Banks, Finance and Investment in Germany: A Review Article*

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> The commonly held view of the merits of the German system of finance for investment, in terms of the supply of external finance to firms and corporate control receives no support from the analysis of available data.
>
> – Edwards and Fischer (1994)

Introduction

Recently, there has been a flurry of activity in both the financial and political science literature discussing the possible merits of the German bank-based system over the market-based model of firm capital investment and financing. The debate in question can be characterized by "orthodox" and "revisionist" views, which seek to determine the importance of alternative institutional settings on the link between the real and financial decisions of the firm.

The orthodox view holds that bank-based systems are better at overcoming asymmetrical information and principal-agent problems arising when ownership and control of firms are separated. The market-based model of firm investment finance, such as that which exists in the U.S. and the U.K. it is argued, often results in informational and incentive problems which lead to an increase in the external costs of investment finance to the firm. If the banks from which the firms borrow have less information about the firm than the owners or managers of the firm, this asymmetry of information leads to a higher risk for the creditor which translates into a higher cost of borrowing for the firm.[1] This view is detailed in such theoretical studies as Jensen and Meckling (1976) and Meyers and Majulf (1984). In the political science literature we can trace orthodox roots to back to Reisser (1911), Jeidels (1905), Whale (1968), and Hilferding (1981). Arguments have also been made in favor of bank-based systems based on the fact that pressures of financial markets for short-term financial performance over long-term investment erode the value of the firm in the long run. However, the empirical literature supporting or refuting any of these claims is, as Edwards and Fischer (EF) point out in *Banks, Finance, and Investment in Germany*, rather scant.

Some empirical studies which examine the link between investment behavior and financing choices exist, but for mostly the U.S., the U.K., and Japan, with exceptions of Schaller (1990) for Canada and Alonso-Borrego and Bentolila (1993) for Spain. Generally, these empirical studies have found evidence to support the hypothesis that firm investment functions are sensitive to liquidity constraints, and that investment sensitivity differs between groups of firms based on size and ownership. The obvious missing link in the international scope of the empirical literature has been studies on Germany. In the context of the market-based vs bank based system debate, there has been a notable lack of studies which compare evidence from German firms to those in the U.S. or U.K.

The revisionist view on the other hand, which is generally less developed in the literature, has criticized the orthodox view by pointing to the weak empirical evidence on which it is based. This view suggests a limited role for German banks in shaping firm behavior in general, and access to investment capital specifically. Revisionist literature which questions the orthodox wisdom include Kocka (1978), Wellhoemer (1989), Esser (1990), Deeg (1992), Vitols (1994), Edward and Fischer (1991), and others. In fact this book, which

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extends the revisionist argument, can be credited with debunking some of the more naive ideas about the "omniscient" German banks.

EF contribute to the literature by collecting and organizing a large amount of important historical data which surrounds this issue, and presenting it in English. It is curious that while the overall approach of the text is a comparative one, the title *Banks, Finance and Investment in Germany*, does not reflect this focus. In spite of this, the comparative approach is appropriate for addressing the general issue of the differences of the market-based vs bank-based firm behavior and investment financing.

This book fuels the debate by effectively arguing against the orthodox view on many points, including the widely accepted idea that German firms are strongly dependent on external debt and banks for financing. EF's attack centers not only the theoretical basis for the borrowing dependence of firms but provides an empirical argument showing that firm dependence on debt financing is much lower in some cases than theory predicts.

However they also point to the advantages of bank monitoring as being largely theoretic rather than observed, as only a small percentage of German firms could potentially benefit from such bank influence. I would argue in spite of such a small percentage of the German firms being effected, these same large firms which have close relationships to banks are important and highly influential in the German economy. Further, while reviewing and summarizing previous studies, they provide no new empirical evidence or statistical analysis to further test their strong propositions. In spite of the contributions of the authors, they fail to directly address the obvious and pressing issue of examination and testing of differences in firm level investment and financing decisions due to differing institutional structures.

Alternative evidence

Since the 1970's, macro economists have come under attack for the lack of micro economic foundations. Since then, nearly all scholarly economic research has incorporated this consideration by constructing macro economic models based on micro economic principles. Studies which have successfully examined firm investment response to liquidity constraints or financing behavior include: Devereux and Schiantarelli (1989) for the U.K., Fazzari, Hubbard, Peterson (1989) and Chirinko (1987) for the U.S., and Hoshi, Kashyap, and Scharfstein (1991) for Japan.

Recently, several studies on Germany have also been completed which address these important issues and include: Funke (1986) and (1992), Elston (1993), Elston and Albach (1995), and Bond, Elston, Mairesse and Mulkay (1995).[2] Funke's work shows firm level investment is sensitive to liquidity constraints in Germany. Elston shows that this investment sensitivity to liquidity constraints is greater for independent than bank held firms in Germany, and that this sensitivity is not constant over time. Elston and Albach show that the insensitivity of investment to liquidity constraints of bank held firms extends to bank affiliated firms as well.

In an internationally comparative context, Franks and Mayers (1994) find differences in ownership structure and concentration of firms between the U.K. and Germany strikingly different[3]. They conclude that the forces which shape the firm's behavior must be different on the basis of differences in ownership structure alone.

Using the previously mentioned literature as an indicator of the state of current evidence in the field, a firm level study of U.K. vs German firms modeled with country specific institutional effects would have provided definitive evidence to support or refute firm level differences between systems.

With the exception of Cable (1985) none of these studies are mentioned either in the context of evidence for Germany or results from internationally comparative studies. Of course one reason is that many of the studies are very recent. However, they do in fact provide firm level evidence which generally disagrees with the conclusions of the authors, and indicate a link between firm investment behavior, financing choices, and institutional factors[4]. On the other hand, the EF analysis does cast a reasonable doubt on many aspects of the orthodox view related to this link and challenge us to consider alternative theoretical explanations for empirical findings.

Chapter 1, the introduction, contains a well balanced discussion of the ongoing market-based vs bank-based system controversy. Chapter 2 then provides a theoretical framework to analyze the impacts of the financial system on the economic performance of the firm. It does not however, provide a model describing why or how the two systems might be the same or different, and in doing so it fails to establish a framework to empirically test the conventional wisdom which is later dismissed from lack of evidence.

Chapter 3 on the significance of bank loans on investment financing provides, among other things, two interesting tables on net and gross sources of investment finance in Germany from 1950–1989. These tables indicate a declining role for debt financing for the firm over time. However these aggregated figures across all firms averaged over the decade can tell us nothing about whether some firms lowered debt levels greatly, or whether all firms lowered debt level a little. This is an important distinction because theory tells us that the bank affiliated firms may behave differently than the independent firms, and that certain industries may use different forms of financing. Further it is possible that the smaller firms may be more liquidity constrained than the larger firms, particularly in light of the access to the huge pension funds large firms started to develop after Occupational Pensions Act of 1974. This source of internal funds to the firm would reduce the need for the firm to borrow externally but would not necessarily reflect a significant change in the underlying bank-firm relationship because loans are only one way that banks are tied to firms in Germany. In fact there is a general consensus in the literature that firms world wide prefer internal to external and debt to equity funding in the hierarchy of financing preferences. There is also agreement that firms, on the average, are reducing their use of debt financing in Germany. The interesting question is why some German firms are developing these financing preferences?[5] In terms of the debate, the questions that need to be answered in order to make valid comparative statements about firms in the two systems include: Are different firm groups, for example firms with alternative ownership structures, behaving differently from each other within a country? And secondly, do institutional features between the two systems have anything to do with differences in firm behavior, both within and between countries?

In the EF analysis presented, any distinction between behavior of the individual firms and firm groups is lost in the averaging process, and it is therefore difficult to tell which firms may have changed their financing behavior and how this process might have occurred. Further, without controlling for other effects, such as macroeconomic shocks, it is difficult to say why these changes may have taken place.

The authors rightly emphasize the necessity of examining the firm's legal identity and its implications for financing decisions. Chapter 4 on legal forms of enterprise and the German financial system for example, outlines not only the distribution of firm entities in Germany, but includes various details on the AG or Aktiengesellschaft firms. Most of these firms are publicly listed on the stock exchanges, and their turnover accounted for 21% of the legal enterprises in 1986. They are important not only because of their critical role in the overall economy but because of the wealth of public information available on them, making them an ideal target for studies on firm behavior. In addition, since these publicly floated firms have better access to the equity markets for capital than their non-AG's counterparts, their decisions are particularly informative about firm financing choices and constraints in the capital markets. Chapters 6 through 9 deal with the issues of bank influence on the firm through bank representation on firm boards, ownership structure, and equity rights. Paradoxically, these chapters make it clear why the orthodox view has held out so long in supporting a strong role for banks in the decision behavior of the firm.

Another important question which is raised by the EF findings is why some firms and not others have strong relationships to banks if the relationship is beneficial? Overall the criticisms on the declining roles of banks in firm behavior are precise and place a reasonable doubt on orthodox view; although the alternative conclusion is far from proven beyond a reasonable doubt.

Summary

It is clear there is a shortage of evidence supporting the orthodox wisdom that the German bank based system is superior to the market-based model of firm finance. The fact is we really don't know a lot about how firms behave in these systems and this study emphasizes the need for continued research in this field. EF should note that lack of studies or evidence, is not in itself a sufficient condition to prove anything in science. It can also occur, as is likely the case here, because the topic of study, methodology, or data are relatively new or developing. Currently, the study of firm investment sensitivity to financial constraints under different institutional arrangements is feasible. Developments in economic theory, econometric methodology[6], and reliable panel data sets, allow us to answer these critical micro level questions about the firm directly. Firm financing and ownership information is also becoming more accessible so that the issues of financing hierarchies, ownership structure, and bank affiliations can be studied rigorously. The challenge in answering these critical questions about firm behavior in an international context is to address these important questions with the appropriate models, methods, and data.

Banks, Finance, and Investment in Germany is a valuable resource which provides a comprehensive and systematic review of the orthodox view on German bank-firm relationships. It succeeds by pointing out that the actual evidence to support the orthodox view is rather weak and sometimes contradictory. It not only outlines the debate, but challenges us to extend our research goals. It clarifies what questions we should be asking and indicates some important directions for future research.

Notes

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[1] In Germany banks may act not only as creditors but also as owners, and often have seats on the firm's supervisory board. All of this may reduce information problems. Banks are also asserted to improve firm efficiency and lower costs through monitoring of firm activities and providing expert financial advice to the firm. See Diamond (1991) and Porter (1992) for examples.

[2] Cable (1985) outlines details why the German bank based system is distinct from its Anglo-Saxon counterpart. Soskice (1992) also discusses institutional differences between the U.K. and Germany.

[3] Chirinko (1994) compares results of previous studies of investment sensitivity to liquidity constraints and other financial factors for the U.S., the U.K., Germany, and Canada.

[4] These studies used available firm panel data from the U.K. and Germany.

[5] Both Elston (1993) and Perlitz (1994) suggest that bank held or bank affiliated firms use more debt than independent firms.

[6] See Hayashi and Inoue (1990) and Hsiao (1986) for details on panel data set estimation.

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