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Introduction

The activity of the banks in the economic life of society has often been likened to that of the heart in the human body.... For just as it is the function of the heart to regulate by means of certain organs the circulation of the blood, which through countless arteries and veins flows through the human body and returns to the heart, so ... it is the function of the banks to regulate by certain economic measures the circulation of capital, which flows from them and returns to them, and which may properly be regarded as the life blood of the modern economic organism.[1]

Nearly a century ago, this declaration appeared, in defense of the German universal banks, in the well-known treatise of Jakob Riesser – himself a director of a Berlin great bank. By the last quarter of the nineteenth century, after industrialization had progressed through textiles, steam power, and railroads, populist voices – stemming mostly from agrarian or socialist quarters – criticized the banks for wielding excessive power over industry. Riesser argued, on the contrary, that the banks played a facilitating or sustaining role in the economy. In constructing his argument, he laid out the details of the German universal banking system, as he saw them and as he garnered from the writers and scholars of the time.[2] The U.S. Monetary Commission, having translated Riesser's book into English during its campaign to understand the major financial systems of the world following the 1907 financial crisis, then propelled this work into the mainstream of American thinking on the German financial system.

[1] Riesser (1910 [1911]), p. 186. An earlier, if more reserved, circulatory system reference can be found in *Der Deutsche Ökonomist* of June 23, 1883.

[2] For much of his exposition on the role of banks in corporate governance of industrial firms, Riesser (1910 [1911]) relied heavily on the dissertation of Otto Jeidels (1905). The latter also worked in a large universal bank in the first part of the twentieth century.

After World War II, when economists turned their attention to "backward" or "underdeveloped" economies, Alexander Gerschenkron began to formulate his ideas on the patterns of development and industrialization in continental Europe. Having temporarily shed the mantle of the bank-power critique, the predominant view now built up the universal banks as the great engine of industrialization. Amid the economic boom of West Germany in the decades following the war, the German universal banking system appeared to many to possess beneficial characteristics that allowed it to perform efficiently, provide relatively inexpensive capital to industry, and promote overall economic growth – in both the postwar reconstruction and in the pre–World War I industrialization. In the 1980s, many felt that the United States was falling behind Germany and Japan; the search for explanations turned up the structure of national financial systems as a key point of divergence. True, Germany's financial markets, especially stock exchanges, barely existed; and industry, furthermore, coordinated activities to a high and probably anticompetitive degree. Yet these features appeared to be benefits, since they seemingly promoted the sort of long-term investment perspective that rampant market-orientation lacked.

While the historical and contemporary economics strands of literature interact hardly at all, the underlying tenor of the research stems largely from the same source: the general success of the German economy during industrialization and during the first four post–World War II decades. Only in the last decade, since the post-reunification recession set in and a number of scandals involving customers of universal banks came to light, has the sentiment about the current German financial system shifted considerably. The now orthodox view of the pre–World War I era, however, has changed more slowly.

Banks are seen as part and parcel of the German industrialization; the great bankers are commonly held up as the master promoters of technology and enterprise. This book tells a more nuanced story. To be sure, the universal banks played a major role in the German industrial economy during the forty years leading up to World War I. But they constituted one part of a rapidly developing financial system – one that included a variety of financial institutions and, surprisingly to some, active and well-functioning stock markets. By delving deeper into this particular case, this book contributes to a number of debates: some large, some small; some in economics, some in history, yet others at the boundaries of various other disciplines. A few big questions motivate the research and help structure the investigation.

WHAT IS THE ROLE OF THE FINANCIAL SYSTEM IN ECONOMIC GROWTH?

At the heart of this research is the desire to understand the nature of the relationship between financial systems and economic growth. While most economists recognize that the financial system is a crucial component of any economy, there is much disagreement over the manner in which financial and real variables interact. Even the early writers on the financial system took as a given both the asymmetry of information between investors and entrepreneurs and the role of the financial system in ameliorating such information problems. Joseph Schumpeter (1912), for example, stressed the role of bankers in screening and then funding entrepreneurs, as well as the stimulus that these activities provided to innovative activity and economic growth. Modern growth theory highlights the acquisition of human capital and the productivity of economic units (firms and entrepreneurs) as well as the traditionally emphasized expansion of the physical capital stock. This literature has also made strides in incorporating the financial system into models of endogenous growth.

Expansion of the financial sector has proven to go hand in hand with economic growth, but the direction of causality is still uncertain.[3] Joan Robinson (1952) suggested that financial systems develop in response to prospects in the real sector, yet the literature over the last decade has tended to argue that the real sector responds to financial development. The evidence seems to support the view that the extent and depth of the financial system positively correlates with future economic growth, but problems of omitted variables and robustness undermine such findings.[4] Jeremy Greenwood and Bruce Smith (1997) offer what may be the most reasonable compromise: a model in which financial markets arise after some period of real development, and the expansion of those markets fuels further real growth.[5]

These sorts of questions suggest the need for a finer-grained understanding of how financial systems evolve and how this institutional growth

[3] Early studies include Goldsmith (1969), McKinnon (1973), and Shaw (1973).

[4] The more recent literature considering the causal relationship between finance and growth includes King and Levine (1993), Jappelli and Pagano (1994), Jayaratne and Strahan (1996), and Rajan and Zingales (1998). Robert Lucas (1988), perhaps not surprisingly, expresses doubt about the importance of financial factors and excludes these considerations in his model of development.

[5] A logical implication of this model is that exogenous creation of a financial system with advanced features may not spur real growth. The problem then for implementing development policy is determining how to get poor countries to the point at which financial systems will arise endogenously.

influences the real economy at the firm level. In other words, even more useful than knowing *if* financial development pushes real economic growth is understanding the mechanisms by which that process unfolds.

DOES THE STRUCTURE OF FINANCIAL SYSTEMS MATTER?

The first overarching question leads directly to the second: Does the structure of financial systems matter? Determining how the development of financial systems yields real growth effects hinges on knowing why financial systems develop the characteristics and practices that they do, whether certain financial systems perform more efficiently or generate and mobilize higher quantities of capital than others. As the primary example of Gerschenkron's paradigm on the importance of institutional organization, Germany is of central significance. There is also a widespread sense in the United States and the United Kingdom that banking systems of the sort found in Germany offer advantages for industrial development and economic growth. These views persist in some circles despite the poor showing of the German economy in the 1990s. Thus, one fundamental goal of this book is to explore the development of specific features of German banking and their impact on individual firms and on the German economy at large.

Universal versus Specialized Banking

Much of the discussion in this book centers around the structure of certain classes of financial institutions and the organization of the financial system more generally. The book focuses on the parts of the system that serve industry and commercial enterprises, particularly those of the corporate form. In the German system, the universal banks as well as certain private banks have filled this role since their inception. Universal banking is often discussed as if it were a well-defined and static principle. In reality, the concept of universal banking has evolved gradually over time and the practices associated with this style of banking have also changed. Benston (1994, p. 121) articulated the common notion that "Germany today and before the second World War offers the best example of universal banking." Similar financial institutions certainly existed—and possibly even slightly earlier—in other continental European countries, but German banks took a leading role and have become synonymous with universal banks as we know them today.

The forerunners of German universal banking arose mostly in the 1830s and 1840s.[6] The universal banks of this era, however, were private banks

[6] See Tilly (1995) and the discussion in Chapter 2.

that bore little resemblance to the twentieth-century universal bank. Even ignoring the question of demand for industrial finance at the time, strict regulations on incorporation and limited liability proscribed both the possibility of externally financed banks and the potential coporate clientele for universal banking services. By the time that the German Empire was formed in 1871, after much relaxation of corporate regulations and a strong wave of industrialization, the universal banks began to organize under the joint-stock form and were unregulated except by the general laws applying to German share companies (*Aktiengesellschaften* or *Kommanditgesellschaften auf Aktien*). It is really from this point that the German universal banks began to take on their modern form.

The fundamental characteristic of universal banking is the joint provision of a range of financial services by the same institution. Universal banks have thereby earned the appellation of "supermarkets of corporate finance." True universal banks are allowed to provide virtually any product, but most typically combine traditional commercial banking functions (short-term credit, deposit taking, payments clearing, bill discounting) with underwriting and trading of securities. Modern universal banks also sell insurance, mortgages, and investment funds, though they usually do so through affiliates. Additional practices have become identified with universal banking, mainly because they have often appeared in tandem with universality of services. Examples include branching over extensive geographic areas, holding securities – particularly equity stakes – of nonfinancial firms, voting shares in proxy for their customers, and sitting on the boards of directors of client firms.

Thus, it is useful to delineate two sets of bank characteristics, universal banking and relationship banking, whose coexistence may offer synergies, but which may in practice exist independently of one another. Universal banking can be defined as the joint production of multiple financial services (investment banking, commercial banking, retail securities business, mortgage, and insurance). The provision of many services over several phases of firms' development may tend to lead to long-term relationships between firms and financial institutions, but formalized relationships depend on a further set of activities. Relationship banking can be viewed as a separate category involving practices related to the ownership and control of firms (long-term debt and equity stakes, proxy voting of shares, and interlocking directorates between banks and firms). Not all universal banks perform the complete range of allowable functions, and not all financial institutions that provide some of these functions are universal banks.

History offers a number of examples. Japanese banks have at times operated as universal banks while being prohibited from holding equity stakes and board positions in underwritten firms; they have also been permitted to engage in interlocking directorates with industry while being restricted in the scope of their financing services. Likewise, banks in the United States were permitted to combine investment and commercial banking until the passage of the Glass-Steagall Act in 1933; however, interlocking directorates had been progressively restrained at the turn of the twentieth century and then essentially prohibited by the Clayton Act in 1914. Furthermore, not all specialized or arm's-length systems result from prohibitions on universal or relationship banking: British commercial banks, for example, have always been permitted to engage in universal and relationship banking, but for the most part have remained specialized and at arm's length until recently.

The question of branching, though sometimes seen as connected to universal banking, is really a separate issue. While the practicality of universal banking may hinge on size, it is not clear that branching is a necessary condition. Indeed, the first universal banks were unit banks, and those in Germany operated as such for several decades before beginning to branch. Moreover, since the principal benefit of geographic dispersion is diversification potential, branching may be equally beneficial to specialized banks.

Banking structure is also commonly seen as going hand in hand with the structure of the overall financial system. Universal banking is typically associated with bank-dominated systems (those with weak securities markets) and are normally contrasted with market-based systems in which specialized institutions have largely provided investment and commercial banking services. The United States and Great Britain provide the foremost examples of market-based systems, given the predominance of secondary securities markets in these two countries. The banking systems of the two countries differ in many ways, though the practice of separating the provision of commercial and investment banking services into distinct financial institutions, particularly until recently, constitutes an important similarity.

Financial systems vary, however, in their degrees of banking specialization and in their use of securities markets relative to banking institutions. Thus, it proves difficult to classify all systems in one of two categories.[7] The diversity of experiences further hints at the multiplicity of influences on system design and on the possible absence of a clearly optimal system.

Motivation for the Study

Albeit with varying intensity over the past century, the German universal banking system has become well-trod research ground. Perhaps most

[7] See Fohlin (forthcoming).

prominently, Gerschenkron heartily advanced the notion that the universal banking system played a crucial role in the German industrialization, but a number of other scholars have delved more deeply into narrower areas of the field. Gerschenkron's ideas have held sway over many, particularly in the United States, but numerous scholars have made significant corrections and reevaluations over the years. Gerschenkron himself recognized that he could not answer the broader question, whether financial institutions are generally able to promote the kind of mobilization and efficient utilization of capital that is thought of as a prerequisite for industrial development, and this is the kind of question that economists find the most compelling. Motivating this book, therefore, is the sense that there is still much to learn both about the history and from the history.

Economics research on modern universal banking understandably reflects current themes in regulatory debates in the United States, negotiations over European unification, and efforts toward industrial development in many regions of the world. Just as naturally, but also in contrast, the historical literature tends to focus on the power and importance of specific individuals and institutions. Rarely do the modern and historical strands meet. Thus, in attempting to answer questions about financial structure and industrial development, economists, historians, and economic historians all stand to gain from more extensive linking between recent theoretical and empirical work on financial institutions and historical research on the German experience.

CLEARER UNDERSTANDING OF THE GERMAN EXPERIENCE

The purpose of this book, at its core, is to shed a brighter light on the past. By scrutinizing the German corporate finance and governance system of the late industrialization period, the investigation provides a clearer understanding of the German experience at that time. By uncovering new evidence and reevaluating already available sources, the following chapters set out to paint the most accurate and balanced portrait of the system and in so doing take on a range of debates that have persisted for several generations of scholarship. The findings often support a number of plausible interpretations of the history and, in those cases, call a draw to the debate. The book may not answer every open question, but it at least elucidates many previously unlit corners of the literature. The upshot of the book is that interactions among the various actors and institutions are complex and sometime contradictory. Thus, clarifying often means making the story a bit messier – identifying multiple paths of causation, rejecting some prevailing beliefs, and opening up new interpretations of the history.

LESSONS FOR TODAY

Historical debates on their own provide substantial motivation for the current study, but history may have lessons for today as well – for newly industrializing or transitional economies as well as for highly advanced western economies. Much of the current structure of financial institutions originates in the institutions and systems of the nineteenth century. Understanding the past may therefore enrich our understanding of the present. Clearly, much has changed over the past century, and the experiences of Germany before World War I may not be directly applicable to modern-day developers. But the basic problems of creating effective means of mobilizing capital and ensuring relatively efficient utilization of that capital translate quite clearly into modern-day economies with nascent banking systems and a dire need for investment. Having a clear picture of past development experiences and understanding the actual role of particular institutions within those contexts can warn of possible pitfalls and illustrate the complexity of the issues at hand. The results of this study in particular may help determine whether creating banks that establish formalized governance relationships with industry will encourage investment and growth in these countries.

The analysis may also improve our understanding of the role of financial institutions in contemporary western economies. Despite its recent trials, many still believe that Germany's banking system is effective in promoting economic growth, particularly in certain sectors of the economy. Such apparent success has often led to debates over regulatory policy and system design in the United States and Great Britain. Much of the discourse over banking reform, both past and present, hinges on the assumption that certain types of financial systems allocate an economy's resources more efficiently than others. Although the United States has liberalized banking law significantly over the past decade, economists and policy makers continue to consider more dramatic reductions in regulation. The question remains whether such loosening would encourage universal, relationship-oriented banking in the United States, and whether this development would stimulate productive investment and higher growth. At the same time, ongoing banking crises in Japan and bank-related scandals in Germany have raised doubts about and tempered enthusiasm for relationship-oriented systems.

Whether or not historical cases teach specific lessons for today, the additional knowledge gained can only help in seeing the bigger picture. Since each economic epoch presents different challenges for financial systems and economies, adding new periods of observation increases the number of data points available for analysis. This broader range of cases demonstrates the variety of paths that past development has taken, permits greater generalization when common patterns appear, and might also dampen cycles or fads in thinking about financial system design.

REFINING THEORIES

Because historical investigation offers a long-term view of the evolution of systems, it provides an expansive testing ground for financial theories. The German case in particular, because of the significant systemic changes and repeated shocks that its financial system has suffered over the past 150 years, offers a potential wealth of experience to inform and help refine theories of financial system structure and firm decision making. As this book reveals, empirical research often fails to support current theoretical thinking. If theories explain the present but not the past, then we are left to wonder about the future. Theoretical work can benefit from historical research, particularly if we understand the importance of underlying assumptions – how they affect the theories and how well they apply in different situations. The historical research may recommend some adjustment to existing theoretical models of financial system design and its connections to the real economy, if those models are to prove useful for producing forecasts or policy prescriptions.

The Plan of the Book

The first part of the book – Chapters 2 and 3 – explores both historical studies and modern theories and, in the process, ties together a wide range of research on universal banking. Combining the models and methods of economics and history raises new questions and helps restructure unresolved debates about financial systems and their possible role in economic growth. Driven by these motivations, the second part of the book – Chapters 4 through 7 – turns to the reassessment of the German corporate finance and governance system within a modernized conceptual framework.

Chapter 2 begins with a brief review of the development of German industry and corporate finance over the second half of the nineteenth century and the beginning of the twentieth. The chapter then sets out the traditional conception of German universal banking during industrialization. Much of the current understanding of the German system during industrialization comes from Gerschenkron's work, which in turn derives largely from early-twentieth-century writers such as Jakob Riesser, Otto Jeidels, and Werner Sombart. As this chapter points out, despite heavily entrenched views on the role of universal banking in Germany, certain areas have often been debated. Chapter 2 evaluates these debates and closes with a discussion of logical and empirical inconsistencies in the orthodox, Gerschenkron-inspired paradigm. The chapter concludes that stronger theoretical underpinnings can move the historical debates forward in fruitful new directions.

Building on the historical survey, Chapter 3 then lays the theoretical groundwork for an evaluation of financial intermediation and corporate finance. This chapter shows that despite copious research on the subject, the theoretical literature has as yet arrived at no consensus on the relative costs and benefits of universal or relationship banking, nor on a theoretical basis for the commonly perceived dichotomy of bank-based versus market-based financial systems. Theoretical research on financial systems and economic growth is no more conclusive, though the existence of a financial system is seen as spurring growth by raising the quantity, quality, and efficiency of capital provision. Still, available theories are unable to define an optimal design of financial systems – even a conditional one. Thus, the theoretical literature leaves much to be explored empirically.

At the microeconomic level, the recent theoretical literature emphasizes the role of financial institutions in resolving uncertainty through the revelation and intermediation of information about individual firms as well as in balancing and diversifying risks that remain even when firms and potential investors are symmetrically informed. These fundamental tenets of financial theory provide a framework for new lines of inquiry – for example, whether certain types of financial institutions gather and disseminate information more effectively than others, whether close ties between firms and banks resolve information asymmetries and alter firms' decision making, or whether universal banking systems encourage superior risk management compared to specialized banking systems.

Bringing together the theory and history, the second part of the book poses new lines of research based both on restructuring traditional debates around modern banking and finance theory and raising new questions not often addressed in the previous literature. The first phase of the empirical analysis (Chapter 4) involves quantifying and detailing the overall growth of the financial system, and of the joint-stock universal banks in particular. The findings suggest that many of the practices considered integral to the German banks – such as widespread deposit taking and branching, positions on company boards, and equity stakes in industrial companies – took place only to a limited extent during industrialization; and those that did may have had little to do with the banks' universal structure. At the aggregate level, the chapter shows that the universal banking sector developed late in the development process, expanding most rapidly in concert with the final push of industrialization in the 1890s and the early-twentieth century.