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Financial Systems and Economic Modernization

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The most successful economies of modern, and perhaps earlier, economic history appear to have had "financial revolutions" that created innovative financial systems *before* they became leading economies. This suggests that good financial systems may have played a causal role in economic modernization. I identify the key institutional components of such financial systems. Using the United States and Japan as examples, I discuss how two financial revolutions occurred. Effective leadership on the part of strong-willed individuals was crucial in each case.

We meet at the sixty-first annual meeting of the Economic History Association, and the first of a new century and millennium. Regrettably, the tragic events of 11 September 2001 necessitated postponing the meeting six weeks. The times are more troubled than they were when we looked forward to coming to Philadelphia in September.

In the circumstances, we might remember that when the EHA was founded in 1940, the world was also in turmoil. War was raging in Europe and Asia. Still, the first issue of this JOURNAL appeared in May 1941. Throughout the 1940s there were only two regular issues a year, plus a supplement called "The Tasks of Economic History," which published the proceedings of the annual meetings. An annual subscription was $3 per year, and $2 for graduate students.

The first annual meeting took place in Princeton, New Jersey, 5–6 September 1941, three months before Pearl Harbor. Harold Innis of Toronto was the program organizer, and Edwin Gay of Harvard gave the first president's talk. Those who attended could stay at the Princeton Inn for $6 a day, meals and the annual banquet included. Attendees could also stay at the Nassau Tavern for $3 a day, or at local rooming houses, but they had to pay $1.50 for the banquet.

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Despite those troubled times, the EHA held the first of what is now an unbroken record of 61 annual meetings, and issues of the JOURNAL appeared several times in each of those years. We should honor what the founders of the EHA did long ago, and what their successors did over the next six decades, by dedicating ourselves to continuing their work.

THE FINANCIAL SYSTEM AND I

Here in Philadelphia 34 years ago I attended my first EHA annual meeting. I was a Harvard graduate student. Alexander Gerschenkron was our president that year, and also my dissertation adviser. Gerschenkron gave a wide-ranging and nuanced presidential address entitled "The Discipline and I."[1] I cannot hope to emulate Gerschenkron in range of learning or felicity of expression. But I can crib from his title. So let me call the first part of my talk, "The Financial System and I."

My first experience with the financial system came when I was three or four. My older brother, Jim, had left some coins lying around his bedroom in our suburban Chicago home. I thought they looked pretty neat and shiny, so I put a few of them into my pocket. Jim reported the missing items to Dad, who proceeded to give me a lecture. Thus was I introduced to *money*, and of course what to a three or four year-old was a wholly new concept, private property, and maybe even in an informal way to the judicial system.

Some years later, I earned some money delivering newspapers and set up a savings account at the local Savings and Loan Association. I had learned it was not safe to leave money lying around the house, and besides, the S&L paid interest. I soon advanced from paperboy to a more senior position that involved bundling the papers and delivering them to younger paperboys in a pickup truck. For this I was paid by check, so I opened a checking account at the local bank. Thus, at an early age, I was introduced to *bank and non-bank financial intermediaries*.

Those early paychecks taught me more about the financial system, namely the difference between what I had earned and what I got paid. The discrepancy went as taxes to various governments to pay for all sorts of things such as roads, Dad's salary as a school superintendent, the army, the navy, and interest on the national debt. The last item including interest on the savings bonds relatives had purchased to help finance World War II, and had given me in case I would later need money for college. I thought that the interest income on these bonds, like that paid by the S&L, was pretty nice, at least until I heard President Eisenhower say the national debt was a bad thing because it would be a burden on our grandchildren. Anyway, shortly after

[1] Gerschenkron, "Discipline."

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I learned to drive, I knew quite a bit about taxes, government spending, and the national debt, in short, about *public finance and public debts.*

Then I went to Harvard where I learned that that old fogy, Ike, in the White House was all wrong about the national debt. It was not a problem at all because we owed it to ourselves! The folly of Ike was even illustrated mathematically. Every debt is an IOU counterbalanced by someone else's UOMe, so if you just cancel the O's and the U's, the I's equal the Me's, and it is clear we owe it to ourselves.

Also at Harvard, we learned about another old fogy, William McChesney Martin Jr., who was Chairman of the Board of Governors of the Federal Reserve System. The problem was that Mr. Martin was excessively concerned about inflation and the value of the dollar, and it was now the Kennedy-Johnson era when we were supposed to get the economy moving again through lower interest rates, more money, and tax cuts. All this was discussed in Money and Banking classes with Professor Jim Duesenberry, who taught me such things as "Monetary policy works basically by keeping poor people living in apartments," since the Fed's tight monetary policies prevented them from taking out mortgages loans to purchase houses. This, of course, confirmed to Harvard students that McChesney Martin was an old fogy, just like Ike. Thus did I learn the ins and outs of *central banking*.

The mid 1960s when I was in grad school were pretty good years, even at the lowest rungs of academic life. I had both a teaching fellowship and a Gerschenkron fellowship, and my wife Edith also had two such fellowships. Flush with funds, I opened a brokerage account and began to buy stocks and mutual funds. Thus I became familiar with *securities markets.*

Alas, grad school like all good things came to an end, and Edith and I had to get real jobs. We did so, moving to North Carolina. We already knew about *insurance*, since we had to have it on the car, and by the time our first child arrived while we were in grad school, we had purchased life insurance from the Cambridge Savings Bank. We would buy more of this product. We started our lives down south like Duesenberry's poor, living in an apartment. But we soon took out a mortgage to buy a house, and that involved the purchase of both title and homeowner's insurance. Insurance products and insurance agents have been ever present in our lives.

As professors, we of course enrolled in the university's retirement system, and organizations such as TIAA-CREF began to send us quarterly statements on regular and supplemental (403b) retirement accounts. Later there were IRAs, 401k's, and other forms of tax-deferred savings for various life-cycle purposes.

But I fear this bit of autobiography grows tedious. What is the point? Simply this: A little introspection tells us that the financial system is a big part of our lives, throughout our lives. And I have only mentioned a part of

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the story, saying next to nothing about what the banks, brokers, insurance companies, mutual funds, and pension funds do with our money once we entrust it to them.

A second point: Most people in the world do not have available to them anything like the rich menu of financial services that I in a rather personal way just described.

And a third point, or really a question: Does the fact that most people in the world do not have such a rich menu of financial services have anything to do with economic history? I think it does.

"WHY ISN'T THE WHOLE WORLD DEVELOPED?"

Richard Easterlin, another EHA past president, titled his address 21 years ago, "Why Isn't the Whole World Developed?"[2] The question is one that interests all of us. Easterlin's answer was that historical differences in development around the world could be explained by historical differences in the spread of formal, mass schooling. Mass schooling, he argued, facilitates the acquisition and application of knowledge about new production techniques associated with the emergence of modern economic growth.

I propose a different answer, namely that past and current differences in development around the world can be explained by historical differences in the spread of modern financial systems, which serve to facilitate the acquisition and application of both nonhuman and human capital—new production techniques and mass schooling, if you like—and a lot of other improvements as well.

What is a modern financial system? I briefly sketched one in the autobiographical bits above. Now let me describe more formally what I consider to be the key institutional components of a modern financial system.[3] They are: sound public finances and public debt management; stable monetary and payments arrangements; sound banking systems (more generally, institutional lenders); an effective central bank; good securities markets for debt, equity, and money-market instruments; and sound insurance companies (more generally, institutional investors).

I developed my list of key components by investigating what the leading, most successful nation-state economies of modern economic history had in common, financially speaking. The consensus of economic historians, for example, Angus Maddison, is that there have not been many of these leading

[2] Easterlin, "Why Isn't the Whole World Developed?"

[3] Merton and Bodie, "Conceptual Framework," present an alternative to my institutional, historically derived perspective on modern financial systems by focusing on functions. They identify six functions of a financial system: clearing and settling payments; pooling resources and subdividing shares; transferring resources across time and space; managing risk; providing information; and dealing with incentive problems. There is substantial overlap, explicit and implicit, between the two perspectives.

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economies—basically three.[4] The Dutch Republic was the leader during the seventeenth and eighteenth centuries. The United Kingdom was the leader of the eighteenth and nineteenth centuries. And the United States has been the leader from the nineteenth century to present. I should add that medieval and renaissance Italian city-states were the financial and economic leaders of those premodern eras, and that they taught the Dutch and others much about modern financial technologies.

What interests me is that the three economic leaders of modern history all had what some have called "Financial Revolutions" that encompassed putting in place my six key components of a modern financial system *before* they went on to become economic leaders. The Dutch financial revolution occurred by the first decades of the seventeenth century, *before* the Dutch Golden Age, also called by Simon Schama, "the embarrassment of riches."[5] The British financial revolution occurred in the late seventeenth and early eighteenth centuries, *before* the English industrial revolution.[6] The U.S. financial revolution occurred in less than a decade after the ratification of the Constitution, *before* the U.S. economy accelerated its growth in the "statistical dark age" of the early nineteenth century.[7]

I realize that what I have just said may seem to conflict with Gregory Clark's paper delivered at these meetings.[8] With the understatement for which he is justly famous, Clark said that since there was not an Industrial Revolution in eighteenth century England, it could not have been precipitated by the English financial revolution.

I am sympathetic to Clark's point. We economic historians have invested too much intellectual capital in "the" Industrial Revolution, whenever it occurred, if in fact it occurred. The British financial system coming out of the early-eighteenth-century financial revolution did not really mature into a fully modern system until sometime in the nineteenth century. The British did have a superior financial system in the eighteenth century, but as Niall Ferguson among others has taught me, its superiority was more in the political realm of winning wars and building a worldwide empire than in developing the eighteenth-century British economy.[9]

[4] See Maddison, *World Economy*, table B-21, p. 264. With one exception, either the Netherlands, the United Kingdom, or the United States at Maddison's benchmark dates from 1600 to 1998 had the highest per capita GDP in the world. The exception is Switzerland, which according to Maddison's estimates, led the world in 1973. The Swiss, of course, are noted for their advanced financial system.

[5] Schama, *Embarrassment*.

[6] For the Dutch case, see Hart et al., *Financial History*; Vries and Woude, *First Modern Economy*; and Neal, *Rise.* For the British case, see Dickson, *Financial Revolution*, and Neal, *Rise.*

[7] Sylla, "U.S. Securities Markets"; and Wright, *Wealth.*

[8] Clark, "Secret History."

[9] Ferguson, *Cash Nexus*.

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So I think that Clark and I are in agreement. When he argues that the British Industrial Revolution was "the last of a series of localized growth spurts stretching back to the Middle Ages, as in the Netherlands from 1500 to 1650, and northern Italy in the fourteenth century," Clark in fact identifies precisely three areas of the world where financial innovations led to economic leadership.[10]

One other case interests me: Japan is the one non-Western country to modernize fully its economy and achieve economic parity with the Western developed countries. How did the Japanese do it? They did it the old-fashioned way, as did the Dutch, the British, and the Americans. In the early Meiji era of the 1870s and 1880s, Japan had a financial revolution encompassing all of my key components: sound public finances and public debt management, stable money, sound banking, a good central bank, securities markets, and sound institutional investors such as insurance companies. Once their financial revolution was in place, the Japanese were off and running. No other country outside the Western world established all the components of a modern financial system before the twentieth century. Most still have not done so. And as a result they lag behind the West Europeans, the North Americans, and the Japanese in economic development.

Table 1, derived from Maddison's Herculean labors, presents a rough but convenient summary of my case for finance-led economic growth. For a number of countries already mentioned and a couple of others, it shows GDP per capita relative to the world average at various dates from 1500 to 1998. In 1500 the Italians, with an average product roughly twice the world average, led by a substantial margin. That margin was narrower, however, than it would be for any subsequent leader after modern economic growth arrived. We know that the Italians were financial leaders before 1500, but I personally do not know enough to say that their financial leadership led to Italian growth (although I suspect it!), rather than being a result of that growth. The Dutch were the economic leaders from 1600 to 1820, and we know that the Dutch financial revolution began before the former date and was well established shortly after it. The British led at only one of Maddison's benchmark dates, 1870, after which the United States shot ahead to have, at the end of millennium, apparently the highest average product relative to the world of any nation in modern history.[11] The United States from 1500 to 1700, when of course it did not exist, has the lowest relatives in the table at those dates; Maddison's estimates include the Native Americans, who were the largest part of the population at those early dates.

[10] Clark, "Secret History," p. 1 (abstract).

[11] The estimates for the United States in 1870, as well of those for Germany and Japan in 1960 and possibly the Netherlands in 1820, may have been reduced from the effects of devastating wars ending shortly before those dates. Also, as noted in footnote 4, Switzerland—not included in Table 1—had the highest relative average product, 4.44 times the world's, in 1973.

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TABLE 1
REAL GDP PER CAPITA RELATIVE TO WORLD AVERAGE, SELECTED COUNTRIES, 1500–1998
(WORLD AVERAGE = 100 AT EACH DATE)

Date	Italy	Netherlands	United Kingdom	United States	Japan	France	Germany
1500	195	133	126	71	88	129	120
1600	185	231	164	67	88	142	131
1700	179	343	203	86	93	160	145
1820	167	273	256	188	100	184	159
1870	173	318	368	282	85	216	210
1913	170	268	326	351	92	231	242
1950	166	284	327	452	91	249	184
1973	259	319	293	407	279	320	292
1998	311	354	328	479	358	343	312

Source: Derived from Angus Maddison, *World Economy*, table B-21, p. 264.

The estimates for Japan in Table 1 might suggest that not much happened there until the second half of the twentieth century, and that if the Meiji era had a financial revolution, as I contend, it seemingly had little impact. We know, however, that the period 1870–1913 was one of rapid world economic growth. In the period, Japan was able to raise its average product relative to the world, which is a feat that the United Kingdom, the Netherlands, and Italy were not able to accomplish. In an era of rapid growth, Japan—and also France and Germany, which some say had financial revolutions in the middle of the nineteenth century—were able to gain on the old leaders.[12]

THE U.S. FINANCIAL REVOLUTION AND MODERN GROWTH

The U.S. case is the one with which, from my own work, I am most familiar. Here the financial revolution was a really quick and neat accomplishment of the first Federalist administration in the early 1790s. For that reason, I call it the Federalist financial revolution. Politically it was quite controversial at the time, and reverberations from the 1790s debates over it have continued throughout U.S. history.

When the Constitutional convention met at Philadelphia in 1787, in terms of my characterization of the key components of modern financial systems, first, national public finances were a mess, as were those of many states. Congress lacked the power to tax and could only pay interest on its debt by issuing new debt. Second, the states issued their own inconvertible fiat currencies; there was no national currency unit. Third, there were three

[12] The long-term growth data in Table 1 are in rough accord with an aspect of financial history, interest rates. Before 1500 or even 1600, Italy had the lowest rates. From 1600 to 1800, the Dutch Republic had the lowest rates. During the nineteenth century, rates were lowest in the United Kingdom, and during the twentieth century they tended to be lowest in the United States. See Homer and Sylla, *History*, chap. 23.

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isolated banks, in Philadelphia, New York, and Boston. None had been in business for more than six years. There was no banking *system.* Fourth, there was no central bank. Fifth, there were no organized securities markets with regular trading, although some issues of national debt securities, akin to junk bonds in default, were traded sporadically at steep discounts from par. Sixth, there were essentially no insurance companies or other institutional investors.

Within a decade, all this had changed as a result of well conceived and executed plans implemented by Federalist leaders, in particular Alexander Hamilton, Secretary of the Treasury in President George Washington's cabinet. The Federalist financial revolution by the mid 1790s, in terms of the key financial-system components, had the following results. First, the new federal government had taxing powers and tax revenue collected by a Treasury Department, which Hamilton organized and led. Under the plan formulated by Hamilton and adopted by Congress, the federal government paid interest, quarterly and in convertible currency, on a restructured national debt, which included federal assumption of debts incurred by states in the War of Independence. This lightened the burdens of the states' public finances. Second, Hamilton's Mint Report of 1791 defined the U.S. dollar, a new national currency, in terms of gold and silver, and the new currency began to be coined at a new U.S. mint in Philadelphia. Third, goaded into action by another of Hamilton's measures (see the next point), the states busily chartered more banks, as well as many other corporations, financial and nonfinancial. A U.S. banking system took shape, helping to end the country's "crisis of liquidity."[13]

Fourth, again at Hamilton's urging, Congress in 1791 chartered a central bank, the Bank of the United States, with its headquarters in Philadelphia and branches in cities in other states.[14] The Bank's existence prompted states to charter more banks, lest they cede the banking business to the federal bank. Fifth, as soon as the new federal debt securities and Bank stock appeared in 1790/91, organized securities markets in several cities rose up to trade them, along with a growing list of "local" securities issued by state governments and corporations that state legislatures had chartered. Foreign investors were early buyers of the new American securities. Sixth, insurance companies, nonbank financial corporations, began to appear in numbers, along with nonfinancial corporations chartered to build roads, bridges, canals, manufactories, and the like. These companies, in addition to insuring against risks, used inflows from premiums charged to make loans and invest in securities.[15]

[13] The "crisis of liquidity" and how the banking system alleviated it are subjects of Wright, *Origins*.
[14] For a recent, detailed analysis of the First Bank of the United States, see Cowen, *Origins*.
[15] See Wright, *Wealth*, for a detailed discussion of all these changes.

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Just a few years later, in 1803 to be precise, U.S. governments and corporations had issued about $120 million of securities—and half of the total was in the hands of foreign investors, who, in purchasing American financial assets, transferred capital to the United States and would continue to do so in the decades and centuries ahead. President Thomas Jefferson, no friend of the Federalists, in 1803 used the new financial system to double the size of the country, paying Bonaparte's France with $11.25 million of freshly printed "Louisiana 6s"—6 percent Treasury bonds maturing in 15 years. Through financial intermediaries Bonaparte sold the U.S. bonds, mostly to British investors who were eager to have them.[16] Then he used their money to make war on Britain.

A defining characteristic of a successful emerging market is its ability to attract foreign capital. On that score, the United States—more or less a bankrupt country in the 1780s—was by 1803 well on its way to becoming perhaps history's most successful emerging market. The presence of a good domestic financial system was then, and still is, a key factor in attracting and sustaining inflows of capital from other countries.[17]

With its modern financial system, the U.S. economy was off and running. The system was there to finance the country's domestic and foreign commerce, its transportation and industrial revolutions, its westward movement, and its wars. It quickly became such an integral component of the country's economic infrastructure that most Americans, then and later, assumed it was always there. They did not realize that it was something really quite new—and quite rare—in the history of nations. A favorite pastime of both contemporaries and later historians was to be critical of it, for its reckless, wildcat banking; its manias, panics, and crashes; its inflations and deflations, and on and on. Less recognized is that this financial system was financing what almost certainly was the world's highest rate of capital formation and economic growth during the nineteenth century. A comparison of the U.S. financial system of the early nineteenth century with that of any other country would indicate just how "state of the art" it in fact was.[18]

The early U.S. financial system, to be sure, was far from perfect—and it became worse after the Jacksonians destroyed the central bank in the 1830s. During the 1790s the system served mainly the Northeastern section of the country. Even there, it initially served mainly the small sector of the economy—I call it the modern sector—that was not agricultural. But this modern sector grew rapidly from its small beginnings, and we know that eventually it became the dominant sector. So we should not be at all surprised that our

[16] Blodget, *Economica*, pp. 198–99, reports that British investors in 1803 held all but $2 million of the $11.25 million of Louisiana 6s.

[17] Rousseau and Sylla, "Financial Systems"

[18] Rousseau and Sylla, "Emerging Financial Markets," briefly compare the U.S. and British financial systems *circa* 1825.

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best guesstimates of growth of per capita product for the whole economy during the early decades of the republic indicate a gradual acceleration. This does not imply that we need to dismiss all notions of revolutionary changes in finance, manufacturing, transportation, and perhaps other sectors of economic life, either in the United States or in other countries for which aggregate data indicate gradual acceleration of economic growth. I suspect that most successful cases of modern growth in economic history involve an initially tiny "modern sector" that begins to grow rapidly, but is surrounded by a vastly larger "traditional sector"—usually the agricultural sector—that grows at a far less rapid rate if at all. As the initially small but rapidly growing modern sector becomes an increasingly larger and larger part of an economy, overall growth gradually accelerates and eventually becomes sustained at higher levels that we call "modern."

By the 1820s the modern sector was pretty large in the Northeastern section of the United States. In 1828 the British consul in New York City, one James Buchanan, published a pamphlet for friends in England to explain the amazing things he saw going on in the State of New York.[19] The state legislature by then had chartered 39 banks, 76 insurance companies and Lombard lending associations, 127 manufacturing companies, 74 corporations for scientific and benevolent purposes, and many more steamboat, ferry, turnpike, bridge, and road companies.[20] For New York State, whose population was then about 1.5 million, the British consul estimated:

> an incorporated capital of one hundred millions of dollars, in all which any, and every citizen, or alien, might invest such portions of their property as they thought proper, without risking the remainder. . . . From all which facilities of investment, and accommodation afforded, every member of the community stands in some way or other interested in these institutions. . . .
>
> While a created capital of such extent is thus operating on the community, it may be asserted, there is not above one million and an half of dollars in all the banks of the state in specie.

Buchanan was amazed that the U.S. banking system could function with such small specie reserves, although he recognized that the Bank of the United States, then led by Nicholas Biddle, was there as a central bank to help if specie ran short.[21] Drawing on orthodox British thinking, Consul Buchanan went on to say:

[19] [Buchanan], *Report*.

[20] New York was not unique. Between 1780 and 1837 the State of Pennsylvania chartered 819 corporations, of which 78 were banks, 11 savings institutions, 41 insurance companies, 78 railroads, and 22 were manufacturing companies. See Wright, *Wealth,* p. 161.

[21] Engerman, "Note," estimates the resource saving and favorable effect on GNP of the low proportion of specie in the U.S. money supply during the era of the Second Bank.

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> If bullion, therefore, is to be regarded as the only safe circulating medium, and if all securities not convertible into metallic currency, argues an unsound state of public credit; if according to the prevailing maxims of political economists, the existence of excessive fictitious capital is dangerous; then indeed are the people of this state, and the United States, in a truly awful condition; but opposed to all these maxims, stands the actual situation of the state of New York. . . .
>
> [F]or the support of every measure which marks prosperity, perhaps the history of nations affords no parallel. . . .
>
> By incorporations, the state of New York has found means to call forth the energy of every man in the community, destroy these corporate institutions, and the same effect would follow, as turning water from the mill, the machinery and grain would remain, but where would be the power to render it productive. . . .

Amazed as the British consul was by what he saw in the U.S.A. of the 1820s, he could still draw the sort of comparative economic history lesson that enriches our discipline:

> Most decisive proof as to the accuracy of these conclusions, is to be found by crossing the St. Lawrence . . . into Canada; in the latter, enterprize (sic) hitherto has been chained down . . . . Acts of incorporation opposed . . . . [If] the same protection [were] extended and dealt out with as liberal a hand in the British provinces, as in the adjoining sections of the United States, a spirit of improvement would burst forth, which would afford ample support for the surplus population of the United Kingdom, and remove the reproach cast on British rule, by every traveler who has had an opportunity of comparing the enterprize (sic), energy, and industry of one country [the United States], with the lassitude, torpidity, and indolence which prevail in the other [Canada].

When I first came across Consul Buchanan's anonymously published—he was later identified as the author—pamphlet in London's Goldsmith's Library 27 years ago, I did not quite know how to interpret it. I had gone to Britain to study how Americans of the late eighteenth and early nineteenth centuries picked up what they knew about banking and finance, just as they picked up what they knew about transportation and manufacturing technologies, from their more experienced cousins in Britain.[22] But here was a British cousin amazed by the effectiveness of the U.S. financial system of the 1820s.

We all have our "priors" and our ideas about the right questions to ask. But sometimes they can turn out to be misguided. In finance as in other technologies, the early Americans did borrow a lot from the old world. But they also introduced innovations of their own: a central bank owned in part by the government with nationwide branches; a proliferation of competitive financial and nonfinancial limited-liability corporations; and a number of interconnected, integrated securities markets that gave liquidity to securities

[22] Such assumptions are not uncommon amongst Anglophiles or ingénues such as I in 1975, and the British do their best to encourage them.

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issued by all those corporations as well as to the public securities issued by federal, state, and local governments. British consul Buchanan in 1828 understood that there was something new and different about the U.S. financial system that had grown up after independence, and it made a great impression on him. I suggest it should impress us, too.

FINANCIAL LEADERSHIP: HAMILTON AND MATSUKATA

How do countries manage to get good financial systems? Since even today relatively few of the world's nations have them, this is an important question for us in economic history, as well as for the World Bank, the IMF, and countless others operating in our increasingly global economy.

Financial leaders can matter a lot. Such leaders know and understand what I have called the key institutional components of good financial systems; how these components function, interact, and reinforce each other in financial networks; and how they serve the needs of governments and the economy. And they have the political and administrative skills to implement such systems. They are the sorts of people who, in one of Alexander Hamilton's favorite quotations, follow a maxim of Demosthenes: "As the general marches at the head of his troops, so ought wise politicians . . . march at the head of affairs; insomuch that they ought not to wait the *event* to know what measures to take; but the measures which they have taken ought to produce the *event*."[23]

Hamilton was such a leader and is generally recognized for his work as the first Secretary of the Treasury, mentioned above, in stabilizing the new American nation's finances, although the full magnitude of his achievement is only now coming into focus as we learn how quickly the U.S. financial system developed after he took office in 1789.[24] He of course had many predecessors in the histories of city-states and nations that parlayed financial innovation into economic leadership before the United States came into being. Medieval and renaissance Italy had its Bardi, Peruzzi, and Medici bankers. The Dutch Republic had several Willems of Orange, along with the founders of the Bank of Amsterdam and the managers of the Dutch East India Company, Johan de Witt, and later the Hopes of Hope and Company. The British had a William of Orange, too, as well as financial innovators such as Montague, Paterson, Godolphin, Walpole, Pelham, and—later—the two Pitts. Another predecessor was John Law, the ill-fated reformer of France's finances whose financial innovations were admired by Hamilton, but with many reservations.

To my mind, however, for the most interesting parallel with Hamilton's financial leadership in the early years of the United States, one needs to

[23] As cited by Ellis, "Big Man," p. 76.

[24] For the latest accounts of Hamilton's impacts, see Wright, *Wealth* and *Hamilton*.

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move forward in time, to Meiji-era Japan. The two decades after 1776 in the United States and after 1868 in Japan had many similarities, including revolution, inflation, internal rebellion, deflation, the emergence of strong political and financial leadership, and movement toward a constitution.[25] In Japan's case strong financial leadership came mainly from Masayoshi Matsukata, finance minister during the 1880s. Before becoming finance minister, Matsukata during the 1870s had a large role in key financial reforms in other central-government positions. Later, in the 1890s, he served as Japan's prime minister.

Like Hamilton, Matsukata came from the fringes of society at a time his country was undergoing revolutionary change. Each came to finance from a military background, and by sheer ability and financial acumen, along with some valuable connections with more senior leaders, each rose to the top, becoming the architect of his country's financial system as it was formed. Matsukata in the 1870s, like Hamilton in the 1790s, was a key player in reform of the central government's revenue system. As chief of taxation, he replaced the old, in-kind rice tax with a money tax on land, and introduced taxes on sake and tobacco. Related to the tax changes, although Matsukata's direct role in the matter is not clear, the Japanese government assumed and restructured a large national debt when it commuted *sumurai* rice stipends from the peasantry into government bonds to pension off the *samurai*. Public finances were thus modernized, but an attempt in the 1870s to copy the U.S. national banking system by letting the new bonds serve as collateral for bank-note issues led to inflation when the government reduced reserve requirements and allowed the abandonment of convertibility.[26] A more positive effect of the debt restructuring was the emergence of securities markets. The Tokyo and Osaka stock exchanges began in 1878, giving liquidity to new public debt and other securities.

Matsukata's journey to France in 1878/79 as Japan's delegate to the Paris International Exposition was an important learning experience. While there Matsukata became friends with the noted French finance minister, Leon Say, who taught him the importance of currency convertibility and investor confidence in restoring France's public credit after its defeat in the Franco-Prussian War.[27] Say also urged Matsukata to shift Japan to the European pattern of having a central bank as the sole issuer of banknotes and regulator of other banks.[28]

Returning to Japan, Matsukata in 1881 became the country's finance minister. His main goal was to end inflation and restore currency convertibility. To accomplish it, Matsukata slashed government spending, raised

[25] Sylla, "Emerging Markets."
[26] Rosovsky, "Japan's Transition," p. 130.
[27] Ibid., pp. 132–33.
[28] Reischauer, *Samurai,* pp. 83–84.

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taxes, and privatized the model factories and mines Japan's government had earlier financed. He established a sinking fund to redeem government debt and was able to reduce through exchanges the interest rate on the debt to 5 percent.

In 1882 Matsukata founded the Bank of Japan as a central bank, modeling it on the Belgian central bank, as Hamilton earlier had modeled the Bank of the United States on the Bank of England. By 1885 fiscal austerity had reduced the price level sufficiently so that the Bank could issue notes convertible to specie, restoring monetary stability. Eventually, Bank of Japan notes replaced inconvertible government and bank notes. Japan, unlike the United States under Hamilton, had been reluctant to access international capital markets in its first decades of Meiji-era modernization. By the late 1890s, however, it switched from the silver to the gold standard and became a regular issuer of bonds on international markets.

To summarize what is already a summary, Matsukata like Hamilton installed a modern financial system for his country. It encompassed the establishment of every one of the key components of financial systems that had arisen in earlier modernizing economies. Almost immediately Japan began to grow rapidly and become a major player on the world's stage. Four years after becoming finance minister, the main goals of Matsukata's reforms had been achieved. In that year, according to his granddaughter's biography, the American minister to Japan, John A. Bingham, congratulated him by letter on his achievement and compared him to Alexander Hamilton.[29] Long after, Henry Rosovsky would write that Matsukata "combined firmness and wisdom with a strong belief in financial orthodoxy, and succeeded by 1885 in regaining control of the economic situation. He cleared the decks, and made it possible for modern economic growth to begin."[30]

Nonetheless, Matsukata's policies, particularly the deflation of the early 1880s, were controversial and deeply resented by many of his countrymen. To some extent they are still so resented. It is another similarity with Hamilton, "this brilliant figure," Lord Bryce wrote of him, whose "countrymen seem to have never, either in his lifetime or afterwards, duly recognized his splendid gifts."[31] Financial leaders seem to be prophets with honor, save in their own countries.

IMPLICATIONS

Today's financial economists would not be surprised that banks, stock markets, and stable currencies play large, and possibly even causal, roles in

[29] Ibid., p. 96.
[30] Rosovsky, "Japan's Transition," p. 132.
[31] James Bryce, *American Commonwealth*, p. 687.

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economic growth. Much of their work analyzing large, contemporary cross-country data sets points to similar conclusions.[32] We economic and financial historians can learn much from the methods and conclusions of financial economists in their analyses. At the same time, I think they have something to learn from us. In this age of neo-liberalism, the disproportionate emphasis given especially to banks and also stock markets, with a corresponding de-emphasis of the role of the state, its public finances, and to a lesser extent its central bank seems not fully in accord with history's lessons. In history, when the state got right its own finances, stabilized its currency, and had an effective central bank, then securities markets, banks, and other financial intermediaries usually flourished. Conversely, there do not seem to be cases in which banks and stock markets flourished when public finances and the currency were weak.

[32] A recent summary of such work as well as a guide to the literature is Demirgü ç-Kunt and Levine, *Financial Structure.*

REFERENCES

Blodget, Samuel. *Economica: A Statistical Manual for the United States of America.* Washington, DC: Printed for the author, 1806.

Bryce, James. *The American Commonwealth*. Two vols. Indianapolis: Liberty Fund, 1995.

[Buchanan, James]. *Report and Observations on the Banks, and Other Incorporated Institutions in the State of New York.* New York: W. A. Mercein, 1828. Goldsmiths'-Kress library of economic literature; no. 25589.

Clark, Gregory. "The Secret History of the Industrial Revolution." Working Paper, University of California, Davis. Presented at the annual meetings of the Economic History Association, Philadelphia, 27 October 2002.

Cowen, David Jack. *The Origins and Economic Impact of the First Bank of the United States, 1791–1797.* New York and London: Garland Publishing, 2000.

Demirgüç-Kunt, Asli, and Ross Levine. *Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development.* Cambridge, MA: The MIT Press, 2001.

Dickson, P. G. M. *The Financial Revolution in England: A Study in the Development of Public Credit, 1688–1756.* London: Macmillan, 1967.

Easterlin, Richard. "Why Isn't the Whole World Developed?" this JOURNAL 41, no. 1 (1981): 1–19.

Ellis, Joseph J. "The Big Man: History vs. Alexander Hamilton." *The New Yorker*, 29 October 2001: 76–84.

Engerman, Stanley L. "A Note on the Economic Consequences of the Second Bank of the United States." *Journal of Political Economy* 78, no. 4, part 1 (1970): 725–28.

Ferguson, Niall. *The Cash Nexus: Money and Power in the Modern World, 1700–2000.* New York: Basic Books, 2001.

Gerschenkron, Alexander. "The Discipline and I." This JOURNAL 27, no. 4 (1967): 443–59.

Hart, Marjolein 't, Joost Jonker, and Jan Luiten van Zanden. *A Financial History of the Netherlands.* Cambridge: Cambridge University Press, 1997.

Homer, Sidney, and Richard Sylla. *A History of Interest Rates.* 3rd ed. rev. New Bruns-

https://doi.org/10.1017/S0022050702000505 Published online by Cambridge University Press

wick, NJ: Rutgers University Press, 1996.
Maddison, Angus. *The World Economy: A Millennial Perspective.* Paris: OECD, 2001.
Merton, Robert C., and Zvi Bodie. "A Conceptual Framework for Analyzing the Financial Environment." In *The Global Financial System: A Functional Perspective*, by Dwight B. Crane, Kenneth A. Froot, Scott P. Mason, et al., 3–31. Boston, MA: Harvard Business School Press, 1995.
Neal, Larry. *The Rise of Financial Capitalism: International Capital Markets in the Age of Reason.* Cambridge: Cambridge University Press, 1990.
Reischauer, Haru Matsukata. *Samurai and Silk: A Japanese and American Heritage.* Cambridge, MA: Harvard University Press, 1986.
Rosovsky, Henry. "Japan's Transition to Modern Economic Growth, 1868–1885." In *Industrialization in Two Systems: Essays in Honor of Alexander Gerschenkron*, edited by Henry Rosovsky, 91–139. New York: John Wiley & Sons, 1966.
Rousseau, Peter L., and Richard Sylla. "Emerging Financial Markets and Early U.S. Growth. NBER Working Paper 7448, Cambridge, MA, December 1999.
_____. "Financial Systems, Economic Growth, and Globalization." In *Globalization in Historical Perspective,* edited by Michael D. Bordo, Alan M. Taylor, and Jeffrey G. Williamson. Chicago: University of Chicago Press, 2002, forthcoming.
Schama, Simon. *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age.* New York: Knopf, 1987.
Sylla, Richard. "Emerging Markets in History: The United States, Japan, and Argentina." In *Global Competition and Integration*, edited by Ryuzo Sato, Rama V. Ramachandran, and Kazuo Mino, 427–46. Boston: Kluwer Academic Publishers, 1999.
_____. "U.S. Securities Markets and the Banking System, 1790–1840." *Federal Reserve Bank of St. Louis Review* 80, no. 3 (1998): 83–98.
Vries, Jan de, and Ad van der Woude. *The First Modern Economy: Success, Failure, and Perseverence of the Dutch Economy, 1500–1815.* Cambridge: Cambridge University Press, 1997.
Wright, Robert E. *Hamilton Unbound: Finance and the Creation of the American Republic.* Westport, CT: Greenwood Publishers, 2002.
_____. *Origins of Commercial Banking in America*. Lanham, MD: Rowman & Littlefield Publishers, 2001.
_____. *The Wealth of Nations Rediscovered: Integration and Expansion in American Financial Markets, 1780–1850.* Cambridge: Cambridge University Press, 2002.

https://doi.org/10.1017/S0022050702000505 Published online by Cambridge University Press