5. Financial services: strategic positioning and competitive issues

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1. INTRODUCTION

Liberalization, deregulation, and advances in information technology have changed the financial landscape dramatically. Interbank competition has heated up and banks face increasing competition from non-banking financial institutions and the financial markets. The traditional predictability of the industry is gone. Product innovations, new distribution channels, and emerging new competitors are in abundance. The unprecedented 2007–09 financial crisis has further highlighted the enormous changes and uncertainty that characterizes the industry.

How to look at the positioning of banks in general? How is their role evolving, and what can be said about the structure of the banking industry "tomorrow?" These are the questions being addressed in this chapter. We will argue that the ongoing revolution in information technology has improved information dissemination and enhanced the overall functioning of financial markets. Does this tilt the comparative competitive advantage to the transaction-oriented financial markets? In particular, many suggest that the banks' traditional comparative advantages in relationship banking have been diluted by transaction-oriented finance. This begs the question: what is the future of relationship-based bank lending? And, more generally, what should be the competitive positioning of banks? These questions have gained further importance with the 2007–09 financial crisis. At the surface, investment banks have suffered most, and largely have disappeared as stand-alone entities (e.g. the demise of Lehman Brothers and the takeover of Merrill Lynch by Bank of America). Also, the advances in securitization have been questioned as the securitization and repackaging of the subprime mortgages was considered one of the culprits of the crisis. However, while tempting, interpreting these developments as permanent shifts in the structure of banking goes too far. We first really need to understand the economics of banking.

Banks have been groping with these questions. Given the uncertainties faced, it is not really surprising that following bank strategic choices is like being on a roller coaster. ABN AMRO unfolded a wholesale

banking-based strategy in 1999 to change course a few years later recognizing the importance of the commercial banking (including retail) operation.[1] Deutsche Bank at one point announced the sale of its retail bank – Bank 24 – before reversing itself and considering retail one of the core pillars of its strategy followed by attempts to acquire Dresdner Bank and more recently Germany's Postbank.[2] As another example consider the choices made regarding combining banking and insurance. Lukas Muhlemann, the former CEO of Credit Suisse, commented in 1996 on why Credit Suisse was not buying the insurer Winterthur: "If you only need a glass of milk, why buy the cow?" Why go through the hassle of combining banking and insurance cultures by merging with an insurer if you can also just engage in a distribution agreement via an alliance? Why then consider a merger if a distribution agreement would suffice? In 1996, he bought Winterthur anyway, confusing the markets.[3] More recently, virtually all players engaged in banking and insurance (Credit Suisse, Citigroup, Fortis, ING, etc.) have learned that realizing synergies is indeed very difficult, and since 2005 the unbundling of banking and insurance seems to have gained momentum.

In order to focus on these issues in a rigorous way, we will evaluate the key insights from the relationship banking literature, including the potential complementarities and conflicts of interest between intermediated relationship banking activities and financial market activities (underwriting, securitization, etc.). Our core message is that the fundamentals of banking have not changed. For many of the modern "funding vehicles" bankers' traditional skills are indispensable. In many other cases, bank loans may continue to be the optimal instruments.

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[1] In 2007 ABN AMRO had been taken over by a consortium of Royal Bank of Scotland, Fortis and Santander. Following the demise of Fortis in the subsequent financial crisis, the Dutch government took possession of the Dutch operations of the former ABN AMRO, and reestablished these operations under the ABN AMRO brand name.

[2] The acquisition of Dresdner Bank failed; it became part of Commerzbank in 2009. Deutsche Bank did succeed in gaining control over Postbank. Via transactions in September 2008 and December 2010 it gained a majority stake with a first option on the remaining shares.

[3] His public statement was that merging was desirable because "steady insurance earnings will smooth out choppy banking profits." In his defense, an aggressive Swiss investor had bought up a sizable stake in Winterthur and was trying to undermine the alliance between Winterthur and Credit Suisse. This appeared to be the real reason for the merger. Yet the statement that steady insurance earnings would be beneficial came to haunt Muhlemann. The turmoil around 2002 showed that insurance revenues were a lot less stable than expected.

Other insights can be obtained from analyzing potential scale and scope synergies in banking. We will argue that it is questionable whether these economies are large enough to justify the consolidation and scope expansion on the scale that we have observed. Moreover, ample research in corporate finance points at the existence of a "diversification discount." Yet the literature on average seems quite inconclusive. However, there is substantial empirical evidence that improvements in operating performance and stock returns have been experienced by firms that have refocused. An issue that we will highlight in this context is that research on scale and scope economies needs to differentiate more between the various activities (services and products, including geographic scope) of financial intermediaries. Scale and scope economies have been looked at too generically.

This brings in a strategic dimension as well. While scope economies (synergies) might be present, these typically refer to a steady state situation that allows for an optimal operational approach to capture them. However, they might be quite unimportant if we are far away from such steady state. In the current turmoil, strategic positioning with learning, first-mover advantages and strategic advantages of market power via domestic consolidation and associated "deep pockets" might be the driving force. Thus, the consolidation wave may have little to do with efficiencies and benefits of economies of scope (and even scale), but rather be strategically driven as an optimal response to the uncertainties and rapid (and unpredictable) changes facing financial institutions today. In a sense, we might be talking about banks that just do not know how the world will look "tomorrow," and choose to delay choices by broadening scope. The current merger wave may then be more aimed at gaining and/or pursuing market power, facilitating "breathing room," rather than bringing benefits from a scope and/or scale economies perspective. This would make the current consolidation an evolutionary phenomenon that possibly will be followed by a focused repositioning when the uncertainties become more manageable. We will discuss these developments in the context of "The theory of the firm" (Coase, 1937; Grossman and Hart, 1986) and particularly firm boundaries and learning (Holmstrom and Roberts, 1998).

The organization of this chapter is as follows. In Section 2, we will focus on the comparative economic advantages of banks as intermediaries, particularly in the context of funding corporations. The discussion will center around two issues, one is the potential optimality of relationship-oriented banking as the key characteristic of value-enhancing financial intermediation, the other is the potential complementarity between financial market activities (e.g. underwriting) and bank lending. Section 3 discusses scale and scope economies in banking. In Section 4, the focus shifts to the strategic rationale for choosing a rather broad positioning, and provides the

link to "the theory of the firm." In Section 5, we discuss the public policy concerns as they relate to competitiveness and stability in banking. In the context of the 2007–09 financial crisis, we will also focus on EU anti-trust policy. The conclusion is at Section 6.

2. UNDERSTANDING THE BANKING LANDSCAPE AND ECONOMICS OF BANKING[4]

The banking "landscape" has been heavily affected and shaped by regulation. Banks traditionally operated in a highly regulated environment that essentially aimed at curtailing competition. In the United States most legislation dates from the 1930s, particularly the Glass-Steagall Act of 1933. Entry barriers, including limitations on interstate and intrastate banking, were pervasive as were structural barriers between different financial services, i.e. between banking and insurance, and also between investment banking (financial market activities) and commercial banking (typically making loans and accepting deposits). Complementary legislation sought to reduce competition even further. For example, regulatory caps on deposit rates – Regulation Q – were in effect up to the 1980s. While this article is not about bank regulation, acknowledging the considerable regulatory interference in the industry is important for understanding the structure and evolution of the industry.

Banking in the United States and elsewhere has become more competitive (Stiroh and Strahan, 2003). Deregulation has removed structural barriers. This deregulation was at least in part spurred by information technology developments that allowed for the circumvention of regulation (see, e.g. Freixas and Santomero, 2004). Nevertheless, regulation remains a crucial element of the financial services industry everywhere in the world. This is not surprising because some see too much competition as a threat to financial stability (see Vives, 2001, for an overview).

What this means is that banking is considered "special," and thus developments in the banking industry cannot readily be compared to other industries. Banking has moved though from a very rigid structure to one that has become more diverse and dynamic. As a case in point, for many decades the three "pillars" of the banking industry – products, distribution channels, and the institutional structure of a bank – were not changing at all, while in the last decade, we have seen massive product innovations,

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[4] This section draws on parts of Boot and Marinč (2008a) and Boot (2011).

new distribution channels (internet), and new providers of financial services (e.g. finance corporations).

In this section, we will focus on understanding the impact of this more competitive environment on the precise role being played by banks. We will present key insights from the literature on financial intermediation. We first discuss the role of banks in qualitative asset transformation; i.e. the absorption of risks and the liquidity transformation that are at the core of the banks raison d'être. Subsequently, we discuss the differences and complementarities between bank loans and capital market funding, and the importance of relationship banking. Finally, we will discuss potential conflicts of interest when banks combine lending and capital market activities.

2.1 Relationship Versus Transaction Banking

Traditional commercial banks hold nonmarketable or illiquid assets that are funded largely with deposits. There is typically little uncertainty about the value of these deposits which are often withdrawable on demand. The liquidity of bank liabilities stands in sharp contrast to that of their assets, reflecting the banks' raison d'être. By liquefying claims, banks facilitate the funding of projects that might otherwise be infeasible.[5]

The banks' assets are illiquid largely because of their information sensitivity. In originating and pricing loans, banks develop proprietary information. Subsequent monitoring of borrowers yields additional private information. The proprietary information inhibits the marketability of these loans. The access to information is the key to understanding the comparative advantage of banks (Diamond, 1984). In many of their activities, banks exploit their information and the related network of contacts. This relationship-oriented banking is a characteristic of value-enhancing financial intermediation. The relationship and network orientation does not only apply to traditional commercial lending but also to many areas of "modern banking."

One might be tempted to interpret modern banking as transaction oriented. So does an investment bank – generally considered a prime example of modern banking – facilitate a firm's access to public capital markets. The investment bank's role could be interpreted as that of a broker; i.e. matching buyers and sellers for the firms' securities. In this interpretation investment banks just facilitate transactions, which would confirm

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[5] See Bhattacharya et al. (2004) and Berger et al. (2009) for an overview of the modern literature on financial intermediation.

the transaction orientation of modern banking. The investment banks' added value would then be confined to their networks, i.e. their ability to economize on search or matching costs. As a characterization of modern banking, however, this would describe their economic role too narrowly. Investment banks do more. They – almost without exception – underwrite those public issues, i.e. absorb credit and/or placement risk. This brings an investment bank's role much closer to that of a commercial bank engaged in lending; the processing and absorption of risk is a typical intermediation function similar to that encountered in traditional bank lending.

In lending, a bank manages and absorbs risk (e.g. credit and liquidity risks) by issuing claims on its total assets with different characteristics from those encountered in its loan portfolio. In financial intermediation theory this is referred to as qualitative asset transformation.[6] Underwriting by an investment bank can be interpreted analogously; risk is (temporarily) absorbed and is channeled through to the claim holders of the investment bank. The role of investment banks is therefore more than purely brokerage. Underwriting requires information acquisition about the borrower which is supported by a relationship orientation. A relationship orientation will therefore still be present in investment banking, both in the direction of investors ("placement capacity") and toward borrowing firms.

Nevertheless, in a relative sense their involvement, and particularly that of bulge-bracket investment banks, is more transaction oriented. What will also be true, is that in investment banking relationships depend much less on local presence. Public debt issues are relatively hands off with few interactions between financiers and borrowers over time (Berlin and Mester, 1992; Rajan and Winton, 1995). The full menu of financing options for borrowers includes many other products with varying degrees of relationships. In the continuum between bank loans and public debt issues, we can find, for example, syndicated loans. These are offered by investment banks and commercial banks alike and involve several financiers per loan. Generally, only the lead banks have a relationship with the borrower, and the relationship intensity is somewhere in-between a bank loan and a public debt issue (see Dennis and Mullineaux, 2000; Sufi, 2007).

It is important to note that the relationship aspect does not only involve funding, but also includes various other financial services, e.g. letters of credit, deposits, check clearing, and cash management services. We will not focus on these services per se, but note that the information that

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[6] We do not focus on the costs and benefits of such mismatch on the banks' balance sheets. See Calomiris and Kahn (1991) and Diamond and Rajan (2001) for theories that rationalize jointly the asset and liability structures of banks.

banks obtain by offering multiple services to the same borrower might be valuable in lending (Degryse and Van Cayseele, 2000; Berger and Udell, 2006; de la Torre et al, 2010). For example, the use of checking and deposit accounts may help banks in assessing a firm's loan repayment capability. Thus, the scope of relationships may affect banks' comparative advantages.

2.2 Bank Loans Versus Public Capital Market Financing

What are the comparative advantages of bank loans over public capital market bond financing? And are they substitutes or also complements? First, some comments on the distinct value added of bank lending.

The proximity between financier and firm in bank-lending arrangements may help mitigate information asymmetries. This has several components. A borrower might be prepared to reveal proprietary information to its bank, while it would have been reluctant to do so in the financial markets. More specifically, it may not want to have this information revealed to competitors (Bhattacharya and Chiesa, 1995). A bank might also be more receptive to information because of its role as enduring and dominant lender. This amounts to observing that a bank might have better incentives to invest in information acquisition. While costly, the substantial stake that it has in the funding of a borrower and its often enduring relationship – with the possibility of information reusability over time – increase the value of information. Lummer and McConnell (1989) and Gande and Saunders (2005) provide empirical evidence on the informational value of bank financing. The work of James (1987) first empirically documented the value of renewals of loans, and suggested that banks obtain their primary informational advantage in monitoring borrowers over time rather than by their initial screening activities. The more recent empirical work is somewhat less resolute in drawing this conclusion (see Lummer and McConnell, 1989; Gande and Saunders, 2005).

Such "closeness" between financier and debtor may also have its drawbacks. An important one is the hold-up problem that has to do with the information monopoly a bank may generate in the course of its lending relationship. This may allow the bank to extend loans to a borrower at noncompetitive terms in the future. More specifically, the proprietary information on borrowers that banks obtain as part of their relationships may give them an informational monopoly. In this way, banks could charge ex post high loan interest rates (see Sharpe, 1990; Rajan, 1992). The threat of being "locked in," or informationally captured by the bank, may make the borrower reluctant to borrow from the bank. Potentially valuable investment opportunities may then be lost. Alternatively, firms

may opt for multiple bank relationships. This may reduce the informational monopoly of any one bank, but possibly at a cost. Ongena and Smith (2000) show that multiple bank relationships indeed reduce the hold-up problem, but worsen the availability of credit (see also Carletti et al., 2007).

Another feature is that relationship banking could accommodate smoothing of interest rates over time (see Allen and Gale, 1997). Petersen and Rajan (1995) show that credit subsidies to young or de novo companies may reduce the moral hazard problem and informational frictions that banks face in lending to such borrowers. That is, as in Stiglitz and Weiss (1981), high interest rates could induce risk taking and make banks reluctant to provide short-term loans. A relationship loan that locks in a borrower for more than one period could help because now interest rates could be kept low initially provided rents can be earned in later periods. The point is that without access to "subsidized" credit early in their lives, de novo borrowers would pose such serious adverse selection and moral hazard problems that no bank would lend to them. Relationship lending could make such subsidies and accompanying loans feasible because the proprietary information generated during the relationship produces rents for the bank later in the relationship and permits the early losses to be offset.[7]

The bank–borrower relationship is also less rigid than those normally encountered in the financial market. The general observation is that a better information flow facilitates more informative decisions. In particular, relationship finance could allow for more flexibility and possibly value-enhancing discretion. This is in line with the important ongoing discussion in economic theory on rules versus discretion, where discretion allows for decision-making based on more subtle – potentially non-contractible – information.[8] Two dimensions can be identified. One dimension is related to the nature of the bank–borrower relationship. In many ways, it is a mutual commitment based on trust and respect. This

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[7] The importance of intertemporal transfers in loan pricing is also present in Berlin and Mester (1999). They show that rate-insensitive core deposits allow for intertemporal smoothing in lending rates. This suggests a complementarity between deposit taking and lending. Moreover, the loan commitment literature has emphasized the importance of intertemporal tax-subsidy schemes in pricing to resolve moral hazard (see Boot et al., 1991, and Shockley and Thakor, 1997) and also the complementarity between deposit taking and commitment lending (see Kashyap et al., 2002 and Gatev et al., 2009).

[8] See for example Simon (1936) and Boot et al. (1993). The papers by Stein (2002) and Berger et al. (2005) highlight the value of "soft information" in lending.

allows for implicit – non-enforceable – long-term contracting. An optimal information flow is crucial for sustaining these "contracts." Information asymmetries in the financial market, and the non-contractibility of various pieces of information would rule out alternative long-term capital market funding sources as well as explicit long-term commitments by banks. Therefore, both bank and borrower may realize the added value of their relationship, and have an incentive to foster the relationship.

The other dimension is related to the structure of the explicit contracts that banks can write. Bank loans are generally easier to renegotiate than bond issues or other public capital market funding vehicles (see Berlin and Mester, 1992). The renegotiation allows for a qualitative use of flexibility. Sometimes this is a mixed blessing because banks may suffer from a soft budget constraint: borrowers may realize that they can renegotiate ex post, which could give them perverse ex ante incentives. The soft budget constraint problem has to do with the potential lack of toughness ("bargaining power") on the bank's part in enforcing credit contracts that may come with relationship banking proximity (see Boot, 2000). The problem is that borrowers who realize that they can renegotiate their contracts ex post may have perverse incentives ex ante (see Bolton and Scharfstein, 1996; Dewatripont and Maskin, 1995). In reality, bank loans often have priority to resolve this problem. With priority, a bank may strengthen its bargaining position and thus become tougher.[9] The bank could then credibly intervene in the decision process of the borrower when it believes that its long-term interests are in danger. For example, the bank might believe that the firm's strategy is flawed, or a restructuring is long overdue. Could the bank push for the restructuring? If the bank has no priority, the borrower may choose to ignore the bank's wishes. The bank could threaten to call the loan, but the borrower – anticipating the adverse consequences not only for him but also for the bank – realizes that the bank would never carry out such a threat. When the bank has priority, the prioritized claim may insulate the bank from these adverse consequences. It could now credibly threaten to call the loan, and enforce its wishes upon the borrower. This identifies an important advantage of bank financing: timely intervention.[10]

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[9] See Dewatripont and Maskin (1995) on the issue of soft budget constraints. Diamond (1993), Berglöf and von Thadden (1994), Gorton and Kahn (1993), and von Thadden et al. (2010) address the priority structure.

[10] One could ask whether bond holders could be given priority and allocated the task of timely intervention. Note that bond holders are subject to more severe information asymmetries and are generally more dispersed (i.e. have smaller stakes). Both characteristics make them ill-suited for an "early intervention task."

These arguments put some limitations on the desirability of investments by banks in the equity of corporations. Equity is a very junior claim and thus softens a bank's possibility to intervene for very much the same reasons as junior debt. This contrasts somewhat with the emphasis that corporate finance theory puts on agency problems, which would suggests that having a "balanced" combined debt and equity claim on a corporation might be optimal. From a timely intervention point of view this does not seem desirable. This might explain that equity intermediation is typically in the hands of private equity (PE)-firms and/or bulge-bracket global investment banks that engage much less in relationship banking and focus more on transactions and the associated capital market activities.

2.3 Complementarities Between Bank Lending and Capital Market Funding

The observations in the previous section highlight potential complementarities between bank lending and capital market funding. We argued that prioritized bank debt may facilitate timely intervention. This feature of bank lending is valuable to the firm's bondholders as well. They might find it optimal to grant bank debt priority over their own claims, and in doing so delegate the timely intervention task to the bank.[11] Consequently, the borrower may reduce its total funding cost by accessing both the bank-credit market and the financial market.

Diamond (1991) and Hoshi et al. (1993) further develop arguments highlighting the complementarities of bank lending and capital market funding. Hoshi et al. (1993) show that bank lending exposes borrowers to monitoring, which may serve as a certification device that facilitates simultaneous capital market funding.[12] Diamond (1991) shows that borrowers may want to borrow first from banks in order to establish sufficient credibility before accessing the capital markets. Again, banks provide certification and monitoring. Once the borrower is "established," it switches to capital market funding. In this explanation, there is a sequential complementarity between bank and capital market funding. In related theoretical work, Chemmanur and Fulghieri (1994) show that the quality of the bank is of critical importance for its certification role. This suggests a positive

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[11] The bondholders will obviously ask to be compensated for their subordinated status. This – ignoring the timely intervention effect – is a "wash," meaning the priority (seniority) and subordination features can be priced. That is, as much as senior debt may appear to be "cheaper" (it is less risky), junior or subordinated debt will appear to be more expensive.

[12] See also Slovin et al. (1988) and Houston and James (1996).

correlation between the value of relationship banking and the quality of the lender.

The overall conclusion is that bank lending potentially facilitates more informative decisions based on a better exchange of information. While not universally valuable, this suggests a benefit of relationship-oriented banking.

Another manifestation of potential complementarities between bank lending and capital market activities is the increasing importance of securitization. It is a process whereby assets are removed from a bank's balance sheet. Securitization is an example of unbundling of financial services where banks originate assets but investors by buying asset-backed securities provide the funding. Asset-backed securities rather than deposits then fund dedicated pools of bank-originated assets. More specifically, the lending function can be decomposed into four more primal activities: origination, funding, servicing, and risk processing. Origination subsumes screening prospective borrowers and designing and pricing financial contracts. Funding relates to the provision of financial resources. Servicing involves the collection and remission of payments as well as the monitoring of credits. Risk processing alludes to hedging, diversification, and absorption of credit, interest rate, liquidity, and exchange-rate risks. Securitization decomposes the lending function such that banks would no longer fund the assets, but continue to be involved in the primal activities.

What this implies is that securitization leads to a reconfiguration of banking. Banks would continue to originate and service assets, while also processing the attendant risks in order to sustain these activities. Banks would still screen and monitor borrowers, design and price financial claims, and provide risk management services. As such, securitization would preserve the incremental value of banks.

In the United States, securitization has been important for a long time, but mainly for car loans, mortgages, and credit-card receivables. The standardization and modest size of these credits allows diversification of idiosyncratic risks upon pooling. More recently, more customized and heterogeneous commercial loans have been increasingly being securitized. These tend to be more information sensitive. Their quality is therefore more dependent on the rigor of initial screening and subsequent monitoring. These considerations, however, do not preclude the securitization of business credits. In fact, transactions involving the securitization of business credits have become more common, including synthetic transactions (credit default swaps: CDS), and CDOs (Collateralized Debt Obligations). Moreover, a rather new market for the securitization via asset-backed commercial paper (ABCP conduits) had been growing rapidly.

As the subprime crisis starting in the summer of 2007 has shown, these

developments are not without problems. In particular, it is important to note that much of the securitization involves the financing of long-term assets with short-term funding, which induces substantial liquidity risk. Recent events cast doubt on the optimality of such strategies.[13] Also, the residual risk with the originating institutions appeared to have been minimal such that monitoring incentives were compromised (see, Mian and Sufi, 2009). Apparently, the eagerness of banks to securitize claims – preserving the continued inflow of lucrative fees – may well have had a negative effect on the quality of loans that were originated (e.g. promoted subprime lending). And indeed, this appears to have gone hand-in-hand with insufficient residual risk at the originating institutions. The latter may have further undermined incentives to maintain appropriate standards in lending.[14]

2.4 Relationship Banking: Conflicting Views

The extant literature clearly points at information acquisition and relationship banking as key distinguishing features of financial intermediaries. An important question then is how the anticipated more competitive environment of banking could affect relationship banking? Some believe that a more competitive environment may threaten relationships; others however have argued the exact opposite. We first consider the viewpoint that more competition implies less relationship banking. The argument here is that with more competition, borrowers might be tempted to switch to other banks or to the financial market. When banks anticipate a shorter expected "life-span" of their relationships they may respond by reducing their relationship-specific investments. Banks may then find it less worthwhile to acquire (costly) proprietary information, and relationships suffer. Interestingly, shorter or weaker relationships may then become a self-fulfilling prophecy. This argument highlights the negative spiral that may

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[13] Another caveat is that some of this activity in securitization is undoubtedly induced by capital arbitrage; the Basle II capital requirements may mitigate this somewhat.

[14] As stated, credit enhancement is important for the credibility of the originator that engages in securitization. Apparently, the eagerness of the market (and undoubtedly the willingness of credit-rating agencies to go along) made this safeguard disappear. The disciplining mechanism broke down; residual risk with the arranger was minimal or framed as liquidity guarantees to off-balance street vehicles without appropriately realizing the inherent risks. That is, banks guaranteeing the refinancing of commercial paper in ABCP transactions via stand-by letters of credit; via this channel, the recent subprime crisis has inflicted considerable losses on some banks.

undermine relationship banking. An important observation is that this negative spiral might be self-inflicted. While competitive banking challenges relationships, the bankers' response – cutting back on information acquisition – may actually damage relationship banking most.

A complementary negative effect of competition on relationship banking may come from the impact that competition has on the intertemporal pricing of loans. Increased credit market competition could impose constraints on the ability of borrowers and lenders to intertemporally share surpluses (see Petersen and Rajan, 1995). In particular, it becomes more difficult for banks to "subsidize" borrowers in earlier periods in return for a share of the rents in the future. Thus, the funding role for banks that Petersen and Rajan (1995) see in the case of young corporations (see our discussion in Section 2.2) may no longer be sustainable in the face of sufficiently high competition. This implies that excessive interbank competition ex post may discourage bank lending ex ante.

An alternative – diametrically opposite – view is that competition may actually elevate the importance of a relationship orientation as a distinct competitive edge. This may somewhat mitigate the negative effect that pure price competition would otherwise have on bank profit margins. Boot and Thakor (2000) show that a relationship orientation can alleviate these competitive pressures, because it can make a bank more unique relative to its competitors. A more competitive environment may then encourage banks to become more client driven and customize services, thus focusing more (rather than less) on relationship banking.[15] They distinguish between "passive" transaction lending and more intensive relationship lending by banks. Transaction lending competes head-on with funding in the financial market. Competition from the financial market (as well as interbank competition) will lead to more resource-intensive relationship lending, and reduce transaction lending, since this mitigates the margin-reducing effects of price competition. The absolute level of relationship lending is, however, non-monotonic in the level of competition: initially competition increases relationship lending, but when competition heats up "too much," investments in bank lending capacity will suffer and that may start to constrain relationship lending.

As we have indicated, relationships may foster the exchange of

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[15] In related work, Hauswald and Marquez (2006) focus on a bank's incentives to acquire borrower-specific information in order to gain market share, and Dinç (2000) examines a bank's reputational incentives to honor commitments to finance higher quality firms. Song and Thakor (2007) theoretically analyze the effect of competition on the mix between relationship and transaction lending, and focus on fragility issues in particular.

information, but may simultaneously give lenders an information monopoly and undermine competitive pricing. As discussed in Section 2.2, the informational monopoly on the part of the "inside" lender might be smaller if a borrower engages in multiple banking relationships. This would mitigate the possibilities for rent extraction by informed lenders and induce more competitive pricing (see Sharpe, 1990, and also Petersen and Rajan, 1995).[16] There appears however a trade-off. The "sharing" of borrowers might reduce each lender's incentive to invest in the relationship. The optimal positioning from a borrower's point of view is thus tricky as well. In our view, relationship banking is thus to stay. An exclusive dependence on transaction-oriented finance may induce market failures when problems of asymmetric information are insurmountable. This argument is used by some to highlight the virtues of (relationship oriented) bank-dominated systems (e.g. Germany and Japan) vis-à-vis market-oriented systems.[17]

2.5 Conflicts of Interest and Synergies in Combining Lending and Capital Market Activities

Related concerns are the potential synergies and costs (including conflicts of interest) of banks combining lending and capital market activities. A lot of research has been done on potential conflicts of interest in universal banking. This potentially adds insights that help determine the optimal scope of banking. However, the extant research on this question is of somewhat limited use. It is virtually all solely looking at the scope economies in pre-Glass Steagall Act US banking (pre-1933). Also, the studies focus on a very high aggregation level, i.e. the value of combining investment and commercial banking activities (see Kroszner and Rajan, 1994; Puri, 1996; Ramírez, 2002). In a similar spirit, Drucker (2005) shows that junk rated firms and companies in local lending relationships are more

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[16] An extensive empirical literature focuses on the effect of consolidation in the banking sector on small business lending. This consolidation may in part be a response to competitive pressures (see also Section 4). The effects on small business lending, however, are not clear cut. Sapienza (2002) finds that bank mergers involving at least one large bank result in a lower supply of loans to small borrowers by the merged entity. However, Berger et al. (1998) show that the actual supply of loans to small businesses may not go down after bank mergers, since they invite entry of de novo banks that specialize in small business lending.

[17] An interesting strand of the academic literature focuses on the design of financial systems; see for example Allen (1993) and Allen and Gale (1995). One objective of this literature is to evaluate the pros and cons of bank-dominated versus financial market-dominated systems.

likely to select an integrated (universal) commercial investment bank when they expect to issue public debt in the future. This revealed preference in favor of such integrated banks suggests that there are benefits for banks to use private information from lending in investment banking.

A similar rather positive picture emerges if one looks at US banking following the 1999 Financial Services Modernization Act. It appears that information collected through the banks' commercial lending businesses may have reduced the costs of underwriting debt and equity (see Drucker and Puri, 2005; Schenone, 2004). Gande (2008) concludes that commercial banks have distinct benefits in underwriting leading to lower issuer costs. He also concludes that "the value of banking relationships appears to be largest for non-investment grade, small and IPO firms for whom one would ex ante expect the benefit of bank monitoring to be the highest." These arguments could imply that stand-alone investment banks could benefit from being linked to commercial banks. This could justify some of the recent developments where several investment banks have shown interest in commercial banks or even have been taken over by commercial banks.[18]

These observations can also be related to the recent proliferation of private equity firms. One could interpret private equity as intermediation driven from the equity side. That is, private equity firms bring together funding from a group of investors ("partners") and invest that capital as equity in businesses in which they take a clear interest. They extensively involve themselves in monitoring and advising these businesses. How does this relate to the role of banks coming primarily from the debt side? Banks do play a role as venture capitalists, particularly for later stage financing where subsequently a valuable relationship on the lending side may develop. Thus, banks participate with higher probability if subsequent lucrative lending activity may come about (Hellmann et al., 2008).[19] However, permanently combining equity and lending roles might not be optimal, see the analysis on the value of "hard claims" in Section 2.2.[20] In

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[18] Note that much of this activity is motivated by the acute problems that investment banks face in the subprime crisis. In a sense, being part of a commercial bank gives access to additional safety nets, e.g. deposits and deposit insurance, and extra liquidity facilities with the central banks. It is for sure premature to interpret this as permanent, or as an indication of what is truly optimal. See also Section 3.3 on scale and scope economies in banking.

[19] Observe that a bank may also have (participations in) PE-subsidiaries that operate independently from the other businesses of the bank.

[20] One should distinguish the debt-focused investment banking activity typical for (traditional) commercial banks from the activities of true bulge-bracket investment banks. The latter – say the top 10 global investment banks – increasingly invest their own capital in M&A transactions and other deals, bridging to some

particular, equity as a junior security may undermine a bank's bargaining power, and thus compromise its role in timely intervention. Also soft budget constraint problems may then (re)emerge.

What this discussion indicates is that the impact of competition on relationship banking is complex; several effects need to be disentangled. What seems to have emerged, though, is that greater inter-bank competition may very well elevate the value of relationship banking. Pure price competition is an unattractive alternative. However, truly creating an added value in relationship banking may require skills that many banks do not (yet) have. Without those skills a retreat from relationship banking (including, for example, 'downsizing' of the branch network) might be unavoidable.

2.6 Conclusions

The overall picture emerging from the overview of economic theory is that banks play an important role in the process of financial intermediation. Banks process information which is often proprietary. We have extensively discussed the role of banks in lending, and concluded that they will continue to have a distinct role in this activity. Securitization of bank loans has some impact but will not fundamentally affect the relationship-oriented role of banks, although obtaining some debt capital market capabilities might become necessary.

What this discussion indicates is that the impact of competition on relationship banking is complex; several effects need to be disentangled. However, recent empirical evidence (see Degryse and Ongena, 2007 and Presbitero and Zazzaro, 2010) seems to support the Boot and Thakor (2000) prediction that the orientation of relationship banking adapts to increasing interbank competition, so higher competition does not drive out relationship lending. Despite this adaptation, there is also evidence that in recent years the geographic distance between borrowers and lenders has increased, and that this has been accompanied by higher loan defaults (see DeYoung et al., 2008).

While most of the arguments in this section focus on the banks' role in lending, the applicability of the analysis is broader. Banks facilitate a fine-tuning of intermediation services, and capitalize in this way on their

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extent the gap with PE-firms (see for example The Economist, Risk and reward, Special report on international banking, May 19, 2007). This development may also have had an impact on the financial difficulties that particularly stand-alone investment banks have faced following the 2007–2008 subprime crisis. In undertaking these activities, investment banks may have overlevered themselves and made themselves extremely dependent on short-term wholesale funding.

relationships. The growing competitive pressures in the industry will more than ever force banks to search for comparative advantages. Offering tailored, relationship-oriented financial services is only possible for those institutions that can capitalize on distinct skills. The optimal scale and scope has not been addressed. This is covered in the following section next.

3. STRATEGY OF FINANCIAL PLAYERS AND SCALE AND SCOPE ECONOMIES

What drives financial players in choosing their scale and scope of operations? This question is important because the size and particularly the complexity of financial institutions is a concern to regulators and supervisors.[21] While the current statements in the industry might suggest that institutions "go back to basics," i.e. reduce complexity, focus and simplify product offerings (KPMG, 2011), we expect the scale and scope extending strategies to continue. As we will discuss below, going for size appears to continue to be a driver in the industry. This is part of the ongoing underlying market forces in the industry. Whether size really offers scale or scope economies is a totally different question. Research on this remains rather inconclusive, or in the words of Richardson et al. (2011): "Indeed, the recent studies mirror the findings [. . .] some 15 years earlier [. . .] there was no predominance of evidence either for or against economies of scale in the financial sector."

3.1 Observations on Scale and Scope

A first observation is that banks like to *combine* many different activities. This distinguishes banks from many of their competitors, e.g. non-banking

[21] We will not focus on (historic) differences in financial systems across countries. Financial systems are often characterized as either being bank-based (continental Europe) or financial market driven (US, UK). In the former, bank financing and relationships are dominant, while direct funding from the financial market plays a more important role in the latter. Financial innovations may have affected these systems differently. The distinction is not as sharp as the dichotomy might suggest, e.g. more than half of US businesses is bank-financed and financial markets clearly play a role in continental Europe; hence no system is fully market or bank-driven. Nevertheless, an interesting question is whether the more recent proliferation of financial innovations might impact those systems differently. One observation is that bank-based and financial market driven systems might have become more alike. The marketability associated with recent financial innovations may have weakened the distinction between bank-based and financial market driven systems.

financial institutions like mutual funds and finance companies. The latter often choose to specialize and therefore are much more transparent. Banks generally choose to diversify their activities. Although few would readily deny that some degree of diversification is necessary, banks seem to engage in a very broad variety of activities. The question that arises is, what is the optimal conglomeration of bank activities, and to what structure will the industry migrate?

Until recently, the complexity (or opaqueness) meant that even bankers themselves did not really know the profitability of many of their activities. Cross-subsidies were the rule, and internal cost accounting was rudimentary. While cross-subsidies may sometimes be an optimal competitive response, often they will not be sustainable in a competitive environment. A related issue is that implicit or explicit government guarantees and too-big-to-fail (TBTF) concerns might give artificial competitive advantages to size. Universal banks, while not particularly efficient (BCG, 2010), might have sufficient "protected" revenues to compete with more focused players.[22]

The coincidence of the consolidation trend in the financial sector with increased competition has led many to believe that the massive restructuring observed in banking is a response to a more competitive environment. That is, as commercial banking becomes more competitive, banks need to examine all possible ways to eliminate inefficiencies from their cost structures, for example, by merging with other banks and realizing scale efficiencies through elimination of redundant branches and back-office consolidation. Moreover, diminishing margins in commercial banking might have invited banks to look outside their traditional domain. Some non-banking activities may (appear to) offer higher margins and make scope expansion look attractive. The key question is whether these responses indeed create value.

Scale and scope economies are often cited as the rationale for why financial institutions tend to growth in size and complexity (scope) over time. But are scale and scope economies truly present? Sources of scale and scope economies include (see Boot, 2003; and Walter, 2003): *i.* information-technology related economies; *ii.* reputation and marketing/brand name related benefits; *iii.* (financial) innovation related economies; and *iv.* diversification benefits. Information technology related economies

[22] Indeed, this is one of the complaints of more focused investment banking institutions. Universal banks can leverage their balance sheet (read: cross-subsidize) to secure investment banking business (e.g. *Financial Times*, March 21, 2011, p. 17: "US banks face fresh scrutiny on lending").

particularly refer to back-office efficiencies and distribution-network related benefits. Transaction processing offers distinct scale economies. And information technology developments facilitate an increasing array of financial products and services to be offered through the same distribution network, and thus allow for cross-selling. Reputation and brand name/marketing related economies may be present in the joint marketing of products to customers. Brand image is partially marketing related, but is also related to the notions of "trust" and "reputation." (Financial) innovation related economies particularly refer to large(r) institutions that might be in a better position to recoup the fixed costs of those innovations.

Diversification benefits are (at first sight) more controversial. In many cases, conglomeration may lead to a valuation discount which could point to (anticipated) inefficiencies. This is in line with corporate finance theory that tells us that investors can choose to diversify and that this does not need to be done at the firm level. However, key to the business of banking is risk processing and absorption. Moreover, confidence in a bank requires it to be safe. Thus, diversification is then needed to be able to absorb risks and to be safe. Observe also that several bank activities benefit from a better credit rating, which suggests that diversification at the bank level has value.[23]

3.2 Are Scale and Scope Benefits Real?

Scale and scope economies in banking have been studied extensively. A survey paper by Berger et al. (1999) concludes that, in general, the empirical evidence cannot readily identify substantial economies of scale or scope. Illustrative is Saunders (2000). He cites 27 studies, 13 of which found diseconomies of scope, six found economies of scope and eight were neutral.[24]

An important caveat is that this research mainly involves US studies using data from the 1970s and 1980s. Apart from potential methodological shortcomings the results therefore do not capture the dramatic structural and technological changes in banking that have taken place since then. Furthermore, they reflect the historic fragmentation of the US banking industry due to severe regulatory constraints on the type

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[23] For many guarantees or contracts and activities that involve recourse, the credit standing of the guarantor is crucial for the credibility of the contract. Mester (2008) emphasizes that bank production decisions affect bank risk. Scale and scope related decisions have via diversification an effect on risk, and that in turn may affect choices about risk exposure.

[24] See Section 3.3.

of banking (banks could engage in commercial banking or investment banking, but not both) and the geographic reach of activities (limits on interstate banking) that were present till the deregulation in the 1990s (see Calomiris and Karceski, 1998).

Recent studies examine the existence of a diversification discount for financial institutions. Laeven and Levine (2007) confirm the existence of a diversification discount in banks that combine lending and non-lending financial services, and suggest that the potential economies of scope in financial conglomerates are not large enough to compensate for potential agency problems and inefficiencies associated with cross-subsidies.[25] Rajan et al. (2000) emphasize that, even though conglomerates trade at a discount on average, 39.3 percent of the conglomerates trade at a premium. They show that the interrelation between activities within the conglomerate is of crucial importance. Diversified firms can trade at a premium if the dispersion between activities is low. High dispersion induces inefficiencies which point at the importance of focus within the conglomerate. In particular, one should look at what type of mergers and acquisitions involve scale and scope benefits. Recent research suggests that mergers with both a geographic and activity focus are most value enhancing. Similarly, in analyzing scope and scale issues, one should focus on the type of activities. What are the scale economies in each activity? And which product mix offers true scope economies?

In this spirit, DeLong (2001) looked at the shareholder gains – more specifically, the immediate announcement effect on share prices – from focused versus diversifying bank mergers in the US between 1988 and 1995. She found that focused mergers, both on the level of activity and geography, have positive announcement effects. Moreover, focus in activities was shown to be more important than geographical focus, albeit the latter was important as well. Activity-diversifying mergers had no positive announcement effects. These results point at the presence of scale rather than scope economies.

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[25] Schmid and Walter (2009) confirm the Laeven and Levine (2007) results, and verify that this discount is indeed caused by diversification, and not by inefficiencies that already existed before the diversification. There are two important qualifications on conglomerate discounts as measured in the literature (following the well-known Berger and Ofek (1995) study that as one of the first identified persistent discounts). Chevalier (2004) shows that controlling for the pre-conglomeration performance of businesses is important: inefficiencies measured after a merger often already existed prior to the merger. A second qualification is that discounts are often measured as a ration (e.g. return on invested capital). A merger that leads to larger investments may reduce the average return but increase the absolute overall return (in $s).

The typical result in these earlier studies was however that even scale economies were exhausted at relatively small bank sizes. More recent evidence points at more persistent scale economies. Wheelock and Wilson (2009); and Feng and Serletis (2010) find increasing returns to scale and Elsas et al. (2010) find increasing returns to scope also for larger financial institutions. Apart from methodological issues (see Mester, 2010), this might be driven by information technology developments that might only have emerged in more recent data.

3.3 Further Observations on Scale and Scope

Additional general observations can be made. First, scale and scope economies are empirically often dominated by adverse changes in managerial efficiency. For example, inefficiencies in managing larger organizations may mitigate possible scale and scope benefits.[26] Second, scale and scope economies are difficult to disentangle from changes in market power. Increasing scale and scope may facilitate market power, and thus elevate profitability in the absence of scale and scope economies. This might have become less important recently, since alternative distribution networks (e.g. direct banking) and the proliferation of financial markets may have reduced the effective market power of locally concentrated financial institutions, and elevated the contestability of markets. Third, to the extent that mergers may change the structure and dynamics of the industry, the abnormal stock returns associated with merger announcements reflect such changes. This makes event studies on bank mergers harder to interpret.

A possibly important negative effect of size on performing could follow from the literature on "soft" information and organizational structure. Consolidation may undermine the incentives of banks to produce and utilize soft information. In particular, recent research has shown that large banks are less capable in using soft information (see Berger and Udell, 2002; Stein, 2002, and for empirical evidence Berger et al., 2005). Larger (more centralized) banks base their credit approval decisions more on hard (verifiable) information, whereas smaller (more decentralized)

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[26] Berger (2000) offers an illustration by observing that managerial ability to control costs creates a differentiation in bank performance that may well dominate potential scale economies. The difference between an "average" bank and the "best practice bank" is about 20 percent of the costs of the average bank, while cost scale economies in the 1980s did not exceed 5 percent. Berger argues that managerial ability may have a similar effect on revenue efficiency. See also the industry reports by McKinsey (2005) and BCG (2005).

banks can more easily use soft information. What this could imply is that relationship banking suffers. This might be particularly important for the financing of smaller and informationally opaque firms, and also has implications for the optimal decision-making structure of larger financial institutions (see Stein, 2002; Liberti, 2003).[27] These arguments also point at the importance of proximity in relationship banking (see Degryse and Ongena, 2005).[28]

Isolating potential scale and scope economies is important. On the demand side, the proliferation of savings products and their link to pensions, mutual funds, and life insurance clearly pushes for joint distribution, and thereby suggests economies of scope. IT developments might have made it possible to better exploit potential scope economies with multiple product offerings to a particular customer group, using new direct distribution channels with relatively easy access to (formerly) distant customers. The very same IT developments however offer also better possibilities for focused single-product players. Interfaces (may) develop that help to bundle the product offerings of specialized providers, thereby becoming a substitute for an integrated provider. The lesson is that only very well managed integrated financial services firms may realize positive scope economies. The execution (X-efficiency) is probably more crucial than ever before, since inefficiencies will be exploited by single-product players.

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[27] Strahan (2008), in a recent overview paper on bank structure and lending, asks for more research on this issue. The observed effect of mergers on lending behavior could be spurious, since mergers could have been motivated by a need for granting bigger credits.

[28] A question is whether larger institutions could successfully imitate a "multi-local approach" in which subsidiaries would focus on local characteristics of individual countries, and be delegated enough autonomy. But the holding company would supply activities where scope and scale economies would be the biggest. Rotation practices could then (theoretically) bring better governance in subsidiaries compared to stand alone banking firms. As Unicredit puts it, "UniCredit recognizes the importance of specialization. The group utilizes a divisional business model that optimizes its ability to meet the needs of a variety of customer segments, offering personalized services. UniCredit's divisional model is based on identifying well-defined business areas common to all of the markets in which the group operates: retail, corporate, private, investment banking and asset management. The emphasis is on creating specialized product factories and on centralizing support services. To apply this model, UniCredit uses a multi-local approach. This approach is consistent with the group's goal of being recognized as a highly capable domestic player in each of the markets in which it is present. Emphasis is placed on the value of establishing a presence in local communities. Global product factories are a key feature of the divisional model. They can help exploit the growth potential inherent in UniCredit's vast branch network." (http://www.unicreditgroup.eu/en/Investors/Strategy.htm).

What this means is that it is very unlikely that a single strategy will dominate in the financial services sector.

The same arguments apply to the vertical disintegration of the value chain. Ultimately, it does not seem unrealistic to expect the emergence of, for example, product specialists without distribution network. The scale economies and the benefits coming from focus could be substantial (see also McKinsey, 2002). But in an industry that is reconfiguring itself, specializing in one segment of the value chain might for now be too risky a strategy. Banking is too much in turmoil and specialization within the value chain may lead to an overly vulnerable dependence on other players.[29]

In the particular context of bank-insurance mergers several other comments can be made. Apart from distribution-related synergies, distinct benefits on the funding side are often mentioned. The mismatch between assets and liabilities on the bank's balance sheet (short-term funding, long on the asset side) is typically the reverse of that of an insurer (long-term obligations). Corporate finance theory would again be skeptical, since the mismatch can be resolved via hedging and does not necessitate a merger.

Another argument for combining life insurance and banking is that it could augment the total asset management pool, and thus offer scale economies. While this may be true, more recently banks and insurers have learned that the asset-management operation requires distinct skills and is not per se profitable as a passive spin-off from other (feeding) activities. Thus, synergies are present, but not necessarily dominant. This is not to say that combining banking and insurance with an appropriate customer focus could not be value enhancing. As stated earlier, combining banking and insurance could offer synergies in distribution. This builds on the distribution network-related benefits discussed earlier.

However, other factors may undermine the possibility for realizing scope benefits. For example, due to national tax regulations, life insurance needs to be tailored to each specific country. Also other differences exist between countries and sectors in terms of (corporate) culture, law, supervision, etc. These complications could make it important to have well-focused operations outside the home market and abstain from scope-expanding strategies that would complicate the operation even more. In

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[29] On the benefits of vertical (dis)integration in the financial services industry there is little empirical work. An interesting exception is a paper by Berger et al. (2002) that looks at profit scope economies in combining life and nonlife in the insurance industry. They find that conglomeration (and hence scope) might be optimal for larger institutions that are primarily retail/customer focused and have vertically integrated distribution systems.

some cases, this also means that one should abstain from broad cross-border acquisitions, and only choose to go cross-border where the specific activity requires it. Scope economies need to be carefully examined and linked directly to specific market segments across clients, products, and geographic areas of operations (see also Smith and Walter, 1997).[30]

4. IMPACT ON COMPETITION AND INDUSTRY EVOLUTION

It is worth noting that decisions about scale and scope today (involving choices about clients, products, and geographic presence) are not final. Strategic considerations could enter the decision-making process. For example, the choices being made currently could seek to keep options open due to the anticipation of further restructuring once more information becomes available. This is important for interpreting the restructuring that we now observe. The current restructuring is possibly motivated by strategic considerations and may not give a good indication about what the future structure of the financial services sector will be.

The explanation developed in this section is that strategic uncertainty about future exploitable core competencies may dictate broadening of scope. The basic idea is as follows. Suppose a financial institution contemplates entering a new market. The problem is that the financial institution is highly uncertain about whether it has the skills to compete effectively in that market, and/or there might be uncertainty about the (ultimate) importance of that market. It has two choices. It can wait until that future time. This "saves" on costly resource allocation today, yet also prevents learning and obtaining a possibly valuable first mover advantage when that new market materializes. Alternatively, it can enter the market "early" and discover what its skills are, and gain potentially valuable first-mover advantages. This strategic perspective offers potentially valuable

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[30] This discussion ignores financial stability implications, particularly the externalities that financial institutions can cause. Two issues can be identified. One is the general discussion on the interaction between stability and competition. This is a research area that as of yet lacks clear answers, see for example Boyd and De Nicoló (2005) and Boot and Marinč (2008b). The other relates to the recent more or less forced takeover of investment banks by commercial banks. The issue is that investment banks could then benefit from the government safety net. If the safety net grants an implicit (or explicit) subsidy (in this case via access to deposits and deposit insurance, and Federal Reserve System (FED) liquidity facilities), this can obviously affect the privately optimal choices of configuration.

insights for the current restructuring in the industry. We first frame this strategic analysis within the context of the "theory of the firm."

4.1 Link to the "Theory of the Firm"

While this chapter puts the concepts of strategic uncertainty and learning in the context of banks, the ideas can be put in the more general context of: "The theory of the firm." The boundaries of firms are being constantly reconfigured, yet our understanding of how these boundaries should be drawn remains incomplete. In the theory of the firm, these questions were first studied by Coase (1937). His insight was that the boundaries of firms are determined by the transaction costs of coordinating production under imperfect information; these costs may mean that it is less costly to include certain activities within the firm than to subject them to market exchange. This insight has subsequently been fleshed out and refined by Williamson (1975, 1985), Grossman and Hart (1986), and Hart and Moore (1990). What has emerged is an improved understanding of the role of firm boundaries in providing incentives. Much of this understanding has come from an examination of the "hold-up" problem (e.g. Klein et al. (1978) and Grout (1984)). This analysis has shown that when transacting parties must make relationship-specific investments in an environment of incomplete contracting, it is sometimes better to integrate the transacting parties into a single firm.[31] The reason is that, as independent contractors, one of the parties may find itself being "held-up" by the other, thereby unable to get an adequate return on its relationship-specific investment after the investment is made. The resulting dilution of investment incentives may make market-mediated transactions prohibitively expensive.[32]

While these contributions have significantly enhanced our understanding about why firms exist and the benefits they offer relative to

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[31] Rajan and Zingales (1998) provide a novel interpretation of why transactions take place within a firm, as opposed to the marketplace. They argue that by bringing these transactions within the firm, the firm has a greater ability to restrict employee access to key firm resources. The firm thereby empowers (i.e. provides access) only to those employees who make firm-specific investments.

[32] Countervailing forces are suggested in the important work of Berle and Means (1932). They focus on the agency problems associated with the separation of ownership and control, which are particularly common to large organizations. This literature has led to insightful work on security design (see Aghion and Bolton, 1992), as well as on internal organizational issues, such as internal capital markets. See Gertner et al. (1994) for work on this issue, and Bolton and Scharfstein (1998) for an overview of these and other theory of the firm issues.

market-mediated transactions, they leave unattended some interesting features of firms. As Holmstrom and Roberts (1998) point out:

> It seems to us that the theory of the firm, and especially work on what determines the boundaries of the firm, has become too narrowly focused on the hold-up problem and the role of asset-specificity . . . Information and knowledge are at the heart of organizational design . . . In light of this, it is surprising that the leading economic theories of firm boundaries have paid almost no attention to the role of organizational knowledge. The subject certainly deserves more scrutiny.

The challenge then is to begin to develop a theory of the firm based on information uncertainty and learning that can explain firm boundary choices in settings in which hold-up problems are small and relationship-specific investments may be high.[33] To address this challenge in an environment of information uncertainty and learning, consider a firm that has an existing portfolio of assets. In redrawing its boundaries, the firm must decide whether to add a new asset to its portfolio and/or divest an existing asset. This decision must be made in light of information uncertainty about the profitability of the new asset in a market demand sense and uncertainty about whether the firm has the skill to manage the new asset. If these uncertainties are large enough,[34] the firm may decide not to acquire the new asset. The key for the firm in redrawing its boundaries is to figure out its optimal learning and entry strategies that help resolve these uncertainties.

4.2 Conceptualizing Strategic Uncertainty in Banking

One can explain scope expansion as a strategy by a financial institution where it aims to reserve the right to play in a variety of "new" activities.[35] We can conceptualize this as follows. Start out with a financial services sector with narrowly defined existing activities and ask whether financial institutions should expand into a "new" activity. A key feature is that there is strategic uncertainty about the demand for this new activity, i.e. the activity has prospects only in the long run and demand may not materialize. The institution must decide whether or not to expand in this activity, and if so, whether to enter early or late. Early entry is costly:

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[33] We also abstain from the agency problems as in Berle and Means (1932).

[34] One could add as third source of uncertainty whether the new asset will be compatible with the firm's existing assets.

[35] This is clearly linked to the literature on real options (see Kulatilaka and Perotti, 1998).

demand may not materialize (entering early requires investments to be made prior to the resolution of demand uncertainty). Moreover, the scope expansion associated with investing in strategic options could reduce the competitiveness of existing operations (say due to dilution of focus). However, early entry offers potential strategic advantages. In particular, early entry could lead to the discovery of skills ("learning") that would allow for a more efficient delivery of the new activity and hence make the financial institution a more credible competitor once the prospects of this activity become clear.

The question is: when will the benefits of early entry outweigh the costs? This trade-off is complicated. Key factors include the competitive environment of the bank's existing activities and the anticipated competition for the new activity. The competitive environment of the existing activities enters the analysis because of the investment and risks associated with early entry in the new activity. If financial services are very competitive, financial institutions may lack "deep pockets" and be unable to absorb the investment and risks that come with early entry. An immediate implication is that investments in strategic options and thus the adoption of broader, less-focused strategies will be observed in less competitive industries, whereas firms in competitive industries will embrace more focused strategies. This could explain why continental European financial institutions generally follow broad strategies. Their local market power allows them to afford the "widening of scope strategy" and benefit from its potential future strategic advantages.

The anticipated future competitive environment for the new activity matters as well. If the financial institution anticipates facing little or no competition in this activity in the future, early entry – with its accompanying cost of dilution of focus – is unnecessary because a competitively unchallenged institution can operate successfully in this market without the benefit of early skills discovery. At the other extreme, when the anticipated competition for the new activity is very intense (perhaps due to many potential future competitors), early entry may once again be suboptimal since competition reduces anticipated future profits. This leads to the prediction that moderate anticipated competition in the new activity facilitates early entry. Table 5.1 summarizes the main insights.

The analysis suggests that the kind of competition the financial institution faces in its current activity, the competition it anticipates in the new activity and the degree of uncertainty about the skills needed for this new activity jointly lead to predictions about early entry and hence optimal scope. Scope expansion is seen to be optimal when there is high strategic uncertainty, moderate competition expected in the new activity, and low-to-moderate competition in the existing activity.

Table 5.1 Optimal scope as function of the competitive environment

Anticipated competitive environment in the strategic option (new activity)	Current competitive environment in existing financial services activities	
	Low	High
Little competition	Narrow	Narrow
Medium competition	Broad	Narrow
High competition	Narrow	Narrow

Notes: (Narrow – no early investment in new activity, Broad – early investment in new activity)

4.3 Is Strategic Uncertainty Special to Financial Services?

Why does this analysis of strategic uncertainty fit financial institutions so well? There are at least two reasons. First, the swirling tides of technological and regulatory changes are generating a level of uncertainty about the skills needed to operate successfully in the future that is perhaps greater in the financial services sector than in any other industry. Second, banks have traditionally faced limited competition in their home markets, driven in part by a favorable attitude of domestic regulators toward creating "national champions." This has created "deep pockets" across the industry, and serves to support the broad strategies observed particularly in banking.

The precise interpretation of the model of strategic uncertainty could be amended to fit financial institutions even better. In particular, one could interpret an institution's problem as it not knowing what combination of activities will give it a competitive edge in the future. This is not necessarily about a financial institution entering new activities, but possibly about the institution entering "old" activities that it traditionally chose to abstain from. Early entry, or rather choosing a wider set of activities, would let the institution discover what activities optimally fit together.

From a shareholder value-maximization point of view, investing in strategic options might be desirable. However, how can one distinguish the "strategic option" explanation from a simple managerial entrenchment explanation? That is, managers (and governments!) may just want powerful institutions for their own sake. Distinguishing between those explanations is difficult. As the experiences of several national flagship banks teach us, banks that are not accountable, and even worse, operate as playground for government appointed "cronies" are unlikely to follow value-maximizing strategies. Growth then becomes a managerial entrenchment strategy.

We would subscribe to the view that much of the consolidation in (particularly) the European financial services sector is defensive. Consolidation has increased scale and scope mainly in domestic markets and facilitated local market power. In several cases, size has reached proportions that seriously questions whether any more benefits of scale are present. And is the wider scope truly sustainable? Will it not cause dilution and loss of focus? If so, it will clearly limit the desirability of investing in strategic options. Instructive in this respect is that the operations of financial institutions in foreign markets (where they face typically more competition) are generally well focused.

The arguments developed in this section are subtle. "Deep pockets" are important for the broad scope strategy, and this creates a direct link with the competitive environment. In particular, "too much" competition would dilute deep pockets and prevent or limit scope expansion. So far, however, the relative protected position of institutions in their home markets may have allowed institutions to choose a "broad" strategy. As markets become more open, both to foreign competitors and inter-sector entry, this choice might have to be reconsidered.

It is very difficult to predict with confidence the future structure of the industry. Uncertainties are daunting.[36] It is also very much unclear what the impact of public policy and new regulations might ultimately be on the industry.

5. COMPETITION ISSUES

Competition issues in banking are not necessarily different from other types of firms. However, banking is considered special in that the stability of the financial sector is of particular concern. This can touch on competition policy in two ways. One is ex ante: some consider that there is a trade-off between the severity of competition and stability. We will address this in Section 5.1. The other is ex post: once difficulties come about in the financial sector governments might come to the rescue of banks because the failure of banks might (further) undermine stability. These measures by governments (e.g. rescuing banks and providing capital and guarantees) could have implications for competition. The latter we will address in Section 5.2. We will do this in the context of EU competition policy and the 2007–09 financial crisis.

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[36] See also McKinsey (2010a, 2010b).

5.1 Competition Versus Stability

One could say that regulators and policymakers are ambivalent about truly promoting competition in the financial sector. Prudential regulators in particular think in terms of trade-offs between competition and stability. In this popular view, restrictions on competition would improve banks' profitability, reduce failure rates and hence safeguard stability (Keeley, 1990; Demsetz et al. 1996). The argument is that market power enhances the charter value of the bank and that this would curtail risk-taking because by taking risks the charter value might be lost. As such, it punishes deviant behavior more.

In our view, the real trade-off between competition and stability is much more complex. Recently several authors have argued that the trade-off might go the other way, or is ambiguous (Cruickshank, 2000; FSA, 2000). In any case, the available evidence does not give clear prescriptions; it very much depends on the particular situation at hand (OECD, 1998; and Beck et al., 2006).[37]

On market power increasing mergers, one may conclude that national regulatory and supervisory authorities have generally been lenient, with several "national champions" as a result. Apart from the question whether the creation of such national champions leaves enough competition,[38] we have three reservations. First, banks are rather opaque institutions that combine many activities with, as a result, very limited market discipline. If facilitating a competitive financial system is an objective, and it should be, market discipline would be helpful. The burden falling on regulation

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[37] Some have argued that competition undermines a bank's incentives to invest in relationships and that this increases risk as well. What is meant is that when customers switch too often, such investments are no longer worthwhile. Monitoring may then become less effective and risks may increase. This argument is, however, incomplete. Boot and Thakor (2000) show that competition could raise investments in relationships. In a related work, Koskela and Stenbecka (2000) provide an example where more competitiveness does not lead to more asset risk. Boyd et al. (2004) show that competition *could* be good for financial stability. In particular, they show that a monopoly bank will economize on its holdings of cash reserves. This elevates the crisis probability. Countering this effect is the lower deposit rate that it can choose to offer. Boyd and De Nicoló (2005) identify two more effects countering the conventional wisdom that competition is bad for stability (that is, moral hazard with the borrower and fixed costs of bankruptcy). See also Caminal and Matutes (2002) and surveys by Carletti and Hartmann (2003), Bikker and Wesseling (2003), De Mooij et al. (2001), Boyd et al. (2009).

[38] An important issue to assess this is how to define the "relevant market" (see Griffith and Nesheim, this volume). For many services at the retail and SME level these are local and do not encompass the whole of the EU.

and supervision could otherwise be excessive. Improving market discipline should then be a key public policy objective. Market power enhancing mergers create more rather than less opaqueness and as such are undesirable. Second, the efficiency of large institutions with considerable market power is questionable. While this is not a public policy concern by itself, the ultimate survival of such a large institution is. Policymakers often refer to desirable diversification effects that could be captured in larger institutions. This should, however, not be taken for granted. Such institutions might be encouraged to take more risks which, together with the inefficiencies, could put that survival at risk. This could add substantial risk to the financial system.[39] Third, many European financial institutions are considered TBTF. This reduces market discipline even further. The dominant "national" champion attitude clearly does not help.

As a caveat, note that the regulatory design has been mostly scrutinized in a precisely reversed causality, that is, how to continue to maintain some grip on a rapidly changing (and globalizing) sector in light of the rapid changes in the sector. The historic predictability of banking and the strong control of national governments on this sector facilitated and allowed for stringent regulation. This however may no longer be feasible; issues related to regulatory arbitrage have directly undermined the effectiveness of regulation and level playing field concerns now also need to be taken into account. The competitive effects of prudential regulation have a direct bearing on the latter.

The consequence is such that competition policy in the financial sector has been somewhat obscure. The true motivations for the scale and scope expansion, and also the strategic rationale that we have highlighted, often involve a substantial softening of competition. In line with the more recent research that questions the absolute validity of the trade-off view between competition and stability, great care should be taken in safeguarding adequate competition in the industry. This is a particular concern to the clientele that is primarily dependent on banking institutions (for example small- and medium-sized businesses).

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[39] On a more theoretical level one could envision large, yet efficient, fully diversified financial institutions competing in many (all) product and geographical markets but facing perfect competition. If this would be possible, distinct value would be created (that is, such institutions face smaller expected dissipative default cost). While some, see Vives (2001), seem to believe in the feasibility of such an industry structure, our view is that that is highly unlikely. Nevertheless, in some activities a global diversified playing field might definitely be feasible for some (for example, a few top-tier investment banks).

5.2 Competition Policy with a Focus on the EU and the 2007–09 Financial Crisis Measures

Competition policy in banking prohibits cartelization, abuse of a dominant position, and establishes merger and state aid control policies. The competition policies that exist in the European Union provide a good illustration for the current state of affairs.

The legal framework in the EU for the application of competition policy is as follows. Article 101 of the TFEU (ex Article 81 TEC) prohibits agreements and concerted practices, which prevent, restrict or distort competition. Hard core cartels include price fixing, output restrictions, market sharing and resale price maintenance. Article 102 of the TFEU (ex Article 82 TEC) prevents abuse of market dominance. Separately, the European Commission evaluates mergers with an EU dimension according to EC Merger Regulation.[40] Articles 107–109 of the TFEU provide the basis for evaluating state aid control.

Competition policy in banking typically focuses on assuring free entry and exit, a level playing field across financial products, services and providers and establishing a contestable institutional environment in which common services are available to the incumbent banks as well as to de novo entrants (Claessens, 2009). Compared to more regular product markets, competition in the banking industry is special. Banking is not only about competition, but possibly also about cooperation. Banks compete and cooperate in multiple markets and business segments. Cooperation between banks might be needed in order to establish common services (e.g. payment and processing infrastructure) that are crucial for the smooth operation of the financial sector at large. As a result of this, banks may come to a position where they can abuse those common services to collude and engage in anti-competitive practices. The cooperative elements in banking and the multi-market presence of banks might facilitate anti-competitive behavior of banks. The potential threat of retaliation in multiple markets might help sustain collusive behavior (Bernheim and Whinston, 1990; Matsushima, 2001; Greve, 2008).[41]

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[40] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (OJ L 24, 29.1.2004, p. 1).

[41] Cross subsidization may also raise competitive concerns because banks may use cross subsidization to move rents from competitive to monopolistic market.

Anti-cartel policy in European banking

Several cases of collusive practices among banks have been discovered in the EU. Arguably, the biggest case was the cartel among eight Austrian banks, called "the Lombard Club," that started before 1994 and lasted until June 1998. The cartel covered the entire area of Austria. The banks engaged in fixing lending, deposit and other rates through several committees and included several layers of bank management. In a surprise inspection, the European Commission gathered vast evidence on collusive practices to prove an infringement of Article 81 TEC. Banks were also aware of the illegal nature of their actions but cooperated in the investigation (EC, IP/02/844). Another example is a cartel case brought recently by the UK Office of Fair Trading (OFT) against RBS for exchange of information on loan rates with Barclays.[42]

The European Commission has been heavily active in surveillance of competitive concerns in markets related to retail payment systems and products. It found in its retail banking sector inquiry that major competition barriers exist in these markets (EC, 2007). Markets for payment systems and payment cards in several EU countries were found to be highly concentrated with large variations in merchant fees and interchange fees and with high and sustained profitability in card issuing. Also in retail banking product markets, several practices were identified that created barriers to entry such as product tying and obstacles to customer mobility (e.g. costs of switching current accounts), exclusion of new entering banks from existing credit registers or other cooperative arrangements.

Merger policy in European banking

The European Commission evaluates mergers with the EU dimension. According to Article 2(3) of the EC Merger Regulation (ECMR):[43] "A concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market." According to Article 2(5) of the ECMR the European Commission in its appraisal of concentration particularly considers i) "whether two or more parent companies retain, to a significant extent, activities in the same market as the joint venture . . ." and ii) "whether the coordination . . . affords the undertakings concerned

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[42] See http://www.oft.gov.uk/news-and-updates/press/2010/34-10.

[43] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (OJ L 24, 29.1.2004, p. 1).

the possibility of eliminating competition in respect of a substantial part of the products or services in question."

However, in banking antitrust concerns associated with a merger might be weighed against the effects the merger might have in strengthening financial stability (see also Section 5.1). Article 21(4) of the ECMR stipulates: "Member States may take appropriate measures to protect legitimate interests other than those taken into consideration by this Regulation . . . Public security, plurality of the media and prudential rules shall be regarded as legitimate interests." The reference to 'prudential rules' could point at stability considerations.

State aid issues in the EU

State aid in the EU is generally prohibited. More specifically, Article 107(1) of the TFEU states, ". . . any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market." This definition serves for the European Commission to identify whether a measure can be classified as state aid.

However, even if a measure is confirmed to constitute state aid, exceptions in the second and third paragraph of the same article may allow its use. In particular, Article 107(3)(c) of the Treaty and the community guidelines on state aid for rescuing and restructuring firms in difficulty (OJ C 244, 1.19.2004, p.2) is normally used to assess the viability of state aid to firms in difficulty. In addition, Article 107(3)(b) can be used to allow state aid in order "to remedy a serious disturbances in the economy of a Member State." The provision in Article 107(3)(b) can be used in the case of the failure of a financial institution if it derails the stability of the financial sector at large and has negative repercussions for real economy. This is more likely in a financial crisis, when negative externalities of a bank failure are more pronounced than in normal times.

To mitigate the repercussions of the 2007–09 financial crisis and to provide higher legal certainty the European Commission has provided further guidance to Member States regarding the rules of state aid. In 2008, it issued, a so-called, Communication on the application of State aid rules to measures taken in the context of the financial crisis (EC, 2008). In this Communication, the European Commission permits ad hoc state aid interventions or general schemes for state aid. The state aid program acknowledges that the ad hoc state aid to the individual institution is likely to raise greater concerns than the aid being accessible to every bank in the

banking system and should therefore be accompanied with greater restrictions. EC (2008) also makes a distinction between state aid to solvent but illiquid banks and state aid to insolvent banks. The program of state aid that involves insolvent banks should be based on more restrictive conditions.

The state aid to an individual bank (and a general scheme as well) should have a restructuring/liquidation plan in place to ensure *i.* the resolution of the underlying problem, i.e. the long-term viability of the bank in question; *ii.* a minimum level of aid and private participation to the costs of the restructuring; *iii.* a minimal level of distortion of competition, especially across borders (EC, 2008). State aid should be proportionate to the problems of distressed banks and should come at penalty rate to prevent a subsidy race between EU Member States and to ensure competitiveness of the EU banking sector. EC (2008) defines behavioral constraints to restrain competitive distortions of state aid and to limit state-aid driven expansion of the beneficiary.[44] Further guidance is provided in EC, 2009a, 2009b, 2009c).[45]

6. CONCLUDING THOUGHTS

Banking is a surprisingly integrated industry both across business lines and within each separate value chain. As we have indicated, we expect banks to become more focused when uncertainties clear up. While typically this is interpreted as making choices between business lines, what has not become evident yet in the banking sector is that banks may have to specialize within the value chain. They seem so far still very much involved in both upstream and downstream activities. Vertical disintegration allows for greater specialization, and hence focus, with potential gains in scale economies as well (Berlin, 2002). This may well gain in importance over the coming years, particularly considering the

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[44] Various measures exist: market share ceilings could be enforced to mitigate the potential benefits of a guarantee status, balance-sheet limitations (including divestment packages) could be imposed, certain business conduct aspects could be prohibited (e.g. share repurchases, acquisitions, new stock options for management), and limitations on price-leadership might be imposed.

[45] Lannoo et al. (2010) review main state aid cases in the EU during the 2007–09 financial crisis. The authors argue that competition control of the European Commission went quite far and touches on industrial policy. For example, in the case of ING, the European Commission agreed to the state aid by asking high specific divestments, e.g. the sale of insurance activities and the direct banking activities in the US.

increasing competition in banking and the developments in information technology.

As we have highlighted, clear economic insights may help uncover the comparative advantages of financial institutions. The analysis in this article has emphasized the clear-cut advantages that banks have in their local markets. Market depth – deep local market penetration – is crucial for exploiting the relationship banking advantages. For now, the financial services sector, however, remains in flux. Strategic "posturing" – choosing a rather broad positioning and merging to get deep pockets – might be an optimal strategy on the transition path. The ultimate configuration of the industry will only become clear once the level of uncertainty in the industry diminishes.

Predicting changes in banking is further complicated by financial stability concerns that bring public policymakers into the arena. In the 2007–09 financial crisis policymakers have encouraged investment banks to become part of commercial banks. This has led to broader rather than more specialized institutions. Simultaneously, much is being said about banks being TBTF which seems hard to reconcile with the observed developments in the crisis. These developments will undoubtedly have enormous impact on the path of development of the financial sector in the years to come. The process of restructuring will be a fascinating one for sure. For public policy, and competition policy in particular, the challenges will be enormous.

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