HAMILTON'S LAW AND FINANCE—BORROWING FROM THE BRITS (AND THE DUTCH)

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ABSTRACT

We live in an era when Modern Monetary Theory[1] has gained purchase. Deficits do not seem to matter to nations or their finance ministers. States believe they can print their way to utopia without a reckoning; this is a scheme freighted with disaster.

This article centers on the achievements of America's greatest finance minister, whose grasp of political economy was without equal. Alexander Hamilton charted the course for American economic power. His work is timely and worthy of study.

Late eighteenth-century America sought commercial growth and new manufacturers yet feared monopolistic economic power. Hamilton's economic program, centered on a national bank and program for manufacturing, provided the framework for the finance-led transformation of America. In a short time, Hamilton's elegant solutions (based upon the English financial model) transformed America from a defaulting debtor to a magnet that attracted immense amounts of capital in the nineteenth century. The burden of the Revolutionary War debt needed to be resolved. Hamilton's program: the assumption of the states and Confederation debt, its monetization, the establishment of the Bank of the United States, and *Report on Manufactures* laid the foundation for a vibrant economy. The article demonstrates how Hamilton's prudent program strengthened the new federal government while providing the blueprint for the commercial society that emerged in the nineteenth century.

"That an adequate provision for the support of the Public Credit is a matter of high importance to the honor and prosperity of the United States."[2]

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1. See for example, a liberal American take on Modern Monetary Theory: Policy and business circles these days buzz about something called modern monetary theory (MMT). Many claim it explains why budget deficits do not matter and why monetary ease, "printing money," can cover the difference between spending and taxes and never produce inflation. It has allowed Bernie Sanders and other politicians on the progressive left to dismiss establishment concerns about Medicare for all or the Green New Deal or other proposals that would involve vast expansions of federal spending. *See* Milton Erzati, *What is Modern Monetary Policy?*, FORBES (May 28, 2019), *available at* https://www.forbes.com/sites/miltonezrati/2019/05/28/what-is-modern-monetary-theory/#4faf72a53186 (last visited Oct. 13, 2019). For a more detailed overview, *see* Peter Coy, Katia Dmitrieva & Matthew Boesler, *Warren Buffett Hates It. AOC Is for It. A Beginner's Guide to Modern Monetary Theory*, BLOOMBERG (Mar. 29, 2019), *available at* https://www.bloomberg.com/news/features/2019-03-21modern-monetary-theory-beginner-s-guide (last visited Oct. 13, 2019).

2. *Alexander Hamilton, Report Relative to a Provision for the Support of Public Credit* (1790), *reprinted in* 2 ANNALS OF CONG. 2043 (1790) [hereinafter *Report on Public Credit*]. Hamilton understood that once the United States announced it was going to stand by its war debt the nation's credit would be established and America would be on the road to prosperity. *Id.* Hamilton's plans, detailed *infra*, were able to create that sound credit.

"A national debt, if not excessive, will be to us a national blessing. It will be a powerful cement to our union. It will also create a necessity for keeping up taxation to a degree, which without being oppressive will be a spur to industry."[3]

I. INTRODUCTION

This article demonstrates the importance of Alexander Hamilton's critical economic and nationalist vision.[4] Hamilton's plan was an American adaptation of the British "square": the Excise (easily raised taxes capturing trade and technology-based wealth); Parliament (popular support for government action and programs); the National Debt (a source of funds for national defense as well as for internal improvements like canals, harbors and wharves and roads); the Bank of England (lender to the government and liquefier of the National Debt). The British "institutional square of power" proved to be superior to any of its rivals.[5]

In Hamilton's plan, revenue was raised from tariffs and excise taxes (tariffs initially being less controversial), the Congress (imposing taxes on the people to fund the national debt and meet the needs of government), the National Debt (refunding it establishes American credit and provides a capital base for further government needs), and the Bank of the United States (lender to the government and monetizer of debt). Hamilton augmented the power of the "square" with his visionary *Report on Manufactures* that presaged a commercial empire funded by a flood of European and domestic capital. The article explains the plan's

3. Letter from Alexander Hamilton to Robert Morris (Apr. 30, 1781), *in Report Relative to a Provision for the Support of Public Credit* (1790), *reprinted in* 2 ANNALS OF CONG. 2043 (1790). This letter shows Hamilton's thinking about national economic policies, a decade before he assumed office at the Treasury. He was about twenty-four years of age when he penned the letter! Hamilton saw the economic policies of the federal government binding the nation together and creating a powerful union. There are several things happening here. As you will see, Hamilton understood how the British were able to use their national debt to build a great power. England, a nation with one-half the population of France, its chief rival, was able to use its national debt to leverage its economic power and become a world power. Hamilton believed the United States could become the colossus of the Americas by using the national debt and prudent fiscal policy to become an economic and military power. The debt liquefied the money supply with conservative fiat money; and a sensible revenue policy would fund the debt and build industrial might. We pretty much have done it, following what the Dutch and the British so successfully accomplished.

4. For an excellent modern biography of America's greatest finance minister, *see* RON CHERNOW, ALEXANDER HAMILTON (2004) [hereinafter ALEXANDER HAMILTON].

5. *See* NIALL FERGUSON, THE CASH NEXUS: MONEY AND POWER IN THE MODERN WORLD, 1700-2000 (2002) [hereinafter CASH NEXUS]. The square of power is tax being efficiently collected, Parliament, the Bank of England (national bank), and robust financial markets. For a concise exposition of the square of power, *see id.* at 10-20.

development, its scope and operation, and its triumph for union and commercial empire against the backdrop of rough and tumbles early Republic politics.

II. THE SOURCES OF HAMILTONIAN ECONOMICS

Alexander Hamilton's life prepared him for his role as Washington's first minister, America's greatest Secretary of the Treasury, and the architect of its commercial empire. At an early age, Hamilton mastered finance, international trade, and business as a clerk in a counting-house in St. Croix. Hamilton's service as one of Washington's chief aides during the Revolution created bonds of trust and affection that served Washington and the Nation well during Hamilton's stewardship as head of the Treasury.[6] Hamilton's nationalism and keen sense of political economy led him to think profoundly about the new nation's grave economic problems. The national debt problem was destroying American credit and sapping its strength. Military and diplomatic weaknesses were byproducts of the unfounded nation debt. Hamilton had substantial experience as a commercial lawyer and founder of the Bank of New York (America's third bank!).[7] He was a friend and confidant of Robert Morris, the Superintendent of Finance under the Articles of Confederation and founder of the Bank of North America.

The Bank of North America (1782) attempted to act as a central bank in the early 1780s, clearing transactions, making loans to the various governments, and so on. It lacked capital and ultimate legal authority to be successful in its attempt to provide financial order in the new nation. It did prove that a commercial bank, if prudently managed, could offer financial services to both the private sector and the government. The bank demonstrated the potential for a much larger, federally

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6. Hamilton was Washington's chief of state and closest and most intimate advisor. He was acutely aware of the precarious state of the economy and government finance under the Articles of Confederation. The lack of money and failure to fund troops created extreme hardships that led to desertion and mutinies. Hamilton knew the nation could not survive long without sound finance. As early as 1779 he sketched out a detailed twelve-point program for the financial system in his letter to Congressman Duane. ALEXANDER HAMILTON, *supra* note 4, at 138.

7. Hamilton helped his brother-in-law organize the Bank of New York. RICHARD BROOKHEISER, ALEXANDER HAMILTON: AMERICAN 56 (1999) [hereinafter ALEXANDER HAMILTON: AMERICAN]. Hamilton and some of his wealthy clients formed The Bank of New York in 1784 in order to combat a land bank scheme organized by his rival, Livingston. FORREST MCDONALD, ALEXANDER HAMILTON: A BIOGRAPHY (1982) [hereinafter HAMILTON: A BIOGRAPHY] at 77-78.

chartered institution with the resources to influence the capital markets and, thus, the economy.[8]

Hamilton could draw on his vast knowledge of banking history, contemporary practices, and the success of the Bank of England. Further, as Secretary of the Treasury, the United States' largest and most important government department, he exercised his considerable powers to gather and survey the American economy in intimate detail. Hamilton was an administrative genius. He created standardized procedures and forms for his Treasury officers.[9] He kept up a two-way flow of information between his offices and customs officers in the field. Treasury officers were required to report weekly to him on their collections and payments (informing of the volume of trade and its goods). To gather the data he needed, Hamilton more or less invented a research technique: he conducted a large-scale socioeconomic research project using questionnaires. The first, dated October 15, 1789, was concerned with shipping and consisted of seven broad questions, each of which invited an essay as well as hard facts and figures. It went out to customs collectors and to everyone else Hamilton had reason to believe had useful information on the subject. The replies poured in, providing him a wealth of data and practical wisdom, much of which was contrary to common assumptions.[10]

Hamilton then used these data fashion realistic revenue proposals to raise the taxes necessary to fund the debt and operate the government. His estimates were remarkably accurate and contributed to the solvency of the young nation.

Finally, he modeled his administrative and work habits after the great French financial minister, Jacques Necker (1732-1804), the Swiss Director of Finance under Louis XVI. Necker's works informed him of the qualities of a great state minister: prudence, regularity, encyclopedic knowledge, and firmness. Hamilton reread Necker's three-volume memoirs several times. He grasped the entire sophisticated system. Regularity mandated time management and disciplined thinking. Prudence knew when to act and when to refrain. Firmness was inflexibility; better an inflexible finance minister than a weak one. Finally, the

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8. EDWIN J. PERKINS, AMERICAN PUBLIC FINANCE AND FINANCIAL SERVICES, 1700-1815, 114-36 (1994) [hereinafter AMERICAN PUBLIC FINANCE, 1700-1815].

9. Customs duties and excise taxes provided the bulk of federal revenue during peacetime periods in the nineteenth century.

10. HAMILTON: A BIOGRAPHY, *supra* note 7, at 77-78; *see also* WILLARD STERNE RANDALL, ALEXANDER HAMILTON: A LIFE 372-73 (2003) [hereinafter ALEXANDER HAMILTON: A LIFE].

finance minister must know detail upon detail of his realm and the world, not only events but technology as well.[11]

We now turn to a brief description of Hamilton's economic framework and vision.

A. Hamilton's Economic Framework and Vision

Alexander Hamilton "launched the country on its way to becoming a great commercial republic."[12] Hamilton saw American greatness—a strong, unified nationalistic state with expansive powers, powerful at the expense of the states, farmers and the planter class.[13] The republic's judiciary would check democratic excess. The strong executive and capable military would protect and defend its interests.[14]

He saw the United States as a formidable nation. The new nation would have an integrated and vigorous economy that would rival and surpass Europe. A diverse economy, he argued, develops society:

> The spirit of enterprise . . . must be less in a nation of mere cultivators, than in a nation of cultivators and merchants; less than in a nation of cultivators, artificers, and merchants . . . Every new scene which is opened to the busy nature of man to rouse and exert itself, is the addition of new energy to the general stock of effort.[15]

Equally important, a diverse economy develops individuals.

> Minds of the strongest and most active powers . . . fall below mediocrity, and labor without effect if confirmed to uncongenial pursuits, [But] when all the different kinds of industry obtain in a community, each individual can find his proper element, and call into activity the whole vigor of his nature.[16]

A sound banking system and government debt would be a foundation for investment. Capital would flow from banks and from foreign and domestic investors. The Government would encourage manufacturing bounties or subsidies.[17]

11. ALEXANDER HAMILTON: A LIFE, *supra* note 10, at 373.

12. STEPHEN F. KNOTT, ALEXANDER HAMILTON AND PERSISTENCE OF MYTH 201 (2002) [hereinafter PERSISTENCE OF MYTH], *citing* Walter Berns, *On Hamilton and Popular Government*, 109 PUB. INT. 109 (Oct. 1992).

13. HAMILTON: A BIOGRAPHY, *supra* note 7, at 77.

14. PERSISTENCE OF MYTH, *supra* note 12, at 6-7.

15. ALEXANDER HAMILTON, WRITINGS 664 (2001) [hereinafter WRITINGS] (this quotation is from Hamilton's *Report on Manufactures*).

16. ALEXANDER HAMILTON: AMERICAN, *supra* note 7, at 95.

17. *Id.* These plans are detailed in the *Report on Manufactures*, WRITINGS, *supra* note 15, at 647-734.

One of Hamilton's many gifts was that he understood how to harness speculation. He turned the self-interest of rich Americans into support for the Union. Hamilton was intelligent enough to borrow excellent ideas from smart people and successful institutions. Robert Morris had explained to Congress:

> It is ... an advantage peculiar to domestic loans that they give stability to Government by combining the interests of moneyed men for its support and consequently in this Country a domestic debt would greatly contribute to that Union, which seems not to have been sufficiently attended to, or provided for in the forming the national compact.[18]

Morris had also planned a program for consolidating the national debt, as he knew the relationship between the debt and a strong national government.[19] We were fortunate indeed to have men like Morris and Hamilton, who harnessed private wealth in the national interest.

Unlike the Bourbons before the French Revolution, who were unwilling and unable to accommodate the rising capitalist class and turn it into a friend of the government, both England and the United States had learned that useful trick. They co-opted investors into public good — building a strong United States.[20] His vision joined the interests and capital of the merchants and the developing capitalist class to those of the new federal government. Morris facilitated this without creating a cancerous system like the French tax farming which linked economic interests to the state at the cost of hatred and ultimate insurrection and revolution. The Bourbons never quite managed to align France's interests with capital or the rising bourgeoisie.[21]

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18. E. JAMES FERGUSON, THE POWER OF THE PURSE: A HISTORY OF AMERICAN PUBLIC FINANCE, 1776-1790 124 (1961) [hereinafter THE POWER OF THE PURSE], citing *Robert Morris, Journals* XXII, 436.

19. *Id.* at 16-17.

20. *Id.* at 17. DUMAS MALONE, JEFFERSON AND THE RIGHTS OF MAN 287 (Jefferson and His Time Vol. 2 1951) (Professor Malone, viewing the world through the eyes of Jefferson, does not necessarily see this as a virtue).

21. *See generally*, ANDREW LAMBERT, SEAPOWER STATES: MARITIME CULTURE, CONTINENTAL EMPIRES AND THE CONFLICT THAT MADE THE MODERN WORLD (2018) [hereinafter SEAPOWER STATES] (the ability of some nations to leverage commerce and finance and punch above their weight is neatly developed in a recent book on maritime states. Commerce, trade, and finance stimulate innovation, creating more wealth than land-based continental empires. This wealth is more readily and fairly captured by the state through taxation. Land-based empires are not able to generate as much revenue for their governments. The Dutch and English took full advantage of this strong economic foundation in building their sea-based empires. The newly created United States was in position to borrow heavily from Dutch and English ideas of government finance and political economy).

Banks were his "nurseries of wealth." Great national banks facilitated federal operations, strengthen the economy and union.[22] Merchants and investors provided "active capital," creating a great economic power.[23]

Hamilton was an apostle of the eighteenth century notion employment of national debt.[24] He observed the money machine that was the Bank of England and its role in English expansion and strength.[25]

He foresaw that prudently-managed public finance could provide "perpetual revenues."[26] Hamilton sought to innovate, to create fluid capital deliberately. He linked the Revolutionary War debt solution to commerce and revenue powers of the new nation. Hamilton recognized that the orderly disposition of the war debt would unite the states.[27]

Finally, he laid plans for the national bank. It would be "an institution that combined government funds with funds from private investors, creating a much-needed capital pool for the use of American entrepreneurs."[28] The bank was to set America on course as a commercial, industrializing nation. The bank would demonstrate the critical role the central government would play in plotting the trajectory of the national economy.[29] The next subsection describes how modern banks became vital to developing capitalist economies.

B. Banking Alchemy and Modernity

Hamilton's plans for monetizing the national debt, and hence creating much-needed liquidity and ultimately vibrant capital markets, depending upon sound banking principles and institutions. To understand how and why his plans succeeded, we must first understand the miracle of modern banking and its importance to commerce and economies.

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22. HAMILTON: A BIOGRAPHY, *supra* note 7, at 89.

23. *Id.*

24. ALEXANDER HAMILTON: A LIFE, *supra* note 10, at 374.

25. *See generally*, DAVID K. ALLISON & LAURIE D. FERREIRO, THE AMERICAN REVOLUTION: A WORLD WAR 18 (2019) ((Britain's "advanced financial institutions and abundant investment capital" (from trade and commerce) allowed England "to borrow and spend more money" than Spain and France in the Seven Years' War. The British won a wildly successful world war, fighting in India, West Africa, the West Indies, the North American Continent, and Europe. National debt almost doubled from £74 million to £133 million during the war)).

26. Hamilton proposed a constitutional convention that would give Congress the power to collect "perpetual revenues." ALEXANDER HAMILTON: AMERICAN, *supra* note 7, at 44.

27. JEFFERSON AND THE RIGHTS OF MAN, *supra* note 20, at 292.

28. CAROL BERKIN, A BRILLIANT SOLUTION: INVENTING THE AMERICAN 207 (2002).

29. *Id.*

Modern banks transform treasure into wealth. How does this occur? Before the Italian city-states invented modern banking in the thirteenth and fourteenth centuries, the transformation of wealth by institutions that became banks was impossible. What does a bank do that sets it apart from other important financial institutions? It leverages or multiples money. This can be illustrated by following the creation of a simple late-medieval Italian bank.[30] A merchant has 100 florins of gold that he stores under lock and key at his home. The 100 florins are treasures — it has value, but it does not profit the merchant while under his protection, and it does not lead to an increase in wealth. His precocious neighbor, another merchant, invents a bank by offering to store the florins and issue credit to the merchant in the form of documents. These receipts of deposit take on a life of their own. We call them banknotes, and they circulate freely (backed by the bank's credit), facilitating commerce and investment. The first merchant can now expand his trade using his banknotes. We now have 200 florins available for productive use—the merchant's 100 deposited in the bank vault and the 100 florins the banker will be able to use to extend credit to the merchant (against his own funds). Finally, our banker makes a fantastic economic leap and lends to creditworthy merchants the 100 florins in a strongbox. The banker can either do this by actually lending some of the coins or issuing paper that is backed by the 100 florins. He keeps some in reserve to meet the needs of his customers and prudently invests the balance. In this illustration, 100 florins have been transformed into 300 florins. In reality, if the banker is smart and trustworthy and if the ventures have been solid, there will be no run on the bank, and treasure will multiply as it is put to productive use.

The banks and banking in antiquity are not the same as modern banking.[31] The first bankers lived over three thousand years ago in

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30. My example is a paraphrase of a common illustration of the birth of banking. *See* JOHN KENNETH GALBRATH, MONEY: WHENCE IT CAME, WHERE IT WENT 18-19 (1975). The word "bank" is derived from the Italian word *banco*, or bench. JANET GLEESON, MILLIONAIRE: THE PHILANDERER, GAMBLER AND DUELIST WHO INVENTED MODERN FINANCE 27 (1999) [hereinafter MILLIONAIRE]. The first modern bankers sat at their benches, exchanged money and created money through issuing banknotes and discounting financial documents like bills of exchange. Venetian bankers used bills of exchange in the late thirteenth century. FERNAND BRAUDEL, THE PERSPECTIVE OF THE WORLD: CIVILIZATION & CAPITALISM 15TH-18TH CENTURY 132 (Siân Reynolds trans., 1979) [hereinafter THE PERSPECTIVE OF THE WORLD].

31. FERNAND BRAUDEL, THE WHEELS OF COMMERCE: CIVILIZATION & CAPITALISM, 15TH-18TH CENTURY, VOL. II 390 (Siân Reynolds trans., 1982) [hereinafter THE WHEELS OF COMMERCE]. At several times from the late medieval period to 1750, important capital markets had created large capital surpluses that were not able to be effectively deployed. *Id.*

Babylon. Bankers in the fifth century B.C. Athens changed money and accepted deposits. Roman moneylenders were powers with which to reckon.[32] In the Middle Ages, before the invention of modern banking, there were Jewish moneylenders in Islam and in Christian nations—but they were not modern bankers. Many of the techniques and arrangements that bypassed traditional money or specie (gold and silver coins) were old inventions. However, they had to be re-discovered in the Renaissance.[33] The first bankers were currency exchange dealers. They first came on the scene in Barcelona, Genoa, Venice, and Florence. For example, Genoese merchants provided credit based upon bills of exchange.[34] Merchants would advance money based upon transactions (or documents) showing some future delivery.[35] Peasants sometimes used crude bills of exchange with respect to wool or corn.[36]

The bill of exchange is such an important device that it requires special note of its commercial use and advantages. The Italians devised the bill of exchange in the thirteenth century. It simplified transactions by eliminating the need to barter, face-to-face transactions to clear books, or payments made in bullion, coin or plate. Debts could be cleared easily in either direction. Here is how the bills worked: Alberto in Genoa buys goods from Bruno in Florence. He can pay for them on

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at 392. Both the British and the Americans had the excellent fortune to have strong capital markets on the eve of the Industrial Revolution. These surpluses were put to effective use in revolutionizing production and society from 1750-1800. The cheap and seemingly endless capital built the industrial infrastructure and financed massive urbanization and increasingly broad world markets.

32. MILLIONAIRE, *supra* note 30, at 27. This biography of John Law demonstrates his financial genius and details his fall from grace when the Mississippi Company Bubble collapsed in the early eighteenth century.

33. FERNAND BRAUDEL, THE STRUCTURES OF EVERYDAY LIFE: CIVILIZATION & CAPITALISM, 15TH-18TH CENTURY, VOL. I 470-71 (Siân Reynolds trans., rev., 1981) [hereinafter THE STRUCTURES OF EVERYDAY LIFE].

34. *See* THE WHEELS OF COMMERCE, *supra* note 31, at 390-95.

35. The taker of the bill of exchange would be repaid from another market, *a future market*, several months later, at the exchange rate then in effect. This exchange merchant would calculate profit based upon risk and knowledge of the market and currencies. But contemporaries of these innovative merchants found this new-fangled money difficult to fathom. The bookkeeping appeared to the unsophisticated to be too complicated and a devilish juggling of accounts—not to be trusted. THE STRUCTURES OF EVERYDAY LIFE, *supra* note 33, at 471. Indeed, as late as 1752 David Hume, who was an historian as well as an economist and philosopher, was an ardent opponent of "'this new invention of paper bank-bills and chequer-notes'" (less mysterious financial instruments). *Id.* He was a hard money man and proposed suppressing £12 million of bank notes to attract hard currency back to England. *Id.* As we will see, Hume was no Governor of the Bank of England, and his thoughts were certainly not Hamiltonian!

36. *Id.* at 470-71.

bill of exchange drawn on Claude in Venice (this bill represents goods sold to Dirk in Bruges). Claude draws a bill on Dirk; he collects money by selling for local currency to Alberto in Genoa, often through an exchange dealer. Alberto then sends the bill to Bruno for payment of the goods. Bruno collects from Dirk upon the bill's maturity. The goods move from Bruno to Alberto and from Claude to Dirk. Alberto pays Claude; Dirk makes payment to Bruno.[37]

Bills could be sold and assigned but lacked negotiation because there was no recourse against previous holders in the transaction chain until the seventeenth century. Bills could not be discounted in the Middle Ages because of the Church's prohibition against usury and interest. Merchants gained the equivalent of interest paying an amount below the exchange rate, compensating them for future risk. The "profit" was justified because of the future uncertainty. Because of slow post and rudimentary roads, credit could be granted even if the payment was in the near future. The success with bills of exchange led to finance notes, promissory notes. Alphonse could then draw on Brutus, often an affiliate or branch, and sell the finance bill to a dealer to provide foreign money to pay the merchant's debt.[38]

When the West re-discovered the bills of exchange in the thirteenth century, trade was opened up throughout the Mediterranean using these instruments.[39] The bill of exchange advanced commerce and trade because it permitted the merchant to receive funds immediately (albeit at a discounted rate). Bills of exchange leveraged trade and commerce further when the instruments were *endorsed* or signed and sold. Further advances occurred when bills of exchange moved from market to market. Hence credit was both prolonged and expanded. It ultimately became commonplace for merchants to draw upon their own credit.[40]

Another key to the creation of this modern system of banking was a fruit of specialization. At the onset, these early bankers serviced merchant companies and provided credit for one another.[41] Such merchants were the "active" partners who were seeking credit for their trade ventures. Eventually the merchants and bankers discovered the utility of "sleeping" partners who placed funds on deposit, which could be re-lent

37. This example is based upon one by Professor Kindleberger. CHARLES P. KINDLEBERGER, A FINANCIAL HISTORY OF WESTERN EUROPE 39 (1984) [hereinafter A FINANCIAL HISTORY OF WESTERN EUROPE].

38. *Id.* at 39-40.

39. THE STRUCTURES OF EVERYDAY LIFE, *supra* note 33, at 472.

40. *Id.*

41. *See* THE WHEELS OF COMMERCE, *supra* note 31, at 393.

on favorable terms.[42] These sleeping partners were indirect participants in the ventures and helped leverage economic activity by putting to productive use funds that normally would have remained otherwise dormant in the bank storehouse.

In a nutshell, this is the miracle of banking. Banks transform treasure into wealth by monetizing it. These crucial financial institutions spread into Holland, the Hanseatic ports, France and England. Those states profited by expanding the money supply and the increased power of the economy. Braudel states "All those bank promoters and eventually the Scot, John Law, gradually realized 'the business potentialities of the discovery that money – and hence capital in the monetary sense of the term – can be manufactured or created.'"[43]

As a student of finance, commerce, and history, Hamilton surely absorbed the lessons of early banking and the mechanics of banks. The Bank of England profoundly influenced him.[44] Before the Bank of England was founded in 1694, public banks handled only transfers and deposits.[45] The Bank of England's innovation, beyond its superb functioning as a depository and clearinghouse, was its deliberate organization as an issuing bank; the Bank of England could issue banknotes, providing ample credit. The total value of these banknotes greatly exceeded the deposits of the state. Braudel notes: "[b]y doing this, said Law, it did the greatest good to trade and the state, because it 'increased the quantity of money.'"[46] Not only did the Bank of England create money through its use of banknotes, it monetized the national debt—creating even money and financing England's wars and commercial expansion during the eighteenth century. Hamilton was well aware of the power of the Bank of England and its splendid performance. The next section provides a brief historic sketch of that institution and the financial revolution.

42. *Id.* at 390.

43. THE STRUCTURES OF EVERYDAY LIFE, *supra* note 33, at 475 (citing J.A. SCHUMPTER, HISTORY OF ECONOMIC ANALYSIS 321 (1986)).

44. The Bank of England served as a model for Hamilton's Bank of the United States and his expansive economic program. Its features were not slavishly copied, and Hamilton's bank contained a number of features that were required by the American economy and politics. *See infra* Section IV(a).

45. THE WHEELS OF COMMERCE, *supra* note 31, at 390. Private banks did make loans and advances, as we have seen!

46. THE STRUCTURES OF EVERYDAY LIFE, *supra* note 33, at 473.

III. THE FINANCIAL REVOLUTION, THE BANK OF ENGLAND, AND THE EXPANSION OF BRITISH POWER[47]

In the sixteenth century, Spain was the greatest power in Europe. She was buttressed by the wealth of the West Indies and the Americas. Huge convoys of gold and silver brought immense wealth to Spain, but she was overstretched by ruinous debt.[48] England had been a marginal player on the European scene, but things were to change with the Glorious Revolution of 1688. The English borrowed heavily from the sophisticated banking and commercial schemes of the Dutch Republic.[49] The Bank of England funded government power through successful issues of debt. Government securities provided rock-solid collateral for domestic industry and merchants as well as overseas trade. A relatively honest and professional administrative state secured growing tax receipts as England substituted the old land tax for taxes on the dynamic sectors of trade and commerce. By the late 1780s, "Britain had become the linchpin of European politics, the Royal Navy was supreme at sea around the world, and the sun had stopped setting on the British Empire."[50]

A. The Bank of England

The Bank of England played a vital role in the creation of Britain's global empire in the eighteenth century.

More important even than military and diplomatic alliances, however, was the system of public borrowing developed in the first half of the period [1694-1750], which enabled England to spend on war out of all proportion to its tax revenue, and thus throw into the struggle with France and its allies the decisive margin of ships and men without

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47. For a thorough history of the Bank of England, *see generally* the classic JOHN CLAPHAM, THE BANK OF ENGLAND: A HISTORY, VOL. I, 1694-1797 (1966) [hereinafter THE BANK OF ENGLAND: A HISTORY].

48. *See also* JOHN STEELE GORDON, HAMILTON'S BLESSING: THE EXTRAORDINARY LIFE AND TIMES OF OUR NATIONAL DEBT 2 (1997) [hereinafter HAMILTON'S BLESSING]. *See generally* PAUL KENNEDY, THE RISE AND FALL OF THE GREAT POWERS: ECONOMIC CHANGE AND MILITARY CONFLICT FROM 1500 TO 2000 (Kruzel ed., 1st ed. 1987) [hereinafter THE RISE AND FALL OF THE GREAT POWERS].

49. *See generally* JAN DE VRIES & AD VAN DER WOUDE, THE FIRST MODERN ECONOMY: SUCCESS, FAILURE AND PERSEVERANCE OF THE DUTCH ECONOMY, 1500-1815 (1997) [hereinafter FIRST MODERN ECONOMY] (excellent history of the development of the modern economy and state fiscal power).

50. HAMILTON'S BLESSING, *supra* note 48, at 3.

which the previously committed resources might have been committed in vain.[51]

As we will see its practices and policies enabled Great Britain to increase its national debt that was £16.7 million at the close of the Nine Year's War to £245 million in 1789.[52] During this extraordinary period the British economy doubled in size.[53] England enjoyed an astounding breakthrough in public finance. Between 1680 and 1783 England fought five major wars against her chief rival, France.[54] Thirty-six of those ninety-four years were engulfed in conflict. Sixty-seven percent of government expenses were devoted to war.[55] The Seven Years' War (1756-1763) was the most expensive.[56] The war spanned three continents and two oceans.[57] England expended more than £160 million, twice its gross national product in 1760![58] This war could be compared to the United States fighting a $10 trillion war on a global scale.[59] The

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51. *See* P.G.M. DICKSON, THE FINANCIAL REVOLUTION IN ENGLAND: A STUDY IN THE DEVELOPMENT OF PUBLIC CREDIT 1688-1756, at 9 (1967) [hereinafter THE FINANCIAL REVOLUTION IN ENGLAND] (for the definitive study of England's extraordinary capital markets).

52. HAMILTON'S BLESSING, *supra* note 48, at 1-2.

53. *Id.* at 3. Per capita income and wealth rose during this period, making the English a wealthier and more robust people than the French. The cessation of hostilities with the Dutch enabled the English to devote more resources to commerce. *See* THE FINANCIAL REVOLUTION IN ENGLAND, *supra* note 51, at 9.

54. The English fought the French in the Anglo-French War (known in the North America as King Williams's War and in Europe as the War of the Grand Alliance) (1689-1697), the War of Spanish Succession (1702-1713), the War of Jenkin's Ear (1739-1748), the Seven Years' War (1756-1763), and the American Revolutionary War (1775-1783). *See* DOUGLAS EDWARD LEACH, ARMS FOR EMPIRE: A MILITARY HISTORY OF THE BRITISH COLONIES IN NORTH AMERICA 1607-1763 80-115 (1973) for King William's War. *See* BRENDAN SIMS, THREE VICTORIES AND A DEFEAT: THE RISE AND FALL OF THE FIRST BRITISH EMPIRE (2008) [hereinafter THREE VICTORIES AND A DEFEAT] for the eighteenth century wars.

55. NANCY F. KOEHN, THE POWER OF COMMERCE: ECONOMY AND GOVERNANCE IN THE FIRST BRITISH EMPIRE 4 (1994).

56. *Id.* at 5.

57. *Id.*

58. *Id.*

59. "De Pinto's opinion, for instance, was that the capture of Havana in 1762, which astonished Europe, would not have been possible if one-third fewer troops and ships had been assigned to the task." THE FINANCIAL REVOLUTION IN ENGLAND, *supra* note 51, at 9 (*citing* Isaac de Pinto, *Traité de la Circulation et du Crédit*, 66-67 (1771). Recent foreign adventures such as the Iraq War and the prolonged conflict in Afghanistan are approaching that gigantic number. Economic growth is being frustrated by the unabated increase in the national debt and an economy that is considerably less productive than it could be. *See generally,* BRINK LINDSEY & STEVEN M. TELES, THE CAPTURED ECONOMY: HOW THE

Seven Years' War was financed by state borrowing facilitated by the Bank of England.[60] The British borrowed from the successful Dutch system of financing war by selling low-interest bonds to the public.

The French by contrast, were reduced to begging or stealing. As Bishop Berkeley put it, credit was "the principal advantage which England hath over France." The French economist Isaac de Pinto agreed: "It was the failure of credit in time of need that did mischief, and probably was the chief cause of the late disasters." Behind every British naval victory stood the National Debt; its growth from £74 million to £133 million during the Seven Years' War was the measure of Britain's financial might.[61]

As a result, it was able to raise more money for men and arms, not only keeping its rivals at bay but also greatly expanding its empire.[62] The shift from the land tax to an excise tax further assisted this rise to power by yielding an exponential increase in revenues as commerce expanded.[63] Britain's honest tax bureaucrats and its comparatively fair system of taxation outperformed the corrupt system of tax farming.[64]

The major European nations of this era collected revenue from similar sources: direct taxes (by officials), loans from groups, institutions and persons aligned with the sovereign's interest, and indirect taxes administered bureaucrats or private individuals, some of whom advanced funds in anticipation of collections.[65] French public finance was administered by a number of bodies — the clergy, municipal governments, provincial estates, and tax farmers. Tax farmers were officials who collected and supervised the collection of taxes for the crown. They advanced the anticipated revenues for a very lucrative rate of interest. Each level of tax farmers exacted a tribute of 5% the price paid to obtain the office. The operation was haphazard and corrupt with considerable "slippage."[66] Worse than the inefficiency and the slippage was the unequalled hatred for the system from all segments of society.

POWERFUL ENRICH THEMSELVES, SLOW DOWN GROWTH, AND INCREASE INEQUALITY (2017) [hereinafter THE CAPTURED ECONOMY].

60. THE FINANCIAL REVOLUTION IN ENGLAND, *supra* note 51, at 9. *See also* NIALL FERGUSON, EMPIRE: THE RISE AND DEMISE OF THE BRITISH WORLD ORDER AND THE LESSONS FOR GLOBAL POWER 36 (2002) [hereinafter EMPIRE].

61. *Id.* at 36, 38.

62. *Id.* at 8, 9.

63. *Id.* at 7.

64. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 4.

65. SIMON SCHAMA, CITIZENS: A CHRONICLE OF THE FRENCH REVOLUTION 70 (1989) [hereinafter CITIZENS].

66. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 82.

"[T]hose who taxed in the King's name were the enemies of the people."[67] The foundation of the French state was built upon precarious footings indeed.

Thus, by the mid-1750s the British had developed an "institutional 'square of power'[68] superior to any alternative arrangement—notably the French system of privatized tax collection,"[69] or tax farming.[70] British taxation was a general system that efficiently captured income. It was "invisible" (excise on only a few products) and seemed to hurt foreigners (customs). The taxes were based upon consent of the Commons.[71] Unlike France, England had no internal taxes.[72]

French internal taxes hobbled trade and markets.[73] They meddled exquisitely in the French economy, were very inefficient, and provoked

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67. CITIZENS, *supra* note 65, at 71. At the simplest level of society, this execration fell on the head of the unfortunate individual who had been saddled with the job of parish collector of the *taille* [salt tax-ed]. Should he fail to produce the portion allotted to his assessment by the bureau of the intendant, his own property and even his own freedom might stand brutal forfeit. But if he was too efficient at his work, an even worse fate might befall him, meted out by his fellow villagers in the dead of night. *Id.* This hatred was also leveled at the plutocratic money merchants, the *gens de finance*. The *financiers* were called "bloodsuckers [*sang-sues*] fattening themselves off the substance of the people." *Id.* France under the monarchy never succeeded in 'nationalizing' state finance. Perhaps it was never seriously tried, despite the efforts of the Abbe Terray, Turgot and above all Necker. But this failure proved to be the death of the monarchy... ; J.F. Bosher has rightly remarked ... that what mattered in the long history of the Crown's finances was less the balance between receipts and expenditure, which did play its part, than the structure of a system where for centuries on end, private interests prevailed.In fact, France had no public finances at all, no centralized system; so neither control nor forecasting was possible. All mechanisms were beyond any real governmental control, since the finances effectively depended upon the intermediaries who saw to the collection of taxes, dues and loans. These intermediaries were the towns, above all Paris (with *rentes sur L'Hotel de Ville*) and Lyon; the provincial estates; the Assembly of the Clergy; the tax farmers who collected indirect taxes; and the finance officers who collected direct taxes . . . What was supposedly the central fund, that of the Royal Treasury, in fact only received about half the king's revenues. If the king needed money, he had to assign a given expenditure to a given fund, but as the proverb put it, 'when the chest is empty, the king has no rights.' THE WHEELS OF COMMERCE, *supra* note 31, at 537-38.

68. *See* CASH NEXUS, *supra* note 5, at 2.

69. *Id.* at 14.

70. Perhaps because France was a civil law nation based upon Roman law, tax farming came to be the system of revenue collection. Tax farming was employed by the Roman Empire.

71. The French system of public finance was a chaotic "system" with layer upon layer of self-interested parties siphoning off revenue and competing with each and the Crown. *See* THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 82; CITIZENS, *supra* note 65, at 71.

72. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 79.

73. *Id.* at 7.

a fatal, consuming hatred of the collectors and the State.[74] The British land tax allowed no privileged exceptions. It, too, was "invisible" to most of society.[75] British taxes were able to sustain the expansion of commerce and military by both funding government operations and raising sufficient revenue to pay interest on the debt.[76]

One last English advantage involved the surplus the economy produced. In Britain, the wealthy were encouraged to invest in commerce. The French often used their surplus to purchase offices or annuities from the crown.[77] The advantage of the English patriotic self-interest should be obvious. The surplus was invested in the London Stock Exchange to great effect.

From the outset the Bank of England had great ambitions; those in favor of a Bank of England had their eyes on the prize. Sir William Petty summed it nicely: "[W]e must erect a Bank, which well computed doth almost double the effect of our coined Money; and we have in England, materials for a Bank which shall furnish Stock enough to drive the trade of the whole Commercial World."[78]

B. The Influence of the Dutch

The Glorious Revolution of 1688 brought William of Orange to the throne. His continental base, Holland, and his wars with France, compelled England to find reliable sources of funds.[79] The British looked to the success of the Amsterdam Wisselbank and Dutch capital markets, the most successful and developed in Europe at the time. The Amsterdam Wisselbank and the Dutch national debt, funded through the Stock Exchange (long-term debt found a liquid market), bottomed Dutch

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74. For example, tolls were collected at the gates of cities. *See* CITIZENS, *supra* note 65. While this may have led to the employment of gatekeepers and toll collectors, it could not have stimulated licit commerce. Thus, the French system was highly inefficient, susceptible to contempt of law, and bothersome. *See* EMPIRE, *supra* note 60.

75. *Id.* It was also a heavy tax and bred resentment. THE FINANCIAL REVOLUTION IN ENGLAND, *supra* note 51, at 10. Since agriculture was not increasing wealth and income dramatically, the land tax could not capture the value of trade and technology in the manner of the excise and tariff.

76. During the period from 1660-1815, a significant percentage of all government funds came from loans. *See generally* THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 73-86. Hamilton noted the efficiency of the British revenue system and patterned the new American system after it. *Id.*

77. *Id.* at 82, 83.

78. *See* Sir William Petty, *Quantulumcumquw concerning Money* (1682), quoted in R.D. RICHARDS, THE EARLY HISTORY OF BANKING IN ENGLAND, frontispiece (1965).

79. *See* JOHN GIUSEPPI, THE BANK OF ENGLAND: A HISTORY FROM ITS FOUNDATION IN 1694 8 (1966) [hereinafter THE BANK OF ENGLAND].

power. The Dutch government was able to funds wars and other large projects with relative ease because of the low interest rates.[80] Daniel Defoe, the great English writer, noted:

> Credit makes war, and makes peace; raises armies, fits out navies, fights battles, besieges towns; and, in a word, it is more justly called the sinews of war than money itself... Credit makes the solider fight without pay, the armies march without provisions ... it is an impregnable fortification ... it makes paper pass for money ... and fills the Exchequer and the banks with as many millions as it pleases, upon demand.[81]

Throughout the sixteenth and seventeenth centuries the Dutch fought a number of wars constituting the Eighty Years' War of independence with Habsburg Spain.[82] A population of about 1.5 million held this great power at bay.[83] In the 1600s Habsburg Spain was the most powerful state in Europe. During the sixteenth century Charles V and Philip II absorbed Portugal, took possession of the Holy Roman Empire, conquered principal islands in the Caribbean, added Mexico as well as Peru to Spain's empire, and invaded the Philippines. They also attempted to squelch the Protestant Revolution, and hence became embroiled in costly wars, eventually sapping the empire. Spain's overstretch is seen in its battle with the upstart Netherlands, or Low Countries. Charles V inherited them through marriage and their cities became wealthy as their merchants exchanged luxury goods, clothing, naval stores, and food for gold and silver from the New World. Protestantism spread to the Netherlands in the 1560s and the Low Countries revolted. The northern Netherlands created the United Provinces, composed of the seven Dutch-speaking provinces, and the Dutch Republic was formed. Yearly, the Spanish forces burned Dutch cities and farms in a desperate attempt to destroy the rebellion. The Dutch frequently

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80. EMPIRE, *supra* note 60, at 24.

81. *Id.*

82. In battle, burghers hurling tulips bulbs did not dent Spanish armor. Dutch finance humbled the Spanish. The United Provinces made the most of what they had. The Dutch did not possess large quantities of treasure (gold and silver), resources that Spain employed as it climbed to the pinnacle of power in the West. The Netherlands leveraged its limited resources, its harbors, location at the crossroads of northwest Europe, and fertile soil (much of it below sea level). Holland had a sophisticated, urban people with a distinct feel for finance and commerce. Dutch victories were purchased with skill and financial power.

83. *See* ALEXANDER V. AVAKOV, TWO THOUSAND YEARS OF ECONOMIC STATISTICS, Vol. 2 (by Country) 15 (2015). *See also* PETER M. GARBER, FAMOUS FIRST BUBBLES: THE FUNDAMENTALS OF EARLY MANIAS 20-21 (2000) [hereinafter FAMOUS FIRST BUBBLES].

fielded armies and navies to turn back the Spanish.[84] It was an Anglo-Dutch fleet that saved Protestant England by wrecking the Spanish Armada in 1588.[85]

During the Thirty Years' War (part of the Spanish-Dutch Eighty Years' War), the Netherlands fielded armies as large as 100,000 men.[86] The Dutch supported large fleets and provided much of the strategic planning and finance for the Protestant forces.[87]

From 1620 to 1645, the Dutch established near monopolies on trade with the East Indies and Japan, conquered most of Brazil, took possession of the Dutch Caribbean islands, and founded New York. In 1628, the Dutch West India Company captured in a naval action the entire year's output of silver and gold from Spain's American possessions.[88]

During the Second Anglo-Dutch War, the Dutch fleet menaced London when its ships sailed up the Thames.[89] Later, that fleet, under

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84. *See* EDWIN G. BURROWS & MIKE WALLACE, GOTHAM: A HISTORY OF NEW YORK CITY TO 1898 16-17 (1999). The Dutch fighters were dragons' teeth, much deadlier than those Jason faced!

85. The Spanish Armada had it succeeded would have changed the course of history with Catholic Spain conquering one its nemeses, Protestant England. However, to be successful, Spain had to overcome tremendous challenges. Command control was centered in El Escorial, Phillip II's palace in Madrid. The plan to conquer England was a two-pronged affair that required his admiral Medina Sidonia to bring his fleet of warships and transports from Spanish waters to the Spanish Netherlands (Flanders) where it would link up with the Duke of Parma's seasoned troops. They would be ferried across the English Channel, land, and capture London and the queen. The English were better sailors, had faster ships, better victuals, and much better naval gunnery. The Spanish had to fight a defensive battle and lure the English fleet to defeat. The English occupied Sidonia's force with devastating effect. The Dutch naval forces kept Parma's transports at bay on the continent because the Spanish could not risk having their troops massacred in the invasion barges by the pugnacious and deadly, shallow-draft Dutch warships. For the history of the armada and its aftermath, *see generally* BEN WILSON, EMPIRE OF THE DEEP 116-53 (2013) and N.A.M. RODGERS, THE SAFEGUARD OF THE SEAS: A NAVAL HISTORY OF BRITAIN 660-1649, 268-69 (1997) (the value of the Dutch naval forces).

86. *Id.*

87. *See* FAMOUS FIRST BUBBLES, *supra* note 83, at 20-21.

88. *Id.* A supreme advantage the Dutch had with their naval and land forces was that the armed forces could expect to be paid promptly and regularly. This helped to raise very reliable armies and navies. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 67-68.

89. *See* JEREMY BLACK, THE BRITISH SEABORNE EMPIRE 89-94 (2004) (discussing a concise history of the Anglo-Dutch Wars); *see also* N.A.M RODGER, THE COMMAND OF THE OCEAN: A NAVAL HISTORY OF BRITAIN 1649-1815 Vol. II (2004) (elaborating on the Anglo-Dutch Wars). The financial burden of the war forced the English to lay up their larger ships in 1667 and to focus instead on commerce raiding, but the Dutch used the opportunity to attack the major English base at Chatham: they captured the magazines at Sheerness, broke

de Ruyter, attacked the British fleet at its anchorage at Medway on June 22-23, 1667.[90] Then the Dutch burned five British men-of-war and towed the *Royal Charles* to the Netherlands.[91] The war was a humiliating defeat for Charles II.[92]

As we have seen, there is a powerful connection between warfare and finances.[93] During the eighteenth century, all governments resorted to borrowing to fund wars.[94] This borrowing occurred due to weak national economies, which required governments to seek a funding source beyond taxation. To do otherwise would have caused great harm to the warring states. Specifically, heavy and increased taxation would have wrecked their economies. Successful nations negotiated both prudent taxation and borrowing. The Dutch mastered this new environment. The Netherlands saw its economy boom because of the mushrooming effect of industrial expansion and wartime credit.[95]

The English would learn much from Dutch success. The Dutch were:

> a nation created in the confused circumstances of revolution, a cluster of seven heterogeneous provinces separated by irregular borders from the rest of Habsburg-owned Netherlands, a mere part of a vast dynastic empire, restricted in population and territorial extent, which swiftly became a great power inside and *outside* of Europe for almost a century.[96]

The Dutch were a skilled, urban, and cosmopolitan people. They thrived on commerce and industry and were superb shipbuilders and

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the protective boom across the River Medway and burnt six deserted ships of the line before toying away Monck' flagship, the *Royal Charles*. BLACK, *supra* note 88, at 92-93. Another Dutch squadron captured Surinam on the coast of South America. *Id.* The Treaty of Breda of July 1667 confirmed English possession of New York, but the Chatham debacle left an impression of English weakness, as, in the West Indies, did French seizure of English islands in 1666. *Id.*

90. *Id.*

91. HAMILTON'S BLESSING, *supra* note 48, at 2.

92. JOHN CHILDS, WARFARE IN THE SEVENTEENTH CENTURY 163 (John Keegan ed., 2001).

93. *See generally* CASH NEXUS, *supra* note 5; *see also* THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48.

94. For an excellent overview of war and finance in the eighteenth century, *see* "Finance, Geography, and the Winning of Wars 1660-1815," in THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 73-139.

95. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 77. And if the wars were as successful as the Dutch wars were, cheap credit was easy to come by. The nation state would become commercially stronger.

96. *Id.* at 67-68.

sailors.[97] They leapt into global trade during the 1600s.[98] Amsterdam, the growing center of international finance and "a natural corollary to the republic's function as the shipper, exchanger, and commodity dealer of Europe," financed Dutch global commerce.[99]

Money was consequently available for state loans, giving the Dutch "an inestimable advantage over its rivals; and since its credit rating was firm because it promptly repaid debts, it could borrow more cheaply than any other government—a major advantage in the seventeenth century and, indeed, at all times!"[100]

The needs of William III, the leader of the Netherlands, were obvious. He needed to protect both England and the Netherlands from France, which threatened both nations. The Dutch were forced to incur huge military costs that were straining its economy. War debts, interest payments, increased taxes, and high wages were grave concerns. The War of Spanish Succession (1702-1713) caused heavy losses of life.[101]

What was debated was how to fund this. Should a bank be authorized along the lines of Amsterdam or Hamburg? Concerns were raised about a bank with royal support. Such a bank could raise money without the intervention of Parliament, subverting the political process and leading to unwise adventures by the Crown.[102] There was also a groundswell of trade and a need for a banking house not so susceptible to the extant banks—independence was wanted. In 1694, Charles Montagu, Lord of the Treasury, Chancellor of the Exchequer, favored William Paterson's scheme for the "Bank of England." Paterson proposed

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97. *See generally* FIRST MODERN ECONOMY, *supra* note 49, for a superb economic history of the Dutch economy.

98. In the 1590s Dutch ships were sailing the Mediterranean and the Indian Ocean. They were also trading with South Africa, the Caribbean, and Equatorial West Africa. *Id.* at 396. The Dutch East India Company (trading with Batavia, the Spice Islands, and other Asian locations) was founded in 1602. *Id.* at 75.

99. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 69.

100. For more on the Dutch financial revolution, *see id.* at 76-78.

101. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 87.

102. *See* THE BANK OF ENGLAND, *supra* note 79, at 8. A bank under royal control was soon to be problematic. For example, when the Bank of France spun out of control in 1720, there was a collapse of national financing in France. In 1718, the Banque Général was reorganized as Banque Royale. *See* MILLIONAIRE, *supra* note 30, at 132-33. While initially Law kept 25% of the coin, gold and silver, in reserve like the Amsterdam model, the passage to government control was fatal. *Id.* The Banque Royale was unchecked in printing money and changing the terms of its banknotes. *Id.* Hamilton must have been aware of the Banque Royale disaster. His scheme harnessed private speculation and put it to public good. Further, he placed the Bank of the United States beyond the reach of popular control (government control) and used private interests to keep the government's money and credit sound.

the idea of a "Fund for Perpetual Interest" or a permanent "National Debt." This struck most businessmen as a risky, adventurous scheme.[103]

Promoters wanted a bank of issue—that is, a bank that could issue banknotes. Greater profits would ensure to the bank; it could issue banknotes. Government officials feared the loss of the state's monopoly over money if the bank could print money, hence controlling the money supply. This "peculiarity" was to be a cornerstone of the Bank.

Paterson's 1693 plan suggested that the government could raise funds not by loans, but "upon a Fund of Perpetual Interest." Paterson proposed a "Fund" of £1 million. The state would be obligated to pay investors £65,000 per year at 6% or £60,000 to public investors in the debt and 0.5% management fee per annum (£5,000) to the bankers (and their investors).[104] The institution was to be established "as a Bank to exchange such current Bills the better to give Credit thereat, and said Bills, the better to circulate."[105] Paterson set up a bank to circulate *issue*.[106] The Commons committee studying the plan favored the perpetual funds but opposed the issuing of notes without government consent.

Ultimately a second version was proposed and tacked on to a Finance Bill: £1,200,000 was to be raised, offering 8%;[107] £4,000 was to

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103. THE BANK OF ENGLAND, *supra* note 79, at 9. This offended cash and hard money types. *Id.* at 10. There is a striking similarity to resistance in the Paterson scheme and the resistance of Southern planters and small businessmen to the Bank of the United States. None of them understood the benefits of credit. All feared the transformative power of credit! In the early decades of the nineteenth century, President Madison, a Founder, planter, and founder of the Republican Party, came around to accept and embrace a number of Hamilton's economic policies. DANIEL W. HOWE, WHAT HATH GOD WROUGHT: THE TRANSFORMATION OF AMERICA, 1815-1848 83 (2007). Hamilton had presumed the national debt to be permanent, a means to enlist the support of the creditor class behind the federal government. *Id.* For Madison, the debt constituted a temporary means to financing projects for national defense and economic infrastructure. *Id.* Hamilton's program had been based on a tariff for revenue and American acquiescence in British maritime supremacy; Madison's program was based on a tariff to protect domestic manufacturing and came in the aftermath of a war demonstrating American unwillingness to submit to dictation by British commercial and naval interests. *Id.*

104. THE BANK OF ENGLAND, *supra* note 79, at 11.

105. *Id.*

106. Limited money supply was a critical bottleneck for developing European economies. Specie of gold and silver was rare. *See* THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 80. The British American colonies, unlike those of Spain, produced little gold or silver. *Id.* The British managed the rare feat growing the money supply, making those funds available to government and business without loss of credit or severe inflation. *Id.* This neat feat of course further expanded British financial power because credit was rated accordingly.

107. THE BANK OF ENGLAND, *supra* note 79, at 11.

be paid to the bank managers. Several more iterations were offered and Parliament settled upon accepting subscriptions of £1,200,000, 25% paid immediately in cash. Of the total £1,500,000, £300,000 was to be raised from annuities.[108]

The Bank of England was a quasi-government bank, operating under the control of Parliament with respect to monetary policy.[109] Formally chartered on July 27, 1694,[110] the Bank issued banknotes to the extent of deposits and had both passbooks and checks. It quickly subscribed to the war against France.[111] In its corporate capacity, it was not consulted for policy. However, Governor Sir John Houblon and Director Gilbert Heathcote had the ear of the Lords Justice.[112] The Bank of England began auspiciously—its subscription sold out; it funded a war with France; it had capable management with the trust of the Government.

Parliament blessed the Bank in the Act of 1708, extending "exclusive privilege," forbidding any banking association of more than six persons from establishing a rival bank.[113] While involved in the South

108. *Id.* at 11-12. This scheme is quite similar to Hamilton's Bank of the United States (BUS). BUS was funded with 20% funds from the United States (in notes payable over eight years); 80% from the public. *Id.* Of that 80%, federal obligations could be used. Hamilton only required 20% in specie (cash or hard currency). *Id.* Thus, both the Bank of England and BUS were highly leveraged from the start, with most of the funds coming from government debt!

109. *Id.* At this point, Hamilton turned the bank of England model on his head. Hamilton worried that Congress would run riot without discipline or control if it had oversight of the Bank of the United States. THE BANK OF ENGLAND, *supra* note 79. Hence, the BUS was a quasi-governmental agency *controlled* by private investors to exercise the needed restraint. Under Hamilton's arrangement, the Bank of the United States would not prove susceptible to government pressure. It would act in the best interests of both the investors and the nation.

110. The Bank of England was not created with the modern central bank in mind. RICHARD ROBERTS & DAVID KYNASTON, THE BANK OF OF ENGLAND: MONEY, POWER AND AND INFLUENCE 1694-1994 (1995). Its functions as banker to the state and manager of the National Debt *and* one of the city's major commercial institutions, melded the Bank into something akin to a central bank. *Id.* at 1. The Bank's primary role was a "money-raising machine." *Id.* at 5. During the eighteenth century, government debt changed from a complicated system of non-redeemable securities replaced self-liquidating loans as the foundation for national debt. *Id.* at 9.

111. THE BANK OF ENGLAND, *supra* note 79, at 18-21.

112. *Id.* at 29.

113. *Id.* at 29. This monopoly privilege may have prevented England from rebuffing the economic challenge of the upstart United States during the nineteenth century. The United States had no such banking limitations, and as a result its banking capital came to rival Great Britain's during the early stages of America's development. *See* Christian C. Day, *Partner to Plutocrat: The Separation of Ownership from Management in Emerging*

Sea Bubble, the Bank weathered the storm. Its stock hit a nadir of £124 – well above par.[114] By 1725 the Bank safely printed notes for £20, £30, £40, £50, and £100, adding to the nation's liquidity.[115]

Throughout the eighteenth century, the Bank gradually took over the national debt. In 1714, Parliament authorized payments of interest on government securities and transfers of stock to which it had been entrusted. The Bank acquired the debt in a piecemeal fashion. The South Sea Company acquired a large block, and the East India Company acquired another. By 1762, 70% of the regular debt was transferable and interest paid by Threadneedle Street.[116]

In 1764, when its charter was about to be renewed, the total national debt stood at approximately £107 million with annual payments of £3,792,594.[117] The Bank handled over £77 million of debt, and annual payments by the Bank were £2,682,163.[118] The interest rate was a very respectable 3.48%. During the War of Austrian Succession (1739-1747), the English borrowed at 3% or 4%, which was half the rate of the Duke of Marlborough's time.[119] From 1688 until 1815, British wartime expenditure rose from £49,320,145 (1688-97) to £1,657,854,437 (1793-1815).[120] The loans totaled 33.3% of expenditure.[121] It is easy to see how, with such a low cost of funds, England grew to be a great power, outstripping its rivals France, Spain, and the Netherlands.

The Bank was critical to England's victory in the Seven Years' War. At the conclusion of the war, England's debt stood at £139 million, a (then) enormous sum. The debt had increased six-fold since 1727. The Bank aptly managed a large part of the debt in annuities.[122] The power and the influence of the Bank continued unabated. At the

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Capital Markets – 19th Century Industrial America, 58 U. MIAMI L. REV. 525 (2004) (at text & accompanying notes 46-51).

114. THE BANK OF ENGLAND, *supra* note 79, at 41-44.

115. *Id.* at 46.

116. THE BANK OF ENGLAND: A HISTORY, *supra* note 47, at 102. With debt thus assembled, the Bank issued banknotes backed by its debt portfolio. *Id.* This is called monetizing the debt. *Id.* Such an undertaking, if the bankers act prudently, liquefies the currency and promotes trade and economic growth. Hamilton would adopt such policies with his Bank of the United States. *Id.*

117. *Id.* at 102-03.

118. *Id.* at 103.

119. *Id.* at 81.

120. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 81.

121. THE BANK OF ENGLAND: A HISTORY, *supra* note 47, at 81.

122. *Id.* at 103.

end of the American Revolution (the only war the British lost during this period), the debt stood at £250 million.[123]

Both Pitts deployed financial and commercial power to great effect.[124] William Pitt, the Great Commoner, of course, managed the Seven Years' War. William Pitt, the Younger, took the helm in April 1783.[125] After Pitt took charge, the British undertook some measures that strengthened public finance. He improved the operations of the Bank so that it was poised to support England in its life and death struggle with France.

William Pitt, the Younger, took the helm in April 1783.[126] After Pitt took charge, the British undertook a number of measures that strengthened public finance. He improved the operations of the Bank so that it could take on France, and eventually Napoleon when he came to power.[127] John Giuseppi, a chronicler of the Bank, believes that Pitt was the most astute of England's great wartime ministers. Pitt "consciously and deliberately used money as a weapon."[128] The Bank's establishment of a "Sinking Fund," which stabilized the debt and improved public credit, demonstrates Pitt's brilliance.[129] Each year £1,000,000 was pledged to reduce the debt.[130] By 1793, the debt had been reduced by £10.25 million.[131] The Fund gave the public confidence to invest even during depressions. The plan had to be abandoned,

123. *Id.* at 66. During the eighteenth century, the English were very successful in war and peace. *See generally* THREE VICTORIES AND A DEFEAT, *supra* note 54.

124. *See generally* EDWARD PEARCE, PITT THE ELDER, MAN OF WAR (2010) (discussing William Pitt's life). *See also* John Brewer, THE SINEWS OF POWER: WAR, MONEY AND THE ENGLISH STATE 1688-1783 (1989) [hereinafter SINEWS OF POWER] (analyzing the relationship between finance and warfare in England during the eighteenth century).

125. Pitt had been Chancellor of the Exchequer at the tender age of twenty-three. THE BANK OF ENGLAND: A HISTORY, *supra* note 47, at 70.

126. Pitt had been Chancellor of the Exchequer at the tender age of 23. THE BANK OF ENGLAND, *supra* note 79, at 70.

127. Napoleon was right; the English were "a nation of shopkeepers." But the English won the Napoleonic Wars because they could finance coalitions, time and again, to field armies of allies and to build the wooden walls that protected the island nation and its overseas possessions. *See generally* SEAPOWER STATES, *supra* note 21 (discussing sea states' ability to leverage their economies).

128. THE BANK OF ENGLAND, *supra* note 79, at 70.

129. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 84. Sinking funds are useful tools as the debtor establishes a fund that can be used to pre-pay or retire the debt. They provide additional security for the bondholders, lowering the cost of money. They signal to investors that they will be repaid, enabling the debtor to reduce its borrowing costs by retiring the debt early.

130. *Id.*

131. *Id.*

however, when war broke out in 1793. Nevertheless, the Fund had borne fruit as it raised confidence in the government and the Bank.[132]

By the late 1780s, French and British debts were about equal—£250 million.[133] However, the British interest stood at £7 million, half the French load.[134] Further, the French often borrowed at floating rates. As their financial fortunes grew more precarious, rates rose. The British, enjoying more stable revenues and much better public finance, were able to finance their warfare at much lower interest rates.[135]

In 1783 England's G.N.P. was less than one-half that of France. French G.N.P. was £160 million; England's £68 million.[136] English debt stood at £245 million in 1789.[137] In 1789, France, a much richer nation with greater resources, was bankrupt and on the cusp of revolution, in no small part due to the inability of the state to manage its finances.[138] By the time of the Napoleonic Wars, England, with a popula-

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132. Hamilton borrowed from the sinking fund concept. The very notion of the fund raises the prospect of repayment and increases the government's ability to raise credit.

133. THE BANK OF ENGLAND, *supra* note 79, at 66. English national debt stood at nearly £250 million at the signing of the Treaty of Versailles. *Id.*

134. *See* SINEWS OF POWER, *supra* note 124, at 133. The high quality of English financial administration and the *perpetual* national debt (paradoxically) permitted the Brits to borrow at much lower rates than the French, who relied on short-term obligations designed to liquidate their debt and signal creditworthiness. *Id.*

135. *See* THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 84.

136. THE PERSPECTIVE OF THE WORLD, *supra* note 30, at 80-81.

137. DAVID KYNASTON, TILL TIME'S LAST STAND: A HISTORY OF THE BANK OF ENGLAND 1694-2013 87-88 (2017).

138. In 1786 the English paid £9.5 million interest on the debt, about 4%. A FINANCIAL HISTORY OF WESTERN EUROPE, *supra* note 37, at 165. This debt was an accumulated war debt, much of it due to the war the English lost—the American Revolutionary War. In 1793, with the British fighting for their lives against France, the debt was £244.7 million with interest of £9.5 million! In 1815, at the end of the Napoleonic Wars, it stood at £834.3 million with interest of £31.4 million, a consistent 4%. *Id.* This is public finance at its finest.England's financial revolution created a great power with an "economical" government that would be largely successful in its eighteenth century war (the sole exception being the American Revolutionary War). THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 80-81. The English were able to borrow at 3% or 4% by the time of the War of Austrian Succession (1739-1747). *Id.* at 81.The United States is infinitely wealthier than England was in the eighteenth century. In comparison, the United States national debt was approximately $22 trillion in 2018. Bill Chappell, *U.S. National Debt Hits record $22 Trillion*, NPR (Feb. 13, 2019), *available at* https:/www.npr.org/2019/02/13/694199256/u-s-national-debt-hits-22-trillion-a-new-record-thats-predicted-to-fall (last visited Oct. 14, 2019). Its Gross Domestic Product stands at $20.5 trillion. *Gross Domestic Product (GDP) of the United States at current price from 1984 to 2024 (in billion U.S. dollars)*, STATISTA (last updated Sept. 27, 2019), *available at* https://www.statista.com/statistics/263591/gross-domestic-product-gdp-of-the-united-states/ (last visited Oct. 14, 2019).If the U.S. were a corporation, Wall Street would be sending out alarm bulletins. Our household wealth stands

tion of less than one half that of France, was raising more revenue than France.[139] The English were able to accomplish this astounding feat because they were about twice as wealthy per capita. Taxation in England at this time is estimated to have consumed about 20% of the G.N.P.; in France, about 10%.[140]

The Bank of England was intimately related to the rise of England's capital markets and the development of the London Stock Exchange (LSE). As each grew in power, the other grew, and so did the economic power of the state. Sir Robert Walpole[141] showed his genius by establishing a "sinking fund"[142]— treasury reserves built from revenues of certain fixed taxes that were dedicated to reducing the debt.[143] The real purpose was to convince the public the debt would be paid. And it was. The establishment of the fund caused the price of Bank annuities to rise on the market and interest rates to decline.[144]

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at $108.6 trillion, so we have capital to play with. Jason Lange, *U.S. Household Wealth Bounced Back in Early 2019: Fed*, REUTERS (June 6, 2019), *available at* https://www.reuters.com/article/us-usa-fed-wealth/u-s-household-wealth-bounced-back-in-early-2019-fed-idUSKCN1T726B (last visited Oct. 14, 2019). But the Gods of Fortune are not infinitely patient. Our current economy is gamed, and it concentrates great wealth in several key rent-seeking sectors: finance, intellectual property, real estate and licensing. This has created a great gulf between our richest one percent and the rest of the nation. Further, the rent-seeking activities have distorted the economy, resulting in much lower productivity. *See generally* THE CAPTURED ECONOMY, *supra* note 59. While we now enjoy many more technologies to leverage wealth and capture greater tax revenues, we are not managing our state fairly or prudently.

139. THE RISE AND FALL OF THE GREAT POWERS, *supra* note 48, at 80. Napoleon was unable to make radical structural changes to the French revenue system and much of the French monies were raised by confiscation. In contrast, the British relied on an efficient revenue collection and thriving capital markets to finance the navy and pay for troops and subsidies to allies.

140. THE PERSPECTIVE OF THE WORLD, *supra* note 30, at 384.

141. *See generally* EDWARD PEARCE, THE GREAT MAN: SIR ROBERT WALPOLE: SCOUNDREL, GENIUS AND BRITAIN'S FIRST PRIME MINISTER (2007). Walpole was Britain's longest serving prime minister, incredibly corrupt even by the standards of day. Yet he kept England out of major wars, governed as it rose to great commercial power, and presided over a nation that was not rife with sectarian conflict. Not too shabby for such a political scoundrel!

142. THE FINANCIAL REVOLUTION IN ENGLAND, *supra* note 51, at 85-87.

143. *See generally* SINEWS OF POWER, *supra* note 124, at 123-24. "[T]he threat of redemption gave the government leverage it needed if it were to take advantage of favourourable circumstances to lower the interest rate on its outstanding obligations." *Id.* at 124.

144. THE POWER OF THE PURSE, *supra* note 18, at 44. William Pitt, the Younger, and Hamilton applied the same method and obtained like effect! For an excellent biography of Pitt *see* WILLIAM HAGUE, WILLIAM PITT THE YOUNGER (2004). As debt becomes more secure, interest rates fall, permitting greater leveraging for national purposes and the further expansion of the private, commercial sector. Pitt's use of the sinking fund is illustrated:

The Bank of England developed a practice of buying and selling securities annuities on the LSE.[145] This kept the market high and liquid. It convinced the public that government bonds could be converted into cash, at or near face value. The ownership of bonds thus permitted the establishment of vast amounts of private credit. The Bank of England issued notes backed by the government bonds in its portfolio. Annuities supported the bank notes, and bank notes supported the annuities—monetizing the debt! Thus, it came to pass that it was neither necessary nor wise to reduce the public debt as that would have reduced the money supply.[146]

The capital markets tapped by the prudent management of the national debt paradoxically grew the economy and kept taxes lower than they otherwise might have been.[147]

> [T]he rise of public borrowing created . . . a whole range of securities in which the mercantile and financial houses could safely invest, and from which they could easily disinvest. The new partnership banks, the new insurance offices, the trading companies, the busy merchants, brokers, and jobbers of the City of London, unexpectedly found at their disposal facilities for investment far more varied and flexible than land alone . . .[148]

We have seen how the brilliant idea for the Bank of England funded British prosperity and power. The Bank of England was the prototypical central bank. Its solid and creative governance protected its investors and gave England the credit it demanded to fund its colonial expansion, protect its growing commerce, and nurse its industries. Hamilton was wise to choose it as a model.

The British were very wise to choose the Excise tax. Unlike the hideous French system, the Excise enjoyed strong political support by

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> [Pitt] now went on to propose additional taxes on spirits and hair powder to round the surplus up to £1 million, and to commence immediately an annual payment of £1 million into a Sinking Fund. Furthermore, he proposed to add to the fund the interest on the debt redeemed so that it would grow at a compound rate, and to entrench it by an Act of Parliament with independent Commissioners set up to supervise it. Parliament would only be able to go back on it by passing a new Act. The "magic" of compound interest meant that within twenty-eight years, Pitt claimed, each £1 million set aside would provide for £4 million for repayment of the debt.

Id. at 194. For more on the Sinking Fund, *see also* THE BANK OF ENGLAND, *supra* note 79, at 71-72.

145. THE POWER OF THE PURSE, *supra* note 18, at 44. The practice looks suspiciously like the Federal Reserve's Open Market Operations.

146. *Id.* at 44.

147. THE FINANCIAL REVOLUTION IN ENGLAND, *supra* note 51, at 11.

148. *Id.*

Brits wanting a strong national government—growing urban areas and commercial interests. It provided for efficient tax administration.[149] The excise tax offers stability and avoids reliance on external taxes.[150] So successful was the tax that it was the most lucrative source of revenue for Great Britain from 1713-1799 (a century of fantastic growth and global expansion).[151] When coupled with an honest revenue and efficient revenue office, capturing wealth from rising commerce and new technologies, the system would prove to be unbeatable.[152]

The excise on commerce, Parliament, the national debt, and the Bank of England made the British "square" superior to its rivals.[153] Nationalists and men of finance, like Robert Morris and Alexander Hamilton, recognized its splendid performance and would put its virtues to good use.

IV. THE HAMILTONIAN SYSTEM, ASSUMPTION OF THE DEBT, AND CREATION OF THE FIRST BANK OF THE UNITED STATES[154]

When the new Congress assembled in New York in 1789 the most pressing national problem was the nation's finances.[155] Per capita in-

149. THOMAS P. SLAUGHTER, THE WHISKEY REBELLION: FRONTIER EPILOGUE TO THE AMERICAN REVOLUTION 14 (1986).

150. *Id.* at 97. Both England and the United States had to create effective custom services to enforce tariff collections and stamp out smuggling that was rife.

151. *Id.* at 13.

152. The Bank of England, the revenue power of the excise tax, popular support for the government and its programs, and a strong military were responsible for the English doubling their wealth in the eighteenth century.

153. The British square also denominates a highly successful military formation that the British army used in empire building. For instance, 139 British soldiers held off 4,000 Zulus at Rorke's Drift. VICTOR DAVIS HANSON, CARNAGE AND CULTURE: LANDMARK BATTLES IN THE RISE TO WESTERN POWER 13 (2001). This battle in 1879 broke the back of Southern Africa's most feared and successful warriors and paved the way for the eventual British conquest of South Africa. Hamilton's' plan would recreate an American square that would provide the military and economic power to conquer the North American continent. When Jefferson paid down the debt and reduced the military and navy, we paid a heavy price. We eventually had to rebuild the navy and finally fight the Barbary Pirates to protect our trade. We further shot ourselves in the foot when Congress failed to re-authorize the Bank of the United States by one vote, a vote along party lines. Our political failure left the Nation strapped for cash on the eve of a war with the world's greatest power. In the present, the British square, modified by substituting the income tax for the excise taxes and tariffs, is the basis for American strength and prosperity.

154. For an overview of the development and implementation of some of Hamilton's economic policies, *see* ALEXANDER HAMILTON, *supra* note 4, at 291-303.

155. JOHN FERLING, A LEAP IN THE DARK: THE STRUGGLE TO CREATE THE AMERICAN REPUBLIC 315 (2003) [hereinafter A LEAP IN THE DARK].

come fell from pre-war levels and appeared to be worse in both 1780 and 1790.[156] The nation's financial matters would have to be set right.

Public finance and the economic disorder under the Articles of Confederation necessitated the Constitutional Convention. Thus, the most important act of the first Federal Congress was its adoption of a sound scheme to solve the national credit problems and fund the government. Congress created the Treasury Department[157] and ordered the Secretary of the Treasury to develop plans to implement reforms and report on these plans in January 1790. Little did Congress know that the first Secretary of Treasury plans would be so far-reaching.[158] Most did not foresee the commercial empire that would be founded by the first Congress.

Hamilton's System was organized around five major programs. He first sought to establish a viable system of taxation to fund the government. Reliable and fair taxation was required for any nation. Hamilton concluded that there must be non-discrimination regarding creditors – that is, all creditors would have their debt securities honored at face value.[159] The federal government would assume all the state debt at par value, making investors dependent upon the federal government for payment and strengthening the union. A national or central bank was created along the lines of the Bank of England. The Bank of the United States would monetize the debt, giving rise to strong capital markets and increasing the money supply, spurring the growth of manufacturing

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156. "A comparison of estimates of per capita nonhuman wealth (that is, excluding the value of slaves) for the years 1774 and 1805 indicates drastic deterioration not only during the Revolution itself but perhaps in the 1780s as well." STUART BRUCHEY, ENTERPRISE: THE DYNAMIC ECONOMY OF A FREE PEOPLE 161 (1990) [hereinafter ENTERPRISE]. In the late eighteenth century, shipping trade served as a valuable proxy for national income. While the volume of shipping was up after the war, the population had grown substantially. In the North, per capital imports and exports declined. *Id.* at 161-62.

157. The Treasury Department was the new government's most critical and largest office. It had thirty-nine employees that contrasted with State, the senior department's five. ALEXANDER HAMILTON, *supra* note 4, at 291.

158. Checks and balances were designed to gain national consensus for government decisions. Hamilton's program would have allies in the mercantile north, but he would also need the consent of the south and agrarian interests. At this stage, Madison and others, believed they could control his genius. A LEAP IN THE DARK, *supra* note 155, at 317.

159. In reality, the final program had some important deviations from strict equality. That is, while the par value of the debt was honored, there was some variation in interest rates that resulted in a "blended" rate at a lower cost. *See id.* at 319. There is an inverse relationship between the cost of bonds and the effective interest rate; when bond prices rise (because they are perceived safer and better investments), interest rates fall. Notwithstanding these deviations, the value of the securities rose, and the cost of borrowing dropped when the program was adopted.

and commerce. Monetizing the debt would enable investors to use government bonds as collateral for new commercial purposes. Hamilton's *Report on Manufactures* was his most visionary program, and one that did not bear fruit during his lifetime. It did forecast the development of a commercial empire, funded by European capital and manned by European immigrants. Hamilton's System centralized federal power at the expense of state and rural interests. The conflicting views of post-Revolution political society resulted in the rivalry and final split with Thomas Jefferson, who had worked with Hamilton for union in the funding of the debt and its assumption.

We focus on the conundrum of the national debt. The newly formed republic had to corral the $76 million debt and render it a servant of the nation. If left unchecked and growing out of control, it threatened disunion by giving rise to sectionalism and factions. With prudent management and funding the government would use it as cement to bind the union. We then address the great state documents of Hamilton: the *Report on Credit*, concerning funding and assumption of the debt; the *Report on a National Bank*; and the *Report on Manufactures*.[160]

A. The Staggering Debt—Insoluble Problem or Wondrous Opportunity

The combined debt was massive – $76 million in principal and accrued interest.[161] At the conclusion of the War for Independence, America was a weak debtor nation. It owed $2 million to Dutch banking houses and about $5 million to the French.[162] In 1786, the total income of the central government was less than one-third of the charges owed

160. The great state documents are readily accessible in WRITINGS, *supra* note 15, at 531, 575, 647. *The Federalist Papers* are not directly covered in this section, but are certainly important to the story. They inform Hamilton's ideas on government and its role in the economy, but they are pre-Republic political theory and provide an explication of how the Constitution is to work. Hence, they make their appearance when called upon, as in the National Bank controversy where Madison reverses his former position on implied powers and Hamilton calls him to task for it.

161. It is a somewhat fruitless exercise to translate 1790 dollars into 2018 dollars. Richard Brookheiser has gamely estimated that a 1790-dollar during normal periods was worth about $13.00 in 1999. ALEXANDER HAMILTON: AMERICAN, *supra* note 7, at *Note on Money* (unpaginated). The shortcoming of this type of estimate is that it does not capture the nature of the underlying economy or its dynamics. I choose to work with nominal dollars and contrast them with the French and English economies, especially their Gross National Products (income) and levels of taxation in order to give a picture of the nature of the problem facing the nation.

162. ENTERPRISE, *supra* note 156, at 118 (all dollars are nominal and have not been adjusted for today's value).

the national debt.[163] Under the Articles of Confederation, the situation worsened. The Confederation was burdened with huge debts because it lacked taxation powers; thus, it could neither pay nor service the debt. Debt instruments traded for a fraction of their face value in illiquid and unorganized capital markets.[164] The simple financial intermediation system was comprised of just three banks: one in Philadelphia, one in Boston, and one in New York.[165] America's money supply merely consisted of foreign coin and specie, fiat paper money from the states as well as local notes, and deposits from the three banks.[166] Speculators bought up debt from soldiers and suppliers to the army.[167] There was widespread concern that the United States would default on the debt owed to its foreign supporters and its own citizens. The Constitution created a new republic with powers sufficient to build a strong nation if they were prudently wielded.

By 1790, Washington's government faced a federal war debt owed to American citizens of approximately $40 million ($27 million in principal, and $13 million in interest arrears).[168] The total war debt, federal, state and foreign, was a staggering $76 million.[169] The federal government owed about $40 million to Americans investors;[170] it also owed $11.7 million in foreign debt.[171] The states owed $25 million in war debt.[172]

Hamilton saw the national and state debt as an opportunity—a blessing to put American finances in order and to create a commercial powerhouse.

> [The] millions of obligations, which took literally scores of different forms, traded at just fractions of their face value. Few expected payments of those decade-old obligations. So why did Hamilton argue that the national government should "service" this debt? Would it not be better simply to default on it, as so many countries had done before

163. *Id.*

164. Peter L. Rousseau & Richard Sylla, *Emerging Financial Markets and Early U.S. Growth* 5 (Vanderbilt Univ., Dept. of Econ., Working Paper No. 00-W15, 2000).

165. *Id.*

166. *Id.*

167. *See* "Speculation in the Public Debt," THE POWER OF THE PURSE, *supra* note 18, at 251-86.

168. AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 217.

169. A LEAP IN THE DARK, *supra* note 156, at 316.

170. WILLIAM G. ANDERSON, THE PRICE OF LIBERTY: THE PUBLIC DEBT OF THE AMERICAN REVOLUTION 41 (1983) [hereinafter THE PRICE OF LIBERTY].

171. *Id.* at 57.

172. *Id.* at 35.

> (and since)? The fledgling United States certainly did not appear to be a position to pay its debts. But herein lies the genius of Hamilton. Where others saw a problem, he saw an opportunity. While others viewed the national debt as a threat to republican government, Hamilton believed it was a "national blessing." In addition to aligning the interests of the wealthy with those of the government, his funding plan would increase the nation's credit overseas, making it cheaper and easier for both the government and private enterprises to obtain foreign financing. Finally, funding would create a form of liquid capital that would help the economy to allocate resources more efficiently.[173]

The 1790 GNP was about $200 million.[174] The new republic's national debt was in the $80 million range. Assuming that the United States could gain the confidence of its creditors (foreign governments and nationals) as well as domestic creditors, and successfully refund the debt at, say, 4.5% (a blended rate that takes into account that some creditors will hold out for the 6% promised on the face of their certificates),[175] interest alone would amount to $3,420,000. The Treasury's estimate of revenues needed for government operations, including interest on the debt, would be about $5 million per year. Hamilton estimated government revenues (primarily from tariffs) to be in the neighborhood of about $3.6 million. The only way the government could operate and pay its debts was to refund and increase the size of the debt until commerce revived and revenues caught up (that is, lenders would finance part of the government's expenses until revenues caught up). If the refunding was successful, that borrowing and subsequent borrowings would be at more favorable rates, lowering interest rates and freeing revenues for other important government needs. Any other scheme would destroy the nation's credit.[176]

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173. ROBERT E. WRIGHT & DAVID J. COWEN, FINANCIAL FOUNDING FATHERS: THE MEN WHO MADE AMERICA RICH 22-23 (2006) [hereinafter FINANCIAL FOUNDING FATHERS].

174. Economic historians such as Bruchey and Braudel have been able to generate pretty reliable estimates of GNP using data from earlier eras, such as shipping volume and tax receipts. The Commerce Department began to calculate GNP in 1929. Brookheiser states that the national debt in 1792 was $80 million and 40% of the gross national product. HAMILTON'S BLESSING, *supra* note 48, at 42. One site estimates the nominal GDP to have been $189 million in 1790 and $206 million in 1791. Louis Johnston & Samuel H. Williamson, *What Was the U.S. GDP Then?*, MEASURINGWORTH (2019), *available at* https://www.measuringworth.com/datasets/usgdp/result.php (last visited Nov. 15, 2019) ($200 million seems to be a reasonable estimate).

175. This anticipates the actual refunding of the debt wherein Hamilton created tranches that resulted in a blended rate of interest favorable to the United States.

176. We can contemplate a number of schemes. The United States could have repudiated the debt. It could have argued that under international law the Republic was not the successor to the Confederation; hence it was not obligated to pay the debt. (The Soviet Un-

Unlike that of the British, the United States' economy was not the world's most sophisticated. It would be a gamble to stake the future of the nation on solving the debt problem. The British national debt had grown from ¤16.7 million to ¤272 million in about a hundred years.[177] During this period of time, the English had grown wealthy and became a great power. The British had developed capital markets like the London Stock Exchange and the banks in the City. The "open market operations" of the Bank of England supported these markets.[178] In contrast, America had nascent capital markets (speculation in the national debt in cities like New York and Philadelphia) and no national banking system. The United States had only three tiny banks in New York, Boston, and Philadelphia. The banks combined capital was $3 million; these banks were incapable of providing critical financial services like clearing accounts easily and lending to governments. The American financial system was rudimentary, to say the least. While we were poised on the cusp of the Industrial Revolution, our banking system and "capital markets" were incapable of sustaining rapid industrial, technological, and commercial change.

As noted above the gulf between the sophisticated English economy and America was enormous. At first glance the United States did not seem to be a good candidate to create a strong economy founded on a sophisticated management of the national debt. It was a gamble worth taking because of the strength of Hamilton's plan, turning the debt into a perpetual fund or annuity like the British system. This would allow the Republic to grow without the threat of bankruptcy.

The next section summarizes Hamilton's important state papers on the economy and outlines his blueprint for success.

B. Hamilton's State Papers on the Economy

Hamilton's state papers created the blueprint for America's national and economic success. This subsection will outline the provisions of

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ion did not honor the obligations of Tsarist Russia to the consternation of the international financial community.) The United States could also have taken the Latin American option—restructuring and reducing both principal and interest, currency devaluation, or default.

177. In 1790 the British national debt stood [at] ¤272 million, a sum roughly as awesome in the economic universe of the late eighteenth century as the $5 trillion debt of the United States is in the late twentieth." HAMILTON'S BLESSING, *supra* note 48, at 1. Alas, our debt is now above $22 trillion with no plan to curb our appetite for "cheap" money.

178. The Bank of England kept interest rates low to support the debt, while also issuing banknotes to assure the nation adequate liquidity for commerce and growth.

the *Report on the Public Credit*, the *Report on a National Bank*, and the *Report on the Subject of Manufactures*.

1. Report on the Public Credit[179]

In the *Report on the Public Credit*, Hamilton noted the importance of honoring the debt to prospects for prosperity. Good credit was indispensable in war. For countries like the United States, with little active wealth, it was essential for building the economy. Hamilton explained that establishing credit would cause the value of government securities (bonds) to rise, lowering the cost of capital. One of the keys to establishing excellent credit was to create a "sinking fund." The government would pledge to earmark funds and redeem a certain amount of securities each year. The salutary effect of this device was to raise the nation's credit rating because of the fund's existence.[180]

Hamilton saw the wedding of moneyed interests to the national government as cementing the union. He saw the national debt as a medium of exchange and explained how monetization of the debt would increase fiat money and prosperity. He explained how land values, important to farmers and settlers, would revive if the debt were put on sound footing. Values had fallen because of a scarcity of money; the liquefied economy would rectify that.

179. *See* WRITINGS, *supra* note 15, at 531-74. Ronald Chernow writes:

> In preparing his report, Hamilton was eclectic in his sources. He had clearly plumbed David Humes's *Political Discourses*, which admitted that public debt could vitalize business activity. Montesquieu had stressed that states should honor financial obligations, "as a breach in public faith cannot be made on a certain number of subjects without seeming to be made on all." (*footnote omitted*). Thomas Hobbes had emphasized the sacredness of contracts in transfers of securities, arguing that people entered into such transactions voluntarily and must accept all consequences—a seemingly arcane point that shortly had explosive consequences for Hamilton's career. During the Revolution, Hamilton had stuffed Malachy Postlethwayt's *Universal Dictionary of Trade and Commerce* into his satchel, and now he used it once again. Postlethwayt stressed that no country could borrow money at attractive interest rates unless creditors could freely buy and sell its bonds: "Such is the nature of public credit, that nobody would lend their money to the support of the state, under the most pressing emergencies, unless they could have the privilege of buying and selling their property in the public funds, when their occasions required.

ALEXANDER HAMILTON, *supra* note 4, at 296.

180. Here Hamilton was taking a page from Walpole and William Pitt, the Younger. Their sinking funds did exactly that for England's credit. The sinking funds lower the cost of borrowing because creditors who desire to have their loans redeemed early compete for the privilege by accepting a lower rate due to the lower risk. The cost of the borrowed funds reduces with more "buyers."

2. *Report on a National Bank*[181]

This report details the structure of the Bank—its prudent means that prevent domination by any group of investors and its protection of American interests by forbidding foreign control. Furthermore, Hamilton explains the functions of the Bank. Among these functions is the issue of banknotes backed by federal securities, which aid commerce and defense. Another function is the support of debt securities, which protect the nation's credit rating and the capital markets.

3. *Report on the Subject of Manufactures*[182]

The *Report on Manufactures* was Hamilton's answer to Jefferson's *Notes on the State of Virginia* (1785). Where Jefferson praised an agrarian nation dotted with farms and small towns, Hamilton pictured America as a bustling commercial state. Protective tariffs and subsidies would promote new industries and innovation. American capital markets would welcome European funds and provide new investments, spurring development on a continental scale.

C. *Establishment of a System of Taxation to Fund the Government*

Hamilton moved quickly to organize the most important department in the new government. In return for generous funds awarded to the Treasury, Congress requested Hamilton prepare a report on the country's economy and the Treasury's fiscal plans.

Hamilton worked quickly and produced a masterpiece, the *Report on the Public Credit* of January 14, 1790. The *Report on Credit* laid out the blueprint for solvency for the new nation. It cataloged sources of revenue, analyzed the state of the economy, and proposed a plan that would fund the debt and the operations of government.

Hamilton's work was assisted by the many reports his agents had filed. Thus, he had a comprehensive census of the nation's economy upon which to build the government's revenue system. He knew which ships carried which cargo and which farmlands were the most fertile.

Hamilton proposed two forms of taxes: the Excise on manufactured goods and the Impost on foreign trade. There was no federal income tax in 1790. Land taxes were burdensome and inefficient. Assessments changed rarely. Thus, increases in income and value were hard to capture with land taxes.[183]

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181. *See* WRITINGS, *supra* note 15, at 575-612.

182. *Id.* at 647-734.

183. The inability to easily capture increases in income and value is one of the reasons the British cleverly built their fiscal system upon excise and impost taxes. Economic activi-

The Excise and Impost taxes were both efficient and most effective at capturing income growth. Technological changes and increased commerce would produce new taxes as the economy grew in wealth and income. The Excise would tax luxury items like carriages (rankling Jefferson), some domestic manufactures, and spirits.[184] The Impost or tariff would fall on imported goods, and would prove to be the major source of federal revenue during peacetime during the nineteenth century. The Impost was designed to capture revenue from predominately British goods, which constituted 90% of our trade. The irony was not lost on Hamilton that the British would in effect pay for the government's operation and service its debt.

Hamilton concluded that once trade relations were normalized with Britain and treaties were made, a reliable source of funds would emerge. Trade relations with England were a bone of contention for radicals who wanted to punish the British as well as some Federalists like John Adams. Some politicians held out for using the trade weapon to force Britain to vacate the western posts. The trade weapon would prove to be a failure. The Jay Treaty, on the other hand, would normalize relations and resolve many of these issues. The failure of the trade weapon was a blessing in disguise. Imports from Great Britain were the largest source of duties; many English investors purchased American bonds. Hamilton's Impost would be the prime source of federal monies.[185] British trade was harnessed to re-finance the American Revolution! The customs office and coast guard were staffed to collect duties and squelch the smuggling industry.[186] Hamilton's Treasury also proposed a number of internal taxes on manufactured goods. The Excise, the bulwark of British revenue, was estimated to bring in $500,000 per year.[187]

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ty in commerce could be monitored within reason and the income assessed. The English were poised to capture the wealth created by the increase in trade, commerce, and manufacturing. The United States would adopt the system and benefit similarly.

184. The tax on spirits of 25% would lead to the spirited tax revolt known as The Whiskey Rebellion. The Rebellion was the most serious domestic threat to the new government and union. Washington's direction preserved the state and set standards for decency.

185. AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 232.

186. In the years leading up to the Revolution, duties were honored more in the breach than in practice. The American coastline was impossible to cordon off for collections and merchants bribed custom officials to look the other way. If the Republic was to operate in the black, the smuggling customs of Americans would have to be curtailed.

187. Hamilton "hoped to raise about $5 million for the federal government annually, with up to $3.5 million of that amount, or 70% required to pay the interest on the debt." This was about two percent of the GNP, a very low tax burden in comparison to European

Both taxes were fair and reliable. They would prove to be efficient and easy to enforce. They would accustom Americans to paying taxes regularly to support a strong central government. This would wean them away from their state governments.[188]

Hamilton's expense budget showed a deficit of about $1.5 million. This could only be met by refunding the debt, borrowing new monies, and paying a lower rate of interest. The Hamiltonian scheme resulted in all three occurring. First Congress and the Treasury focused upon the national debt, debt incurred by the Continental Congress, and under the Articles.

D. Funding of the National Debt and the Discrimination Problem[189]

There was general agreement that the federal government should be responsible for all national debt incurred in prosecuting the war. There was no serious consideration of defaulting, threatening to default, devaluing the currency, or restructuring the foreign debt. The $11.7 million owed to France, Holland, and foreign nationals would be honored at face value and at the stated interest rate.[190] When that decision was made, the value of these securities was restored as foreign governments and investors now trusted the new government's credit. The value in the securities rose in cities like New York and Philadelphia, as well as cities abroad, because there was an active market for $43 million United States debt.[191]

Speculation arose and speculators became active in both national and state debt owed to Americans. These speculators enjoyed a nasty reputation and were commonly thought of as bloodsuckers by Anti-Federalists, agrarians, rural debtors, and states' rights advocates. They did not make their reputations shine when, on rumors of federal action,

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practice. AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 232. The excise taxes were designed to raise about $500,000. However, the reality was about $350,000 in revenue with enforcement ranging from $50,000-$100,000. *Id.* at 234.

188. The states never did wither away and die on the vine as Hamilton once hoped and predicted. Indeed, states' rights issues have been rallying cries for Republicans and conservative Democrats for much of the past 100 years. Recently our major political parties have switched horses with many Democrats championing states' rights when they support sanctuary cities and financial aid to illegal aliens and Republicans holding for federal power and enforcement in immigration law!

189. For a detailed history of the funding of the debt, *see* Edwin J. Perkins, *Funding the National Debt*, AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 189-234.

190. *See* WRITINGS, *supra* note 15, at 549.

191. Wall Street, like the London Stock Exchange, was to be founded by investors trading in national debt and state. As businesses required more capital, these bonds could be used by banks and investors to fund the projects.

moneyed men from urban areas went to the back woods in search of cheap, highly discounted debt. To make matters worse, Duer, Hamilton's assistant at the Treasury, and a number of Congressmen sent their representatives to the hinterlands to buy up the discounted obligations.[192] The Georgians and North Carolinians in Congress were particularly hostile to these activities. While Hamilton was without reproach, rumors circulated about his inside profits. Anger welled up as reports filtered back to New York about the egregious behavior of the speculators. Many in Congress were willing to redeem the domestic portion of the national debt; they wanted to discriminate between the good, original holders, however, and the less worthy, subsequent holders who appeared to have been involved in speculation and were taking untoward advantage of the naïve and distressed.

The evils of speculation were exaggerated then and have been in many historical accounts of the discrimination issue.[193] The long and short of it is that the present speculation involved *speculators* and very few widows and orphans forced to sell.[194] Debt had been trading for about fifteen years so, when we take into account compounding of interest and discounting to net present value, we see that those who sold

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192. ALEXANDER HAMILTON, *supra* note 4, at 360.

193. This is probably because the press and politicians, echoing common wisdom, were so often vitriolic. However, when common sense is applied to the debt and the principles of speculation, it is apparent that Madison, Jefferson, and their supporters got it wrong.

> Most of the original holders of federal certificated who sold out to secondary investors likely did so soon after receiving them in payment for goods or services. The vast majority of the $11 million in securities issued to common soldiers when the Continental army disbanded in 1783 quickly passed into other hands. The same was true for persons who received certificates totaling about $6 million in payment for military supplies. Those citizens typically had little interest in holding financial assets, public or private, to an undetermined maturity date. They needed whatever cash could be raised immediately either to buy goods for immediate consumption, pay off private debts, or invest in more tangible assets such as land, livestock, inventories, structures, or bonded workers.

AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 226.

194. Indeed,

> [I]t seems unlikely that more than a handful of original owners were among those who missed profit opportunities by selling out to speculators in 1789 and early 1790, the assertions and lamentations of Madison and his legislative supporters notwithstanding. Speculators who profited the most did so largely at the expense of their less informed or less audacious counterparts who made different judgments about the risks and rewards associated with continued ownership of debt certificates at prevailing market prices in the period from ratification through the implementation of funding.

Id. at 225.

the debt instruments at an earlier time were in approximately the same economic situation as those who bought the discounted paper.[195]

Speculators are indeed quite useful economic creatures because they provide liquidity in markets. As bad as the discounts were during the darkest days of the war, the liquidity provided by the speculators supported the war bonds and certificates by providing a market for investors. They played a role similar to vulture capitalists in corporate bankruptcies of the present, by providing support for the bond market of the distressed company. The nation and the states would have been much worse off if the trading had been suspended to stop the speculators—then the market really would have fallen to the center of the world!

A related problem to refunding the domestic national debt at face value was that some states like Pennsylvania had for some time been buying up national debt and redeeming it. If this continued, the nation would be less reliant upon the central government to cure economic ills. Hence, it was important to nationalists like Hamilton and Morris to end state purchase programs.

Added to the mix was sectional politics. Refunding of the national debt would take federal revenues and funnel them into urban areas. Hamilton desired this dispersion because the government debt could become active capital to fund commerce and industry. This would reduce the importance of rural states and agrarian communities. To a very real extent, this division pitted the south and west against the New England and the Middle Atlantic states.

Before the First Congress was elected, Madison seemed to be the logical choice for Virginia's senate. His nationalism cost him, however, and the state electors denied him the senate seat. Madison then stood for election as a representative, and was elected.[196] He soon became the leader of the new body of representatives and a power broker for the administration to deal with.

Madison's thwarted senatorial aspirations undoubtedly caused him to mend fences. In *The Federalist Papers*, Madison argued for non-discrimination. As the leader of the Virginian delegation, he switched positions since many Virginians favored discrimination. They saw first-hand speculators in their backyards buying up the debt. Virginians also

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195. Had the United States lost the war in 1780 (as it might very well have), the widow who sold her paper to the Pennsylvanian spectator at $0.20 on the dollar, during the dark days at Valley Forge, would have had $0.20 on the dollar; the speculator, nothing for his money.

196. *See* RALPH KETCHAM, JAMES MADISON: A BIOGRAPHY 275-77 (1971).

feared the growth of commercial cities, and the loss of planter power.[197] Madison thus opposed the funding bills, in opposition to his friend and former ally, Hamilton. He was to come around in the Compromise of 1790 that would resolve several of the nation's most difficult problems.

E. The Assumption Battle and the Compromise of 1790[198]

The Compromise of 1790, which incorporated the assumption of state debt and deciding the location of the capital city, was one of the most critical decisions in the nation's history and perhaps its most important Compromise. The resolution of the debt issue and the nettlesome location of the capital strengthened the union and economy. Had these issues been resolved differently, forces of disunion might have threatened the new nation. Happily, Congress passed legislation assuming state debt at face value and approved the new locations for the capital. The capital would be in Philadelphia for ten years, followed by a permanent relocation to the banks of the Potomac that was favored by both the south and west. History has it that the Compromise resulted from a famous dinner party that brought together the protagonists, Hamilton and Madison. It is certainly a good story with a ring of truth, but we shall see Jefferson's later recollection was probably in error.

If habit is character revealed, Jefferson's recorded description of Hamilton before the famous dinner is clearly erroneous.[199] Jefferson recalled a chance meeting of Hamilton in mid-June outside the president's office. Jefferson thought Hamilton looked "somber, haggard, and dejected ... Even his dress uncouth and neglected."[200] He was not his usual dapper and self-confident self – to Jefferson, he seemed beaten. While they stood talking on the street Hamilton revealed that his assumption plan was in serious trouble.[201] James Madison was leading the south in blocking the plan because of his personal opposition to the assumption of state debts by the federal government.[202] Hamilton oozed dejection and melodrama. If his plans were defeated, he hinted he might resign.[203] Without his leadership and plan, the government would fall and the national union would collapse. Jefferson suggested that he could perhaps help by bringing together Colonel Hamilton and his good

197. Madison, along with Jefferson and Monroe, hated urban areas.

198. For an excellent history of the Compromise of 1790, *see generally* THE POWER OF THE PURSE, *supra* note 18, at 307-25.

199. *See generally* ALEXANDER HAMILTON, *supra* note 4, at 327-31.

200. *Id.* at 328.

201. *Id.*

202. *Id.*

203. *Id.*

friend, Madison.[204] The bargain was struck. Jefferson was trying to have the last laugh, re-writing history and portraying himself the hero of the piece, the Compromise of 1790.[205] This is the popular version. What follows is more likely to have happened.

Tied in with the non-discrimination issue was whether the state debt, totaling about $22 million, was to be assumed by the federal government. Hamilton's plans called for the assumption to treat all creditors with parity and make available more collateral for the bank issue currency he was planning for the nation. The assumption issue did not break down along sectional lines. Some states in the north favored it, while others opposed. The same was true for the south. The division broke along the lines of states that had repaid the debt and those that had not. Debtor states would be bailed out by a federal windfall, funded by those good states that had reduced or paid off the debt. The truth was a different matter: many of the states had reduced their debt by repayment with devalued currency or restructured obligations. Virginia fell into that camp. Virginians would also pay excise taxes on northern goods and imposts to pay the debt. They correctly foresaw a capital transfer to northern mercantile areas.

The location of the capital was also to be determined. The Southern states wanted it moved from urban New York with its influence of filthy lucre from commerce to a southern or more central location. Philadelphia was hankering for the permanent capital. Pennsylvanians also proposed locating on the Susquehanna near present-day Harrisburg, the state capital. Some wanted it at the fall of the Delaware, in Trenton, New Jersey. Southerners held out for a more southern location. Pennsylvanians and Virginians were willing to trade votes if they got what they wanted. A deal was in the air and a number of proposals were floating around at the time of the historic dinner.

The compromise would solve three issues: the discrimination issue, the assumption of state debt, and the capital location. Several Virginians whose districts bordered the Potomac switched their votes, as did some Congressmen from Pennsylvania. The Congress approved Phila-

204. JOSEPH J. ELLIS, FOUNDING BROTHERS: THE REVOLUTIONARY GENERATION 49 (2000).

205. It is inconceivable that Hamilton would have appeared in public in the distraught and disheveled manner described. It is unlikely that Hamilton would have worn his heart on his sleeve and confided in Jefferson. What is more likely is that Jefferson's memory was inclined to favor himself in the later years and to portray Hamilton in an unfavorable light. Jefferson undoubtedly had something to do with the Compromise of 1790, but the Compromise was in the works for good reasons of statehood and policy. It was a good compromise that gave all parties a fair deal. It helped shape our nation as a commercial society.

delphia for the temporary capital for ten years. The permanent location was the District of Columbia, in the south. The Pennsylvanians got the opportunity to convince the government to stay in Philadelphia. The South was awarded the new capital in the wilderness near Washington's home at Mount Vernon. The union was strengthened by the Compromise as the South received its recognition as host of the new capital. Creditors interested were aligned to the federal government's fisc. Hamilton got his assumption and consolidation of the debt. Once the bills were passed, the value of the securities traded at par—evidencing confidence in the new government's fiscal plans and prospects for survival.

The dinner was probably one of many that involved thoughtful and powerful leaders such as Madison, Jefferson, and Hamilton. They would have continued to discuss the people's business in the relaxed atmosphere of their homes. The cordiality and frankness would have assisted in the passage of the Compromise, but it probably did not arise as Jefferson much later wrote.

F. Refunding the Debt[206]

The refunding of the national debt and the assumption of the state debt gave the Treasury the opportunity to streamline federal obligations, lower the interest rate, and create a perpetual fund along the lines of the English national debt.

The effective rate was approximately 4%, well below the nominal 6% rate existing at the time of the refunding.[207]

By the last decade of the eighteenth century, the U.S. government was issuing bonds with indefinite maturation dates, virtually the same as British consols, with the prospect that portions of its existing debt would remain outstanding for at least thirty years and possibly much longer. Only 2% of the principal of the outstanding bonds carrying 6% interest rate was eligible for recall and redemption in any given year, irrespective of budget surpluses. The Hamiltonian fiscal program was fully in place by 1792 and already basking in its glory, since the yields on U.S. securities had fallen to within the secretary's target of 4% by the end of Washington's first term. The gradualist approach to debt reduction had lowered the tax burden to tolerable levels, and simultaneously produced a nascent capital market at the national level.[208] A

206. For detailed information on funding the debt, *see* AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 199-234.

207. *Id.* at 232.

208. *Id.* at 231-32.

modest tax burden freed up domestic capital that could be employed to expand the American economy and commerce.

The refunding was an immediate success and investors, mostly foreign, extended the United States new funds to pay the debt's interest and principal. So successful was the refunding that by 1792 the United States had credit equal to that of any European nation. Hamilton 6s were trading considerably above par—meaning that the effective interest rate for national debt securities was below its nominal value. The securities were deemed so safe that there was a premium for them.[209] This, of course, made borrowing by the government cheaper. The Hamilton program was working.

G. Establishing the Bank of the United States[210]

The revenue acts established reliable income for the new government. Refunding and assumption aided the union and lowered the cost of borrowing. The next step in the Hamiltonian System was the national bank.

The Bank Bill in Congress was much less controversial than the assumption and non-discrimination issues had been. The act sailed through without strong opposition being mounted. However, Jefferson, Madison, Monroe, and Edmund Randolph, the Attorney General, all opposed it as an unconstitutional intrusion upon states' rights and an unjustified exercise of federal power. Hamilton and Madison worked together in preparing Jefferson's opposition at the cabinet. Washington's preference was to defer to his cabinet officers in matters in their bailiwick.

Because of Jefferson's opposition, Washington asked Hamilton, Jefferson, and Randolph to prepare opinions on the constitutionality of the bank. Madison reversed his "implied powers" position he expounded in *The Federalist Papers*[211] and helped Jefferson prepare his brief. Jefferson argued for the strict construction of states' rights as there was no explicit banking power in the constitution. Randolph's argument echoed Jefferson's and called for strict construction as corporations and

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209. The safety premium, because the securities were so well regarded, caused the 6s to trade at about 4.5%. This market perception of safety reduced the borrowing costs of the new nation as it refinanced its public debt. Jefferson, while no friend of Hamilton or the bank, sold his 2200 shares of bank stock holdings in 1802. Baring Brothers, a leading English merchant bank, sold Jefferson's shares for 45% over par. Jefferson earned a profit of $670,000! *Id.* at 238.

210. For detailed information on the First Bank of the United States, *see id.* at 235-65.

211. *See*, for example, THE FEDERALIST NO. 44 (James Madison), wherein Madison discusses implied powers bottomed on the "necessary and proper" clause.

businesses were being chartered and supervised by the states. Neither Jefferson nor Randolph wanted extensive federal economic powers challenging the states.

Hamilton wrote a *tour de force* articulating the now-accepted "implied powers" argument that carried the day in *McCulloch v. Maryland.*[212] In *tour de force*, Hamilton asserted that the right to create and charter a bank could be found. The constitution had implied powers permitting the federal government to undertake necessary and proper steps to discharge its duties. The bank facilitated the many federal economic powers, such as minting currency, collecting taxes, and funding the army and navy. A federally chartered bank could be seen as a helpful handmaiden in all of these operations. For instance, the bank could lend money to the government during the slack periods between the spring and fall custom collections. It could write checks to pay for soldiers in the west if a Native American nation threatened settlers. The bank could store federal treasure collected from taxes, and earn interest for the government for funds on deposit.

Hamilton's arguments persuaded Washington, who still had doubts, but made the decision by giving preference to the cabinet officer making the proposal in a close case. Hamilton's arguments borrowed liberally from Madison in *The Federalist Papers*. John Marshall discovered the private state documents when he was preparing his biography of George Washington. Later Daniel Webster made the argument in favor of the Second National Bank before the Supreme Court. Chief Justice Marshall, ever the nationalist, used Hamilton's arguments almost verbatim in sustaining the bank and establishing expansive implied federal powers in *McCulloch v. Maryland.*[213]

The Bank of the United States was a quasi-public institution with a capitalized value of $10 million in subscription.[214] The government was permitted to own 20% of the bank.

The fractional public ownership was motivated in part by the desire to maintain some degree of continuity with the colonial heritage of legislative loan offices. During the half-century preceding independence, those publicly-owned financial instruments managed by public employees produced steady profits that alleviated the burden on taxpayers. Many political leaders wanted to preserve a measure of that tradi-

212. *McCulloch v. Maryland*, 17 U.S. 316 (1819).

213. *Id.*

214. The Bank was capitalized at $10 million with 25,000 shares having a par value of $400. H.W. BRANDS, THE MONEY MEN: CAPITALISM, DEMOCRACY AND THE HUNDRED YEARS' WAR OVER THE AMERICAN DOLLAR 52 (2006).

tion of public involvement in the financial sector. Thus, in an attempt to forestall criticism that the proposed national bank would cater strictly to the "selfish" interests of wealthy urban investors, as opposed to the welfare of ordinary citizens, Hamilton recommended a mixed enterprise—government ownership of 20% of the shares with 80% going into private hands.[215]

The government paid its subscription by borrowing funds and giving the bank notes, payable in full over eight years.[216] Private investors paid in the balance.[217] Government debt could be used to buy stock, so long as the private investors put up 20% in specie. Thus, about 16% of the Bank's assets were gold and silver, and the balance was government debt that was treated as if it were specie.[218] On July 4, 1791, the Bank sold out its subscription immediately, establishing it as the largest financial institution in the Western Hemisphere.

Hamilton's bank had extensive powers. It could buy and sell government securities, supporting the bond market like the Bank of England or the Modern Fed. It could lend to the government, other banks, and businesses. It was a federal depository and payor (earning fees).[219] It issued banknotes, backed by its reserve of specie and government bonds. The monetizing of the debt created fiat money that circulated and stimulated commerce. The Bank was wildly successful, earning its primarily British investors very nice profits. Nice profits were also earned by the government. The Bank accommodated President Jefferson and financed the Louisiana Purchase from Napoleon. It also bailed out Jefferson's parsimonious neglect of the navy by funding its revival when American trade was threatened at sea.

The Bank had an interesting public/private mix. Private investors controlled the Bank, shielding it from popular influence in the Congress. While foreign investment was huge, foreign investors had no control over the resources. They were content to profit from the splendid dividends and capital appreciation. The Bank represents another instance where the United States was funded by foreign capital to its ad-

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215. AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 236-37.

216. Id. at 237.

217. Private investors purchased three-fifths of the Bank's stock with government securities! ENTERPRISE, *supra* note 156, at 170. Financial genius was at work here as the refunded debt lowered the cost of credit and financed the national bank that supported the rejuvenated credit of the new republic.

218. Because the Bank was so sound and the government debt perceived to be a very safe investment as it traded above its issue price, it had the value of gold and silver, but not the weight.

219. AMERICAN PUBLIC FINANCE, 1700-1815, *supra* note 8, at 236.

vantage. For a fixed return in the manner of the dividend, we received use of English funds. (We were also repaying the debt by taxing their imports and shipping!) Hamilton and sophisticated merchants understood this; in its flights of xenophobic fancy, the public often did not.

In conclusion, the Bank's greatest contribution was in monetizing the debt—instantly creating substantial capital in a capital-poor land. Its prudent policies protected investors and regulated the economy by its clearinghouse policies with state banks, its security market operations with the federal debt, and its branching operations in many locations.

The Bank created capital pools and boosted the development of Wall Street. It spurred investment and boosted the economy. Eventually Jefferson and his great Treasury Secretary, Albert Gallatin, came around and saw the Bank's importance. It aided the government in re-establishing a navy and army that Jefferson had thoughtlessly allowed to wither. It funded the great Louisiana Purchase. In 1811 its re-chartering was defeated in the Senate. The anti-Bank forces captured half the votes, and Vice President Clinton voted against re-chartering.[220] The Bank's affairs were wrapped up and substantial profits returned to all investors, including federal government. On the eve of the War of 1812, the Bank refunded precious specie to its English investors. With the Bank out of operation, the currency in circulation shrank dramatically. With no Bank, the government was unable to fund its defense after Congress ill-advisedly voted to take on the greatest power in the world. National fortunes were saved by the resourceful and courageous banking of Philadelphian Stephen Girard, whose financial and banking skills, contacts, and private fortune funded the United States.

After the war, the chastised United States chartered the Second Bank of the United States. The Second Bank was to prove to be a great success. It was also hated by President Jackson who, like Jefferson, had a profound ignorance of banking and finance. What with the Banking War in Jackson's presidency and the end of the national bank,[221] the United States ended its experiment with central banks until 1913, when Congress enacted the Federal Reserve Act, creating the Federal Reserve System.

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220. HAMILTON'S BLESSING, *supra* note 48, at 47.

221. Jackson, as a Westerner, opposed the Bank because its regulatory functions (clearing, approving state banks for deposit and receipt of funds) angered state banks. By the Age of Jackson, the Bank was an accepted institution and vital to the economy of the Middle Atlantic States. No one questioned its constitutionality. It died for political purposes. SAMUEL ELIOT MORISON, THE OXFORD HISTORY OF THE AMERICAN PEOPLE 437-40 (1965).

V. CONCLUSION

Hamilton's System put the United States on sound credit almost overnight. It established a principle of non-discrimination among investors and protected foreign investors (who then invested in the secure United States markets). His refunding of the debt established these securities as a medium that could be used as "active" capital, driving commerce and industry. His Bank of the United States funded government operations, performed prudently, issued banknotes monetizing the debt, and liquefied America's cash-poor economy. The Bank's operations supported the government debt and helped to found Wall Street. The hand of his active, virile government may be seen in important government programs of the last two centuries. Without Hamilton's leadership and his program, it is hard to conceive of our commercial empire.

While Jefferson was initially opposed to Hamilton's plan, by 1816 he had become a convert with respect to the value of the protective tariff. He supported the Tariff Act of 1816. The large footprint of Hamilton is seen in Henry Clay's American System and the development of Wall Street in the nineteenth century. Hamilton's influence continues to this day when the government employs the Fed and acts as an entrepreneur in the economy—such as with NASA and the Eisenhower National Defense Interstate Highway System.

Hamilton's inquisitive mind, his administrative skills, his grasp of finance, and his shrewd borrowing from the Brits and the Dutch established strong financial institutions and sound public finance and policies; this laid the groundwork for America to become a great power.