Are German Banks Different?

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ABSTRACT. In recent years there has been a vigorous revival of the long-standing debate about the "uniqueness" of German banks. To date little consensus has been reached; while some see few differences between the role of banks in Germany and in other countries, others claim that universal banks' equity shareholdings in and nomination of representatives to the boards of nonfinancial firms are the key institutional features driving the rest of the "German model" of long-term investment in high-quality, internationally competitive manufacturing. This article argues that the uniqueness of the German banking system lies (1) in its unusually high capacity to provide industrial finance in the form of long-term debt capital, and (2) in its avoidance of the "speculative boom-credit crunch" cycle experienced by almost every other advanced industrialized country in the 1980s and early 1990s. These two key characteristics are attributable to a regulatory framework which involves strict prudential regulation, access to long-term refinancing sources, and a federalist form of corporatism. Furthermore, the behavior of German banks must be analyzed within a broader institutional system of economic governance which includes corporatist labor market institutions and a relatively large and modern SME sector.

1. Introduction

In recent years there has been a vigorous revival of the long-standing debate about the "uniqueness" of German banks and their role in economic development.[1] On a theoretical level, this interest has been spurred by advances in the New Institutional Economics (NIE), which focuses on the microanalytic incentive and information properties of different modes of financial contracting (Williamson, 1988; Aoki, 1988; Berglöf, 1991; Hart, 1995); on a policy-making level, this interest has been generated by increasing concern about the stability of banking systems and – particularly in the Anglo-American countries – about the prioritization by investors of short-term speculative over long-run productive investment strategies (Jacobs, 1991; O'Brian and Browne, 1992; Federal Reserve Board of New York, 1994).

To date little consensus has been reached in this debate.[2] On the one hand, on the basis of evidence such as international comparisons of the sources of corporate finance, it is asserted that there are few differences between the role of banks in Germany and other countries (Edwards and Fischer, 1994). On the other end of the spectrum, it is claimed that German universal banks' dominant equity stakes in and representation on the boards of industrial companies are a key institutional feature supporting the "German model" of long-term investments in skills, new technology, and R&D for high-quality, internationally competitive manufacturing (Soskice, 1992; Porter, 1992). This claim is based on NIE models, which generally demonstrate that banks with close links with nonfinancial companies will be better able to and have a greater incentive to monitor management effort; furthermore, they will have greater control over restructuring in the case of financial distress and thus be better able to protect the collateral securing their loans. As a result, banks with equity and board links will be more willing to provide debt to non-financial companies than banks lacking such ties. This view appears to be supported by comparative balance sheet data which shows higher debt-equity levels in Germany and Japan (in which banks have such links) than in the U.S. and U.K. (in which they generally do not) (Williamson, 1988; Aoki, 1988; Berglöf, 1991; Hart, 1995).

In opposition to the "no essential difference" view, I take the position that German banks *are* different, not only in comparison with the Anglo-American countries but also in comparison with other "bank-based" systems such as Japan. The

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first key difference is the extent to which German banks have evolved since the end of World War II beyond their traditional role as providers of commercial credit – short-term finance for inventory and trade – and have developed a high capacity to provide industrial finance – long-term debt capital for financing fixed assets such as plant and equipment. This capacity is most important for smaller firms which lack direct access to capital markets. A second key difference is the relative stability of the German banking system; Germany has managed to avoid the "speculative boom-credit crunch" cycle experienced in most other advanced capitalist economies in the 1980s and early 1990s. The reduction in uncertainty enabled by long-term finance and a stable credit creation process are key influences on the nature of investment in Germany.

While in agreement with NIE that the behavior of the German banking system differs significantly from that of other national systems, it is argued here that both the nature of these differences and the factors explaining them differ from most NIE accounts. When differences in national accounting standards are taken into account, German banks appear to be no more willing than other banks to tolerate higher debt levels in non-financial companies; when correcting for the large "hidden reserves" companies by taking account of their freedom to postpone recognition of asset appreciation on their balance sheets, the apparently high debt-equity ratio of the German non-financial company sector converges to levels comparable with the U.S., U.K. and other countries (Perlitz, Küpper, and Löbler, 1985; Macharzina and Langer, 1991; Nobes and Parker, 1991; Deutsche Bundesbank, 1994). Secondly, bank-company equity and board links are for the most part limited to the largest banks and nonfinancial companies (Richter and Freund, 1990).[3] Contrary to what might be predicted by NIE, however, debt-equity levels are much higher for small firms than for large firms in Germany, i.e. precisely among firms that do not have equity or board links with banks (Deutsche Bundesbank, 1992); furthermore, the German large firm sector is small in comparative perspective despite the expected competitive advantages to be gained by close links to banks (Acs and Audretsch, 1993). Finally, there are clear limits in the banks' capacity to monitor and restructure troubled companies, particularly in industries characterized by overcapacity and severe price competition (Edwards and Fischer, 1994; Deeg, 1992; Vitols, 1995a). The primary significance of these financial contracting mechanisms thus appears to impact patterns of change in the corporate control and management of larger German companies (Franks and Mayer, 1990).

Instead, it is argued here that the major features of the German banking system – a high capacity to provide long-term, fixed rate loans and great stability in the credit creation process – are attributable to a regulatory system involving three key characteristics: 1) strict prudential regulation, which encourages stability through limiting exposure to risk and constraining speculative lending; 2) liberal access to long-term refinancing, which reduces the liquidity and interest rate risk associated with long-term lending; and 3) a federalist form of corporatism, which has enabled the relatively small public savings banks and cooperative banks to modernize and maintain competitiveness with the large joint-stock banks. Furthermore, the functioning of the German banking system must be examined within the context of a broader institutional system which generates a high demand for long-term, low-risk finance among companies and encourages savers to invest in long-term assets; key elements of this economic governance system include the corporatist regulation of labor and a relatively large and modern SME sector.

2. Distinctive characteristics of the German banking system

Industrial finance capacity

The first key distinction is the extent to which German banks have evolved beyond the traditional primary bank function of providing commercial finance (short-term credits for inventory and trade) and developed an extensive capacity to provide *industrial finance*, that is, long-term capital for financing fixed assets (plant and equipment). As can be seen in Table I, bank loans are not only the major form of external finance for the non-financial company sector overall (57.2 percent of such liabilities in 1994) but are also the dominant form of long-term finance, accounting for well

TABLE I
Nonfinancial company sector external liabilities, 1994

Type of liability	Billion DM	% of total
Long-term liabilities	*3978.9*	*83.3%*
Bank loans	2193.3	45.9%
Shares in circulation	844.2	17.7%
Pension obligations	260.9	5.5%
Bonds	256.4	5.4%
Insurance company loans	183.6	3.8%
Building and loan credits	165.7	3.5%
Other long-term liabilities	74.9	1.6%
Short-term liabilities	*798.6*	*16.7%*
Bank loans	538.6	11.3%
Trade credit	109.5	2.3%
Other short-term liabilities	150.5	3.2%
Total liabilities	*4777.5*	*100.0%*
Note: Total bank loans	2731.9	57.2%

Source: Deutsche Bundesbank (1995).

over half of long-term liabilities (i.e. liabilities of one year or longer). The amount of long-term bank loans outstanding exceeds short-term bank loans by a factor of four; most long-term bank loans in Germany are made at fixed interest rates for terms of four years or more (Harrington, 1987; Miles, 1994). Bank equity stakes in non-financial companies are relatively insignificant as a source of capital in comparison; banks account for about one-tenth of total corporate equity holdings, or slightly less than 2 percent of total non-financial company liabilities, i.e. less than one-twentieth the amount of long-term capital supplied by banks in the form of credits.

While much has been made of the "developmental" activities of German banks during industrialization, in fact the extent of long-term investment in industry was limited to a few sectors such as railroads and took the form of the purchase of shares which could be resold on stock exchanges (Edwards, 1994). Throughout industrialization and into the late 1940s, the primary role of German banks was to supply commercial credit; this type of credit, less than six months' original maturity (typically the discounting of ninety day bills), was intended to finance short-term investments in inventory or trade. Fixed assets (plant and equipment) were financed primarily through owners' equity; even for larger companies with access to capital markets, the use of long-term fixed-rate bond financing remained limited. The capacity to provide industrial finance was first developed by the banks after World War II (Cassier, 1977; Pohl, 1984).

Thus as late as 1950 long-term lending was basically limited to a small number of segments of the banking sector (see Table II). About 7 percent of commercial bank lending was in the long-term category; less than 4 percent of the lending by the Big Three universal banks (Deutsche Bank, Dresdner Bank and Commerzbank) falls into this category. The cooperative banking sector also was an overwhelmingly short-term lender in 1950, with long term loans only accounting for about 7 percent of total lending on both the local and regional/national levels. Only the mortgage banks and the public savings bank sector (in particular its institutes on the regional and national levels) did a significant amount of long-term lending in 1950. Since that time, however, all banking segments have developed a major long-term lending capacity; with the exception of the private banks, with 37 percent of lending in the long-term category, all banking segments have significantly more than half of their total loans in the long-term category. German banks provide these loans for the most part at fixed interest rates for maturities of four to ten years (Tippelskirch, 1988).

In other countries, banks have evolved beyond their traditional role of providers of commercial credit to a lesser extent. In the U.K., short-term overdrafts still account for almost 40 percent of bank lending to industry (British Bankers'

TABLE II
Long-term bank credits as % of total credits to non-banks, 1950 and 1994

Type of bank	1950	1994
Commercial banks	6.6%	64.0%
Big three banks	3.6%	61.1%
Regional banks	14.3%	68.8%
Private banks	2.3%	37.0%
Mortgage banks	97.1%	95.9%
Regional and national savings bank giro	46.1%	85.7%
Savings Banks	36.0%	81.0%
Regional and national cooperative banks	6.5%	66.9%
Credit cooperatives	7.2%	71.7%
Special credit agencies		86.1%

Sources: Statistisches Handbuch der Bank Deutscher Länder 1948–54; Deutsche Bundesbank, *Bank Statistics*, March 1994.

Association, 1995, p. 22). In the U.S., longer-term bank loans to industry tend to have shorter maturities (an average of about 4 years), almost entirely have variable interest rates, and are more easily recallable; much of this lending takes the form of medium-term lines of credit based essentially on the same credit evaluation techniques and highly liquid collateral (inventories and accounts receivable) as short-term lines of credit (Santomero, 1983; Berger and Udell, 1990). In Japan, long-term lending capacity appears to be concentrated among the long-term credit banks; less than one fifth of total lending by the city banks (the large national commercial banks) to manufacturing in 1994 was accounted for by long-term loans for fixed capital ("equipment loans") (Bank of Japan, 1994, p. 194).

The capacity of German banks to provide long-term debt capital has the greatest impact on SMEs, which generally are too small to be listed on the securities exchanges. In other countries banks provide only short-term lines of credit to SMEs, thus rendering these companies more vulnerable to the vagaries of changes in bank policy. However, this bank capacity also has consequences for larger companies, e.g. greater flexibility in the restructuring of long-term debt than that provided by bond markets with their high issuance fees and restrictive covenants.

Macroeconomic stability

A second distinctive characteristic of the German banking system is the degree of stability in the credit creation process. All capitalist financial systems experience a financial cycle which roughly parallels the "real" business cycle and involves shifts in interest rate levels and the qualitative terms upon which credit is made available. However, the volatility of this financial cycle varies greatly, from moderate fluctuations in interest rates and credit availability to major disruptions in the operation of the financial system.

While much has been made of the low level of inflation in Germany, little attention has been paid to the remarkable stability of its financial cycle; Germany is the only major industrialized country to have avoided a major speculative boom-credit crunch cycle in the past decade-and-a-half. The U.S., Japan, France, the U.K., Sweden and Norway all experienced massive speculative increases in the 1980s in the value of real estate and/or equity, much of this fueled by aggressive bank lending. When the speculative bubble burst in the early 1990s, asset values collapsed and the weakening of banks in those countries led to a drastic reduction in the availability of credit, particularly for SMEs (Federal Reserve Board of New York, 1994; Wolfson, 1994; Bank of Japan, 1996; Shigemi, 1995).

A comparison of the 11 member countries for which the OECD has compiled detailed information on banking systems for the years 1979–1994 shows that the German banking system is rivaled only by Denmark in terms of the stability of bank lending. The rank order of these countries from least to most volatile, as measured by the coefficient of variance in the change in annual bank loans outstanding, is as follows (coefficient of variance in parenthesis): Germany (0.296), Denmark (0.340), Norway (0.510), Sweden (0.562), the U.S. (0.723), Japan (0.755), Portugal (0.840), the U.K. (0.917), Switzerland (1.209), the Netherlands (1.237) and Spain (1.308).[4]

The German banking system is thus not characterized by a greater willingness to lend to industry but rather by greater consistency in its role as a "gatekeeper" to credit. The widespread view that German banks are willing to provide more credit to their industrial clients than their counterparts in other countries is based on superficial cross-national comparisons of debt-to-equity ratios. German accounting standards give corporations great freedom in the recognition of the value of assets and allow them build up huge "hidden reserves". When correcting for these differences in national accounting standards, the apparently high debt-equity ratio in Germany converges to levels comparable with other major industrialized countries (Perlitz et al., 1985; Macharzina and Langer, 1991; Nobes and Parker, 1991; Deutsche Bundesbank, 1994).[5]

Variability in the availability of credit can have a major effects on investment, since relatively small increases in financial uncertainty can have a major impact on investment decisions.[6] The threat of restricted access to credit acts as a brake on long-term investment planning. The greater stability of the banking system in Germany is an

important factor supporting long-term investment in industry which has not received sufficient attention in the literature.

3. German financial regulation

NIE-inspired empirical research has often focused on weaker financial regulation as an explanation for the different behavior of German banks. In contrast with other financial regulatory systems, Germany lacks formal barriers between commercial and investment bank activities, has no statutory system of deposit insurance, and deregulated deposit interest rates in the mid-1960s, at least a decade before most other industrialized countries. In the U.S., the problems of the banking system have frequently been blamed on the perverse effects of "over-regulation"; commercial banks are prohibited from participating in many investment banking activities by the Glass-Steagall Act of 1933, are required to participate in a federal deposit insurance scheme, and were subject to mandatory interest rate ceilings on deposits until the mid-1980s. The virtuous features of the German system are often attributed to this lack of regulation, which allegedly gives banks greater freedom to contract efficiently and diversify risk.[7]

This view, however, neglects other key aspects of the German financial regulatory system. The three primary structural features of this system are: (1) strict prudential regulation and a privileging of banks relative to other financial institutions, which encourages stability in the credit creation process; (2) bank access to long-term sources of refinance, which reduces the liquidity and interest rate risks inherent in long-term lending; and (3) the delegation of significant regulatory powers and service delivery powers to banking associations, which in the savings and credit cooperative sectors take on a three-tier federalist form of organization ("federalist corporatism"). These three key characteristics indicate that the German financial system is not a lightly-regulated system, but rather that the nature of this regulation differs fundamentally from systems emphasizing product market segmentation and interest rate controls.

Strict prudential regulation

While most financial regulatory systems involve some prudential banking standards in their inventory of regulatory mechanisms, German banking regulation has been distinguished by the extent to which these standards are quantitative and universally applicable. German banking regulators were first authorized to develop such standards in the wake of the Banking Crisis of 1931 in order to constrain the imprudent lending practices, use of short-term funds to finance long-term investments ("maturity mismatch") and excess competition that were held to be responsible for precipitating the crisis. After World War II, quantitative standards for limiting exposure to different kinds of risk were codified and strictly enforced.[8]

The "heart" of these standards are the three Principles regulating minimum capital levels and exposure to liquidity risk (see Table III). Principle I requires a minimum ratio of capital to risky assets in order to provide a "cushion" protecting the bank against cyclical or unusual losses on investments. In the wake of the Herstatt bank collapse in 1974, this was supplemented by Principle Ia, which limited the amount of risk exposure to foreign exchange and precious metals trading to a specified percentage of bank capital. Principles II and III reduce liquidity risk (the risks that banks will run out of liquid funds due to large deposit withdrawals) through requiring that long-term and low liquidity investments be adequately covered by funds with similar maturity and liquidity. Since most long-term deposits also carry fixed interest rates, such maturity matching requirements also reduce the interest rate risk (the risk that banks will suffer losses in income due to shifts in interest rates) associated with long-term fixed-rate lending. Further standards limit risk through exposure to large loans, "insider" loan risk, and excessive undisclosed debt. It is notable that Germany adopted quantitative, universally-applicable standards decades before other major industrialized countries did so; for example, a number of countries introduced minimum capital ratios for the first time only after the signing of the Basle Agreement on Capital Adequacy of 1988.

In other words, there are substantial regulatory constraints in Germany on the kind of imprudent

TABLE III
Major German banking regulations

Capital requirements	Principle I – Loans and Participations not to exceed 18 times own capital (after 1993: Bank Capital must reach at least 8% of weighted risk assets)
	Principle Ia – market risks due to foreign exchange, precious metals and derivatives not to exceed a specified fraction of capital (amended numerous times since 1976)
Liquidity requirements	Principle II – Long term investments (such as loans with original maturity of at least 4 years, participations, nontradable securities, and fixed assets) must be adequately covered by long-term funds (i.e. own capital, long term deposits, long term bonds, 60% of medium-term bonds and savings deposits, 10% of other deposits from nonbanks)
	Principle III – Medium-term and moderately liquid investments (e.g. loans to nonbanks with less than 4 years original maturity, tradeable securities, 20% of medium-term deposits at other banks) must be adequately covered by medium-term and moderately liquid funds (e.g. 60% of deposits from nonbanks with less than 4 years original maturity, 50% of medium-term deposits from other banks)
Credit risk and risk diversification	Large credit risk: Large credits are defined as credits exceeding 15% of own capital. Individual large credits not to exceed 50% of own capital. All large credits together not to exceed 8 times own capital. Large credits must be unanimously approved by bank's top managers and must be registered with bank regulators
	All "Million Credits" (Millionenkredite) to be registered with bank regulators (current minimum: DM 3 Million)
	Large Insider credits (loans to managers or board members) require unanimous approval of top managers and majority approval of supervisory board. Large insider credits (current minimum: DM 250,000) to be registered with the bank regulators
	Investment in Real Estate and Participations not to exceed own capital

Sources: Szagunn and Wohlschie (1993), Deutsche Bundesbank Annual Reports, various editions.

lending practices and destabilizing price competition which characterized the speculative boom of the 1980s in other advanced industrialized countries. These practices included the use of short-term volatile funds raised on open money markets to finance long-term investments, over-concentration on speculative sectors such as real estate and over-dependence on a small number of debtor firms. When the speculative bubbles broke, banking crises were exacerbated by inadequate capital levels, forcing banks to cut back lending and shrink their asset bases to rebuild their capital ratios (Federal Reserve Board of New York, 1994; O'Brian and Browne, 1992).

This system of prudential regulation has been protected from the eroding effects of "regulatory arbitrage" (i.e. the tendency of capital to flow to less regulated financial sectors) (Reinicke, 1995; Smith and Walter, 1997: Ch. 6) through the uniform regulation of banks and the privileging of banks within the financial system. Unlike banking regulation in the U.S., where regulation is fragmented between the national and state levels and between different authorities on the national level, essential banking regulations in Germany are set at the national level and are applicable to all sectors of the banking system.[9] Unlike in other countries such as Japan and the U.K., where regulation has traditionally taken the form of informal guidance, banking regulations in Germany set clear quantitative standards. Furthermore, in Germany potentially competing financial institutions have been more strictly regulated than banks or prohibited. Life insurance companies and building and loan societies, the second and third most important types of financial intermediary, are more strictly regulated than banks in terms of the funds they may take in and investments they may make; until the recent past, commercial paper programs and money market funds were also prohibited, which in other countries represent an alternative (and less regulated) funding channel.[10]

Due to the dominant position of the banking system, most competition takes place within the banking system; because of the widespread explicit and implicit cooperative agreements within this system, most banking competition takes place between banking groups rather than

individual banks (see Deeg contribution to this issue for an analysis of "group competition"). Furthermore, a level regulatory playing field within the banking system limits the degree of price competition between the groups; thus, while there is competition between the different banking groups, this tends to follow an "unwritten rule" that competition should focus less on price and more on the quality of services provided (Quack and Hildebrandt, 1995).

German financial regulation can thus be characterized as a system which emphasizes risk control through strict prudential regulation and the privileging of banks vis-à-vis other financial institutions. This strict regulation contributes to financial stability by discouraging imprudent lending practices and excessive price competition. This system thus differs fundamentally from other systems which have emphasized product market segmentation, interest rate regulation, and informal monitoring (Hall, 1993). The contribution of strict prudential regulation to banking system stability is being increasingly recognized by regulators, as evidenced by the recent agreements on capital and market risk standards by the Basle Committee, which includes bank regulators from the most important financial centers.[11]

Long-term refinancing mechanisms

As pointed out above, German prudential banking regulations (Principles II and III) require that long-term investments be adequately covered by long-term funds. Despite this significant constraint, the German banking system has been able to evolve beyond its traditional role as a provider of short-term credits to become the primary domestic provider of long-term finance. This has been enabled by the development of long-term refinancing mechanisms, including refinancing through special long-term credit agencies, the issuance of bank bonds and the creation of long-term retail investment vehicles.

In the late 1920s and 1930s a discussion started about the need for long-term debt finance for industry, particularly for SMEs which needed to make substantial investments in fixed assets in order to modernize. At the time, however, this discussion took place mainly in terms of creating alternative channels of finance to existing banks, such as the Industrial Credit Bank (*Industriekreditbank*), a special long-term bank refinanced through bond issues and long-term wholesale deposits. Much of the debate was driven by the life insurance companies, which were seeking long-term investments with predictable yields for the growing stock of premiums they were receiving yet lacked the capacity to evaluate and originate such loans themselves (Cassier, 1977).

In the postwar period this debate was rekindled with greater urgency due to the need for the rapid rebuilding of plant, equipment and infrastructure. The Industrial Credit Bank, which emphasized direct lending and thus a "division of labor" between itself and the "ordinary" banks as short-term lenders, remained a significant source of long-term credit in this period. However, its role was overtaken by the Bank for Reconstruction (*Kreditanstalt für Wiederaufbau*) and the Bank for Settlements (previously *Lastenausgleichsbank*, now known as the *Deutsche Ausgleichsbank*), which emphasize the indirect provision of finance; these banks provide refinancing for the ordinary banks which do the initial evaluation, carry part of the risk, and service long-term loans to their own customers (the *Hausbankprinzip*). These special long-term credit banks provided the major source of long-term refinancing in the reconstruction period (Menzel, 1960; Pohl, 1973).

While the long-term credit banks remain an important refinancing source, accounting for about 25 percent of long-term loans to manufacturing up to reunification (Vitols, 1995b), an increasingly important source of long-term refinancing for banks has been has been long-term bank bonds issued directly on capital markets. In 1957 the regulatory authorities granted banks privileged rights of access to these markets ahead of other issuers such as industrial corporations; the Central Capital Market Committee (*Zentraler Kapitalmarktausschuß*), which is dominated by the banks, set the priorities for and supervised the timing of domestic bond issues. In the case of the joint-stock banks, these bonds can be issued directly by the bank; in the case of the credit cooperative and savings bank sectors, these bonds are issued through regional and national institutions which in turn refinance local banks. Through these bonds, the banks have tapped into long term household savings accumulating at insurance companies;

about half of insurance company investments are in bank bonds. Up until unification, bank bonds accounted for almost two thirds of publicly-traded bonds in Germany; government bonds accounted for the other third and industrial bonds for a negligible amount.[12]

A final mechanism for dealing with the interest rate and liquidity risks of long-term lending has been the growing willingness of households to lock up their savings in long-term retail investment vehicles. One mechanism was the state's granting of special tax privileges for longer-term savings deposits; while some of these tax privileges have subsequently been removed, until recently interest on these deposits was effectively tax-free since the tax authorities turned a blind eye to those who "forgot" to file returns for tax (Glouchevitch, 1992). In response to the deregulation of interest rates and increasing macroeconomic instability since the mid-1960s, banks have developed new vehicles for attracting long-term deposits from households such as fixed-rate, small denomination savings bonds and multi-year savings plans.

The funding base of German banks thus differs fundamentally from that of other national banking systems. At the end of 1994, 46 percent of bank liabilities to non-banks had maturities of 4 years or more. In contrast, only about 15 percent of U.S. commercial bank, 4 percent of U.K. retail bank and one third of Japanese bank deposits have maturities of one year or more (Board of the Governors of the Federal Reserve, 1994; British Bankers' Association, 1995; Bank of Japan, 1994). Banks in countries with largely short-term, interest-sensitive deposit bases have had to shift to mainly variable rate and contingent lending in response to increasing volitility in interest rates and deposit activity (Wojnilower, 1980; Berger and Udell, 1990; Harrington, 1987).

Federalist corporatism

A third major characteristic of German banking regulation is the role that associations play in banking system governance, particularly in the public savings bank and credit cooperative sectors.[13] These alternative banking sectors, which are dominated by banks relatively small in comparison with the joint-stock banks, have been able to resist the strong concentration tendencies inherent in banking systems due to a supportive associational structure which can be characterized as "federalist corporatism" (Vitols, 1995b).[14]

Each of these alternative groups have a *federalist* structure involving a division of labor between local, regional, and national institutes within the group (vertical cooperation) and the recognition of territorial exclusivity to units at the same level (horizontal cooperation). They also have a *corporatist* structure in which banking associations play a key role not only in exercising delegated powers of regulation (admitting new members and auditing their members' books) but also in supporting horizontal and vertical cooperation needed to provide their member banks with the specialized services normally only provided by larger banks due to economies of scale.[15]

The credit cooperative and public savings bank associations and jointly-owned regional/national institutions have provided a number of services important for the modernization of small banks such as liquidity management, long-term refinancing, specialized financial services and training. Institutions on the regional and federal levels of these sectors, which were originally founded to handle regional and national payments transfer, have developed into managers of the short-term liquidity needs of local banks; while much of this short-term demand can be met within the sector through balancing out the short-term surpluses of some local banks with the deficits of others, these regional and national institutions have also developed a capacity for liquidity management on both domestic and international money markets. Regional and national institutions have also become important sources for the provision of specialized financial services such as foreign exchange, investment management and financial advising and, as discussed above, for the refinancing of long-term loans through the issuance of long-term bonds. Finally, the banking associations in these sectors have also played a key role in creating a highly-skilled workforce in the banking sector through the negotiation of upgraded standards and provision of services for the training of bank clerks (*Bankkaufmann*) and loan officers (*Firmenkundenbetreuer*) (Keltner, 1994).

Most of these member banks are too small to

have access to wholesale money markets and long-term capital markets and to develop sophisticated financial services and training programs and would thus face a competitive disadvantage relative to larger banks without the benefits of associative activity. These benefits have allowed smaller banks to offer many financial services on a par with the large banks while at the same time retaining the advantages of decentralized service provision such as accumulated local knowledge and speedy decision-making (Guthardt, 1988).[16] The structure of the German banking system thus differs significantly from the British system, in which a handful of joint-stock banks have accounted for almost all bank assets since World War I, or in the U.S., where the removal of geographical limits on service provision in the 1980s has lead to a rapid acquisition wave of smaller "community banks" by the regional and national money-center banks. The German regulatory system has thus exposed smaller banks to pressures to modernize while at the same time providing them with the means to do so.

4. Embeddedness in an economic governance system

In addressing the issue of the portability of the German system, however, it would be fallacious to believe that the wholesale importation of the financial regulatory system to other countries would necessarily result in a major increase in the supply of industrial finance and financial system stability.[17] Instead, one must look beyond the regulatory framework of the banking system and examine the broader structure of *economic governance* within which the banking system is embedded, which influences both the supply of long-term savings and demand for long-term capital (Vitols, 1995a; 1996).

Particularly important in this economic governance structure is the nature of labor market regulation. The German household sector is distinguished not only by a high savings rate but also by the extent to which it has been willing to "lock up" these savings in long-term vehicles carrying substantial penalties for early withdrawal. While the determinants of savings behavior are complex, one factor accounting for the increase of long-term savings after World War II is the redistribution of income and the stabilization of employment relations associated with the rise of collective bargaining. The major source of growth of long-term savings has been contractual savings (e.g. pension plans) as well as voluntary savings promoted by the long-term planning enabled by job security. These assets have increased from 29 percent to 64 percent of total German household assets between 1950 and 1990. This contrasts with the experience in other countries such as the U.S. and the U.K., where the sharp increase in job insecurity and income inequality have led savers to switch to more liquid and risky assets such as money market and equity mutual funds (Vitols, 1996).

The regulation of labor markets also has a major influence on company investment strategies and thus the demand for long-term credits. Relatively high wages in international perspective and legal constraints on laying off the workforce have pushed German companies to follow high-quality, high value-added production strategies. These strategies involve high investment levels in new technology, training, and R&D, in turn leading to a high demand for long-term capital (Streeck, 1992; Vitols, 1995b).

The dominance of German manufacturing by SMEs – the *Mittelstand* – which accounts for almost 60 percent of manufacturing employment has also contributed to the high demand for long-term debt capital. These companies are especially affected by the pressure of industry-level collective bargaining; the "wage gap" between SMEs and larger firms is quite small in comparison with other countries, putting extra pressure on the German *Mittelstand* to modernize in order to compete on the basis of quality rather than lower labor costs. The "lumpiness" of investments for SMEs – the episodic need for large investment in fixed capital which are large in relation to the annual cash flow generated – accentuates the need for external long-term capital. At the end of the 1980s, long-term bank debt accounted for 18.5 percent of the balance sheet liabilities of small companies as opposed to 4 percent for large companies (Deutsche Bundesbank, 1992, p. 34; Acs and Audretsch, 1993; Vitols, 1995b).

Finally, the willingness of the state to intervene in sectoral crises is an important factor reducing the credit risk involved in industrial finance. The

state's intervention in sectoral crises such as steel, shipbuilding, coal, and (to a lesser extent) automobiles and textiles have helped prevent these sectors from being caught in a downward circle of overcapacity, low prices, low profits, low investment, and high default rates (Vitols, 1995a).

5. On the future of German banking

In addition to highlighting the difficulties of importing German financial regulation into other countries – both because of its internal complexity and its interdependence with a broader economic governance structure – the above analysis provides insight into the future of the German banking system. Recent reforms have been introduced in order to increase the efficiency and promote the international competitiveness of German financial services (*Finanzplatz Deutschland*) and to increase the supply of risk capital for innovation and new high-tech industries. While the drawbacks of a long-term debt, risk-averse bank-based financial system are emphasized by critics, not enough attention is paid to the potential threat to the benefitial aspects of the system – uncertainty reduction through long-term finance and stability – from the cumulative effects of weakened regulation and regulatory arbitrage.

One such threat comes from the recent introduction of potential competitors to banks such as money market funds and commercial paper programs. Up to now the introduction of these innovations have been dominated by German banks and non-bank competitors have used their new freedoms to a limited extent. However, new reforms proposed by the government and the growing interest of other European banks in the German market threaten to potentially exacerbate the prudential foundations of the stability of the German banking system; the stability of the monetary expansion process and the predictability of the relationship between key monetary variables appears to have deteriorated in the 1990s (Kole and Meade, 1995).

Another potential threat to the system comes from changes in the labor market and the welfare state in the 1990s. A great rise in unemployment has resulted from unification and restrictive fiscal and monetary policy required by the Maastrict treaty; furthermore, legislation weakening employment dismissal protection and social security passed in 1995 and proposed for the future will reduce employment and income security. All of these can potentially undermine the German household sectors' willingness to invest in illiquid long-term assets; furthermore, increasing flexibility in the hiring and firing of labor could undermine incentives for long-term investment by employers.

While liberalization is justified in terms of increasing the scope of choice for the individual investor and job creation, the benefits of an increase in choice in the short run through liberalization must thus be balanced against the costs of an increase in financial volatility. Increased choice for individuals, particularly through the offering of highly liquid savings vehicles, means increasing uncertainty for financial institutions in their funding base. Particularly from the U.S. and U.K. experiences, it can be seen that the attempt to promote diversity in financial investment vehicles, such as making the stock market more attractive by increasing the liquidity and volume of shares, may also undermine the German banking system's capacity to provide long-term debt capital and increase the instability of this system. The survival of the uniqueness of the German banking system would thus seem to depend more on the stemming the pressures for regulatory arbitrage through reregulation at the European and international levels and through the construction of a European "social space" guaranteeing a high degree of employment and income security.

Notes

[1] Thanks to Richard Deeg and three anonymous reviewers for valuable suggestions for the improvement of an earlier version of this article.

[2] For a summary of the literature on German banks see Elston (1995).

[3] The most significant banking group for small firm lending, the municipal savings banks (*Sparkassen*), are in fact legally prohibited from taking equity positions in nonfinancial companies.

[4] Data from OECD (1996); German data corrected to account for unification.

[5] This interpretation may help reconcile the view widespread in foreign countries that German banks are more willing to provide SMEs with finance with the frequent domestic criticism that these banks are too risk-averse, particularly with

regard to start-up financing. German banks are conservative – but relatively consistent – gatekeepers to finance and thus emphasize long-term customer relationships. Banks in countries such as the U.S.. and U.K. in contrast experience greater variation in their credit policies, between risk-friendly phases where credit is available to start-ups and risk-averse phases where credit is cut back even for established customers.

[6] For theoretical and empirical work stressing the deterrent effect of uncertainty on investment see McDonald and Siegel (1986), Pindyck and Solimano (1993), Leahy and Whited (1995), Dixit and Pindyck (1993) and Ramey (1994).

[7] Thus Berglöf claims that in the U.S. case "strict regulation has prevented banks from effectively exercising control in non-financial corporations, affecting their willingness to extend credit" (1991, p. 108). Porter (1992) emphasizes the negative effects of regulations on investor activity on the ability of the U.S. financial system to provide "dedicated capital". Benston (1990; 1994) emphasizes the effect of constraints on product market and geographical diversification of risk and the perverse incentives of deposit insurance on U.S. banking system instability.

[8] Allen (1990) has extensively analyzed the importance of *Rahmenbedingungen*, or framework regulation, in the German financial system.

[9] Regional authorities also play a role in regulating municipal savings banks; however, this role takes the form of regulation in addition to national regulation rather than an exception from it.

[10] In the U.S., for example, banking regulation has been undermined by competition from other, less regulated financial institutions such as finance companies, issuers of commercial paper, and (in the 1980s) Savings & Loan associations (D'Arista and Schlesinger, 1993).

[11] The strong underlying banking structure has also given a freer hand to German monetary policy than in other countries; in the U.S., for example, monetary policy has been constrained by the underlying weakness of the banking system and the resulting danger of bank failures if the monetary brakes were pulled too hard (Vitols, 1995c).

[12] Since unification, the massive increase in public indebtedness has reduced the proportion of bonds accounted for banks to about half (own calculations from Deutsche Bundesbank data).

[13] As exhaustively shown by Deeg (1992), the widespread view is that the German banking system is dominated by a handful of large joint-stock "universal" banks is misleading. The "Big Three" joint-stock banks (Deutsche Bank, Dresdner Bank, and Commerzbank) account for less than one-tenth of total banking assets; two alternative banking sectors, the credit cooperatives (*Genossenschaftsbanken*) and public savings banks (*Sparkassen*) currently account for approximately 15 percent and 40 percent of banking system assets, respectively. While the Big Three banks remain the dominant source of domestic credit for large industrial companies, the growing demand of the German *Mittelstand* for credit as well as a set of changes in the financing of large companies have contributed to a major shift in the relative size of the banking sectors over the postwar period.

[14] This term was developed together with Wolfgang Streeck in the context of a project on regional economic development in Europe supported by the Daimler-Benz Stiftung and the Anglo German Foundation.

[15] For the concept of corporatism see Schmitter (1974) and Schmitter and Streeck (1985).

[16] Banking associations have also supervised the merger of banks with overlapping jurisdictions (which occurred when the agricultural and craft credit cooperative sectors were merged in the 1950s) or when they are too small to survive even with the assistance of associations; the principle of merger with an adjoining bank in the same group has been followed in order to maintain group and local identities.

[17] Much of the literature on the U.K. and U.S., for example, assumes that there is a large latent demand for long-term capital from industry which is only partially fulfilled by the banks; thus the primary task for financial system reform involves pushing banks into doing more long-term lending.

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