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Hamilton Based the Central Banking of the U.S. Bank upon the Notion that there is No Political Independence without Economic Independence

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Abstract: The Continental Congress foray into printed money during the American Revolution was so disastrous that the United States printed no more money for nearly a century, the one exception being a brief period during the War of 1812. After that Congress chartered and unchartered its national bank twice.

The American economy henceforth (1816–1836) was often structurally short of coins, and without any national coinage Americans had to find substitute forms of currency to finance the burgeoning economy. The Supreme Court ruled that sovereign States and individuals could authorize both State and private banks to issue their own notes. In consequence, nearly all paper money in circulation was either State or private banknotes based on a limited reserve of gold.

This generally proved insufficient to adequately fund major infrastructure projects. The federal government also had no institution for raising or transferring large amounts of money to fund these national improvements. Nonetheless, Hamilton's U.S. Bank, without the help of a national currency, was an institutional precursor for what would not take final form until 1913. There would be no Federal Reserve today without the Whig-Republican agenda institutionally incarnated in the First and Second U.S. Bank.

Keywords: Alexander Hamilton, industrialization, Andrew Jackson, U.S. Bank, the American System

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President Washington and Alexander Hamilton believed that political independence was predicated upon economic independence. It seems the American Revolution itself evidenced a structural desire to industrialize in order to reverse the trade deficit with Britain that from 1761 to 1770 had grown to £739,000, when from 1761to1730 it had been merely £67,000. The institutional question was how to finance this industrialization: privately or enhanced by federal aid.

The Whigs[1] favored management of money and banking by the federal government (Jack 1997). Yet most Americans had a general distrust of national debt. Americans worried that national indebtedness would destroy workers' ability to accumulate capital, and said debt would rise until it created a permanent wealthy class because, they believed, indebtedness would require grinding taxation of the poor to pay for that federal debt. Furthermore, the

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[1]The Whigs would essentially become the Republican Party in 1852.

wealthy would endear themselves to the Federal Government by systemically purchasing its indebtedness (treasury bonds).

Any attempt by Whig-Republicans to make the government more economically active always met strong arguments from those who interpreted the Constitution strictly, primarily Democrats, who contended that such activity was unconstitutional. Within this milieu, the industrialization of a nation needed an institutional infrastructure to finance this great endeavor. A federal bank, a central bank, was required for national greatness, but was it to be?

The Primary Chain by which Great Britain Enslaved the United States was the Gold Standard in Combination with Free Trade

The United States from inception underwent a long struggle over the control of money. Gold and silver coins proved inadequate currency. Specie[2] had been so structurally scarce that colonists used Indian wampum (strings of beads), seashells, deeds to land, and even claims on cotton or tobacco. Merchants also employed bills of credit while some drafted checks against their personal good names.

Despite this colonial dearth of money, the British outlawed colonial printing of their own monies. In retaliation, the First Continental Congress immediately authorized the printing of paper notes which could be used to pay taxes[3] and thereby finance the War of Independence. Unlike gold or silver, this paper money could also be too readily augmented whenever the Continental Congress felt under stress and traded the long-term cost of devaluation for the short-term benefit of liquidity. During the Revolutionary War, the phrase "not worth a Continental" summarized the devaluation that gutted the paper currency issued by the Continental Congress (Newman 1958).[4]

Unlike any private agent, the Continental Congress' creditworthiness rested not on a public assessment of its ability to earn credit in the marketplace, but rather on the strength of its willingness to deploy its political authority (the continental army if need be) to accumulate credit from its subjects via current and/or future taxation (Knapp 1924).[5]Continental creditworthiness[6] substantially rested on its ability to collect taxes, which rested on its ability to win the war since a vanquished Continental Congress could not tax anyone.

The Paris Treaty of 1783 granted the United States only political freedom from England. Working under the 1787 constitution as the first treasury-secretary, Alexander Hamilton addressed this Federal "not worth a Continental" credibility issue as well as the State-chartered Banknotes "liquidity-issue." As to the Banknotes "liquidity-issue," each State's mutual credit networks (other State Banks) had natural limits in issuing banknotes due to knowing commercially and personally would-be debtors well enough to issue a loan. This fragility of confidence generally imposed constraints on monetary issuance on a scale confined to that of the particular State. Thus, State-chartered banks could not function as an institutional mechanism by which to organize the national economy. Only the money of the

[2] Money in the form of coins rather than notes.

[3] Since these paper notes (Continentals) were used to pay off "Continental taxes," they were in essence nothing but liquid credit accumulated against the Colonies' most concrete manifestation of societal power: the sovereign, which in this case (assuming the Colonials won the War of Independence) was the Continental Congress. Otherwise, it would be a vengeful Britannica Imperium.

[4] The British also flooded the colonies with counterfeit continentals and state currencies.

[5] This is the essence of the chartalist theory of money.

[6] Also to enhance creditworthiness, the U.S. Congress passed the Coinage Act of 1792, which linked the dollar to gold and silver.

national sovereign could enjoy sufficient currency for that mission. A national bank would also simultaneously resolve the Federal "not worth a Continental" credibility issue as well.

With volume of use comes currency-credibility, whether by taxation or from a transactional means of final payment (legal tender laws). Hence, given the high percentage of government finance needed to pay off the national debt, a National Bank would presumptively be creditable to pay off federal taxes until proven otherwise. Furthermore, a national money would enhance commercial trade by not having its funds discounted by the distance between the transaction and the State Bank of fund issuance. In other words, a national money comports with the essentiality of money. Any IOU (money) has two fundamental characteristics: 1) creditworthiness: how likely the IOU will count as payment when the debt comes due, and 2) liquidity: how quickly the IOU can be realized, less any discount, either by sale to a third party or simply by coming due if no sale is sought. The more of a discount in the transfer, the less liquid the IOU (money) is. State Banks suffered liquidity and credibility issues when their IOUs (money, banknotes) crossed State-Sovereign lines. The more distance, the more of a discount that occurred (a New York banknote would be worth significantly less by the time it reached the Sovereign State of Georgia [almost as if it were another country]). This hurts national commerce, and the solution would by necessity also be national.

Using the Bank of England as a model, Hamilton proposed the establishment of a nationally chartered but privately owned bank, the Bank of the United States,[7]which would issue bank notes that would circulate as currency. This initiative pleased creditors, since they profited from a strong (deflationary) dollar, as it purchased at least as much on repayment as when it was initially lent. This proposal unsettled debtors, who profited from a weak (inflationary) dollar.

As the champion of debt-strapped farmers, Thomas Jefferson objected that the Bank of the United States would mortgage the public interest to the personal interests of the bank's wealthy shareholders. Hamilton contended that the public interest necessitated governmental alignment with the wealthy, and, with the help of Congressmen who became charter shareholders of the bank, Hamilton defeated Jefferson. The national banking system began operations in 1791with a scheduled lifespan of twenty years.

The First U.S. Bank (1791–1811) and Second U.S. Bank (1816–1836) assured monetary and credit availability at a national level, and, as Hamilton had foreseen, this was critical to the industrialization of the nation. Under the "American System," the U.S. Bank jump-started domestic industry while revealing the federal necessity of aptly distributing credit and money.

By 1811 the Jeffersonians controlled the government and allowed the U.S. Bank's charter to lapse. The War of 1812 quickly demonstrated the merit of a stable currency and the value of a national bank (Nester 1998). The war put new pressures on the banking system as federal expenditures rose steadily from $8 million in 1810 to $35 million by 1814. Congress balked at new taxes, and the Treasury was forced to borrow at high interest rates. The War Department was pressed to secure enough money to pay the most rudimentary bills due, and the Treasury could no longer even finance the interest on the public debt. By late 1814, most State banks beyond New England were compelled to suspend specie payments. During the war, State banks had multiplied and substantially extended their note issues until

[7] While the U.S. Bank made money available for industry, it did not take an equity or management role.

the deluge of bank notes circulated at varying discounts. U.S. treasury notes increased with fluctuating downward value. Inflation was rampant.

By 1815 the credit of the United States had sunk to its lowest ebb since the founding of the federal government. Not until the war was nearly half over did Congress increase customs duties and impose new excise taxes. The war was paid for largely by loans, with a resultant increase in the national debt from $45 million in January 1812 to $120 million in late 1815. With specie in short supply and the currency (consisting largely of depreciated bank notes) badly incoherent, the Treasury had to accept bank paper of all kinds in order to keep the revenues from drying up. This in turn merely fed the inflation that was already under way.

David Parish, John Jacob Astor, Stephen Girard, and other wealthy merchants opined that the re-establishment of a national bank would enable the government to better finance the war, while also increasing the price of government stock in which they had heavily invested (Walters 1945). In view of later controversies as to the U.S. Bank's function, it is worth noting that Secretary Dallas regarded the U.S. Bank as much more than a giant commercial bank and in December of 1815 wrote to John C. Calhoun: "it is not an institution created for the purposes of commerce and profit alone, but more for the purposes of national policy, as an auxiliary in the exercise of some of the highest powers of the Government" (Catterall 1902).

Soon after the war, in 1816, Jefferson's heirs re-chartered the U.S. Bank for another twenty years, the primary purpose of which was to force the state banks to resume specie payments and to establish a creditable national currency (Schur 1960). On February 20, 1817, after the U.S. Bank had been in actual operation for only a little over a month, it was able to get the state banks to resume specie payments and to remain on a specie-paying basis with additional suasion from the U.S. Treasury (Schur1960). Unfortunately, too many government officials and officers of the U.S. Bank did not adhere to this broad view but regarded the U.S. Bank as merely a massive financial institution chiefly obligated to make profits for its stockholders. Seemingly with the purpose of maximizing profits for stockholders, branches were promptly opened up in the vital commercial cities, and loans and discounts were rapidly expanded, especially in these branch offices. By January 1819 the Bank was perilously close to bankruptcy (Gouge and Dorfman 1968).

Despite the U.S. Supreme Court Constitutionally Linking the Second U.S. Bank to the Federal Government's Fiscal Operations, A Structural Flaw Was Its Death Knell

John Marshall declared in the 1819 case of McCulloch v. Maryland that the Second U.S. Bank was a necessary and proper instrument of the federal government for carrying out its fiscal operations and was therefore constitutional (Gunther et al. 1969).[8] Andrew Jackson disagreed and, along with many Americans, believed that although the Supreme Court represented the judicial branch of the government, it did not represent the legislative or executive branch; and neither the expressed nor implied powers of the constitution authorized the charter of such a corporate monopoly most especially since fiscal power most arguably came under the

[8] Moreover, Justice Marshall found Maryland's attempt to tax the U.S. Bank unconstitutional since if this were permitted then any State might "tax all the means employed by the government, to an excess which would defeat all the ends of government."

auspices of the legislative branch. Even so, Jackson would have permitted the bank to expire peacefully when its charter lapsed but Henry Clay prompted U.S. Bank president Nicholas Biddle to request an early re-charter and Congress agreed. Jackson vetoed the re-charter bill. The war between States-Banks versus the U.S. Federal Bank had begun.

The U.S. Bank's primary customer was, unsurprisingly, the federal government, whose massive gold deposits provided the reserves against which the U.S. bank issued loans. Jackson gutted the U.S. Bank by ordering the gold deposits withdrawn from the U.S. Bank and deposited in diverse state banks.[9] Nicholas Biddle immediately contested this withdrawal by contracting the money supply, believing an economic recession/depression would bring President Jackson to his knees.[10]During 1833–1834, Biddle recalled loans and otherwise tightened credit (Redlich 1951). Jackson surmised Biddle's strategy and swore to his Vice President to defeat it: "The Bank, Mr. Van Buren, is trying to kill me. But I will kill it!" (Mihm 2013).

Jackson did kill the bank, defeating Biddle and vindicating the principle that elected representatives, rather than a small cadre of rentier financiers, should dictate the financial fortunes of America. Biddle had demonstrated what his enemies had earlier charged was the U.S. Bank's Achilles Heel: the ability of the U.S. Bank to affect the whole course of national commerce coupled with the U.S. Bank President's willingness to use that power for his own personal agenda and to the public detriment. Jackson had won a great victory for yeoman democracy and inaugurated an epic disaster for the national economy. As the national debt was retired in 1834, and as federal land sales soared, the level of federal gold deposits in favored state banks increased five-fold between 1834 and 1836.[11]

Jackson's "pet" banks could now issue loans backed by federal gold to an unforeseen degree. His refusal to re-charter the U.S. Bank and his shifting of government gold deposits to the state banks was a structural stimulus to state-bank monetary expansion. A self-reinforcing cycle set in, whereby credit expansion by the state banks further stimulated both massive federal land speculation and the pace of business activity generally. Much of this was funded by the flimsy credit (discount rates rose as high as 18 to 36%) of hundreds of poorly managed state banks.[12]

Jackson crimped this gambling under the Specie Circular of 1836 by requiring federal land purchasers pay with gold or silver, not banknotes. The aim was to impede speculation in public lands, but the circular triggered a real estate and commodity price crash as most buyers could not secure sufficient hard money or "specie" (gold or silver coins) to purchase the land. The Specie Circular requirement prompted banks in the West and Southwest to augment their specie stock by draining eastern financial centers of gold.

At nearly the same time, Congress enacted a new policy of distributing federal surplus revenues to the States by which specie went Westward. The Deposit and Distribution Act of

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[9] The gold deposits were placed in selected state banks, known derisively as "pet banks" since they were believed to be closely affiliated with the commercial interests of certain esteemed Jacksonian-Democrats. But over the next few years the number of deposit banks was gradually enlarged, and Jackson's Treasury Department selected many that were controlled by opposition-party Whigs (Scheiber 1963).

[10] Biddle wrote, in January 1834: "Nothing but the evidence of suffering abroad will produce any effect in Congress." And early the following month penned, "all the other Banks and all the merchants may break, but the Bank of the United States shall not break"(McGrane1924).

[11] The annual income from sales of public land rose from only $2,300,000 in 1830 to $14,800,000 in 1835, and to the all-time high of nearly $25,000,000 in 1836.

[12] The number of banks grew to 506 by 1834 and to 788 by 1837, and bank note circulation soared to $950, 00,000 in 1834 and $149,000,000 in1837 (Gouge and Dorfman1968).

1836 located federal revenues (gold) in various local banks ("pet banks")[13] throughout the nation. Many of these were Western banks. The effect of this Act was to further bleed specie away from the nation's primary commercial centers on the East Coast. With lower monetary reserves (gold) in their vaults, major Eastern banks and financial institutions curbed back their loans, triggering mad panic already wild from the West's real estate crash (Rousseau 2002).

This hemorrhaging of specie from eastern banks occurred just when foreign credit was becoming unpropitious. During the years 1835–1836 England experienced a considerable boom. British banks multiplied singularly and in consequence loan volume erupted. The massive drain on the Bank of England's gold reserve in the spring of 1836 sharply spiked the Bank's discount rate by July and again in September. By autumn the Bank of England took aggressive measures to evade a financial crisis, which included rescuing the Agricultural and Commercial Bank of Ireland from default and issuing regulations intended to trim the operations of the English Joint Stock Banks, some of which had purchased gargantuan amounts of American bills (Munn 1988). Making matters worse, a deluge of American securities, mostly state bonds to finance public improvements, came onto the American market as British purchases of said bills discontinued at the regulatory behest of the Bank of England.

The U.S. credit boom prompted consumers to purchase imports in record amounts, with the result that imports exceeded exports on September 30, 1836 by the unprecedented total of $52,000,000. The balance of trade against the United States had never been worse, particularly in relation to England. As if the Almighty were suddenly British, the U.S. suffered a disastrous grain crop such that British wheat was imported, a first in U.S. history. 1836 in financial terms seemed a year of Judgment. After cotton, wheat had been historically the prime American export by which to offset the incessant purchase of British manufactured goods in lieu of exporting the ever-dwindling supply of American gold.[14]

Soon enough the rise in demand for more specie to pay for American imports from England plunged the economy into the infamous panic of 1837. A hairpin turn in credit contraction resulted, and on May 10, 1837, banks in New York City suspended specie payments; no longer would they redeem commercial paper in specie at full face value. Nearly all American banks discontinued redeeming their banknotes in gold and silver. In times of general suspension the state banks which could not redeem their notes in specie might not immediately go bankrupt, but their notes would circulate at a steep discount. The banknote palmed to buy food would have depreciated significantly, suddenly making bread a luxury many could not afford.

By executing the Specie Circular of 1836, Jackson had somewhat initiated a run on the banks on the one issue that separated banks from other financial institutions. The management of liquidity risk is unique to banks and involves the mismatch between liabilities

[13] Historians typically view Jackson's pet-banks policy as a crass political move, or at best as a misguided effort to replace the system of controlled banking that the U.S. Bank had assured with a policy of virtual laissez-faire (wildcat banking). But there is an alternative explanation, which interprets the pet-bank policy as a move toward tighter federal regulation of banking and restoration of truly public control, supplanting the irresponsible private-political (nepotistic) control that Biddle had exercised. This latter view is based upon evidence that Jackson's Treasury Department in 1833–1835 required the new deposit banks to accept guidelines for keeping their specie reserves in a conservative ratio to note issues, to reduce the issue of small-denomination notes, and to provide the government with personal bonds by their directors as security for the deposits they held (Scheiber 1963).

[14] The immense adverse Anglo-American trade balance of 1836 might have brought no serious, immediate difficulties had British banks been willing to accept payment in American bills or securities. Admittedly, under a Gold Standard, this scenario is rare to nonexistent.

(deposits available for withdrawal on demand in gold or silver at face value (no discount)), and assets (loans or securities which do not mature and usually are not realizable in the same time frame). The distinctive business of a bank is transforming short-term liabilities (deposits) into long-term loans to their clients.[15]Yet banks really do have an irresolvable mismatch, which is sustained only so long as depositors remain confident in the banks' creditworthiness and the liquidity of their liabilities. Once panic incites a sufficient run on the banks, the inevitable mismatch comes to light. By requiring only gold or silver to buy federal land, and no longer accepting banknotes, President Jackson had inadvertently triggered a nigh seven-year depression that equally squelched banks, "elitist" Whig capitalists and his own yeoman Democrats.

The Second U.S. Bank (1816–1836) was Inherently Flawed

Although the Sovereign-State may indeed be the closest thing there is to a concrete manifestation of society, it is not society. What if the interests of the two diverge? This is where the U.S. Bank was inherently flawed. What if the Sovereign (Federal Bank/Federal Government) were to use its near-monopoly on money for its own agenda (by over issuing money in order to fund spending simply to secure its popularity or re-election. Or in Biddle's case cut off the national money supply to force its re-chartering by President Jackson)? Biddle's politicization of the national money supply proved President Jackson's veto was appropriate. Unlike the Federal Reserve (1913-Current), the Second U.S. Bank was not even facially independent of politics. In fact, Biddle proved to be more sectarian than President Jackson.

Money must originate outside the marketplace, but the Second U.S. Bank was a market-competitor with all other State-chartered banks, and this is most essentially why the State banks despised the U.S. Bank. As with State banks, the U.S. Bank made loans, and thus created money even if, like State Banks, it was also somewhat constrained by the multiplier effect tied to gold reserves.[16] But critically, the U.S. Bank was also a de facto Central Bank located at 128 South Third Street, Philadelphia, Pennsylvania. As Alexander Hamilton had intended, the whole purpose of the U.S. Bank was to issue credit to government and private interests for internal improvements and economic development in general, while also acting as a depository for collected taxes and issuing short-term loans to the government.[17]Yet a de facto Central Bank cannot also be a retail Bank in competition with State Banks. State banks objected furiously to the U.S. Bank's practice of draining their gold reserves, as Biddle had done, and also asserted that the U.S. Bank's dual role as both their competitor and their regulator put them at an institutionally unfair disadvantage.

Biddle manipulated the U.S. Bank so that it produced not the sublime combination of freedom and stability the Whigs had promised since Hamilton, but instead launched a major depression. The U.S. Bank was able to do this, unlike a State bank, because it

[15] The technical term for this is "maturity transformation," which is a euphemism since no transformation takes place. Alas, alchemy is as impossible in banking as in the natural sciences. Thus, banks are susceptible, particularly when on a specie standard (gold and/or silver).

[16] Bank credit/money creation does not funnel existing money to novel employ, but instead creates new credit/money that did not exist beforehand and then funnels it to some use. Furthermore, money is not neutral and impacts the economy (Phillips 2017; Werner2014). Post-Keynesians' avouching this position for years amounted to being a veritable "voice crying out in the wilderness," until 2014(McLeay, Radia, and Thomas 2014). The models within Orthodoxy's equilibrium analysis would conclude with an unpredictable indeterminacy *if money were not neutral*. Hence, mainstream economics' academic adamancy in the neutrality of money.

[17] To avoid the appearance of impropriety, the Bank was precluded from buying government bonds or issuing notes or incurring debts beyond its actual capitalization.

functioned as a central bank, empowered to control the amount of bank notes that state banks could issue, to transfer funds across the country, and to act as the fiscal agent of the U.S. government.[18] And yet still, the U.S. Bank also operated just like any other commercial bank, making business loans, taking deposits, and issuing bank notes. More than anything else, it was this institutionally embedded contradiction that Biddle politicized, which led to the bank's demise.

Perhaps the many sovereigns (the States) issuing their own State banknotes could not achieve what the "quasi-Central" U.S. Bank could achieve in Whig-theory, but the cacophonic State banks were perhaps an effective hedge against the national catastrophe initiated by Biddle. So who should control the National-Federal money supply? "No one!" was the political mantra of the Jacksonian-Democrats, which by Constitutional default meant the State Sovereigns would.[19]

President Jackson's actions cohered with Adam Smith's Free Trade policies, where trade, and not industry, is the primary modality of commerce. Strip a bank's balance sheet back to its bare bones, and the simplest form of banking, the form practiced by the most risk-averse of banks, is the short-term financing of trade where credit risk is minimal. Loans are routinely extended simply to cover the purchase and transport of goods for which a sale has already been agreed, and the goods themselves are often used as collateral. With sufficient insurance, the bank might even eliminate the credit risk altogether (Martin 2015). The Whig-Republicans demanded a banking system that supported long-term capitalization of industry. This meant a national policy towards the money supply, a national bank, and heavy long-term industrial investments to export mass-produced goods and become, "The Workshop of the World." This is what drove Hamilton, Senator Henry Clay, economists Matthew Carey and son, Henry Carey, and President Abraham Lincoln: all else was secondary.

The Jacksonian-Democrat View of Money Warred Against the Whig-Republican View

Jacksonian-Democrats viewed currency as commodity-coinage, which functioned as a "medium of exchange". They followed Aristotle, Locke, and Smith who all deduced that money emerged out of barter even though no one then or now has ever actually seen an economy that operated entirely via barter exchange.[20]Incredibly enough, Adam Smith's theory of money's origins and nature is not just a historical curiosity but is still embedded in virtually all mainstream economic textbooks (Graeber 2012).To this very day, its underlying ideas have formed the groundwork of an enormous body of detailed theoretical and empirical research on monetary questions (Heinsohn and Steiger 1989). Based on its assumptions, economists have designed intricate mathematical models to probe why one commodity is ascendant as money over all others, and have constructed a vast analytical

[18] If the U.S. Bank wanted to restrict the volume of a particular bank's loans and notes, it would accumulate a large quantity of those notes and then present them for redemption. This drained the issuing bank's specie reserves, forcing the latter to reduce its notes or face bankruptcy. The central bank rewarded satisfactory operating policies by holding on to the notes or paying them out into circulation rather than redeeming them, thus allowing that state bank to retain its reserves(Kidwell, Blackwell, and Peterson1997).

[19] The Nation was thus left without a central bank from 1836 until the Federal Reserve Act of 1913 (Calomiris 2012).

[20] "Barter, in the strict sense of moneyless market exchange, has never been a quantitatively important or dominant mode of transaction in any past or present economic system about which we have hard information." (Dalton 1982; Humphrey1985)

apparatus to elucidate each aspect of money's employ and value (Semenova 2014). This is the conventional theory of money, and a key plank in the political philosophy of Jeffersonian-Jackson Democratic Free Trade Theory.

Another central plank for Jacksonian-Democrats was that banking was elitist. Yet, only a self-regulating clique could incubate the interpersonal trust necessary to operate a private monetary network, and the barriers to entry were trifling once its core principles were grasped. Unlike the State, bankers had no power of coercion to enforce their franchise. As a result, bankers treasured its secrets emulously and began a steep tradition of enshrouding their practices in a fastidious academicism thoroughly suited to preserving their syndicate. In sum, the very features that enabled the bankers' private money to function were exclusionary, and thus could not displace sovereign money.

Due to this structural distrust in clubby bankers[21]and the rank political power exhibited by Biddle's use of the Second U.S. Bank, Jacksonian-Democrats held firm that the only way to ensure the constitutional government's safety was by adhering unswervingly to a fixed monetary standard, impervious to interference from the Sovereign (Federal Government), the cliquey bankers, or anybody else. Since money was just precious metal, nature demanded that its standard be fixed, just like the standard for length, or weight, or time. As a commoditized precious metal, the proper monetary standard was simply shorthand for weight: the mint-ordained amount of gold in the coin was the actual money and nothing else. The possibility of a free monetary order, wherein money was backed by the Federal Government alone and not the gold in the coin, had to be sacrificed to ensure that a free political order could be guaranteed wherein the Federal Government could not act capriciously as Biddle had recently done and the many Kings[22] before him. Thus, their nigh-religious adherence to the Gold Standard (at times silver was also included). Ironically, this fervor worked to the King of England's benefit.

The Whig Response to the Jacksonian-Democrats' Refusal to Allow National Control of the Money Supply was Northeastern Control

Adam Smith, John Locke, Thomas Jefferson, and Jacksonian-Democrats believed coins and other currency, being tangible and durable, are money and that the incorporeal apparatus of credit and debt is constructed on top of money. The reality is exactly the opposite, which is precisely what Alexander Hamilton, Henry Clay, Matthew and Henry Carey, Abraham Lincoln and the Federalist-Whig-Republicans believed.

Federalist-Whigs believed currency to be ephemeral and cosmetic: it is the underlying mechanism of credit accounts and clearing that is the essence of money. It is the social technology of transferable credit that is the fundamental force: the primordial monetary reality. From the nation's inception, Alexander Hamilton could readily see the genuine role of money when setting up the First U.S. Bank to finance the investment and infrastructure necessary to provide the nation's industrial-labor with growing complements of physical and

[21] Charles Kindleberger had indicated that the expiration of the Second U.S. Bank was due not least to its greedy and corrupt directors. These bankers enriched themselves through an assortment of unscrupulous practices, which often compounded any rampant credit-financed speculation. (Kindleberger and Aliber 2005).

[22] Since Babylonian times, Sovereigns had their mints underhandedly diminish the amount of precious metal in the coin when the people came to have their worn out coins re-minted (of course, for a fee). This ultimately was inflationary, but in the interim, poured "free money" into the royal coffers usually for the purpose of war.

human capital. Within the next generation, Abraham Lincoln would in conclusory fashion institutionalize this point.

Whig (Republican) attempts at federal control over state banks reflected commercial and industrial interests' keen concern for a sound currency and for safe banks, which would facilitate trade and finance industrial investment. Given the repeated failure to establish nationwide control over the banking system, it was not surprising that eastern State governments encouraged their own banks' systemic cooperation to benefit their own regional economies. Boston banks agreed to redeem the otherwise discounted notes of New England country banks at par, provided those banks kept sufficient specie reserves to cover any reasonable surge in redemption. The so-called Suffolk System (1820s and onward) gave booming New England the soundest currency and banks within the nation (Lake 1947).

In 1829, New York followed and set up a Safety Fund which protected bank creditors (noteholders, depositors) as a "lender of last resort"[23]and was financed by pro-rata contributions of its banks. This effectively halted panic runs and thereby stabilized the local economy, enabling New York to quickly emerge as a major trading center until a wave of bank failures exhausted the fund in the early 1840s.[24] Nonetheless, one can perceive money's claim of being a societal-technology by its organizing the Northeast in combining the power of social mobility and personal freedom through urbanization of the Northeast via financed industrialization and its attendant, higher wages. Both the Suffolk System and the NY Safety Fund fused together both the short-term and the long-term "transactional orders," better enabling commerce to govern in tandem both the minutiae of acquiring and spending in the everyday and the profundities of social harmony (labor and capital in union) for socio-economic advancement. Intuitively, newspapers and magazines of the time mentioned the harmony between labor and capital working for the greater good, and this would become a key Whig-Republican political theme.

But outside the Northeast, the nation endured the disordered condition of the money supply, which crimped those merchants continually involved in monetary transactions. These merchants and manufacturers sustained serious monetary loss because of having to accept depreciated or doubtful banknotes. Additionally, the inconvenience of a non-uniform currency added to their cost of doing business, a cost which permeated society. The Whigs struggled to rectify this, but to no avail. Abraham Lincoln had not yet arrived.

Targeted Mercantile Credit from Hamilton to Lincoln Under What Became Known as the American System

The Constitution of the United States of 1789 provided a type of strong central government essential to internal state-building. This mercantilism most forcefully involved the creation of a strong system of national public finance. Of the series of reports directed by Alexander

[23] The other important innovation was that a board of three commissioners was established, and charged with the responsibility of making quarterly inspections of the operations of each bank. Even the Second Bank of the United States, though of course permitting examination by an agent of the United States Secretary of the Treasury, made no provision for periodic examination by experts. This requirement of the New York Act was very soon copied by other states and came to be regarded as an essential feature of a sound banking system(Helderman 1980).

[24] In 1845 the legislature provided for a state loan to make up current deficits in the fund. The chief weakness lay in assessing contributions to the fund on the basis of bank capital instead of on note circulation. The effect was to penalize the New York City banks, whose capitals were large but whose note issues were seldom excessive. On the other hand, the country banks, whose capitals were small and who were most likely to overextend their note issue and get into trouble, made relatively small contributions to the fund and so felt little pressure to contract their note issue.

Hamilton, secretary of the treasury, to the United States Congress, the most important by far was the Report Relative to a Provision for the Support of Public Credit (submitted January I4, 1790), for out of it emerged policies that led to the establishment of public credit. In another report that year on December 13th, Hamilton proposed to Congress what was to become the Bank of the United States.[25]

A national bank tends to increase public credit, Hamilton wrote in 1781, several years before assuming office at the treasury. "There is no other that can give to government . . . extensive and systematic credit" (Hereafter cited as Hamilton Papers). As early as 1782 Hamilton was considering the option to fund the debt but was not yet committed to any one course. In fact, he envisioned two possibilities: to liquidate the debt by paying both interest and principal or to let the principal stand and pay interest only. He leaned toward the former. At the time, of course, he lacked power to do either. But by 1790 Hamilton, as secretary of the treasury, had resolved the question. The Report on the Public Credit came out strongly for funding (Cowen and Sylla, VI: 70–72). Hamilton would delay indefinitely repayment of principal, aside from small sums to be reimbursed with the aid of a sinking fund, but even these redemptions were geared more toward influencing the market price of the debt rather than toward debt reduction. Money for Hamilton was geared toward future profits to the National good, not based on the past accomplishments of collateral (usually land).

Hamilton envisioned the establishment of government credit through prompt regular interest payments as the precondition to the successful operation of a bank empowered to issue notes. If the State's credit was bad to begin with, businessmen would not accept a bank's notes at face value. Where public finance was concerned, Hamilton was an Anglophile. He realized that England, with one-third the population of France, could borrow as much money as France and at half the rate of interest. The reason was that the English parliamentary monarchy enjoyed a public credit based on confidence: a confidence stemming in no small part from regular publication of government accounts.

Hence, the ideal financial institution for Hamilton to mimic was the Bank of England.[26] That institution made large loans against the promises of the state without compromising its credit because the nation had complete confidence in these promises. People had to trust The People's money since money more than anything else is a societal technology. One could say of Hamilton (and Lincoln's Greenbacks) that "confidence" was at the center of his fiscal policy.

In this institutional regard, Hamilton had a modern view of money by equating it as essentially equal to debt, especially to bank debt. This inherent relation between money and debt Hamilton knew to be fully associated with the founding of the Bank of England, which despite the American Revolution ironically became his guiding light in creating the National Bank of the United States. As with the Bank of England, Hamilton would channel

[25] Hereafter called Report on the Public Credit. The two reports that followed are both dated Dec. 13, I790: First Report on the Further Provision Necessary for Establishing Public Credit, which concerned taxes; and Second Report on the Further Provision Necessary for Establishing Public Credit, also known as Report on a National Bank.

[26] Although the principal business of the Bank of England was to serve as fiscal agent for the British government, it also engaged in private banking, specializing in dealings with large companies such as the East India Company. Very early it began to accept deposits from other bankers, including the goldsmith-bankers, and gradually in the course of the eighteenth century it became a true central bank, that is, a bankers' bank. Officials of the Bank of England contended into the nineteenth century that it was just like any other bank, all the while being quite unique in the British fiscal system, and only after 1873 did it take clear responsibility for acting as a lender of last resort. The Bank of England remained privately owned (until 1945) but always remained under government control.

economic development by increasing a debt to which The People were bonded. Government borrowing increased the public debt. In response, the Bank issued paper money to the extent of the increase in the public debt, and thus increased the circulating media by an amount equal to the increase in the public debt. The Bank of England notes, representing debts of the Bank, were lent at interest or spent by the Bank as money and so became in effect the same thing as money. This institutional process is paramount for all forms of capitalism, whether industrial or financial, and is intimately connected to mercantilist credit, which augurs modern credit.

This critical institutional insight, the acolytes of the American System (Hamilton, John Quincy Adams, Clay, Carey, and Lincoln) had intuited throughout early American history. To these Founding Fathers of the American System of economic development, saying that money is debt meant it also can be said that money is credit or is based on credit. Credit and debt are two sides of the same coin. Hence one man's credit is necessarily another man's debt, and so credit is always equal to debt, and every change in one involves a change in the other.

It did not take long for the markets to realize that Hamilton had designed the U.S. Bank to support the restoration of public credit, and had restored public credit in turn to support the U.S. Bank (Sylla, Wright, and Cowen2009.) This symbiotic institutional relationship between the National Bank and the public investing in the real economy was also intended to thwart speculators, jobbers, and their attendant cyclical financial bubbles. Hamilton assumed that regular payment of interest (which his funding system was designed to guarantee) would raise and stabilize the price of securities. A stable public debt would drive away speculators. The wealthy would invest in the Nation and less so in market speculations.

Rampant institutional speculation is often a key precursor to financial crises which can then also crimp future economic growth (Reinhart and Rogoff 2009; Schularick and Taylor 2012). Hamilton wanted the National bank to guide speculation but not quash it since financial bubbles can be catalysts of innovation by fostering socio-economic investments in areas that would otherwise not experience technological advances if projects were solely evaluated by a stringent cost-benefit analysis (Gisler and Sornette 2010).

The National Bank was a key institutional component of the (Mercantilist) American System and managerially cognizant at its foundation that credit creation is of vital importance for entrepreneurship and growth (Schumpeter 2017). This fully comports with John Maynard Keynes (1936), who argued that "animal spirits" are, in fact, the origin of entrepreneurial action (von der Becke and Sornette 2017). Furthermore, advocates of the American System realized that the institutional query of where and how credit was invested also helped determine its ability to promote socio-economic growth as opposed to asset inflation (usually land speculation). Modern research indicates that in the long run, only "credit for production" increases GDP instead of "credit for consumption," which typically has a de minimus positive effect on GDP, and "credit for speculation," which typically only inflates already-existent assets (Werner 2005). Discerning between these credit channels is not always institutionally clear-cut, and therefore channeling the national credit toward an appropriate socio-economic target is critical and yet never determined (contra Marx) or mathematically obvious. And yet, a neo-Founding Father (and keen macroeconomist) and vehement advocate of the American System, Keynes never once wavered on the appropriate target that would enable the United States to industrialize capitalism beyond his arch-nemesis: The Workshop of the World (Great Britain).

Lincoln Intuited that the Track Out of the 1837–1844 Depression was a Federal Bank to Fund Railroads across the Nation

Of all the Whigs, Lincoln, next to Clay himself, was the most feared champion of a nationalized money supply. In a prescient speech on banking policy delivered on December 26, 1839, in Springfield, Illinois, Abraham Lincoln attacked Andrew Jackson and defended the constitutionality of a national bank (Basler [1946] 2008).

Despite a brief recovery in 1838, the years 1837to1844 were, generally speaking, years of deflation in wages and prices. In response, Congressman Abraham Lincoln wanted to institutionalize a national circulatory currency to goad economic development. At the time, Lincoln was speaking within the very heart of the Transportation Revolution (1815–1840). Lower transport costs empowered industrialized nations (much as did their rising productivity) to extort an economic rent ("superprofit") on their exports. The price of an exported good did not have to rise unless other nations sold the same good for less. Until such time, the lower transport costs were pure profit, which ultimately meant less gold seepage from the U.S..

In the 1830s, deciding which modes of transport to publicly fund was a major political issue, and perhaps Abraham Lincoln's choice of modality was steered in perceiving the Illinois iron men gaining socio-economic ascendancy. Lincoln voted again and again for the railroad all the while emphasizing that it was, "a never failing source of communication, between places of business," independent of seasonal variations. Lincoln thus revealed an early talent to harmonize in economic matters with what the future would bring (Krenkel 1958). His voting pattern, actions, and private letters all indicate this societal harmonization was entirely sincere.

The Lincoln who had demanded from Congress a centralized and coordinated American system of internal improvements in the 1840s, in the 1860s was making like demands upon his generals for centralization of authority and coordination of plans. This emanated from his Whig-Republican beliefs that resulted in the most original and probably most significant of his military contributions, which was his insistence that the true objective of the Union forces should be the destruction of armies, and not the conquest of territories. "Destroy the rebel army, if possible," became the Chief Executive's refrain to General McClellan and later to his successors. "I think Lee's Army, and not Richmond, is your true objective," he telegraphed point blank to "Fighting Joe" Hooker (McPherson 2008). The President's idea appears to have stemmed from two related elements. The first was his Whig reluctance to value territorial acquisition for its own sake; the second was the contrasting importance he assigned to internal economic strength, for which in his eyes population was the most meaningful index. Men, not miles, were the measure of National might. In the good old days of peace he had already warned the South:

> You will never make much of a hand at whipping us. If we were fewer in numbers than you, I think that you could whip us; if we were equal it would likely be a drawn battle; but being inferior in numbers, you will make nothing by attempting to master us. (Basler et al. 1953)

It is clear from this that Lincoln believed that some nations have had more potential than presently being utilized, and this fact will not appear on private-sector balance sheets. The key to realizing this potential has been, and still is, national policy to evoke The People into the most beneficent production. The protectionism of Lincoln grasped the analysis of technology, in this case railroads, along Nation-state lines since his objective was to maximize productivity growth over time, not merely to maximize consumption at a given moment of time by purchasing goods in the cheapest market. There are stages of economic and social development; the more elevated involve greater output and consequently greater national power. Hence, economic development means industrialization, which necessitates long-term funding from the Nation reinvested in national projects with higher productivity in consequence.

Having picked up the mercantilist baton from Alexander Hamilton, Lincoln believed the survival of democracy hung on the productivity of its laborers. Since protectionism and federal banking enhanced long-term worker-productivity via capital investments, the American System was critical to freedom and democracy itself, and thus was a viable political alternative to the Jefferson-Jacksonian-Democrats' Free Trade ideology (Phillips 2019).

On this basis, Lincoln held that The United States could not be broken up because as he said later as President in his annual message, "the United States formed an indivisible economic unit." It was indivisible because only its unity produced prosperity. He summed up an argument he had first advanced explicitly during his debates with Douglas, that the economic diversity of the country was in fact a cement binding it together through the aid of "steam, telegraph, and intelligence." Summoning thus the spirit of economic Whiggery, Lincoln reached the astounding but logical conclusion that even if military success came to the rebellion, the desire for prosperity "would, ere long, force reunion, however much of blood and treasure the separation might have cost" (Basler et al. 1953).

Conclusion

There was a relative shortage of capital in the United States, especially with western lands, commerce, and transportation competing for investment funds. In 1791, there were only five privately owned chartered banks in the United States. Furthermore, under the Constitution, the states were not permitted to issue money in the form of bills of credit. Merchants needed paper money, which banks could issue in the form of notes or credit bills on goods in trade, which in turn served as collateral. Lacking such sources of liquidity, commerce had to be conducted on a restrictive basis.

Hamilton's solution: a national banking system. The expression of which was the First and Second U.S. Bank. The Whigs were most conscious of the direct disadvantages to commerce of a chaotic system of state banking, and strove for national banking and monetary control. Ultimately, the Second U.S. Bank failed due to structural deficiencies not wholly rectified until 1913.

Jacksonians loathed how the Second U.S. Bank charter gave tremendous economic privileges and unaccountable power to such a tiny coterie of powerful elites. They concluded it was better to endure the impediments of topsy-turvy state-banking than to risk a system steered by an elite not directly responsible to the American people. Jackson denounced the Second U.S. Bank as "dangerous to the liberty of the American people because it represented a fantastic centralization of economic and political power under private control" (Remini 1967). In the competition for business, the federal charter gave the Second U.S. Bank an overwhelming advantage which it might use, if it wished, against a competitor institution (Bowers, C. G. 2010).This structural lack of objectivity and independence was its death knell.

During the administrations of Jackson's protégé, Martin Van Buren (1837–1841), and James K . Polk (1845–1849), the Jacksonian idea of divorcing federal finances entirely from private banks was implemented. Jackson's idea was "to separate the government from all banks, receive and disburse the revenue in nothing but gold and silver coin" (Hammond 1957). The government would hold all its specie in vaults of the Treasury in Washington and in "Sub-Treasuries" in other commercial cities. It would neither accept nor make payments employing banknotes or bank deposit credits. Although the ill-conceived idea of conducting federal financing in this way originated with Jackson, it did not become fully implemented until 1846. It remained in effect until its impracticality became immediately evident upon the commencement of financing the Civil War.

Throughout 1846 to 1863, the United States experienced an unstable, uncoordinated banking system, sometimes called the period of "wildcat banking" via state-chartered banks. During the Civil War period, stable money and banking became an important issue, and in 1863 the Republican Party established the National Banking System. This, however, did not constitute a central banking system.

Jefferson, Jackson, and the Democratic Party opposed this National federal-financing agenda as well as the attendant fruits of which they so feared: government-sanctioned favors for the politically well-connected at the expense of the general public, oppressive taxation, socially harmful inequities, economic monopoly, political corruption, and the monopolization of political power by Northeastern elites who would orchestrate an unholy alliance between government and business.

The Whig-Republicans believed in a national harmony of interests between capitalists and farmers/laborers so long as commerce, finance, and agriculture remained productive toward national enhancement. And many institutions would be needed for this occurrence, perhaps none more so than a National Bank, which is today our de facto fourth branch of government: The Federal Reserve.

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