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The Impact of Regulation on Strategy and Industry Structures

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Abstract

Regulation plays without doubt an important role in leveling the playing field in the banking sector, but also in constraining the market players with the goal of financial market stability and consumer protection. In this paper we show that the impact of regulation goes beyond this, as the structure of the regulation process also directly shapes the market architecture of the regulated sector. Based on case study evidence on the introduction of Basle II in a national legislation, we describe from distinct perspectives how the regulation process has taken place, and formulate a set of propositions on the interactions and relationships between the regulator and regulated entities during the process as well as the impact on standard setting and on the strategic options of market players. The results suggest that, in the context of transformation of complex and to some extent vague regulations into the national legislature, the regulator is dependent on the interaction with major regulated entities in order to be able to set standards, especially when market players have an advantage in the relevant resources and capabilities. We show that this setting shows traits of club formation, in which club members become regulatory intermediaries during standard setting process, with an impact on the entire industry.

The Impact of Regulation on Strategy and Industry Structures of Financial Intermediation Systems

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1 Introduction

Over the last decades two broad strands of literature have dominated the research focusing on organizational strategy, the theory of the firm, and the discussion about organizational boundaries and market structures: transaction cost economics and the capability (or resource-based) literature (Santos & Eisenhardt, 2005). While transaction cost economics highlight the topic from an organizational exchange efficiency perspective, it has been criticized for concerning only little about organizational heterogeneity and therefore (sustainable) performance differences. The capability literature on the other hand has been lauded as a theory that provides sound explanations for organizational heterogeneity and sustainable performance differences between competitors, but it also has been criticized for an inability to address the organizational forms and governance arrangements that create these capability differences (Grant, 1991). Jacobides and Winter (2005) introduce a joint framework of both strands in theory and show how the co-evolution of transaction costs and capabilities determine the boundaries of the firm and thus the market structure. Based on this notion Jacobides (2005) depicts the drivers, nested in transaction cost economics and capability based view, that triggered the evolution of financial intermediation systems (here the U.S. mortgage market) towards vertical disintegration and the emergence of intermediate market between distinct modules (Baldwin, 2008) of production.

As convincing the framework of Jacobides (2005) is in explaining the underlying drivers of market evolution in the U.S. mortgage market, it does not provide conclusive evidence on why geographically separated mortgage markets and financial intermediation systems in general differ strongly with regard to vertical integration, despite the availability of similar production technologies (especially IT systems) and a comparable structure of demand. Another important driver for industrial change and innovation that has been neglected in this literature on market evolutions (at least in the industrial dynamics literature) are strategic decisions that are taken during the process of strategy formation by single firms or, with more impact, by

(strategic) group of firms in order to respond to stimuli from the economic environment such as new rules and regulation. In a historical context classical examples for such group based decision making within an industry can be found in the legally acknowledged cartels. In these days, cartels were not only means for welfare diminishing price collusion and for the creation of (artificial) barriers to entry into certain business fields, but served also a more noble cause, the diffusion of knowhow (capabilities), the exchange of ideas and the joint learning in the strategy formation process of the single participating firms. This economically more valuable element survived in the service industry in a myriad of best practice circles and small clubs of firms from an identical industry (but often diverse geographical location) that share case specific knowhow, data and processes necessary for the strategy formation. Accordingly, the knowhow in those clubs become a strategic asset or resource, which are costly and/or difficult to imitate by non-club market participants.

When looking on how those clubs work, it can be seen that a formal (or sometimes informal) moderator is selected, who is then responsible for the coordination of the meetings, but who also moderates and diffuses the knowhow among the members via agenda setting power and the creation of a selective transparency. In doing so, the moderator shapes the creation of the strategic resource for the other club-members, despite the fact that the ‘ingredients’ for the resource are already at the heart of the participant’s corporate practice. This moderation role is in many ways comparable to a more general form of mediation, namely the influence of stakeholders in the strategy process of business firms. Even in this broader object of analysis, the literature has shown how strong external moderation can align strategic decisions, particularly in fields where the moderator is not a simple stakeholder, but has some kind of (market) power. In their work zu Knyphausen-Aufseß, Mirow, and Schweizer (2011) illustrate this relation by using the example of financial analysts that communicate their opinion to the market and thus influence the strategy process of firms.

Based on existing literature we perceive two aspects of what we describe as new particularly to the industrial dynamic literature with a focus on market evolution and management literature in general: First, the focus on the strategy formation process in the banking industry and second the role of the regulator in moderating this process both on an industry level as well as on a club or sub-population level (Hutzschenreuter & Kleindienst, 2006). We show that this process leads to the creation and diffusion of strategic resources in this strategy formation process and hint towards specific strategic opportunities that firms who are invited to or form part of the ‘club’, which is contributing to the learning of the moderator, may reap. The impact of this paper can be showed on along the following argumentation: Club members can influence the regulator, in his role of referee rather than as moderator, in selecting ‘best-practice’ cases and in defining and shaping the strategic resources that are required (or often directly enforced) by all industry participants. This has an asymmetric impact on member vis-

à-vis non-member firms and mediates the strategy formation process in both groups. The asymmetric mediation of the strategy formation processes leads to (artificial and persistent) differences in the resource and capability endowments of firms, the internal resource allocation and consequently the cost structure. This variance in the cost structures ultimately also affects the competitive landscape and becomes a strong driver for corporate change and industrial dynamics in the banking market. To our knowledge this is the first work that explores the emergence of club structures in the bank regulation process and the subsequent impacts on the market structure.

2 Background and Literature

Gorton and Winton (2002) argue that the rationale for bank regulation is the banks' characteristic as inherently flawed institutions, being prone to harmful banking panics. The government or regulator thus has to set rules to limit banks' risk taking behavior and to provide deposit insurance schemes in order to guarantee the soundness of the financial market as well as consumer protection. Accordingly, banks traditionally operated in a highly regulated environment that essentially aimed at curtailing competition (Boot & Marinc, 2008), which strongly affects the banking industries' competitive landscape and thus the market structure. Regulation resulted in distinct entry barriers, including geographical limitations on interstate and intrastate banking (Jayaratne & Strahan, 1998), structural barriers between different financial services as e.g. between banking and insurance but also between investment banking and commercial banking activities, but also limitations to (process and/or product) innovation (Blind, 2012). Moreover, regulation is also related to isomorphism, which means that regulated firms become more similar over time through the adaptation of similar features, forced imitation and/or indoctrination from the normative dimension (P. J. DiMaggio & Powell, 1983).

When we turn the focus on *strategy formation*, we see that this traditional strand in strategic management literature is well developed and very rich. Hutzschenreuter and Kleindienst (2006) provide a comprehensive overview of the research strand, while providing a framework on how to categorize the distinct contributions in the literature. For the purpose of this research it is important to see that the strategy process is shaped and embedded in an organizational and environmental context (Pettigrew, 1997) and thus shaped by environmental attributes such as complexity, uncertainty, dynamism, politics and regulation (Duncan, 1972; Sharfman & Dean Jr, 1991). However, not only the context is relevant in strategy formation, but also the strategic predisposition of the organization (Ashmos, Duchon, & McDaniel, 1998) and organizational characteristics such as age, structure or size, and important in the context of this work dynamic characteristics such as routines and (managerial) capabilities (Baum & Wally, 2003).

The last notion builds the bridge towards strategic groups and/or clubs. A central characteristic of strategic groups is a shared (generic) strategy of the involved firms (Dess & Davis, 1984) and the reliance on a similar set of strategic resources and/or capabilities (Hannan & Freeman, 1989). Organizations in such sub-populations in the industry accordingly develop a dominant logic that summarizes their orientation toward change and innovation leading to the establishment of a local meaning and/or value framework (Hutzschenreuter & Kleindienst, 2006). Such a shared understanding forms the ground of a path dependent but at the same time common strategy formation within strategic groups (Washington & Ventresca, 2004). DeSarbo, Grewal, and Wang (2009) illustrated this finding in the context of the banking industry and found indeed joint, path dependent evolutions of banks that share a similar position in the banking industry (e.g. being part of a strategic group).

A very special and less informal type of strategic groups with a shared strategy and value system is an *industry club* (or a cartel). While it is indisputable that such clubs and especially cartels have a negative impact on competition (i.e. market demarcation or price agreement as e.g. common interest rate in the banking industry) and thus welfare, literature proved ambivalent evidence with respect outcomes due to cartels and clubs. Cortat (2009) analyzes the Swiss cable industry in a historical context and concludes that the industry club fostered the exchange of knowhow and facilitated collaboration in R&D, which resulted not only in innovative products but also in standardization (which is determinant of transaction cost and thus a pre-requirement for non-hierarchical production of goods and services). Petit and Tolwinski (1997) explore technology sharing clubs and find that despite the possible benefits of (technological) standardization, cartels mainly result in increasing entry barriers due to cost advantages of the member firms. Both scholars also argue that that a benefit of clubs (and cartels) is the reduction of uncertainty, which facilitates the investment decision in a technology and thus mitigates the risk of under-investment.

When looking for a joint perspective on regulation, strategy formation and/or strategic groups in a broader sense, we find a body of literature emphasizing the effect of ‘capturing’, i.e. the observation that interest groups can influence the regulator to their advantage. This is especially valid in the process where the regulator gathers information from different interested parties before he enacts rules and regulations. Accordingly, the perspective has won prominent status in political analysis as a sub-segment of rent seeking behavior in a political-economic system. In this context economic theory clearly recognizes that private interest groups may lobby for rent-producing interventions by government bodies (Buchanan & Tullock, 1975; Olson & Oberstein, 1965; Stigler, 1971). However, the analysis here is normally performed with respect to stakeholders and rarely with respect to regulated firms actively participating in the formulation of directives and standards that are pushed strategically by (some) firms only. Also, the economic focus normally runs towards directly exploiting the

profit opportunities offered by government interventions which they have themselves prompted, less often on the mere influencing of standards or on playing the indirect effects of using the regulator to tackle competitors in the market that are belonging to different (strategic) groups, rely on distinct set of capabilities and resources, and have different cost structures. But influencing is not the only possible response towards disruptive change. Institutional theorists show that depending on the resource (and capability) base and on social factors such as resistance, awareness and self-interest of the organization there is a rich set of potential strategic responses to change in (the regulatory) environment (Oliver, 1991).

The formation of clubs (or cartels), the mutual effects between regulated firms and the regulator in the course of the regulation process, and the strategic responses of (non-)club members towards regulatory innovation have without doubt a strong effect on the market structure. From the perspective of the *industrial dynamics* literature the market structure in the banking sector are a result of co-evolution of capabilities and transaction costs (Jacobides, 2005), and organizational learning that results in an improvement of the capability base (Jacobides, 2008). Accordingly, shifts in the capability structure, in the value of capabilities (or more broader defined as resources) as sources of competitive advantage and/or shifts in transaction costs in the industry through the regulation process should materialize in the market structure (in terms of degree of vertical integration) and the competitive landscape (in terms of market players and entries/exits) in the banking sector at least on the long run. Another important point is the shared understanding of strategic management and industrial dynamics literature with regard to the importance of (dynamic) capabilities for the strategy process and the firms' ability to adapt to changing environment (Parnell, 2011; Slater, Olson, & Hult, 2006; Teece, Pisano, & Shuen, 1997). As such, capabilities themselves can be perceived as strategic resource in the banking sector that allow for organizational rents (Amit & Schoemaker, 1993; Mehra, 1996).

3 Research Approach and Case Study Background

We follow a case study approach to shed light on the research question. Although case study research has a strong standing in academic literature, scholars are still debating the number of cases that are seen as necessary to reach reliable results (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Siggelkow, 2007; Yin, 2003). We follow the recent example of zu Knyphausen-Aufseß et al. (2011) and aim at integrating different perspectives in our examination. Firstly, we set the primary focus on the interviews with exponents of the regulator, which served as base case. Secondly, in addition to the base cases, we integrate mini case studies in terms of distinct viewpoints in order to broaden the picture. Obvious candidates for distinct perspectives were firms from the industry that participated at various degrees of distance to the regulator during the regulation process. By research design we are restricted to a

one country analysis, because the implementation of rules and regulation is nation specific even if it is part of an international regulation framework.

The *background of the case* is formed by the preparation and introduction of Basle II regulation in Switzerland and especially the approval of sophisticated credit risk management approaches that depended on frequent interactions between the regulator and the applicants. Within the introduction of Basle II we focus our research on the first pillar and examine the effect of the *approval process for sophisticated risk management approaches* (so called internal rating based approaches [IRB]) on both the banks' risk management capabilities and on the interactions between the Swiss regulator and banks in Switzerland. The choice of this very specific research object is legitimized by the high standing of credit risk management in the banking business and regulation (Benston & Smith, 1976; Boot, 2000; Danielsson & Zigrand, 2001; Pagano, 2001), and the fact that the approval process by the Swiss regulator implies frequent interactions between the regulator and the applying bank, resulting in mutual learning effects and influence. But risk management seemed also to be an ideal object of analysis as it perfectly combines two key concepts in literature, namely strategic resources (e.g. data pools) capabilities (e.g. model sophistication), and transaction costs (e.g. standard operating costs as part of the loan price, but also uncertainty in loan sales and/or securitization).

Case Study Evidence

3.1 Base Case: The Perspective of the Regulator

FINMA is the Swiss financial market supervisor, which was founded in 2007 and became operative in 2009 as a merger of the Federal Office of Private Insurance (FOPI), the Swiss Federal Banking Commission and the Anti-Money Laundering Control Authority into one agency that is responsible for all financial regulation in Switzerland. The organization is as a governmental body established on the basis of Article 5 of the Financial Market Supervisory Act (FINMASA) which defines FINMA's goals as follows: «In accordance with the financial market acts, financial market supervision has the objectives of protecting creditors, investors, and policy holders as well as ensuring the smooth functioning of the financial markets. It thus contributes to sustaining the reputation and competitiveness of Switzerland's financial center.» Because the implementation of Basle II was to a large extent under the guidance of the Swiss Federal Banking Commission rather than the FINMA, we will use the term 'Swiss regulator' instead of FINMA when discussing the case in context of Basle II introduction. Furthermore, most of the laws and by-laws on financial market regulation have already been applicable for the predecessor organization of FINMA.

Apart from to traditional control and supervision activities of regulators, FINMA has, however, also a functionality that involves more directly and frequently interaction with mar-

ket participants. For instance – and at the core of this discussion – FINMA participates in legislative procedures, issues its own ordinances and circulars where authorized to do so, and is responsible for the recognition of self-regulation standards. By law, the work of FINMA and its processes are structured to be open and accountable. Cooperation and exchange of ideas is meant to happen primarily on two levels: The *lateral level* among different (international) regulators or national agencies throughout all working stages and the *level of public accountability* in the stage of drafting new ordinances. The level of accountability to the public is framed by Article 7 of the Swiss Financial Market Supervisory Act, which stipulates transparency in the regulatory process and an appropriate involvement of parties (potentially) affected by new legislation and ordinances. This means that all interested parties can post comments to regulatory projects and get involved. However, there is no guarantee of taking the ideas into the decision making process formally, even though the rule is that a short comment will be issued and normally, major concerns – especially of critical stakeholders – will be addressed in some form. In addition to this public information dissemination process, FINMA also conducts public consultations on draft proposals and explanatory reports, in order to provide interested parties with the opportunity to express their opinion directly. The parties that are getting involved at this stage, however, are normally not the banks themselves, but banking or other financial market associations that try to use this forum as an arena for agenda setting and for guiding the discussion and the regulatory reform projects towards particular fields of coverage. The interest here is thus basically one of the industry (or eventually of business model driven industry segments, such as retail banking, private wealth management, asset management or corporate finance).

The influence and ability to change the normative character of legislation and ordinances, however, is limited, particularly in financial market regulation. A large part of the normative regulatory work is prepared and agreed upon on multilateral or lateral levels. Lateral discussions are mainly talks and informal agreements between various agents of one state (e.g. the FINMA with the Department of Finance or the Auditor's Regulatory Board). With respect to the drafting of legislation to implement (international) standards such as the Basle accords, FINMA executives in talks refer strongly to the influence of discussions at the level of the 'Senior Supervisors Group', which is an informal forum of regulators established to ensure the strict regulation particularly of large single banking institutions that are active across country borders. The Senior Supervisors Group was particularly in the case of IRB implementation closely interacting and exchanging views on model quality and data reliability. This informal group counted with in the period of observation 55 members from the US (FED, OCC, SEC), the UK (FSA), Germany (BaFin), France (CB), and Switzerland; since 2008 also Japan (JFSA) and Canada (OSFI).

However, besides the normative setting of the rules, an important aspect of regulatory standard setting happens not until the effective implementation stage. Here, the detail of what is accepted under certain guidelines and how it should be structured is given. Quoting one executive this can be put as that the «result (of lateral standard setting and international discussions) is a normative set up that needs to be matched with reality». Thus, a regulator such as the FINMA quite often finds itself in the challenging situation to implement processes on the green field. For this, resource availability and model knowhow are key success factors, but also a source for gap between large established market players with almost unlimited and the regulator with limited resources.

FINMA basically quotes two strategies to close such gaps; first, by hiring specialists on the market (where political backing is needed and input mostly corresponds to the knowhow level of the supervised banks whose specialists are transferred) and an active engagement with bank practice with reviews and control patterns between the different leading firms in the market. Quite often, it proves that the latter is more cost efficient and proves to be more reliable to cope with dynamics in the market and the innovations introduced the firms. In short, in these cases FINMA asks for a review of a certain process or model from two or more banks and used the models and data pools for cross-checking akin to a double-blind review process. By this, it explores the arbitrary room between different standards applied, leading banks for analyzing, comparing, and learning from best practice through regulator feedback. However, the system obviously is to some extent depending on the knowhow in the market and guided by market, not regulatory driving force.

Within *Banks* FINMA categorizes the Swiss banking market basically into six sub-groups: (1) Very large, significant and highly complex institutions that represent a very high risk to the national financial market and that are basically also too-big-to-fail. (2) Significant and very complex players with a balance sheet volume of about 100 CHFbn and thus rather high systemic risk. (3) Banks that are still considered large and complex and show a significant risk factor, but that generally count a balance sheet volume of significantly less than group two (above 15bn CHF). The groups (4) and (5) are then mid-sized banks with average risk and small banks with low risk. Category (6) institutions are not subject to prudential supervision. Accordingly, FINMA has organized itself basically to target the high risk category with maximum resources. It formed a special unit for them and dedicated two separate teams to the two banks in this basket, thereby guaranteeing a fulltime surveillance mechanism here. All other banks report to the third sub-unit and are not subject to a comparable surveillance, nor did too much of differentiation among themselves (provide that all their operations are running without special risk flags).

When talking to FINMA executives, they are obviously aware that the supervisory teams are not that large – compared to the size of the two leading institutions. However, they stress

that the banking teams are mainly responsible for the interaction and ‘day-to-day’ business reviews of these larger firms and thereby are focusing on a frequent interaction. More specific risks awareness and checks are handled by the larger and dedicated market teams that are responsible for all banks and have their focus more on the single incidents that could jeopardize market stability. Crucial for the analysis are the departments for *Credit Risk* and *Risk Management*. With regard to the IRB application, approval and implementation, it was the former department that was in charge of the IRB process, which can be sketched along the following six steps:

- (i) *Preparation*: Discussion and elaboration of the new regulatory framework and of the potential goal setting on a meta-level.
- (ii) *Mandate*: Assignment of responsible, nomination of project teams, and definition of the implementation and supervision process.
- (iii) *Objective Definition*: Setting of the implementation and supervision objectives.
- (iv) *IRB Dialogue*: Ongoing dialogue between regulator, supervisor and banks during the application, implementation and revision process.
- (v) *Official Feedback*: Official approval (or denial) of the Basle II compliant risk management systems of a bank.
- (vi) *Ongoing Reviews and compliancy tests*: Ongoing supervision after the approval. Tracking and analyzing of the initially defined objectives of the new regulation.

The IRB process is structured way to interact with interested banks, but also to set-up up- and downstream processes from the regulator’s perspective. The selection for the participating banks was open. The large banks were, due to the structure in the banking supervision unit and due to their international strategy, already ‘club members’ for the Basel II consultancy phase with respect to IRB and then later also early adopters to the sophisticated models. For all other banks, the Swiss regulator left it open of whether they wanted to join or not and introduced early discussion groups. In the time of IRB implementation, the organization of the regulator clearly did undergo a strong organizational evolution. Staff size expanded significantly to cope with the additional tasks and to process an ever growing number of reviews and reports. The interaction with the leading models and processes of different banks and the frequent exchange of ideas allowed to develop additional capabilities and certainly created learning effects, which was acknowledged by all the executives.

From the regulator’s perspective, the IRB implementation was primarily the implementation of an international accepted rule into national law. The implementation was clearly guided by the existing organizational structures of the institutions and grounded in the legal fundament, which was drafted by legislators, and agreed standards between lateral and multi-

lateral partners. The content, however, of how the implementation was set up and what models, processes and data pools were sufficient to be used and to be accepted as valid remained subject to a procedure based on a market push of those banks who were innovative before, and who shared their internal best practices with the different committees of the regulator. The process design with multiple feedback loops during the interaction with supervised entities thereby clearly fostered knowhow diffusion and joint learning, input remained restricted largely to bank knowhow nevertheless.

In a self-assessment, the regulator saw its role basically as a moderator and referee in a game of specialist players. They targeted at structuring their actions and collection efforts in a way that allowed, with an optimal intensity and structure, for back-checking inflowing information and manage the interaction with the banks with the stance of a primarily evaluator's position based on an existing knowhow base and a constant flow of information and best practices, and not a knowhow setting institution.

Particularly the review processes of banks and the approval condition of the Swiss regulator guarantees from this perspective a constant flow of new concepts and models with testing experience (in one bank) for approval by the regulator. For quality control reasons, the regulator relied on back-testing the models internally (with data from the same bank), developing internal pools and resources by aggregating data from all reporting banks in order to test the models, or to bring the data to the 'test market' by diffusing and testing it against the models and techniques of the other market participants.

Another alternative would have simply been to buy-in the necessary knowhow. However, the Swiss regulator saw here one key problem: All specialists within external advisors and banks tend to move and de facto form the same knowhow base. Thus, the net-knowhow effect would not differ much from the chosen strategy. Nevertheless, the Swiss regulator also employed external advisory and consultants, but not to a degree where it would become a critical resource to them. The regulator brought in these specialists mainly for special tasks in model and data evaluation, and to a considerable part for the auditing of the collection and input gathering processes.

3.2 Mini Case 1: The Perspective of IRB Applicants

UBS AG and Credit Suisse AG (CS) are the two largest banks in Switzerland. Both are internationally widely active with businesses spanning asset management, private wealth management and investment banking. As a special element, both firms do not operate retail and large scale commercial banking activities outside Switzerland. This allows separating the Swiss commercial banking business from their other, more international and cross-border activities that also would be subject to different regulatory regimes. When the early discussions on Basle II started around 2001, both banks had, contrary to other institutions, a better

access particularly to the U.S. market, where large and deep data pools and clients' default statistics and credit quality patterns were already available. Based on these data sets and dedicated modeling teams, UBS and CS had a head-start in developing potential Basle II / IRB models for the Swiss market. For the two firms it was among others also a question of reputation to switch to the highest standards of credit risk modeling under the new regime (IRBA) in line with their global recognition targets. Hence, UBS and CS can clearly be described as the two early adaptors of the new standards, who both started developing tools and models without a strong interaction with the regulator in Switzerland. Through this, they managed to build a proprietary knowledge base early and were ready with a significant knowhow base when the Swiss regulator decided to start the process of national framework implementation. Hence, the knowhow gap between the two large banks and the regulator was supposedly considerable large at day one of the IRB process. Additionally both banks had, unlike to the regulator, already teams in place that could handle the models and develop new tools. Finally, the two leading banks also had data pools that at least could mimic certain properties of the to-be collected Swiss data bases. From a cooperative and learning aspect the situation could be characterized as rather asymmetric. Basically, the capabilities and the tools needed to implement, control and verify sophisticated credit risk models were not available with the regulator, but with the two special banks. Additionally, when the IRB process started, UBS and CS also started to adjust the credit process organization. In particular they installed dedicated credit officer and credit portfolio management teams that ensured the data collection for the Swiss market. The building of the foundation for the IRB implementation was therefore rather market driven.

The banks exchanged their internal models with the regulator and accepted the knowhow spill-over effects for the objective of an official validation and approval of their internal models. Industry wide spillovers were not seen as an issue as the two banks viewed the process mainly as an interaction between the two market players and the regulator. This notion was fleshed out by the fact that the consulting and auditing community that accompanied the process and the validation work was closely integrated as well.

3.3 Mini Case 2: The Perspective IRB Near-Applicants

The group of the 'IRB Near-Applicants' consist of banks (especially large cantonal banks such as cantonal bank of Zurich), bank groups and credit risk management specialists (service providers such as Risk Solution Network) that have supposedly been in a regular interaction with the regulator during the introduction of Basle II and the application phase for IRB approaches (IRBA/IRBF) and that could most probably have met the pre-requirements for the IRB approaches, but that do not have the (official) IRB approval. The latter denotes to the situation that those bank still apply the standard approach for Swiss Banks (SA-CH), while it is not clear whether those institutes actually have an IRB approval or not (the Swiss regulator

only confirms the IRB approval of the banks in mini case 1). Reasons for the stickiness to the standard approach, despite the capabilities to switch to a more sophisticated approach, are the relatively small potential reduction of capital requirements and the high costs for an IRB approval with respect to models, data and alignment of the organization.

The Risk Solution Network (RSN) that was started in 2003 by a team of model specialists that saw a strategic opportunity in the introduction of Basle II, while they had the expectation that the large number of small and mid-sized banks would most certainly not switch to the internal rating based approach due to a lack of resources (e.g. size and quality of data pool) and capabilities (e.g. model knowhow). These issues were already addressed in the founding process, as RSN is the subsidiary of three rather large cantonal banks, which contributed their proprietary (regional) data to the RSN data pool. But RSN also kept being open for other banks that are interested in larger data pools and sophisticated models, while leaving its customers the strategic choice to add data to the pool (and use the full service portfolio) or to only source services that are not based on the assembled large data pool. In order to assure information quality and correct implementation, RSN supports its customers with manuals and proposals for the credit-granting and data collection process that is effectively needed in the day-to-day lending business (i.e. the credit process that guarantees a sufficient correctness and consistency of data inputs for the application and for the model inflow), for process design and for the assignments of responsibilities in the various banking organizations.

With this, RSN positioned itself as an avant-garde player for risk management in the Swiss financial services sector, which would allow for actively participating in the regulator interaction and for getting their standards approved (for the sake of increased capital efficiency of their parent companies) if needed, while the focus of RSN was clearly on model development and model ownership, which would not only allow for a better assessment of the borrower's creditworthiness but also for risk adjusted pricing, capital planning, credit portfolio management and a better resource allocation.

3.4 Mini Case 3: The Perspective on IRB Non-Applicants

SZKB (cantonal bank of the canton of Schwyz) is a medium to small sized bank in the group of cantonal banks and thereby a proxy for the broad Swiss banking market in general. Banks like SZKB view IRB mainly as a playing field for the large international banks, with no or rather limited benefit for smaller banks. The background for this is twofold: First of all, joining IRB was an option only and not enforced by the regulator. The economic trigger for joining and IRB approach was basically a capital relief program that incentivized banks to develop more advanced risk assessment techniques and compensated the huge efforts and complexity by a bonus on capital that was to be held. So, the main interesting lever for banks to join IRB was to potentially benefit from lower capital requirements and thus to increase the

return on capital. For most smaller retail banks, however, this is not sufficiently interesting to take the additional hassle of a more complex organizations and costly modeling or credit risk teams, especially as they are in tendency over-capitalized already and owned at least partly by state-ownership at the sub-sovereign level (where return pressure is less accentuated and stability and localization valued relatively higher).

3.5 *Synthesis of the Cases*

The work for an adaptation of Basel II and IRB approaches started well ahead of the final version of the capital accord in 2004 or the national implementation in 2006/07. Already in 2001/02 the Swiss regulator started to collect information, particularly from large or avant-garde banks, to gather working committees including practice counsel (that would later become known as the IRB Dialogue), and to prepare for the details that would later mark the directives. The aim of the new capital accord (among others) was to increase the risk sensitivity of the capital ratios, especially with respect to credit risk, and to encourage or reward improved risk management activities within the banks (Ruthenberg & Landskroner, 2008). This aim is highly technical and required a large and deep data pool that was not readily accessible (in most banks) at time, but also complementary models to run the evaluations and the risk management models on an equally sophisticated level. The Basle Committee on Bank Supervision therefore agreed that banks should have the choice between different approaches: (1) the standard approach (comparable to Basel I, but with a Swiss finish, that would make the approach appealing for most Swiss banks); (2) a foundation IRB approach and (3) the more sophisticated advanced IRB approach (IRBA).

While the Swiss regulator was familiar with standard approach, sophisticated models and especially the advanced IRB approach turned the regulator in the challenging position to approve sophisticated risk management approaches that are novel to him as well. Accordingly the regulator had to undergo a learning process different groups or clubs were at one point observed in the market:

The ‘club formation’ in the *first stage* was the result of rather push than pull from a bank’s perspective. The two leading incumbent firms were asked by the Swiss regulator to participate actively, for other firms, there was an informal discussion round, mainly targeted at getting feedback on who would generally be interested to introduce the IRB, rather than who would be interested in forming part of the working group. This resulted in early interest of two of the larger mid-tier banks, of which one became an early participant in the working parties. The avant-garde group joined the discussions formally, while other banks were present basically represented by the respective associations, but without linkages to their direct business and separated from their strategy formation process.

During the *second stage*, the introduction of the directive and the approval of the banks' IRB approaches, the process and interaction have been more formal and directly tailored to the few participating 'club' players (IRB Dialogue as depicted above). For each bank, a special project team with executives and members of the risk management department was formed, whilst on the side of the regulator, the know-how bearer for the Basle II framework formed a core team together with the person responsible for the ongoing bank risk management surveillance. Based on the specific bank in focus, the team was supplemented with the supervisory counterpart for the general bank review processes. Before the process got started, the regulator defined his politically or economically motivated targets and communicated what focus areas would be of prime interest to him based on international regulation standards. Hence, banks have been aware of what would be the focus of the implementation process and also of the incentives that would be part of this process well in advance. This meant that the banks knew, that the more they would be able to convince the regulator of the sophistication of their credit risk management systems the lower the required capital would be (it has to be noted, that the Swiss regulator stipulated that capital requirements under IRB should not be less than 90% of the requirements for the standard approach), which triggered avant-garde banks to meet the pre-requirements of IRB well ahead of the implementation (organization, systems, database and models).

4 Discussion

Overall, the preceding case study have revealed that the regulation process, especially when coupled with uncertainty, mutual learning and standard setting in a club structure in the context of radical regulatory innovation, leaves room for mutual effects between the regulator and market players. During this process club members – market players that are in frequent interaction with the regulator – become to a kind of 'regulatory intermediaries' (King, Griffiths, & Williams, 2007), which means that they are not only able to influence the regulator in standard setting, but they also have an immediate impact on the non-club members in the market through regulation. We believe that this effect of regulatory intermediation in the financial services industry has to be conceptualized in order to facilitate further research on this important topic.

In order to tackle the process of regulatory intermediation more precisely in the context of the cases, we have to bring the focal topic of the observed regulation – sophisticated risk management approaches – in relation to the relevant theories as discussed in the introduction. From a process perspective, risk management in banks has always to be seen in the close context of resources, particular of available data and of model quality. This forms the basic lines towards the *resourced based view*. The second important element is the notion of risk management as *capability*, when it comes to the application of the 'right model' to the 'right data

pool' and the active management functions of handling risk within the firm and/or mitigating risk into the market. The last point here is the element of *transaction cost*, which most interestingly has not been in the scope of the interviewee, but that plays an important role in the context of regulatory intermediation. Both an increasing importance of model application and data pools, as well as the capability of handling risk management issues show a direct impact on transaction cost, defined here as the per unit cost of handling a credit contract with standardized risk parameters, which are of course subject to economies of scale.

With respect to the cases, we see that the introduction of sophisticated credit risk models can be clearly be classified as an incentive and remuneration for innovative firms as these approaches should from an ex-ante perspective clearly result in lower capital requirements. In contrast to national regulations, Basle II was a major regulatory project that was elaborated and pursued globally, and thus orchestrated by a global institution (i.e. Bank of International Settlement), which should result in equal playing field in the participating countries. The later refers to the fact that during the draft but also implementation of such multinational regulation frameworks, national regulators exchange their views and standards for the implementation process through (in-)formal forums such as the 'Senior Supervisors Group', which should restrict the ability or the potential of national legislators to influence market (structures) in their country. This interaction between international regulatory bodies or supervisor groups is a form of lateral exchange with respect to policy formation, which is in contrast to regulator-firm relations within a country. However, the approval process of sophisticated models has then been only in the hand of the national regulators as they had to substantiate vaguely formulated rules in the BIS documents and to set approval standards, which both left room for adjusting the timing and the scope of implementation. Accordingly, the national regulator determined to which degree and time the innovation of firms should be matched and honored by regulatory innovation. These observations can be summarized by the following propositions:

PIa: The regulator plays a role as a quasi-agent in moderating the level and speed of innovation and innovation diffusion in a market.

PIb: The more lateral the regulation is structured, the less interaction between regulator and regulated entities is needed and the lower impact of these interactions.

PIc: The less precise the multinational regulations are, the higher the flexibility of the national regulators during implementation at cost of a higher dependency on interaction with regulated entities.

As outlined throughout the cases, the main phenomena in this work – club formation – occurs when lateral regulation is not very precise, and flexibility or uncertainty with respect to new techniques is greater. This proposition is well grounded in other results for the interaction

between state-level and private practice (Shaffer, 1995). However, an interaction between a governmental body and market participants does not necessarily lead to a club formation, but can also be structured as an informal exchange of information that is characterized by indirect and/or less frequent communication.

The regulator is aware of his reliance on input from the market players, especially when uncertainty is high and his resource and capability base is small compared to the regulated entities. On the other hand, he also has to protect his reputation by showing expertise in order to be taken seriously by the regulated entities and also by the principals of the regulator (Boot & Thakor, 1993). The latter can partially be accomplished through a track record that provides evidence that the undertaken regulatory measures have sustained or improved the stability of the financial market. Accordingly, when the learning gap is large and uncertainty is high, the regulator might be tempted to pursue a more conservative approach in regulation by setting standards that are not radically new or too far away from previous standards. The Swiss finish of the Basle II accord can therefore also be seen as the (conservative) result of the gap as the lower capital requirement of the advanced IRB approaches were restricted by a floor vis-à-vis the standard approach (at least in the first years after introduction of Basle II). This is among others one of the main reasons, why the plurality of banks in Switzerland did aim at getting (officially) IRB approved by the regulator. Thus:

P2a: The higher the uncertainty of quality of new techniques or products to be approved by the regulator, the closer the regulator has to cooperate with market participants in the process of evaluation.

P2b: In small markets with large institutions, the learning gap is larger than in small markets with smaller institutions. While in large markets with large institutions the learning gap is as large as in small markets with large institutions.

P2c: The higher the uncertainty and the larger the gap between the regulator and regulated entities, the more conservative the outcome of the regulation process.

When relying on the participation of market players in the regulation process, the regulator has to face a trade-off between being able to work (and hence restrict the number of partners) and gathering as broadly as possible information (and hence include most of the market participants). However, this cooperation is not only important in terms of quality assessment by the regulator, but also from the view of the market as getting close to the regulator that may result in an at least temporary un-leveling of the playing field as e.g. information will not be equally distributed between club and non-club members. With regard to the case, we have to recognize that the distribution of information has not been the main rationale for club membership, but rather the general interest in IRB or the willingness to get approved by the regula-

tor. Becoming close to the regulator and participating in the forums for the quality approval allowed institutions to present their tools and data as leading edge.

The actual working towards closing the gap and the efforts put into this process both by the regulator as well as by other banks, who want to join the clubs is clearly dependent on the extent of the gap (see proposition 2b), and hence the relative surplus-value of the specific resources and capabilities that some players in the market have vis-à-vis the regulator. Accordingly, the importance of a club member is not only a function of its absolute resources or capabilities, but rather the added value of its resource or capability base vis-à-vis the club and/or regulator. This also leads to the assessment that in very small clubs the value of a single club member is higher, or in other words, we have to deal with diminish returns of an additional club members. Small clubs, however, limit the scope and ability of the regulator to use peer-reviews and diffusion as instruments to learn and to level the playing field. These findings can be translated in the following propositions:

P3a: Club membership is not defined by size, but by capabilities, resources, and the strategy of responsiveness towards the regulator.

P3b: The importance of club members is a function of strategic resources and capabilities concentration rather than of size.

P3c: The smaller the club the higher the value of each club member for the regulator.

Based on the preceding proposition we can directly establish a link to the valuing of the club member assets in the regulation or standard setting process, which result in a broad definition of the best practice in risk management. The latter is a result of the resource and capability base of the club members, joint learning effects within the group (Cohen & Levinthal, 2000), and knowledge diffusion through feedback loops between the regulator and club members during the course of the approval process (Ernst & Kim, 2002). From the insights from the interview, we see that the strategic value of the club members' knowhow and resource even grows during the approval process, particularly as a result of the feedback in the closed community of the club. During the high frequency interaction in the approval process, club members can also (deliberately or unintentionally) influence regulator to approve their specific capabilities and resources, and to declare them as best practice in risk management. Such a behavior would be in line with the capture theory (Stigler, 1971) when applicants institutions (as a strategic group) have a shared understanding and thus a shared informal strategy in the process (Baum & Wally, 2003; DeSarbo et al., 2009), or when they explicitly make arrangements in order to guide the regulation process. The opportunity to influence the regulator is larger in a setting, where the regulator is forced to rely on the knowhow of market players (see proposition 2a), where knowledge gaps between the regulator and the applicant firms are large (see proposition 2b), where the comparatively small club of applicant firms shows a

specific resource and capability base, which does not allow for comparing the variety of data pools and risk models or for intense (back-)testing, and where the importance of a single or small group of firms is comparatively high for the regulator(see propositions 3a to 3c). Accordingly, the more difficult for regulators and/or non-club member to close the resource and/or capability gap, the more valuable the specific strategic assets of the club members get during the approval process and the more costly the effort for non-club members to join the best practice level.

P4a: The larger the capability and resource gap between regulator and club members, the higher the potential for valuing resources and/or capabilities strategically.

P4b: The more important club members for the regulator, the more difficult and costly for non-club members to reach the capabilities and resources requirements as defined in the club setting.

The last proposition has to be seen in the context of best practice risk management systems as a combination of specific strategic resources and capabilities of club members, which are set as standard by the regulator. In this the regulator acknowledges the capability and resource base of leading (mostly large) firms as quality standard that late adopters have to meet in order to get approved. An approximation or even imitation of large firms, however, implies an at least comparable cost base for the risk management process, defined as per unit cost of handling a credit contract with standardized risk parameters. These costs, however, are in relation to the large scale of the leading firm, which, due to the ability of economies of scale, can redistribute these credit risk assessment costs on much more contracts than medium- or small-sized market players (Walter, 2009). Accordingly, the average cost levels for the regulated processes in a market tend to move not necessarily towards the cost level of the most efficient bank, but towards the cost level of the club members.

This allows emphasizing a slightly new aspect: The impact of regulation on cost structures in the industry that go beyond a simple increase in the nominal cost level, but that segregate sub-markets by allowing some firms to rely on (newly valued) strategic resources and capabilities and by altering transaction cost for different individual firms; more precisely here by setting the cost standards for completing one regulated transaction more towards the cost level of the large incumbents or more general the ‘club members’ as opposed to the cost of the (probably) more cost efficient but smaller banks in the market, which remained (often voluntarily) less close to the regulating institution. This line of argumentation is supported by response of one interviewee that clearly named his intuitions motivation to participate early in the regulatory process as strategic and hinted at the changing industrial boundaries that would resulted from the process: The market will basically be divided not only in advanced IRB companies and standard players, it basically also lead to the segmentation along the virtual

ability of running sophisticated models and maintaining data pools that prevents smaller banks increasingly towards entering certain business fields outside the standard mortgage market, where rating and risk management are critical elements.

5 Conclusion

In this paper, we look at the roots for differences in vertical integration and the variably reaped fruits of scale and scope in different banking markets. We argue that a main factor for this is to be found in regulation. Based on case study evidence, we drill deeper into the role of regulation from a strategic point of view and describe the process of the introduction of new regulation and the learning and knowhow/innovation diffusion that accompanies this introduction into the market, particularly in fields where the regulator has to approve new products or new techniques used and developed by banks well ahead of regulation. We find that in this process of regulation introduction lies a strategic momentum that can be taken advantage of, dependent on an institutions tactics of responsiveness towards the regulator and the closeness of interaction, as the activity of the regulator has in these cases the effect of a ‘regulatory intermediation’ on market standards and ultimately market structures.

Our central argument in this paper is consequently that the regulator can act both as an independent referee, but also as a moderator who is in close contact to selected groups of firms, particularly when developing standards and drafting directives. In the course of this contact with (self-)selected club members, the regulator tends to learn from market leaders, but the learning works in two directions and with two distinct roles of the regulator: On one direction, the regulator learns from the participating club members (the role of the moderator in the club discussion), in the same role, but with a broader reach he diffuses the standards and best-practice cases within the industry; on the other direction, however, the regulator takes also the role of the referee and enforces the techniques and practice cases that he had learnt market-wide, eventually creating a un-level field for competition. Other factor that plays into this is the choice of the club-members that could be arbitrary and add to asymmetries by putting a strong emphasize on best practice and cost structure diffusion of large firms (that are by definition prone to form part of the group) and that may support a trend towards regulator-nourished quasi-oligopolies.

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