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

Doris Neuberger, University of Rostock, Germany

December15, 2004

Abstract

The financial systems in continental Europe are moving from bank intermediation to intermediation by non-bank institutional investors. The present paper examines to what extent this implies a substitution of relationship finance by arm's length finance or just of one form of relationship finance by another. 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 governance forms, whose comparative advantages depend on two kinds of asset specificity. They are complements rather than substitutes to finance and control firms with different redeployability and information opaqueness of assets.

JEL-Classification: G20, G30, L14, L22

Keywords: relationship banking, relationship investing, banks, institutional investors, corporate governance, contractual theories of the firm

* I am grateful to Ettore Andreani for valuable research assistance and to Martina Eckardt, Lukas Menkhoff and Solvig Räthke for helpful comments and suggestions.

Address: Doris Neuberger, Department of Economics, University of Rostock, Ulmenstr. 69, D-18057 Rostock, Germany; Tel.: +49 381 498 4346, Fax: +49 381 498 4348, e-mail: doris.neuberger@uni-rostock.de

1. Introduction

The financial landscape in Europe is subject to profound changes, driven by increasing wealth and population aging, advances in information technology and financial market integration. Demographic trends and a move towards funded pension systems will boost capital markets and enhance the ongoing 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. Some of them, in particular some 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).

This development may be seen as a move from continental European bank-based financial systems towards the Anglo-Saxon market-based system.[1] However, it is not necessarily a shift from relationship finance to arm's length provision of finance. To the extent that institutional investors are active holders of shares and/or debt securities, they develop relationships with firms that may have features of the traditional bank-firm relationship (Perée/Riess 2003, p.24). Whether this 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. 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 (The Economist 2003a,b).

While the benefits and costs of institutional investors' relationships with firms are primarily examined within the corporate governance literature (Gillan/Starks 2000, Davis 2003) and the literature on efficient markets (Menkhoff 2002), the pros and cons of relationship banking are mainly discussed within contract theory (Boot 2000). The present paper attempts to integrate both forms of relationship intermediation within the contractual theory of the firm. Like the existence of industrial firms, the existence of financial intermediaries and their relationships with these firms can be explained by the incompleteness of markets. The boundaries between these different 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 (or lending) as a close relationship between

[1]For a comparison and overview see Allen/Gale (1995, 2000), Kaplan (1994) and Neuberger (2000).

an industrial firm and a bank, resulting from long-term lending with inside information, (2) relationship investing as a close relationship between an industrial firm and a non-bank institutional investor, where direct control is exerted via large holdings of publicly traded shares or inside equity, (3) transaction finance (lending or investing) by publicly traded bonds or stocks on the capital market or by arm's length provision of finance by 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?

The paper is organized as follows: Section 2 reviews the different contractual forms of finance as inputs to firm production. In section 3 we show how different features of these financial arrangements can be explained by different contractual theories of the firm. We extend the governance structure theory to explain the hybrid nature of relationship intermediation and compare relationship banking and relationship investing as functions of asset specificity. Section 4 concludes.

2. Transaction Finance versus Relationship Intermediation

2.1 Financial Contracts and the Production Function of a Firm

To understand the services provided by different forms of finance, we depart from the concept of a neoclassical production function. It usually relates firm output to capital and labor inputs, which are financed by the firm's revenues. In this case of internal finance, contracts with external financiers are irrelevant. However, if the scarcity of internal funds limits production, external finance is a further production factor with positive marginal returns. Financial contracts with external financiers differ with respect to two fundamental inputs which they provide: bearing of risk and information. Therefore, we consider the more general production function

$$q = f(\text{risk}, \text{information}),$$

with q as output and f as the 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). Along this line of reasoning the production function coincides with the efficiency line of the capital asset pricing model. The supply of the factor risk 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 publicly available information but also inside or private information about the state and the prospects of the firm. The higher this stock of information, the lower is the information asymmetry between the firm and its financier and the lower are the concomitant agency costs of external finance. Like a technical or an organizational progress, an increase in information may be described by an outward shift of the production function rather than a move along its frontier.

From a macroeconomic perspective, the above production function may be used to 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 of funds, but rather their misallocation , e.g. by retained earnings, hidden reserves, disposal of assets or opportunistic behavior of managers in the presence of asymmetric information (Hellwig 2000, Jensen 1986). The task of the financial system is to channel the funds not only from households to firms, but also within the corporate system, from X-inefficient firms to more efficient ones. The allocative competence of a financial system thus depends on its ability to reduce information asymmetries and provide possibilities of risk sharing as well as information sharing.

The provision of risk by a financing relationship depends on the type of the 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, on the other hand, the equity owner has a state-dependent claim on the residual in solvent states, bearing the residual claim risk.

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, transaction finance may be viewed as arm's length finance which typically involves one-time or short-term interactions of contracting partners without accumulation of confidential or private information.

Transaction finance may be provided directly by individual investors who buy stocks or bonds issued by firms on the capital market. In this case, the investors share directly the risks of the projects financed, relying only on public information. Typically, their available funds are too small to make costly information gathering in a single firm profitable and at the same time reduce risk by holding a diversified portfolio of investments. Therefore, individual investors gain by delegating fund management and/or monitoring of borrowers to financial intermediaries who (1) are better informed and thus may realize a superior investment performance, (2) can diversify more broadly because they have larger funds, and (3) can reap economies of scale in investment management and/or monitoring of borrowers. In this case, direct finance is replaced by intermediated finance, where banks or non-bank financial intermediaries, so-called institutional investors, collect funds of individual investors to invest them in productive firms. 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 banks and non-bank financial intermediaries like mutual funds, pension funds, insurance companies or venture capital firms.

While non-bank financial intermediaries specialize in brokerage services (like transaction services, screening, certification), banks[2] provide more services of qualitative asset transformation (like monitoring, liquidity creation and claims transformation; see 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 not only risk-free for depositors (because of diversification and deposit insurance), but also highly liquid (because of liquidity insurance). 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 whom they screen and monitor, while non-bank institutional investors invest in publicly traded bonds and shares or in private equity of the firms which they screen and monitor.

Both types of intermediated finance also involve transaction finance, if the loans provided by banks and the investments of non-bank institutional investors are made at arm's length, without

[2] The term "bank" is used for banks that provide commercial banking services. Investment banks, which do not provide these services, are considered as non-bank financial intermediaries.

gathering of proprietary information by repeated transactions with the same contracting partner. In the case of short-term, arm's length lending by banks we speak of transaction lending, in the case of bond holdings and/or share holdings by non-bank institutional investors we speak of transaction investing.

2.3 Relationship Intermediation

In contrast to transaction finance, 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 individual savers, the term relationship finance can be equated with the term relationship intermediation.

Relationship Banking

The term relationship banking is not sharply defined in the literature.[3] Mostly, it is used to describe lending relationships of (commercial) banks, but it has also been used to address customer relationships of non-bank financial intermediaries.

We define relationship banking as

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

Since close relationships between banks and their customers typically originate from the lending business, relationship banking and relationship lending can be used as synonymous terms. In the stricter sense, the term relationship lending only involves close relationships in lending, while the term relationship banking encompasses relationship lending and close relationships from other bank services.

According to the modern theory of financial intermediation, the benefits of relationship banking arise mainly from a reduction of agency and information problems by long-term contracts and by the use of information reusability over time. From the view of the bank, the proximity to the borrower facilitates its monitoring activity, thus minimizing the moral hazard problem of asymmetric information and providing a source of comparative advantage versus de

[3] For reviews see Boot (2000), Ongena/Smith (2000) and Elyasiani/Goldberg (2004).

novo lenders and capital markets who are less informed about the borrower (Boot 2000). From the view of the firm, an advantage of relationship banking is that the bank is not likely to withdraw as soon as the first problems occur, obtaining a kind of liquidity insurance over time. Moreover, relationship banking helps to reduce financing constraints due to asymmetric information. Monitored firms can finance new projects with less informative constraints, while unmonitored firms, which cannot defend the viability of each project to individual investors, must time investments to their liquidity or internally generated funds, or to the wealth of the entrepreneur (Frohlin 1998). These benefits mainly accrue to small and medium-sized enterprises, which are informationally more opaque than large, publicly listed firms.

Beyond lending, relationship banking includes various other financial services, e.g. deposits, check, clearing and cash management services. They represent both a source of revenue and information for the banks (Boot 2000), and help to evaluate better the riskiness of lending to a firm. The inside information accumulated by the bank in the course of a relationship represents "specific knowledge", i.e. knowledge that is transmitted between agents only at high cost (Jensen/Smith 1985).

In universal banking systems, bank-customer relationships encompass commercial banking. A common source of costly information is the placement of bank directors on the firms' board of directors, as best exemplified by the German stylized tradition of having bankers on the boards of non-financial companies (Frohlin 1998). Having one or more of its managers on a client firm's board is likely to provide the financial institution access to proprietary information as well as some influence over the firm's actions (Booth/Deli 1999).[4] The presence of bankers on boards has been considered also as a "credible message" of a close firm-bank relationship (Schäfer 2003).[5] A banker may also be appointed on the board in order to signal to other banks that an expert in bank debt is on the board to protect creditors (Booth/Deli 1999).

Relationship Investing

We define relationship investing as

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

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[4] Even if Baums (1994) argues that seats on the supervisory boards don't seem to provide always better information than a large creditor has, the "information gathering activity" of the single board member is likely to be different from the information access of large creditors.

[5] The message is credible, because on the one hand the bank risks its own funds, and on the other hand the bank risks its "standing", i.e. its external image within the financial community.

The term “relationship investing” has been used to describe the shareholder activism of non-bank institutional investors in the control of publicly traded companies (Chidambaran/John 1998, Gillan/Starks 1999). Even if they mostly invest in publicly traded securities, institutional investors may obtain firm-specific, private information by multiple interactions with the same corporate 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 through control rights and may provide special information rights by a representation on the firm’s board.

While this only applies to the financing of large corporations, the term “relationship investing” may also be used to describe the activities of non-bank institutional investors such as investment banks or venture capital 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. A venture capital contract has the following features: the entrepreneur cannot “walk away” after obtaining financing, the venture capitalist gains control of the firm after buying out the entrepreneur if a minimum performance requirement is not met, and both partners receive equity payoffs, if control remains with the entrepreneur (Greenbaum/Thakor1995, pp.68). [6]

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 investments in equity are necessary for relationship banking, investments in equity, but not bonds are necessary for closer relationships between non-bank institutional investors and firms.

Relationship investing uses different mechanisms of corporate control. Institutional investors that hold publicly traded shares may exercise their pressure on firms both by selling shares in underperforming firms or in firms that don’t follow international recognized corporate governance standards (“Wall Street Walk”) and by exercising direct control over the incumbent management of the respective firms (“voice”). Qualified investors often negotiate directly with

[6] As a matter of fact the role performed by German housebanks at the end of the 19th century could be considered as a first kind of venture capitalism, thus representing a link between relationship banking and relationship investing.

the managers and submit shareholder proposals only if the negotiations don't have any relevant effect (Gillan/Starks 2000). When shares are held for a longer time institutions will become aware of the use and consequences of discretionary accounting, thus reducing incentives for the earning management (Chung et al. 2002).

Shareholder activism has become an increasingly important characteristic of financial markets, with institutional investors willing to pay significant premiums for well governed companies, or significant discounts for bad governed ones (McKinsey&Co. 2000). The body of the research has focused on the virtues of institutional investors in forcing management to focus on economic performance and eschewing opportunistic self-serving behavior, even if some research underlined the myopia of those who focus on the short-term performance of the firm to the detriment of its longer-term prosperity (Chung et al. 2002)[7]. The primary emphasis of activist shareholders has been to focus on the poorly performing firms in their portfolio and to pressure the management of such firms for improved performance, thus enhancing shareholder value (Gillan/Starks 2000).

3. Relationship Intermediation within the Contractual Theory of the Firm

3.1 Contractual Theories of the Firm

Explanations for the different kinds of transaction finance and relationship intermediation and their contractual properties can be found in different contractual theories of the firm. Despite their heterogeneity, they have the common focus of explaining firms as organizations under two aspects: first, the substitution of short-term contracts on the product markets by long-term contracts between input owners, and second, the substitution of market mechanisms by hierarchy.[8] They may be broadly divided into two groups: principal-agency theory and transaction-cost theory.

The principal-agent theory deals with bilateral contractual relationships between two partners, the principal and the agent, which are affected by problems of asymmetric information.[9] The focus is on designing an optimal contract which will motivate the agent to share his private information so that the action expected by the principal will be effectively realized. The classical agency-theory problem was posed by Berle and Means in 1932 for the public company with dispersed shareholders, where the separation between owners (principals) and managers (agents) causes agency costs by suboptimal control of the management. Within this

[7] For an overview on the empirical evidence see Menkhoff (2002).

[8] For overviews see Cheung (1983), Krafft/Ravix (1998), Richter/Furubotn (1997).

theory, firms have been considered as "…simply legal fictions which serve as a nexus for a set of contracting relationships among individuals" (Jensen/Meckling 1976, p.325). Beyond this 'nexus of contracts view' (Alchian/Demsetz 1972, Jensen/Meckling 1976, Fama 1980), another view is that firms are characterized by more than the legal status, since they provide a solution to moral hazard in teams (Alchian/Demsetz 1972, Holmström 1982). This view emphasizes the technology of team production, where marginal products are costly to measure, and shows the circumstances under which it may be optimal to appoint a monitor who has the rights to the residual income of the team. Another view of team production has been provided by Aoki (1986) and Marschak/Radner (1972), who consider a firm as a group of input owners with a common goal. According to this view, team production does not serve to prevent opportunism, but to gather and share information under uncertainty. It emphasizes "…the image of a firm which must develop its resources by learning new informational relations before being able to use them" (Krafft/Ravix 1998, p. 248).[10]

The transaction-cost theory, on the other hand, is based on the question posed by Ronald Coase in 1937: when do firms produce to their own need (backward, forward or lateral integration) and when do they procure in the market? It explains the use of markets for some transactions and the use of hierarchical forms of organization for others by transaction-cost differences between markets and hierarchies (Williamson 1988, p. 568). In contrast to the principal-agent theory, the focus is not on the ex ante incentive alignment of contracts under asymmetric information, but on the ex post governance of incomplete contracts. Since not all contingencies can be contractually covered, contracts are incomplete, and there is a need of adaptation to changing circumstances. Within this approach, the property rights theory of the firm focuses on the allocation of ownership as the possession of residual control rights, i.e. rights to control the uses of assets under contingencies that are not specified in the contract. It considers a firm as a collection of jointly-owned assets (Grossman/Hart 1986, Hart/Moore 1990, Hart 1995). The second major branch of transaction-cost theory is the governance structure approach of Williamson (e.g. 1975, 1979, 1985, 1988). Its basic idea is to assign transactions to alternative governance structures (i.e. contractual arrangements and the safeguards they embody) on the basis of their transaction properties, which are determined above all by the degree of asset specificity.

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[9] See Jensen/Meckling (1976), Alchian/Demsetz (1972), Fama (1980), Holmström (1982).

[10] This team theory has been considered as an extension instead of an alternative to the principal-agent theory, since the agents are still optimizing, making their decisions on the basis of imperfect

As shown in figure 1, these contractual theories of the firm yield different, complementary explanations for financial contracts, intermediaries and relationships, to be examined below.

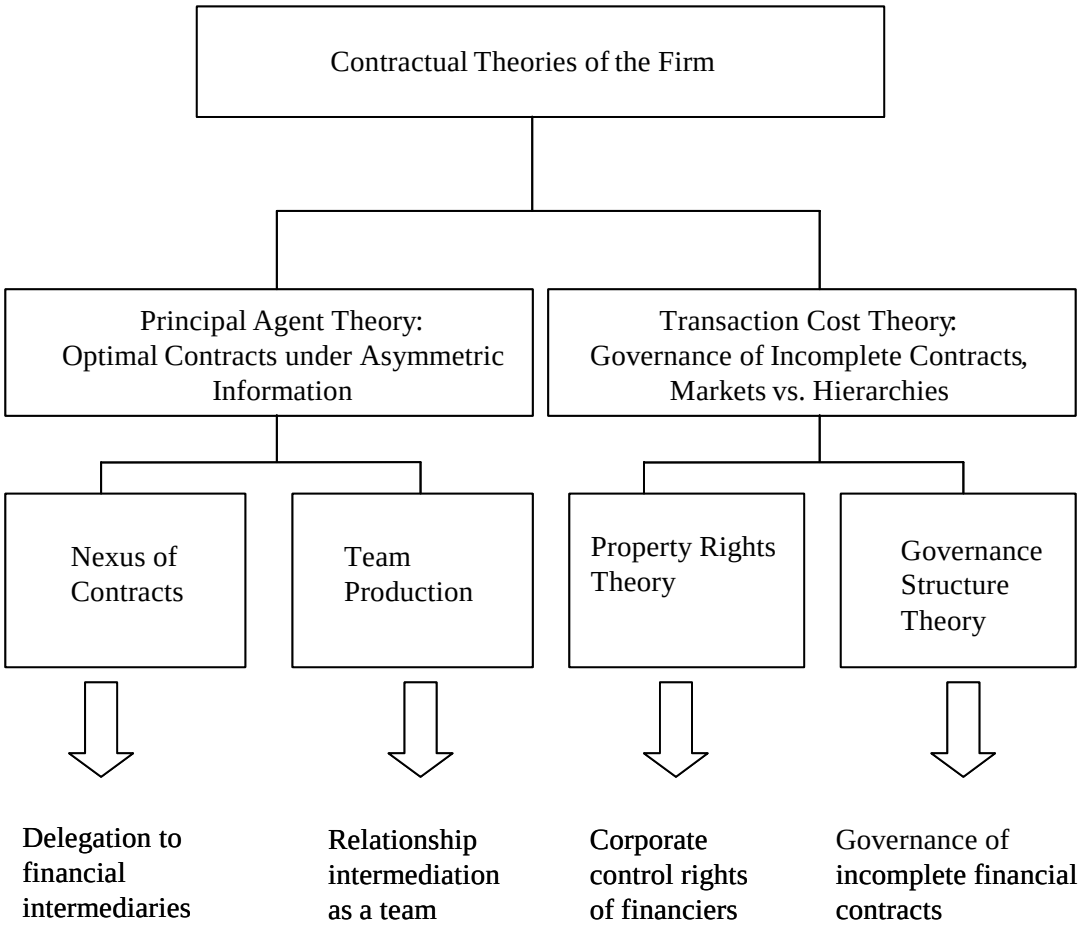

Figure 1: Explanation of financial contracts and intermediaries by contractual theories of the firm

3.2 Principal Agent Theory and Financial Intermediation

3.2.1 Nexus of Contracts and Delegation to Financial Intermediaries

Within the agency-theoretic nexus of contracts view, firms come into existence as intermediaries that reduce the number of direct market contracts between individuals and the associated contracting and monitoring costs. Likewise, the existence of financial intermediaries, and their special relationships with contracting partners, can be explained by their functions of delegated contracting and monitoring on behalf of individual investors. If they have gathered specific information about borrowers or investment projects, the reusability of this information can be used to reap economies of scale in long-run relationships.

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information, where the variables designating the optimum form of organization are all known (Krafft/Ravix 1998, p. 251).

The new theory of financial intermediation (see e.g. Diamond 1984, Allen 1990) shows that banks are financial intermediaries which can solve specific information and incentive problems in the relationships with savers and investors better than this could be done by non-bank financial intermediaries or direct financing. Within the theory of asymmetric information, Diamond (1984) shows that a special role of banks is to minimize the agency costs between borrowers and lenders by monitoring the borrowers at low cost, while Diamond and Dybvig (1983) find another special function of banks in their role of transforming illiquid assets into liquid liabilities, providing insurance against liquidity risk with private information to agents.

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. Demand deposits are fixed claims with a sequential service constraint, where the depositors get their money back until the bank runs out of money. 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.[11] 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] 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.

A problem with both relationship banking and relationship investing is that the delegation of monitoring to an intermediary involves by itself agency costs, so-called delegation costs. In the case of relationship banking, they arise from the asymmetric information between bank managers and bank depositors/shareholders, while in the case of relationship investing, they arise from the asymmetric information between institutional investors and their funds' beneficial 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 optimal debt contacts, it is indeterminate about the effects of delegated monitoring in the case of sub-optimal equity contracts (Schneider 2000, p. 215). Institutional owners function as principals to corporate managements and as agents for their beneficial owners or as 'agents monitoring other agents'. Within this 'nexus agency model' it has been argued that institutional investors are complex organizations which pursue their own goals and the goals of their 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: especially the requirement to conform with short-term evaluations leads to short-term orientation, distorted risk consideration and useless activities (Menkhoff 2002). Whether these additional agency costs outweigh the cost reductions brought about by intermediation cannot be answered a priori, because it depends on the effectiveness of the legal and regulatory environment and the governance mechanisms in protecting the interests of the beneficial owners. Empirical studies that concentrate on non-bank institutional investors that invest in US stock portfolios show that their investment performance is usually below the market benchmark. While they realize advantages of diversification, they fail to realize information advantages. The benefits of improved corporate governance go along with costs of generating short-term strategies, increased volatility and less sensitivity toward social issues in the managed companies. The agency costs depend on the type of institutional investor, e.g. pension funds having higher agency costs than mutual funds (Menkhoff 2002, Schneider 2000).

3.2.2 Relationship Intermediation as Team Production

As argued by Alchian and Woodward (1987, p. 118), "…long-term, or what the law calls relational, contracts are essential to continuity of teamwork with dependent resources". Moreover, "Teamwork seldom appears without a nexus of contracts, and a nexus of contracts

seldom appears in the absence of teamwork " (Alchian/Woodward, 1987, p.111). Hence, long-term contracts of financial intermediaries should involve elements of team production.

According to Aoki, a cooperative team or organization could be considered a system for allocating the resources better than a sequel of unique transactions, above all due to the saving of risk cost, the reduction of shirking and the enhancement of informational efficiency in regulating the formation and utilization of the team element of human resources (Aoki 1984, p. 30). Cooperation in production is a cooperation between suppliers of inputs (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: gathering information about the borrower is likely to be a very resource expensive process, and relationship banking rests on information cost savings.

The informational efficiency of utilizing special human resources in lending relationships is not only 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). Differences in lending teams brought about by different histories or development levels might explain why we observe lending gaps between different regions of the same country (Ferri/Messori 2000, Lehmann et al. 2004).

Also relationship investing can involve a kind of team production, considering the cooperation between firms and institutional investors to share information and equity risks. This applies above all to the relationships of firms with venture capitalists, but less to those with institutional investors that invest only in publicly traded shares and are less likely to have long-term, social interactions with firm managers. As already mentioned above, these institutional investors do not seem to reap efficiency gains by information advantages.

3.3. Transaction Cost Theory and Financial Relationships

3.3.1 Property Rights Theory and Control Rights of Financiers

According to Berle and Means (1932) conflicts of interest arise between managers and residual claimants when risk bearing is separated from management of the firm. The resulting agency costs connected with different control rights of the external financiers are the main objects of

corporate governance studies[12]. The role of banks and non-bank institutional shareholders' activism arises due to the conflict of interests between managers and shareholders, and to the free rider problems connected with the lack of incentives for small investors in monitoring. Investors with large blocks appear to be the only ones which have the incentives to undertake such monitoring activities, as it is more likely that the large shareholders' increased return from monitoring is sufficient to cover the associated monitoring costs (Gillan/Starks 2000).

When a firm is financed partially with debt moral hazard arises, because the equity holders don't bear the full consequence of negative outcomes, while enjoying the full positive consequences of their decisions. The main sources of conflicts are a redistribution from bondholders to stockholders that would arise from an increase in dividend payout, higher leverage, substitution of high-risk for low risk projects (asset substitution), and underinvestment in projects that would yield a higher benefit to bondholders (Jensen/Smith 1985). This bondholder vs. stockholder conflict would not be solved simply by giving the bondholders control over the firm: bondholders would have incentives to pay too few dividends, issue too little debt, and choose projects with too little risk. Within the theoretical frame of state-dependent control, the control over the firm should be exerted by shareholders in non-default states and by creditors in default states. In the event of the borrower's default, it is efficient to delegate the control to banks, to bundle the 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 bundling the interests of dispersed shareholders and preventing actions of firm managers against the interests of minority shareholders and bondholders. This may also be done by banks via voting rights from equity holdings, proxy voting rights or supervisory board mandates. Equity holdings by banks reduce their incentives to pose creditor over shareholder interests, providing a solution to the bondholder vs. shareholder conflict (Stiglitz 1985).

Thus, relationship banking may reduce not only the agency costs of external debt by monitoring borrowers in long-term relationships, but also the agency costs of external equity. However, given the fact that a bank's debt claims are mostly bigger than its share blocks in a firm, it is rational for it to act primarily in the creditor interests, and the effectiveness of banks as actively monitoring in the shareholder interests is still an open question (Boehmer 2000). According to Schäfer (2003) relationship banking and a bank's control over a firm "are just the two sides of the same coin": she provides examples on how this "domination" could affect the

[12] See e.g. Shleifer/Vishny (1997), La Porta et al. (1999).

management incentives and the banks' incentives to monitor the managers of the "supposed to be" controlled company.

Demsetz and Villalonga (2001) argued that the greater is the degree to which shares are concentrated in the hands of outside shareholders, the more effectively management behavior should be monitored and disciplined. This seems to be the case for the role of banks as external monitors in Continental Europe. Dherment-Ferere et al. (2001) found a positive disciplining effect of qualified banking share blocks, while Lehmann and Weigand (2000) found that financial institutions as largest shareholders of traded corporations enhanced profitability. Baums (1994) argues that the presence of major lenders in the board could limit the managers' ex post moral hazard. When the stock market is (ab-)used by managers the awareness of being monitored can reflect in an excessive myopia of the managers. The presence of long-term shareholders prevents such behavior, at least as long as they perform a real monitoring activity.

Also in market-based financial systems with less control rights of banks, relationship banking lowers agency costs of external finance. Jensen (1986) argues that debt financing reduces free cash flow and therefore has a disciplinary effect on management: managers can use high leverage to signal credibly that they maximize profits. Likewise, any disciplinary impact creditors have on management should be the greatest when a large fraction of debt is bank debt. This is backed by empirical evidence: stock prices respond positively and significantly especially to announcements of bank loans (James 1987, Lummer/McConnell 1989), and 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 about the uniqueness of bank loans makes clear that relationship banking is superior to relationship investing in reducing agency costs of external finance: non-bank institutional investors may only lower agency costs of external equity by active monitoring in the interest of shareholders.

3.3.2 Governance Structure Theory and Relationship Intermediation

According to Williamson's governance structure theory, the comparative advantage of an organizational form depends on the attributes of transactions and on the attributes and purposes of the alternative modes of governance. Important attributes of transactions are asset specificity, which gives 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).

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 in question 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 relationship investing as distinct modes of governance, which are both hybrids between markets and hierarchies. Figure 2 shows the comparative costs of governance for different kinds of asset specificity.

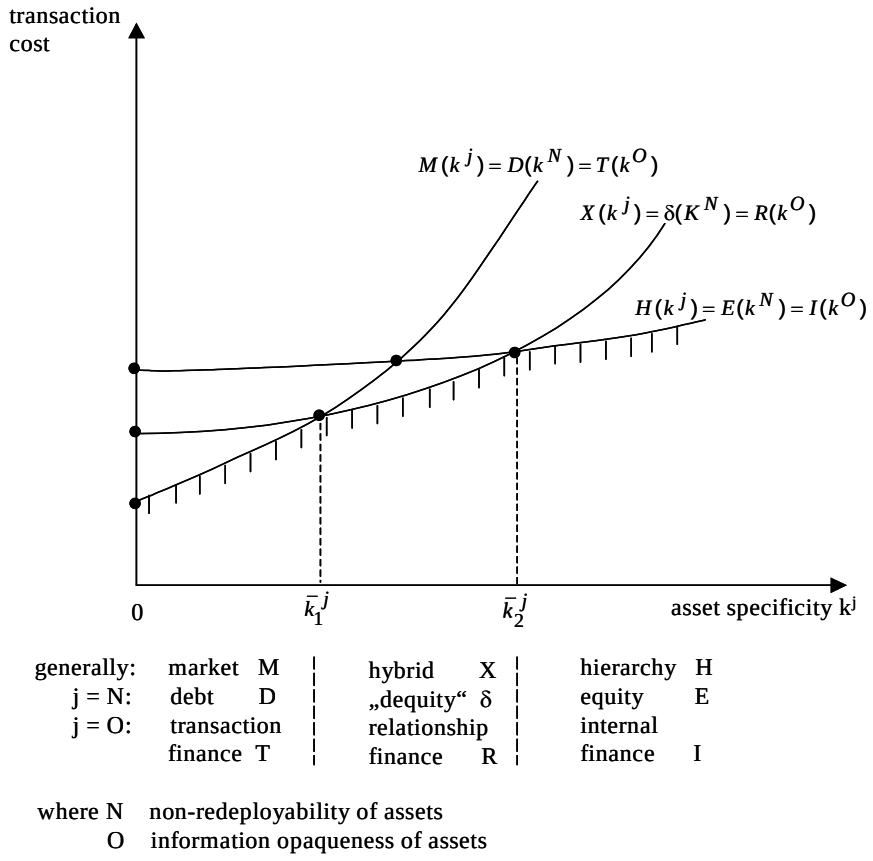

Figure 2: Comparative costs of governance for different kinds of asset specificity

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 that assets are more specific as they are 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.

For the case of asset specificity measured by non-redeployability (j = N), debt finance is a kind of market-like governance mode, while equity is a kind of 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, by contrast, 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. Especially, the board of directors with its monitoring and controlling functions is such a safeguard. As the need for adaptation rises with rising asset specificity, the costs of the more adaptable equity governance regime will rise less rapidly as k^N increases. 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 their redeployability, but to their 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 in question 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 by intermediaries is a more hierarchical mode of governance than transaction finance by markets. Because of added

bureaucratic or delegation costs, R(0) > T(0), but the cost differences between transaction finance on the market and relationship finance through intermediaries 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 shares 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.[13]

Relationhip investing in publicly traded shares 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 the moral hazard risk of 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). Because non public 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. The fact is that every investor faces a trade-off between the benefits of diversification and the benefits associated with monitoring a firm. Maug (1998, p. 89) demonstrates that the probability of monitoring increases in the liquidity of the market, since market liquidity allows also large investors to benefit from monitoring, and helps to overcome the free-rider problem.

[13] For empirical evidence on a financing hierarchy according to information opacity in credit markets see Shin/Kolari (2004) and Carey et al. (1998).

Relationship banking provides higher incentives to monitor informationally opaque firms. Whereas the right to liquidate an equity investment at any time is likely to shorten the time horizon, a long-term lender is committed to the borrowing firm until the loan comes due. Moreover, relationship banking is a relatively complex and adaptable governance regime with comparatively greater discretion due to the possibility of intertemporal contract design and renegotiability as well as the special safeguards of restrictive covenants and collateralization.

One benefit of relationship lending is seen in its intertemporal contract design, where the long-term binding of the borrower to the bank enables the bank to compensate losses in some periods by gains in other periods.[14] This permits the funding of relationship loans or financing of long-term investment projects that would not be profitable in a shorter lending relationship (Boot 2000, Ongena/Smith 2000). Moreover, when firms have financial or industrial problems they look for help by their relation bank or housebank. They know that their housebank, having made costly investments in order to build up a long-term relationship, would not have an advantage in letting the client go bankrupt (Macey/Miller 1995, Das/Nanda 1999). 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, like long-term labor contracts, 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.[15] They result from bargaining between the bank and the borrowing firm over sharing the returns of their relation specific investments. The provision of risk by an implicit long-term loan 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.

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 power of its housebank to renegotiate will lead to more efficient decisions about firm liquidation or continuation (Rajan 1992). This can be interpreted as a kind

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[14] See e.g. Greenbaum et al. (1989), Petersen/Rajan (1995). For a detailed discussion of the theoretical literature see Elsas (2001, pp.56).

[15] An implicit contract describes complex agreements, written and tacit, which govern the exchange of (labor) services when various types of (job-)specific investments inhibit (labor) mobility, and opportunities to shed risks are limited by imperfect markets for contingent claims (Azariadis 1990, p. 132). By forming such relational contracts, the parties generally commit to some common goal rather than to a specific course of conduct (Boatright 2002).

of insurance service provided by the housebank: the ex ante choice of relationship lending prevents negative value effects of opportunistic behavior by one contract partner, which cannot be prevented by alternative financial arrangements (Elsas 2001, p. 26).

According to Chemanur and Fulghieri (1994) banks use the ability to renegotiate as a means to acquiring reputation. Reputation building provides the bank with the incentive to establish a long-term relationship with a firm.[16] In their model, banks also have the choice between liquidating the firm when distressed or renegotiating the loan contract. Banks wishing to establish a reputation for financing productive firms, monitor the firms more intensively, which in turn leads to more efficient continuation decisions in renegotiations (Ongena/Smith 2000). Bester and Scheepens (1996, p. 571) underline that in the long-run the advantages connected with establishing a debt history can overcome the costs associated with an initial debt. Their result contrasts to the first argument of the pecking order hypothesis of Myers and Majluf (1984), according to which internal finance should be preferred to bank debt. They consider the decision to finance an investment by bank debt rather than by internal funds. In taking into account the costs associated with bank debt, side by side with the advantages of establishing a positive debt history, we expect that if the bank relationship is publicly observable, the reputation for both the bank and the firm improves as the length of the relationship increases.[17] On the one hand, bank relationships are credible signals, since the bank places its own wealth and its own reputation at the borrower's disposal (Collin 1997, Stiglitz 1985). On the other hand, the longevity of the relationship should not be informative for new entrants since competitors don't know the prices and the terms associated with the relationship. Thus the incumbent bank may have a long relationship with a very risky borrower only because the bank is able to be compensated by an appropriate interest rate (Greenbaum et al. 1989).

Special safeguards for banks that finance informationally opaque firms by loans 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). 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

[16] Generally, reputation is an incentive mechanism for long-term implicit contracts: "if somebody deviates from the terms of the contract, the deviation becomes widely known, and the deviant finds it difficult to locate trading partners in the future" (Azariadis 1990, p. 138).

[17] Also the status of the committed part (e.g. an international bank vs a regional one) may be a source of reputation (Schäfer 2003), or at least of creditworthiness (Collin 1997, Ferri/Messori 2000).

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. If banks are made junior to other creditors, they will have little incentive to build a relationship that might allow them to determine the value of such an investment" (Longhofer/Santos 1998, p. 2). If there are more than one debt claimant, it may be optimal to determine the structure of seniority strategically ex ante, anticipating future renegotiations in which conflicts between the different claimants are likely to cause net welfare losses. Such losses may be reduced by allocating ex ante the strongest bargaining position to the debt claimant which is expected to have the highest bargaining power ex post, by increasing his or her seniority (Welch 1997). Banks and especially inside banks are likely to be such 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. Hence, housebanks with the most inside information should obtain the highest seniority position by inside collateral (Elsas 2001, p. 191).

These benefits of relationship banking in the financing of informationally opaque firms, however, go along with costs due to two problems: the hold-up problem and the soft budget constraint problem. Hold-up results from the information monopoly the bank generates in the course of lending, that may allow it to make loans to the borrower at non-competitive terms in the future. Sharpe (1990) argues that bank relationships arise in competitive loan markets because a bank, which has privately observed customer quality, can "lock in" the customer, and charge above-cost interest rates, while Greenbaum et al. (1989) provide a further explanation when considering the costs borne by the firm in searching for competing bank offers. Also collateral may cause hold-up, because it can be considered as a commitment on the part of a borrower to accept only one contract (Parlour and Rajan 2001). Because of this "central conflict between commitment and competition" (Mayer 1988, 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 bank in enforcing credit contracts that may come alongside with relationship banking proximity (Boot 2000). A relationship bank is unable to commit not to refinance unprofitable projects ex post, in particular when the borrower faces financial problems. In time of financial distress a relationship bank may extent further credit even to unprofitable projects in the hope of recovering its initial loan. Dewatripont and Maskin (1995) argue that multiple banking may represent a solution, as it offers a way for banks not to commit to refinance unprofitable projects, or worst, gambling for resurrection projects, while Bolton and Scharfstein (1996)

show that multiple banking complicates debt renegotiations due to communication problems and asymmetry of information among the different creditors. As a consequence, Carlin and Mayer (2000) argue that multibank systems are superior in imposing tough budget constraints on inefficient projects but the other side of the coin is, they are too myopic and fail to sustain efficient long term projects characterized by short term uncertainty.

To the extent that relationship investing involves a binding of an institutional investor to a firm, the hold-up problem and the soft budget constraint problem arise here, too. Such a binding may be caused by the holding of large blocks. Traditionally one way for unsatisfied shareholders of an underperforming firm is to sell out the shares. The fact is that often the holdings are so large that the shares cannot be sold without driving the price down and suffering further losses, so they are less marketable (Chung et al. 2002). As a consequence, institutional investors face a trade off between keeping underperforming shares and suffering a long-term loss or selling out the shares and suffering a sudden loss. If they keep the shares, they find themselves in a hold-up situation and the firm managers may exploit their lock-in by opportunistic behavior. Proponents of institutional investors' activism argue that as a consequence such activity focuses on the long term and in doing so it helps management to improve long-term performance. As in the case of relationship banking, the binding is a "double-edged-sword". The soft budget constraint problem may arise from a potential lack of toughness of the relationship investor in controlling managers on behalf of shareholders. Opponents of the institutional investors' activism maintain that the activism detracts from the primary duties of asset management's managers, which is managing money for investors or other beneficiaries (Gillan/Starks 2000). Jarrow and Leach (1991) note that fiduciaries are confronted with conflicting interests and must determine whether to maximize their own wealth or that of the beneficiaries. Some authors note that institutions that maintain business relationships with firms may be biased in favor of management in matters pertaining to control (Coffee 1991).[18]

Finally, our results for the two kinds of asset specificity can be combined 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

[18] A good example is provided by Berglöf and Sjögren (1998) who presented a model with a bank proving loans to a borrower while an investment company, controlled by the bank, holds a relevant block in the borrower company. Baums (1996) found a high correlation between the underwriting and

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, publicly listed firms in mature industries. 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 (such as R&D) in new or growth industries. For small and medium-sized firms with high information opaqueness and easily redeployable assets, located in traditional industries with less uncertainty, relationship banking minimizes transaction cost (field 5). Relationship investing through large share holdings can be optimal for 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 large share holdings 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 large 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 be optimal for informationally opaque firms with high growth opportunities to reduce the costs of a hold up.[19]

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investment policy of bank controlled investment companies and the role of the bank as coordinator of the IPO.

[19] See the empirical evidence provided by Houston/James (1996) for U.S. firms.

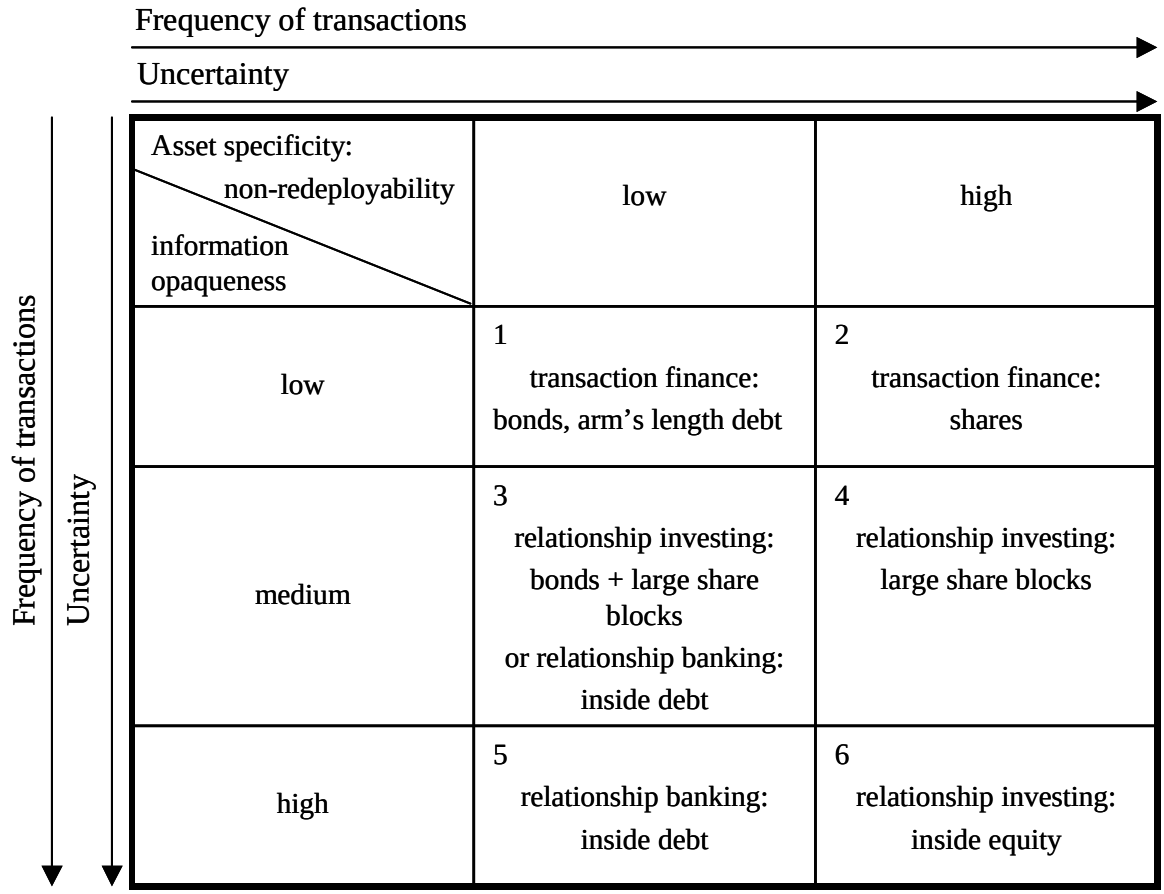

Figure 3: Optimal forms of finance for different combinations of asset specificity

5. Conclusion

The shift from bank intermediation to intermediation by non-bank institutional investors which we observe 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 a kind 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 an industrial 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, so that both are needed for an efficient division of labor. Relationship investing can be an efficient substitute for relationship banking only for some firms and industries.

The comparative advantage of relationship investing by venture capital firms lies in the provision of equity (bearing of residual-claim risk) to innovative, start-up firms, whereas relationship banking has its comparative advantage in the debt financing (bearing of insolvency risk) of informationally opaque small and medium-sized firms in more mature markets or traditional industries. For these firms, relationship banking delivers unique monitoring and insurance services by implicit contracts.

Large companies, on the other hand, may profit from relationship finance by both banks and non-bank institutional investors (insurance firms, pension funds, mutual funds), if these hold large blocks of their publicly traded shares 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 lower 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, since they do not provide liquidity, they are less disciplined by their depositors to provide efficient delegated monitoring. 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.

Finally, the substitutability between relationship banking and investing depends on the regulatory environment and the development of the capital markets: the higher the number of publicly listed firms, the higher the disclosure of information and the higher market liquidity, the more efficient is relationship investing compared to relationship banking. The present paper developed a theoretical framework for more comparative research in this regard.

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