will drown in a deluge of unbacked paper money. Therefore, external checks are necessary to insure that fractional reserve banking stays within certain limits and that reserve ratios stay at certain levels, and government must provide the checks. It can be seen that this doctrine occupies the middle ground between the extremes of hard money on the one hand, and inflationary banking or fiat money on the other.[23]

Central banking is one of the means, according to the sound banking doctrine, by which government can restrain private banks. Since the Second Bank of the United States was a nascent central bank, it was a useful institution. The state banks were inherently inflationary and tended toward wildcat banking, and the Second Bank restrained them. Because it was national and because it was the government depository, the Bank held a dominant position in the U.S. economy. In the process of its operations, it tended to receive the notes of state banks. Its mechanism of control was forcing the state banks to redeem their notes in specie.

Jackson, by vetoing the charter of the Bank in 1832 and later removing from it the government deposits, destroyed the Bank's effectiveness as a central bank. He consequently unleashed the state banks, which overissued their notes and generated an inflationary boom. The government deposits were placed in pet banks, and this further encouraged credit expansion. Traditional accounts differ as to the precise cause of the Panic of 1837 and on whether or not it was made inevitable by the previous boom, but they all agree that certain of Jackson's policies contributed to bringing it about. First, the distribution of the surplus shifted bank reserves and made certain banks contract their note issue. Secondly, the Specie Circular increased the demand for specie and put a drain on the reserves of banks. The banks were compelled to contract and finally to suspend specie payment.

Politically the Jacksonian attack on the Bank represented an alliance between two divergent groups, according to the traditional interpretation. One of these was the hard-money agrarians, who ended up defeating their own purpose. The other more important group included the aspiring capitalists who wanted state bank inflation and the state banks themselves, which wanted to be free from the Second Bank. Other motives at work include the political desire to bring the Bank within the Democratic fold and the desire of New York City bankers to escape the financial hegemony of Philadelphia, where the Bank was located. The importance of Jackson himself is disputed. Some picture him as a tool of his advisors, while others consider him to be the primary actor initiating the Bank war.

The destruction of the national Bank represented the triumph of the aspiring capitalists

within the Jacksonian movement at the national level; "free banking" represented their triumph at the state level. "Free banking was an application of *laissez faire* to the monetary function", writes Hammond, and its adoption insured "a permanent policy of monetary inflation."[24] It was an inferior system, primarily because it was unregulated.

These various propositions constitute the major tenets in the traditional interpretation, and they add up to a severe indictment of the Jacksonians. The response of pro-Jackson historians to the difficult problem of reconciling these charges has been varied and ingenious. Robert V. Remini,[25] following in a direction pointed by Leonard D. White,[26] has emphasized the role of the Bank war in the growth of Presidential power, considering that a positive good regardless of how it was used. George Rogers Taylor[27] admits that under Biddle the Bank performed splendidly, but argues that it had shown in the past that it had an immense potential for abuse lying dormant. The Bank was too independent from the national government, and that justified not renewing its charter. Schlesinger, in a review of Smith's book,[28] goes so far as to take up the cause of the state banks, when he asserts that "the men in Jackson's day who were most nearly right from the viewpoint of economic growth were neither the Bank advocates nor the hard-money theorists but the soft money men of the West".[29] None of these approaches questions the essential validity of the traditional interpretation.

II

The recent scholarly work challenging the traditional interpretation falls into two broad categories: political revisionism and economic revisionism. The political revisionism has been dominated, although not exclusively, by historians using statistical tools, and the pioneer in statistical methodology applied to the Jacksonian era is Lee Benson. Most of Benson's book, *The Concept of Jacksonian Democracy: New York as a Test Case,*[30] is an effort to develop an alternative to Marxist class notions in describing political behavior and does not relate specifically to the banking issue. Of that which does relate, much of it reinforces the traditional interpretation. Benson, like Hammond, feels that Jackson's attack on the Bank was instigated from New York by Martin Van Buren, but not for the same reason. Rather than an effort to gain financial ascendancy for Wall Street, Benson construes the Bank War as a diversion to relieve anti-monopoly pressure directed against the Regency banking system. "Seen in historical context, the Jacksonian 'Bank War' becomes a brilliant counterattack — not a bold offensive on behalf of free enterprise."[31] Benson's major revisionist contribution is his assessment of who was responsible for New York's "free banking" act.[32] "Free banking", it turns out, was not a scheme promoted by the Locofoco radical Democrats, with their anti-monopoly, hard-money views; it was a scheme promoted by the Whigs. It was not consistent with Democratic ideas about limited government; it was consistent with Whig ideas about positive state action. It restricted entry on the basis of capital, limited the liabilities of stockholders, provided stringent regulations, and established a board of bank commissioners. Most significantly, by making note issue dependent on holding of state bonds, it forged a close alliance between the bank and state. "Free banking" was neither Jacksonian nor *laissez-faire.*[33]

Van Buren's prominence in the Bank war, along with charges of a New York–Virginia conspiracy, were finally called into question when Frank Otto Gatell published his article, "Sober Second Thoughts on Van Buren, the Albany Regency, and the Wall Street Conspiracy".[34] Gatell points out that although the Regency had intimate connections with Albany banks, it was not that close to New York City banks. There was no reason for the Regency to champion the interests of Wall Street. In answer to Benson's version of the New York conspiracy, Gatell argues that politically the Regency did not need the Bank war; indeed, it was a fairly risky venture for Regency politicians. Gatell concludes that Jackson "still remains central to the Bank War".[35]

The political tenet of the traditional interpretation, however, hinges not on New York but

on the supposition of general state bank opposition to the national Bank. That supposition is addressed in the most important work of political revisionism, Jean Alexander Wilburn's *Biddle's Bank: The Crucial Years.*[36] By carefully analyzing the vote over the Bank's re-charter in Congress in 1832, a vote on a resolution to Congress on that issue by the New York State legislature, petitions and memorials sent to Congress, and Biddle's correspondence with allies in which he organized support for the Bank, Wilburn attempts to determine exactly who supported the Bank. She finds that prior to Jackson's veto, support was overwhelming, even among state banks:

> We have found that Nicholas Biddle was correct when he said, "state banks in the main are friendly". Specifically, only in Georgia, Connecticut, and New York was there positive evidence of hostility. A majority of state banks in some states of the South, such as North Carolina and Alabama, gave strong support to the Bank as did both the Southwest States of Louisiana and Mississippi. Since Virginia gave some support, we can claim that state banks in the South and Southwest for the most part supported the Bank. New England, contrary to expectations, showed the banks of Vermont and New Hampshire behind the Bank, but support of Massachusetts was both qualitatively and quantitatively weak. The banks of the Middle states all supported the Second Bank except for those of New York. There, the Mechanics' and Farmers' Bank together with the other banks Olcott controlled "arrayed a powerful force against the Bank".[37]

Wilburn's much-needed refutation of the myth of state bank opposition to the national Bank is only slightly marred by her resurrection of the New York–Virginia conspiracy. In her version, the prime figure is Thomas Olcott, who is able to wield undue influence because of Biddle's failure to establish a branch of the Bank in Albany.

Since the publication of Wilburn's book, two books have been written which examine the struggle over banking at the state level. Both used statistical analysis of voter returns. The first was James Roger Sharp's *The Jacksonians versus the Banks: Politics in the States After the Panic of 1837.*[38] Sharp presents an overview of all the states, but selects for special concentration Mississippi, Ohio, and Virginia. In each of those states he does the kind of voter correlation introduced by Benson. His conclusion is that with the defeat of the Second Bank and the Panic of 1837 the Jacksonian campaign for hard money shifted into the state arena:

> The Democratic Party did not engage in the battle over banks and currency as the party of the entrepreneur in the age of enterprise. . . . After the Panic of 1837, although the rhetoric of the two parties often obscured their real position, it is clear that the Whigs were the champions of the banks against the "radicalism" of the Jacksonians. Despite internal feuding, the main body of the Democratic party supported radical reform of the banks and, in some cases, their destruction. The party reflected, in both ethos and program, the hard-money position.[39]

Sharp found that the hard-money program varied among states. In the more agrarian states, it was more radical, calling for the abolition of state-chartered corporate banks, while in more commercial states, the hard-money advocates compromised for less hard-line reforms. William Gerald Shade, in *Banks or No Banks: The Money Issue in Western Politics, 1832–1865,*[40] confirms Sharp's major findings. Shade focuses on the five states of the Old Northwest, with special statistical attention on Illinois (where he interestingly finds confirmation for Benson's ethno-religious voting behavior thesis). Both books agree that nowhere was "free banking" a Democratic proposal. When it passed, it was with the support of the Whigs and occasional defecting Democrats.

The most recent contribution to the political revision of the traditional interpretation is David A. Martin's article, "Metallism, Small Notes, and Jackson's War with the B.U.S."[41]. Martin is an economist, and some of his findings can be considered economic revisionism. However, his main effort consists of putting the Bank war within the context of a broader, encompassing hard-money (or metallist) program at the national level. In doing so, he amplifies Schlesinger's original presentation. According to Martin, the specific planks of the program in addition to the Bank war involved: (1) a change in the mint ratio,[42] (2) the establishment of branch mints to increase coinage, (3) the reinstitution of legal tender for foreign coins, (4) the prohibition of small notes, and (5) the establishment of a government bank without note-issuing authority. The second and third planks have previously escaped historians; the fourth, of course, failed; and the last evolved

into the independent treasury. Martin is even sympathetic with the Jacksonian program to the extent that, while he agrees with the traditional interpretation that the Bank provided a uniform currency for large, interregional transactions, he claims that the overissue of small notes drove specie out of circulation and made smaller and local transactions more chaotic than generally supposed.

III

The economic revision of the traditional interpretation has been accomplished by cliometricians, practitioners of the new economic history. The cliometricians, most notably Peter Temin, have completely demolished almost all of the major propositions of the traditional interpretation. The first work of economic revisionism to appear was Richard H. Timberlake, Jr.'s, "The Specie Circular and the Distribution of the Surplus".[43] Compared to Temin and the others that followed, Timberlake's article is only mildly revisionist, but it broke the ground. By examining the volume of public land sales and their importance within the economy, Timberlake reached the conclusion that the "Specie Circular was dramatic but innocuous",[44] in its impact upon the economy. He also discovered that distribution of the surplus resulted in very small interstate species flows and that the cooperation of state banks and state treasuries prevented any intrastate drain. Timberlake is left with only a small interstate demand for specie (mostly against New York) as a cause for the Panic of 1837. Harry N. Scheiber in an article on pet banks questioned Timberlake's conclusion on the Specie Circular,[45] so Timberlake in a brief second article buttressed it with more evidence.[46]

The next contribution to economic revisionism, George Macesich's "Sources of Monetary Disturbance in the United States, 1834–1844",[47] is broader in its scope. Building upon the suggestions found in Sumner and Smith, Macesich argues that international factors were actually to blame for the monetary disturbances of the Jacksonian era. U.S. prices were not autonomous, but linked to an international market. British capital flows were followed by specie imports or exports, which in turn forced expansion or contraction of the U.S. money supply and consequent changes in the price level. To reach his conclusion, Macesich constructed a series of figures for the stock of money in the U.S. from 1834–1845 along the same lines as the series constructed by Milton Friedman and Anna Jacobson Schwartz[48] for a later period. He used the Friedman–Schwartz proximate determinants for analysis.

Jeffrey G. Williamson, in an article entitled "International Trade and United States Economic Development, 1827–1843",[49] criticizes Macesich for using a static specie-flow balance of payments model and ignoring the dynamic impact of the growth of the U.S. economy. It was real economic growth in the U.S. that induced both the capital inflows and the gold inflows (and an unfavorable balance of trade). Williamson attributes economic disturbances during the period not to exogenous external events but to an internal natural cycle, or long swing, in economic growth.[50] While Williamson and Macesich disagree over the source of economic disturbance, they both agree that the U.S. banking system responded passively in its monetary expansion and contraction to factors beyond its influence. In other words, neither granted the Bank war much significance.

In a rejoinder, Macesich argues that capital flows induced growth, rather than *vice versa,*[51] but the next important contribution to the debate is Thomas D. Willett's "International Factors in Specie Flows and American Stability: 1834–1860".[52] Willett raises theoretical objections to Williamson's model, but does not totally agree with Macesich. Instead, his hypothesis not only stresses international specie flows but includes the reaction of the U.S. banking system as an active agent. The Macesich–Williamson–Willett debate involves more issues than those raised by Jackson's Bank war, and by the time Willett's contribution appeared, Temin's preliminary article had also been published. Nevertheless, the controversy in many ways anticipated Temin's findings.

Another work of economic revisionism, one which Temin almost entirely incorporates, is Jacob Meerman's article, "The Climax of the

Bank War: Biddle's Contraction, 1833–1834".[53] Meerman studied the data on the contraction Biddle is credited with bringing on and found that it was a highly exaggerated event. Biddle's action resulted in a very small decrease in the rate of growth of the money supply and a very minor recession.

The most sweeping economic revision of the traditional interpretation is contained in Temin's book, *The Jacksonian Economy*,[54] and a prior article, "The Economic Consequences of the Bank War".[55] Temin's work is based on an improved series for the stock of money in the U.S. from 1820 to 1858. Temin, like Macesich, uses the Freidman–Schwartz proximate determinants, one of which is the reserve ratio (the percentage of bank circulating money — notes plus deposits — covered by specie reserves in bank vaults). According to the traditional interpretation, one of the advantages of the Second Bank as a central bank was that it kept state bank reserve ratios higher than they otherwise would have been; Jackson's war supposedly precipitated a decline in the reserve ratio. Temin found that, on the contrary, from the period 1831 to 1837, when the reserve ratio should have been declining, that it actually remained fairly constant. There was an increase in the money stock, but it wasn't due to Jackson's war or the state banks. It resulted from an inflow of specie which increased bank reserves. However, Macesich's guess that the specie came from England is wrong. The inflow resulted from increased specie imports from Mexico coupled with decreased specie exports to the Orient. The importance of British capital was not that it was followed by specie but that it prevented the U.S. unfavorable balance of trade from driving the new specie overseas.

Just as Jackson's Bank war had nothing to do with the inflation, his Specie Circular and the distribution of the surplus had nothing to do with the Panic of 1837. The major cause was a contraction started by the Bank of England with its high discount policy. It drew capital and specie out of the U.S. and abruptly ended the inflation. Furthermore, during the period of deflation and contraction following the brief recovery in 1838, conditions were not as bad as often pictured. Other of Temin's findings include the fact that reserve ratios were not lowest in the south and west; they were lowest in New England. In addition, the currency ratio (the percentage of money held by the public in the form of specie) rose dramatically after the destruction of the Bank, indicating a decrease in the public use of bank money.

Since the publication of Temin's book, Edward J. Stevens, in his article "Composition of the Money Stock Prior to the Civil War",[56] has done a Friedman–Schwartz money stock analysis for 1842 to 1859. His figures are not strictly identical with Temin's, but they similarly show a rising currency ratio. Stevens points out that gold from California must have stayed in the hands of the public rather than passing into bank vaults. Stanley L. Engerman, in "A Note on the Economic Consequences of the Second Bank of the United States"[57] starts with the assumption that paper money is less expensive than specie and attempts to calculate the cost resulting from the increased currency ratio following the destruction of the Bank. He comes up with 0.15% of GNP annually.

Hugh Rockoff has published various articles on the nature of "free banking".[58] In "Money, Prices, and Banks in the Jacksonian Era",[59] in addition to summarizing Temin's conclusions, he offers a profit maximization equation to explain the note issue behavior of banks. "American Free Banking Before the Civil War: A Re-Examination"[60] argues that "free banking" only led to wildcat banking if the statutory limit on the amount of notes that could be issued against state bonds significantly exceeded the market price of the bonds. Wildcat banking was a visible, but minor, problem. In "The Management of Reserves by Antebellum Banks in Eastern Financial Centers",[61] which Rockoff co-authored with Roger H. Hinderliter, they attempt to subject the reserve behavior of eastern banks to econometric analysis. In his most recent article, "Varieties of Banking and Regional Economic Development in the United States, 1840–1860",[62] Rockoff tries to determine if "free banking" laws, which he considers "the antithesis of *laissez-faire* banking laws",[63] had any negative impact on regional economic growth:

In summary, free banking was a mixed blessing. At

times it produced wildcat banking. But this was due primarily to defects in the land security system for circulating notes. When these defects were absent, free banking, judged on the basis of evidence presented above, performed at least on par with other systems.[64]

A final article that should be mentioned is Arthur Fraas' "The Second Bank of the United States: An Instrument for an Interregional Monetary Union".[65] Fraas makes an astute analogy between the condition of state banks prior to the establishment of the Second Bank and an international situation in which there are floating exchange rates. He asserts that the benefit from imposing a uniform national currency with the Bank must be weighed against the cost of fixing exchange rates and eliminating price autonomy between regions. He feels the latter hurt economic growth in the Western states.

IV

With the principal tenets of the traditional interpretation refuted, the crucial question becomes: how will all the data and recent findings be synthesized and integrated into a new general overview of the Bank war? Unfortunately, the articles by Engerman, Rockoff, and Fraas all indicate that if any economic theory succeeds the sound banking doctrine, it will be the fiat money doctrine. Rockoff explains, for instance, that lower reserve ratios like those that existed in New England should not be construed as harmful. Just the opposite, they were good because they indicate that banks were using specie reserves more efficiently. "The reduction in the ratio of specie to money would be a benefit to the nation because it took real resources to produce specie reserves."[66] That assumption underlies Engerman's calculation on the cost of the destruction of the Bank. By lowering the currency ratio, the Bank permitted more efficient use of specie. If one follows that reasoning through, the most efficient currency becomes one that uses no specie at all — a completely fiat money supply. That is the standard by which some of the new economic historians are judging the banking of the Jacksonian economy.

At first glance, Fraas appears to contradict the prevailing trend. He raises the question of the cost of uniform currency. But the costs he considers result from fixed exchange rates pegged to specie, and his ultimate preference is a system of state or regional fiat currencies, totally independent of each other and specie. The trend away from the sound banking to the fiat money doctrine is clearly exhibited in a recent article by Richard E. Sylla entitled "American Banking and Growth in the Nineteenth Century: A Partial View of the Terrain".[67] Sylla celebrates the demise of Redlich and his "quest for soundness" school. No longer will banking history be viewed as a "quest for soundness". Instead, it will be viewed in terms of the services banks perform towards encouraging economic growth, and the most important of these is credit creation. Sylla favorably quotes Schumpeter to the effect that "sound money men of all times . . . throw and still 'throw away the baby with the bath water' by condemning popular banking practices".[68] Unsound money promotes growth. What in effect the new approach is coming around to is Schlesinger's advocacy of the soft-money men of the west, only the real soft-money men turn out to have been in the east and with the Bank. Only Temin, when he points to the rapid growth during the deflation following the Panic of 1837, and Williamson, with his long swing that leaves banks passive and irrelevant, have presented ideas that might be developed in a different direction.

One of the problems with the traditional interpretation and the sound banking doctrine that the new fiat money doctrine has not solved is providing an integrated causal explanation for the business cycle. J. R. T. Hughes and Nathan Rosenberg, in an article written fifteen years ago, complained:

> This paper is prompted by the dissatisfaction of the authors with the state of the economic history of business fluctuations in the U.S. up to 1860. The existing literature dealing with the historical origins of business fluctuations is, we feel, dominated by sweeping generalizations which, as they stand, are open to serious question.[69]

Since Hughes and Rosenberg wrote that statement, there has not really been much improvement. Except for Williamson's, most explanations are monetarist, but none show how monetary fluctuations affected business

conditions. Those explanations, like Macesich's, that import the cycles from abroad, have just pushed the question into another country.

There is a monetary theory, however, that is an alternative to both the fiat money and sound banking doctrines, that does deal with the business cycle and can be used with great success to reintegrate the history of the Bank war. It is the monetary and trade cycle theory of the Austrian school of economists, most notably Ludwig von Mises, Friedrich A. von Hayek, and Murray N. Rothbard. In policy prescriptions, the Austrian school is unabashedly *laissez-faire* and hard-money, and it has been largely ignored, although not refuted, by professional economists in this country since the Keynesian revolution. However, its insights are essential if one is truly to understand the economy of the Jacksonian era.

Austrian theory views money as a creation of the free market and not a creation of the state. When government intervenes in the sphere of money, it is usually for its own enrichment and always to the detriment of the market. A completely *laissez-faire* approach to money would imply private coinage and no legal tender laws. Government monopolies of the mint eventually result in coin debasement. Legal tender laws usually have the effect of fixing an artifical price between two types of money (e.g. gold and silver or specie and paper) and bringing into operation Gresham's Law (which is merely an application of a general principle about government price fixing). Everyone should be free to use or to refuse whatever form of money they wish, and the market should set exchange rates between coexisting monies.[70]

Sometimes governments intervene in the market by creating money which they force people to use. Banking, to the extent that it involves providing either a money warehouse or a loan service (bringing together prospective creditors and debtors) is a legitimate free market activity. Banking, to the extent that it involves the creation of money through fractional reserves, is fraud and an intervention into the market no different from money creation by government. However, it is not necessary for a *laissez-faire* society to outlaw fractional reserve banking and require 100% reserve ratios.[71] The same result could be attained if banking were totally free in the market sense, meaning that *anyone* could create unbacked money. No one would accept such money unless reasonably certain of redemption. Thus, banks would be limited in their ability to inflate[72] by the size of their clientele. Bank money would tend to depreciate to a level offsetting the risk of non-redemption. Another limit would be competition between banks in the redemption of each other's notes. If Bank A operates at a lower reserve ratio and inflates more than its competitor, Bank B, then more of Bank A's notes will flow through the normal transaction of business into the hands of Bank B than those of Bank B will flow into the hands of Bank A. The resulting specie drain will force Bank A to deflate and bring up its reserve ratio. The operation of such a system of free banking would drive reserve ratios toward 100%. Proponents of the Austrian school differ on whether they prefer the prohibition of fractional reserves as fraud or the free banking approach to achieving 100% reserves.[73]

The question at this point may be raised, if competition tends to drive up reserve ratios and prevent inflation, why didn't it do so during the Jacksonian era? The first part of the answer is that it did — to a certain extent. Sound banking theorists have always deplored the notorious tendency of bank notes to depreciate and banks to start runs on each other during this period. More important, however, was the fact that competition was restricted by all sorts of interventions that were part of the traditional unholy alliance between bank and state. Banks and governments throughout history have entered into a profitable symbiosis where the banks create money for the governments in return for special privileges.[74] Hammond has correctly pointed out that banks owe much of their growth "to government and the need it too had for credit. For governments always have been borrowers, and repeatedly their dependence upon banks has been critical, especially in wartime".[75] War and also the desire of states to finance internal improvements were the two major projects for which governments needed bank money during the Jacksonian era. Again I quote Hammond: "The wild-cats lent no money

to farmers and served no farmer interest. They arose to meet the credit demands not of farmers (who were too economically astute to accept wildcat money) but of states engaged in public improvements."[76]

Among the special privileges received by banks from governments was the legitimacy and acceptability their notes gained by being put into circulation by the government. Chartered banks and state monopoly banks obviously had their competition limited, and we have already pointed out that the "free banking" system of the Whigs did not permit totally free entry and was far from free banking in a *laissez-faire* sense. A most important protection from competition occurred in every financial crisis when the states granted the banks the privilege of suspending specie payments. Continually freed from the need to redeem their notes, it is no wonder that banks did not feel obliged to keep their reserve ratios high. Another factor was the general prohibition of interstate branch banking and the frequent prohibition of intrastate branch banking.[77] Finally, usury laws, to the degree that they were enforced and effective, would decrease competition from banks with higher reserve ratios.[78]

The most effective way for banks to protect themselves would be to cartellize and agree not to compete. For instance, Bank A could agree not to redeem the notes of Bank B but hold them as reserves upon which to expand its own notes, and this practice would also permit Bank B to expand. This arrangement can be called a collusive relationship, as opposed to the competitive relationship in which there is mutual redemption. The banks could also agree to inflate at the same rate, so that mutual redemption could continue with neither having to contract. Since voluntary cartels[79] are notoriously unsuccessful, cartellizers frequently turn to government to make their cartels binding and effective. Central banking is a state cartellization of the banking system and as such is the ultimate stage in the alliance between bank and state. It involves a collusive relationship between the private banks and the central bank, in which the private banks hold the central bank's notes as reserves,[80] with central bank control (direct or indirect) over the reserve ratios of the private banks so that all private banks may inflate together. At the same time, the government usually grants legal tender status to the central bank's notes and uses them exclusively in its own transactions, inducing public acceptance.

One of the many difficulties with orthodox schools of economics is that they treat international and interregional trade asymmetrically.[81] According to Austrian theory, the principles of interregional or interlocal trade also apply to international exchange. The problem of the balance of payments is not a problem between nations; it is an example of the competitive relationship operating between competing central banks or banking systems. A drain of specie occurs in one country because that country's central bank is inflating faster than the central bank of the country to which the specie is flowing. Going off the gold standard or devaluing is the international equivalent of suspending specie payments. This analogy between international and interregional trade has even been noticed in a backward fashion by a few of the Jacksonian economic revisionists. Rockoff writes that, "In other words, one can treat each state as a small country in a gold standard world of fixed exchange rates and free trade".[82] Willett in his article compares the U.S. banking system of the nineteenth century to the international monetary situation at the time he was writing,[83] and I have already pointed out that the same understanding informs Fraas' article.[84]

Bank inflation has many unfortunate consequences, but the worst is the business cycle. When banks create new money, they do so in the form of credit. By increasing the supply of loanable funds, banks artificially lower the interest rate, inducing businessmen and entrepreneurs to make investments they otherwise would not make. The creates a boom. However, according to Austrian theory, since the interest rate was artificially distorted, the boom consists of malinvestments which are not economically justified. Eventually the malinvestments must be liquidated in a cluster of business failures called a depression. That, in brief, is the Austrian business cycle theory.[85]

The traditional interpretation claims that the Second Bank was a central bank, but describes

its functioning as if it were in a competitive relationship with the state banks. That is the meaning of Hammond's statement:

> Its [the Bank's] regulatory powers were dependent on the private banks falling currently into debt to it. The regulatory power now in effect under the Federal Reserve Act depends upon the opposite relation — that is, upon the private banks' maintaining balances with the Federal Reserve Banks. The private banks were then debtors to the central bank; they are now creditors.[86]

In actuality, the Second Bank was only a primitive central bank and its relationships with state banks could be both competitive and collusive. The fact that the reserve ratio did not increase under the Bank indicates, however, that the "regulatory" competitive element described by Hammond was not very strong. Although the reserve ratio did not fall either, the fall in the currency ratio demonstrates very clearly the operation of the collusive element.[87] That explains the Bank's popularity with the state banks. Its popularity was not unanimous. There are always individual firms within an industry, usually the most efficient, that feel they have more to gain outside a government imposed cartel. On the whole, however, the following statement by Rothbard is extremely accurate:

> It is also a widespread myth that central banks are inaugurated in order to *check* inflation by commercial banks. The second bank of the United States, on the contrary, was inaugurated in 1817 as an inflationist sop to the state-chartered banks, which had been permitted to run riot without paying specie since 1814. It was a weak substitute for compelling a genuine return to specie payments.[88]

With a clear understanding of the nature of the Second Bank, the Jacksonian hard-money attack no longer comes across as confused and self-contradictory. No longer can the Jacksonians be dismissed as either ignorant, anti-capitalist agrarians or as greedy entrepreneurs hoping to unleash the state banks. The attack on the Bank was a fully rational and highly enlightened step towards the achievement of a *laissez-faire* metallic monetary system[89] The Jacksonians may not have been totally consistent. The extension of legal tender to foreign coins was a step in the right direction, but legal tender should have been expanded to private coinage as well, or even better, abolished altogether. Instead of expanding the government mint, they should have sold it. Instead of changing the fixed ratio between gold and silver, they should have had no fixed ratio at all. However, Jacksonian understanding of banking was far superior to that shown by politicians today. The war against the national Bank was only the first step in a struggle to eliminate fractional reserve banking entirely. After breaking the alliance between bank and state at the national level, the Jacksonians made a valiant effort to break that alliance at the state level as well.

The Jacksonians unfortunately failed, not only because the Whigs with their neo-mercantilist ideology pushed through "free banking" as a means of rearranging and extending the bank-state alliance,[90] but also because the business cycle was an international phenomenon. America was subject to the monetary expansions and contractions occurring in other countries. When specie flowed into the U.S. from Mexico, it was because of an inflation there fostered by Santa Ana,[91] and the specie stayed in the U.S. because of credit expansion by the Bank of England. When the Bank of England contracted to shore up its reserve position, a depression was precipitated in the U.S.[92]

The Jacksonian attack on the Bank of the U.S. inspired a similar attack on the Bank of England by William Cobbett. He did not succeed, but his intellectual allies, the Currency School, did manage in 1844 to pass Peel's Act, which imposed a 100% reserve requirement on all further note issues. The Currency School was opposed by the Banking School, contemporary advocates of the sound banking doctrine. Ironically, Peel's Act also failed, because its restriction applied only to bank notes and not to money created in the form of deposits.[93] The failure of the hard-money stalwarts in both England and the U.S. left the developing Anglo-American free market economy burdened with the destabilizing effects of the business cycle. That was a tragedy the consequences of which we still suffer.

NOTES

1. William Graham Sumner, *A History of Banking in the United States* (New York: The Journal of Commerce and Commercial Bulletin, 1896).
2. William Graham Sumner, *Andrew Jackson* (rev. ed., Boston: Houghton, Mifflin & Co., 1899).
3. *Ibid.*, p. 438.

4. Charles Grier Sellers, Jr., *Jacksonian Democracy* (Washington, D.C.: American Historical Assn., 1958); and *idem.*, "Andrew Jackson versus the Historians", *Mississippi Valley Historical Review* 44 (March, 1958), pp. 615–634.
5. Sumner, *Andrew Jackson*, p. 265.
6. *Ibid.*, p. 388.
7. *Ibid.*, p. 397.
8. Ralph C. H. Catterall, *The Second Bank of the United States* (Chicago: University of Chicago Press, 1903).
9. *Ibid.*, p. 239.
10. *Ibid.*, p. 476.
11. Reginald Charles McGrane, *The Panic of 1837: Some Financial Problems of the Jacksonian Era* (Chicago: University of Chicago Press, 1924).
12. By Marxist notion of class, I mean a concept of class which defines classes on an economic basis, on the basis of people's relationships to the means of production. I don't mean to imply that all persons accepting such a notion of class are conscious or consistent Marxists. I should point out here that the Marxist economic type of class is an inversion of the original libertarian concept of class, formulated by two French liberals, Charles Comte (not to be confused with Auguste Comte) and Charles Dunoyer. The libertarian concept sees conflict arising out of the employment of a coercive state apparatus for plunder and oppression and thus defines classes on the basis of people's relationship to the state. Saint-Simon twisted the Comte–Dunoyer formulation and passed it on to Marx. See Leonard P. Liggio, "Charles Dunoyer and French Classical Liberalism", *The Journal of Libertarian Studies*, Vol. 1, No. 3 (Summer, 1977), pp. 153–178.

    Much of the confusion about Jacksonian rhetoric would be eliminated if historians could escape the blinders of the Marxist class concept and realize that the Jacksonians are speaking in libertarian terms. For instance, a great deal of energy has been wasted on the argument whether the Jacksonians were pro-labor or anti-labor. They were neither; they were anti-state. To the extent that they viewed labor as a victim of *state* oppression, they will appear pro-labor. To the extent that they viewed labor as employing the state to oppress others, they will appear anti-labor. Similarly with the question of whether the Jacksonians were anti-capitalist or capitalists themselves. Yet, whenever historians encounter the libertarian concept of class in thinkers of the Jacksonian period, they automatically superimpose Marxist categories. Witness Schlesinger's treatment of John Taylor in Arthur M. Schlesinger, Jr., *The Age of Jackson* (Boston: Little, Brown & Co., 1945), or Hofstadter's treatment of John C. Calhoun, in Richard Hofstadter, *The American Political Tradition* (New York: Vintage Books, 1948). See also my comment in note 14, below.
13. Schlesinger, *op. cit.*
14. Joseph Dorfman, "The Jackson Wage-Earner Thesis", *American Historical Review*, 54 (January, 1949), pp. 296–306. Also see Dorfman, *The Economic Mind in American Civilization, 1606–1865*, vol. II (New York: Viking Press, 1946). Dorfman has been frequently misinterpreted as saying the same thing as Hofstadter. For example, Sellers, "Andrew Jackson and the Historians", p. 628, lumps them together as the "Columbia historians", about whom he says: " . . . the Columbia historians defend the diametrically opposite view that the democratic movement was itself strongly capitalist in spirit and objected only to any limitation on free entry into the game of capitalist exploitation".
15. Hofstadter, *American Political Tradition.*
16. Schlesinger, *Age of Jackson*, p. 218.
17. Hofstadter, *American Political Tradition*, p. 63.
18. Walter Buckingham Smith, *Economic Aspects of the Second Bank of the United States* (Cambridge, Mass.: Harvard University Press, 1953).
19. Thomas Payne Govan, *Nicholas Biddle: Nationalist and Public Banker, 1786–1844* (Chicago: University of Chicago Press, 1959). Also see Govan, "The Fundamental Issues of the Bank War", *Pennsylvania Magazine of History and Biography*, 82 (July, 1958), pp. 305–315.
20. Fritz Redlich, *The Moulding of American Banking: Men and Ideas* (2 vols., New York: Hafner Pub. Co., 1951).
21. Bray Hammond, *Banks and Politics in America: From the Revolution to the Civil War* (Princeton, N.J.: Princeton University Press, 1957). For those who wish to avoid plowing through Hammond's book, all his important points can be gleaned from his articles: "The Banks, the States, and the Federal Government", *American Economic Review*, 23 (December, 1933), pp. 622–636; "Long and Short Term Credit in Early American Banking", *Quarterly Journal of Economics*, 49 (November, 1934), pp. 79–87; "Free Banks and Corporations: the New York Free Banking Act of 1838", *Journal of Political Economy*, 44 (April, 1936), pp. 184–209; "Jackson, Biddle, and the Bank of the United States", *Journal of Economic History*, 7 (May, 1947), pp. 1–23; "The Chestnut Street Raid on Wall Street, 1839", *Quarterly Journal of Economics*, 61 (August, 1947), pp. 605–618; and "Banking in the Early West: Monopoly, Prohibition, and Laissez Faire", *Journal of Economic History*, 8 (May, 1948), pp. 1–25. Also see Hammond's review of Schlesinger: Bray Hammond, "Public Policy and National Banks", *Journal of Economic History*, 6 (May, 1946), pp. 79–84.
22. I have called it the Hofstadter entrepreneurial thesis because it is associated with his name. Actually, Hammond developed his synthesis in an article which appeared prior to Hofstadter's book. See Hammond, "Jackson, Biddle, and the Bank of the United States", *passim.*
23. Variants of the sound banking doctrine include the real-bills doctrine and the Banking School which arose in nineteenth century Britain.
24. Hammond, *Banks and Politics*, p. 573.
25. Robert V. Remini, *Andrew Jackson* (New York: Harper & Row, 1966); and Remini, *Andrew Jackson and the Bank War: A Study in the Growth of Presidential Power* (New York: W. W. Norton & Co., 1967).
26. Leonard D. White, *The Jacksonians: A Study in Administrative History, 1829–1861* (New York: Macmillan Co., 1954).
27. George Rogers Taylor, *The Transportation Revolution, 1815–1860* (New York: Holt, Rinehart & Winston, 1951).
28. Arthur M. Schlesinger, Jr., "Review of Walter B. Smith, *Economic Aspects of the Second Bank of the United States*", *American Historical Review*, 59

(October, 1953), pp. 140-141.

29. *Ibid.*, pp. 140-141.
30. Lee Benson, *The Concept of Jacksonian Democracy: New York as a Test Case* (Princeton, N.J.: Princeton University Press, 1961).
31. *Ibid.*, p. 54.
32. New York in 1838 became the second state to adopt "free banking" and the model for the rest of the states.
33. Of course, Benson did not discover the provisions of the act. Hammond was familiar with them and also knew that in New York it was the Whigs who passed "free banking". Nevertheless, he still places "free banking" within the context of the Jacksonian entrepreneurial drive toward *laissez-faire.*
34. Frank Otto Gatell, "Sober Second Thoughts on Van Buren, the Albany Regency, and the Wall Street Conspiracy", *Journal of American History,* 53 (June, 1966), pp. 19-40. Gatell also treats the issue of pet banks in: Gatell, "Spoils of the Bank War: Political Bias in the Selection of the Pet Banks", *American Historical Review,* 70 (October, 1964), pp. 35-58; "Secretary Taney and the Baltimore Pets: A Study in Banking and Politics", *Business History Review,* 39 (Summer, 1965), pp. 205-227; and John Michael McFaul and Frank Otto Gatell, "The Outcast Insider: Reuben M. Whitney and the Bank War", *Pennsylvania Magazine of History and Biography,* 91 (April, 1967), pp. 115-144. Also on pets see Harry N. Scheiber, "The Pet Banks in Jacksonian Politics and Finance, 1833-1841", *Journal of Economic History,* 23 (June, 1963), pp. 196-214; and John M. McFaul, *The Politics of Jacksonian Finance* (Ithaca, N.Y.: Cornell University Press, 1972). Gatell has directly attacked Benson's allegation that there was no wealth difference between the parties in "Money and Party in Jacksonian America: A Quantitative Look at New York City's Men of Quality", *Political Science Quarterly,* 82 (June, 1967), pp. 235-252. Finally, see Frank Otto Gatell, "Beyond Jacksonian Consensus", in H. J. Bass, ed., *The State of American History* (Chicago: Quadrangle Books, 1970), pp. 349-361, an otherwise excellent article which unfortunately suffers from a misunderstanding of what *laissez-faire* in banking means. See note 90 below.
35. Gatell, "Sober Second Thoughts", p. 39.
36. Jean Alexander Wilburn, *Biddle's Bank: The Crucial Years* (New York: Columbia University Press, 1970).
37. Wilburn, *Biddle's Bank,* pp. 118-119.
38. James Roger Sharp, *The Jacksonians versus the Banks: Politics in the States After the Panic of 1837* (New York: Columbia University Press, 1970).
39. Sharp, *Jacksonians versus the Banks,* p. 321.
40. William Gerald Shade, *Banks Or No Banks: The Money Issue in Western Politics, 1832-1865* (Detroit: Wayne State University Press, 1972). See also the article Shade co-authored with Herbert Ershkowitz: Herbert Ershkowitz and William G. Shade, "Consensus or Conflict? Political Behavior in State Legislators During the Jacksonian Era", *Journal of American History,* 58 (December 1971), pp. 591-621. It is a direct challenge to the no-issue, "electoral machine" view of Jacksonian politics formulated by McCormick in Richard P. McCormick, *The Second American Party System: Party Formation in the Jacksonian Era* (Chapel Hill, N.C.: The University of North Carolina Press, 1966).
41. David A. Martin, "Metallism, Small Notes, and Jackson's War With the B.U.S.", *Explorations in Economic History,* 11 (Spring, 1974), pp. 227-247.
42. The hard-money significance of changing the mint ratio was not pointed out first by either Martin or Schlesinger, but by Paul M. O'Leary, in "The Coinage Legislation of 1834", *Journal of Political Economy,* 45 (February, 1937), pp. 80-94. Martin has written two articles on bimetallism: David A. Martin, "Bimetallism in the United States before 1850", *Journal of Political Economy,* 76 (May/June, 1968), pp. 428-442; and *idem.,* "1853: The End of Bimetallism in the United States", *Journal of Economic History,* 33 (December, 1973), pp. 825-844, in which he claims that between 1834 and 1853 the mint ratio was so close to the market ratio that bimetallism actually worked without driving gold or silver out of circulation.
43. Richard H. Timberlake, Jr., "The Specie Circular and Distribution of the Surplus", *Journal of Political Economy,* 68 (April, 1960), pp. 109-117.
44. Timberlake, "Specie Circular", p. 117.
45. Scheiber, "The Pet Banks", *passim.*
46. Richard H. Timberlake, Jr., "The Specie Circular and the Sale of Public Lands: A Comment", *Journal of Economic History,* 25 (September, 1965), pp. 414-416. Timberlake's other two articles dealing with the Jacksonian era are not revisionist: Timberlake, "The Independent Treasury and Monetary Policy Before the Civil War", *Southern Economic Journal,* 27 (October, 1960), pp. 92-103; and *idem.,* "The Specie Standard and Central Banking in the United States Before 1860", *Journal of Economic History,* 21 (September, 1961), pp. 318-341.
47. George Macesich, "Sources of Monetary Disturbance in the United States, 1834-1844", *Journal of Economic History,* 20 (September, 1960), pp. 407-434.
48. Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867-1960* (Princeton, N.J.: Princeton University Press, 1963).
49. Jeffrey G. Williamson, "International Trade and United States Economic Development, 1827-1843", *Journal of Economic History,* 21 (September, 1961), pp. 372-388.
50. The long swing and other cyclical concepts have an extensive economic and historical literature, and I will only mention the books by Williamson and North: Jeffrey G. Williamson, *American Growth and the Balance of Payments, 1820-1913: A Study of the Long Swing* (Chapel Hill, N.C.: University of North Carolina Press, 1964); and Douglass C. North, *The Economic Growth of the United States, 1790-1860* (New York: W. W. Norton & Co., 1966). For reasons which I cannot develop here, I consider the concept fundamentally flawed.
51. George Macesich, "International Trade and United States Economic Development Revisited", *Journal of Economic History,* 21 (September, 1961), pp. 384-385.
52. Thomas D. Willett, "International Factors in Specie Flows and American Monetary Stability: 1834-1860", *Journal of Economic History,* 28 (March, 1968), pp. 28-50.
53. Jacob Meerman, "The Climax of the Bank War: Biddle's Contraction, 1833-1834", *Journal of Politicial Economy,* 71 (August, 1963), pp. 378-388.
54. Peter Temin, *The Jacksonian Economy* (New York: W. W. Norton & Co., 1969).
55. Peter Temin, "The Economic Consequences of the

Bank War", *Journal of Political Economy,* 76 (March/April, 1968), pp. 257–274.

56. Edward J. Stevens, "Composition of the Money Stock Prior to the Civil War", *Journal of Money, Credit and Banking,* 3 (February, 1971), pp. 84–101.
57. Stanley L. Engerman, "A Note on the Economic Consequences of the Second Bank of the United States", *Journal of Political Economy,* 78 (July/August, 1970), pp. 725–728.
58. His dissertation, which I have not examined, is on this subject. Hugh Rockoff, "The Free Banking Era: A Re-Examination", (University of Chicago: doctoral dissertation in history, 1972).
59. Hugh Rockoff, "Money, Prices, and Banks in the Jacksonian Era", in R. Fogel and S. Engerman, eds., *The Reinterpretation of American Economic History* (New York: Harper & Row, 1971), pp. 448–458.
60. Hugh Rockoff, "American Free Banking Before the Civil War: A Re-examination", *Journal of Economic History,* 32 (March, 1972), pp. 417–420.
61. Roger H. Hinderliter and Hugh Rockoff, "The Management of Reserves by Antebellum Banks in Eastern Financial Centers", *Explorations in Economic History,* 11 (Fall, 1973), pp. 37–53.
62. Hugh Rockoff, "Varieties of Banking and Regional Economic Development in the United States, 1840–1860", *Journal of Economic History,* 35 (March, 1975), pp. 160–181.
63. Rockoff, "Varieties of Banking", p. 162.
64. Rockoff, "Varieties of Banking", p. 169. Of course, the really interesting question, which no one has yet tackled, is whether the prohibition of banking had any negative effect on economic growth.
65. Arthur Fraas, "The Second Bank of the United States: An Instrument for an Interregional Monetary Union", *Journal of Economic History,* 34 (June, 1974), pp. 447–467.
66. Rockoff, "Money, Prices, and Banks", p. 457.
67. Richard E. Sylla, "American Banking and Growth in the Nineteenth Century: A Partial View of the Terrain", *Explorations in Economic History,* 9 (Winter, 1971–1972), pp. 197–227.
68. Sylla, "American Banking", p. 209. See Redlich's reply: Fritz Redlich, "American Banking and Growth in the Nineteenth Century: Epistemological Reflections", *Explorations in Economic History,* 10 (Spring, 1973), pp. 305–314; and Sylla's rebuttal: Richard E. Sylla, "Economic History 'von unten nach oben' and 'von oben nach unten': A Reply to Fritz Redlich", *Explorations in Economic History,* 10 (Spring, 1973), pp. 315–318.
69. Jonathan R. T. Hughes and Nathan Rosenberg, "The United States Business Cycle Before 1860: Some Problems of Interpretation", *Economic History Review,* 2nd ser., 15 (1963), pp. 476–493. I think that the authors are being overly optimistic in confining their statement to before 1860. It applies with equal validity to subsequent fluctuations, including especially the Great Depression.
70. Austrian monetary theory can be found in: Ludwig von Mises, *The Theory of Money and Credit* (rev. ed., New Haven, Conn.: Yale University Press, 1953); and Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* (2 vols., Princeton, N.J.: D. Van Nostrand Co., 1962), pp. 160–200, 661–764. For briefer introductions see Rothbard, *What Has Government Done to Our Money?* (rev. ed., Santa Ana, Cal.: Rampart College, 1974); and *idem.,* "The Case for a 100 Per Cent Gold Dollar", in L. Yeager, ed., *In Search of a Monetary Constitution* (Cambridge, Mass.: Harvard University Press, 1962), pp. 94–136.
71. Originally, deposits of money within a bank were considered bailments, which meant that the money deposited still legally belonged to the depositor and the bank had to return not only the same amount as deposited but the exact same physical coins or bullion. At some point the law was changed, although no one has looked into the exact details. It is a good topic for further investigation.
72. I am at this point and hereafter using the word "inflation" in its original sense to mean an increase in the stock of money. The modern definition came about because an increase in the price level is frequently a consequence of an increase in the stock of money.
73. Mises favors free banking; Rothbard favors prohibition of fractional reserves. The Austrian definition of "free banking" differs from the regulated system of early 19th century America. It is defined as totally unregulated banking, except that every bank, as in the case of every other firm on the free market, must strictly and promptly redeem its obligations.
74. Sometime, as we have pointed out, governments simply create the money themselves, as with the Continentals during the Revolutionary War or the Greenbacks during the Civil War.
75. Hammond, *Banks and Politics,* p. 39.
76. *Ibid.,* p. 627.
77. On branch banking, see Oliver M. W. Sprague, "Branch Banking in the United States", *Quarterly Journal of Economics,* 17 (1902–1903), pp. 242–260.
78. This factor is hinted at by Sumner, in William Graham Sumner, *A History of American Currency* (New York: Henry Holt & Co., 1874), p. 125. Rockoff, "Varieties of Banking", pp. 171–172, attempts to measure the negative impact of usury laws, but from a totally different perspective to that which I have suggested.
79. Strictly, a cartel is a group of producers who agree to restrict production in order to drive up prices. Since banks collude to do just the opposite — expand credit which lowers interest rates — my use of the word is not strictly correct. However, I believe that my usage is within the spirit of the word.
80. For simplicity, I have been referring to bank notes, although everything I have written applies with equal validity to deposits or to any other form of bank-created money. In a central banking system, the private banks and the central bank will sometimes create different forms of money. For example, under the Federal Reserve System, private banks cannot issue notes; only the Federal Reserve (central) Banks may do so. Such an arrangement has no effect on the nature of the relationship.
81. Donald McCloskey and Richard Zecher, "How the Gold Standard Worked, 1880–1913", in J. Frenkel and H. Johnson, eds., *The Monetary Approach to the Balance of Payments* (Pacific Palisades, Cal.: Goodyear, 1975), point this out, but their new alternative theory contains a basic misunderstanding of the nature of arbitrage.
82. Rockoff, "Varieties of Banking", p. 166.
83. Willett, "International Factors", p. 49.

84. Fraas' logic, in Fraas, "The Second Bank", *passim*, if carried far enough, would show the absurdity of fiat currencies and floating exchange rates. Fraas reasons that if it is a good system between nations, then it must be good between regions. But why stop at regions? Why not, as Rothbard, "Case for a 100 Per Cent", pp. 125-126, suggests, let every individual issue his own freely fluctuating fiat money?
85. For the sake of brevity and clarity, I have greatly oversimplified the theory. For a fuller treatment, see Ludwig von Mises, *Human Action: A Treatise on Economics* (3rd ed., Chicago: Henry Regnery Co., 1963); Rothbard, *Man, Economy, and State*; and Friedrich A. von Hayek, *Monetary Theory and the Trade Cycle* (New York: Harcourt, Brace & Co., 1933). For the best application of the theory to the Great Depression, see Murray N. Rothbard, *America's Great Depression* (3rd ed., Kansas City, Mo.: Sheed & Ward, 1975). There is no work that applies the theory to the Jacksonian era, a gap I hope someday to rectify.
86. Hammond, "Jackson, Biddle", p. 2.
87. Temin, *Jacksonian Economy*, gives a good discussion of whether the Second Bank was a central bank, although he does not employ my categories.
88. Rothbard, "Case for a 100 Per Cent", p. 111.
89. For a discussion of the monetary views of the Jacksonians, see: Sister M. Grace Madeleine, *Money and Banking Theories of Jacksonian Democracy* (Philadelphia: Servants of the Immaculate Heart of Mary, 1943); Murray N. Rothbard, *The Panic of 1819: Reactions and Policies* (New York: Columbia University Press, 1962); Harry E. Miller, *Banking Theories in the United States Before 1860* (Cambridge, Mass.: Harvard University Press, 1927); and Lloyd W. Mints, *A History of Banking Theory in Great Britain and the United States* (Chicago: University of Chicago Press, 1945). The best known contemporary exposition was by William M. Gouge, *A Short History of Paper Money and Banking* (Philadelphia, 1833), but Amasa Walker, *The Science of Wealth* (3rd ed., Boston: Little, Brown, 1867), and Charles Holt Carroll, *Organization of Debt into Currency and other Papers* (Princeton, N.J.: D. Van Nostrand, 1964), both writing later than Gouge, gave lucid presentations that compare favorably with most modern texts.
90. Several authors who have managed to break through the Hammond imputation of "free banking" to the Jacksonians still equate that term with *laissez-faire*. See, for example, Gatell, "Beyond Jacksonian Consensus", and William G. Carleton, "Political Aspects on the Van Buren Era", *South Atlantic Quarterly*, 50 (April, 1951), pp. 167-185. In contrast, as I have already pointed out, Shade, *Banks or No Banks*; Sharp, *Jacksonians versus the Banks*; and Rockoff "Varieties of Banking"; are very clear in their understanding of the nature of "free banking".
91. Temin, "Jacksonian Economy", p. 80, hypothesized that the silver flow was due to an increased productivity of Mexican mining. Rockoff, "Money, Prices, and Banks", p. 454, corrected Temin, offering the explanation I have accepted.
92. Of course, 100% reserve banking in the U.S. would have prevented credit expansion in the U.S., but there still would have been fluctuations in the money stock along with malinvestment induced by capital flows.
93. This misunderstanding of deposits originated because of a meaningless distinction between lodged deposits (which were supposedly backed 100% by specie), and created deposits. The misunderstanding was shared by some, but by no means all, of the Jacksonian hard-money theorists. In fact, the correct understanding of deposits came earlier to American economic thought than it came to England.