BONDING AND SHARING INDUSTRIAL AMERICA: THE U.S. SECURITIES MARKETS, INDUSTRIAL DYNAMICS, & CORPORATE DEVELOPMENT, 1885-1930

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I. BOOK SUMMARY

This book is about the development of securities markets in the United States. It focuses on the period from 1885 to 1930 when these markets became integral to the institutional system that forms the bedrock of industrial capitalism in America. It addresses two related questions. First, how did the markets for stocks and bonds in the United States evolve during this period? Second, what role did these markets play in the dramatic changes in the structure of enterprise and industry, changes that business and economic historians have described as revolutions, which took place in the American economy at this time?

Today, the US securities markets are seen as inextricable to the functioning of American capitalism. In comparative perspective, they are among the most distinctive elements of the U.S. financial system and their important relationship to the corporate sector is seen as a defining feature of the country's system of corporate governance. Notwithstanding their contemporary prominence, the US securities markets have not always been at the heart of American industrial capitalism.

In the late 19th century, these markets were small and conservative in comparison to their counterparts in other countries. Dominated by railroad securities, they largely eschewed not only the new industries and new firms of the day but most of the industrial economy. In 1885, for example, there were only 13 industrial stocks, other than coal and mining shares, listed on the New York Stock Exchange and several of these were closely related to the railroad business. By 1930, however, an enormous transformation had occurred. The New York Stock Exchange alone traded more than 1,000 industrial stocks and bonds and other trading markets, such as the New York Curb Market, the Chicago Stock Exchange, and the nation's over-the-counter markets traded thousands more. It was during this time that many of America's leading corporations made their debuts on the securities markets. In sharing their securities with portfolio investors, they also bonded themselves to a future in which the securities markets would influence their destinies.

This book, BONDING AND SHARING CORPORATE AMERICA, begins by telling the story of this remarkable transformation of the US securities markets during the period from 1885 to 1930. It confirms, as other histories suggest, that an important step in the direction of broader and deeper markets was taken at the turn of the century. However, it also shows that it was during the years after World War 1, and even as late as the 1920s, that the country's markets for corporate securities grew broad and deep.

Unlike most existing accounts, which focus primarily on the evolution of the New York Stock Exchange, this book also pays close attention to the development of the New York Curb Market, the regional exchanges, as well as America's burgeoning over-the-counter market for bonds and stocks. While the Big Board focused on the nation's leading industrial enterprises, the book shows how, especially during crucial growth phases, other trading markets attracted the securities of new firms and new industries. In this regard, they served in large part as substitutes for, and precursors to, the NASDAQ market of today. The book reveals that the ways in which these various markets interacted, as competitors and complements, had important implications for the norms and rules through which they operated and, ultimately, for the overall character of the American securities markets.

My analysis raises questions about some of the influential theories that have been advanced in contemporary debates on the causes of the development of securities markets. In particular, the idea that legal protection for minority investors is crucial for the expansion of securities markets cannot be sustained for this important case. This is so whether that legal protection is rooted in a country's legal family or its politics (La Porta, Lopez-de-Silanes, Shleifer, Vishny, 1997, 1998; Roe, 2000; 2006; Gourevitch and Shinn, 2005). Similarly the claim that the development of securities markets was facilitated by private rules generated by prime movers such as stock exchanges and investment bankers is found wanting in this case. Instead, the book points to alternative causal processes as crucial for the development of America's securities markets. On the demand side, major changes in the attitudes of investors to different classes of corporate securities played an important role in facilitating the development of an active and diversified market for corporate securities. And, even more importantly, there were significant changes in the supply of securities which were driven not just by changes in the structural characteristics of industries, but also by enterprises' shifting attitudes to business success, which influenced their strategies and the financing they needed to pursue them.

The story of the transformation of America's securities markets is a fascinating one in its own right but the telling of it can hardly fail to generate a further, and related, question which BONDING AND SHARING CORPORATE AMERICA also addresses: how did the securities markets matter to the development of the US corporate economy during this period? Why did so many of America's industrial enterprises choose to issue their bonds and shares on the US securities markets at this time? How did their newly-established relationships with these securities markets affect their own dynamics and the evolution of the industries in which they competed?

We know from the work of business and economic historians that the nation's industrial economy was caught up in its own great ferment at this time. Many of the established industries were fundamentally reorganized as enterprises grappled with the demands generated by new markets and technologies. Entirely new industries also emerged, including automobiles, aviation, radio and film, which were to have a profound effect on production and consumption in the United States. And in other industries, like retailing, old and new ways of doing business battled it out with each other for customers. In describing this period, American business and economic historians speak of revolutions in the strategies and structures of enterprises as well as the dynamics of industries.

Since the rise of large and liquid securities markets, the question of their impact on the corporate economy has been wracked by controversy. Some scholars see securities markets as crucial to facilitating the productive expansion and creative transformation that drives innovation and economic development. Others argue that the securities markets' appetite for novelty is a lure to the speculative excess that can cause bubbles and crashes. And, finally, there are those who argue that the real significance of the securities markets for the corporate economy is their impact on the distribution of corporate ownership and control.

BONDING AND SHARING CORPORATE AMERICA takes the position that we can only speak to the question of the securities markets' impact on the corporate economy from an understanding of the purposes for which securities issues were undertaken. To this end, I emphasize the benefits of an approach that focuses on the industries, and the firms within them, that issued securities. In a set of detailed case studies, I analyze historical patterns in securities issuance in five important industries of the period: steel and electrical equipment, automobiles and aviation, as well as retailing. I developed lists of securities issues undertaken by firms in these industries from a new dataset that I compiled on securities issues in the United States from 1885 to 1930. Based on further investigation of the characteristics and strategies of the firms that issued securities in these industries, based largely on information from trade and financial journals, annual reports, and industry reports and investigations, I identify the purposes their securities issues were intended to serve.

The historical case studies of particular industries reveal significant differences across industries, and within industries among firms, in the importance and purpose of securities issues. Nevertheless, a number of general statements can be made about the role of securities markets during this period. First, to the extent that securities issues funded capital formation, they often funded the formation of working, rather than fixed, capital. Second, in most of these industries, the securities markets also played an important role in facilitating consolidation through mergers and acquisitions. Finally, in some instances, securities issues fostered significant changes in financial claims over existing assets but, in general, this was less important than the other two roles.

This analysis provides a rich empirical basis on which to consider the question of the impact of the securities markets on the development of the corporate economy. I argue that straightforward associations between securities issuance and economic development are problematic in light of my evidence. I show that many of the companies which required assistance from the securities markets in funding their working capital requirements were laggards, rather than leaders, in their industry. Moreover, I show that it is difficult to argue, at least in general, that the consolidations that securities markets facilitated were necessary to promote economic improvement.

With regard to the thesis that securities markets served as a vehicle for speculative excess, I did find some evidence of the speculative impact of the securities markets on the corporate economy. However, to a greater extent, companies seem to have marched to their own drum in issuing securities. Sometimes they did so despite a lack of enthusiasm in the financial community. And, in more exuberant periods, the crucial players in promoting speculative excess were just as much industrial, as financial, entrepreneurs, most of them owner-managers, who devised their expansive strategies and used the securities markets to implement them.

Finally, in several of the industries I studied, bankers and other capitalists did attain influence, and even control, over important firms, usually at some difficult or transitional stage in their development. However, in all but one case, "finance capitalism" proved to be a transitional stage. Nevertheless, managerial capitalism was far from being firmly in place in all of the industries I studied by the onset of the Depression with a marked persistence of family ownership in several important industries through the 1920s.

II. INTELLECTUAL CONTEXT AND CONTRIBUTION

This book is an interdisciplinary one in its origins and its ambitions. Based on the original and extensive collection of historical data, it should be of considerable interest to business and economic historians. Evolutionary economists and management scholars who analyze industrial and enterprise dynamics, and want to understand how they might be linked to financial dynamics, can also find much to engage them in its pages. In addition, BONDING AND SHARING CORPORATE AMERICA is written to appeal to social theorists, be they legal scholars or economists, sociologists or political scientists, who are involved in the ongoing debate about the causes and consequences of the development of securities markets. Finally, it is a book that speaks to students of the political economy of capitalism, especially those who want to better understand the changing role of the securities markets in the institutional system that forms the bedrock for America's corporate economy.

The case of the US securities markets' transformation in the period from 1885 to 1930 has already been recognized as an important one in the ongoing debate among economists, sociologists and legal scholars about the causes of the development of securities markets (see, for example, Coffee, 2001; Rajan and Zingales, 2003). However, it has been used in problematic and even conflicting ways by advocates of different positions in this debate and some financial historians have intervened to protest an abuse of historical evidence (see, for example, Sylla, 2006). Yet, it seems fair to admit, that historians have not made the task of theorists very easy since the extant body of evidence on the rise of an industrial securities market in the United States is both patchy and ambiguous.

Most detailed historical research on the development of the US securities markets focuses on the initial emergence of the industrial securities market around the turn of the last century (Navin and Sears, 1955; Davis, 1966; Nelson, 1959; Doyle, 1991). In contrast, there is little to go on to get a comprehensive and systematic understanding of what happened to the securities markets from the beginning of the 20th century through 1930. Moreover, histories of specific trading markets from the late 19th century until the 1930s are dominated by accounts of the New York Stock Exchange (see, for example, Sobel, 1965; Michie, 1987). We know frustratingly little about the details of the development of other trading markets. Our knowledge of the New York Curb is limited to the very useful, but largely qualitative, histories by Robert Sobel (Sobel, 1970; 1972). With the exception of a number of older works and one recent book, most of which focus on the early to mid-19th century, the historical scholarship on the leading regional exchanges also remains thin on the ground (Martin, 1886; Rice, 1928; Wright, 2005).

BONDING AND SHARING CORPORATE AMERICA draws extensively on the work of these financial historians but the book is intended to return the favor by making its own contribution to financial history. The most important reason for the gaps and ambiguities in the existing historical evidence is a lack of comprehensive and systematic data on the scale and scope of US securities markets in the late 19th and early 20th centuries. As a consequence, this book could not have been written without the collection of significant amounts of new firm-level data on securities listings and issues. Data for stocks and bonds traded on all of the major trading markets were compiled for 5-year intervals from 1885 to 1930 from a number of stock exchange handbooks and financial annuals, including the *Manual of Statistics*, *The Annalist* and the *Bank & Quotation Record*, a supplement to the *Commercial and Financial Chronicle*. The even larger task of compiling a dataset of all known securities issues in the United States over the entire period, nearly 15,000 transactions in total, was undertaken by copying issue data from monthly summaries reported in the *Journal of Commerce* and the *Commercial and Financial Chronicle*. These data were subsequently matched with information on the characteristics of issuing firms which was drawn largely from the industrial manuals produced by Moody's and Poor's.

These datasets on securities listings and issues alone represent important new resources for financial historians. For the purposes of this book, however, further research was required to understand the context in which securities were bought and sold. For its analysis of the development of the trading markets, the book relies on primary research in the archives of the New York Stock Exchange, various histories of the trading markets, and on a systematic analysis of contemporaneous accounts of the operation and development of different trading markets in newspapers and magazines. Of particular importance were articles in the specialized financial and business press including the *Commercial and Financial Chronicle*, *Barron's* and the *Magazine of Wall Street*.

However, the book also seeks to branch out from what is purely financial history in its efforts to engage the controversial question of the role of America's securities markets in the development of the nation's corporate economy. In the last quarter of the 20th century, there was a striking tendency to celebrate securities markets as a boon, through capital formation and innovation, to economic prosperity (see, for example, Demirgüç-Kunt and Levine, 1996; Allen & Gale, 2000). However, in the early 21st century, as has long been true of periods marked by financial volatility, greater credence was given to the idea that securities markets are inherently speculative and have a potentially negative impact on the corporate economy when it relies on them to fund investment (Keynes, 1936). Yet, for all of the passion associated with these positive and negative extremes, perhaps the most prevalent attitude towards the securities markets over the last century portrays them as playing a neutral, and even unimportant role, in the process of economic development (Robinson, 1952; Lucas, 1988).

Similar lines were drawn by contemporaries in debates about the role of America's securities markets during the late 19th and early 20th centuries. However, our capacity to identify which perspective makes most sense is again frustrated by limits to the existing evidence. The standard approach to evaluating the historical role of the securities markets in the US economy is to rely on aggregate data on the importance of securities issues relative to other sources of corporate funds (see, for example, Goldsmith, 1958; Taggart, 1985). However, as Simon Kuznets long ago observed, these measures are poor guides for the purpose because they obscure the heterogeneous, and sometimes offsetting, relationships of different industries and firms with the securities markets (Kuznets, 1961, pp. 223-4).

What we need instead are studies that analyze the interactions between these markets and particular industries and firms. Scholars have recently recognized the potential value of focusing on the microeconomic units that use securities markets to understand how they influence the economy (see, for example, Rajan and Zingales, 1998). This book takes that lesson seriously but it departs from contemporary research in insisting on historical studies of the industries and firms. Only in this way can we take account of the ways in which the changing circumstances of their development influence the motivations for, and impact of, their securities issues.

Studies that get at the interaction between securities markets and the dynamics of industry and enterprise are currently few and far between. Notwithstanding some notable exceptions (for a recent example, see Hausman and Neufeld, 2002), business historians have had relatively little to say on the topic. There is a small body of work by economic historians that draws insights about the role of the securities markets from studies of their historical role in the development of industries. However, these studies cover only brief periods of time and, even then, they suggest somewhat conflicting findings (see, for example, Davis, 1966; Kennedy, 1987; Neal, 1988; Eichengreen, 1988; Doyle, 1991).

BONDING AND SHARING CORPORATE AMERICA, therefore, makes a significant contribution in analyzing the historical role of the securities markets in the development of particular industries and the firms that competed within them. It does so at the aggregate level with a comprehensive analysis of the evolving importance of different industries in securities issuance in the United States from 1885 to 1930. It also generates detailed case studies of the securities markets' changing role in a variety of industries that, together, capture much of the dynamics and variety of America's corporate economy in the late 19th and early 20th centuries. These historical case studies of the steel, electrical equipment, automobile, aviation and retail industries present a richer picture than we have ever had before of how industries and firms used securities markets in America from 1885 to 1930.

The datasets described above were used extensively for the book's research on industries and firms and their patterns of securities issuance. In addition, I draw on articles generated by a careful reading of the trade journals for these industries as well as other relevant articles identified through consultation of the *Engineering Index*, the *Industrial Arts Index* and the *Readers' Guide to Periodical Literature*. The historical case studies also rely on business and industrial histories generated by academics and various branches of the US government. In addition, they use various reports that analyzed the structural characteristics of different industries such as the NBER volumes on capital formation and financing undertaken in the postwar period.

For all of its commitment to historical research and analysis, the book has another purpose which is to engage with contemporary theoretical debates on the causes and consequences of securities markets. To date, historical research on the development of securities markets has been used in a rather minimal way to augment the statistical variation available in cross-sectional studies for the purposes of testing extant theories. However, as scholars in a variety of disciplines have observed, historical research can also be used in a more ambitious way in the development of theories of institutional change by taking advantage of its unique characteristic, its temporality, to explore the mechanisms and sequences that characterize causal processes.

This book uses history in just this way, to highlight problems with existing theories of the development of securities markets, and to suggest alternatives to them. It also goes further in the use of historical research, harking back to an earlier tradition in social theory that regarded historical context as essential, although not contrary, to theoretical explanation. Specifically, it uses historical research to reveal the evolving habits and rules that informed the behavior of individuals and organizations in different contexts, thus challenging the merits of universalist approaches to subjects such as financial valuation and corporate strategy for understanding the past.

In suggesting historically-grounded explanations of the causes and consequences of the development of the US securities markets during the period from 1885 to 1930, the book serves as a source of ideas for new theoretical hypotheses about securities markets in other times and places. For their validity to resonate further than this case, of course, these ideas need to be tested in further empirical research. Yet, in showing the value of a methodological approach which is distinguished by its emphasis on the dynamics of enterprises and industries and its commitment to historical research, this study serves as a model for the further empirical work on the causes and consequences of the development of securities markets that is required.

III. THE STRUCTURE OF THE BOOK

BONDING AND SHARING CORPORATE AMERICA has twelve major chapters as well as a brief introduction and conclusion. The first part of the book, from Chapter 1 through Chapter 4, analyses the development of the US stock and bond markets from 1885 to 1930 and draws out the implications of its historical evidence for theoretical debates about the causes of the development of securities markets. The second part of the book, from Chapter 5 through Chapter 12, analyses patterns of securities issuance by industry in the United States from 1885 to 1930. It also investigates how particular industries used securities issues in five detailed historical studies of the steel, electrical equipment, automobile, aviation, and retail industries. It draws implications from that historical evidence for debates about the role of securities markets in economic development. An outline of the book's chapters is included below:

Introduction

Chapter 1 The Development of Securities Markets

1. Introduction
2. What Causes the Development of Securities Markets?
    a. Legal Rights of Minority Investors
        i. Legal Families & Investor Protection
        ii. The Politics of Investor Protection
    b. Private Ordering by Prime Movers
        i. The Microstructure of Exchanges
        ii. The Money Trust
    c. The Shifting Demand for, and Supply of, Corporate Securities
3. The Theoretical Possibilities of Historical Research
4. The Development of the US Securities Markets, 1885-1930
5. Empirical Methodology and Data Sources

Chapter 2 The Development of the US Stock Market, 1885-1930

1. The US Stock Market in 1885
2. The New York Stock Exchange, 1885-1930
3. The New York Curb Market, 1885-1930
4. The Development of the Regional Stock Exchanges, 1885-1930
5. The Evolution of the Over-the-Counter Market for Stock, 1885-1930
6. The Overall Expansion of the US Stock Market, 1885-1930

Chapter 3 The Development of the US Bond Market, 1885-1930

1. The US Bond Market in 1885
2. Bonds on the New York Stock Exchange, 1885-1930
3. Bonds on the New York Curb Market, 1885-1930
4. The Over-the-Counter Market for Bonds, 1885-1930
5. The Overall Expansion of the US Bond Market, 1885-1930
6. The Relationship between the US Stock & Bond Markets

Chapter 4 Explaining the Development of the US Securities Markets, 1885-1930

1. Legal Rights of Minority Investors in the US, 1885-1930
2. Private Ordering by Prime Movers
    a. The Changing Microstructure of Trading Markets
    b. The Rules and Norms of Investment Bankers
3. Other Changes in the Demand for Securities, 1885-1930
    a. The Growing Financial Wealth of the United States
    b. Retail & Institutional Demand for Securities
    c. The Evolution of Conventional Attitudes towards Securities
    d. The European Liquidation of American Securities
    e. The Nationalization of American Railroads
4. Changes in the Supply of Securities, 1885-1930
    a. Owners Moving On
    b. Enterprises Seeking Investment Capital
    c. Industries Consolidating

Chapter 5 The Impact of Securities Markets on the Corporate Economy

1. Introduction
2. Debates about the Impact of Securities Markets
    a. Securities Markets and Economic Development

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