Cluster 4 in 2004
"Reshaping the Credit Business"

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1 Project summary

The German banking industry is in the middle of a sweeping structural change. In early 2003, the two presidents of the two largest German banking associations, Breuer and Hoppenstedt, acknowledged that the situation has never been more difficult for the last 50 years and that the consolidation of banks and branches will surely continue. It is far from clear, however, how the surviving, successful institutions will look like five or ten years from now. Many experts from financial services firms, consultancies and academia expect that banks will follow the lead of the automotive industry towards a vertical disintegration and a concentration on core competencies. Hardly any banking organization could any longer afford "to raise the cattle for the leather seats". Given the disappointing performance of most banks' investment banking and capital market business in the wake of recent market downturns and given the challenges posed by Basel 2, the traditional core business of German banks, i.e. lending to non-financial institutions, offers to be a particularly interesting and relevant field for research in this context. We will approach the core question "Who shall perform what function in an efficient value chain for the credit business?" by consecutively completing four work packages.

Work packages A through C analyze the reshaping of specific elements of a generic value chain, i.e. credit risk management, bad-loan work out and relationship management, whereas work package D investigates the governance issues that arise when banks outsource particular activities. We aim to derive positive as well as normative assessments on the likely developments in the credit business by building upon prior own research and by means of reviewing the literature, expert interviews, theoretical model design and empirical analysis. Ultimately, managers shall get an understanding of how exactly and to what extent value will be created in a reshaped credit business.

1.1 Motivation

Back in the early 1990s "breaking up the bank" used to be a popular slogan among many commentators on major trends in banking. Although the technological means to unbundle the highly vertically integrated credit business were already available at this time, it took yet another decade until German banks started to actively search for new ways to restructure and reorganize their lending function. Extraordinary positive effects had obscured what many have been viewing as a structural crisis that is due to inefficient processes and excessive branch networks: The re-unification stimulated the loan demand and, in addition, the booming equity markets in combination with the internet economy propped up the banks' fee business. Not only have these positive effects vanished - other negative effects such as the Year-2000- and the Euro-conversion, write-offs and follow-on costs of enormous internet technology investments as well as the general economic downturn have dramatically increased the pressure on banks. Hence, we now observe a situation in which sophisticated IT solutions and far-reaching progress in risk management coincide with the accepted need to radically rethink the way banks operate their credit business. As evidenced by recent transactions by major players, banks indeed start to concentrate on their core competencies and to outsource non-core activities.

In our project we attempt to answer the seemingly simple question "Who will do what?" in ten years from now. A reference to Adam Smith – the founder of modern economics - makes clear that this is indeed an important and also complex question. His famous example on the evolution of the needle production showed that degree of specialization is a main determinant of overall welfare and industry competitiveness. As the banking market comprises of rather heterogeneous market segments such as credit card lending, retail consumer lending, residential mortgages, commercial mortgage, project finance, and corporate lending, the optimal degree of specialization may differ strongly between these areas. Shall banks specialize around customer segments, product areas, or value chain elements?

Except for some pioneering work from the early and mid-nineties, hardly any theoretical literature exists on that topic. This void in combination with the relevance of the topic for practitioners and regulators motivated us to thoroughly reconsider the "breaking up" or reshaping of the credit business in cluster 4.

1.2 Objectives

Our overall goal over the next three years is to develop clear-cut scenarios of how the European credit business will evolve in the future. The focus will be on the German banking market. By analysing specific elements of the value chain we ultimately aim to devise ways for different types of banks to enhance value creation in this area.

In 2003, we lay the foundation for achieving the overall goal by screening existing work, by doing primary empirical research, by conducting interviews with experts from sponsor firms and from external institutions and by theoretical reasoning. We produced 7 publications, of which at least two will be submitted to international journals and will be presented at international conferences.

In 2004 we will strongly build on the results achieved in 2003. At the end of 2004 we plan to have finalized another 5-7 publications. Additionally, we aim to participate in international conferences presenting our results from the various work packages described below.

We will continue to involve representatives from tier-1 sponsors into insight derivation through joint workshops and jour-fixes and through the supervision of dissertations of external PhD students from these very firms. Especially work package “D” (Sourcing) will encompass a variety of projects also including representative research initiatives from other clusters and sponsors.

Regarding contents, we aim to get a better understanding on the following aspects.

Theoretical topics:

- the efficient boundaries of the banking firm, i.e. the optimal degree of vertical integration
- the core competencies of banks as we know them (banking theory is still in its infancy, with new models only capable of explaining the joint production of loans and deposits)
- the convergence or divergence of the roles of banks in different financial systems
- the changing logic of financial system architecture (markets and financial intermediaries as substitutes or complements)

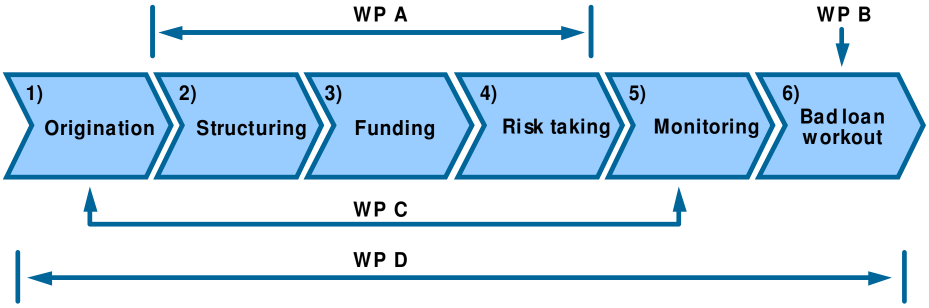
Practical topics:

- the business opportunities and risks inherent in the reshaping of the credit business
- sustainable future industry structures and the size of profit pools therein
- the likely winners and losers in a changing industry
- optimal organization strategies for banks from different groups
- the incentive-compatible pricing of credit pools

2 Projects

The overall project is organized along a generic value chain of the credit business (see Figure below). Accordingly, we broke down the over-arching question of the project, namely “Who shall perform what function in an efficient value chain?” into four work packages (WP A-D). WP A) to C) each focus on a particular part of the value chain. WP A investigates the likely impact of loan securitization on the reshaping of value chain elements 2) to 4), whereas WP B focuses exclusively on bad loan workout (element 6). WP C concentrates on elements 1) and 5) and elaborates on an often cited obstacle to outsourcing, namely the potential damage to the customer relationship. WP D) analyses optimal incentives and governance schemes for the entities that are involved in the future value chain as we envision it. It hence deals with the ‘dark side’ of specialization across all elements of the value chain: the costs of running and operating co-operative relationships between banks and their suppliers.

Figure: Simplified generic value chain for the credit business



2.1 Work Package A: Structuring, funding and risk taking

The growing market for asset backed securities and credit derivatives allows banks to unbundle the origination business from the risk taking business. The strategy in credit risk taking of the banks is changing from "buy and hold" credit to active risk management. This means that banks buy and sell credit risks with the goal to reach an optimal credit portfolio. Some commentators question whether and to what extent credit risk taking should be performed by banks at all. If credit risk markets function smoothly, so a theoretical argument, all credit risk pertaining to individual borrowers, regions/industries and to the economy at large could be placed into investor portfolios. This would be efficiency enhancing especially for those banks that would otherwise have to bear bulk risks due to their regional focus.

2.1.1: A loan pool is defined as a multi-bank contractual arrangement for the sharing of returns and risks from a joint loan portfolio. It offers an instrument for active credit risk management that has so far been largely neglected in the literature. In a first paper (available) we devise optimal contracts for loan pools and show empirically that banks can reduce their credit risk by as much as 50%. In an extension we will translate an existing model on multi-bank loan pools into the context of multi-branch loan pools. The key-question is: How can large banks enhance incentives to branch managers for optimal loan production (effort/risk)? Furthermore we want to build a generalized framework to measure the comparative efficiency of loan pools, loan securitization and rating networks as alternative instruments for active credit risk management.

2.1.2: Many banks cooperate in infrastructure services, less than in managing their risks. Examples of cooperating in risk management should be identified, like the "True Sale-Initiative" of 13 banks with the Kreditanstalt für Wiederaufbau and the "Neues Verbundkonzept" by Helaba and SGVHT. It should be analysed, if there are value changes, when banks cooperate in such activities and which are the effects on the ratings of these banks.

2.2 Work Package B: Bad loan workout

Many banks recognize that they lack the necessary expertise and resources to maximize the value of bad loans. While retailers have been employing specialized collection agents for a long time already, some large banks just recently began to specialize in acquiring and managing bad loans of corporate customers. Some German banks specialize in forming and managing a syndicate of lending banks in financial distress situations. In other countries, regulatory action has already led to the foundation of bad loan banks specializing in the liquidation and workout of bad loans. Work package B will analyze this increasingly important yet for the most part neglected niche of the credit value chain.

2.2.1: A first paper was written in cooperation with the Postbank. The key-point of this analysis is the intensive care of distressed consumer loans of a German retail bank. A scoring model to assess the adequate treatment of an individual distressed loan was developed.

2.2.2: A second paper will provide more empirical evidence on the comparative efficiency of different intensive care processes. Based on the obseravtion that scorings at the time of credit application (Probability of Default-Scoring) do not help to explain scorings at the time of distress (Loss given Default-Scoring), we devise ways to improve the identification and the treatment of distressed debtors.

2.3 Work Package C: Origination and monitoring

Due to the new capital adequacy regulations (Basle 2) of the Bank for International Settlements banks will have to price their loans according to the risk inherent in these loans. To measure this credit risk, banks are allowed to use internal rating systems that classify debtors in different default classes und thus measure the individual loan risk. The question that arises from this is how banks can correctly measure the individual loan risk to not over- or underestimate it and therefore charge debtors too high or too low interest rates that could lead to faulty strategic conclusions in the commercial banking business.

2.3.1: In a first step, we analyzed how the pooling of rating information across different banks enhances internal rating systems in homogeneous portfolios. The extension will be research on heterogeneous portfolios.

2.3.2: In a joint project with the Kreditanstalt für Wiederaufbau (KfW) we develop a logit model for the assessment of the individual credit risk of small and medium-sized German enterprises (SME). In addition to the research work we will develop a free-of-charge web-based rating engine where SME can easily calculate their credit risk by entering a pre-defined set of financial variables. Based on this assessment of the probability of default we calculate the risk adequate cost of debt for German SME who can thus compare their should-be costs of debt with the actual cost charged by their banks. Our goals are twofold: The research goal is to shed some more light on the well-known Hausbank principle and the way German banks make use of it. The second goal is to achieve broad media coverage.

2.4 Work Package D: The future value chain

Outsourcing implies that the traditional hierarchical coordination by institutional fiat is replaced by a ‘market mode’ coordination. A rich body of theoretical and empirical research from other industries concludes that some common drivers explain which governance modes are best suited for specific coordination problems. Examples are relation specific investments made by the partners, the opportunity to expropriate a counterparty, and incentive problems resulting from information flows. If two entities specialize in different elements of the value chain, a need to cooperate hence arises in order to satisfy customer needs and to jointly reap the benefits from specialization. In general, this can be done by means of transaction oriented short-term contracts, complex long-term contracts between the two or by unilateral or bilateral ownership structures. In fact, German banks that sell credit related products of other banks or buy back-office services from other banks, typically held equity stakes in the other bank or were affiliated to the same banking group as the other bank.

In order to understand the potential of outsourcing and to make projections about the optimal ownership and organization of e.g. credit factories, one has to fully understand the origins and economic drivers of these complex organizational structures. Referring again to the analogy between the automotive and the banking industry, we are interested in the dynamics that led Porsche to produce only 20% of its final product and to rely on specialized component-contractors for the rest. We thus expect working package 4 to generate important insights with regard to the optimal boundaries of the bank and to generate insights on issues as diverse as the following.

2.4.1: Our first paper (available) is an event study that investigates market reactions on over 100 financial services outsourcing deals.

2.4.2: A second paper identifies success factors in outsourcing deals. Our key-question is: What drives shareholder value in outsourcing transactions? In the paper we will formulate hypotheses on success factors and regress abnormal returns from the event study against a large number of explanatory variables (proxies for success factors). We also apply insights to different out-of-sample settings (e.g. governance models for savings bank group vs. money center banks). The regression will be complemented by conducting structured interviews with over 30 banks (jointly with cluster 1).

2.4.3: Additional research actitivities will cover the following areas: case studies of outsourcing deals, theoretical foundations of sourcing decisions, flexibilization of cost structures and the vertical integration in Banking. The key-question in the latter field is: How can the degree of vertical integration (“Wertschöpfungstiefe”) be measured? We will devise measurement concepts for various types of financial services (draw from studies on other industries, esp. automobile industry) and analyze status quo for banks in different countries. Also we derive insights on core competencies and profit pools..

2.4.4: A final subproject aims to identify best-in-breed credit processes? We will conduct (again jointly with cluster 1) interviews with the top 150 banks operating in Germany concerning their credit processes (status quo, state-of-the art, strategic alternatives, long-term vision). Our goal is to identify benchmark cases and measure profitability differentials. Finally we will define future scenarios and migration paths. It is planned to involve IBM resources for this subproject.