What's Common to Relationship Banking and Relationship Investing? Reflections within the Contractual Theory of the Firm

by

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Abstract

The financial systems in continental Europe are subject to profound changes in the institutions of market exchange. Banks traditionally holding close relationships with firms are substituted by non-bank institutional investors. The present paper examines whether this implies a substitution of relationship finance by arm's length finance or of firm-like organization by market exchange. Within the contractual theory of the firm, we seek common features of relationship banking and relationship investing. Extending the governance structure approach, we show that both are hybrid organizations, whose comparative advantages depend on two kinds of asset specificity. They are complements to finance and control firms with different redeployability and information opaqueness of assets.

JEL-Classification: G20, G30, L14, L22

Keywords: banks, institutional investors, financial systems, corporate governance, markets vs. hierachies, theory of the firm

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1. Introduction

The financial landscape in Europe is subject to profound changes, driven by increasing wealth and population aging, technological progress and market integration. Demographic trends and a move towards funded pension systems will boost capital markets and enhance the shift from traditional bank intermediation to intermediation by non-bank institutional investors, mainly pension funds, mutual funds and life insurance companies (DAVIS [2003], SCHMIDT et al. [1999]). These institutional investors have become increasingly important as equity holders both in the American and European financial markets.[1]

This development may be seen as a move from bank-based financial systems towards the Anglo-Saxon market-based system.[2] However, it is not necessarily a shift from relationship finance to arm's length finance. To the extent that institutional investors are active shareholders, they develop relationships with firms that may have features of the traditional bank-firm relationship (PERÉE/RIESS [2003, p.24]). In particular, U.S. public pensions funds began to abandon their traditional passive shareholder role and became more active participants in the governance of their corporate holdings (GILLAN/STARKS [2000], WOIDTKE [2002]). Thus, they provide a kind of relationship investments. Also finance by venture capital firms, which is very much relationship-based, has increased in many continental European countries after the introduction of new equity markets with substantially higher disclosure requirements (RAJAN/ZINGALES [2003, p. 8]). Whether a shift from relationship banking to relationship investing will ultimately lead to efficiency gains, is an open question. In Germany, the general public is concerned about the dissolution of housebank relationships which are seen as valuable for the financing of small and medium-sized enterprises. Private equity investors have been blamed to undermine Germany's industrial base by their short-term profit motives (ERNST&YOUNG [2005, p.2]). At the same time, in the U.S. there is concern about the behavior of institutional investors, mutual funds being accused of hurting investors by pursuing their own goals.

While the benefits and costs of institutional investors' relationships with firms have been examined primarily within the literature on corporate governance and efficient markets (GILLAN/STARKS [2000], DAVIS [2003], MENKHOFF [2002]), the pros and cons of relationship banking have been discussed mainly within contract theory (BOOT [2000], ONGENA/SMITH [2000]). The literature on the optimal design of financial systems focuses on the distinction between capital markets and banks, neglecting differences between banks and non-bank institutional investors.[3] Only Boot and Thakor made an attempt to integrate institutional investors as large financial market traders into their general equilibrium model with endogenous banks and markets. They predict that an optimal financial system will be skewed toward bank financing if borrowers have relatively poor credit reputations because of high moral hazard propensity. Institutional investors holding blocks of bonds would diminish the importance of banks by resolving the free-rider problem associated with capital market

[1] In the G7 countries, there is a common trend of growing intermediation by non-bank institutional investors since 1970, although these investors remain less important in bank-based economies than in the Anglo-Saxon market based economies (DAVIS [2003, p. 79]). In Germany, there has been a dissolution of the historically developed close ties between banks and industrial firms, which have been partially substituted by block holdings of large insurance companies (HÖPNER/KREMPEL [2003]).

[2] For a comparison and overview see ALLEN/GALE [1995, 2000], KAPLAN [1994], NEUBERGER [2000] and RAJAN/ZINGALES [2003].

[3] See ALLEN [1993], BOOT/THAKOR [1997], BHATTACHARYA/CHIESA [1995], DEWATRIPONT/-MASKIN [1995], VON THADDEN [1995], ALLEN/GALE [1997].

monitoring (BOOT/THAKOR [1997, p. 726]). However, the comparative benefits and costs of bank finance versus finance by non-bank institutional investors are not examined.

The present paper makes a first attempt to compare relationship banking as a close bank-firm relationship and relationship investing as a close relationship between a non-bank institutional investor and a firm to examine their common features and relative merits. It integrates both forms of relationship intermediation within the contractual theory of the firm. Within the framework of the New Institutional Economics, firms, financial intermediaries and their relationships with firms can be explained by market incompleteness. The boundaries between these organizational forms are open, given that they just represent different forms of a nexus of contracting relationships among individuals. We will compare three alternative contractual relationships: (1) relationship banking as a close relationship between a firm and a bank, resulting from long-term lending with inside information, (2) relationship investing as a close relationship between a firm and a non-bank institutional investor, resulting from large shareholdings or inside equity, (3) transaction finance by bonds or stocks or by arm's length finance through intermediaries. In the seminal paper "What's different about banks?" FAMA [1985] explains the comparative advantages of banks vis-à-vis capital markets by the superior capability of banks to provide debt with inside information. The present paper extends this question by asking: What's common to banks and non-bank institutional investors in the provision of relationship finance which cannot be brought about by capital markets with atomistic traders?

These questions are important for many of the current policy debates regarding the structuring of the financial systems in Europe. For example, in the debates about the consolidation of the EU banking sector or the privatization of state-owned savings-banks in Germany, it would be particularly interesting to know whether relationship banking by small, regional banks can be substituted by alternative institutional arrangements. When privatizing public pension systems, it is important to know which functions will be fulfilled by insurance companies and pension funds not only with respect to old-age security, but also with respect to the financing and corporate control of firms. Do European economies, which are dominated by small and medium-sized private enterprises, need the same financial architecture and the same transparency rules than the U.S. economy, where public corporations play a much larger role? Thus, our basic aim is to explain relationship banking and relationship investing as endogenous institutions to finance and control firms with different informational properties and investment options.

The paper is organized as follows: Section 2 defines the concepts of transaction finance and relationship intermediation by banks and non-bank institutional investors. In section 3 we discuss how different forms of relationship intermediation can be explained by contractual theories of the firm. After reviewing the relevant literature related to optimal contracts and property rights, we extend the governance structure theory of incomplete contracts to explain the hybrid nature of relationship finance. This allows us to compare relationship banking and investing as functions of asset specificity of investment projects. Section 4 concludes.

2. The Concepts of Transaction Finance and Relationship Intermediation

2.1 Financial Contracts for the Financing of Firms

Since our focus is on the financing and control of firms, we have to be aware of the fundamental services financial contracts provide to firms. Departing from the concept of a neoclassical production function, firm output is usually related to capital and labor inputs, which are financed internally. Contracts with external financiers are irrelevant. However, if the scarcity of internal funds limits production, external finance is a further production factor.

Financial contracts with external financiers differ with respect to two fundamental inputs they provide: risk bearing and information. Therefore, we consider the more general production function

q = f(risk, information),

with q as output and f as neoclassical production function.

Given that individuals are risk-averse, risk can be considered as a scarce production factor with a positive marginal productivity (SINN [1986]). Its supply can be increased by different risk-bearing institutions such as insurance and stock markets, financial intermediaries, but also special financing relationships. As a second production factor we consider information as the knowledge or competence of the financier to allocate the funds to their best possible use. We presume that a financier is better informed if he has gathered not only public but also inside or private information. The higher the latter is, the lower are information asymmetry and agency costs of external finance. Like technical or organizational progress, an increase in information may be described by an outward shift of the production function.

From a macroeconomic perspective, the above production function may describe the contributions of a whole financial system to an economy's production capacity. The main problem of a financial system is not the scarcity, but rather the misallocation of funds (HELLWIG [2000], JENSEN [1986]). The task of the financial system is to channel the funds both from households to firms and within the corporate system, from inefficient firms to more efficient ones. Its allocative competence thus depends on its ability to reduce information asymmetries and provide possibilities of sharing risk and information.

The provision of risk by a financing relationship depends on the type of contract: in a standard debt contract, the lender has a constant interest and capital claim and bears the risk that the borrower cannot repay. In the case of insolvency, the whole property rights on the firm are transferred to the lender. In an equity contract, the owner has a state-dependent claim in solvent states, bearing the residual claim risk. This distinction between debt and equity contracts will be important for the following discussion, where we will argue that debt finance is inherent to relationship banking, while equity finance is inherent to relationship investing.

2.2 Transaction Finance and Types of Intermediation

Both equity and debt contracts may be transaction-based or relationship-based. We define transaction finance as the provision of financial services by an investor or lender that

- focuses on a single transaction rather than multiple interactions with the same contracting partner;
- involves only publicly available information.

Thus, it corresponds to arm's length finance.

Transaction finance may be provided directly by individual investors who buy stocks or bonds on the capital market. Typically, their available funds are too small to make costly information gathering in a single firm profitable and reduce risk by diversification. Therefore, they gain by delegating fund management and monitoring of firms to financial intermediaries, which can reap economies of scale. In this case, direct finance is replaced by intermediated finance through institutional investors. The terms "financial intermediaries" and "institutional investors" are used as synonymous terms: institutional investors are

investors in financial markets which are neither private households nor public institutions (MENKHOFF [2002, p. 909]). They comprise (commercial) banks[4] and non-bank financial intermediaries like investment banks, mutual funds, pension funds, insurance companies or venture capital firms. While non-bank financial intermediaries specialize in brokerage services, banks provide more qualitative asset transformation (GREENBAUM/THAKOR [1995], BHATTACHARYA/THAKOR [1993]). Thus, intermediation by banks differs in two important aspects from intermediation by non-bank institutional investors:

- On the liability side, banks typically take funds with standard debt contracts, called deposits, which are risk-free (because of diversification and deposit insurance) and highly liquid (because of liquidity transformation). Non-bank institutional investors take funds with different risk-sharing contracts (e.g. mutual fund contracts, insurance contracts) and provide risk diversification, but not liquidity transformation.
- On the asset side, banks typically provide direct loans to firms they monitor, while non-bank institutional investors invest in publicly traded bonds and shares or in private equity of the firms they monitor.

Both types of intermediated finance also involve transaction finance, if bank loans or non-bank institutional investments are made at arm's length. In these cases we speak of transaction lending or transaction investing.

2.3 Relationship Intermediation

We define relationship finance as the provision of financial services by an investor or lender that

- evaluates the profitability of his or her investments through multiple interactions with the same customer over time and/or across products;
- invests in customer-specific, often proprietary information (BOOT [2000, p. 10]).

Since such investments are typically made by financial intermediaries and not by individuals, the terms relationship finance and relationship intermediation can be equated.

Relationship Banking

The term relationship banking is not sharply defined in the literature.[5] Mostly, it is used to describe lending relationships of (commercial) banks.

We define relationship banking as

- the above defined relationship intermediation
- provided by a bank.

Since close bank-customer relationships typically originate from lending, relationship banking and relationship lending can be used as synonymous terms. In the stricter sense, relationship lending only involves close relationships in lending, while relationship banking encompasses relationship lending and customer-relationships from other bank services.

The benefits of relationship banking arise from a reduction of agency problems by long-term loan contracts and the use of information reusability over time (BOOT [2000]). This helps to

[4] The term "bank" is used for banks that provide commercial banking services. Investment banks are considered as non-bank financial intermediaries.

[5] For reviews see BOOT [2000], ONGENA/SMITH [2000], ELYASIANI/GOLDBERG [2004].

reduce financing constraints especially for small and medium-sized enterprises, which are informationally more opaque than larger, publicly listed firms. The inside information accumulated by monitoring and other financial services represents specific knowledge (JENSEN/SMITH [1985]). For larger companies in universal banking systems, relationship banking often goes along with shareholdings and board representations of the banks, which help them to gain proprietary information and influence over the firms' actions (BOOTH/DELI [1999], BAUMS [1994]).

Relationship Investing

We define relationship investing as

- the above defined relationship intermediation
- provided by a non-bank institutional investor.

The term "relationship investing" has been used to describe the shareholder activism of non-bank institutional investors in public companies (CHIDAMBARAN/JOHN [1998], GILLAN/STARKS [2000]). Even if they mostly invest in publicly traded securities, institutional investors may obtain firm-specific, private information by multiple interactions with the same customer over time. Such relationships are likely to arise, if large share blocks are held in a single corporation: they increase the incentive to invest in information gathering and monitoring and may provide special information rights by a representation on the firm's board.

While this only applies to the financing of large corporations, we use the term "relationship investing" also to describe the activities of investment banks, venture capital firms or private equity firms in providing inside or private equity to smaller, non-listed firms. The partnership between a venture capitalist and an entrepreneur is characterized by the accumulation of firm-specific, proprietary information during the start-up and growth phase of the firm, where the venture capitalist provides screening and certification, funding, monitoring and management expertise.[6] Also private equity finance in later stages of a firm's life cycle (buyout investment) involves active monitoring and management.

Thus, equity contracts are the key financial instrument of relationship investing. Even if both equity and debt contracts may be written by banks as well as non-bank institutional investors, we focus on debt contracts in the case of relationship banking and on equity contracts in the case of relationship investing. While bank loans, but not equity investments are necessary for relationship banking, investments in equity, but not bonds are necessary for closer relationships between non-bank institutional investors and firms.

3. Relationship Intermediation within the Contractual Theory of the Firm

3.1 Contractual Theories of the Firm

Explanations for the above forms of finance and their contractual properties can be found in different contractual theories of the firm. They have the common focus of explaining firms as organizations under two aspects: the substitution of short-term contracts on the product markets by long-term contracts between input owners, and the substitution of market mechanisms by hierarchy.[7] They can be broadly divided into principal-agent theory and transaction-cost theory.

[6] For the features of a venture capital contract see e.g. GREENBAUM/THAKOR (1995, [pp.68]).

[7] For overviews see CHEUNG [1983], KRAFFT/RAVIX [1998], RICHTER/FURUBOTN [1997].

Within the principal-agent theory[8], which focuses on optimal contracts under asymmetric information, we differentiate between the 'nexus of contracts view' and the 'team production view'. The former states that firms are "…simply legal fictions which serve as a nexus for a set of contracting relationships among individuals" (JENSEN/MECKLING [1976, p.325]). The latter considers firms either as providing solutions to moral hazard in teams (ALCHIAN/DEMSETZ [1972], HOLMSTRÖM [1982]) or as a group of input owners with a common goal, who gather and share information under uncertainty (AOKI [1986], MARSCHAK/RADNER [1972]).[9]

The transaction-cost theory focuses on the governance of incomplete contracts and explains the use of markets versus hierarchical forms of organization by transaction-cost differences (WILLIAMSON [1988, p. 568]). Within it, the property rights theory concentrates on the allocation of ownership as the possession of residual control rights, considering a firm as a collection of jointly-owned assets (GROSSMAN/HART [1986], HART/MOORE [1990], HART [1995]). The governance structure approach (WILLIAMSON [1975, 1979, 1985, 1988]) shows how transactions are assigned to alternative governance structures on the basis of their transaction properties.

These theories yield different explanations for financial contracts and intermediaries, as indicated by the four arrows in figure 1. Accordingly, the following discussion is structured into four sections. In the first three sections (3.2 – 3.4), we will review the previous literature with the focus on comparing the functions of banks to those of non-bank institutional investors. In the last section (3.5), we will extend the governance structure theory for our purpose.

[8] See JENSEN/MECKLING [1976], ALCHIAN/DEMSETZ [1972], FAMA [1980], HOLMSTRÖM [1982].

[9] This team theory has been considered as an extension to principal-agent theory, since the agents are still optimizing (KRAFFT/RAVIX [1998, p. 251]).

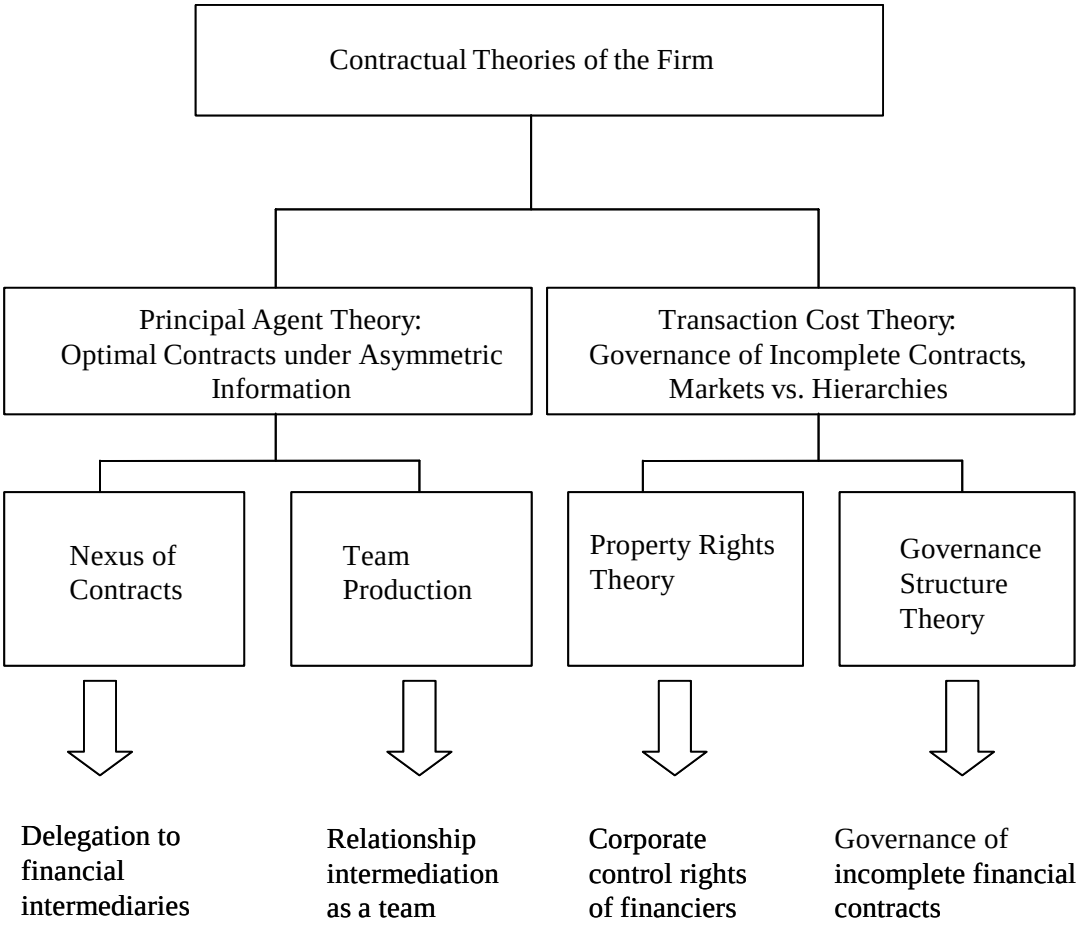


Figure 1: Explanation of financial contracts and intermediaries by contractual theories of the firm

3.2 Delegation to Financial Intermediaries within the Nexus of Contracts Theory

Within the nexus of contracts view, the existence of financial intermediaries and their contractual relationships are explained by their roles of delegated contracting and monitoring on behalf of individual investors. The theory of financial intermediation shows that banks can solve special information and contracting problems better than non-bank intermediaries or direct financing. Two special roles of banks are to minimize the agency costs of debt by monitoring (DIAMOND [1984]) and to provide liquidity (DIAMOND/DYBVIG [1983]).

DIAMOND AND RAJAN [2001] show that relationship lending is the best way to create efficient monitoring and maximum liquidity simultaneously. Real assets or projects are illiquid, because the entrepreneur can always threaten to withhold his specific skills in the future and thus capture a rent. A relationship lender who has gained knowledge about the project has a better liquidation threat than any other financier and thus can extract a larger fraction of the cash flows generated. When the relationship lender is a bank, issuing demand deposits, it cannot hold up depositors by not paying them the promised amount. Any attempt by the bank to extort a rent from depositors by threatening to withdraw her specific abilities would cause a run, where the depositors demand back their money simultaneously without renegotiating. Hence, the fragility of the bank's deposits ensures that the bank provides the maximum amount of credit it can offer.

Non-bank institutional investors, in contrast, do not create liquidity and hence do not have this disciplinary mechanism of runs. A depositor of a mutual fund has the right to seize that proportion of assets that equals his proportion of total deposits. Thus, the holdings are marked to market and the mutual fund is run-proof. If mutual funds are actively engaged in monitoring, providing relationship investing, depositors are not able to discipline them and the managers may capture rents. This applies also to insurance firms that unlike banks, provide payments only when liquidity needs are observable and verifiable.[10] Also investment banks or venture capitalists differ from commercial banks in this respect: because their value lies largely in future transactions, they cannot be efficiently cut out of the deal, hence demand deposits are unlikely to provide discipline (DIAMOND/RAJAN [2001, pp. 317]).[11]

A problem with both relationship banking and investing is that the delegation of monitoring to an intermediary involves by itself agency costs, that arise from the asymmetric information between managers and depositors or fund owners. According to DIAMOND [1984], the delegation costs for bank depositors go to zero, if the bank is large enough to diversify its loan portfolio so that the depositors are shielded from credit risk. This results from the debt contracts of banks, so that a similar conclusion cannot be drawn for the equity contracts of non-bank institutional investors.

While the theory of financial intermediation is unanimous about the optimality of debt contacts, it is indeterminate about the effects of delegated monitoring in the case of equity contracts (SCHNEIDER [2000, p. 215]). Within the 'nexus agency model', it has been argued that institutional investors are complex organizations which pursue their own goals and that of stakeholders apart from those of beneficial owners (SCHNEIDER [2000]). Additional agency costs result from detrimental incentives that divert the behavior away from maximizing investment performance, among others towards short-term orientation (CHUNG ET AL. [2002], MENKHOFF [2002]). Whether they outweigh the cost reductions through intermediation depends on the effectiveness of the legal and regulatory environment and the governance mechanisms in protecting the interests of the beneficial owners.[12]

3.3 Relationship Intermediation within the Team Production Theory

Long-term contracts of financial intermediaries are likely to involve elements of team production, because "…long-term, or what the law calls relational, contracts are essential to continuity of teamwork…" (ALCHIAN/WOODWARD [1987, p. 118]). A cooperative team is a system for allocating the resources better than a sequel of unique transactions, above all by reducing risk cost and enhancing informational efficiency by utilizing human resources (AOKI [1984, p. 30]). Cooperation in production is a cooperation between input suppliers (ALCHIAN [1993, p. 367]). Applied to relationship banking, we may consider it as a cooperation within a team constituted by the bank and the firm in supplying risky capital and information. Within such a team, the borrowing firm must be willing to provide information about investment opportunities and risks to the bank, which in turn provides capital and risk bearing to the firm. According to ALCHIAN AND WOODWORD [1987], teams arise where information is costly. This applies to the monitoring of loans to informationally opaque firms.

[10] Only life insurance companies may have partly demandable claims that allow withdrawal of a fixed amount even if the insurable event does not occur, making them prone to runs.

[11] Moreover, non-bank institutional investors cannot provide an intertemporal smoothing of risks to individuals, who do not hold nominally fixed claims on them (ALLEN/GALE [1997]). Exceptions are insurance contracts with fixed claims and pension plans with defined benefits.

[12] For empirical evidence see MENKHOFF [2002] and SCHNEIDER [2000].

The informational efficiency of utilizing special human resources in lending relationships may be brought about by the bank's inside information, but also by social interactions between loan officers and firm managers which may create mutual understanding and trust. Empirical studies on relationship lending show that such social interactions do indeed lead to more favorable lending terms for small and medium-sized firms in Germany (HARHOFF/KÖRTING [1998], LEHMANN/NEUBERGER [2001]).[13] An argument against this view of a cooperative borrower-lender team is the hold-up problem that arises from the information monopoly of the relationship lender.

Also relationship investing can involve team production, considering the cooperation between firms and institutional investors to share information and equity risks. This applies above all to relationships with venture capitalists and private equity firms, but less to those with institutional investors that hold only public shares and are less likely to have long-term, social interactions with firm managers.

3.4. Control Rights of Financiers within the Property Rights Theory

According to BERLE AND MEANS [1932], conflicts of interest arise when risk bearing by shareholders is separated from management of the firm. The agency costs connected with different control rights of external financiers are the main objects of corporate governance studies (e.g. SHLEIFER/VISHNY [1997], LA PORTA ET AL. [1999]). The role of bank and non-bank institutional shareholder activism arises from the free rider problem of a lack of monitoring incentives for small investors. Investors with large blocks have larger incentives to monitor, as it is more likely that the return from monitoring covers its cost (GILLAN/STARKS [2000]). They may exert corporate control both by selling shares ("Wall Street Walk") and by directly controlling the incumbent management ("voice"). Previous research on non-bank institutional investors has shown that they reduce opportunistic management behavior, but also that they behave myopically due to overly short-term performance orientation (CHUNG ET AL. [2002], MENKHOFF [2002]).

Agency costs also arise from the conflict of interest between bondholders and stockholders in debt financed firms (JENSEN/SMITH [1985]). They can be reduced by state-dependent control, where the firm is controlled by shareholders in non-default states and by creditors in default states. In the event of default, it is efficient to delegate the control to banks, to bundle creditors' claims and reduce costs of free-riding by bondholders (AGHION/BOLTON [1992]). In non-default states, corporate control should be exerted by financial intermediaries that hold large blocks, thus preventing actions of firm managers against the interests of both minority shareholders and bondholders.

In universal banking systems, banks can exercise corporate control by voting rights from shareholdings, proxy voting rights or supervisory board mandates. Shareholdings by banks reduce their incentives to pose creditor over shareholder interests, providing a solution to the bondholder-shareholder conflict (STIGLITZ [1985]). Thus, relationship banking reduces agency costs of both debt and equity. This seems to be the case not only in bank-based financial systems,[14] but also in market-based financial systems. Debt financing reduces free

[13] Moreover, differences in the development of lending teams might explain regional lending gaps (FERRI/MESSORI [2000], LEHMANN ET AL. [2004]).

[14] For evidence for continental Europe see BOEHMER [2000], SCHÄFER [2003], DHERMENT-FERERE ET AL. [2001] and LEHMANN AND WEIGAND [2000]. DHERMENT-FERERE ET AL. [2001] found a positive disciplining effect of qualified banking share blocks, and LEHMANN AND WEIGAND [2000] found that financial institutions as largest shareholders of traded corporations enhanced profitability.

cash flow, having a disciplinary effect on management (JENSEN [1986]). It is greatest when a large fraction of debt is bank debt. It has been shown that stock prices respond positively and significantly especially to announcements of bank loans (JAMES [1987], LUMMER/MCCONNELL [1989]), and that the cost of issuing public securities is significantly lower for firms with borrowing relationships to banks (JAMES/WIER [1990], DATTA ET AL. [1999]). This evidence shows the uniqueness of bank loans and benefits of relationship banking in reducing agency costs of external finance. However, there is no comparable evidence for agency cost reductions by relationship investing so far.

3.5 Relationship Intermediation within the Governance Structure Theory

According to Williamson's governance structure theory, the comparative advantage of an organizational form depends on the attributes of transactions and alternative modes of governance. Important attributes of transactions are asset specificity, giving rise to bilateral dependency, and uncertainty, which poses adaptive needs. A governance structure is defined by the attributes of incentive intensity, administrative control and the contract law regime. Compared to market governance, hierarchical governance is characterized by lower incentive intensity, more numerous and discretionary administrative controls and internal dispute resolution instead of court ordering (WILLIAMSON [2002, p. 180]). Since the need for coordinated adaptations rises as asset specificity deepens, the comparative transaction cost of markets versus hierarchies are a function of asset specificity. For medium values of asset specificity, hybrid modes of organizations arise as "market-preserving credible contracting modes that possess adaptive attributes located between classical markets and hierarchies" (WILLIAMSON [2002, p. 181]).[15]

This model has been applied to corporate finance and governance by distinguishing among individual investment projects in terms of their asset specificity and considering debt and equity as two distinct governance structures (WILLIAMSON [1988, 2002]). There, asset specificity deepens as the assets become less redeployable. To explain relationship finance as a governance structure, we will regard a second kind of asset specificity: the information opaqueness of the projects to be financed. Combining both kinds of asset specificity, we will explain relationship banking and investing as distinct hybrid modes of governance. Figure 2 shows the comparative costs of governance for different kinds of asset specificity.

[15] For a detailed discussion of the fundamental properties of hybrid organizations see MÉNARD (2004).

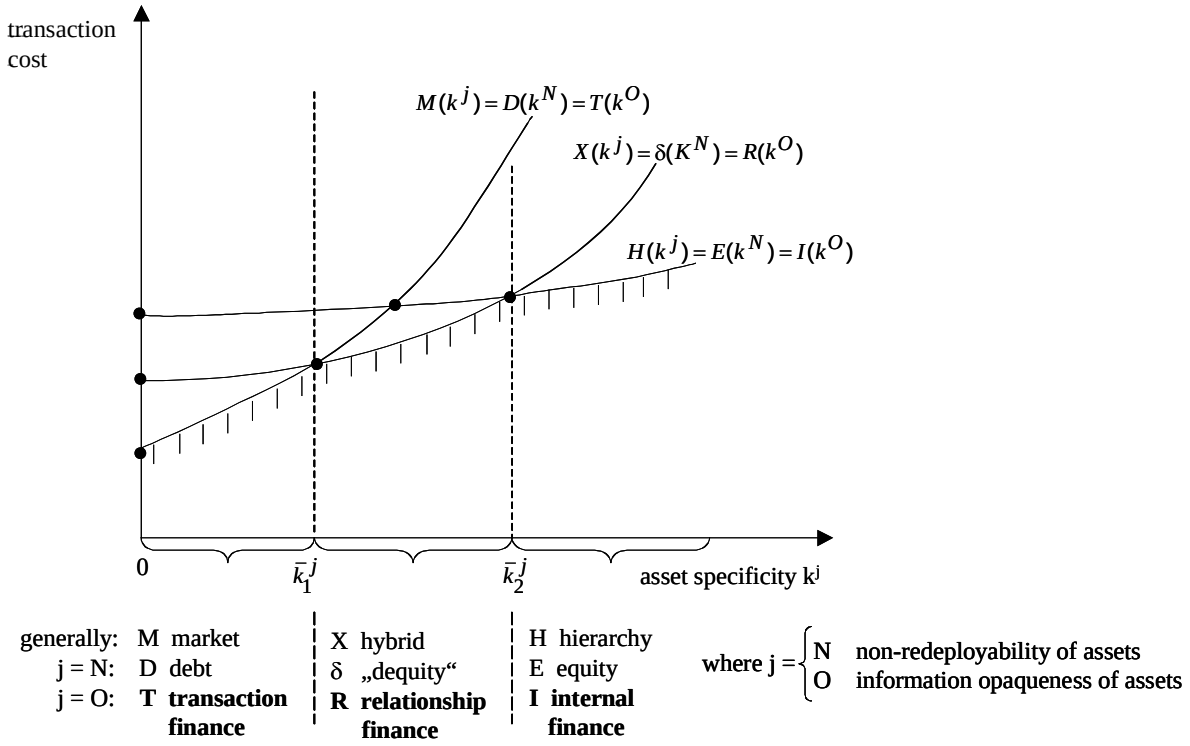


Figure 2: Comparative costs of governance for different kinds of asset specificity

Let k^j be an index of asset specificity which indicates that assets are more specific as they are less redeployable (non-redeployability k^N) or more informationally opaque (information opaqueness k^O). For both cases, the lines $M(k^j)$, $H(k^j)$ and $X(k^j)$ illustrate the transaction cost functions of markets (M), hierarchies (H) and hybrids (X), respectively. Thus, transaction costs are minimized by markets for low levels of k^j, by hierarchies for high levels of k^j and by hybrids for medium levels of k^j (along the hatched line).

For the case of asset specificity measured by non-redeployability *(j = N)*, debt finance is a market-like governance mode, while equity is a hierarchical form of governance: Debt is a governance structure that works almost entirely out of rules, with fixed interest and capital claims in solvent states and a claim on the liquidation value of the financed project if the scheduled payments cannot be made. Equity finance is a more complex governance mode with lower incentive intensity and greater discretion. Therefore, the setup cost of debt *D(0)* are lower than that of equity *E(0)*. Since the value of a debt claim depends on the redeployability of the financed assets in the case of default, the terms of debt finance will worsen as asset specificity deepens. This rise in the cost of capital can be reduced by equity finance that provides interfirm contractual safeguards for less-redeployable assets. Such a safeguard is the board of directors with its monitoring and controlling functions. As the need for adaptation rises with rising asset specificity k^N, the costs of the more adaptable equity governance regime will rise less rapidly. Accordingly, $D'(k^N) > E'(k^N)$ in figure 2. Hence, it is optimal to use debt finance for highly redeployable assets and equity finance for highly non-redeployable assets. For intermediate levels of redeployability, transaction costs could hypothetically be minimized by creating a financial instrument called ‘dequity’, that combines rules with discretion (WILLIAMSON [1988, p. 581]). It would have the property that the constraining features of debt are the norm from which selective relief by the board of directors is permitted. The respective transaction cost function is $\delta(k^N)$ in figure 2.

Now, let us consider the case that the projects to be financed do not differ with respect to redeployability, but to information opaqueness *(j = O)*. If there is no information opacity and the success properties of an investment project are publicly known, the project can be financed at arm's length on the capital market (transaction finance $T(k^O)$). If, at the other extreme, asymmetric information between an entrepreneur and potential financiers is prohibitively high to render external finance feasible, the project must be financed internally, i.e. by a hierarchical mode of governance (internal finance $I(k^O)$). Since, however, this case of vertical integration between a firm and its suppliers of finance is rare, it only serves as a theoretical reference point. In the following, we will consider only levels of information opacity below the boundary level $\bar{k}_2^O$, where relationship finance by intermediaries $R(k^O)$ is an alternative to transaction finance $T(k^O)$. Relationship finance is a more hierarchical mode of governance than transaction finance. Because of added bureaucratic or delegation costs, $R(0) > T(0)$, but the cost differences between transaction finance and relationship finance narrow as information opacity increases and the need for cooperative adaptation rises. The costs of transaction finance will rise more rapidly as k^O increases, $T'(k^O) > R'(k^O)$, because efficient capital markets will price out the risks implied by asymmetric information, whereas relationship finance provides safeguards to reduce these risks. As the level of information opaqueness exceeds $\bar{k}_1^O$, relationship finance has a comparative cost advantage. Safeguards for investments in informationally opaque assets include gathering of inside information, monitoring and verification procedures, penalties (such as liquidation) and specialized dispute resolution (such as renegotiation). In the following, we will argue that relationship investing in publicly traded share blocks is a governance structure that provides less of these safeguards and thus is more market-like and should be chosen for lower levels of information opacity than relationship banking. Relationship investing in inside equity by venture capital or private equity firms lies in between.[16] Let us first compare the first two arrangements.

Relationship investing in share blocks versus relationship banking

Relationship investing in share blocks is a more rule-based governance structure than relationship banking. Capital issued as public equity is a long-term claim with no other right but to liquidate the equity-financed project at any point in time. The decision to do so by selling shares may be based on public or private information. By holding large equity blocks over a longer time period, institutional investors may gather private information and exercise direct control over the management, reducing moral hazard from asymmetric information. However, the use of private information by institutional investors is restricted by insider trading regulations, to avoid that managers and relevant shareholders collude in order to trade at the expense of "uninformed" or "small" shareholders (MAUG [2002]). Since private corporate information may temporarily reduce the liquidity of an institution's investments, little corporate monitoring is to be expected from institutional investors (DHERMENT-FERERE ET AL. [2001]). ADMATI ET AL. [1994] demonstrate that in equilibrium the monitoring activity is below the optimal level. However, the probability of monitoring increases in the liquidity of the market, since market liquidity allows also large investors to benefit from monitoring. (MAUG [1998, p. 89]).

Relationship banking provides higher incentives to monitor informationally opaque firms. While the right to liquidate an equity investment at any time is likely to shorten the time horizon, a relationship lender that extends long-term credits or renewable short-term loans

[16] For empirical evidence on a financing hierarchy according to information opacity in credit markets see SHIN/KOLARI [2004] and CAREY ET AL. [1998].

(loan commitments, lines of credit) is committed to the borrowing firm over a longer term. Moreover, relationship banking is a relatively complex and adaptable governance regime with comparatively greater discretion due to potential intertemporal contract design and renegotiability as well as restrictive covenants and collateralization as safeguards.

One benefit of relationship lending is seen in its intertemporal contract design, where the borrower's long-term binding enables the bank to compensate losses in some periods by gains in others.[17] This permits the financing of long-term investment projects that would not be profitable in a shorter relationship (BOOT [2000], ONGENA/SMITH [2000]). Indeed, housebanks are more committed to their clients, providing more finance if the firm faces sudden and temporary difficulties (ELSAS/KRAHNEN [1998, p. 1284]). Thus, long-term lending relationships are a kind of implicit contract, in which banks offer to relieve their borrowers of some market risks in return for the right to make allocative decisions.[18] They result from bargaining between bank and firm over sharing the returns of their relation-specific investments. The provision of risk by an implicit contract implies that the bank's claims in solvent states are no longer state-independent as in the standard case of rule-based debt considered above. Indeed, risk sharing is a central motivation of hybrid organizations (MÉNARD [2004, p.357]).

Since an incomplete contract does not specify rules for each possible state of the world, the optimal contract should be structured to provide incentives to both parties to take mutual beneficial actions. In relationship lending, this is done by the possibility of renegotiations. While in the case of arm's length debt the borrower cannot credibly commit to liquidate its firm in a distress situation, the renegotiation power of its housebank will induce more efficient decisions about firm liquidation or continuation (RAJAN [1992]).

Banks use the ability to renegotiate as a means to acquire reputation (CHEMANUR/FULGHIERI [1994]).[19] If they wish to establish a reputation for financing productive firms, they monitor the firms more intensively, which in turn leads to more efficient continuation decisions in renegotiations (ONGENA/SMITH [2000]). In the long-run, the advantages of having built up a debt history can overcome the costs associated with an initial debt. Thus, in contrast to the pecking order hypothesis of MYERS AND MAJLUF [1984], bank debt may even become preferable to internal finance (BESTER/SCHEEPENS [1996, p. 571]).

Formal safeguards against opportunistic behavior of the borrower are restrictive covenants and collateral. Restrictive covenants are provisions in the loan contract that restrict and specify certain activities that the borrower can engage in (MISHKIN [1995, p. 209]). Covenants in commercial bank loans are generally stricter than those in private placements and much stricter than those in public bonds, reflecting the comparative advantages of banks in renegotiating and selectively relaxing these covenants (BERGER/UDELL [1998], BERLIN/MESTER [1993]). Collateral is property that is pledged to the lender to guarantee payment in the event of default. LONGHOFER AND SANTOS [1998] show that by increasing the seniority of the bank's debt claims, inside collateral provides incentives for efficient monitoring in distress situations, since in such states the most senior claimant benefits first from improving the quality of the firm, "…and it is in such states that the true value of relationship lending comes to light" (LONGHOFER/SANTOS [1998, p. 2]). If there

[17] See e.g. GREENBAUM ET AL. [1989], PETERSEN/RAJAN [1995], ELSAS [2001, pp.56].

[18] For the definition of an implicit contract see AZARIADIS [1990].

[19] Generally, reputation is an incentive mechanism for long-term implicit contracts [AZARIADIS 1990, p. 138].

are more than one debt claimant, it may be optimal to allocate ex ante the strongest bargaining position to that claimant which is expected to have the highest bargaining power ex post, by increasing his or her seniority (WELCH [1997]). Especially inside banks are suitable senior claimants, because they have comparative advantages vis-à-vis bondholders or outside banks in organizing distress situations, having built up law departments or special reorganization capacities (ELSAS [2001, p. 191]). Therefore, the set-up costs of relationship banking are higher than those of relationship investing in bonds, whereas because of higher monitoring, its costs will rise less rapidly as information opacity increases.[20]

However, relationship banking goes along with costs due to hold-up and a soft budget constraint. Hold-up results from the information monopoly the bank generates in the course of lending, that may allow it to make future loans at non-competitive terms (SHARPE [1990]. Also collateral may cause hold-up, because it can be considered as a commitment on the part of the borrower to accept only one contract (PARLOUR/RAJAN [2001]). Because of this "central conflict between commitment and competition" (MAYER [988, p. 1179]), the informational advantage of the inside bank is a "double-edged-sword" (RAJAN [1992, p. 1369]). The soft budget constraint problem results from the potential lack of toughness of the relationship bank in enforcing credit contracts (BOOT [2000]). A relationship bank is unable to commit not to refinance unprofitable projects ex post, when the borrower faces financial problems. Multiple banking may represent a solution (DEWATRIPONT/MASKIN [1995]), however, it complicates debt renegotiations due to communication problems and asymmetric information among the creditors (BOLTON/SCHARFSTEIN [1996]). Hence, multibank systems are superior in imposing tough budget constraints on inefficient projects, but they are myopic and fail to sustain efficient long term projects (CARLIN/MAYER [2000]).

To the extent that relationship investing involves a binding of an institutional investor to a firm, hold-up and the soft budget constraint problem arise here, too. A binding may result from the fact that in case of underperformance, large blocks cannot be sold without driving the price down and suffering further losses (CHUNG ET AL. [2002]). Thus, institutional investors face a trade-off between keeping underperforming shares and suffering a long-term loss or selling them and suffering a sudden loss. If they keep the shares, they find themselves in a hold-up which favors opportunistic behavior of firm managers. The soft budget constraint problem arises from a potential lack of toughness of the relationship investor in controlling managers on behalf of shareholders (COFFEE [1991]). Moreover, institutional investors' activism is likely to detract from the primary duties of asset management (GILLAN/STARKS [2000]).

Relationship investing in inside equity

Relationship investing in inside equity as done by venture capital firms is a hybrid organization, which combines elements of relationship banking and transaction finance. On the one hand, venture capitalists intensively monitor young, informationally opaque firms, on the other hand, they are only involved for a limited time with little investments and they need a reliable system of disclosure. They continue only projects that are likely to be very successful, while quickly cutting short those that fail, and get their reward from successful projects only when they grow these firms to the point that they can be sold on the public equity market. Because of the contractual time limit, the restrictions in the amount of funds invested in each venture, and the availability of a liquid market to unload the investments,

[20] This could be illustrated in figure 2 by drawing a fourth transaction cost curve with a higher intercept on the vertical axis and a smaller slope than the curve $R(k^O)$.

there is no risk of a hold-up by the initial financier inherent in relationship banking (RAJAN/ZINGALES [2003, p. 22 and 28]). Similar arguments apply to private equity firms, which, however, make larger investments in later stages of a firm's life cycle.

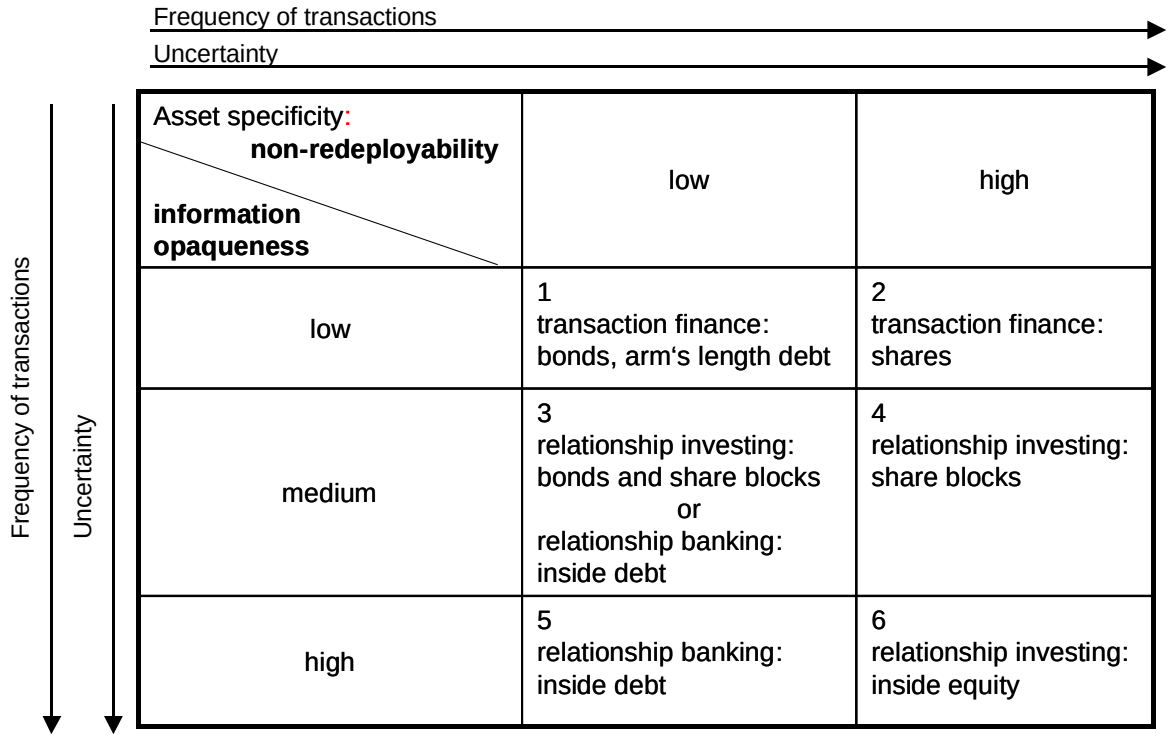
Combining both kinds of asset specificity

Finally, let us combine our results for the two kinds of asset specificity in a matrix (figure 3). The arrows indicate that the need for coordinated adaptations rises not only as asset specificity deepens, but also as the frequency of transactions and the uncertainty of the environment increase. Transaction finance by bonds or arm's length debt (field 1) results as the most market-like governance mode which should be chosen to finance investment projects with easily redeployable assets and publicly known return prospects in a stable environment. A prototype are tangible investments in large, public corporations in mature or physical-asset-intensive industries. The comparative advantage of arm's length equity finance is to be seen in the financing of large, public corporations in intangible industries (field 2).[21] At the other extreme, the most hierarchical governance mode of external finance is relationship investing in inside equity (field 6) as done by venture capital firms to finance young, innovative firms with high information opacity and intangible assets in new or growth industries. For small and medium-sized firms with high information opaqueness and easily redeployable assets, located in traditional industries, relationship banking with inside debt minimizes transaction cost (field 5). Relationship investing through share blocks has a comparative advantage for the financing of publicly listed firms with medium information opaqueness (fields 3 and 4). If these belong to stable industries with tangible assets, debt should be the dominant form of finance. Hence, in this case, relationship banking with inside debt and relationship investing with bonds and share blocks are substitutes (field 3).

Moreover, we may observe a simultaneous occurrence of some financing modes, i.e. combinations of single fields in figure 3. For example, universal banks in Germany that hold share blocks in the firms to which they provide housebank services function as relationship lenders and investors simultaneously (fields 3, 4 and 5). A combination of relationship lending by a housebank with arm's length debt from outside banks helps to optimally balance the risk of lender coordination failure from transaction banking and the hold-up risk of relationship banking (fields 1 and 3). Thus, ELSAS ET AL. [2004] showed that with increasing non-redeployability of assets, firms should choose multiple lenders with a co-existence of arm's length financiers and a relationship bank. Likewise, a mix of private bank debt and public debt seems to have a comparative advantage for the financing of informationally opaque firms with high growth opportunities to reduce the costs of a hold-up.[22]

[21] Since the relative cost of producing information is lower for larger firms, these firms have lower information opacity and can benefit from arm's length markets more than small firms. The United Kingdom has both more developed arm's length markets and larger firms than any other European country (RAJAN/ZINGALES [2003, p.20]).

[22] For empirical evidence for U.S. firms see HOUSTON/JAMES [1996].



Asset specificity: **non-redeployability** / **information opaqueness**	low	high
low	1 transaction finance: bonds, arm's length debt	2 transaction finance: shares
medium	3 relationship investing: bonds and share blocks or relationship banking: inside debt	4 relationship investing: share blocks
high	5 relationship banking: inside debt	6 relationship investing: inside equity

Figure 3: Comparative advantages of the financing modes for different combinations of asset specificity

4. Conclusion

The shift from bank intermediation to intermediation by non-bank institutional investors going on in continental Europe has invoked concern about the dissolution of valuable long-term bank-firm relationships and their replacement by arm's length finance. However, non-bank institutional investors are also actively engaged in the firms they finance, providing kinds of relationship finance. The present paper made a first attempt to compare relationship banking as a close bank-firm relationship and relationship investing as a close relationship between a non-bank institutional investor and a firm to examine their common features and relative merits. We used different contractual theories of the firm to compare both types of relationship finance in terms of finance and corporate governance. Within the governance structure approach, we showed that both are hybrid forms between market and hierarchy, whose comparative advantages depend on the occurrence of two kinds of asset specificity.

We conclude that the shift from bank finance to finance by non-bank institutional investors is neither a shift from relationship finance to arm's length finance nor a shift from hierarchical to market governance. Relationship banking and investing are complements to finance and control firms with different asset specificity in distinct environments, both being necessary for an efficient division of labor. Relationship investing can be an efficient substitute for relationship banking only for some firms and industries. Hence, a financial system composed of a mixture of markets, hybrids and hierarchies seems to be superior to a market-dominated and a bank-dominated financial system.

The comparative advantage of relationship investing in inside equity lies in the provision of venture capital to innovative, start-up firms, and of private equity to more mature, publicly listed firms. Relationship banking has its comparative advantage in debt financing of private, informationally opaque small and medium-sized firms in tangible or traditional industries.

For these firms, relationship banking delivers unique monitoring and insurance services by implicit contracts.

Large public companies may profit from relationship finance by both banks and non-bank institutional investors, if these hold large share blocks to exercise corporate control. Here, however, non-bank intermediaries seem to be an imperfect substitute for banks: First, their incentives to actively invest in long-term relationships are low because of a conflict between the use of inside information and the liquidity of their investments. Secondly, their disciplinary effect on management tends to be lower than that of banks. Third, they are less able to provide efficient delegated monitoring and liquidity simultaneously. The costs of delegation to non-bank institutional investors are comparatively high, because they have more scope to pursue their own goals apart from those of their funds' beneficial owners.

The growing role of relationship investing in both bank-based and market-based financial systems can be explained by changes in industry structure towards more intangible, knowledge-intensive or innovative industries and increases in market transparency and liquidity going along with the growth of firms and markets due to globalization. Increased transparency and liquidity of capital markets through higher disclosure requirements and market integration have eased both venture capital finance for young firms and private equity finance for more mature companies. Hence, changes in regulations towards the Anglo-Saxon financial system are beneficial for the growth and restructuring of firms in traditionally bank-based systems of continental Europe. Nevertheless, regional banks which monitor their borrowers in local credit markets are still needed for providing relationship finance to small, informationally opaque firms in traditional industries.

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