The Wealth of Nations Rediscovered

Integration and Expansion in American Financial Markets, 1780–1850

Robert E. Wright

University of Virginia

CAMBRIDGE
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK
40 West 20th Street, New York, NY 10011-4211, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

http://www.cambridge.org

First published 2002

Printed in the United Kingdom at the University Press, Cambridge

Typeface Baskerville 10/12 pt. *System* LaTeX 2_ε [TB]

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication data

Wright, Robert E. (Robert Eric), 1969–
The wealth of nations rediscovered: integration and expansion in American financial markets, 1780–1850 / Robert E. Wright.
p. cm.
Includes bibliographical references and index.
ISBN 0-521-81237-2
1. Finance – United States – History. 2. Wealth – United States – History. 3. United States – Economic policy. 4. United States – Economic conditions. I. Title.
HG181 .W75 2002
332.63′2′0973–dc21 2001052836

ISBN 0 521 81237 2 hardback

Contents

Tables

1

Introduction: The Wealth of Nations *and National Wealth*

Rulers, businesses, and scholars have long searched out the causes of wealth. Unfortunately, most of the globe's denizens remain pitifully poor, a threat to the economic and physical security of the prosperous few. One of the most influential books ever written, Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations*, provided a robust explanation of the causes of economic growth (increased real per capita gross domestic product or GDP), an explanation that the world would do well to study more closely. Some of the intricacies of Smith's thought regarding the financial underpinnings of wealth still elude many theorists and policy makers. Currently, a handful of scholars are explaining and expounding some of those intricacies in the hope that Smith's financial ideas will be put into practice in more places around the globe.

If you do not allow yourself to get bogged down in numbers, or regression equations, and just think about the economic history of the world for the past half millennium in general terms, a few startling observations can be made. First, an abundance of natural resources does not necessarily lead to economic wealth. The most biologically abundant and diverse areas of the globe are also the poorest. Nations with huge tracts of land, enormous numbers of people, and vast deposits of fossil fuels, precious metals, and other riches (e.g., China and the former Soviet Union) are quite poor. Some resource-rich areas (e.g., the Middle East) have found temporary wealth for a handful of people through resource exploitation, but few are under the delusion that such nations have advanced economies. On the other hand, three tiny nations, Holland, England, and Japan, each mostly barren of natural resources, thrived. None of this is to say, of course, that natural resources retard growth, or that the Falkland Islands will be the next economic superpower. It is clear, however, that the correlation between resource endowments and economic wealth is far from one to one.

Second, a broad overview of economic history reveals that nations have achieved economic superpower status only after undergoing a financial revolution. The Netherlands and Britain are the best-known examples, but Japan and Germany underwent pre-industrial financial revolutions as well. Promising nations that never excelled in finance, such as Argentina, continue to founder economically.[1] Financial sophistication, in other words, precedes, is highly correlated with, and predicts economic growth. Recently, several macroeconomists have gone a step beyond even this, asserting that financial development outright *causes* economic growth.[2]

This book is a case study of economic growth. Its subject is the most successful emerging market in world history, the United States of America.[3] In just three and one-half score years (1780–1850), a single lifetime, the United States transformed itself from a series of loosely connected agricultural colonies into one of the world's most powerful industrial nations. How did it do so, and so quickly? Scholars have long debated the causes of early America's phenomenal economic success. Some point to an industrial revolution, whereas others stress the so-called agrarian roots of American capitalism. Some, who see a transportation, market, or price revolution as paramount, believe the creation of a free market was crucial, but others argue that a managerial revolution led to more efficient resource allocation than free-market mechanisms could provide. Some scholars argue for the primacy of international trade, whereas others think that the development of domestic markets and Smithian division of labor were key. Still others point to the existence of a flexible, progrowth legal system, or an entire social structure geared for growth. Recently, several scholars have noted that without adequate financial institutions, particularly banks, and efficient capital markets, especially secondary securities markets, early U.S. economic growth would have proceeded much more slowly, if at all.[4]

This book elaborates on the recent work of those financial historians, and Adam Smith, to set forth a finance-focused explanation of early American (1780–1850) economic growth. The book's thesis is easily stated: the U.S. financial system created the conditions *necessary* for the sustained domestic economic growth (increased real per capita output) that scholars know occurred in the nineteenth century. In proving that thesis, the book also shows that, despite the fulmination of some historians,[5] the nation's early economy was capitalist to its core.

The precise mechanism by which financial development spurs economic growth, though not accepted by all economists, has long been

[1] Sylla 1999a. [2] King and Levine 1993; Levine and Zervos 1998. [3] Sylla 1999a.
[4] Rostow 1960; Kulikoff 1992; Taylor 1958; Sellers 1991; Rothenberg 1992; Chandler 1977; North 1961; Lindstrom 1978; Horwitz 1977; Bruchey 1965; Sylla 1998, 1999a, 1999b; Bodenhorn 2000, 2002, Perkins 1994.
[5] Like Merrill and Wilentz 1993.

understood.[6] Most trace the idea to Joseph Schumpeter, who argued that the services that financial intermediaries, especially commercial banks, provided, such as the mobilization of savings, the evaluation of projects, risk management, and transactions facilitation, are essential for technological innovation and hence economic growth. In other words, without intermediation, the linkage of investors to entrepreneurs, visionary projects that would have created wealth wither and die. Few realize that Adam Smith also saw, though he did not stress, the importance of the financial system to growth. Smith, of course, is most remembered for his theoretical discussion of supply and demand and his metaphor of the "invisible hand," the extraordinary power of unfettered markets to produce needed goods and services. His vivid description of the division of labor in a pin-making factory also comes to mind. But his lengthy treatise contained much more, including discussions of the difficulties that arise when entrepreneurs cannot find sufficient funds to begin business, to trade in unfettered markets, to introduce additional degrees of labor specialization, or to develop scale economies. He never boldly states the finance-led thesis, but the implication of his discussion is clear – if businesses cannot raise funds, then they cannot buy the machines or make the organizational improvements necessary to increase their firms' productive efficiency. The efficiency of the overall economy therefore suffers.

Why would businesses be unable to raise the funds necessary to improve their operation? After all, improved efficiency usually means higher profits. Why could the businesses not simply borrow, for a price, from some people who have a little extra money to spare? The answer lies in the facts – the cold, hard facts of life – that the potential lenders may not know that the entrepreneur wishes to borrow, or may not be able to verify that the entrepreneur has a bona fide profitable use for the loan. Lenders do not like to part with their hard-earned wealth (or even their easily gotten wealth in most cases) unless they have decent assurances that the borrower will repay according to the terms of the contract.

If the asymmetry is too great – in other words, if one party knows much more information (usually about itself) than the other party knows – a bad outcome will likely result for the party with deficient information, usually the buyer or lender. The three major types of this "information asymmetry" are adverse selection, moral hazard, and the principal-agent problem. Adverse selection occurs before the contract. Simply stated, the worst risks (credit, insurance, inferior products) will be more anxious to contract than the best risks. Buyers or lenders who

[6] Excellent descriptions of those theories, past and present, can be found in Bodenhorn 2000, 2002.

cannot discern good risks (or products) from bad, therefore, will likely be burned. Moral hazard – and its special case, the principal-agent problem – occurs after the contract is made. If the lender (employer) does not keep adequate tabs on the borrower (employee), the borrower (employee) will have an incentive to renege on the contract by defaulting (stealing or goofing off). The problems of information asymmetry *cripple* markets, greatly reducing the number of contracts entered. Information asymmetry cannot be completely eliminated, but it can be reduced by financial institutions, such as banks, and financial markets, such as stock and bond markets.

Where levels of information asymmetry are high, relatively little private lending takes place outside of close-kin networks. Only those few with access to funds can implement new ideas or procedures, so many wealth-producing plans die due to inadequate financing. After the introduction of institutions and markets that reduce information asymmetry, some of those wealth-producing ideas, the ones most likely to succeed, find financing, are implemented, and result in productivity gains. In addition to information asymmetry, other lending or borrowing costs (e.g., the cost of searching for counterparties) can also prevent entrepreneurs from finding financing. Macroeconomic instability (e.g., large, unexpected movements in the aggregate price level, exchange rates, nominal money balances, and interest rates) also reduces the volume of lending by raising the cost or risk of lending. Financial institutions, particularly central banks, can help to increase lending levels by decreasing macroeconomic instability.

A nation undergoes a "financial revolution" when it quickly develops a banking sector; markets for the sale of government bonds, corporate debt, and equities (stock); and a central bank. Chapter 2 places the U.S. financial revolution of the 1790s, the simultaneous emergence of the new nation's commercial banking and securities sectors and central bank, in the context of the development of European financial systems and the colonial American political and legal environment. In the seventeenth century, Holland and Great Britain both underwent financial revolutions very similar to that experienced in the early national United States. In both nations, private commercial banks, a central bank, and securities markets appeared on the heels of a major political upheaval. As those institutions reduced information asymmetries, the economies of Holland and Britain blossomed. Britain also bequeathed to the early United States a tradition of stable, nonpredatory government and a legal system that reinforced the sanctity of contract. Colonial courts followed the lead of the mother country, vigorously enforcing debt contracts. Similarly, colonial governments were generally fiscally responsible. Some even managed to raise revenues through bond issuance rather than, or in addition to, traditional fiat currency (bills of credit) emissions. Finally, the early United States experienced an information revolution. Instead of traveling from one peripheral city to London and back to another peripheral city as in the colonial era, after the American Revolution (1775–83) information traveled directly between the several U.S. cities jockeying to replace London as the new nation's commercial center. The new information travel pathways significantly reduced travel times and costs. Additionally, improved roads, an expanding postal system, and, later, technological improvements also helped to reduce information costs. Although the reduced information costs did not directly reduce information asymmetry, it did enable banks and securities markets to do so more efficiently.

Chapter 3 details the major problems of information asymmetry and the methods by which early banks and securities markets sought to reduce it. Banks used specialization and economies of scale to screen applicants against adverse selection and monitor borrowers against moral hazard more efficiently than private lenders could do. Securities markets did likewise but removed the middleman, the bank, from the investment process by allowing governments and firms to sell securities directly to investors. Additionally, the joint-stock form helped to reduce the principal-agent problem. The numerous stockholders of joint-stock firms had incentives to monitor the activities of directors. The market prices of equities served as an accurate, public gauge of each company's financial outlook.

Chapter 4 addresses additional ways in which banks and securities markets improved upon colonial financial practices. Banks matched pools of investors to pools of borrowers, thereby spreading default risks. They also greatly reduced search costs; investors and borrowers need only find a bank or broker, not each other. Finally, banks provided their creditors (depositors and noteholders) with liabilities redeemable upon demand, shielding them from maturity risks. Similarly, the shareholders of banks and other joint-stock firms enjoyed access to liquid secondary securities markets that allowed them to divest cheaply and at will. Borrowers, the demand side of the equation, also enjoyed reduced search costs. Finally, the equities market allowed joint-stock companies to borrow permanent equity capital. The final section of Chapter 4 examines the important role of the U.S. central banking system, the combined efforts of the Bank of the United States (BUS) and the U.S. Treasury. The early U.S. central banking system helped to reduce lending costs and risks by increasing macroeconomic stability. After inadvertently helping to initiate the Panic of 1792, the system showed its considerable strength by stopping that financial panic in its tracks. Later that decade, the system helped to reduce inflation. All the while, the system was careful not to promote moral hazard by acting as a lender of last resort too often.

The price and ownership integration of the new capital markets is the focus of Chapter 5, which shows that the market for securities was national and even international in scope. The chapter begins with brief descriptions of the major domestic securities markets, roughly in terms of importance: New York, Philadelphia, Boston, Baltimore, Charleston, Richmond-Norfolk, and New Orleans. Trading of U.S. securities in London is also sketched. The emphasis is on the *markets*, which were intermediated by pure brokers and dealers or market makers, not on formal exchanges, which were relatively unimportant until late in the period under study. As price comparison tests show, prices of identical securities in different markets were usually close and moved in tandem. Securities prices behaved according to the Theory of Portfolio Choice, a corollary of the Theory of Asymmetric Information. Ceteris paribus, securities that were safer, more remunerative, or more liquid than otherwise comparable securities had higher prices, just as Portfolio Theory predicts. Bid-ask spreads, the price difference at which market makers promised to buy and sell securities, were reasonably small. The chapter's final section assesses the geographical dispersion of equities through a detailed study of antebellum Maine: not only was Maine's capital market capable of raising a significant volume of funds domestically but Maine corporations were also capable of attracting nonlocals, out-of-state Americans, and foreigners as owners of significant numbers of shares.

Chapter 6 describes the growth of the securities services sector, including estimates of the numbers of brokers, which grew over the period, and brokers' commissions, which were consistently low. In the initial public offering (IPO) market, early investors eagerly snapped up shares in unproven new companies if well-known businessmen backed the companies. A case study of secondary securities markets in Philadelphia shows that volumes, while low by today's standards, trended strongly upward over the period under study, as did the number of issues regularly traded. The big-city markets, however, were only the most visible parts of a much larger phenomenon; evidence shows that a large number of securities, ones not listed in major city papers, traded quietly in small, local securities markets.

Chapter 7 describes and assesses the regulatory environment. Although government sometimes enacted onerous regulations, such as New York's Revised Statutes, for the most part the market was able to circumvent or change the problems. The securities markets were lightly regulated indeed. Banks faced more strictures, including taxes. Interestingly, in many important states the existence of taxes on banks dissuaded state governments from regulating banks too severely because the bank taxes were a significant source of state revenue, too significant a source to threaten by overregulation. Early Americans enjoyed a relatively free financial sector, a fact that goes a long way toward explaining the sector's success.

Chapter 8 makes the case for finance-led economic growth by describing how finance made possible the extension of the commercial, agricultural, and manufacturing sectors. Banks provided merchants with short-term financing. Merchants also used securities, particularly government debt, to make remittances in lieu of precious metals or costly bills of exchange. Banks also sometimes lent to farmers. More important, they, and many others besides, invested in internal-improvement (road, canal, and rail) companies that expanded the market for farm produce. The secondary securities markets made the securities of such companies more liquid, and hence more valuable, also thereby indirectly helping America's huge agricultural sector. Banks accommodated manufacturers too, from small rural artisans to New England's large textile firms. The securities markets, for their part, provided joint-stock manufacturing firms, of which there were many, with sources of long-term capital. Together, early U.S. firms, be they commercial, agricultural, or industrial, had access to enough capital, long- and short-term, to allow them to take advantages of economies of scale and scope, to refine further the division of labor, and to invest in new technology – or, in other words, to improve productive efficiency.

In Chapter 9, the major themes of the study are tied to Adam Smith's *Wealth of Nations.* Scholars tend to concentrate on Smith's discussions of the division of labor and the invisible hand. Most do not realize that Smith believed in the efficacy of banks and joint-stock corporations. Fewer still realize that Smith recognized the problems of information asymmetry – adverse selection, moral hazard, and the principal-agent problem – and sought ways to reduce them. This monograph is not about the rediscovery of Smith's book per se, but it is about rediscovering Smith's ideas about how the financial system helps to produce wealth. Before the division of labor, the growth of the market, and free-market forces can do their wealth-producing work, information asymmetry must be reduced. Financial intermediaries, such as banks, and financial markets, such as secondary securities markets, are the major means of reducing information asymmetry. Ergo, economic growth fundamentally depends on the smooth functioning of the financial system.

The notion that economic growth is finance-led should prove appealing to a wide range of people around the globe. Financial service sector employees will discover that they are the heart of the mighty beast, not, as is too often asserted in some circles, bloodsucking leeches. Investors will learn to judge an emerging market's potential by analyzing the structure of its domestic financial sector. Public policy analysts will see the importance of reducing information asymmetry. Historians will be able to discuss Alexander Hamilton's financial reform program from the standpoint of economics, not just politics, and will learn to describe the financial sector before telling readers, or students, about canals, railroads, and factories. Finally, this book will help skeptical economists to see that Ross Levine and other prophets of finance-led growth just might be right. They are, after all, followers of Adam Smith, too.