INVESTIGATING DIVERSITY IN THE BANKING SECTOR IN EUROPE

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KEY DEVELOPMENTS, PERFORMANCE AND ROLE OF COOPERATIVE BANKS

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Cover photo: *Acropora* coral garden with giant clam, taken by Richard Ling at Raging Horn, Osprey Reef, Coral Sea, August 2005.

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FOREWORD

In the decades preceding the Great Crisis of 2007-2009, banking systems underwent a profound transformation, progressively moving away from a type of banking centred on personal relationships towards one based on more standardised and impersonal rapport. It was thought that, through this transformation – driven by ICT progress – banks could better exploit the opportunities offered to them by financial liberalisation. That change was also favoured by the banks' need to cut costs, thus raising profits to levels previously unimaginable in banking but now required by ever-more demanding investors. So, from being the economy's most regulated and traditional sector, banking became rather fashionable. And being a banker, once labelled as the safe but tedious profession of the 'three threes' – the mortgage rate is 3%, the spread between lending and deposit interest rates is 3% and at 3 p.m. the banker goes to play golf (or tennis) – metamorphosed into one of the most dynamic, increasingly better paid jobs that, alas, yielded less and less spare time. The change, designed to generate the highest returns and based on big consulting theories, prescribed attuning the banks to financial markets and modifying the bank business model.

Also, the relationship between banks and their customers changed. Liberalisation, managers' empire-building, the perception – later proved mostly unfounded – of large economies of scale, and even fashion set in motion intense consolidation in banking. Banks merged to form financial megagroups, sometimes holding assets beyond the size of the public budget of their state of establishment. Bank decision centres moved away from the clients. The substitution of the personal relationship with an impersonal rapport – ATMs, internet banking, etc. – proliferated. The front office shrank to the advantage of the back office and headquarters, and manager turnover intensified. Thus the individual found it more and more difficult to identify stable counterparts at his bank.

In truth, not all banks followed this trend or, at least, not all changed at the same speed. Specifically, cooperative banks were relatively less involved in the transformation. They were anchored to their tradition by regulation and, even more so, by the demands of their members. Perhaps their participation in the bank meetings was not always assiduous, but most members would oppose changes that could take 'their' bank away from them. Generally, cooperative banks were deemed archaic and no longer adequate to meet the new and sophisticated needs of the time. More than that, even the authorities disregarded cooperative banks, sometimes even showing a prejudice towards them. In various countries and contexts, many cooperative banks demutualised. Unfortunately, the common wisdom lagged in recognising that demutualisation poses not only problems pertaining to intergenerational equity – neither past generations, who contributed to build the bank, nor future ones, who would miss out on the same cooperative bank, could vote on the decision to demutualise – but also, too often, opened the way to unscrupulous management, leading to fragility and crisis.

All that is in the past. After the Great Crisis of 2007-2009, much is rapidly changing, with several forces joining to return the banks to their traditional business model. The virtues of banking consolidation are undergoing drastic reassessment, with various countries considering breaking up financial *colossi* to reduce systemic risk. Regulation is stiffening on the more complex and opaque financial contracts, attracting to official multilateral markets what was exchanged bilaterally over the counter. Proprietary trading will be limited, if not forbidden. Top manager compensation schemes are under scrutiny, to avoid the related bias towards excessive risk-taking. The perception is spreading that, in the future, banking should focus more on financing the real economy and be less involved with financial deals, and that bank returns should decrease to the historical levels preceding the metamorphosis of the banking business model. Some pundits even question the desirability of competition – which can engender overexposure to risk – in banking.

Nevertheless, before the new set-up fully unfolds, it is still timely to consider in depth the errors that led to the Great Crisis, which is where this report proves especially valuable. In particular, it undertakes the specific task of comparing the set of banks aiming to maximise shareholder value – shareholder value banks – to the set of banks aiming to maximise value for a larger and more diversified group of subjects representing varied interests – stakeholder value (*in primis*, cooperative) banks. By and large,

the former set is comprised of commercial and investment banks – primarily, if not exclusively, profit-focused – established as plc, while stakeholder value banks encompass cooperative banking and other banks having similar features and for which profit maximisation is neither the exclusive nor, generally, the primary aim.

Indeed, the narrow emphasis on short-term profit by commercial banks and the numerous transformations, via demutualisation, of stakeholder value banks into shareholder value banks were two main factors in the genesis of problems that expanded to generate the Great Crisis. As stressed in this report, preserving a multiplicity of aims within banking – a sort of biodiversity of banks – is a paramount objective. The best proof of this is that instability and the need for government support in response to the crisis was much less widespread for stakeholder value banks than for shareholder value banks.

There are three main aspects to this problem. First, a change in the banking business model subordinated banks to financial markets. Second, this change was accompanied by extensive waves of demutualisation and widespread mistrust of stakeholder value banks. Third, the perception that credit risk could be unbundled led to disregarding – or, at least, underestimating – the degree to which breaking complex financial relationships into segmented contracts would weaken the ability/willingness of banks to evaluate and manage the overall dimension of that risk. Prevailing economic theory and bank regulation contributed to the entrenchment of this erroneous approach.

In my view, the report provides two promising suggestions for reshaping the banking establishment, particularly, but not only, in Europe. First, the bank model best suited to taking on the intermediation function depends on the circumstances. Thus, the coexistence of various bank models is bound to benefit overall economic efficiency and stability. Accordingly, authorities must be aware that any regulation – e.g. levelling the playing field – should not damage the biodiversity of banking. Second, a bank's ownership/governance tends to shape its business model. Stakeholder value banks will naturally focus on traditional retail business/relationship lending, while shareholder value banks will normally find their preferred habitat in the realm of arm's length banking and more sophisticated financial deals. It is more difficult to evaluate the new risks – such as those emanating from the complex financial contracts playing a major role in the recent crisis – than the traditional ones, and

authorities should factor this into regulation, especially now that a significant increase in minimum bank capitalisation is being deliberated within the framework of Basel 3. In this respect, there seems to be a case for less incremental capital for stakeholder value banks, as the retail/relationship business model they adopt appears less prone to the risks which are now urging increased capitalisation.

On the whole, the report is essential reading for specialists, practitioners and regulators. It is hoped that its message will be understood and contribute to more sound and useful banking.

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EXECUTIVE SUMMARY

The objective of the theoretical and empirical research in this study has been to examine the role of cooperative banks in Europe as a contribution to be derived from diversity in the European banking sector. In addition to analysing the nature of the cooperative bank model and its implications, empirical analysis has been conducted of cooperative banks in seven countries (Austria, Finland, France, Germany, Italy, the Netherlands and Spain) mainly with respect to the performance of such banks, their stability characteristics, their role in terms of competition, and the contribution these institutions make to regional development.

The context is that European banking is a mix of many different types of banks: public, state, cooperative, mutual and private banks. A particular distinction is made between Stakeholder Value (STV) banks (of which cooperative banks are a major component) and Shareholder Value (SHV) banks. The distinction is ultimately about the banks' bottom line objectives and the extent to which profit maximisation is the central focus of business models. As with savings banks, cooperative banks can be categorised as 'dual-bottom line' institutions.

Cooperative banks have long been an integral and well-established part of the financial system in many European countries. They are an important part of the diversity and plurality in European banking and have their own characteristic business models, ownership and governance structures. A particular feature of European cooperative banking is that there is no single universal model that, in all its detail, is common to every cooperative bank. This means that there is no completely homogeneous set of cooperative banks across Europe. Whilst there is diversity in many dimensions (both within some countries and, most especially, between countries), there are also several key common features of cooperative banks. There is a rich diversity in precise business models, structure and

governance. The European cooperative banking sector can, therefore, be characterised as *Commonality with Diversity.*

Cooperative banks have evolved from their origins in the second half of the 19th century, and many have evolved over time into full-service universal banks or have entered into activities that do not correspond to their traditional core business. In several cases, these institutions appear to be almost indistinguishable from their commercial bank competitors, being active in non-retail activities and expanding across domestic frontiers. Although its rationale is different from when cooperative banks were first established as a response to various forms of market failure, the cooperative bank model remains a strong and viable business model.

Indeed, empirical evidence in this study suggests that no radical differences exist between cooperative banks and their peers in terms of performance and efficiency. More important, there are economic, systemic and welfare benefits to be derived from a successful cooperative sector in the banking systems in Europe. A financial system populated by a diversity of ownership and governance structures, and alternative business models, is likely to be more competitive, systemically less risky and conducive to more regional growth than one populated by a single model.

A central conclusion of the analysis is that it is systemically beneficial to have STV banks in general, and cooperatives in particular, in a financial system. In many respects it is the mix of different types of institutions that is important (the biodiversity argument) as much (if not more so) than the merits of any particular ownership structure or business model.

This has important public policy implications. The debate particularly emphasises the expected role of different types of financial institutions to finance the real economy, to contribute to systemic stability and to promote inclusion. This raises the role of dual-bottom line or STV institutions to fulfil other equally important objectives than mere shareholder value creation. This suggests that financial performance and economic efficiency are neither the only nor the ultimate standard of assessment. These are indisputably important but they are not sufficient to assess the contributions of STV institutions to the economy. Allowing for new standards of assessment that take into consideration the variety of objectives of STV institutions would emphasise the value of diversity in the European banking sector. Beyond such assessment, the functional implications of diversity (such as regulation, financial stability and liquidity creation…) merit further investigation.

1. INTRODUCTION

The value of biodiversity is more than the sum of its parts.
Bryan G. Norton

1.1 Motivations

Cooperative banks have long been a part of the financial systems of some of the most advanced economies. The movement spread throughout most of continental Europe in the second half of the 19th century, where banks confined their activities to urban areas and served only the affluent. An emerging class of workers, shopkeepers and farmers with no or little collateral had limited access to credit. Charitable sources and public funds remained insufficient. Credit obtained from money lenders was often available only at exorbitant interest rates.[1] By and large, the birth of credit cooperatives in Europe was a response to the challenge of providing affordable loans to this emerging class.

Historically, the central idea of a cooperative credit institution was simple: the financially excluded had to be self-reliant. Credit was to be financed internally, i.e. by the group's collective savings. If external funds were needed, they were to be borrowed on the group's joint liability. Although government support was available in some notable cases, most institutions were set up as private enterprises. Last, in order to align the institution's objectives with its members' interests, the governance was built on democratic principles, i.e. one member, one vote.

[1] The practice of charging excessive interest rates was an ordinary characteristic of the era. According to some early reports, annual rates in excess of 30% were not uncommon in Germany (Guinnane, 2001, p. 368). In Italy, "for small loans the usurers exacted 1,200% payable in advance, besides commissions, with possible dinner and wine for the lender and the broker" (Herrick and Ingalls, 1916, p. 347).

Over time, the cooperative movement evolved along with the needs of its clientele. The idea of joint liability of members on the cooperative's debt was gradually dropped. Members' collective screening and monitoring efforts became less prevalent as the banks developed to serve larger demographic and socio-economic groups. The local institutions became more integrated to develop their own central institutions to pool and manage the group's excess liquidity, to provide centralised services and to effectively enhance access to capital. Despite these developments, however, mutual ownership still remains a key common characteristic of all cooperatives today.

The fact that the financial crisis that started in 2007 has hit many financial systems very hard, especially those that seem to be particularly modern, underlines the importance of the overarching questions that motivate this study. Do cooperatives still serve an economic and a social role? And, what lessons can be learnt from the crisis about the future, in which academics and politicians are calling for a return to more traditional approaches to banking and finance?[2]

Examining the economics, the merits and drawbacks of cooperative banks is not an easy task, for a number of reasons. One is that cooperative banks, while still remaining committed to their roots and principles, largely differ from what these institutions were in the past. Today, they are a very heterogeneous group of financial institutions that expanded beyond traditional businesses.

Another reason is that the standards for such an assessment are not straightforward. Clearly, they need to be assessed in terms of pure economic performance, since economic performance determines their ability to survive as financial institutions over the longer term. However, economic or financial performance cannot be the only standard of assessment, since economic or financial success is not an end in itself for any organisation.[3] This consideration is all the more relevant for

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[2] For a sample of calls for a return to more traditional banking, see De Grauwe (2008), Group of Thirty (2009) report chaired by Paul Volcker and Jacob Frenkel, and the de Larosière (2009) report.

[3] The financial objectives *of organisations* are merely the means for realising the ultimate objectives *of people*, and these are non-financial in nature (see Simon, 1952). It was mainly the research summarised in this book for which Herbert Simon received the Nobel Prize in Economics in 1978.

organisations that have been created for other purposes than that of being successful in financial terms, as is the case of cooperative banks. Other relevant standards include the broader economic and social effects that their operations have on others, especially their member-customers. Therefore, assessing them on the basis of these effects may be worth considering. However, such an assessment is extremely difficult to perform because it would require having precise information concerning the banks' economic and social involvement in the regions where they operate and the value derived by other beneficiaries from their operations. Moreover, in methodological terms it would raise the counterfactual problem of comparing real situations in which cooperative banks exist with hypothetical situations in which they do not exist (or vice-versa) under circumstances that are identical in all other respects.

1.2 Objectives, main propositions and structure

This study aims to explore two overarching questions: What are the benefits of institutional diversity in general? What are the benefits of cooperative banks to a country or an integrated economic and political region such as the EU in particular?

We cannot pretend to have a conclusive answer to these overarching questions, particularly following one of the most profound financial crises in which several widely held perceptions about the superiority of certain forms of ownership and business models of banks are almost continuously being questioned and revised. Today, it may be useful to bring a new assessment to the value of institutional diversity as opposed to conformity which was the trend over the last two decade. Nevertheless, our aim is to contribute to the debate by presenting and discussing a number of arguments that are relevant and also sufficiently well supported by economic research.

To lay the groundwork for what follows, chapters 2 and 3 consider the nature, economics and key developments of cooperative banks in Europe. The theoretical arguments supporting cooperatives, their economic performance and role are analysed and discussed in chapter 4. The questions that are addressed include:

1) What are the theoretical arguments supporting cooperatives as a type of stakeholder bank?

2) How profitable and efficient are cooperative banks as 'producers' of financial services as compared to other banks in particular commercial banks?
3) Do the cost structures, profitability and earnings stability of cooperative banks differ from those of other banks and, if so, is it true that, possibly due to their specific design and mission, legal status or ownership structure, they have higher costs and lower profitability than commercial banks? And how does their performance differ among countries?
4) How do they contribute to competition in the market, to regional development, to economic growth and to stability?

The answers to these questions are highly relevant to the policy debate on the changing role of financial systems triggered by the new global financial crisis. The debate particularly emphasises the expected role of different types of financial institutions to finance the economy and the adequacy of dual-bottom line or STV financial institutions to fulfil other equally important objectives than mere shareholder value creation.

This suggests that financial performance and economic efficiency are not the only nor the ultimate standard of assessing financial institutions, and even if it were the case that the performance of a number of dual-bottom line institutions were – to a certain extent – poorer than that of other banks that focus primarily on creating value for their shareholders, there might be other reasons why it would be beneficial for a country or a region to have dual-bottom line or stakeholder institutions. Therefore, understanding and examining the merits of another type[4] of such institutions (i.e. cooperative banks) need further analysis to allow a better understanding of their role in the economies where they operate.

Although it is very difficult to conduct a final and uncontroversial assessment of cooperative banks on the basis of the effects that their existence, operation and development have and can have, it is important to discuss the relevant evidence. What are these effects? How strong are they? How can they be assessed in principle? And, to what extent do they depend on the different institutional set-ups that cooperative banks have adopted in the course of the last few decades in different countries? We

[4] See Ayadi et al. (2009) on *Investigating Diversity in the Banking Sector: The performance and role of savings banks*.

believe that, incomplete as they may be, theoretical and empirical arguments that we summarise and analyse in this study support the view that, generally speaking, it is economically and socially beneficial to have dual-bottom line financial institutions. It is the mix of different types of institutions that is as important (if not more so) than the merits of any particular ownership structure or business model. The final chapter offers key conclusions and suggests new perspectives for further research.

2. THE ECONOMICS AND NATURE OF COOPERATIVE BANKS

This chapter reviews the basic economics and the nature of cooperative banks and how they compare with joint stock banks. Cooperative banks are a sub-set of what we may term *Stakeholder Value* (STV) banks. We begin with a review of the nature of companies in general and a discussion of the distinction between Shareholder Value (SHV) and Stakeholder Value banks, and where cooperativebanks fit within this distinction. The nature of 'value added' by financial firms is then analysed, and the differences in this regard between cooperative and SHV banks. Then, a review of the key characteristics of cooperative banks will emphasise the institutions risk profile, the role of capital, and the role of network central institutions. This is followed by a brief assessment of corporate governance for cooperatives.

2.1 The nature of a company

A useful starting point in any analysis of cooperative banks is that they are private economic firms, i.e. organisations which use resources to add value in the creation of goods and services. In this regard, a cooperative is one amongst many types of economic firms: sole proprietors, closed companies, partnerships, SHV companies, state-owned agencies, etc.

Different types of firms often compete with each other in the same markets. Cooperatives are, therefore, one of many forms for organising economic activity. Each type of firm has its own strengths and weaknesses, which is why different organisational forms are able to coexist, sometimes in direct competition with each other. Although different types of firms perform the same economic role, there are several key differences between them.

More formally, any firm is a set of contracts among the various factors of production, agents and 'stakeholders' within the organisation. Clearly, within this paradigm there are many alternative ways in which these sets of contracts can be structured and the cooperative model is simply one amongst many possible corporate forms.

The cooperative corporate form has been prevalent, and has a long history in financial services although the cooperative model is not exclusive to banking or financial services generally. Cooperative institutions have often dominated agriculture, housing finance, and life assurance markets. In many ways, the cooperative model may be particularly suited to the provision of financial services, and especially those relating to longer term contractual relationships such as mortgages and life assurance. This may be due in part to the possibility that cooperative banks are able to address any inherent agency problems more efficiently. Kay (1991) suggests that "the special value of mutuality rests on its *capacity to establish and sustain* relationship contract structures." As a result, they also have a comparative advantage in establishing trust (Kay, 2006) which is particularly important where there is asymmetric information between the firm and the customer, and in the case of longer-term contracts.

2.2 Stakeholder v. Shareholder banks

European banking is a mix of many different types of banks: public, state, cooperative, mutual and private banks. European banking is a heterogeneous industry with respect to issues such as ownership structures,[5] governance arrangements, capital structure and business objectives. A particular distinction is made between *Stakeholder Value* banks and *Shareholder Value* banks. We conceptualise SHV banks as those whose primary (and almost exclusive) business focus is maximising shareholder interests, while STV banks in general (and cooperative banks in particular) have a broader focus on the interests of a wider group of stakeholders (notably customer-members[6] in the case of cooperative banks, the regional economy and the society in the case of savings and public banks).

The distinction is ultimately about the banks' bottom line business objectives. While the differences are in practice complex, the SHV model is

[5] Institutional diversity is explicitly protected by the EU treaty under Art. 295.

[6] See Annex 1 for the definition of member.

based on the notion that banks (and any firm) exist primarily to maximise shareholder value and hence the rate of return on equity. Shareholders are the owners of the bank and the ultimate risk-takers. In this model the management of the firm is supposed to act almost exclusively in the interests of the shareholders through maximising the value of the business as reflected in the rate of return on equity and the market capitalisation value.

In contrast, in the STV model there are many stakeholders in a company and most especially the members in the case of cooperatives. In the STV approach, while profitability is one of the objectives of the bank, it is not exclusive or even the primary objective. It is more an issue of balancing different interests of the various stakeholders in the company. In practice, this means that an STV bank will not pursue profit maximisation to the same degree, or with the same intensity, as will SHV banks (Llewellyn, 2005). The position is described well in Christen et al. (2004) and in Ayadi et al. (2009) as "dual bottom line" institutions indicating that STV banks (including cooperatives) need to generate profit in order to survive and expand, but that profit is not the sole or even primary bottom line objective. Equally, Groeneveld and de Vries (2009) from a cooperative perspective mentioned, "…cooperative banks claim that they do not aim to maximise short-term profits while healthy profitability is an important necessary condition for cooperative banks to safeguard their continuity, to finance growth and credit, and to provide a buffer for inclement times… profit is not a goal in itself."

2.3 The nature of value creation in banks

If any firm is to survive it must create economic value (Davis and Kay, 1990). All firms exist to create added value by providing goods and/or services for which consumers are prepared to pay a price in excess of the costs of production. When considering the nature of value added in cooperative banks (and how they differ from SHV banks), three issues immediately arise: the precise nature of the value added, how the value added is created, and how it is distributed between different stakeholders in the firm.

For our purposes (and simplifying what are often complex multiproduct institutions) a bank can be viewed as providing financial intermediation services by taking deposits (and capital) from one set of stakeholders and customers and making loans to another set (though, in

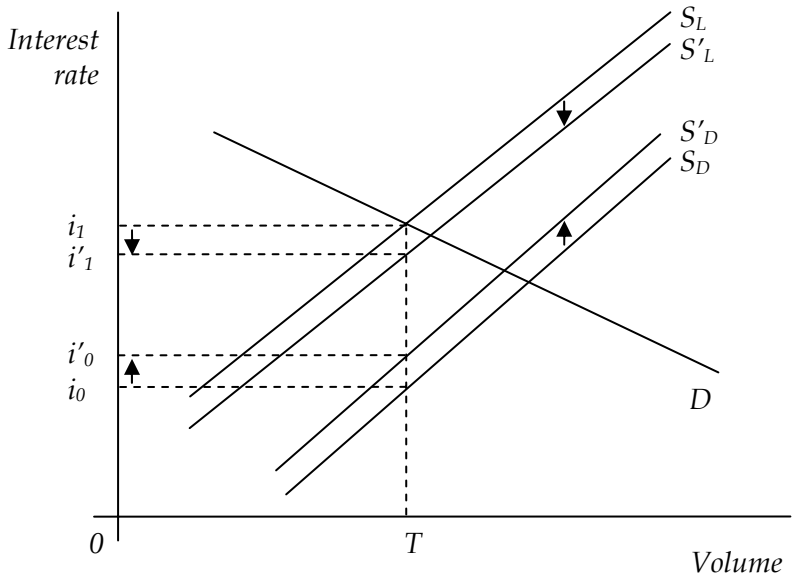
practice, they may be the same stakeholders when, for instance, a customer is both a depositor and a borrower). A simple representation of the banking firm (Figure 2.3.1) serves to illustrate the analysis to follow. If all other interest rates are given, deposit-taking institutions face an exogenous upward sloping supply curve of deposits (S_D), indicating that the supply of deposits made available rises as its own deposit interest rate rises. For a given supply curve of deposits, the institution's endogenous supply of loans (S_L) is also a rising function of the loan interest rate. In equilibrium the volume of deposits and loans is OT and the institution pays a deposit rate of i_0 and charges a loan rate of i_1. Clearly, this is a simplification of the business operation of a bank and thus ignores important questions about the pricing of different assets and deposits, different risk premia charged, and decisions about the structure of the loan and asset portfolio. It also ignores off-balance-sheet and non-interest business. While important in practice, these complications need not be incorporated for the purposes at hand.

In Figure 2.3.1 the cost per unit of intermediation is represented by the interest rate differential i_0i_1. Anything that increases this cost (and forces a bank to widen the margin) reduces the competitiveness of the bank. This is because either alternative mechanisms become relatively cheaper or more efficient, or that the costs of the intermediation services of banks are deemed to be too high.

If an SHV and a cooperative bank have the same efficiency, access to the same production technology, the same cost of capital, and operate in a competitive market environment, they will have the same intermediation margin and could, if they choose, generate the same profit/surplus. However, if for any reason (such as lower costs, greater efficiency, lower cost of capital, etc.) any bank is able to operate with supply curves S'_L and S'_D in Figure 2.3.1, it has a potential competitive advantage in the market place enabling it to pay a higher rate of interest on deposits and/or charge a lower rate of interest on loans.

In this representation of the bank, there are key differences between SHV and cooperative banks and two in particular: (1) the potential intermediation margin is likely to be different, and (2) how the added value is distributed between stakeholders.

Figure 2.3.1 Simple representation of banking activities



With respect to (1), the intermediation margin is potentially smaller in the case of cooperative banks as they are not required to service externally-held capital, i.e. profits are not needed to pay dividends on shareholder capital. Instead, any net surplus is normally taken into reserves which, as argued below, are not owned by current members of the cooperative bank and cannot be appropriated by them. However, and again reflecting the diversity of the cooperative model, it is not uncommon for cooperative banks to pay 'dividends'.[7]

On the one hand, it might be claimed that in practice the costs of a cooperative bank may be higher than with an SHV bank by virtue of it not being subject to the discipline of the capital market and the market in corporate control (the take-over market). In principle, this could compromise the efficiency of a cooperative bank. On the other hand, if a cooperative bank operates in a competitive market environment, competitive pressures are likely to offset these potentially negative influences on efficiency. In many ways, competitive pressures are likely to

[7] In several cases, cooperative banks serve interest on membership shares.

be more important than capital market discipline and corporate governance arrangements in disciplining cooperative banks. The empirical evidence regarding efficiency and competition is discussed in a later chapter.

There is also the issue of how value added is distributed differently between the two models of the bank. In the case of an SHV bank, net added value is appropriated by external shareholders in the form of either dividends (if profits are distributed) or (if profits are taken into reserves) a higher share price which can be liquidated by shareholders selling their shares. On the other hand, value added in a cooperative bank may be distributed to customers *ex ante* in the pricing of deposits and loans and/or the quality of the services. As put by Jarvin (2006) and Drake and Llewellyn (2001), value added in a cooperative bank is incorporated in products and services rather than in profits for external shareholders: this may also be reflected in service quality to members and customers.

Thus the value added by two identical SHV and cooperative banks (other than with respect to ownership and capital) may be the same but its distribution is different: *ex ante* in prices and service quality with the cooperative bank versus *ex post* through dividends with the SHV bank. In effect, the potential margin advantage of cooperative banks gives choice over objectives and how this advantage is utilised and distributed. However, this still leaves open the question of whether in practice the two types of banks are likely to operate in a similar manner.

2.4 The cooperative banking model in Europe

Across Europe, cooperative banks are private institutions and, as one of many different types of banks, compete with institutions which have different ownership, governance and capital structures and different business models.

2.4.1 Definition of cooperative banks

The International Cooperative Alliance defines a cooperative bank as follows:

> An autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise (ICA, 2007).

The nature of a cooperative is often described by its internal statutes, by-laws or articles of association. National laws on cooperatives also exist,

providing the general principles of operation and the protection of members and third parties from the activities of these institutions. However, there are clear differences in the manner and extent to which cooperatives are treated in different countries. In some countries, such as Germany, cooperatives are recognised as a distinct form of company vehicle and specific laws exist to determine the fundamental nature and general operational principles. In others, such as Belgium, France, Italy, Switzerland and the UK, they do not have specific codes but are regulated by applicable chapters of broader laws, such as the Civil Code or Commercial Code. Yet in others, such as Denmark and Norway, despite their significant presence, no specific law is applicable to cooperatives.[8]

The differing national treatment of cooperatives has been seen as an obstacle to the development of the cooperative movement. In its resolution in 2001, the United Nations (UN) encouraged governments to facilitate the development of cooperatives on an equal footing with other forms of enterprises in order to utilise and develop fully the potential and contribution of cooperatives for the attainment of social development goals.[9] In its part, the EU introduced the European Cooperative Society (SCE) in 2003 (which came into force in 2006) in order to facilitate the cross-border activities of cooperatives within the Union, assisting them in their evolution to become an integral part of the internal market.[10] The rules were based on common principles of cooperatives operating in many countries, while at the same time taking account of different elements in some member states. Despite its existence for over three years, the SCE structure has not been fully taken up. See the discussion in Box 1 for a brief assessment of the Directive.

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[8] See International Labour Organization's (ILO, 2007) report for a short discussion of worldwide legislation of cooperatives.

[9] Resolution adopted by the General Assembly of the 88th plenary meeting of the United Nations (UN) on 19 December 2001 (A/RES/56/114).

[10] The SCE was implemented in the EU with two codes: Council Regulation (EC) N° 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society, which setup the main principles of the company status, and the Council Directive 2003/72/EC of 22 July 2003, which supplemented the statute with regard to the involvement of employees; see also O.J. N° L207 of 18 August 2003.

2.4.2 Key characteristics of cooperative banks

As will be documented in detail in the following chapter, there is no single universal model that, in all its detail, is common to every single cooperative bank in Europe. There is diversity in many dimensions both within some countries and, most especially, between countries.[11]

Reflecting this diversity, there is no intention to impose a 'straight-jacket' definition. Nevertheless, this does not mean that it is not possible to identify unifying features. Without imposing such a straight jacket, the following key common characteristics are identified which encapsulate the essence of the basic cooperative banking model:

1. Maximising the rate of return on capital is not the exclusive or even dominant business objective of cooperative banks. The essence of the cooperative model is that there is no myopic focus on maximising short term shareholder value. The typical cooperative bank seeks to maximise the benefit/surplus of its members, who typically maintain long-term relationship with their bank. The interests of members rather than external shareholders are at the centre of cooperative banks' business strategies. However, as with all banks (irrespective of their capital structure), cooperative banks do need to earn a minimum rate of return on capital in order to grow their business.

2. Cooperative banks are essentially owned by their members who are private citizens and individual entrepreneurs. In most cases, ownership is at the local or regional level.[12] Although a cooperative bank may have customers who are not members, a key feature of cooperatives is that, in general, there is no formal separation of owner-customers and non-owner-customers.

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[11] Groeneveld and de Vries (2009) note that "the form, appearance, organisation and operation in cooperative banking groups differ across countries and over time".

[12] As put in a recent Oliver Wyman report: "The member ownership concept is not only central to the cooperative model, but is also a unique aspect that is hard to replicate outside cooperative structures. Vital to the establishment of cooperative banks, it remains today their common defining feature as well as a source of differentiation versus non-cooperative competition" (Oliver Wyman, 2008). The report also notes in the context of networks that despite the significant differences in the organisation, all networks share one common feature – member ownership. The local banks are effectively owned and controlled by their local customers through the membership concept.

3. Members of a cooperative bank have significance not only by virtue of being owners but also because they are an integral part of the governance structure, although the precise arrangements vary considerably. Governance arrangements are based essentially on the principle of one member, one vote rather than in proportion to the size of ownership stakes.

4. In general ownership stakes in cooperative banks are not marketable. Members cannot sell their ownership stakes in an open secondary market, although in some cases they can sell them back to the bank. Exit is however possible through the redeemability of members' shares. In other cases, members may trade membership certificates in a closed market available only to members. Because of this and of the usual absence of a stock exchange listing, there is no market in corporate control in that it is virtually impossible for hostile bids for ownership to take place: a cooperative bank cannot be bought by new owners.[13]

5. Whilst there are exceptions, the almost exclusive source of capital for a cooperative bank is retained profits.[14] These profits are retained within the bank and are added to reserves (capital) and dividends are generally not paid although members may sometimes be able to vote for a limited distribution of profits. The capital base of a cooperative bank (i.e. its net asset value) does not belong to the current cohort of members.[15] Capital is essentially an intergenerational endowment held by the cooperative in perpetuity for the benefit of current and future members.

6. Cooperative banks are often part of a network with an integrated structure with extensive vertical and horizontal cooperation.[16] These institutions centralise the provision of certain services and production processes, especially where benefits of economies of scale are significant. The services and processes provided range from back office and

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[13] As noted in Oliver Wyman (2008): "This ownership structure makes it effectively impossible for a cooperative bank to be subject to a hostile take-over."

[14] In many cases there are no external shareholders/owners who are not themselves members of the cooperative. Cooperative banks have only limited access to external capital independent of their members. However, some cooperative banks have been able to issue new forms of hybrid Tier 1 (risk-bearing) capital as allowed by their regulator, although new Basel rules may change this.

[15] As future generations are counted amongst the stakeholders.

[16] Prime examples include Rabobank, BCPE, OP-Pohjola, Crédit Agricole and Crédit Mutuel.

representation services to others such as centralised product development, liquidity and risk management services, and the role as a supervisor.

7. Cooperative banks have a common vocation towards banking relationships with SMEs and households, which is fostered by close proximity to customers as a result of the cooperative ethos.

There are also some exceptions to these common features which will be examined in the next chapter of this study. In brief, some cooperatives in Europe have non-cooperative subsidiaries (which in some cases are listed on a stock exchange such as in Italy or France) and may also operate with different business models when conducting business outside their home country, such as in Austria.

This all means that there is no completely homogeneous set of cooperative banking institutions across Europe. Because of this, it is not feasible to define a simple and unequivocal description that applies to all versions of the model and which encapsulates without challenge all the detailed versions of the basic business model. In particular, Banche Popolari in Italy are listed on a stock exchange which means that some of the arguments that apply to cooperative banks in general may not always apply in this case. This also applies to some extent with Crédit Agricole.

2.4.3 Risk characteristics of cooperative banks

With notable exceptions, cooperative banks tend to be lower risk institutions.[17] They tend to engage in less risky activity (see, for instance, Cihak and Hesse, 2007).[18] Moreover, by virtue of their local ethos and proximity to their member-customers, cooperative banks have traditionally engaged in relationship banking and hence facilitated access to finance to SMEs, craftsmen, farmers, etc., i.e. those entrepreneurs who may not in practice have access to loans from other banks (De Bruyn and Ferri, 2005).

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[17] As put by Oliver Wyman (2008): "Working to more risk-averse, longer time horizon investment objectives than shareholder driven institutions, cooperatives currently represent a relatively safe haven for investors…Furthermore, risk management may be enhanced by virtue of the proximity of the banks to their borrowers and the local information the bank may have due to its proximity to borrowers."

[18] The idea that cooperative financial institutions are, on the whole, more likely to be characterised by relatively low risk business structures is also supported by the relevant property rights literature (see Fama and Jensen, 1983).

There are several reasons why cooperative banks tend to have less incentive to take excessive risk. First, they are not under pressure to maximise profits which, at times, may induce SHV banks into a higher risk profile. Second, cooperative banks are under less short-termist pressure and are more inclined to adopt a longer-term horizon in their business decisions and lending policies. Third, it is less easy for some cooperative banks to raise external capital, i.e. independent of their members. Fourth, the fact that cooperative banks are owned by their members makes them less prone to the asset substitutability problem and hence less inclined to risk taking (see Drake and Llewellyn, 2001). Finally, a particular feature of a cooperative bank is the strong local presence and the proximity, which allows them to have a better understanding of the needs and the risk profiles of their customers and ultimately to mitigate acute asymmetric information.

In addition, excessive risk taking is mitigated in the case of cooperatives because of the inherent absence of traditional agency problems that exist in the case of SHV banks. It might also be argued that the presence of external shareholders in SHV financial institutions can add a further dimension to the agency problem by virtue of the potential conflict between the owners (equity shareholders) and depositors/customers. For example, equity shareholders may prefer a higher risk profile for the institution than would depositors due to the former's limited liability. This implies that shareholders can benefit from potentially significant 'upside gains' while being exposed to only limited downside potential. In contrast, depositors do not share this upside potential and would implicitly be subject to greater risk given the limited scope of deposit insurance. Clearly, in cooperative banks this particular aspect of the agency problem is absent as owners and customers (and depositors) are largely one and the same.

2.4.4 The role of capital and its management

A cooperative bank has no (or very limited) externally-held risk capital. Indeed, its capital is mainly built up from accumulated profits.

By the nature of its constitution, the net economic value (i.e. net of debts and the nominal value of members' shares which is the amount they contributed through deposits) provides an intergenerational endowment without final owners (see Fonteyne, 2007). In other words, the capital or net worth of the bank is not owned by the current cohort of members, but

rather by the cooperative itself. Net economic value has no legal owners other than the cooperative itself.[19] In this sense, the managers of a cooperative bank are to be viewed, in effect, as custodians of an intergenerational transfer, which could in principle create governance issues and the potential for opportunistic behaviour of managers.

In addition, the capital base of a cooperative bank (i.e. its net asset value) cannot be appropriated by the current cohort of members as future generations are counted amongst the potential stakeholders.[20] In most cases, members have an ownership claim only on the notional value of their paid-up membership, plus any limited distributions of profits the bank might make.

2.4.5 The role of network central institutions

Another feature of cooperative banks in many European countries is the level of network cooperation that exists between local or regional and higher level (centrals or apex) institutions.[21]

NCIs have grown out of various needs over time. One need, which has become increasingly important in recent years, has been the necessity to centralise certain transactions in order to benefit from economies of scale. In today's cooperative banking model, most local banks have left certain functions to such network institutions that act as centralised service providers. These services include IT support, data processing, training, accounting, marketing, product development, and representation. Apart from limiting replicable costs, centralised institutions have also arisen out of a need to effectively reduce the "brand name externality problem" (Guinnane, 1997).

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[19] As put by Fonteyne (2007), "net economic value is in essence an owner-less intergenerational endowment that is available for use by current members, under the implicit or explicit understanding that they will grow it further and pass it on to the next generation of members."

[20] Unlike in the UK where the current cohort of members was able to appropriate the value of capital in the event of demutualisation of UK building societies (see Box 2).

[21] As put by Fonteyne (2007): "networks have evolved into large, complex, financial conglomerates, some of which are now among the largest banking groups in Europe". The increasing reliance on Network Central Institutions (NCIs) in some ways balances the 'bottom-up' ownership of members by imposing a 'top-down' authority (Di Salvo, 2002; Desrochers and Fischer, 2005).

There are several strategic and managerial advantages for cooperative banks forming networks between themselves which is the reason why cooperative banks in many countries formed themselves into networks at an early stage in their development. Although the nature, degree of integration, and the role of these institutions vary, the most important advantages include:

- Economies of scale (and scope), especially with respect to a range of back office and administration functions. Through this route, relatively small banks are able to secure collective economies of scale that each is too small to generate internally. In this sense the network provides a range of collective services. Although it might be thought that this is analogous to outsourcing, the key difference is that the contracts are held within the network and member banks maintain ownership and to some extent control, which is not the case when outsourcing is conducted with third parties.
- In some cases (notably in the Netherlands), an NCI may perform the role of an internal central bank, intermediating liquidity within the network.
- To the extent that they qualify as "institutional protection schemes" under the Capital Requirements Directive (2006/48/EC), mutual support schemes provided by NCIs allow the associated banks to assign a zero weight for intranetwork exposures.[22]
- Mutual support systems also serve to secure the certainty of repayment for creditors and depositors, thereby enhancing the banks' funding opportunities.
- There may also be a management consultancy role performed by an NCI where best practice within the network can be disseminated.
- Member banks may also gain through the reputation and profile of the NCIs, including an increase in customer confidence in banks which are known to be part of a credible network.

[22] Among other things, the protection scheme has to satisfy the provisions put forth in Article 80 Paragraph 8 of the Capital Requirements Directive (2006/48/EC). A key requisite is the system's capacity to ensure the liquidity and solvency to avoid bankruptcy, with the disposal of funds that are readily available for that purpose.

- There may be an important role in providing collective services such as product development, treasury management, and risk management. In this sense, NCIs can meet the collective needs of the network banks more efficiently than can the member banks themselves.
- An NCI may also have subsidiaries providing services for the benefit of both member banks and their customers, which may not be feasible for individual member banks to directly provide themselves.

The NCIs may also represent a risk if they threaten the cooperative identity of the system. This could be the case, for example, if the central institute pursues objectives that are at odds with the cooperative principles and prioritisation of the members' benefits. An excessive amount of centralisation may also worsen the cooperative banks' ability to respond to customer needs.

The net advantages will, however, depend upon the nature of the network, the specific role of NCIs and whether the local banks can continue fulfilling their roles as cooperative institutions. These aspects vary among countries as do the specific relationships between member banks and NCIs. The role of NCIs is discussed further in the country sections in the next chapter. It is demonstrated there that not all cooperative banking networks have a strong degree of centralisation and practice varies considerably between countries and, in some cases, even within countries.

Although centralisation of some activities generates benefits to local banks, the driving force for the development of the NCIs was the need to manage liquidity and access to capital markets. By default, most local banks are small, which implies that their risks are relatively concentrated. Although this is less of a problem in today's world where almost all cooperatives have a relatively diversified client base, remaining local and being small constrains external financing and introduces potential liquidity problems. Notwithstanding these issues, the principle of mutuality restricts a cooperative's ability to raise capital or issue debt. Treasury functions, i.e. management of excess liquidity, are usually managed by the central organisation. Local cooperatives with excess liquidity thus deposit excess funds with their central organisation, which may then redeploy them to other cooperatives which are short of funds. This serves as an intragroup interbank market.

Today, NCIs serve these needs by providing a range of services. In most models, wholesale activities, such as the issuance of debt and (in

some) the issuance of stocks, are handled by network institutions, such as national or regional centrals. The extent of integration differs from one cooperative to another. This again reflects the general theme of 'commonalities with diversity' introduced earlier in the chapter. In general terms, the Italian and Spanish models are often accepted as less centralised than the Austrian, German, Dutch, Finnish and, to some extent, French cases.

A key factor helping to distinguish well-integrated networks from weaker associations is the extent of mutual support available. In essence, the mutual support schemes make available network resources to ensure the liquidity and solvency of the participating institutions. In this manner, the support is beyond the coverage provided by the compulsory and supplementary deposit insurance schemes and bond issuance mechanisms that are in place. Table 2.4.1 summarises the key elements of these systems.

Table 2.4.1 Extent of mutual support in European cooperative banks

	TYPE OF SUPPORT		LEGAL SCOPE		TYPE OF FUNDING	
	Cross-guarantees	**Joint-liability**	**Legally-binding**	**Obligatory participation**	**Paid-up funds**	**Call-up funds**
Raiffeisen (AT)	√	(1)	√		√	(1)
Volksbanken (AT)	√			(2)	√	√
BVR (DE)	√			√	√	
Cajas Rurales (ES)	√				√	
OP-Pohjola (FI)	√	√	√	√		√
Banque Populaire (FR)	√			√	√	
Crédit Agricole (FR)	√		√	√	√	√
Crédit Mutuel (FR)	√		(1)	√	√	√
BCC (IT)	√				√	
Rabobank (NL)	√	√	√	√		√

Sources: Annual reports, legal documents and statutes of local banks and central institutions, national laws, DBRS (2007), and Fitch (2007, 2008).

Notes: Italian Banche Popolari are not included as they do not have cross-guarantee schemes beyond the compulsory insurance schemes.

(1) Available at the regional level but not for the group as a whole.

(2) Full *de facto* participation.

Some form of mutual support exists among all the cooperatives covered in this study except for the Italian Banche Popolari (not included in the table). The types of support range from *cross-guarantees*[23] to systems with *joint-liability*, available only among the Finnish and Dutch cooperatives.[24] As for the legal scope of the schemes, in some cases the support is *legally-binding*, implying that it can be deployed automatically in the event of trouble, without any specific authorisations or reservation by members. Participation in the systems may also be *obligatory*. In some systems, such as in Austria and Spain as well as for the Italian credit cooperatives (BCC), participation is voluntary even though there may be *de facto* full participation, as is the case in the Austrian Volksbanken.

A key factor is the type of funding available for support. In many cases, the associations build *paid-up funds* through contributions of members. The paid-up funds can be supplemented by a provision to allow for *call-up* (or *ex-post*) funds, which is the case for Austrian Volksbanken and French Crédit Agricole and Crédit Mutuel. In other cases, such as the joint-liability schemes of Finnish and Dutch cooperatives,[25] there are no paid-up funds since the group's pooled capital and reserves serve as the basis for support, just like in a consolidated banking group.

One question that arises is to what extent a higher degree of integration, achieved through extensive mutual support or centralisation of other functions, complicates the existing agency problems. Traditionally,

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[23] A *cross-guarantee* is a commitment or obligation by participating entities to provide liquidity to a troubled entity. In principle, such a system could serve as a liability protection mechanism by providing support to institutions in difficulty. It should be noted, however, that support is often limited by participating institutions' capacity to contribute, which could be insufficient to meet all the claims. Other complicating factors include the legal scope of the system, which could be crucial in determining the timeliness of support, and exceptions that may rule out support for difficulties arising from fraudulent or criminal transactions. See DBRS (2007) for more details.

[24] More precisely, associations with *joint-liability* allow creditors to make direct claims against the group if the amount owed by the troubled entity is not forthcoming. In effect, joint-liability automatically implies a significant degree of pooling among the participating entities.

[25] For Austrian Raiffeisen, the customers of local banks are protected by a joint-liability system at the regional level. At the national level, a cross-guarantee scheme is in effect, which provides liquidity to troubled provincial associations. For this reason, it is more appropriate to consider the Austrian Raiffeisen's mutual support system as a cross-guarantee scheme rather than one that provides joint-liability for all institutions.

the owners of a cooperative, i.e. its members-customers, take the role of principals while the managers of the local and central institutions take the role of agents. This can be seen as the classical agency problem that exists between the owners and the management. While the members benefit from the maximisation of low cost products, the managers prefer high wages and low effort. The cooperatives have introduced a variety of governance mechanisms to reinforce bottom-up ownership, including a democratic voting structure whereby members choose representatives of local institutions who then choose representatives in central organisations; distribution of benefits to members; election of directors of central institutions by local banks; and so forth.

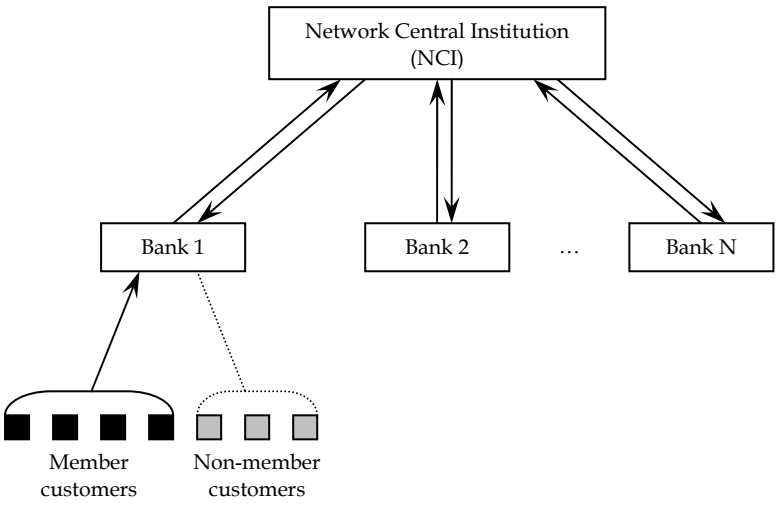
Highly integrated systems introduce an opposing problem. The central institutions have stronger incentives than local institutions to safeguard the mutual resources, i.e. the shared brand-name, pooled reserve fund, etc. This is the so called *appropriability hazard* problem, whereby counterparts may act opportunistically to obtain the rents generated by the alliance (Descrochers and Fischer, 2005). One common response to reduce these risks is to give the central institutions an appropriate level of authority and control. In many cases, the individual banks (either local or regional, depending on the coverage) have to submit regular prudential reports to their central institutions. Other measures include the standardisation of risk-management practices, obligatory audits and other preventive measures. In response to a call on the use of funds, the central institutions also have the right to engage in additional actions, such as restructuring of the bank's debt, governance structure and pushing for merger with other network institutions.

The increasing role of central institutions has led to the emergence of a 'circular authority' in highly integrated cooperative banks. As shown in Figure 2.4.1, member-customers exercise their power by voting and claiming their rights to residual earnings by obtaining the cooperative dividends on their nominal shares. At a higher level of relationship, the local institutions have authority on the central institutions, often limited to the election of non-executive boards by local directors in the general assembly meetings. These two layers of decision-making represent the 'bottom-up' authority that is typical of most cooperative financial institutions. In integrated structures, central institutions maintain control over the local institutions through formal monitoring, reporting, auditing, and other preventive measures for safeguarding the network's mutual

resources. This represents the 'top-down' authority, which effectively diminishes the autonomy of local banks.

Partly attesting to the growing importance of top-down authority in cooperative bank networks, national regulators have gradually delegated the supervision of local institutions (all of which are separately licensed credit institutions) to the central institutions. In terms of supervision, this is equivalent to treating the entire network as a consolidated group. In the case of the Netherlands, for example, the country's central bank (De Nederlandsche Bank) is the supervisory agency for banks but has explicitly delegated the supervisory authority over cooperative banks to Rabobank Nederland. Naturally, this form of supervision is more readily available in highly integrated models, i.e. in models where the centralised institutions have more authority on the system as a whole, such as the Finnish, Dutch and, in some instances, the French models.

Figure 2.4.1 Circular authority in integrated cooperative banks



Source: Authors' elaboration.

Note: Intermediary organs, such as regional central institutions and representative boards, have been omitted from the figure to simplify presentation.

Governance of cooperative banks

Agency issues (potential conflicts of interest between managers and owners of firms) arise in any organisation in which there is a separation of decision- and risk-taking functions (in the case of cooperatives between the

management and the members; in the case of SHV companies between management and shareholders). This arises particularly when important decision agents do not bear a substantial share of the wealth effects of their decisions (Fama and Jensen, 1983). A potential moral hazard arises as managers may be induced to behave in their own interests rather than those of shareholders.

The central idea is that owners of firms (whether shareholders or members of a cooperative) in practice delegate to management the job of running the firm and operating it in the owners' interests. In particular, management is supposed to pursue policies that maximise the benefit of owners. In turn, the shareholders/owners monitor and control management to prevent them from exploiting their advantageous position.

A key element in this debate typically centres on the differences in ownership structure and the often alleged greater scope for managers of cooperative banks to engage in rent-seeking or expense-preference behaviour. It is typically asserted that agency costs are potentially more prevalent in cooperatives than in SHV institutions because the owners (investors and borrowers) of the former have less influence on managers than do their equity shareholding counterparts in SHV banks. This is partly because they are larger in number, have smaller ownership stakes, and are more dispersed. However, this view can be questioned, and the empirical evidence does not support the proposition that cooperative banks systematically have higher costs.

Indeed, it can be argued that cooperative institutions are in some respects better able to address some agency problems than are their SHV counterparts. Four issues are considered: (1) the unique nature of the members' claim; (2) the exit option is potentially more powerful; (3) the absence of the capital market as a source of capital; and (4) absence of shareholder/creditor conflicts.

1. Unique nature of members' claims

This advantage relates to the unique nature of the members' claims in cooperative banks: specifically, that they are in principle redeemable on demand.[26]

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[26] Fama and Jensen (1983) point out that: "The decision of the claim holder to withdraw resources is a form of partial take-over or liquidation which deprives management of control over assets. This control right can be exercised independently by each claim holder.

2. Exit potentially more powerful

The property rights literature suggests that the usual emphasis given to the direct impact of owners on management by highlighting the nature of voting rights, attendance at annual general meetings, presence of owner-members on the board of directors, etc., may be misplaced in the case of cooperatives. In practice, potential member withdrawals, which imply a partial liquidation in a cooperative bank, should generate a strong incentive to supply financial services on competitive terms and to provide high quality service (especially in a highly competitive market environment). In cooperative banks, owners can exercise the easy and costless option of *exit*. This is a powerful discipline mechanism and is in some senses a more direct threat to managers since, as was emphasised in an earlier section, when a depositor withdraws funds the capacity of the cooperative bank is immediately reduced, whereas the sale of an equity stake in an SHV bank does not immediately influence the capacity of the firm though the share price might fall. Thus, if equity stakeholders in SHV banks sell their ownership stakes on the stock market, this does not remove assets from the control of the management of the banks.

3. Absence of capital market option

An obvious control mechanism in financial cooperatives is that they traditionally do not have access to external equity finance which makes them more reliant on retained profits for growth. The capital structure of cooperative banks is such that the almost exclusive source of capital is retained profits. This implies that business mistakes exerting the effect of destroying capital cannot be offset by external injections of capital. This tends to make cooperative banks more risk-averse.

4. Absence of shareholder/creditor conflicts

A further agency problem relates to the potential conflict between the holders of debt contracts and the holders of equity. Specifically, the nature of the debt contract dictates that if a risky (*ex ante*) investment produces

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It does not require a proxy fight, a tender offer, or any other concerted take-over bid. In contrast, customer decisions in open non-financial corporations and the repricing of the corporation's securities in the capital market provide signals about the performance of its decision agents. Without further action, however, either internal or from the market for take-overs, the judgment of customers and of the capital market leave the assets of the open non-financial corporation under the control of the managers" (p. 318).

high (*ex post*) returns well above the face value of the debt, equity holders will capture the gains while debt holders receive only their fixed contractual payments. If, however, the investment fails, then, due to their limited liability, equity holders will face only limited downside risk while debt holders will face the same downside risk without any compensating upside potential. Thus, as shareholders have all the upside potential of risk behaviour but only a limited downside loss, they may have greater incentives to encourage the firm to take more risk than do debt holders in the firm.

It follows that equity holders in an SHV bank may have an incentive to see the firm investing in high-risk projects even though they may be value-decreasing for the firm and this tendency may be exacerbated if equity investors have highly diversified portfolio holdings. This effect, generally referred to as the 'asset substitution effect', is an agency cost of debt financing in SHVs and is frequently neglected in the SHV *versus* STV debate. It could be argued that the presence of external shareholders in SHV financial institutions can add a further dimension to the agency problem by virtue of the potential conflict between the owners (equity shareholders) and depositors/customers. Clearly, in cooperative banks this particular aspect of the agency problem is absent as owners and customers are generally one and the same.

Comparisons are often made in the literature between the governance models of different types of company ownership structures. A general perspective is that agency costs (associated with principal-agent issues) exist in all forms of company structure and they are handled differently in different types of companies. Because there are imperfections in all forms of governance arrangements, it is invalid to compare the actual arrangements in one model with a perfect theoretical version of a different model.

In sum, this chapter sheds light on the economics and nature of cooperative banks in general. It emphasises the common characteristics of these banks including governance, risk, capital and the key role of central institutions. The next chapter delves more deeply into the cooperative banking sector's developments in seven European countries.

3. KEY DEVELOPMENTS OF COOPERATIVE BANKS IN EUROPE

Credit cooperatives based on the principle of mutual "self-help" ("Selbsthilfe") and the corresponding principles first took hold in Germany. The movement gradually grew in importance in the late 19th and early 20th centuries and eventually spread to other countries in Europe, first to neighbouring Austria, Italy, and France, and then to others, such as the Netherlands, Spain and Finland. In a number of countries, cooperative banks largely disappeared following the demutualisation wave, e.g. the UK.[27] And of course, there are also countries where they never existed or at least played only a minor role. In this evolving context, this chapter offers a brief overview on key developments of cooperative banks in Europe and concludes with an overall assessment of cooperative banks' evolving business models.

3.1 Germany

Cooperative banks in Germany date back to the middle of the 19th century. That was a time when banking was not yet well developed and the vast majority of the rural and urban population did not have access to financial services, and the rapid industrialisation and population growth made life very hard for a large part of the people.

Cooperative banks emerged at two locations. In the area of the Westerwald, a very poor mountainous region in the Rhineland, a local public administrator, Friedrich Wilhelm Raiffeisen, was struck by the misery he saw around him and he then laid the foundations for what was

[27] See Annex 2 for more details.

to become the first rural cooperatives in the world and a model copied and adapted worldwide. Many of these rural cooperatives are still today called Raiffeisenbanken in order to honour the founder and to emphasise their specific character.

These cooperatives strictly followed three fundamental principles: they were self-help institutions, relied on solidarity, and were self-administering small financial intermediaries.

Self-help implied that local people contributed the savings that were the basis for lending to members of the same community. Local people were also involved in monitoring borrowers, a role that was made easy by the fact that typically the members of a cooperative were from the same village or small town and knew each other very well. What may have induced the members to take this monitoring role very seriously was that for about 50 years the members of a given cooperative were jointly liable for all external debts that the cooperatives might incur in the course of its operations.

Solidarity shaped the way in which loans were granted, eventual repayment problems were resolved, and profits were distributed or retained in the cooperative. The most remarkable aspects of solidarity consist in the strict rules that (1) one member of a cooperative had, and still today has, only one vote in the assembly of members, (2) that membership cannot be sold but shares can only be redeemed at their nominal value plus retained earnings, and (3) that by law and statute cooperative banks do not have the objective to make as large a profit as possible but rather to serve the economic interests of their members and clients.

Self-administration shows that local cooperative banks were legally independent organisations having a special legal status since around 1900 that sanctioned their organisational and operating rules.

The second important group of cooperatives was founded only a few years later in what is now eastern Germany. These cooperatives, which adopted the common name Volksbanken (people's banks), mainly operated in urban areas: their typical members were craftsmen and petty traders. The founder of this group of cooperative banks was Hermann Schulze, a former mayor of the small town of Delitzsch, who later called himself Schulze-Delitzsch.

The cooperative movement developed very fast after 1850. Towards the end of the 19th century, there were several thousand credit cooperatives active throughout Germany and Austria. Rather soon, two associations and

central financial institutions were created at the regional level. In 1889, a special law on cooperatives was issued that provided a firm legal basis for their organisational design and operating principles. Given their importance, it is not surprising that several German states, notably Prussia, made attempts to place cooperative banks under public control. However, by and large these attempts failed and the two cooperative systems remained intact – and largely separate until they finally merged in 1972. At the same time, there was also an important change in the rules of operation: cooperative banks were allowed to also conduct business with clients who are not at the same time members. This so-called non-member business has gained considerable importance in recent years, somewhat obscuring the traditional nature of cooperative banks.

Today, the cooperative banks constitute the third pillar of the so-called 'three-pillar system' that is a characteristic feature of German banking. They compete with savings banks and private commercial banks that have large branch networks. Among the three principal groups or 'pillars' (to which one would have to add a fourth group of "other institutions"), the cooperatives are the smallest group, though not by a wide margin. Table 3.1.1 provides data on numbers of institutions (only banks) and total assets for the three groups in absolute terms and in percentages.[28]

Table 3.1.1 Overview of the German banking system; numbers of banks in the three main 'pillars'

	Com. Banks	S-Group	Coop. Group
Institutions (banks)	278	441	1,159
Institutions (%)	14	23	60
Total assets	2,192	22,531	938
Total assets (%)	29	34	13

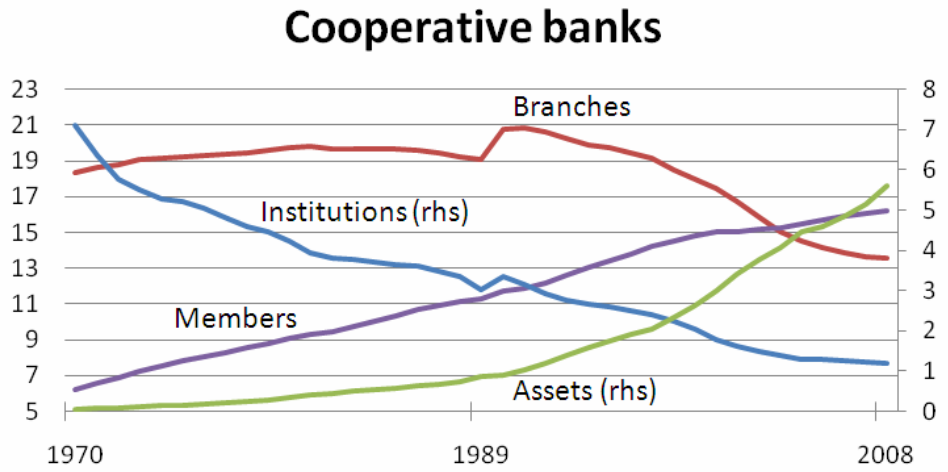
Note: All figures are as of end 2009.

Source: Bundesbank.

[28] The percentages do not add up to 100 because they do not cover the entire banking sector. There is also the fourth group of "other institutions", which comprises special institutions like state development banks, mortgage banks and building societies. While, ideally, these banks should be included among the three pillars, an adjustment of this kind is difficult and would only lead to minor changes in the relative sizes of the three pillars.

The German cooperative banking group is a network or system of related institutions, most of which are, however, mainly not connected through a top-down hierarchy. Much like the savings bank group, they are what is called a "Verbund" in German. The basis of this system was, and in many respects still is today, the locus of the ultimate power within the system, the legally independent local cooperative banks. Through a long process of intragroup mergers, their number has shrunk from some 7,000 in 1970 to 1,159 at the end of 2009; correspondingly, the average size of cooperative banks has increased dramatically, as Figure 3.1.1 shows.

Figure 3.1.1 Composition of the cooperative banking group over time



Note: Left scale: branches in thousands and members in millions; right scale: number of institutions (banks) in thousands and total assets (TA) per bank in 100 millions.
Source: BVR.

In addition to the local cooperative banks, the network includes central financial institutions and associations. Until about 20 years ago, the financial side of the Verbund featured a second layer of so-called regional central banks and, on top, one central financial institution called Deutsche Genossenschaftsbank (or DG-Bank). However, over the years, the second layer became obsolete, was thinned out and finally disappeared almost completely. Today, the financial structure consists only of local cooperative banks and two central institutions. The larger one of them is Deutsche Zentral-Genossenschaftsbank or DZ BANK, Frankfurt, which serves as the central bank for most primary or local cooperative banks, and the smaller

one is WGZ-Bank, Düsseldorf. Both cooperative central banks also operate as commercial banks with DZ BANK, which is Germany's fifth largest bank. Several recent initiatives to merge these two institutions have failed, but one can assume that a merger will finally come about.

As far as associations are concerned, one has to distinguish between regional associations and a central or top-level association called Bundesverband der Volksbanken und Raiffeisenbanken e.V. (BVR), which now resides in Berlin.

To complete the picture of the Verbund, one also needs to mention that there are a number of other financial and non-financial institutions and organisations besides those already mentioned. Most important among the group-affiliated financial institutions are the Cooperative Housing Bank (Bausparkasse Schwäbisch-Hall, Germany's largest building society) and the insurance giant R+V-Versicherung (the sixth largest insurance firm in Germany) and the groups' own guarantee organisation (Sicherungseinrichtung), which not only offers extensive deposit insurance, but also assures the existence of cooperative banks. A particularly noteworthy part of a regional association is its so-called Auditing Associations (genossenschaftlicher Prüfungsverband). Finally, the Verbund includes several training institutions, bookkeeping and computing centres, and special financial institutions for leasing, factoring and mortgage lending.

All in all, the Verbund currently encompasses some 1,200 separate institutions and employs around 180,000 people. Thus, it is about half as large as the German savings bank group. There are evidently strong similarities between cooperative banks and savings banks. They are both organised in networks of affiliated, but decentralised organisations which are not set up as hierarchies; they are both conglomerates of financial institutions that are not meant to maximise their respective profits but rather to pursue a wider set of objectives. Being profitable is of course important for them, since profitability is an indispensible prerequisite for economic survival and the ability to compete with others and to grow as institutions. But besides profit, and over the longer run even above profit is the objective to serve others, their members and non-member clients in the case of cooperative banks, and the regional economy and society in the case of the savings banks. This is what could be defined as a dual-bottom line financial institution. Thus they are both stakeholder banks as defined in chapter 2 of this study. That both of these federated networks ("Verbunde")

have survived for a very long time and especially during the last decades have been able to prosper (and at times even outperformed their commercial and purely shareholder value-oriented) peers may appear surprising to outside observers and suggest that there may be great merit to their organisational design and business orientation.

The local cooperative banks, most of which are called Volksbanken or Raiffeisenbanken, are cooperatives in the legal sense of the term. According to Art. 1 of the German law on cooperatives, the defining feature of a cooperative is that it has members who hold the shares, that members have one vote irrespective of how many shares ("Genossenschaftsanteile") they may have, and that the supreme objective of a cooperative is to support the economic activities of their members.

As its legal owners, the members of a local cooperative have voting rights in the general assembly, the right to receive a part of the surplus which is to be distributed, and the right to redeem the shares that they have once subscribed. Their formal obligation consists in making their financial contribution by buying a share with a given nominal value when they become members. According to the by-laws of many, though not all, cooperatives, their members are also guarantors in the sense that they are obliged to make financial contributions of a limited size in the case that their cooperative bank becomes insolvent ("Nachschusspflicht"). However, since the establishment of the institutional protection scheme mentioned above, in the 1930s, this eventuality has never occurred, and therefore the guarantee obligation de facto no longer plays a role today.

The legal structure of a cooperative resembles that of a joint stock company, but also differs in important respects. The supreme body is the assembly of members. It elects the members of the supervisory board, which in turn has the role of making important decisions, most importantly that of appointing the members of the cooperative bank management, and it decides on the use of profits.[29] However, annual meeting attendance is notoriously very weak. Therefore, there is, in the case of most large German cooperative banks, a board of representatives which has the mandate to perform most of the functions that were originally assigned to the general assembly of members. Each cooperative bank has a supervisory board and

[29] The dividends are moderate, in most cases reflecting a return on (equity) capital of 5% to 8%.

a management board: the management board, which must have at least two members, is responsible for running the bank on a daily basis and for representing it towards third parties.

The fact that each member of a cooperative has only one vote and is not allowed to sell his shares to other people at a freely determined market price but can only redeem them at their nominal value; that since the beginning of the 20th century members have not been liable for all obligations of the cooperative, as they had been in the early years; and that the guarantee obligation lost its former role after 1930 – may limit the financial incentives for members to get involved in the affairs of a cooperative or to monitor its management. In particular, there is no financial motive for them to induce the management to increase the value of the cooperative. Correspondingly, the incentives of management to increase this value are also weak. Moreover, there is no threat of a hostile take-over, but of course managers have to fear that they might lose their jobs. These special features of cooperative banks have both positive and negative consequences. The positive aspect of weak incentives for organisation-oriented value creation is that a cooperative bank's management can really concentrate on supporting the members and is not encouraged to increase the value of the cooperative by exploiting the strong position it may have vis-à-vis its member-customers. However, at the same time, management may be inclined to make less than their best effort in running the bank and enjoy the proverbial quiet life. And they might even indulge in self-serving practices. While this lack of management control has led to the downfall of many cooperative banks in developing countries in the past 50 years, such problems have been very rare or even non-existent in Germany.

But what exactly are the forces that mitigate the inherent governance problem? One such force is the competition to which cooperative banks are nowadays exposed to in Germany. Lenient management might make staff and customers simply leave the organisation, a threat which management has to take into account. In addition, the German cooperative banking system has developed an institutional device which can be assumed to play an important and positive role in this context. It is the regular and very comprehensive audit that is regularly performed by the regional Audit Associations. Their auditors not only have to look at the banks' accounts but also assess how careful and competent the banks' management is. Since good auditors from the regional Audit Associations have good prospects of

later becoming managers of cooperative banks, they definitely have a strong incentive to fulfil this demanding task as diligently as possible.

The Audit Associations perform their function not only on behalf of their respective regional associations of cooperative banks, but also on that of the institutional protection scheme, which is closely related to the Federal Association BVR. This protection scheme is also part of the de facto governance system, since its assessment determines the financial situation of a local bank and, to some extent, also the degree of independence of its management. The contributions of individual banks to the protection scheme depend on the riskiness of a local bank, as it is determined by the auditors. Riskier banks do not only have to pay more, their managers even have to fear being dismissed if they incur too much risk and if the auditors become aware of this fact.

As far as their organisational design is concerned, cooperative banks can be regarded as a specific mixture of elements of a club, which has members and not owners, a foundation, to which members have made contributions which they can scarcely recover at their full value, and of a corporation that has a structured hierarchy of administrative or governing bodies. When all cooperative banks were still very small and operated mainly in places where there was not much competition and a general lack of access to financial services, this design was clearly supportive of their role to help their member-customers. Whether it is still a suitable design today is an open question. However, the way German cooperatives performed in recent years and how they fared in the ongoing financial crisis – topics that will be addressed later – suggests that their institutional design may still today be more suitable than critics might be inclined to think. Moreover, in thinking of a comparison between cooperative and commercial banks, one should not overlook that the current crisis has revealed considerable weakness in the governance of a number of large Anglo-Saxon commercial banks.

As licensed banks, the German cooperative banks have to conform to the general banking regulation and are subject to normal banking supervision, which is exercised by the Federal Financial Services Authority (BAFin) in cooperation with the Bundesbank. Apart from slight differences,

they have to have the same level of equity and to follow the same structural and prudential rules as other banks.[30]

We now take a brief look at DZ BANK, the larger of the two second-tier financial institutions in the network. It is organised as a joint stock corporation. The overwhelming majority of its shares are held by the first-tier cooperatives. It has total assets of roughly €389 billion as of the end of 2009 and a staff of around 25,000, which makes it one of the largest banks in Germany. DZ BANK offers a wide range of financial services to affiliated local cooperative banks as well as other customers in Germany and abroad, and holds the majority of the equity shares in a number of the other financial service firms that belong to the cooperative banking group and several foreign subsidiaries.

DZ BANK and the institutions in which it holds a majority share provide a broad spectrum of services to their own customers and to the local cooperatives, and it offers those services to the customers of the local cooperative banks which they themselves are too small to provide efficiently. This division of roles seems to function well, leaving the primary cooperatives enough room for their own development.

Even though the German cooperative banks have a special mandate to provide financial services that are relevant and valuable for their clients and despite not being primarily profit-oriented, they seem, as a group, successful in economic and financial terms. This is most evident when the years between 1970 and 2000 are considered and becomes even more pronounced in the years after the beginning of the new millennium. The early years after 2000 were difficult for all banks, but in particular for the big private commercial banks and the second-tier institutions of the two banking networks, while the primary cooperative and savings banks were much less affected. To illustrate this proposition, we take a brief look at various indicators. The following chapter will look at more detailed comparative financial performance analysis.

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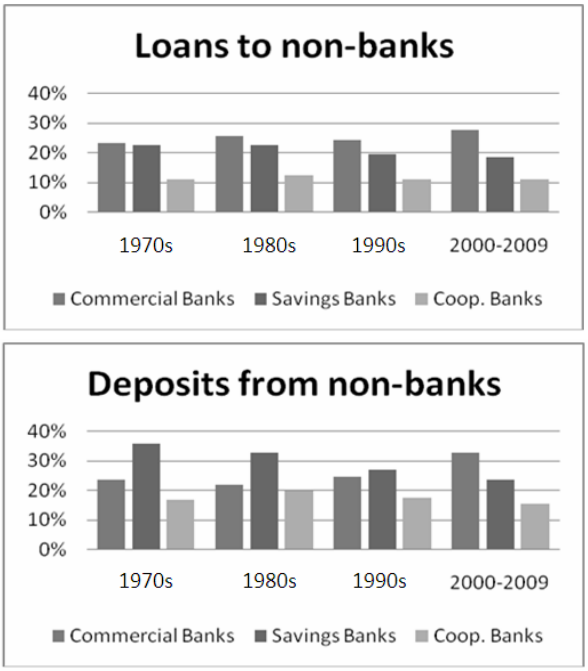
[30] One difference is that the requirement of an absolute minimum equity is lower for small cooperative banks and that, in principle, the limited guarantee obligations which some cooperatives may still have are counted in the determination of their relative equity requirement in the spirit of the Basel Agreements. However, in practice, these privileges hardly matter any more today.

Figure 3.1.2 shows the market shares of the major German banking groups in terms of loans to non-banks and deposits from non-banks for the last 40 years,[31] but does not include the respective second-tier institutions. The upper panel shows the market shares of the entire groups of commercial banks, savings banks and cooperative banks regarding loans to non-banks, while the lower panel shows market shares for deposits from non-banks.[32]

Figure 3.1.2 Market shares of the three banking groups, deposits and loans to non-banks[33]



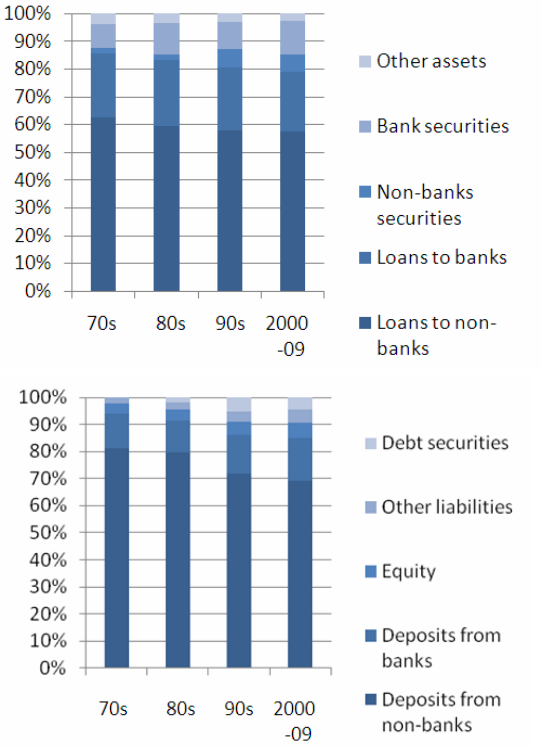
[31] Since not all banks are covered, the percentages in Figure 3.1.2 do not add up to 100%.

[32] If second-tier institutions were included in the upper panel, the savings bank group would stand out as the clear market leader as far as loans to non-banks are concerned, since the Landesbanken provide a sizable volume of lending especially to large firms belonging to the so-called Mittelstand. As far as deposits from non-banks are concerned, excluding second-tier institutions would hardly affect the overall picture.

[33] The data source of this figure as well as for those that follow is Deutsche Bundesbank, monthly and annual reports, various years.

A brief look at the structure of the aggregated balance sheet of the primary cooperative banks and their long-term development is provided in Figure 3.1.3. By far the largest asset class are loans to non-banks, which consistently comprise more than 60% of the assets, while the largest item on the liabilities side are deposits from non-banks with more than 70% on average over the years. This balance sheet structure differs greatly from that of commercial banks and indicates that the cooperative banks – much like the German primary savings banks – have retained the traditional function of banks as financial intermediaries, namely that of transforming client deposits into loans to businesses and households. All in all, these figures clearly reveal the cooperative banks' special and indeed quite conservative business model. Moreover, they demonstrate that cooperative banks have consistently raised more funds as deposits than they lent out to their creditor clients. That there is a sizable surplus of deposits over loans can be considered as a valuable contribution to the stability of the German banking system.

Figure 3.1.3 Development of cooperative banks' balance sheet structure over time.



Note: Asset structure is shown on top, liability structure on the bottom.

It is well-known that the German banking market is highly competitive as a whole, probably more so than those of all other large countries in Europe.[34] One reason for this is that banking concentration is extremely low by international standards. One way of measuring banking concentration is using the so-called C5 ratio, which indicates the market share of the largest five institutions. Germany's C5 ratio stood at 37.8 in 2002 and since then has not changed dramatically. The other method is the use of the Herfindahl-Hirschman-Index, a number between 10,000 and 0 with lower values indicating a lower level of concentration. According to the European Central Bank (ECB), the HH-Index for Germany stood at 183 in 2007, and this may be taken as an indication and possible even as a cause of a high level of competition.

However, measuring the intensity of competition only with indicators of concentration may be misleading, since these measures apply for an entire national economy, while competition in retail banking takes place in local markets. The standard measurements of concentration for the case of German banking treat the primary cooperative and savings banks as individual banks. Formally, this is correct, since they are legally independent entities. However, in an analysis of competition, this may be misleading because they also belong to their respective networks and this feature is probably an important competitive strength. If one treated each one of these two groups as one big bank, the concentration figures would be more or less in line with those of other European countries.

Moreover, retail competition is essentially local, and all local cooperative and savings banks operate under their respective regional principle and therefore hardly compete with each other within their respective groups. Thus, on a local level, there are not hundreds of banks competing with each other, but rather one or at best very few cooperative banks and a few savings banks and possibly a few branches of the big commercial banks. Nevertheless, the level of competition is extremely high in Germany, as one can see from other competition indicators. One of these, the so-called Lerner Index, measures competition directly by identifying the extent to which actual prices charged in a market diverge from those that could be expected if perfect competition obtained (see chapter 4).

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[34] See the next chapter as well as European Commission (2006) and Fischer and Pfeil (2004) for details.

However, applying this 'direct' measure of competition to narrowly defined local markets for retail banking services in Germany yields the same result as the 'indirect' measurement based on national concentration indicators: competition in German banking is fierce. The reason for this is that cooperative and savings banks are, by their design, strictly tied to their local markets. This means they are confined to their markets and compete with others within these markets. They would find it extremely difficult to move out of these local markets like large private banks can do easily and have done frequently in the past. Thus the design of the two 'federated groups' and the regional principle that applies to these groups are the main reason for the highly intense competition.

There is also strong indirect evidence for the high level of competition in German banking. One indicator is that the prices for financial services in Germany are very low by international standards,[35] a fact that is clearly beneficial to the clients of the banks. The high level of competition and the low level of prices are reflected in the fact that by international standards the profitability of German banks is low.[36] It would be wrong to regard this as a consequence of high costs or low productivity, since the costs of German banks are not higher, and their productivity is not lower than those in comparable other countries, as recent research has clearly shown.[37] The difference in profitability can therefore only be the consequence of low earnings caused by low prices and indirectly by strong competition, a fact for which the design of the cooperative and savings banking groups bear the main responsibility.

One aspect of banking competition is merger activity. By their institutional design and legal status, cooperative banks as well as savings banks cannot be acquired by commercial banks. Thus mergers across the dividing lines between the three pillars of the German banking system are virtually impossible. But this does not suggest that mergers do not occur. In fact, the opposite is true. The number of banks in Germany has declined substantially over the past 20 years. In 1990 there were still 4,719 banks in Germany, and at the end of 2007, only 2,300 banks were left. This decline is almost exclusively due to mergers and consolidations within the groups of

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[35] See European Commission (2009).

[36] Confirmed in European Commission (2006).

[37] See KfW Research (2005).

cooperative banks and savings banks, as Figure 3.1.1 above demonstrates for the case of cooperative banks. Smaller and economically weaker institutions have been absorbed by others from their group, thus raising the average size of the individual banks. And since the costs of really small banks tend to be higher than those of larger banks, within-group consolidation has improved the efficiency of these two banking groups and this, together with the benefits of having their respective networks, seems to have enabled them to withstand the competitive pressure from the large commercial banks.

A reflection of the causes of the high level of competition in local German banking markets is the extent to which clients have access to banking services. In contrast to the situation in some other countries, the access to financial services does not seem to be a problem in Germany, and this is again due to the existence of savings banks and cooperative banks and their local presence in almost all parts of the country. If they were not present, access would be a problem, because under increasing pressure to achieve high rates of return, the big private banks have thinned out their branch networks in remote areas of the country.

Like almost any other bank, the German cooperative bank as a group has been affected by the financial crisis, and, again like all other banks, they have reasons to fear more difficulties in the aftermath of the crisis and their spread to the real economy. However, on a large scale, the consequences have so far been less serious than in the case of many other banks and banking groups. Continuing a tradition that goes back to 1934, when the group's protection scheme was introduced, not a single German cooperative bank went bankrupt, and none of the institutions in the network have ever had to apply for government support.

The clearly positive aspect refers to the vast majority of local cooperative banks. Most of them have so far not suffered from the crisis. One reason has been their relatively high capital levels, as evidenced by Table 3.1.2.

Table 3.1.2 Tier 1 capital ratios in the German banking sector

	2004	**2005**	**2006**	**2007**	**2008**
All banks	7.5%	7.5%	7.7%	7.8%	9.3%
Cooperative banks	8.3%	9.1%	9.1%	9.4%	10.5%

Sources: ECB and BVR.

The German cooperative banks' down-to-earth approach to banking has left them least exposed to the financial crisis. They did not hold assets that were considered 'toxic' and therefore had no need to take write-downs. Most of them were even able to raise more deposits from their former clients and attract firms as new clients for their lending operations. The second-largest Volksbank, the one in Frankfurt, even reported that 2008 was the best year in its history. However, prospects may be less benign since with their heavy involvement in retail and SME lending, they now have to fear that in 2010 credit losses might increase as a result of rising numbers of corporate and private bankruptcies. However, there are reasons to believe that private bankruptcies will not go up very much, since employment hardly shrank during the crisis so far, and mid-sized firms now seem better equipped with equity cushions to weather the storm than in the last crisis in the early years of this decade.

Clearly less benign is the situation of the largest German cooperative bank, the "bank of doctors and pharmacists" (Ärzte und Apothekerbank, Düsseldorf). It did have a sizable portfolio of 'toxic' assets, had to report heavy losses, and had to be supported by the group's own guarantee system in a substantial way.

Equally, the profitability of DZ BANK, the central institution in the cooperative network, has suffered from the crisis. DZ BANK has been very active in investment banking, especially in capital markets, complementing its role and mandate as an interface between the capital markets and the local cooperative banks. The central institution and its subsidiaries had a security portfolio that was seriously affected by the turmoil in the financial markets, especially following the collapse of Lehman Brothers and the crisis of the Icelandic banks. As a consequence, the bank took substantial impairment charges in 2008, which contributed to the reported loss of around €1 billion in that year. However, the year-end results for 2009 show a return to profitability. One consequence of this experience is that DZ BANK has taken steps to reorient its business model more consistently with its main role, namely, supporting local cooperatives, expanding its core business lines and disengaging from non-network activities.

In spite of these two cases within the cooperative network, one can clearly say that among German banks, the cooperative group as a whole has so far not been a loser, but rather a winner, in relative terms, of the crisis. Whether this will have a long-lasting positive effect is open to debate, since after the crisis many banks are likely to place much more

emphasis on retail banking than in the past, and this might imply lower margins for the cooperative banks, who have traditionally focused on this line of business.

3.2 Austria

The origins and history of Austrian cooperative banks largely resemble those of their German peers, at least until about 20 years ago. The first savings and credit cooperatives were founded in Austria shortly after 1850. Cooperatives operating mainly in rural areas were called Raiffeisengenossenschaften (Raiffeisen cooperatives), and most of those with an urban focus are still called Volksbanken (people's banks). The motive for creating them was to alleviate the serious problems of credit access for poor peasants and urban craftsmen and petty traders and, more generally, to mitigate the hardship these people experienced at that time for largely the same economic and social reasons as their German peers. The idealistic philosophical orientation of the cooperative movement was widely accepted in Austria, as almost everywhere in Europe, and thus cooperative banking spread rapidly during the last decades of the 19th century.

In the first half of the last century, associations of local cooperatives were formed at the regional and the federal level, and in parallel, regional and central financial institutions were created, that in their early years mainly served to manage the liquidity of the respective system. Like in Germany, there were two different cooperative banking systems. However, in contrast to the situation in Germany, they have not merged and still exist side by side. While the predominantly rural cooperatives have kept the name of the founding father Raiffeisen in the names of most banks in that system, the remembrance of the founder of the urban cooperative movement is still today visible in the official name of the association of people banks. It is called "Österreichischer Genossenschaftsverband (Schulze-Delitzsch)".

The general feature of the Austrian cooperative banks corresponds to the standard concept of a cooperative. The fundamental principle of self-help implies that local people contribute the savings which are lent out to other local people, and in the past, local people were also involved in monitoring the economic behaviour – and sometimes also the general behaviour – of borrowing cooperative members.

The second fundamental principle is that of solidarity. Its main implication can be seen in the mission of cooperative banks. Their overarching objective was, and to some extent still is, not to make as much profit for the institution and its owners as possible, but rather to support their members to better achieve their own economic success. As long as members can be regarded as owners in an economic sense, this may not appear like a big difference; but the difference is important, as we will discuss at greater length in what follows. The difference between owners and members, and thus the role of solidarity, shows up in the rules of voting and the restrictions concerning the possibility to sell equity shares in a cooperative.

The principle of self-administration manifests itself in the fact that local cooperative banks are still today legally independent organisations. They have a special legal status based on a law that sanctions their operating principles and rules and, most important, their right to self-administration. Formerly, when all local cooperatives were still very small, it was also required that all those who held an office in a cooperative bank had to be members of that same cooperative. Today, this requirement has lost its importance, and one should also not overestimate its importance for the early years. It was an advice of Raiffeisen himself that the founders of a local cooperative should try to enlist some educated local people to take an active interest in the cooperative in order to stabilise especially newly founded cooperative banks. In fact, in a number of cases socially minded educated local people – like Raiffeisen and Schulze-Delitzsch – were themselves initiators and founders of cooperatives. Thus there has always been an element of welfare activity supplementing the principles of self-help and self-administration

Today, the two systems of cooperative banks constitute very important elements of the Austrian banking system, and they have an outreach to almost all towns and very many villages all over the country. It has been a special feature of the Austrian banking system that for a long time after the Second World War the major part of it consisted of government-owned or state-affiliated banks and cooperative banks. For all of them, the dominant objective was not to maximise profit but rather to support their member-clients or the economy of their respective region. During the past 20 years, the Austrian (central) state has largely withdrawn from the banking sector. However, still today the systems of the savings banks and the two cooperative banks which both in some sense adhere to other objectives than profit maximisation, largely dominate the Austrian

banking sector. Taken together, they hold 50% of all banking assets and comprise 78% of all credit institutions.[38]

Table 3.2.1 provides data on numbers of banking institutions and total assets for the four most important Austrian banking groups in absolute terms and in percentages.[39] Table 3.2.1 does not differentiate between the local or primary cooperative and savings banks and their respective central institutions. It provides data for these groups as a whole but excludes foreign branches and subsidiaries. Even this rough overview shows that the two cooperative banking groups are important players in the banking market.

Table 3.2.1 The Austrian banking system

	Com. Banks	Saving Banks	Raiffeisen Sector	Volksbanken Sector
Institutions (banks)	50	55	549	68
Institutions (mkt. share %)	6	6	64	8
Total assets (€ million)	290.541	171.655	275.645	813.49
Total assets (mkt. share %)	27	16	26	8

Note: All figures are averages of the first three quarters of 2009.

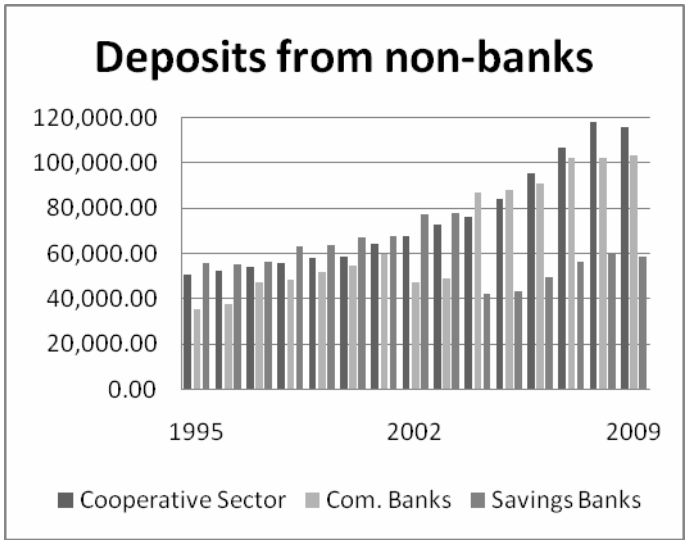
Taken together, the cooperative banks are slightly larger than the group of commercial banks and about twice as large as the savings bank group in terms of deposits from non-banks and of loans to non-banks if one looks only at business with Austrian clients, that is, disregarding their extensive activities in Central and Eastern Europe. Figure 3.2.1 provides the relevant data for the years 1995 to 2009.[40]

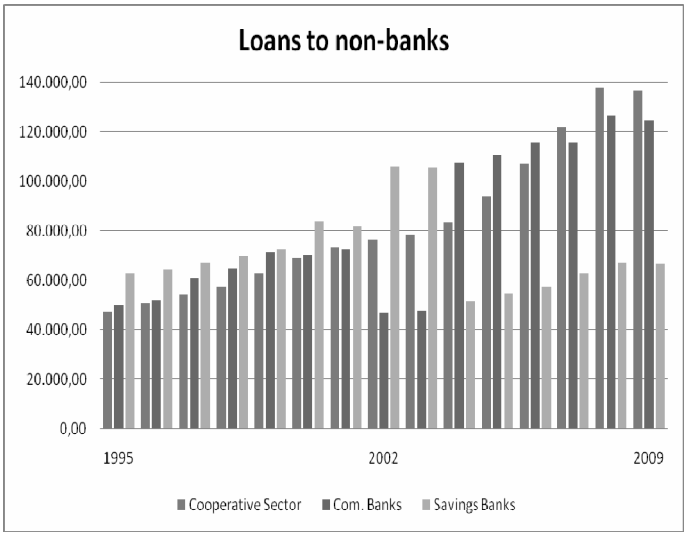
[38] Here, as for most of the following Figures and Tables, the source is Österreichische Nationalbank (ÖNB).

[39] The percentages do not add up to 100 because there are some banks that do not belong to these groups.

[40] Since data for the entire year of 2009 are not yet available, those used in Figure 3.2.1 for 2009 are the data for the mean of the first three quarters.

Figure 3.2.1 Deposits from, and loans to non-banks (in € million), 1995 to 2009

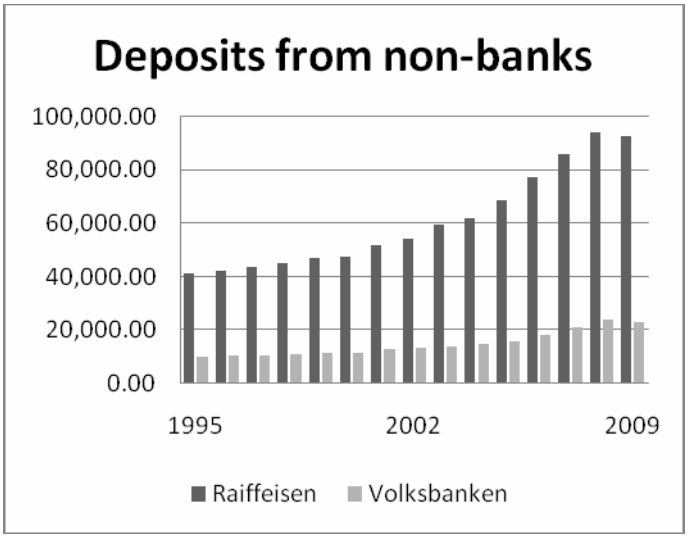


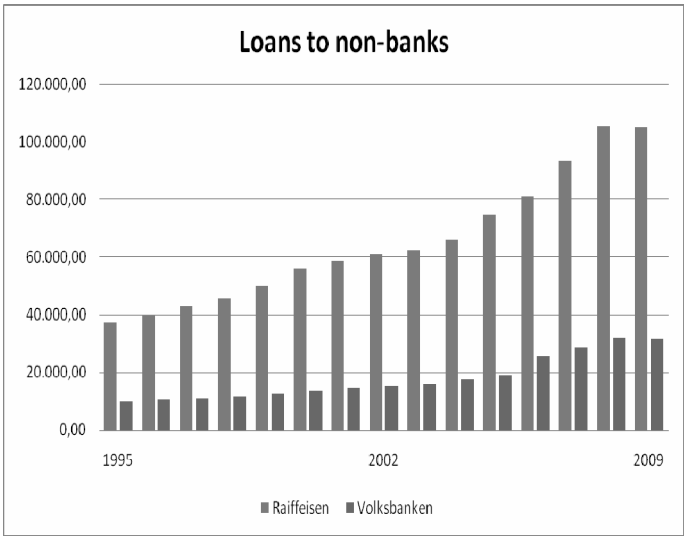


The ranking according to size of operations has changed abruptly several times when certain large institutions changed from one group to another, e.g. when Bank Austria (now Unicredit Bank Austria) left the savings bank group and joined that of the commercial banks and was later taken over by the German Bank HVB and, together with HVB, finally by the Italian Unicredit Bank. However, in the course of the current crisis this order of size has not changed.

The two cooperative banking groups differ in size. The Raiffeisen Banking Group is considerably larger than that of the Volksbanken, irrespective of how size is measured, as one can see from Figure 3.2.2, which also shows deposits from non-banks and loans to non-banks.

Figure 3.2.2 Deposits and loans of the two cooperative banking groups (in € million)





The cooperative institutions' structures also differ. The Raiffeisen group is a three-layer system comprising 541 (Q3 2009) primary (local) cooperative banks, eight regional central banks called Raiffeisenlandesbanken and one large central financial institution called Raiffeisen Zentralbank (RZB). The Raiffeisenlandesbanken make up the organisation's second tier. They perform clearing functions and render other services to the local banks in their respective regions. RZB was founded in 1927 and has adopted its current name in 1989. In addition, the group includes a large number of other financial and non-financial companies in Austria and in Central and Eastern Europe. The nature and the role of the other institutions within the Raiffeisen group which operate as specialised financial service providers in Austria largely resemble those of the affiliates of DZ BANK in Germany, and in most cases RZB holds the majority equity share in them. The foreign branches and subsidiaries of the group, most of which are among the largest banks in their respective host countries, are grouped together in "Raiffeisen International" (RI), a legally separate corporation that was formerly fully owned by RZB. In 2005, RI was transformed into a publicly held corporation with shares listed on the Vienna Stock Exchange.

RZB provides services to the affiliated regional banks in the system and is also a large and important commercial bank in its own right. Correspondingly, the regional central banks of the group provide services to the local cooperatives.

In parallel to the three-layer structure of the financial institutions, there is a system of several regional associations and one federal association of cooperative banks. Besides having the other functions that one would expect from an association, they are responsible for providing consultancy services to the local cooperative banks and auditing them in an equally comprehensive sense as in the German case discussed above.

The system of the people's banks is considerably smaller than that of the Raiffeisen banks and also has a simpler structure. It only has two layers of financial institutions. Besides some 60 primary Volksbanken, which are in most cases also locally or rather regionally focused, there is one large central financial institution called Österreichische Volksbanken AG (ÖVAG). ÖVAG fully or partially owns the usual set of ancillary financial and non-financial entities of the Volksbanken-Gruppe such as several insurance companies, housing finance banks, computing and bookkeeping centres and training institutions. Like the Raiffeisen Banking Group, the

Volksbanken-Guppe has in the past two decades created and acquired a large number of subsidiaries in Central and Eastern Europe held together by a fully owned subsidiary of ÖVAG. Currently, the group has fully owned or almost fully owned banking subsidiaries in nine CEE countries, which together operate some 600 banking outlets.

Formerly, ÖVAG was restricted to the function of being a cooperative central bank. That changed in 1991 when ÖVAG started to also operate as a commercial bank. In this capacity, it serves all kinds of private and institutional clients and also maintains its own branch network in Vienna. ÖVAG is a listed corporation, even though the fraction of the shares that are widely distributed is very small.

All in all, the Austrian part of the Raiffeisen-Gruppe comprises 541 institutions and employs approximately 24,000 people as of year-end 2009, and the corresponding figures for the Volksbanken-Gruppe are approximately 80 institutions and 6,800 employees.

It is instructive to compare the structures of the two Austrian cooperative banking systems with those of Germany, Spain, and Italy and also with that of the Austrian savings bank system. All of these groups or systems can be considered as "federated systems" ("Verbundsysteme"). In Austria, the relative weight of the central financial institutions in all three Verbundsysteme is larger than in the other countries. One important reason for this peculiarity is certainly the importance of the Central and Eastern European business for the Austrian cooperative and savings banks. Extensive foreign activity requires concentration of decision-making powers, which fosters efficiency and flexibility. The role of the respective associations and the local banks may serve as a counterweight to this tendency towards more centralisation, especially if the local banks directly or indirectly, with the regional banks as intermediaries, hold the majority of the shares in their respective central institutions, which is the case for the two Austrian cooperative banking groups.

The ownership structures in the Austrian cooperative banking sector are quite complex. In both cooperative systems, one finds traditional elements of cooperatives and features of corporations. This is why some authors call them hybrid systems.[41] Hybridisation is present at all levels of the systems.

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[41] See, for instance, Karner, A. (2005).

The local or primary institutions are cooperatives as their names suggest. That is, they are member-owned; there is a certain correspondence between members and customers; as a rule, for which there are, however, some exceptions, one person has one vote at members' general meetings; and members' shares cannot be traded freely but only redeemed at their book value or transferred to other members provided the management agrees with this transfer. However, there is now also the option, provided by a 1986 amendment to the Austrian banking law of 1979, to split up a cooperative into one part that plays the role of an owner of a bank – and is still a cooperative in the legal sense of the word – and another part in the legal form of a corporation which runs the day to day operations and is owned by the cooperative.[42] So far, in contrast to the savings banks, many of which have used this option, only one local cooperative bank in the Raiffeisen Banking Group has split up in the way the law permits.

While the regional institutions, which still exist in the Raiffeisen system, have formerly all been cooperatives themselves, with local cooperatives as their members, four out of eight have in recent years converted to joint stock corporations. Their shares are, however, still mainly held by primary cooperatives.

At the top of both systems, the situation is even more complex. RZB has always been a joint stock corporation, but its shares are not listed. The overwhelming majority of its shares are held by the regional cooperative banks and thus indirectly by the local cooperatives. However, in contrast to RZB, its subsidiary Raiffeisen International AG is listed and indeed is one of the largest corporations traded on the Vienna Stock Exchange. Three-quarters of the shares are still held by RZB; the rest is widely distributed among institutional investors and small shareholders.

The top level institution of the Volksbanken-Gruppe (ÖVAG) is also a joint stock corporation. Slightly more than half of its shares are held by an organisation that is linked to the associations of people's banks and thus can to a certain extent be regarded as representing the interests of the primary cooperatives and their members. However, it is questionable whether it is possible to know what the interests of primary cooperatives

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[42] This division between an owning and an operating entity is also found widely among Austrian savings banks.

and their members really are and to transmit these interests within such a complicated system.

Of the remaining shares in ÖVAG 25% are held by Germany's DZ BANK, 10% by the insurance company Victoria, with which ÖVAG has a strategic alliance, a lesser percentage by the French cooperative banking group Banques Populaires, and only a few percent by retail investors.

As already mentioned above, ÖVAG has created Volksbanken International (VBI) as the legal entity (holding) which manages its extensive network of subsidiaries in Central and Eastern Europe. ÖVAG has retained the majority (51%) of the VBI shares, while 24.5% are held by each of the international partner organisations, DZ BANK/WGZ Bank and Banque Centrale des Banques Populaires.

As in Germany and indeed almost all federated banking systems in any country, the division of roles between the local and the central financial institutions in the two Austrian cooperative banking networks has long been a bone of contention.[43] Given the importance of the cooperative banks' activity in Central and Eastern Europe, strengthening the central institutions may make sense from a purely efficiency-oriented perspective. Nevertheless, it entails the danger of undermining the coherence of the entire system. Even though most members and certainly most of their spokespersons can be assumed to acknowledge that the expansion towards Central and Eastern Europe makes sense from a profitability perspective and may simply have been necessary for the economic survival of the cooperative systems, some others seem to fear that this new strategic focus might marginalise the local cooperatives, i.e. that part of the system which once was its nucleus. Over the medium term, one cannot doubt that the move to the East was indeed timely and successful. Moreover, it needs to be emphasised that in the case of the Austrian cooperative banks the centralist tendencies are less pronounced than in the case of the Austrian savings banks. In particular, in contrast to the savings bank group, the Raiffeisen Banking Group has decided not to become a financial group as defined in Art. 30/2a of the Austrian banking law, which would have

[43] A number of efforts have been undertaken to clarify this issue in a way that leaves room for the autonomous and successful development of the primary cooperative banks. These efforts resumed in confirming the status quo.

allowed them to be treated as one financial institution under some important regulatory aspects.[44]

Regulation and supervision of cooperative banks of all levels do not differ from those applicable to all other banks in Austria. They have to observe all relevant prudential rules and are subject to normal taxation rules for companies and standard labour law provisions. In former times, it may have been that in regard to their objectives and their institutional structures, cooperative banks enjoyed certain privileges, for instance, in the relevant definitions of capital requirements for small cooperatives. However, since a decade or two, this is no longer the case, and therefore slight political pressure may have contributed to reducing the role of the genuine cooperative element in the existing cooperative banking systems, and instead strengthened those elements that cooperatives share with conventional corporations.

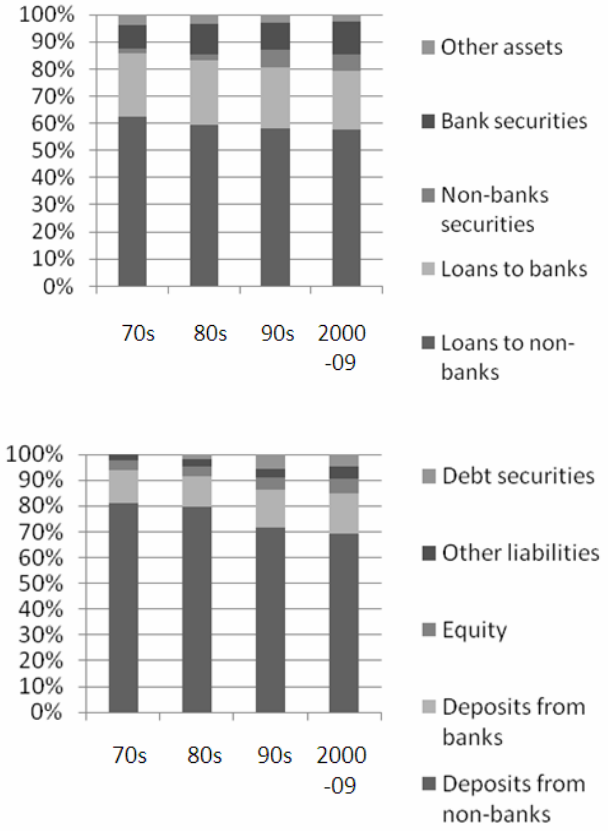
With regard to the financial situation, even though the Austrian cooperative banks have a special mandate to provide financial services that are relevant and valuable for their clients, and despite not being primarily profit-oriented, they are, as a group, successful in economic and financial terms. To illustrate and support this proposition, we take a brief look at various indicators of structure and performance.

Information about the aggregated balance sheet of the primary cooperative banks and their long-term development is provided in Figure 3.2.3. Two classes of assets and liabilities stand out as particularly important: deposits from non-banks and loans to non-banks and interbank lending and borrowing. In both systems, business with non-customers has declined somewhat in the course of time, while interbank business has gained in importance. The latter is largely borrowing and lending within the respective groups. Thus the change reflects the increasing importance of the respective central financial institution. However, compared with commercial banks, the role of the traditional deposit and lending business with customers is still higher, indicating that the Austrian primary cooperative banks have largely retained the traditional function of banks as financial intermediaries, namely that of transforming customer deposits into loans to businesses and households. All in all, these figures suggest

[44] As a spokesman for the Raiffeisen Banking Group informed the authors, this decision was explicitly taken in order not to curtail the autonomy of the local cooperative banks.

that most of the primary cooperatives pursue a special and indeed quite conservative business model.

Figure 3.2.3 Development of primary cooperative banks' balance sheet structure



Note: Asset structure is shown in the upper panel; liability structure in the lower panel.

Information concerning efficiency and profitability of the two Austrian cooperative banking systems is provided in the next chapter of this study. This analysis, as well as a conventional ratio analysis show that before the beginning of the current crisis, the entire group of cooperative banks performed as well, if not better, than the savings banks group and the commercial banks (taken as a group). However, there are two groups of cooperative banks in Austria. Differentiating between them shows that since the turn of the century, the Raiffeisen banks consistently outperformed the Volksbanken group.

Like the German banking market, that of Austria is highly competitive as a whole, probably more so than those of most other countries in Europe. As in Germany, one reason for this high level of competition is that banking concentration is extremely low by international standards. In addition, almost all Austrian banks have greatly expanded their branch networks since 1980. Austria can be regarded as being 'overbanked'. Therefore, the opportunities to expand operations in the country have for a long time been limited. This fact explains to a large extent why private commercial banks, savings banks and both networks of cooperative banks have expanded so much in the neighbouring countries of Central and Eastern Europe that the operations in these countries are now about as important as the operations in the home country.

A factor that contributes to the high level of competition in Austrian banking is that the local savings banks and the two cooperative systems – and to some extent also commercial and other banks – largely address the same customer groups, especially households and small enterprises. Thus it is not surprising that by international standards the return on equity is low, at least as long as one concentrates on domestic operations.[45]

One aspect of banking competition is merger activity. By their institutional design and legal status, cooperative banks as well as savings banks cannot be acquired by commercial banks. Thus mergers across the dividing lines between the different networks are rare. In particular, cooperative and savings banks are shielded from acquisitions by commercial banks. All that can happen, and has indeed happened in several cases involving large banks, is that a bank leaves the networks of cooperative and savings banks, or that the cooperative and savings banks acquire former commercial banks and integrate them into the operations of their central institutions.

However, the fact that cooperative and savings banks (in the strict legal sense) cannot be acquired by commercial banks and cannot merge with commercial banks does not suggest that mergers do not occur. In fact, the opposite is true. The number of banks in Austria has declined substantially during the past 20 years, and this decline is almost exclusively

[45] However, in light of the seemingly high level of competition in the local retail market, the level of banking fees in Austria seems to remain above the EU average, as a recent study has found; see European Commission (2009).

due to mergers and consolidations within the groups of cooperative banks and savings banks. As a consequence, the average size of cooperative and savings banks has increased considerably, and since the costs of very small banks tend to be higher than those of larger banks, within-group consolidation has improved the efficiency of these three banking groups, and this, together with the benefits of having their respective networks, seems to have enabled them to withstand the competitive pressure from the commercial banks.

The high level of competition in local banking markets is not only a reason for relatively low profitability and the 'invasion' into the more promising markets of neighbouring countries. It also has another effect that can clearly be assessed as positive. Like in Germany and in contrast to several other countries, access to financial services does not seem to be a problem in Austria. This benefit of non-exclusion is certainly due to the strong role that cooperative and savings banks play in Austria. If they did not exist, access would probably also pose a problem, because private banks are under pressure to achieve high rates of return, and they might try to achieve this by thinning out their branch networks in remote areas of the country.

The role of cooperatives in providing access is evident from the regional distribution of branches. According to the statistics published by the Austrian Central Bank in 2008, around a third of the branches of commercial banks are located in Vienna, where Raiffeisen and Volksbanken have devoted only 3% and 8% of their branches, respectively. In turn, the cooperative banks have located themselves in less densely populated areas, including almost a third of their branches in Lower Austria, surrounding Vienna, where the commercial banks maintain a lower presence of 11% of their branches.

Almost all banks in Europe and elswhere are affected by the financial crisis, though for different reasons and to different degrees. This also applies to Austrian cooperative banks, and in this respect the situation in Austria is quite similar to that of the German cooperative banks.

Because of their rather conventional business model, the local cooperative banks in Austria have hardly been affected by the financial crisis in the narrow sense. It seems they did not hold high-risk assets that would have to be written down, and in recent years their lending operations have been quite conservative, which corresponds to their mission and tradition. They seem to have been reluctant to get involved in

massive and risky consumer lending and did not grant excessively risky real estate loans. However, since a considerable part of their loans are to businesses, the general deterioration of economic conditions in 2009 and possibly 2010 will also take its toll on the primary cooperatives. Default rates may rise, and business is likely to slow down.

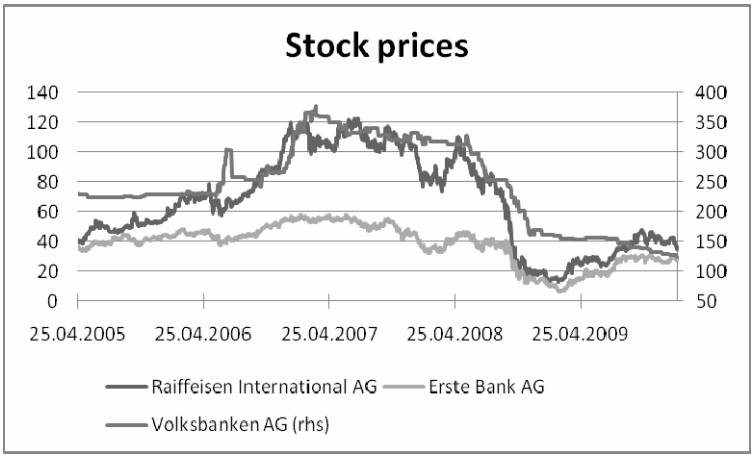
The situation for the central financial institutions is much more serious. The major part of their bottom line comes from the operations in Central and Eastern Europe. There, all Austrian banking groups have been very active since the early 1990s, and for a long time this business was also very successful. However, banking in these countries is much more risky than domestic banking, in particular if foreign banks are very active in consumer lending. And indeed, many of those CEE country banks that are owned by Austrian banks and banking groups have greatly expanded consumer lending and housing finance in the recent past. This applies almost equally to the foreign operations of the savings bank group and its central institution Erste Bank Gruppe, of RZB and its exchange listed subsidiary Raiffeisen International and of ÖVAG. In contrast to the expectations widely held in 2008, the indirect impact of the crisis in most countries in Central and Eastern Europe was already very strong in 2009 and is likely to remain so at least for the year 2010. Default rates have soared, especially for consumer and housing loans. As a consequence, many foreign banks operating in Central and Eastern Europe have incurred heavy losses, and these in turn directly affect the bottom lines of their owners located in Austria and other Western countries. As far as risk and profitability is concerned, banking in Central and Eastern Europe is different from the largely conservative domestic banking operations practised by all three Austrian federated banking systems: in good times, it can be very profitable, and in bad times it can cause severe losses. Bankers in Western countries may have underestimated this problem.

Moreover, given that the central financial institutions of all three Austrian systems are active participants in international capital markets, one can assume that they are directly affected by the crisis in a similar way as the German DZ BANK is, that is, from holding and having to write down 'toxic' assets.

There is one more factor which at least appears to be an additional cause of risk, even though it is in fact only an indicator of risk. It is the stock market valuation of relevant banking institutions. Figure 3.2.4 shows how the stock market prices of the three listed institutions that belong to the

three Austrian banking networks have developed during the crisis so far. Even though the stock prices plummeted almost in parallel, there is a slight difference. The decline of Raiffeisen International appears to be relatively more pronounced. This sensitivity is likely due to the fact that it only comprises assets in Central and Eastern Europe, while Erste Bank AG and ÖVAG are, in financial terms, portfolios of national and foreign activities and assets. However, one should also see that, according to recently published preliminary results for 2009, both Raiffeisen International and Erste Bank Group report sizable profits in spite of the crisis.

Figure 3.2.4 Stock prices of Austrian banks involved in Central and Eastern Europe



Particularly strong is the effect of the crisis in the case of ÖVAG, the central financial institution of the people's bank group. Like many other Austrian banks, ÖVAG had to resort to government support during the crisis by accepting an equity injection of €1 billion and guarantees for bonds it had to issue in order to regain its financial equilibrium.

Finally, the crisis may in addition strengthen the tendencies of centralisation within the networks and their direct and indirect dependence on capital markets – summarised in the label of hybridisation – and may ultimately challenge the traditional decentralised character of cooperative banking. But whether the centralist tendencies might not ultimately endanger the coherence of the federated systems is impossible for outside observers to assess.

3.3 Italy[46]

The establishment of cooperative credit institutions in Italy is largely attributed to Luigi Luzzatti, who later served in various cabinets and for a short time as Italy's prime minister. Largely influenced by the teachings of Schulze-Delitzsch during his visit to Germany, he founded Banca Popolare di Milano in the mid-1860s, using his own savings as initial capital.[47] The Banche Popolari (BPs) spread quickly and grew in importance, with the Milanese bank becoming one of the ten largest banks in Italy at the time, (Polsi, 1996).

The first Raiffeisen-type rural credit society was founded later in the century, in 1883, near Padoua, by Leone Wollemborg, a disciple of Luzzatti. Much like the Raiffeisen institutions, the Banche di Credito Cooperativo (BCCs) were smaller in size than other banks and were based mostly in rural areas.[48] A more distinguishing feature of the BCCs, which no longer holds, was the strict requirement to retain all profits in a reserve fund, with no distribution of dividends to members at any point. The fund was owned entirely by the cooperative itself and would serve as an intergenerational endowment. In case of a default, the reserve was to be placed in a trust and would be made available to any bank in the vicinity to be reorganised as a BCC (Herrick and Ingalls, 1916, p. 355).

As in other countries, the cooperative banking model proved successful rather quickly, allowing these institutions to gradually increase their market shares during the late 19th and early 20th centuries. By the beginning of the First World War, the two systems served more than 700,000 members (Herrick and Ingalls, 1916).

The postwar period led to a brief period of contraction due to an acute financial crisis coinciding with the end of the war and the Great

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[46] This subsection benefited greatly from discussions with Riccardo De Bonis and Giacomo Ricotti at the Bank of Italy.

[47] Despite being based on the same broad principles, Luzzatti's institutions were set up as limited liability institutions from the start. This allowed them to have a larger clientele base than their predecessors in Germany. Another difference with the German Volksbanken model was the maintenance of members' rights on the capital reserves. This distinguishing aspect has not changed over time and has laid the groundwork for BPs' stock exchange listings several decades later.

[48] The BCC were at first set as unlimited liability institutions and therefore lacked the broader clientele base that Banche Popolare enjoyed in its early days.

Depression. The government's response was the 1936 Banking Law,[49] which put forth clear functional and geographical restrictions on the activities of banks, prohibiting long-term loans (provided only by the publicly-owned credit institutions) and geographic expansions.

In the aftermath of the Second World War, the authorities repealed some of these restrictions, by allowing cooperative and savings banks to expand their activities to provide long-term credit to start-ups and small- and medium-sized enterprises (SMEs). Faced with a devastated economy, which was especially gruesome in the credit-strapped countryside, policy-makers were concerned that only these locally-based banks could effectively prevent the so-called 'capital drain' from rural and poorer regions to richer areas (Goglio, 2007).[50]

Following the recovery of the cooperative banking sector in the 1950s, the market share of Italian cooperative banks remained relatively stable for most part of the second half of the 20th century. Until 1990, the market share of BPs and BCCs remained between 10-15% and 5% of total bank assets, respectively.

The 1990s heralded a new era of deregulation and privatisation in Italy. All of the savings banks, i.e. the "Cassa di Risparmio", were transformed and assigned joint-stock status.[51] The 1993 Consolidated Law on Banking[52] was put forth to implement the EU's Second Banking

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[49] Decree No. 375 of 12 March 1936.

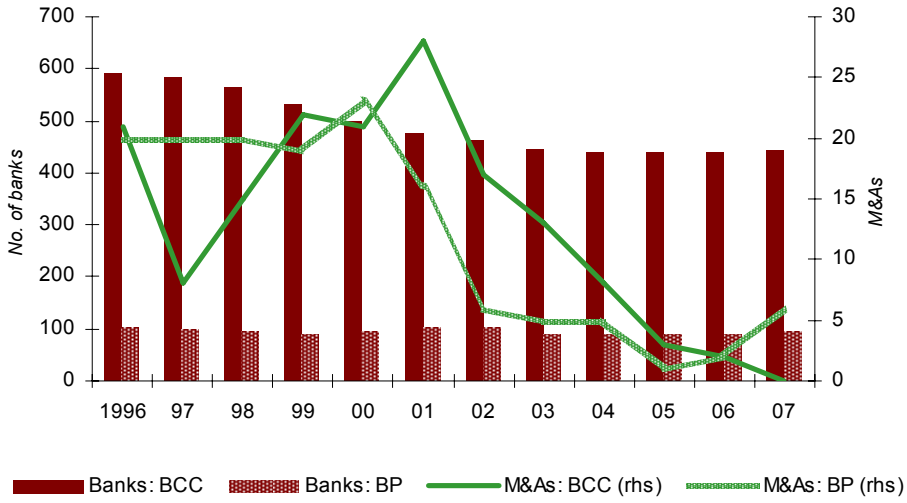
[50] Several empirical studies have confirmed that the existence of local banks did enhance development prospects in underprivileged regions in postwar Italy. Ferri and Messori (2000) show that close bank-firm relations have been beneficial for the allocation of credit in the north-eastern and central (NEC) parts of the country. According to the findings of the authors' study, local banks in the NEC areas had significantly lower exposure to bad and doubtful loans. Moreover, bank-firm relations in the NEC area do not seem to suffer from the "information capture" emphasised by Sharpe (1990). Guiso et al. (2004) examine whether local financial development was an important indicator of the creation of new businesses in different regions. The authors take advantage of the fact that the 1936 law made the banks' branch structure unresponsive to changes for over half a century, allowing them to disregard the potential endogeneity between financial and economic development. The study's findings show that an individual's odds of starting a new business are significantly higher in financially developed regions and that the heavy presence of cooperative banks in the region in 1936 makes this event more likely.

[51] For more details on the motives and an early assessment of the privatisation of Italian savings banks, see De Bonis (1998).

[52] Legislative Decree No. 385 of 1 September 1993.

Directive (89/646/EEC). These changes drove a consolidation wave which picked up in the second half of the 1990s. A large number of cooperative banks merged with or were acquired by other cooperative banks, which led to a contraction in their total numbers, especially in the late 1990s and early 2000s (see Figure 3.3.1). In particular, consolidation activity has led to a particularly pronounced reduction in the number of banks for the BCC group in the late 1990s and early 2000s. Despite these structural developments, the concentration of the Italian banking sector remained unchanged when compared to other EU-15 countries.[53]

Figure 3.3.1 Consolidation in Italian cooperative banking sector



Source: Federazione Italiana delle Banche di Credito Cooperativo (BCC) and Associazione Nazionale fra le Banche Popolari (BP).
Note: The figures include joint-stock companies that are part of a group headed by a BP.

Despite the reduction in the number of banks, the BP and BCC groups have consistently expanded their market shares at local level. By the end of 2007, the Italian cooperative banking sector represented one-third of private loans and deposits and nearly a quarter of total assets (see Table 3.3.1). BPs have been much larger, not only in terms of their aggregate market share but also the activities of an average bank. UBI (Unione di Banche Italiane S.c.p.A.) – the largest of all BP banking groups – was the

[53] See Chapter on privatisation of the Italian savings banks in Ayadi et al (2009).

fourth largest bank in Italy, with total assets of over €120 billion by the end of 2008. In turn, the largest of all BCCs, BCC di Roma, ranked 65th among all the Italian banks, with total assets of over €6 billion. In the same period, assets held at an average BP amounted to over €4 billion, which was roughly ten times the amount of assets of an average BCC (approximately €350 million).

Table 3.3.1 Market shares of Italian cooperative banks

	Assets			**Private loans**			**Private deposits**		
	BCC	BP	Total	BCC	BP	Total	BCC	BP	Total
2007	5.1%	17.8%	22.9%	8.6%	22.5%	31.1%	6.8%	24.6%	31.4%
2002	4.9%	17.4%	22.3%	7.5%	20.9%	28.5%	5.4%	16.5%	21.8%
1997	4.5%	14.7%	19.2%	6.4%	17.5%	23.9%	3.9%	13.2%	17.1%

Source: Federazione Italiana delle Banche di Credito Cooperativo (BCC) and Associazione Nazionale fra le Banche Popolari (BP).

The differences in size may be explained by the geographic areas served by the two banks. Sticking close to their roots, BCCs tend to be more active in rural areas while BPs are more present in towns and cities. Table 3.3.2 confirms that the BCCs maintain a significant presence in less populated municipalities. In particular, approximately one-third of all the BCC branches are located in very small municipalities, i.e. those with less than 5,000 inhabitants. In comparison, the BPs are in more densely populated municipalities. Despite these differences within the category, the figures show that the cooperative banks – and to some extent the former savings banks that have kept their identity – have a stronger foothold in less populated municipalities, which helps them achieve greater proximity and provide better access in these areas.

Table 3.3.2 Distribution of branches by municipal population in Italy, 2008

	< 5,000 inhabitants	**5,000 – 25,000 inhabitants**	**> 25,000 inhabitants**	**Total**
		% of group branch network		
BCCs	32%	42%	26%	100%
BPs	17%	36%	47%	100%
*Savings banks**	18%	34%	48%	100%
Other banks	13%	30%	**57%**	100%

Source: Banca d'Italia and Istat.

Notes: Figures may not add up to one due to rounding.

* The banks identified as savings banks in the table are those that have kept their name as a "Cassa di Risparmio" after being converted to a joint-stock corporation.

Table 3.3.3 Lending to Italian firms by loan size, 2008

	< €5 million*	€5 million – 25 million	> €25 million	Total
		% of group's total loans to firms		
BCCs	70%	23%	7%	100%
*BPs** (not listed)*	48%	27%	25%	100%
*BPs** (listed)*	38%	26%	36%	100%
Other banks#	30%	23%	48%	100%

Source: Tarantola (2009) and Banca d'Italia.
Notes: Figures may not add up to one due to rounding.
* Loans below €75,000 are not included due to detection limits of Banca d'Italia.
** Figures for BPs include joint-stock companies belonging to a group headed by a BP.
# Figures for other banks comprise all joint-stock banks, i.e. commercial banks and former savings banks, including their foreign branches.

The two cooperative banking brands also differ in their lending activity. As shown in Table 3.3.3, the cooperative banks in general continue to enhance small- and medium-size enterprises' (SMEs) access to finance. Indeed, small loans, i.e. those that are worth less than €5 million, are central for the lending activity of both BCCs and BPs that are not listed. For BCCs, however, these loans comprise well over two-thirds (70%) of the total loans to firms. For BPs, the share of small loans range between approximately half and one-third of the credit portfolios, depending on whether the bank issues publicly tradable shares. However, even when the listed BPs are considered, the cooperative banks clearly focus more on smaller business loans.

In terms of the network structure, local BPs operate in a highly independent manner. The apex organisation, Associazione Nazionale fra le Banche Popolari (Assopopolari), provides research, analysis and advice to the local banks. Certain network institutions exist to cover certain common functions, such as the payment system, managed by Istituto Centrale delle Banche Popolari (ICBP). Other key aspects of integration, such as cross-selling of products, centralisation of credit approval, risk management and liquidity management, are absent. The high degree of autonomy could be a natural extension of a need to respond better to their members' wants and needs. It could also be a mere political outcome of the power play wherein local banks are not willing to yield their independence.

BCCs also operate in a decentralised manner (Di Salvo, 2002). Most of the centralised functions are available on a voluntary basis, effectively

providing more autonomy to local banks. Member banks are grouped into separate regional federations, which provide technical assistance and undertake internal auditing of their members. The functions of these regional bodies are overseen by a national association, Federcasse, which is also in charge of the BCCs' strategic planning functions. Other network functions include risk and liquidity management, administration of a group-wise deposit guarantee fund and a fund for the reserves of troubled banks.[54]

Taking a step toward a more integrated structure, BCC has recently introduced a mutual support system to enhance its use of intranetwork resources. Introduced in 2008 and pending approval of the Bank of Italy, the Institutional Guarantee Fund (Fondo di Garanzia Instituzionale – FGI) will provide additional guarantees for participating institutions, beyond the compulsory deposit insurance. The aim of the fund is to use network resources to safeguard the liquidity and solvency of the member banks. Participation will be voluntary while support will require authorisation by the fund.[55]

The legal treatment of the Italian cooperative model is determined by the 1993 Consolidated Law on Banking. The text sets clear differences in the operational and governance aspects of the two institutions. Effectively, the law attempts to keep BCCs as close as possible to their original model of credit cooperatives, operating as small local banks in mostly rural areas for the primary benefit of its members. In line with these perceived roles, BCCs benefit from a fiscal exemption on retained profits that are allocated to reserves.[56] In turn, they are prohibited from issuing tradable shares and

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[54] More specifically, the key network institutions include Gestioni Crediti, which administers non-performing loans; Iccrea, which takes on the central banking functions, such as managing excess liquidity, securities transactions and administering the group-wide deposit guarantee fund; and Banca Sviluppo, which is in charge of acquiring and managing local cooperatives that are in difficulty, holding reserves of troubled entities during transformations and dissolutions.

[55] As of 8 March 2010, the scheme is pending approval of Banca d'Italia to be considered as an "institutional protection scheme" under the Capital Requirement Directive (2006/48/EC), thereby giving the local institutions the ability to zero-weight intranetwork exposures.

[56] More specifically, BCCs benefit from the following tax advantages: (i) retained profits allocated to legal reserves are not taxed; and (ii) the amounts distributed to members in the form of interest cost relief on borrowed funds (i.e. the so-called 'ristorni') are deductible

have to allocate at least 70% of their profits as reserves. There is an upper limit for individual participation, set at €50,000 per member. In addition, there are clear restrictions on bank operations. Assets that qualify for a zero risk-weighting under the Capital Requirements Directive (Directive 2006/48/EC) need to account for at least half of the risk-weighted assets. In addition, loans shall be granted primarily to members. Expansions into non-contiguous regions are possible only if the cooperatives have a sufficient number of members in the area.

The same law treats BPs in a more flexible manner and holds them closer to the commercial model, effectively allowing them to grow and expand the scope and geographic coverage of their operations. [57] In particular, BPs may issue tradable shares, although the shareholder participation is limited at 0.5% of the share capital. [58] Shareholders that are not members may receive dividends but cannot participate in the general assembly and thus have no voting power. The banks are required to retain a minimum of only 10% of profits as reserves and there are no fiscal advantages. Lastly, there are no restrictions on regional expansions, asset allocation or credit issuance.

Under the 1993 law, the two types of institutions may either continue to operate as cooperative societies with limited liability, i.e. *società cooperativa per azioni a responsabilità limitata*, or convert into joint-stock companies, i.e. *società per azioni*. Transformations and mergers require the pre-approval of the members and the Bank of Italy, which is to act "in the interest of creditors" with the aim of reinforcing stability, strengthening the bank's capital base and "rationalizing the system" (Articles 31 and 36).[59]

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from taxable income. These advantages were referred by the Italian Supreme Court first to the European Commission in January 2006. Upon receiving no response, the Supreme Court referred the case (Case-80/08) to the European Court of Justice (ECJ) in February 2008, which is still pending.

[57] In the words of Bongini and Ferri (2008), BPs are conceived as "cooperatives with a limited propensity to mutuality" (p. 2).

[58] Among the cooperative banking groups led by a BP, seven were listed on stock exchanges. UBI, the largest BP group, is listed internationally.

[59] In practice, consolidation operations involving cooperatives are either impossible (as in the case of a hostile take-over) or face significant obstacles, which may make them unlikely to be mutually beneficial for all involved institutions. For example, a consolidation procedure between two cooperatives is often challenging because of differences in the legal treatment of cooperatives and by-laws. As another example, an operation involving a

There are differences in the way that these operations may be conducted. For the BCCs, the transformations are more involved due to the existence of the 'intergenerational endowment', i.e. the reserves built up over years by retaining profits to which the current members have no rights. Conversions can only occur by transferring the reserves to a fund ("Fondo Sviluppo") in support of cooperative institutions, such as other BPs. Moreover, BCCs may be merged with banks of a different nature, but only if this results in the formation of a BP or a joint-stock bank. These differences are once again put forth to maintain the distinctions between the two cooperative models.

Some of the transformations that have occurred in Italy, especially those in the last years of 1990s and early 2000s, have been in the context of an ailing cooperative bank – in most cases, a BCC – that changed its status to be acquired by a larger BP or a group headed by a BP. More recently, the transformations have also occurred as part of a growth- and rationalisation-oriented strategy to merge several cooperative and joint-stock banks, leading to the creation of large groups headed by BPs. As a consequence of these changes, the market shares of the resulting BP groups have grown considerably. By the end of 2007, there were 16 cooperative groups led by a BP, representing nearly one-third of the total assets of all BPs.[60]

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commercial and cooperative bank also necessitates a transformation to ensure that the cooperative features that restrict ownership and voting rights are not applicable for the commercial partners.

[60] The divergence from the traditional cooperative business model in Italy was a concern of several experts, as the governance model of listed BPs may challenge members' ability to contest control (Gutiérrez, 2008; Tarantola, 2009). These issues were the subject of an extensive and prolonged political debate and several legislative initiatives in Italy. In 2002, a complaint (No. 2002/4715) was addressed to the European Commission on behalf of the National Association of Cooperative Bank Shareholders (ASNAPOP), questioning the consistency of various principles for listed BPs with the EU Treaty. The contested provisions included the approval of members; the 'one member, one vote' system; the limit on the number of listed shares that can be held; etc. The complainants alleged that these principles infringed with the Treaty rules on the freedom of establishment and the movement of capital. After an extensive examination, the Commission decided to terminate the proceedings in 2006, concluding that the listed BPs are considered both *de jure* and *de facto* cooperative societies and that "the content of the petition [did] not appear to show any breach of Community law" (European Parliament, Notice to Members, document no. *PE329.239/rev. VI*, 25 November 2008). The Commission also noted that the European Cooperative Company (SCE) included the possibility for cooperatives to raise capital from the market without modifying their nature, which was entirely in line with what the Italian law was achieving.

The different treatment that BCCs and BPs receive has led to distinct levels of capital. As shown in Table 3.3.4, BCCs have significantly greater capital ratios than all other banks. The greater amount of capital accumulated by the BCCs may be due to the greater level of profits allocated as reserves, fiscal advantages, a more prudential approach or a combination of all of these factors. The greater capital levels of BPs that are not listed is most likely due to the allocation of profits as reserves (albeit a smaller proportion than the BCCs). The non-listed BPs also tend to be smaller in size, which also contributes to the higher capital levels. Listed BPs, on the other hand, are virtually indistinguishable from their commercial peers in terms of their capital ratios. The figures also show that the total capital ratios tend to be less divergent since the instruments that qualify as Tier 1 and Tier 3 capital, i.e. hybrid debt capital and subordinated debt are more commonly utilised for commercial banks and listed BPs.

Table 3.3.4 Key capital ratios of Italian banks, as of June 2008

	Tier 1 ratio	**Total capital ratio**
BCCs	14.1%	14.8%
BPs (listed)*	7.1%	10.1%
BPs (not listed)*	9.6%	12.5%
Other banks**	6.9%	10.1%

Source: Tarantola (2009).

Note: * Figures for BPs include groups headed by a BP.

** Figures for other banks comprise all joint-stock banks, i.e. commercial banks and former savings banks, including foreign branches.

The financial crisis of 2007-08 has had a modest initial impact on the country's banking sector in general and on cooperative banks in particular. This was mostly due to banks' lower exposures to toxic assets and greater reliance on own-resources. Although the operating conditions for the sector have deteriorated throughout the year of 2009, the impact has been relatively moderate. According to Moody's (2009) outlook of the Italian banking sector, a key problem in the near future will be the worsening credit conditions, with an expected jump in non-performing loans. This could be particularly problematic for cooperative banks, particularly smaller cooperatives, which traditionally have a more risky loan portfolio.

In summing up, the cooperative banking sector has represented a growing proportion of banking activity in Italy and the trend is likely to

continue in the years to come. The two cooperative networks have been instrumental in enhancing access in remote areas as well as providing loans to households and SMEs, although there are some notable distinctions between the different governance models. The divergence of some cooperatives from their traditional model, particularly for BPs, has raised concerns on governance. However, the more radical reforms have been ruled out.[61]

Going forward, one of the key challenges that Italian cooperative banking will face is whether the sector can maintain its identity while adapting to the changing environment. Both the BPs and BCCs have a relatively loosely integrated system, with limited intranetwork liquidity and risk management facilities. Some of the BPs have coped with this challenge by forming groups, which have addressed some of the liquidity and capital needs as well as enhancing efficiency. Although the financial crisis of 2007-8 has had a relatively limited impact on the sector as a whole, pressures emanating from the economic downturn may lead to a worsened environment. Thus, countering individual risks and increasing external funding capacities while maintaining the cooperative identity remain key challenges for the sector. Reinforcing the intranetwork mutual support systems could help mitigate some of these problems, but that has to be achieved without endangering the traditional functions of these banks.

3.4 France

The first cooperative in France, Banque Populaire (BP), sprouted early on in the south-east region in 1870s, mostly due to the influence of Luzzatti in Italy and Schulze-Delitzsch in Germany. Despite its position as the only mutual institution in the country for some time, BP remained within its regional borders until later in the 20th century. Two Raiffeisen rural credit cooperatives were founded in the later parts of the century. Crédit Mutuel

[61] Several proposals have been brought on the table in mid-2000s, including harmonising the banks' legal treatment, pushing for governance reforms, including shareholder participation and so forth. A particularly divisive issue was whether the cooperative banks should face mandatory conversion to the joint-stock status, just like the savings banks more than a decade ago. The Italian experience on the mandatory conversion of savings banks shows that forced conversions do not always reach their anticipated results (for more, see De Bonis (1998) and Ayadi et al. (2009)). The call for a radical reform of the cooperative banking sectors in Italy has lost steam in recent years.

(CM) developed in the last years of the 19th century (the first local branch, "Caisse Locale", was set up in 1882) in the Alsace-Lorraine region, closely influenced by the development of Raiffeisen in neighbouring Germany, focusing on serving the financing needs of households. Crédit Agricole (CA) was also founded in 1890s (the first mutual agricultural credit institution was established in the Jura region in 1885) primarily to provide credits to the agriculture sector. Then, a series of laws created the legal framework for local banks (in 1894) and for regional banks (in 1899).

The cooperative banks multiplied early on, especially during the 1920s amidst a declining private sector due to increased state intervention. Immediately following the Second World War, a series of laws required the nation's banking sector to specialise, either pursuing strict investment activities by issuing stocks and other debt and investing in long-term assets or becoming deposit banks. Major commercial banks were nationalised immediately following the war. The entire sector, including the cooperative banks, came under indirect state control, assigned with the task of collecting deposits that could only be used to buy government bonds, effectively channelling the funds into public spending for rebuilding and modernising the country and its infrastructure. In 1947, the law relating to the statute of cooperatives laid down the foundations of French cooperatives.

The reforms in late 1950s and 1960s attempted to reduce these restrictions. However, the state's ownership and restrictions remained intact until the Banking Law of 1984.[62] The new law eliminated the division between investment and deposit-taking activities, placing all banks under the same set of rules. A succession of amendments in the 1990s and 2000s, including the amended French Monetary and Financial code, further led to the deregulation of the banking system as a whole, setting into motion the privatisation and consolidation of the sector, which continues until now.[63]

The cooperative banks have grown further in importance over the past two decades, primarily due to their growing scope of activities and geographic footprint through mergers and acquisitions. CA has become one of the largest banks both domestically and globally, extending its

[62] Banking Law no. 84-46 of 24 January 1984.

[63] The 1984 Banking Law also classified Caisse d'Epargne, a savings institution, as a mutual bank.

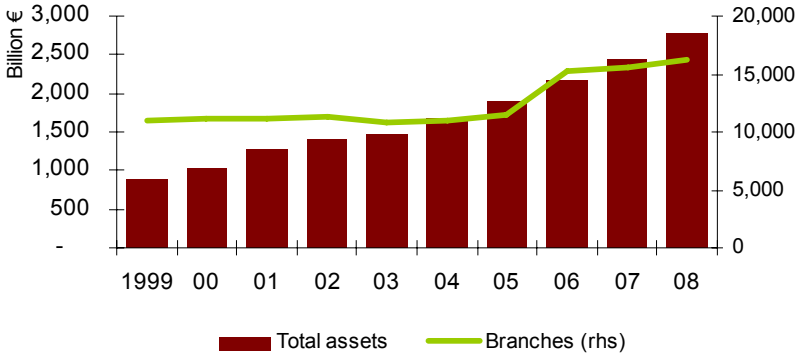
franchise well beyond the traditional banking products to include wholesale banking, asset management and insurance services. Acquisitions such as Crédit Lyonnais in 2003 have contributed to this development. The group is now the leading provider of financing to the French economy and accounts for 30% of SME financing in the country.

As for CM, the acquisition of CIC (Crédit Industriel et Commercial) in 1998 has gradually led to an expansion of the group's market share, not only in consumer credits and SME loans but also in savings products and property and casualty insurance business.

The BP group has also expanded its domain of activities through several notable acquisitions over the past decade. The group first took control of Natexis, an investment bank and a global leader in factoring, in 1999; acquired another cooperative credit institution, Crédit Cooperatif and Crédit Mututel Maritime, in 2003; took a majority stake in Coface, a global leader in trade credit insurance, in 2004; and acquired a partial stake in the Austrian Volksbank International AG (VBI), which has extensive activities in Central and Eastern Europe. In 2006, the BP group created Natixis, an investment bank, as a joint subsidiary with the public savings bank, Caisse d'Epargne, before their merger under a common cooperative statute.

As shown in Figure 3.4.1, the growth of French cooperative banking has been rather persistent over the past few years. A significant shift is observed between the years 2004-06, where the consolidation of recently acquired entities have led to a jump in total assets and number of branches. In line with this growth, assets-to-branch ratio has also increased, reflecting the diversification and concentration of services in existing branches.

Figure 3.4.1 Growth of cooperative banking in France



Source: Banque Populaire, Crédit Agricole, Crédit Mutuel and Banque de France.
Note: All figures correspond to the consolidated groups.

As a consequence of their development and growth strategies, the French cooperative banking sector has become more predominant than in most other countries in Europe. By the end of 2008, the three cooperative banks came to represent over half of loans and deposits of all credit institutions in the country. Table 3.4.1 shows that the relative growth is largely attributable to CA's 2003 acquisition of Crédit Lyonnais (LCL), which represented by the end of 2008 around one-fifth of the group's total loans and deposits. The CM group has also grown in importance, especially in its share in the credit market and loans to SMEs, thanks to the growing synergies with the CIC network over the years. The BP group has maintained a more or less constant market share; however, the group's share is expected to increase significantly in 2010 and onwards once full consolidation with Caisse d'Epargne moves forward.

Table 3.4.1 Market shares of French cooperative banks

	Assets				**Private loans**				**Private deposits**			
	BP	*CA*	*CM*	*Total*	*BP*	*CA*	*CM*	*Total*	*BP*	*CA*	*CM*	*Total*
1998	5.5%	12.6%	7.8%	25.9%	7.5%	19.4%	8.7%	35.6%	6.4%	25.7%	10.9%	42.9%
2003	5.9%	21.9%	8.9%	36.7%	8.6%	28.9%	10.5%	48.1%	8.3%	30.6%	11.2%	50.1%
2008	5.6%	24.7%	8.1%	38.3%	8.2%	31.3%	13.2%	52.7%	7.6%	36.4%	11.8%	55.7%

Sources: Banque Populaire, Crédit Agricole and Crédit Mutuel.
Note: Figures correspond to consolidated groups.

One immediate threat to continued growth, much like in other developed economies, is the impact of the financial crisis that started in the summer of 2007. Losses and write-downs of banks in France have been significant, but remained relatively modest when compared to the hardest hit economies such as the US, the UK, Germany and Switzerland (Xiao, 2009). For the three cooperative groups, the most significant losses originated from CA's investment banking arm, Calyon,[64] and BP and

[64] The total losses and write-downs for Calyon in 2007-08 were around €6 billion, which represents a significant portion of the losses and impairments for the CA group as a whole, which stood at €8.5 billion for the same period (Moody's, 2009). In response, CA launched a rights issue of €5.8 billion in May 2008. As part of the agreement, the investment arm was restructured to be more closely integrated to the group. In February 2010, Calyon rebranded itself as Crédit Agricole Corporate and Investment Bank (CIB).

Caisse d'Epargne's investment and financial services arm, Natixis.[65] At the request of the regulatory authorities to raise additional capital, most banks in France opted for external funding. All three French cooperative banks accepted public funds at the height of the crisis in October 2008 from the newly formed public bank recapitalisation vehicle, Société de Prise de Participations de l'État (SPPE).[66]

All banks have taken steps to pay their SPPE debt by late 2009 and early 2010.[67] Moreover, the situation presented an opportunity to continue growing. In the midst of the crisis in 2008, CM bought Citibank's retail arm in Germany (now known as Targobank) and took majority stakes in Cofidis, which specialises in consumer credit products. In turn, BP took full possession of HSBC France's regional subsidiaries and branches. The group also finalised the merger talks with Caisse d'Epargne in the beginning of 2009 and approved by French competition authorities in June of that year.[68] The new entity, Groupe Banque Populaire et Caisse d'Epargne (BPCE), is poised to become one of the largest retail banks in France, potentially reaching the branch network size of CA (see Table 3.4.3 below). CA and Société Générale merged their asset management operations in the

[65] By the end of 2008, the net losses of Natixis were €2.8 billion, which represent a significant portion of the group's total losses and impairments. According to Moody's (2009), the investment arm's losses represented over one-third of the total losses and impairments to Banque Populaire and the Groupe Caisse d'Epargne.

[66] With €40 billion at its disposal, SPPE was set up to provide support through various capital instruments. In addition to the injection to Dexia along with other governments, the agency offered €10.5 billion of subordinated debt to six banks. The support allotments that were made available to each bank were dependent on the institutions' sizes, i.e. their total assets and market shares. Under the plan, CA received €3 billion, CM €1.2 billion and BP €950 million in the form of subordinated debt, calculated in line with the size of the banks' balance sheets and market shares in customer loans and deposits. The agency has also been instrumental in 2009 in the merger between Caisse d'Epargne and BP with an additional €5 billion, which was made available as a second tranche. CA and CM did not receive any second tranche funding.

[67] CA and CM have fully repaid their SPPE debt in October 2009. The newly created Groupe Banque Populaire and the Groupe Caisse d'Epargne (BPCE) successfully issued €1 billion of deeply subordinated debt to pay back its first tranche debt in March 2010.

[68] The merger of two banks has been a recurring idea since the creation of Natixis in 2006. The merger in 2009 was motivated by the state to consolidate the accumulation of losses in Natixis. Under the agreement, the new group (BPCE) has full control over Natixis with a stake of over 70% while the French government remains a shareholder of the investment bank, with its 20% stake in convertible bonds.

beginning of 2009, giving CA a majority ownership in the new entity, Amundi. The CA Group also created an online-only bank, BforBank, in October 2009, offering savings and term deposits, life insurance, mutual funds as well as e-brokerage services, further strengthening the group's retail activities.

Looking at their capital levels, the three cooperative banks appear more or less comparable with their commercial peers (Table 3.4.2). CM has consistently had a higher capital level, in terms of Tier 1 ratio. In turn, CA's capital ratios have remained around those of all other banks. The figures also show a spike in capital levels due to the financial crisis in 2008-09, most notably in CM. BP's figures show a worsening in 2008, only to be followed by a significant jump in 2009, partly due to the impact of the SPPE programme.

One question that comes to mind is if and how the cooperative banks have retained their main characteristic, providing credit to the households and SMEs. Several indicators show that the three banks can be distinguished from their commercial peers in this aspect.

In terms of branch accessibility, the cooperative banks continue to provide access in relatively remote areas. Table 3.4.3 highlights the spatial allocation of branches for the major banking groups in France. CA, which has the largest network after the French postal savings bank (La Banque Postale), has allocated about one-third of its branches in sparsely populated – mostly rural – areas, i.e. departments with less than 75 inhabitants per square kilometre. BP is also highly present in these less densely populated areas, devoting nearly a quarter of its branches. Likewise, the focus of CM remains in departments with less than 150 inhabitants per square kilometre.[69] In turn, the commercial banks are significantly more present in more urbanised regions, devoting two-thirds of their branches in departments with more than 150 inhabitants per square kilometre, but maintain a smaller footprint in sparsely populated areas.[70]

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[69] The figures also show that BP's merger with Caisse d'Epargne will probably further enhance the bank's reach in isolated areas.

[70] It should be highlighted that the figures do not include basic banking service terminals, often available within shops and supermarkets, which provide supplementary access in remote rural areas. As of 2008, there were 800 'points bleus' within the CM network and 8,000 'points verts' within the CA network.

Table 3.4.2 Tier 1 capital ratios in French banking sector

	2005	2006	2007	2008	2009(p)
All banks	8.0%	8.3%	8.0%	9.7%	10.2%
CA	7.9%	8.2%	8.1%	8.6%	9.5%
CM	10.2%	10.0%	9.6%	9.8%	11.8%
*BP**	8.5%	10.5%	9.4%	7.7%	9.1%

Source: Bankscope, Banque Populaire, Crédit Agricole, and Crédit Mutuel.
Note: (p) Preliminary year-end figures extracted in June 2010.
*Figures include BP group prior to the merger with Caisse d'Epargne in 2009.

Table 3.4.3 Distribution of branches by population density in France, 2008

	Departments with < 75 inhab./km²	Departments with 75 – 150 inhab./km²	Departments with > 150 inhab./km²	Number of branches in mainland France
		% of total branches for the group		
Banque Populaire	23%	26%	51%	3,269
Crédit Agricole	29%	27%	44%	7,903
Crédit Mutuel	18%	31%	51%	4,902
Caisse d'Epargne	27%	25%	48%	4,447
La Banque Postale	35%	28%	37%	11,497
*Commercial banks**	15%	19%	66%	6,787

Source: Banque de France and Eurostat.
Notes: France has a population density of around 100 inhabitants per km².
* Includes all banks other than the three cooperatives included in this study, the state-owned postal bank (La Poste) and Caisse d'Epargne.

Table 3.4.4 Distribution of loans of French credit institutions, by sector

	Cooperative banks*		Commercial banks	
	1999	2008	1999	2008
Non-financial corporations	28%	27%	47%	41%
Individual entrepreneurs	20%	12%	5%	4%
Households	44%	51%	27%	34%
Non-residents	0%	1%	16%	16%
Other sectors	8%	9%	5%	5%
Total	100%	100%	100%	100%

Source: Commission Bancaire, Banque de France.
Notes: All figures represent banking activities of credit institutions.
* In addition to the three banks included in the study for France, Caisse d'Epargne is also included in the grouping.

Despite the growing spectrum of services, there is evidence that cooperative banks also continue to serve the basic needs of their clients. Indeed, the figures in Table 3.4.4 show that the cooperative banks continue to divert almost two-thirds of their loans to individual entrepreneurs (mostly small-sized enterprises) and households. In comparison, for commercial banks loans to these two sectors represent only one-third of the overall credits. The figures also show that the cooperative banks have increased their lending to households over the past few years, predominantly in the form of mortgage products, while reducing the share of their total credit to individual entrepreneurs. This recent trend could be an indication of a growing financing gap as banks shift their activities to the mortgage market, or may be purely demand-driven.

The governance of cooperative banks continues to be member-centric, with the 'one member, one vote' principal applicable to the members of all three institutions. The listed shares are non-voting. Members buy shares ("part sociale"), which entitles them to an annual dividend determined by banks' statutes and legal ceilings. Cooperative banks have a legal obligation to allocate a part of their profits as reserves.[71]

Network collaboration is an emerging characteristic of cooperative banks, particularly prominent in the French model (Di Salvo, 2002).

Both CA and CM incorporate a three-tier structure, with local, regional and national layers. BP has a two-layer structure instead (national and regional). As is increasingly the case for well-integrated cooperative banks, Central Network Institutions may exercise a top-down authority which opposes the bottom-up ownership of members. Indeed, the local (or in BP's case regional) institutions in all three organisations have delegated a great variety of functions to centrals, including treasury and risk management, mutual support,[72] investment activities, debt issuance, group representation and back office functions such as IT support, which gives them significant power over the local institutions.

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[71] For BP, the group-wide minimum rate is set as 10% of profits and members have no rights on these net assets. The reserves are treated exactly as equity in CA and CM, i.e. distributable to members and stockholders in the event of a default.

[72] Under the French Monetary and Financial code, the central organs of the cooperative institutions are required to guarantee the liquidity and solvency of the entities within their networks (Art. L511.31 Para. 2).

CA's network structure is comprised of over 2,500 local banks ("caisses locales"), 39 regional banks ("caisses regionales") and the central body (Crédit Agricole S.A.). CA's ownership structure may be distinguished from other cooperative groups in that the central and the 13 regional banks are listed on the stock exchange. In terms of ownership, the regional banks have a majority ownership of the national body while at the same time providing financing for the local banks.[73] In terms of mutual support, CA group has a legally-binding cross-guarantee system that calls for the use of the group's resources to serve the debt of regional institutions.

CM's network structure is organised according to a three-level bottom-up approach. The local institutions provide banking services, collecting deposits and granting loans. All of these local banks are owned by their members. The regional institutions, "Fédérations" or "Caisses Fédérales", engage in training for the local administrators, business development and, to a lesser extent, representation and control of local institutions. Some of these regional centrals have formed alliances among themselves and are in the gradual process of consolidating around the largest federation, Caisse Fédéral de Crédit Mutuel Centre Est Europe (CMCEE).[74] Finally, group-level integration is attained by a number of national institutions ("Confédérations"), which issue debt, engage in risk

[73] The ownership structure of CA has changed twice in recent years. In 1988, Caisse Nationale de Crédit Agricole (CNCA), which served as the group's state-owned central, was converted into a joint-stock company when the government sold almost all its stake to the regional banks. At the same time, a merger of regional institutions shrank the number of regional banks from 94 in 1990 to 39 in 2009. In 2001, CNCA once again changed its status and converted to a joint-stock company, Crédit Agricole S.A. (CASA), and was subsequently listed in the Paris stock exchange. A majority of the capital (70%) was held by the regional centrals (caisses régionales) while the remaining part was floated to the public, with a small part distributed as employee benefits. Following the acquisition of Crédit Lyonnais in 2003, the regional banks' stake dropped to 55%.

[74] With its headquarters in Strasbourg, CMCEE and its alliance of four federations (the so-called 'CM5') joins local banks in the Paris region and the eastern and the north-western regions of France. The alliance represents nearly two-thirds of the group's total activities. The rest of the group comprises of two other alliances, Crédit Mutuel Arkea and Crédit Mutuel Nord Europe. The remainder of the federations act independently at the regional level.

management, manage liquidity and provide mutual support for the group.[75]

Unlike the other two cooperative institutions, BP's network collaboration is comprised of two levels, with no local layer. Although the details have changed since the merger with Caisse d'Epargne, the main structure of the group remains intact. The (premerger) regional layer is formed of 20 Banques Populaires, i.e. 18 regional banks, CASDEN Banque Populaire (serving the employees of the national education system), and Crédit Coopératif (serving principally non-profit organisations).[76] The group's national central institution, previously known as Banque fédérale des banques populaires (BFBP), is wholly owned by the regional institutions.[77] Apart from the centralised functions of treasury and risk management, wholesale, investment and international activities, the national central institution also serves a legally-binding mutual support system.

To sum up, the French cooperative banks represent an important part of the country's banking sector, fulfilling the role of enhancing access in remote regions and providing credit to households and SMEs. As a consequence of recent mergers, this trend is likely to continue in the years to come. Despite differences in their governance structures, all three institutions are relatively centralised with an extensive amount of intranetwork cooperation, especially in liquidity management and mutual support. Going forward, one of the challenges for the sector is the endurance of the key cooperative ideologies in the face of an increasingly integrated model. The complexities of the organisational models of the French cooperative banks and governance mechanisms that have

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[75] More specifically, Banque Fédérative du Crédit Mutuel issues debt and acts as the holding company for the specialised subsidiaries; Confédération Nationale du Crédit Mutuel acts as the group's central organisation for development and representation purposes; and, lastly, Caisse Centrale du Crédit Mutuel manages the liquidity and provides mutual support for the entire group. A group-wide mutual support system is available as voluntary cross-guarantees between the regional federations. The CM5 alliance has a legally-binding support system for local banks within the alliance (Fitch, 2008).

[76] With the merger, the regional banks will increase in number with the addition of 17 regional Caisses d'Epargne (CE).

[77] After the merger, BFBP was dissolved and replaced by the central organ of Banques populaires et des Caisses d'épargne (BPCE).

developed over the years attest both to these difficulties and the manner in which the institutions are coping with these challenges.

3.5 The Netherlands

Cooperative banks in the Netherlands were first formed towards the end of the 19th century when the first farmers' credit banks were established and modelled on the newly founded cooperative banks in Germany and influenced by the vision of Friedrich Wilhelm Raiffeisen.[78] They were formed in agricultural communities because there were very few banks in rural areas and farmers had little access to credit. Such banks had five main principles: unlimited liability of members; management by unpaid volunteers; the non-distribution of profits which were used to build up capital; a limited geographical operating area, and local autonomy even though they might be part of a cooperative central bank. The ultimate objective was to improve the lifestyle and economic well-being of the rural population, rather than profit maximisation. Being locally based institutions, they had significant information advantages in their local markets, and their local member focus meant that the appropriate monitoring of borrowers was undertaken so as to minimise risks and loan default rates.

The concept of a cooperative central bank to serve local cooperative banks was established very early in the evolution of cooperative banking in the Netherlands. In 1898 two such banks were established. These central institutions were partly designed to overcome the lack of economies of scale of member banks (Groeneveld and Sjauw-Koen-Fa, 2009). From an early stage the two central banks offered banking services (including liquidity management) to their member banks, and by the 1920s were also involved in the supervision of their member banks. The evolution of the membership of the member banks and the number of banks in the two networks is summarised in Table 3.5.1. By 1950, the number of member banks had grown to over 1,300.

[78] For a detailed discussion of the origins and history of Rabobank see Mooij et al. (2009).

Table 3.5.1 Evolution of the structure of cooperative banks in the Netherlands

	1900	**1930**	**1950**	**1970**
Member banks in the network	67	1,286	1,314	1,228
Members of local banks (x 1,000)	4	228	289	631

Rabobank itself was formed in 1972 with the merger of the two original cooperative central banks.

From its early beginnings as an essentially agriculture sector bank, Rabobank has developed into a full-range financial services provider, and began to expand into urban areas. The expansion of the bank (its asset base, deposits, funds under management, and the range of activities) has been substantial, as summarised in Table 3.5.2 below. At the same time, and largely because of mergers between member banks, the number of individual cooperative banks and members of the network has declined substantially, in each and every year from 1997, when there were 481, to 2008, when there were 153. At the same time, the number of branches declined from 1,823 to 1,112. Total assets rose from €122 billion in 1994 to over €600 billion by 2008 and loans to the private sector rose from €80 billion to nearly €410 billion. Over the same period, the Tier 1 equity capital ratio rose from 9.4% to 12.8%, and the rate of return on equity from 8.6% to 9.7%. Net profits rose from less than €1 billion to nearly €3 billion.

Rabobank has a market share of 30% in mortgages, 43% in the retail savings market (both have risen since 2004), and almost 40% of the SME banking market. In the food and agricultural sector its market share is over 85%.

In the late 1990s, Rabobank planned to diversify into international investment banking, which some argued was not fully consistent with being a member-based bank governed by cooperative principles. This strategy was, however, short-lived. Leaving aside the weak profitability of this business, one possible reason for this reversal in 1999 was that "the culture of investment banking fitted badly with Rabobank's company culture and being deeply rooted in domestic retail banking" (Vogelaar, 2009).

Although Rabobank is predominantly a retail bank, it has developed significant wholesale business on both sides of the balance sheet. After the mid-1990s, the lending activities of Rabobank Nederland could be funded almost exclusively from retail savings deposits. However, as the demand for loans was growing at a faster rate than the inflow of retail deposits, the

bank began funding operations in wholesale markets (Boonstra, 2009). Furthermore, around 25% of the bank's income is generated by Rabobank International.

Table 3.5.2 Evolution of Rabobank's selected profile

	1994	1997	2000	2003	2006	2008
			% of total market			
Total assets	23.6%	27.1%	29.8%	27.4%	30.1%	27.4%
Private loans	22.8%	26.1%	22.6%	24.0%	30.5%	34.0%
Customer deposits	na	31.8%	36.4%	34.9%	35.5%	35.5%
			Structural indicators (absolute values)			
Employees (in FTEs)	34,452	40,927	49,711	50,849	50,573	60,568
Member banks	595	481	397	328	188	153
Members (x 1,000)	615	525	550	1,360	1,641	1,707
Clients (x 1,000)	3,500	6,000	9,000	9,000	9,000	9,500

Source: Rabobank annual reports.

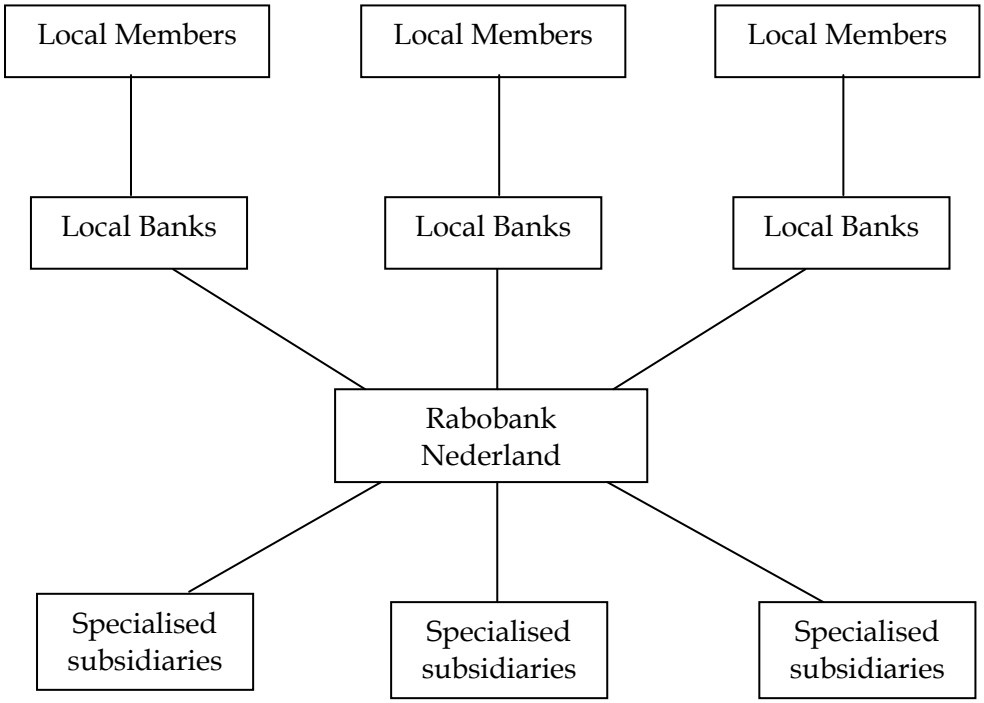
Rabobank (and its member banks) is a fully cooperative bank which, in the 1990s, expressly rejected the option of converting to publicly listed status on the stock market and becoming a SHV bank. This policy was reaffirmed in 1999 after a period of extensive consultation and consideration of the conversion option in the period 1995-98.

The Rabobank Group has a three-fold structure: local member banks, Rabobank Nederland (the network's central bank) and the various subsidiaries of Rabobank Nederland. The Rabobank network is an apex cooperative bank model with a powerful central bank (Rabobank Nederland) serving the member banks in a wide range of ways, as described below. Rabobank is fully owned by the 153 local member banks which are individual legal entities with their own balance sheet responsibilities. Within this network structure there are two levels of membership: the local member banks are members of Rabobank Nederland, and each of the member banks has members in their locality. Both the member banks and Rabobank Nederland are fully cooperative in nature.

Although all the local member banks (which are licensed as credit institutions) and Rabobank itself are cooperative banks, most of the latter's subsidiaries are not and are established as private or public limited companies under Dutch law. In all cases, Rabobank is either the sole or majority shareholder. The structure of the Rabobank Group is given

inFigure 3.5.1, which shows members of the local member banks which in turn are members of Rabobank Nederland and which in turn has subsidiaries to offer services to member banks and their members and customers.

Figure 3.5.1 Structure of the Rabobank Group



Source: Van Dooren and Van Ijperenburg (2009).

Although all the member banks are legally independent entities, the network's Cross Guarantee Scheme means that all member banks are liable for the obligations of all other members and the Group itself. Banks are able to draw on the scheme in the event of a shortfall rather than a liquidity imbalance which is handled through the central bank acting as the member banks' banker. There is, therefore, full mutual support. In addition, there is a mutual insurance scheme to cover certain operating risks that might affect member banks.

The network that is the Rabobank Group functions so that cooperative banks in the Netherlands have a local focus (being geographically close to their members and customers) coupled with

national facilities both for the member banks themselves and their customers and members. The range of services that Rabobank Nederland offers to the member banks also means that comparatively small member banks are able to secure economies of scale and offer a range of services that they themselves are too small to generate internally. In this last respect, one of the roles of Rabobank Nederland is to provide services to customers whose requirements exceed what can realistically be provided by their local cooperative bank.

Each member bank is a separate cooperative bank in its own right and is legally independent: they are not to be regarded as branches of Rabobank Nederland. Member banks are joint owners of Rabobank Nederland. The bank itself describes the structure as follows: "Rabobank Nederland is a daughter of many parents" but also "the parent of many subsidiaries". The two-way relationship between the central bank and the local member banks means that Rabobank is an integrated group of separate cooperative banks.

Rabobank Nederland performs several roles for the benefit of both the member banks and their customers, and the customers of Rabobank itself:

- It acts as a central bank to member banks and helps to intermediate their liquidity requirements and equalising surpluses and deficits in the flow of deposits and loans of member banks. This is effectively an internal interbank market.
- It is a bank in its own right conducting both wholesale and retail and both domestic and international business including for high net worth individuals.
- It is an important service provider to the member banks. This includes the important role of product development, treasury management, and risk management including centralised credit approval and scoring.
- It has a central supervisory role over the member banks, which is delegated to it by De Nederlandsche Bank, the supervisor of banks – including Rabobank – in the Netherlands.
- It acts as a holding company for a range of subsidiaries which provide services to member banks and customers both of Rabobank and its member banks.

- It is an outsourcing partner of member banks for a range of services such as marketing, back office administration and internal auditing. It also acts as an internal advisory service.

This combination of roles is almost unique in the world and most especially the combined roles of bank, central bank and supervisory agency.

The central bank has an important treasury operation. Local member banks are not allowed to operate in wholesale financial markets and must transfer any surplus funds to the Central Treasury. However, the Central Treasury does have access to domestic and international wholesale markets both as a source of funds and for investment.

An integral part of the network model is that Rabobank Nederland acts as the supervisory agency of the local member banks on the basis of delegated authority from De Nederlandsche Bank. As the supervisor, Rabobank Nederland has the power and authority to set rules for member banks not the least because of the Cross Guarantee Scheme. There is, therefore, a two-way relationship between the central institution and the local banks: the member banks own and influence Rabobank Nederland which in turn has supervisory and regulatory powers over the member banks. Furthermore, member banks cannot increase or decrease their operations (branches) without Rabobank Nederland approval.

Members have no entitlement to the equity of their local bank, which also applies to member banks and Rabobank capital. Member banks are shareholders in the equity of Rabobank Nederland but cannot appropriate it to themselves. As expressed by the bank itself: "…no-one can lay claim to the Group's equity…The Rabobank Group does not belong to anyone; the bank owns itself" (De Boer et al., 2009). No dividends are paid to member banks.

Local member banks have no access to external equity capital independent of its own members. For the group as a whole, the dominant source of equity capital is retained profits, and a minimum of 75% of profits must be retained as reserves contributing to Tier 1 capital. No distributions can be made to members, though a small proportion of profits can be used for social activities.

By far the dominant source of capital is the retained profits of the bank. However, two new sources of permanent equity capital (*Capital Securities* and *Member Certificates*) were introduced in 1999 as the banks were expanding at a faster rate than could be sustained by equity capital.

Capital Securities are comparable to bonds though have no fixed term and give a dividend but only providing Rabobank Group makes a profit: they are a form of hybrid Tier 1 capital.

In the early 2000s, *Member Certificates* were also offered exclusively to members of member banks. These proved to be attractive as they pay a return of around 1.5 pp above the ten-year government bond yield providing that the bank makes a profit. They form part of the bank's equity capital. They have no fixed term but can be transferred to other members in a limited internal market. The two new forms of capital accounted for 36% of the €30.4 billion of equity capital at the end of 2008, which implies that over one-third of the bank's capital is in the form that carries dividend payments, although, unlike with dividends in SHV companies, the dividend is not related to the magnitude of the bank's profits.

With respect to the local member banks, it is possible to be a customer without being a member. Any retail customer is eligible to become a member provided they are resident within the bank's geographical area and are not an employee of the bank. Following a concerted strategy to increase membership, the number of members rose from 550,000 in 2000 to 1.7 million in 2008 and the proportion of the sum of customers and members who were members increased from 6% in 2000 to nearly 20% by 2008. As of 1998, members have no formal obligations or duties and their liability is limited to their membership stake: they have rights but not obligations.

There are several specific advantages to being a member of a local member bank of the Rabobank Group:

- members have voting rights,
- they can be elected to the Board and Supervisory Board of their bank,
- they are able to attend and vote at General Meetings,
- they are entitled to a series of member discounts on some products and services (e.g. health care insurance),
- they can call for a General Assembly meeting provided such a call receives the support of 10% of members.

As a result of the increase in membership, the proportion of total loans to members increased from 14.3% in 1994 to 25.6% in 2008.

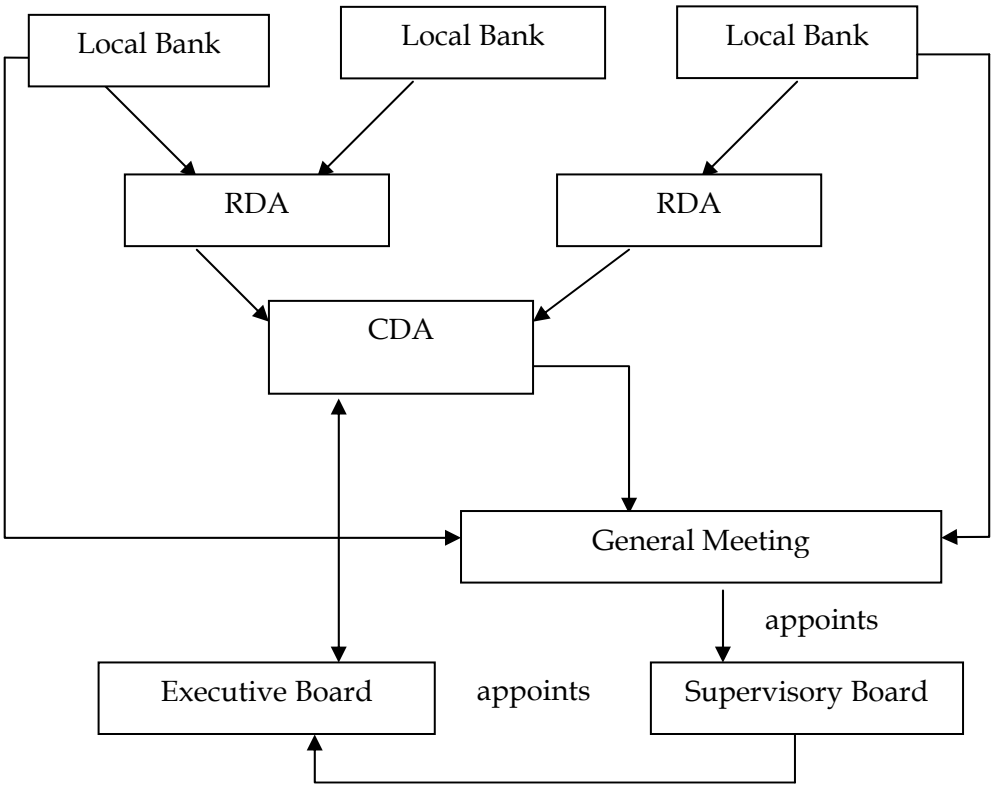
Governance structures exist at two levels in any network cooperative: at the local member bank and at the central bank.

In the Rabobank model, all local cooperative bank members have a Supervisory Board. Since 2004 member banks can choose between two alternative governance models: the *Partnership Model* and the *Executive Model*, although there is a trend towards the latter. Under the *Partnership Model*, the Board of the local bank is made up of people elected (on the basis of one member, one vote) by members from their ranks and a professional managing director appointed by the Supervisory Board. All important strategic decisions are taken by the General Meeting in which all members have voting rights. The General Meeting appoints members of the Supervisory Board.

In the *Executive Model*, each bank has a Board of Management operating under the oversight of the Supervisory Board. None of the board members are elected by the members. However, in this model the bank is required to institute a Members' Counsel which is made up of members. This is designed to embed member influence and control. This body assumes the bulk of the powers of the General Meeting.

The governance structure of Rabobank Nederland is summarised in Figure 3.5.2. There are four key elements: (1) an Executive Board (which reports to the Supervisory Board, the Central Delegates Assembly, and the General Meeting of Rabobank Nederland); (2) the Supervisory Board (which supervises the Executive Board and the general affairs of Rabobank Nederland and its subsidiaries and appoints members of the Executive Board); (3) the Central Delegates Assembly (CDA); and (4) the General Meeting of Rabobank Nederland. Member banks are organised geographically into 12 regions, each with between 12 and 20 member Banks.

Figure 3.5.2 The governance structure of Rabobank



Source: Van Dooren and Van Ijperenburg (2009).

Member banks send delegates to the Regional Delegate Assemblies (RDA) and each RDA has a board which in turn forms the Central Delegate Assembly, which is regarded as the 'Rabobank Parliament' and is effectively the pre-eminent consultative body for the member banks. The CDA meets four times each year and formulates overall group strategy for Rabobank Nederland and general binding rules and recommendations for all member banks. It also establishes the principles to guide the Executive and Supervisory Boards. In many ways, the CDA is the most important institution within the Rabobank Group. As expressed by van Dooren and van IJperenburg (2009): "Through the representation of the local management and supervisory bodies in the Regional Delegate Assemblies, the member-customers of the individual banks are represented in the Central Delegates Assemblies."

Voting at the Annual General Meeting of Rabobank Nederland is based on "Shareholder Ratios", which are calculated on the basis of a formula that includes balance sheet totals, member banks' core capital positions, and member banks' commercial results. This ratio is recalculated every three years to reflect the changing position of individual member banks. The General Meeting appoints members of the Supervisory Board, adopts or amends any changes to the Articles of Association of Rabobank Nederland, adopts the annual accounts and allocates dividends and appropriation of profits, and adopts regulations regarding the organisation and procedures for the RDAs and CDAs.

Along with cooperative banks across Europe, performance was inevitably affected by the banking crisis. However, the impact on the cooperative banking sector has not been as severe, not least because of Rabobank's strong capital position (Table 3.5.3). It was the only large bank in the Netherlands that did not need government support during the crisis. Nevertheless, profits declined by 17% in 2009 due to the severity of the recession, mainly as a consequence of a drop in demand for household loans.

Table 3.5.3 Tier 1 capital ratios in Dutch banking sector

	2004	**2006**	**2008**
Rabobank	11.4%	10.7%	12.7%
All banks	9.6%	9.1%	9.7%

Sources: ECB and Rabobank.

The collateral damage that the bank did incur was due to it having indirect positions in the US sub-prime mortgage market via its investment in structured instruments such as Retail Mortgage Backed Securities and Collateralised Debt Obligations. Even so, the bank was able to eliminate its exposure fairly quickly. Furthermore, the results of the member banks were sufficient to offset these losses.

All in all, the cooperative banking sector in the Netherlands has shown consistent growth while maintaining its traditional cooperative values and business philosophy, despite early attempts to convert to shareholder banking and to expand into international investment banking. Being highly integrated, its governance structure is almost unique in the world, as it combines the roles of bank, central bank and supervisory agency. Amidst market turbulences, the sector remained resilient over time

and resisted the crisis with no public support. Looking forward, cooperative banking is expected to continue gaining market shares while ensuring financial access to the real economy in the years to come.

3.6 Spain

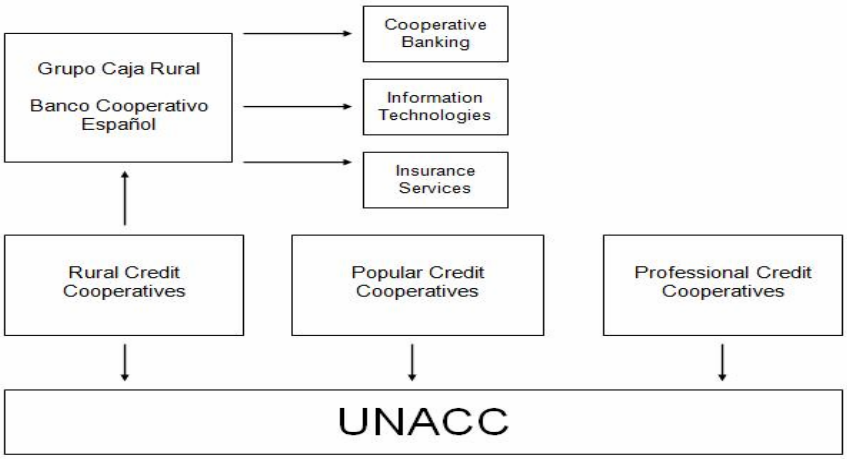
Inspired by the Raiffeisen model of cooperatives in Germany, the first credit cooperative was created in Madrid in 1865. The creation of the first rural credit cooperatives came later, in the early 20th century. The movement, which was initiated by the rise of Catholic unions, took hold quickly in the following years, with the total number of credit cooperatives reaching a total of 1,000 in 1936. Most of these institutions disappeared during and following the Spanish Civil War. It was not until the 1960s that the credit cooperatives grew, with the creation of credit unions for professionals, i.e. cajas populares y profesionales. By 1977, the total number of credit cooperatives, including both rural and popular credit cooperatives, reached a total of 200 registered entities.

Following the legal reforms implementing the EU's Banking Directives in the 1980s, Spanish credit cooperatives were gradually treated as any other credit institution for regulatory and supervisory purposes under the Law No. 13/1989 on Credit Cooperatives. The only difference applicable to credit cooperatives is the treatment of profits, which remains their key characteristic. Under the law, one-fifth of all profits are used to build a reserve fund, i.e. Fondo de Reserva Obligatorio, while an additional 10% is allocated into a social fund for the promotion of education and other social activities, i.e. Fondo de Educación y Promoción.

In 1989, Grupo Caja Rural was created with the participation of some of the rural credit cooperatives. This group centralises some of the replicable services for its members, including information technologies, data systems, and insurance and investment services. In order to make these services effective, Grupo Caja Rural operates through a centralised financial institution, Banco Cooperativo Español. This central body offers centralised financial services such as specialised financial services, centralised information technology services and insurance services.

As of March 2010, there were 76 rural credit cooperatives and four popular and professional cooperatives. All of these institutions belong to the National Union of Credit Cooperatives (UNACC), which acts as a representative organisation for the entire group. The organisational structure of the group is shown in Figure 3.6.1.

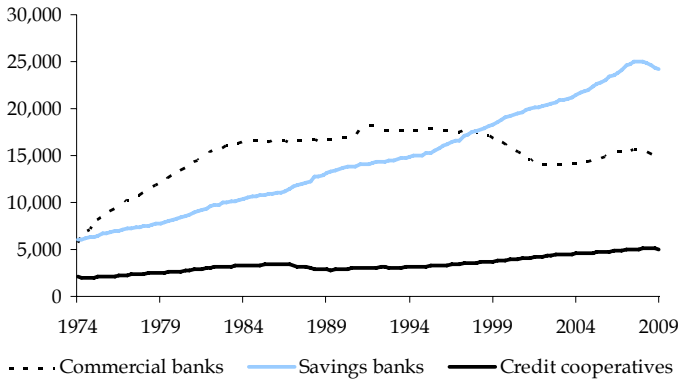
Figure 3.6.1 Organisation of the Spanish cooperative system



Source: UNACC.

The Spanish banking system has witnessed a broad transformation over the last three decades, with cooperative and savings banks increasing their market shares in retail banking services. As shown in Figure 3.6.2, the number of branches of both types of credit institutions has grown since the 1970s, with the exception of a brief period of contraction for credit cooperatives in the late 1980s. The growth has been significantly more pronounced for the savings banks, whose branch network has surpassed all others in 2000. The credit cooperatives, on the other hand, have maintained a small but gradually growing foothold in the market.

Figure 3.6.2 Number of bank branches in Spain, 1974-2009



Source: Bank of Spain.

Paralleling the growth of their branch networks over the past two decades, credit cooperatives have expanded their activities but have a relatively small share of the market. In terms of market shares for domestic customer deposits and loans, the relative share of cooperative banks has increased from 4.6% for deposits and 2.4% for loans in 1990 to 6.9% and 5.3% by the end of 2009, respectively (Table 3.6.1 and Table 3.6.2). Savings banks have also grown, especially in the loans market, overtaking commercial banks in terms market shares over the last 15 years. The figures below also show that the increased market share of savings banks and credit cooperatives, especially in the credit sector, came at the expense of other credit institutions, particularly specialised credit institutions that failed in the mid-1990s.[79]

Table 3.6.1 Market shares of Spanish banks in the credit market

	Total loans		**Mortgages**	
	1990	2009	1990	2009
Commercial banks	50.4%	43.5%	25.2%	36.8%
Savings banks	27.5%	48.0%	50.1%	55.7%
Credit cooperatives	2.4%	5.3%	1.4%	6.5%
Other credit institutions	19.7%	3.3%	23.2%	0.9%

Source: Bank of Spain.
Note: Figures correspond to market shares in private loans to resident non-financial sectors.

Table 3.6.2 Market shares of Spanish banks for customer deposits

	Total deposits		**Demand deposits**		**Savings & term deposits**	
	1990	2009	1990	2009	1990	2009
Commercial banks	48.6%	36.7%	70.5%	51.3%	39.3%	32.6%
Savings banks	42.8%	56.1%	25.7%	43.9%	50.0%	59.6%
Credit cooperatives	4.6%	6.9%	2.6%	4.4%	5.4%	7.7%
Other credit institutions	4.1%	0.2%	1.2%	0.5%	5.3%	0.2%

Source: Bank of Spain.
Note: Figures correspond to market shares in private deposits from resident non-financial sectors.

[79] The specialised lending institutions are comprised of official credit institutions, Instituto de Crédito Oficial, and Entidades de crédito de ambito operativo limitado (ECAOL), which disappeared in 1994 and 1996. The remainder of the banks in the "other credit institutions" category are electronic money institutions that continue to operate today.

Table 3.6.1 also highlights a key characteristic of Spanish credit cooperatives. Today, much like savings banks, these institutions have a more significant lead in the mortgage market than in the overall credit market, benefiting mainly from the growth of the real estate and construction sectors. Most of the slack in the mortgage market following the disappearance of specialised credit institutions has been taken up by commercial banks, which have seen their market shares grow from roughly a quarter of the total credits in 1990 to more than a third in 2009. The credit cooperatives have also seen growth in their aggregate market share, which has more than quadrupled in 20 years.

The details for the market shares for different deposit products, as outlined in Table 3.6.2, highlight another important difference between the different types of banks active today. While commercial banks continue to hold a clear lead in demand deposits (i.e. overnight deposits), the market share of cooperative banks in other forms of deposits (7.7%) is higher than their share in the overall deposits market (6.9%). The reliance on less liquid forms of liability is a key distinguishing characteristic of cooperatives and savings banks.

Table 3.6.3 Market shares of Spanish banks in regional credit markets

	Provinces with < 25 inhab./km²		**Provinces with 25–75 inhab./km²**		**Provinces with 75–125 inhab./km²**		**Provinces > 125 inhab./km²**	
	1990	2008	1990	2008	1990	2008	1990	2008
Commercial banks	37.3%	29.5%	52.5%	34.8%	58.3%	36.9%	59.5%	45.9%
Savings banks	54.5%	57.7%	39.9%	54.9%	39.5%	55.2%	37.7%	48.6%
Credit cooperatives	10.7%	12.8%	8.1%	10.3%	3.1%	7.9%	2.8%	5.4%

Sources: Bank of Spain, Eurostat and own elaboration.
Notes: Information drawn from level-3 regional data covered under Nomenclature of Territorial Units for Statistics (NUTS 3). Other credit institutions are not included in figures. Figures correspond to market shares in private loans to resident non-financial sectors.

One reason that cooperative banks may have relative advantages in the mortgage market and the longer-term deposits could be due to the close relationship they form with their customers. Indeed, Tables 3.6.3 and 3.6.4 confirm that cooperatives (and to a large extent savings banks) are more active in less densely populated provinces. In summary, credit cooperatives are more active in areas with less than 75 inhabitants per square kilometre, where they represented over 10% of private loans and 12% of private deposits in 2008. In turn, the regional distribution of the market power of cooperative and savings banks has become more even, while commercial

banks remain more represented in densely populated (mostly urban) areas. These figures confirm that credit cooperatives provide access to finance, especially in more isolated areas.

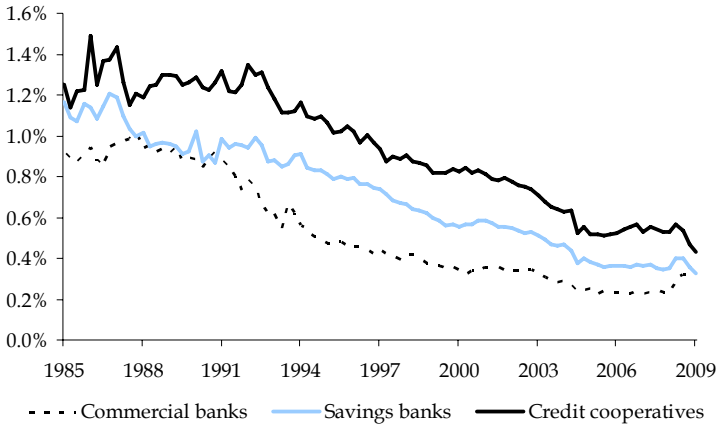
Table 3.6.4 Market shares of Spanish banks in regional customer deposits

	Provinces with < 25 inhab./km²		**Provinces with 25–75 inhab./km²**		**Provinces with 75–125 inhab./km²**		**Provinces with > 125 inhab./km²**	
	1990	2008	1990	2008	1990	2008	1990	2008
Commercial banks	41.9%	24.5%	48.7%	27.9%	50.8%	31.1%	51.0%	38.8%
Savings banks	50.7%	62.9%	42.3%	57.7%	45.6%	58.2%	45.5%	54.9%
Credit cooperatives	9.6%	12.6%	10.2%	14.4%	5.7%	10.7%	5.2%	6.3%

Sources: Bank of Spain, Eurostat and own elaboration.
Notes: Information drawn from level-3 regional data covered under Nomenclature of Territorial Units for Statistics (NUTS 3). Other credit institutions not included in figures. Figures correspond to market shares in private deposits from resident non-financial sectors.

Possibly due to increased competition in the sector, the earnings of most banks have declined over the last two decades and the cooperative banks are no exception. Figure 3.6.3 depicts the evolution of net interest earnings for commercial, savings and cooperative banks in Spain between the years 1985 and 2009. In the case of cooperatives, the net interest margin has declined from around 1.1% of assets in 1985 to 0.4% in 2009. The figure also shows that this decline replicates the situation for the broader sector, where both commercial and savings banks have realised equivalent drops. Despite the downward trend, cooperative banks maintain higher relative earnings than their peers. This is most likely due to their lower funding costs and their traditional role in providing credit to households and smaller enterprises, which typically carry greater credit risks and are thus associated with higher interest rates.

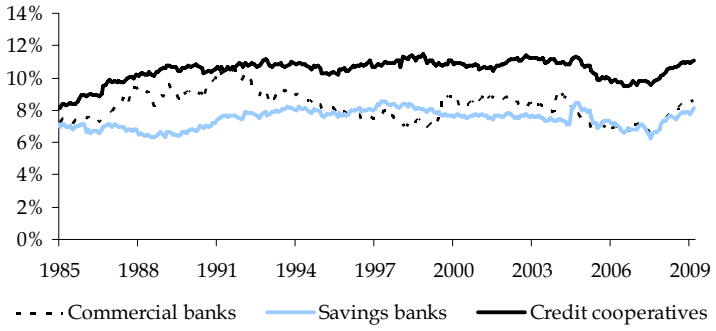
Figure 3.6.3 Evolution of net interest margins as share of assets in Spanish banking, 1985-2009



Source: Bank of Spain.

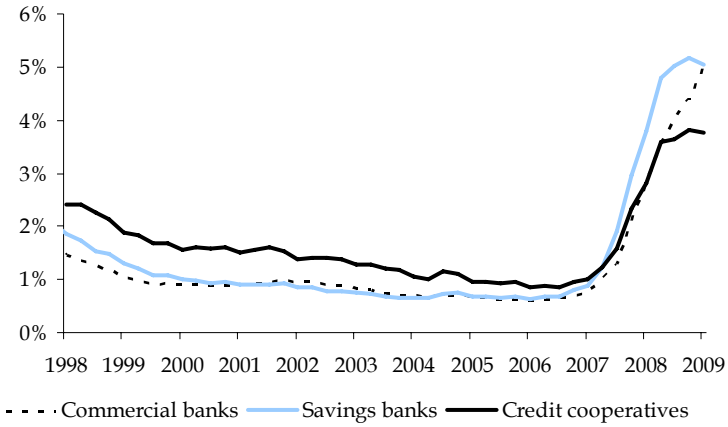
Credit cooperatives also contribute to the overall stability of the banking sector by maintaining high equity levels. Indeed, the average share of capital and reserves in total assets (4) has persistently remained around 11.5% between 1990 and 2009, over two percentage points higher on average than those of commercial and savings banks.

Figure 3.6.4 Share of capital and reserves in total assets in Spanish banking, 1985-2009



Source: Bank of Spain.

Figure 3.6.5 Ratio of non-performing loans (NPL) to loans in Spanish banking, 1998-December 2009



Source: Bank of Spain.

The global financial crisis of 2007-08 has had a significant impact on Spain's economy. The real estate and construction sectors have been hit particularly hard, which has led to a serious deterioration of the credit portfolios of the credit institutions. According to the Bank of Spain, the share of non-performing loans has exhibited a dramatic increase for all banks over the past two years (see Figure 3.6.5). Nevertheless, the worsening of the credit portfolio of cooperative banks has been more limited. Although the credit defaults have been higher for credit cooperatives – due to their traditional role of providing funds to smaller enterprises that often have higher credit risk – there has been a reversal during the crisis. Indeed, by the end of 2009, the non-performing-loans-to-loans ratio remained at 3.8% for Spanish credit cooperatives and over 5.0% for commercial and savings banks.

Several reasons can explain why the credit cooperatives have better mitigated the impact of worsening market conditions as compared to their peers. First, they have limited their exposure to the real estate and construction sectors where the losses have been most significant. While the credit to the real estate sector represented between 15% and 20% of the total loan portfolio of commercial banks, the same share has been closer to 10% for the credit cooperatives. The same also holds for the construction sector.

Second, there is evidence that even within a given sector the non-payment rates have been less responsive to the worsening conditions for

credit cooperatives. For example, although the pre-crisis NPL ratios for household mortgages were comparable among all banks, by December 2009 the credit cooperatives enjoyed a non-payment rate of 1.6%, compared with the rates of 3.0% for savings banks and 2.4% for commercial banks. Similarly, the NPL ratios in the real estate sector literally exploded for commercial banks and savings banks, climbing from a mere 0.5% in December 2006 to around 10% in December 2009. For credit cooperatives, however, the jump was less dramatic, going from 1.1% in December 2006 to 7.6% in December 2009.

The differences in the responsiveness of the non-payment rates may be a result of the particularities of the relationship between the credit cooperatives and their borrowers. In other words, the screening and monitoring advantages that credit cooperatives enjoy could allow them to incorporate correctly the borrowers' exposure to adverse market conditions in their credit decisions. Indeed, the ability to decompose the borrowers' risks into its components would go in line with the informational advantages highlighted by the literature on relationship banking.[80] Other issues could also be at play. For example, differences in loan servicing practices could explain why the responses differ. The varying NPL rates may be a temporary phenomenon. Therefore, a complete assessment of these contrasting reasons needs to be conducted in the upcoming years, once the non-payment levels return to long-term norms.

Going forward, a key challenge facing the sector is the banks' access to liquidity markets. Typically, larger institutions can raise capital in domestic and international markets, which allows them to afford liquidity at lower costs. Smaller and less integrated institutions, however, may suffer from shortages, especially during times of crisis. In order to counter these challenges, the credit cooperatives under the Asociación Española de Cajas Rurales (AECR), which represent over half of the total assets of all credit cooperatives, have joined in a common mutual protection scheme (sistemas institucionales de protección, or SIP) in 2007. The system allows the participating institutions to share liquidity, guarantee the solvency of its members and facilitate access to capital markets. More recently, the

[80] For a general discussion on relationship banking, see Boot (2000) and Elyasiani and Goldberg (2004).

remaining credit cooperatives have also been encouraged by the Bank of Spain to join the scheme.

To sum up, the service, performance, efficiency and solvency indicators shown above highlight that amidst their recent growth, credit cooperatives in Spain continue to serve the basic needs of their key customers. These banks, which represent a relatively small proportion of domestic deposits and loans, are more present in less remote areas, enhancing access. They have also maintained a steady cushion of earnings, which certainly is one of the key reasons that their capital ratios remain superior. More recently, the cooperatives have taken a less pronounced hit from the financial crisis. The recent move to strengthening the mutual support systems should further secure the future of cooperative banking in Spain.

3.7 Finland

In Finland, the first cooperative credit institution was founded in the beginning of the 20th century by Hannes Gebhard, the father of the cooperative movement in the country, which was based on the Raiffeisen model. In early times, in addition to the members' deposits, the local institutions obtained their financing from the group's central institution, the Lending Fund of the Cooperative Societies Limited Company (OKO), which channelled public funds to the local institutions. In 1920, the institutions were allowed to broaden their client base to attract deposits from non-members. A few years later, the Guarantee Fund for Cooperative Banks was formed to bear risks mutually, but only on a voluntary basis.[81]

From a market share of just over 10% in deposits and loans before the Second World War, the group continually broadened its reach in terms of loans over the second half of the century (see Figure 3.7.1). A large increase in activity in the years 1945 to 1950 was due to a mandate by the Finnish government to use the cooperative banking sector as an intermediary to distribute loans to those settling out of the territories ceded to the Soviet Union.[82]

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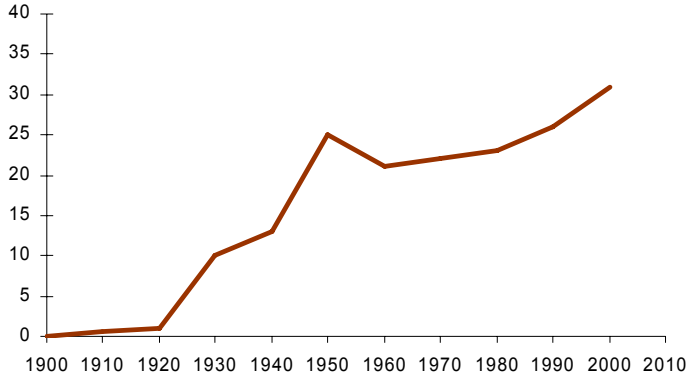
[81] The participation in a legally binding guarantee fund was included much later, in the 1970s.

[82] F.R. Marshall (1958,) "The Finnish Cooperative Movement", *Land Economics*, Vol. 34, No. 3 (Aug. 1958), pp. 227-235.

Figure 3.7.1 Market share in lending during 1902-2010 in percentage points



Source: OP-Pohjola Group (2009).

Throughout their history, Finnish credit societies have provided their services mainly in rural areas and to small farmers. This narrow focus first led to a temporary decline in market shares in the 1950s, mostly due to intense postwar urbanisation. By the 1960s, the credit cooperatives began to undertake operations in urban areas, delivering services to the total population, helping them recover their position in the market.

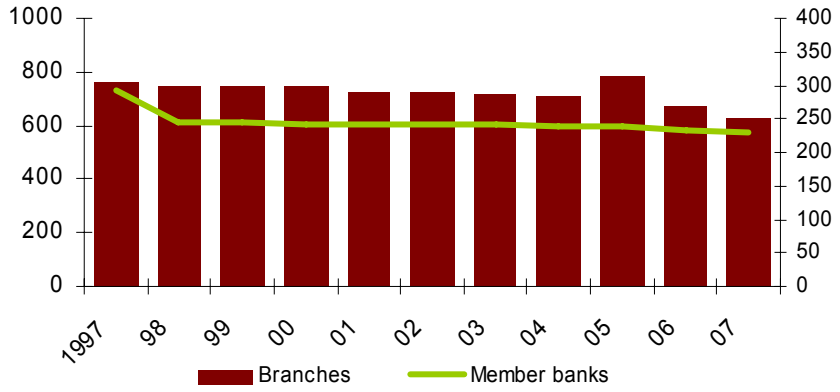
By the end of the 1980s, domestic and foreign indebtedness in Nordic countries had reached historic highs. Finland's foreign debt accounted for nearly half of the country's GDP, up from a mere 15% in the early 1980s. House prices reached historic peaks, with the annual expansion of loans reaching over 20% between the years 1985 and 1990. Along with this insurmountable increase in the flow of credit came an increase in bad loans, particularly troublesome in the commercial mortgage market. The collapse of the Soviet Union posed complementary problems, wiping out nearly 15% of the country's exports. The result was an overheated economy and a weakening banking sector, which led to a significant devaluation of the currency and a strong decline in banking activities in early 1990s.

The crisis led to a major restructuring of the banking sector and the birth of the modern-day cooperative model. Many smaller cooperative banks were reorganised and formed into a new confederation. The newly formed group emerged larger from the crisis, having taken over the operations of the savings banks. The banking sector as a whole also became more concentrated. As of the end of 2009, the total assets of the top three

banks, i.e. Nordea Bank plc, OP-Pohjola Cooperative Group and Pohjola Bank plc, represent more than three-quarters of the entire banking sector.

The reforms that were enacted both as a response to the crisis and to implement the European directives paved the way for consolidation in the banking sector. In 1997, OP Bank Group was formed as the group's central, which integrated the group's central operations to a single institution.[83] In the meantime, mergers and acquisitions (some of which were enforced by regulatory authorities) led to a drop in the number of commercial banks over the years. Within the cooperative banking sector, this consolidation battle was visible in the decrease of the number of local banks and branches (Figure 3.7.2). The number of local banks decreased from 250 in 1997 to 229 in 2007. In 2005, the OP Group became a majority shareholder of Pohjola, a leader in non-life insurance. In 2007, the two groups formed the OP-Pohjola Group, in which Pohjola Bank plc continues to be a listed entity, owned partly by the group's central and local banks.[84]

Figure 3.7.2 Consolidation of local banks in Finland



Source: OP Pohjola Group (2009).

[83] Besides the OP-Pohjola Group, there is a second group of cooperative banks, the Finnish Local Cooperative Bank Group, which consists of 42 independent banks located mainly in rural areas.

[84] The listed shares carry voting rights but are weighed differently than the shares held within the group. The group's central, OP-Pohjola Group Central Cooperative, has effective control with its 56.9% of total votes, while the local banks have 13.2%. The rest (30%) is controlled by the issued entity's shareholders.

In 2001, a reform of the sector took place with adoption of the Law on cooperative banks and other credit institutions established as cooperatives (1504/2001).[85] Under the new rules, the OP-Pohjola Group Central Cooperative was granted a role to supervise and monitor local banks on their liquidity, solvency and risk management practices. Moreover, the central institution and the local banks form a consolidated group that is jointly responsible for each others' debts and commitments, i.e. *joint-liability*. This mutual support system underlines a highly integrated structure. In effect, no local bank is allowed to fail; the only possible failure is that of the group as a whole. The model bears a resemblance to the model of the Dutch Rabobank, which combines liquidity management with local decision-making.[86]

Today, the OP-Pohjola Group's banking and investment arms are owned by its approximately 1.3 million members (see Figure 3.7.3). The group's highly integrated structure is evident from its ownership structure. The members exercise their power directly by voting in the general assembly or, for certain decisions, through their representatives.[87] The local banks own the central cooperative, which in turn wholly owns the group's fund management and life insurance arms. The central institution also has majority voting power over the investment banking arm, Pohjola Bank.

Over the past decade, following the reforms in 1997, the market shares for the OP-Pohjola Group have remained relatively constant, ranging from one-fifth in total assets to one-third in total deposits and loans (see Table 3.7.1). Meanwhile, the group's share in non-traditional lines of business has grown. One example is the group's non-life insurance activities, which have increased in importance ever since the merger with Pohjola to reach a market share of 25% in 2007. The group is also the lead

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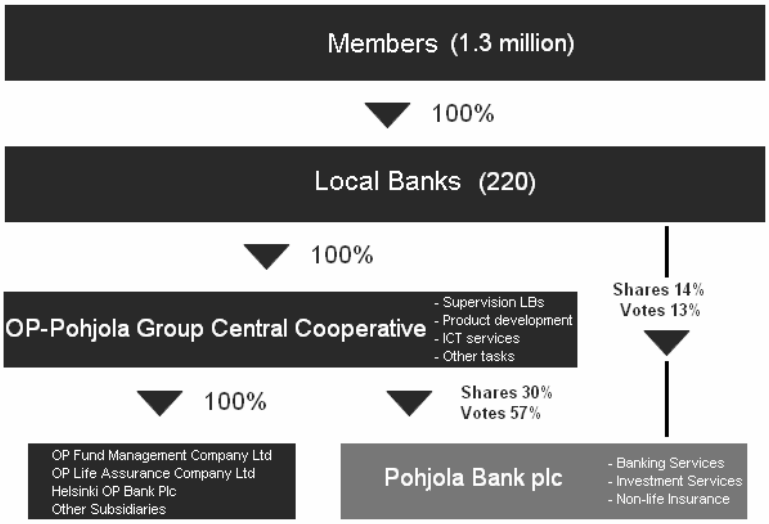
[85] Additionally, general provisions on cooperative institutions are set out by the Cooperative Societies Act (1488/2001), covering rules on membership, limited liability of members, incorporation, internal governance structure, general management structure, reporting requirements, etc.

[86] Amidst this ever-closer integration, some of the local cooperative banks have chosen to remain outside the newly formed group.

[87] The members' main task is electing the members of the supervisory board of the 220 local banks, with equal voting rights. The supervisory boards in turn select the executive board members and supervise the executive board, strategy and policy of the local banks.

provider of life insurance products through its fully owned subsidiary, OP Life Assurance Company plc, with a market share of 30%.[88]

Figure 3.7.3 Organisational structure OP-Pohjola Group



Source: OP-Pohjola, *Annual Review*, 2009.

Table 3.7.1 Market shares of OP-Pohjola Group

	Assets	Loans	Deposits	Loans to enterprises
1997	21.7%	30.8%	31.0%	25.5%
2002	19.1%	31.4%	32.7%	26.4%
2007	22.8%	31.1%	32.4%	25.7%

Source: OP-Pohjola.

Despite an increasingly broader product range and the inclusion of listed entities, the OP-Pohjola Group continues to focus on the needs of its clients, providing access to credit throughout the country. The group has maintained its lead in loans to farmers while housing loans comprise a major part of the credit portfolio. OP-Pohjola's market share in lending to enterprises remains at a more modest 26% in 2007, which is below its overall market share in loans but nevertheless greater than its overall market share in terms of total assets.

[88] Federation of Finnish Financial Services, 2008.

As another indicator of access to banking services, it may be reasonable to examine the evolution of the branch network. As in other countries, increasing Internet usage has reduced the importance of an extensive physical network. In line with this change, the number of branches decreased from 745 to 630, while the number of online service contracts increased from 0.2 to 1.2 million contracts between 1997 and 2007. In 2008, the group enjoyed a leading position in its network coverage. Despite its second position in terms of total assets, the OP-Pohjola Group has the highest market share in terms of the number of branches (see Table 3.7.2).

Table 3.7.2 Finnish banking sector in 2008

	Total assets		**Employees**		**Branches**	
	€ million	*Market share*	*Number*	*Market share*	*Number*	*Market share*
Nordea Bank	219,961	62.1%	10,499	33.6%	345	21.5%
OP-Pohjola Group	75,746	21.4%	12,752	40.8%	604	37.7%
Sampo Bank	29,592	8.4%	3,060	9.8%	122	7.6%
Aktia plc	9,540	2.7%	1,253	4.0%	76	4.7%
Savings banks	6,713	1.9%	1,234	4.0%	212	13.2%
Local cooperative banks	3,886	1.1%	729	2.3%	146	9.1%
Other domestic banks	8,486	2.4%	1,701	5.4%	98	6.1%
Total	353,924	100.0%	31,228	100.0%	1,603	100.0%

Source: Federation of Finnish Financial Services (2009).
Note: Foreign banks are not included in the figures.

Ever since the crisis in the 1990s, the Finnish banking sector as a whole has maintained greater capital ratios than their peers elsewhere in Europe. In 2008 and 2009, the aggregated Tier 1 ratio of the OP-Pohjola Group remained constant at 12.6%, which was identical to the average ratio of the banking system in Finland in 2008 and remained slightly below the December 2009 figure of 13.2%.[89]

[89] The jump for the system-wide figures for 2009 was largely attributable to the equity issuance by Nordea, which is by far the largest bank in the country. Pohjola Bank also contributed, albeit to a smaller extent, having engaged in an equity issuance worth €300 million via a rights offering to its existing shareholders, including OP-Pohjola, in February 2009.

Since the onset of the financial crisis in the summer of 2007, the profits of the Finnish financial sector have declined.[90] Nevertheless, the direct impact of the credit crunch on OP-Pohjola has also been relatively modest, whereas the worsening conditions on the economy and the financial markets were significant. The pre-tax earnings of the cooperative group dropped from historic highs in 2008 by 63%, to €372 million. This was mainly due to the poor investment performance in insurance activities with a loss of €417 million in 2007-08. Despite of this strong decline, the customer bonus – a form of fixed benefit distributed to all members[91] – was raised by over 50% to €132 million. In 2009, profits went up to €464 million despite continuing losses in insurance and a significant decline in interest income on loans due to lower demand. These changes came along with an increasing expectation for future loan losses, which are likely to challenge profitability in 2010 and 2011.

To conclude, the Finnish cooperative banking sector has undergone substantial change over the last century. Starting from a relatively dispersed structure, OP-Pohjola Group has integrated in successive steps over the second part of the century to become the second largest bank in the highly concentrated Finnish market. The model that exists today has emerged as a result of the reforms enacted in the aftermath of the 1990s crisis. Today, with its extensive mutual support and provision of centralised functions, the OP-Pohjola's structure represents one of the most integrated models in Europe. Much like in other countries, the group has also widened the spectrum of its services and its structure. Despite these changes, the cooperative group has managed to retain its primary focus on housing loans as well as its leading position on agricultural loans, remaining devoted mostly to the domestic market and providing access to its clients through its extensive branch network. The group has also resisted the recent financial crisis relatively well. To sum up, cooperative banking is expected to continue to hold a dominant position in the banking sector in Finland.

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[90] Bank of Finland (2009), *Financial Stability Report*, Helsinki, December.

[91] The bonus is based on the number of transactions conducted by each member. In order to qualify for the benefit, the minimum amount of transactions must exceed €5,000 a month.

3.8 Overall assessment

The analysis presented in this chapter shows that cooperative banks in the seven European countries examined have followed different paths of development that range from capitalising on traditional forms of decentralisation to exploring new forms of hybridisation and centralisation. These new organisational forms have proved successful over time in some countries by allowing cooperative banks to overcome traditional weaknesses, to benefit from scale economies and to expand across the board. However, it is difficult to determine the optimal level of model deviation not to undermine the traditional value and overall coherence of the cooperative system.

No single model can adequately capture all the common elements of cooperative banking in all these countries. Despite a shared historical background, cooperative banks evolved with differing predominance, natures and roles. Today, they display a great deal of variety among themselves and compared to other groups: a development that confirms the 'common versus diverse' nature of cooperative banks in Europe.

The first distinction among the models studied is the access to capital. The cooperative models in some countries have moved from obtaining all their capital from their member-customers and retained earnings to the issuance of shares to non-members, i.e. Unione di Banche Italiane, which acts as a holding for several Banche Popolari, and Crédit Agricole. Other banks have formed groups where one or more non-cooperative entities within the group have access to external capital. Yet others have found innovative ways to issue hybrid equity-like products, such as subordinated debt issued by Rabobank Nederlands. This shift to external funding has obviously necessitated a provision to maintain members' power.

The second distinction is the level of integration in cooperative banking networks. Moving away from their fully decentralised historical roots, some of the European cooperative banks have developed prominent central institutions and formed network alliances over time. The level of integration ranges from centralisation of common replicable services provided, such as group representation, strategic advice, and basic support services, to more executive functions, such as risk and liquidity management, management of mutual support, supervision of local banks, and mergers and acquisitions. Using this classification, integrated systems are those that are found in Finland, France and the Netherlands. Austrian and German cooperative banks have divulged fewer functions to the

centrals while the Italian and the Spanish cooperative banks appear as almost entirely decentralised.

A third distinctive characteristic among the European cooperative banks is the gradual broadening of the scope of activities. Most of the institutions included in this study have some form of an investment banking arm. Examples include Crédit Agricole's Calyon, Groupes Banque Populaire and Caisse d'Epargne's (BPCE) Natixis, Raiffeisen Investment, etc. Some of the banks have also expanded their geographical coverage, most notably Crédit Agricole, Crédit Mutuel, Raiffeisen and Volksbanken. The product ranges have also grown, mostly in line with the banks' overall development strategy. Several banks have taken up extensive activity on insurance markets, most notably the Finnish OP-Pohjola Group and the Dutch Rabobank.

These differences operate alongside the key common features among the cooperative banks. All of the institutions included in the study continue to be owned by their member-customers, providing decision-making rights to their member-customers, such as the one member, one vote rule and bottom-up authority in key decisions, such as the election and dismissal of local directors. Where listed shares are issued, they come with no voting power. Another right emanating from ownership, the right to residual earnings, is also present in most cooperatives, although there are differences in form. Some institutions provide dividend payments to their members while others offer non-cash benefits. Although the group-level focus may be broader, the local cooperative banks operate within a given area, achieving a high degree of proximity with their customers, especially in isolated and remote areas. Some have achieved integration to facilitate external funding; however, all the cooperative banks included in the study continue to be primarily involved in deposit-taking and provision of credit to households and individual entrepreneurs, including small- and medium-sized entreprises (SMEs).

The cooperative institutions' primary reliance on deposit-taking for funding has meant that most cooperatives have maintained low leverage levels and have managed to remain relatively secure and stable in the first phase of the financial crisis that erupted in 2007-08. Furthermore, all the cooperative banks covered in the study are required to allocate a significant proportion of their profits as reserves. In some cases, these laws are supplemented by fiscal advantages. These policies have led to the growth of a substantial cushion against risks, which is possibly another key reason

why the cooperative banks have been resilient to the worsening market conditions.

For the way forward, what remains to be seen is how the European cooperative banks will respond to a changing environment. Their commitment to core banking, their ability to become more integrated while remaining member-owned, their ability to remain stable and their capacity to grow will certainly be the key determinants of success in the years to come.

4. ECONOMIC PERFORMANCE AND ROLE OF COOPERATIVE BANKS

The main objective of this chapter is to conduct an empirical investigation of the performance and role of cooperative banks in seven countries where they are active (Austria, Finland, France, Germany, Italy, the Netherlands and Spain). The first part of the chapter discusses the main arguments for cooperative banks as a subset of STV and dual-bottom line institutions. The second part surveys the empirical literature on the performance of cooperative banks as well as their contributions to competition, regional growth and financial stability. Most studies have focused on a relatively narrow set of countries or issues, without taking a look at the broader picture. The lack of a comparative assessment of the conditions and roles of cooperative banks in Europe and institutional diversity – that is, the degree to which cooperative banks participate, together with commercial banks and savings banks – in a given financial system has motivated this chapter and the study as a whole. This is why the third part of this chapter reports the results of an empirical examination of the performance and roles of cooperative banks in the seven European countries mentioned above.

This chapter is structured as follows: section 4.1 provides the main theoretical arguments for cooperative banks as a subset of STV banks. Section 4.2 offers a review of the empirical literature covering the performance of cooperative banks, the impact on competition, the links between small business lending and small banks (including cooperative banks), and the contribution of cooperative banks to the local and domestic economy and stability. Section 4.3 offers a description of the methodology used in a European-wide financial and econometric study of the performance of cooperative banks, their impact on competition, and their

role for regional economic growth and stability. Finally, the main results of the empirical analysis are reported in section 4.4.

4.1 The main theoretical arguments for cooperative banks

As was outlined in Ayadi et al. (2009), STV banks such as cooperative banks, savings banks and other STV institutions share the characteristic of being dual-bottom line institutions (DBLIs). This simply implies that they are not only profit oriented, but they also pursue other objectives (to serve their members and non-member clients in the case of cooperative banks, and the regional economy and society in the case of the savings banks).

The balance between the different objectives of DBLIs changes over time and the relative weights of the two different objectives necessarily change in the course of time. Indeed, they need to change when conditions change. The stronger the competitive challenge, the more weight that needs to be attached to the financial objective that secures institutional survival as a precondition for providing socially relevant services. The competitive pressure may lead DBLIs to behave as aggressively as commercial banks and instead of focusing on their core business they may turn into more risky but potentially more profitable financial segments.

4.1.1 Improving access to financial services

DBLIs and in particular cooperative banks (because of their traditions, values and local roots) enable the provision of credit to lower income earning individuals and businesses with no or little collateral because they are able to reduce the transaction costs associated with screening borrowers as well as monitoring and enforcing repayments. In other words, these institutions effectively prevent opportunistic behaviour on the part of borrowers (Hansmann, 1996).

Several models have been put forward on how cooperative banks can achieve this result. The common point in all the models is the close relationship between the cooperative and its customers as well as the members themselves. By maintaining proximity to their customers, cooperative banks are able to mitigate some of the information asymmetries, by substituting the screening role played by a bank's lending officer with peer selection (Ghatak, 2000). However, the role of proximity was not limited to the customer-banker relationship. A cooperative's members often came from the same locality, allowing them to exercise some of the monitoring, screening and enforcement functions that the

banks themselves are often incapable of doing themselves. Several studies have highlighted the role of social sanctions within a tightly knit community, which may be a valuable substitute for the missing incentive of enforcement roles (Stiglitz, 1990; Varian, 1990; Besley and Coate, 1995).[92]

The relationship between a bank and its borrowers is particularly vital for financing smaller firms, since for them close personal ties between bank officials and borrowers can facilitate the collecting and using of significantly more information than in the case of firms with a more distributed organisational structure.[93] As banks grow and expand across borders, other objectives than satisfying the local borrower and other difficulties may emerge. A number of researchers have argued that larger banks are less capable of processing and transmitting the soft and relational information through their hierarchical structures.[94] This would put local banks, such as cooperative banks, in a position to better respond to the needs of smaller local enterprises than larger and less regionally focused banks. Such a role provided by cooperatives with close ties in their communities is vital to grant adequate financing to small and medium sized enterprises.

4.1.2 Fostering regional development

Being DBLIs, cooperative banks play a special role in fostering local/regional economic development by mobilising savings (members' deposits) and at the same time lending the funds they have mobilised in the

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[92] The three articles differ in the way that social sanctions may develop. According to Besley and Coate (1995), group lending leads to a durable and long-term relationship between lenders and borrowers. The longer duration implies that not paying back one's debt is a reputational hazard, which is a potent sanction especially since all members stand to lose from non-payment by a single member. In turn, Stiglitz (1990) and Varian (1990) focus on the informational advantages enjoyed by group members. Stiglitz's (1990) model of peer monitoring assumes that neighbours have additional information that would not be available to the bank, which may lead them to raise social sanctions in the event of a non-payment by another local member. Varian (1990) shows that when the repayment probabilities among agents are interrelated, the credit contract offered by the principle, i.e. the lender, should 'internalise' such linkages by making the credit to the entire group conditional on payments by each member of the group.

[93] For a survey of relational lending literature, see Boot (2000) and Elyasiani and Goldberg (2004).

[94] See Stein (2002) and Williamson (1967).

region where they belong. In doing so, they help to prevent a 'capital drain' that may occur if savings are mobilised in one region in which economic activity is less developed and then transferred and lent in economically more active regions. This can induce migration, cement relative underdevelopment and even induce a downward spiral for the less developed region.[95] Moreover, a sufficient supply of banking services helps to make cities and regions attractive for people who consider moving there or not moving away. Longer-term relationships between banks and local businesses tend to strengthen local businesses and even attract new businesses and create local employment. Moreover, local banks contribute to high and stable tax revenue, which also fosters the local economy, since they are less able and therefore also less likely than large internationally active banks to reduce their tax burden by shifting profits to countries with a favourable tax regime.[96]

4.1.3 Mitigating intertemporal risk

Whereas capital markets are particularly good at managing 'intratemporal' risk, they are less capable of dealing with intertemporal risk. In contrast, banks are in principle able to do just this by creating reserves in good times and reducing these reserves in bad times, provided that they wish to do so. Creating and unlocking reserves is a specific technique of risk management. Intertemporal risk is thereby 'smoothed', and utility increases. It is intuitive, and can be proven in a relatively simple economic model, that risk-averse people value this 'storage' option highly. This implies that having banks that can and want to create reserves in good times and unlock them in bad times would be socially valuable. However, it is important to understand that being able to mitigate intertemporal risk is not the same as having the incentive to do it and of wanting to do it.

For example, cooperative banks are designated to perpetually accumulate capital owing to their institutional set-up. The reserves

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[95] A formal model showing that this 'capital drain' effect can occur and that savings banks can counter it is provided in a theoretical paper by Hakenes and Schnable (2006). The empirical support for the proposition advanced in the Hakenes and Schnable article is found in Hakenes et al. (2009).

[96] In an empirical study using a very broad data set, Demirgüç-Kunt and Huizinga (2001) have confirmed that larger banks are more likely than small local banks to employ tax-driven profit-shifting schemes.

accumulation can be used to mitigate intertemporal risk and to smooth the cycle.

Unlocking reserves in an SHV bank can occur in two forms. One is the isolated or direct sale of the reserves if they have been created in the first place. The other possibility is the sale of the entire bank at a price that includes the value of the reserves. If the direct sale is made impossible by regulation, it may appear attractive to choose the second alternative.

There is a conflict between what is optimal for the entire economy and what is optimal for the individual bank and its owners and managers. For the owners of an individual bank, disclosing and selling its reserves in good times is always more profitable than keeping them. Therefore, strictly profit-oriented bank owners or bank managers who act exclusively in the financial interest of a bank's private owners would choose the more profitable option, that is, disclose and sell the reserves. And even if the managers would not want to act in this way, stock market pressure would force them to do it and thus expose the economy to higher intertemporal risk and cause severe social damage.

The next step of the argument is straightforward. It would be socially valuable if bank managers and owners were not interested in disclosing and selling the reserves they may have built up or if it were not possible for them to act in this way. This is the case with savings banks, public banks and cooperative banks. They are not strictly profit-oriented, and because of their institutional and legal design they cannot be sold at their full value. Thus their managers can be expected to create reserves in good times and unlock them if there is a need to do so. Neither earnings pressure nor stock market pressure prevents them from doing something that amounts to the socially valuable function of intertemporal risk management.

This argument has been developed by the economists Franklin Allen and Douglas Gale in a series of influential academic articles.[97] It is an economically powerful and theoretically sophisticated argument for having and retaining banks that are not strictly profit-oriented and whose ownership position cannot be sold. These banks include public banks, banks owned by foundations that would not consider selling the banks – thus different forms of savings banks – as well as, to a certain extent,

[97] See the original research paper Allen and Gale (1997) and, in a less formal version, Allen and Gale (2000), chapter 6.

cooperative banks. In a book that summarises their relevant research, Allen and Gale (2000) argue that macroeconomic shocks, i.e. manifestations of intertemporal risk, affect countries in whose financial sectors non-sellable and not strictly profit-oriented banks play an important role much less than other countries whose banking sectors are composed exclusively of private banks whose shares are listed and traded on a stock market.

4.1.4 Capitalising on the value of diversity

Competition is much more complicated than standard accounts of introductory economics textbooks, which only rely on established microeconomic theory, might suggest. According to a view that goes back to the Austrian economist Joseph Schumpeter, competition is a process that is driven to a large extent by knowledge that exists and newly created and discovered knowledge, and by innovation. For competition to work, new ideas must be generated. But this is not enough. There must also be the possibility to transform these ideas into economic reality: invention must be translated into innovation.

Financial systems develop over time; new instruments and new institutional forms are invented and used, and they may turn out to be more or less successful. As a matter of principle, it is impossible to predict what will be successful financial instruments and institutions in the future. A process of creative and dynamic competition must be based on openness. This argues for diversity. Diversity offers an optimal basis for new ideas to come to life or to disappear and also for old ideas to make their comeback.

In the context of banking systems, openness and diversity imply that different institutional forms, different business models and objective functions should exist and be made sufficiently strong so that they have a fair chance of emerging successfully from the struggle in which different forms of organised banking activity compete with each other.[98] The economic arguments that would suggest that one specific form of organising banking activity, namely that of the large private bank with many shareholders, is the best one, may on the face of it appear plausible, but they are by no means conclusive.[99] So far we do not know enough

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[98] This argument was confirmed in Llewellyn (2009) for the case of building societies in the UK.

[99] See Hansmann (1996), especially chapters 1 and 2.

about the merits and the potential of different forms of enterprise, especially in banking and other financial sectors, to be able to assign a clear priority to one specific model and to obstruct the development of others.

As Carbó Valverde and Mendez (2006) argue, diversity is all the more important in Europe, which is an economic and political region that thrives on the benefits of having a long tradition of diversity and that even aspires to make better use of this tradition. Diversity has economic benefits for Europe as a whole and the countries within the region, and it has its own cultural value that is worth preserving, since diversity fosters creativity in many respects.[100] It is a characteristic element of this European tradition that there are many institutional forms in which economic activity is performed that are, in terms of their design and functions, located somewhere between the state and its centralised power structure and fully decentralised and purely private enterprise. There may be substantial benefits to having these hybrid forms. Just like savings banks, cooperative banks are a part of this tradition of diversity and openness. Neither the request of central governments to expand their powers nor an overly simplistic model of a market economy should be used to undermine this tradition.

4.2 Review of the empirical literature

4.2.1 Performance of cooperative banks

Based on their governance structure, cooperative banks by definition have fewer incentives to maximise their profits than privately owned banks. In theory, this may translate into lower operational efficiency. However, the evidence for such an argument is mixed, as it remains dependent on the sample period and the region under study.

In the US, Cebenoyan et al. (1993) find that the savings and loan associations (S&Ls) are as efficient as others, where efficiency is measured by a bank's distance from the best practice cost frontier.[101] Using a larger

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[100] This is one of the reasons why diversity is explicitly protected by the EU Treaty. The relevant legal norm in the context discussed here is Art. 295 of the EU Treaty. It states that EU integration policy must by no means undermine the norms, legal as well as economic, by which ownership is governed in the different member states.

[101] Cebenoyan et al. (1993) use a sample consisting of 559 S&Ls in the Atlanta Federal Home Loan Bank District in 1988.

data set, Mester (1993) finds that privately owned S&Ls are slightly more cost-efficient.[102] When using observations from two US savings and loan associations (S&Ls), Esty (1997) concludes that cooperative banks were on the contrary less cost-efficient than privately owned banks.[103]

In Europe, Valnek (1999) finds that the UK mutual building societies are more profitable than their commercial peers, where profitability is measured by return on assets.[104] The author tried to explain these results by the absence of conflicts of interests between a bank's debtors, i.e. depositors, and its owners. By aligning the interests of these two parties, cooperative banks effectively avoid the agency costs otherwise incurred by privately owned banks.

In Europe other studies tend to confirm previous evidence. Using a large data set of German banks for the years between 1989 and 1996, Altunbaş et al. (2001) find that cooperative and public banks have slight cost and profit advantages over privately owned banks. The authors suggest that the results can be explained by the ability of these banks to obtain funds with lower costs, which emanates from their reliance on "less interest rate sensitive" retail and small business customers (p. 947). Similarly, Iannotta, Nocera and Sironi (2007) use a number of measures to compare the performances and risk characteristics of banks in 15 European countries from 1999 to 2004.[105] According to the study's findings, cooperative banks have slight cost efficiency advantages when compared to other banks, even though they are worse than commercial banks in profit-making. The authors' results also suggest that one potential reason for the relatively better cost-efficiency of cooperative banks' may be their superior loan quality, which is a consequence of their low risk activities. More recent

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[102] Mester (1993) compares empirically the 1991 performances of 1,015 S&Ls (807 mutuals and 208 joint-stock corporations) by using the stochastic frontier and parametrical cost function models.

[103] Esty (1997) analyses the investment and funding strategies of two S&Ls in Louisiana from 1982 to 1988. Initially similar, the ownership of the two institutions gradually diverged as one of the banks became privately owned while the other remained a mutual.

[104] The sample used by Valnek (1999) is relatively small, consisting of seven retail banks, 17 major UK building societies and 11 UK retail banks for the years 1983-93.

[105] Iannotta, Nocera and Sironi (2007) use a sample of 181 large European banks with more than €10 billion of assets. The authors use return on assets, the ratio of costs to assets, and the loan loss provisions as measures of profitability, cost-efficiency and risk-taking.

evidence in Austria, Belgium, Germany, Italy and Spain, based on a number of measures of performance by Ayadi et al (2009), confirm that savings banks were at least as efficient as their commercial peers between 1996 and 2006.

4.2.2 Impact on competition

Cooperative banks operate in the same competitive environment as commercial banks, at least within the EU. Although these banks operate under an identical legal and regulatory framework, the cooperative banks are to a large extent based locally. This invites the question of whether these relational and geographic advantages may translate into market power. The relationship banking practices of locally based banks may also create rents for local banks. Sharpe (1990) argues that the inside information gives the bank a certain degree of monopoly power in repeated transactions between a bank and its local customers, which may transform into gains for the bank by charging a non-competitive interest rate.

In Europe, evidence is mixed. In Germany, Hempell (2002) examines the competitive behaviour of a large sample of banks for the years 1993 to 1998 by applying the empirical methodology developed by Panzar and Rosse (1987).[106] The author finds that privately owned banks (excluding large banks) seem to operate more competitively than cooperative and savings banks (with the exception of their head institutions). In explaining this result, Hempell (2002) argues that the regional demarcations of cooperative and savings banks might reduce competitive pressures in return for increased market power.

Guiterrez (2008) conducts a similar study on Italian banking, covering the years 2000 to 2006. Much in line with Hempell's (2002) study, the author finds that the Italian cooperative and (former) savings banks enjoy a

[106] Panzar and Rosse (1987) developed models for oligopolistic, competitive and monopolistically competitive markets. Their approach uses the H-statistic (elasticity of total revenues with respect to changes in input prices) to express the competitiveness of the market. A competitive firm, i.e. a price-taker, would be less able to adjust its prices in response to changes in its input prices, unless, of course, the inputs are also used by other firms.

greater degree of power than their commercial peers.[107] In explaining this result, the author draws attention to the absence of some of the key factors often associated with a high market power.[108]

More recent evidence by Ayadi et al (2009) in Austria, Belgium, Germany, Italy and Spain during 1996 and 2006 and based on the Lerner Index shows that differences in competition between commercial and savings banks are not significant, except in the case of Italy, where savings banks enjoy statistically significant higher market power. The authors also found that branch openings and branch density reduces market power for savings banks Austria, Belgium, Germany and Spain.

Other studies lead to less conclusive results.[109] Fernandez de Guevara et al. (2005) analyse the impact of bank size on market power using data from France, Germany, Italy, Spain and the United Kingdom for the years 1992 to 1999. The results show that when other explanatory variables are controlled for, larger banks enjoy significantly greater market power than their smaller peers. The authors interpret these results as originating either from cost advantages or to the capacity of large banks to impose higher prices. Using a much larger data set of over 100 countries and covering the years 1990 to 2005, Bikker et al. (2006) confirm that there is a strong positive relationship between bank size and market power. Since most cooperative banks tend to be smaller than their commercial peers, these results put into question the validity of a broad statement that cooperative banks may be less competitive.

Despite the potential hazards that lower competition may pose, Mayer (1988), Rajan (1992), and Petersen and Rajan (1995) argue and provide evidence that a highly competitive banking sector may also

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[107] This result was confirmed in Ayadi et al (2009) for the Italian savings banks, whereas differences between commercial and savings banks are not significant in Austria, Germany and Spain.

[108] As noted in the European Commission's (2007) Retail Banking Inquiry, the factors that may grant European cooperative banks greater market power include: (i) barriers to entry due to inability to engage in hostile take-overs; (ii) undue advantages and tolerance granted by authorities; and (iii) practices that restrict competition through certain cooperation practices (i.e. price fixing, market sharing) among banks that share the same network.

[109] It is important to note that the measures developed to measure market power, i.e. Lerner and Panzar-Rosse indices, are heavily dependent on the underlying assumptions, i.e. that the system is in an equilibrium or that all prices are variable in the short-term.

counteract the likelihood of developing relationships with clients and may prohibit the flow of funds to smaller firms that are in their earlier growth stages. The next section provides evidence that cooperative banks fulfil such a role by providing funds where other banks operating in more competitive markets would shy away from.

4.2.3 Small business lending and bank characteristics

To examine the small business lending practices of different types of banks in the US, Keeton (1995) uses cross-sectional data for 1994 from seven US states. The author finds that banks with a higher degree of interstate presence lend significantly less to small businesses than their peers. The same result is also obtained for banks that are held by out-of-state banks. These results confirm that small business lending has a local element.

Berger and Udell (1995) confirmed these results by using a larger sample of banks, finding that larger banks are less inclined to finance small businesses. Moreover, the large banks appear to distinguish between transparent and opaque borrowers, as evidenced by the less restrictive loan terms offered to the pool of borrowers that do receive financing.

In Europe, using survey data on the financing patterns of a large number of German small- and medium-sized enterprises (SMEs), Harhoff and Körting (1998) empirically confirm the anecdotal evidence that many German businesses maintain lending relationships with a single bank.[110] More important, loans in cities are more expensive and require more collateral than those in rural communities. The authors interpret these findings as supporting the idea that a competitive market may be incompatible with strong relational ties, as was first mentioned by Mayer (1988).

Another issue that arises in the context of SME lending is whether small businesses receive fewer loans from foreign banks based at a considerable distance from the borrower's location. Such a hypothesis seems plausible, given the arguments outlined above. Foreign banks are often very large organisations. The decision-makers in these banks often speak a different language and are subject to different regulations than those applicable in the local environment surrounding the small business clients. This is a particularly important issue amidst the current wave of

[110] See Harhoff and Körting (1998) and, in a similar vein, Elsas and Krahnen (1998).

cross-border consolidations. Berger, Klapper and Udell (2001) investigate it using Argentinean cross-sectional data from the end of 1998. The data have been provided by the central bank's credit registry, and they include detailed information on loan characteristics. The authors find that the foreign-owned banks lend less to small businesses, particularly if the banks' headquarters is located in a far away country and the businesses are opaque.

4.2.4 Contribution to the local and domestic economy

The local positions and the ownership structures of cooperative banks may also allow them to provide loans to customers that would be excluded by the larger commercial institutions. A number of studies attempt to uncover whether these banks contribute positively to the economic growth of SME businesses that would otherwise have no access to funds.

Cosci and Mattesini (1997) find a positive relation between local growth and the number of cooperative banks operating in various parts of Italy. Similarly, Cannari and Signorini (1997) note that cooperative banks not only engage in credit rationing less but also have less risky portfolios. Usai and Vannini (2005) examine the consequences of the historical presence of local cooperative banks on long-term local growth, using regional data from 1970 to 1993. The authors find that the size of the total financial sector has little impact on economic growth. In turn, they find that cooperative banks and special credit institutions contribute more too financial development and thereby to regional growth. The authors argue that the relatively smaller and less complex cooperative banks are more suitable for providing funds for locally based SME businesses, rather than the large hierarchical privately owned banks.

The literature has identified a number of channels through which the availability of local banks has contributed to regional growth. Hakenes and Schnabel (2006) argue that by investing in their local economies, these banks effectively prevent a 'capital drain' to other regions. Most important, the authors show that to become credible alternatives to private banks in local markets, the regional banks should either be subsidised by tax-financed public guarantees, as in the case of savings banks, or operate as cooperative banks, engaging exclusively with their members. More recently, Hakenes, Schmidt and Xie (2009) use regional economic data for Germany to show that the presence of savings and cooperative banks has a positive impact on regional economic growth through SME lending, and

that this effect is significantly stronger in poorer regions. These results are confirmed in Ayadi et al (2009) for Austria, Germany and Spain, where savings banks are omnipresent.

4.2.5 Earnings stability of cooperative banks

The evidence suggests that cooperative banks tend to be more stable than commercial banks with lower volatility of returns (Groeneveld and de Vries, 2009). This is probably associated with three factors. First, they are able to use customer surplus as a cushion. Second, they tend to be less dependent on the more volatile whole-funding markets. Third, as argued elsewhere in the volume, they have less incentive and inclination to take excessive risk (Hansmann, 1996, and Chaddad and Cook, 2004). Fourth, they tend to operate in less risky retail banking markets (Groeneveld and de Vries, 2009). Furthermore, as many cooperative banks are part of substantial networks there is an element of mutual support. An additional factor is that cooperative banks tend to be more highly capitalised than their SHV counterparts (evidence in previous chapter). Groeneveld and de Vries (2009) also note that the empirical evidence suggests that the largest losses in cooperative banks tend to occur when they stray beyond the traditional scope of their business.

The lower riskiness of the assets of cooperative banks was confirmed by the early results of O'Hara (1981) and Esty (1997). Fraser and Zardkoohi (1996) supplemented these findings by showing that cooperative banks have in general a lower insolvency risk.[111] Using data of individual savings and loan associations (S&Ls) for the period of 1976 to 1986, the authors conclude that privately owned S&Ls appear to take substantially more risk than mutual institutions.

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[111] Fraser and Zardkoohi (1996) use nine different indicators as percentage of total assets to calculate the risk of a specific S&L. The indicators focus on different types of risks, including investment risks (service corporation investment, real estate investments, single family real estate loans and repossessed real estate), liquidity risks (cash plus marketable securities); accounting integrity (amount of goodwill); financial risks (leverage by equity and fixed assets) and profitability (net income). The econometrical model is based on Gorton and Rosen (1995) and Knopf and Teall (1994) and includes dummies for different ownership types and legislation.

Cihák and Hesse (2007) confirm that cooperatives have a more stable stream of earnings.[112] The authors explain that this relative stability could be attributed to the inherently low profitability in good times and the use of consumer surplus as a buffer in hard times to keep proceeds relatively fixed over time. Iannotta, Nocera and Sironi (2007) highlight that the better loan quality and lower asset risk of cooperative banks is a source of stability.[113] Iannotta et al. (2007) also use two methods to measure stability. The first measure compares the asset quality of banks by loan losses. As a second measure, they use the z-score, used also by Cihák and Hesse (2007), which measures a corporation's capacity to absorb deviations in income.

More recently, Beck et al. (2009) examine the stability of German banks under different ownership structures. The authors' results confirm that savings banks and cooperative banks have higher z-scores than commercial banks, almost entirely due to the lower volatility of their profits over years.[114] Two additional measures of stability, comprised of the ratio of non-performing loans to total loans and the likelihood of distress,[115] are also reported. Cooperative banks score better than their peers in terms of these two indicators, having a smaller share of loans as non-performing and facing a significantly lower likelihood of distress. Perhaps more intriguingly, while the authors confirm that larger commercial banks are less stable,[116] possibly due to the 'too-big-to-fail' problem, the opposite holds for others. Indeed, larger savings and cooperative banks are found to be more stable, possibly due to their increased ability to smooth their profit streams, giving them an additional boost in terms of stability.

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[112] Cihák and Hesse (2007) used the z-score to measure the financial soundness for 29 OECD countries. The z-score uses the (volatility of) returns and the amount of reserves to indicate the change of running out of reserves. They used Bankscope to investigate their data set of 16,577 banks for the period from 1994 to 2004.

[113] The lower asset risk for cooperative banks was earlier found by O'Hara (1981) and Esty (1997).

[114] Confirming the results of Ayadi et al (2009) for German and Austrian savings banks and for large spanish savings banks.

[115] The distress measure indicates "whether a bank has i) faced compulsory notifications about events that may jeopardise the existence of the bank as a going concern, ii) suffered severe losses of capital and extreme declines in return on equity, iii) benefited from capital injections from the deposit insurance scheme, iv) been subject to a distress merger, or v) been closed by the bank supervisory agency" (Beck et al., 2006, p. 13).

[116] Since they hold less risk-weighted capital than their smaller peers.

All in all, the results of the empirical research show that cooperative banks tend to operate more or less as efficiently as commercial banks. However, there are some notable exceptions to this result. For example, one common finding in the literature is that cooperative banks are more cost-efficient but less profitable. The evidence is mixed on whether low profits are due to operational inefficiencies, a lack of capital market discipline or simply an unwillingness to enhance current profits by giving up customer value. The findings are mostly in line with the ownership structure of these banks, in that their purpose is not to maximise profits but rather to maximise their members' surplus, which confirms their dual-bottom line nature.

The reviewed literature also confirms that cooperative banks have less risky assets in their balance sheets. This could be a result of the informational advantages that these banks have concerning their clients or a more risk-averse approach to banking in general. There is also evidence that these risk attributes translate into more stable earnings streams for cooperative banks. There is some reason for concern that the informational advantages may lead to less competitive pricing. Focusing instead on distributional issues, a number of studies point out that cooperative banks are more willing to establish a long-term relationship with their clients, especially with SMEs, making them an integral player in enhancing regional growth.

The next section delves deeper into the comparative analysis of performance, competition, contribution to growth, and earnings stability in the seven countries included in this study for the years 1996 to 2008.

4.3 Investigating economic performance and role of cooperative banks

The objective of the empirical investigation presented in this section is to examine profitability, efficiency, competition, earnings stability and the role in regional growth of cooperative banks in Austria, Finland, France, Germany, Italy and the Netherlands from 2000 to 2008 and for two subperiods, 2000-2003 and 2004-2008

The empirical analysis relies on two data sources. The primary source is the Bankscope database, provided by Bureau van Dijk. Preference is given to consolidated information on the balance sheets and income statements of commercial banks, cooperative banks and savings banks. However, due to the predominant presence of small banks in our sample, a

large fraction of observations are unconsolidated. To facilitate comparison, benchmark figures for EU-15 countries are also provided whenever applicable.

The database used for this study also includes the unconsolidated balance sheet and income statement information of local cooperative banks provided by the individual banks of seven countries covered in the study. The data was made available for the purpose of this study by the cooperative associations in Austria, Finland, France, Germany, Italy, the Netherlands and Spain. In addition to key balance sheet and income statement items, this secondary database also contained supplementary structural information, such as the territorial distribution of cooperative banks in these countries, their delivery channels (branches, ATMs) and number of employees.

The distribution of the sample information across countries and between cooperative and commercial banks is given in Table 4.3.1. The empirical analysis also benefits from additional country-level indicators obtained from the European Commission's Eurostat database.

Table 4.3.1 Number of observations by type of bank

	Commercial banks	**Cooperative banks**	**Savings banks**	**Total**
Austria	423	650	515	1,588
Finland	23	1,600	0	1,623
France	1,227	671	254	2,152
Germany	726	10,771	3,934	15,431
Italy	1,093	3,749	516	5,353
Netherlands	266	1,310	5	1,581
Spain	642	790	813	2,245
Total (7 countries)	4,400	19,541	6,037	29,978
Total (EU-15)	7,657	19,656	7,058	34,371

Several limitations of the final data set have to be mentioned at this point. First, instead of having one observation for each licensed institution, our data set contained a small number of cases where the data from several institutions were aggregated as a regional or provincial entity. This rendered the matching between regional economic variables with local banks difficult. In order to minimise any inconsistencies, the level of detail

in spatial coverage was adapted according to the data set.[117] Second, the data set provided a rather narrow view of the operations of cooperative banks. For example, a breakdown of different income and expenses elements as well as data on fixed assets was not available for the Dutch and Finnish cases. This introduced problems in the measurement and estimation of costs and reduced the power of the statistical tests due to increased variability. Third, the cooperative bank data set contained a number of missing observations and breaks in series. Some of this was a natural extension of our treatment of within-group mergers, i.e. pre- and postmerger entities are treated as separate banks. In other cases, the data was simply not reported by the local institution, which occurred predominantly for the Italian BPs. These introduced additional variability.

Notwithstanding these limitations, the empirical analysis follows four steps:

First, the primary database is used to compute bank performance using accounting ratios for the seven countries and for the EU-15 as a whole, when possible.

Second, the competition indicator is computed and used to undertake an examination of the determinants of competition controlling for a number of explanatory variables including bank size, market capitalisation, entry, contestability and institutional diversity. Separate estimations are made to allow a comparison between cooperative banks, savings banks and commercial banks.

Third, the determinants of regional growth in Austria, Finland, France, Germany, Italy, Spain and the Netherlands are examined, paying close attention to the role of cooperative banks.

Fourth, z-scores are computed and used to undertake an examination of the earnings stability of cooperatives, savings and commercial banks.

The following subsections provide details on the estimation methodology. The results of the empirical analysis are presented in the following section.

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[117] In countries where the bank data were completely disaggregated, i.e. Finland, Italy, Netherlands and Germany, the regional data with the highest spatial detail (corresponding to Nomenclature of Territorial Units for Statistics Level-3, or NUTS 3) was used. In other countries, lower detail levels (NUTS 2) were used.

4.3.1 Measuring bank financial and economic performance

A number of accounting ratios are used to measure the economic and financial performance of banks. Two commonly used profitability measures, return on assets (RoA) and return on equity (RoE), are calculated by dividing the pre-tax profits of each bank by total assets and equity, respectively. As a measure of the economic efficiency of a bank, the cost-to-income ratio is used, which is calculated by dividing the total operating costs by total operating income.[118]

4.3.2 Measuring competition and market power

To assess competition, the Lerner Index is used to measure the market power of banks by identifying the extent to which actual prices charged in a market diverge from those that could be expected if perfect competition obtained. The indicator is calculated by taking the difference between price and marginal costs[119] and then dividing it by price. Under standard assumptions, prices converge to marginal costs, as competition in a market increases, implying that the index would converge to zero. Therefore, the greater the index is, the greater is a given bank's market power.

The index is a good indicator of the competitive conditions in a market. The following equation, obtained as a solution for symmetric oligopolistic competition, highlights this relationship:

$$LERN \equiv \frac{p - mc}{p} \tag{4}$$

where p is the price of a bank's earning assets (measured by total operating income/total assets) and mc is the marginal cost, E_d is the absolute value of the price elasticity of demand and N is the number of competitors in the territory where the bank operates. According to equation (4), firms can enjoy greater market power when the elasticity of demand is low, i.e. when the bank's services are a necessity for consumers, or when the number of competitors is low. In either case, a bank can get away with charging a non-competitive price, that is, one that significantly exceeds the marginal costs for a given financial service.

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[118] Due to data availability, cost-to-income ratio is calculated as the ratio of operating expenses to operating income, making the scores incomparable to some published figures.

[119] For the estimation of the cost function, see Annex 3.

4.3.3 Determinants of competition

The objective for the second empirical step is to identify the determinants of competition, paying close attention to differences between cooperative, savings and commercial banks. The relationship to be estimated is as follows:

$$LERN_{it} = \theta' X_{it} + \mu_i + \varepsilon_{it} \quad (5)$$

where X is a vector of explanatory factors, μ accounts for bank-level fixed effects and θ is the vector of coefficients to be estimated.

For each country, two separate estimations are undertaken, one for 'all banks' (commercial, cooperative and savings banks) and one only for cooperative banks, in order to highlight statistical differences in the competitive behaviour of cooperative banks. Equation (5) is fitted using panel estimation with fixed-effects routine.

The explanatory variables (X) included in the estimation are identified as follows:

a. ***Concentration, size, efficiency and capitalisation*:** The first set of explanatory variables includes a measure of market concentration, bank size (logarithm of total assets), cost-efficiency (i.e. the cost-to-income ratio), and market capitalisation (ratio of the bank's total capital and reserves to total liabilities). Concentration is measured by the Herfindahl-Hirschmann Index (HHI) for bank deposits, which is the sum of the squared market share of the firms in a given market.[120]

b. ***Contestability and barriers to entry*:** Contestability captures the extent to which competition may increase with the entry of new competitors to the market. The set of variables includes a measure of branch opening (growth in number of bank branches), an indicator of the distribution of branches (ratio of inhabitants to number of branches) and an industry-wide variable to account for foreign entry (ratio of foreign competitors to total banks in country).

c. ***Other control variables*:** Differences in bank ownership are controlled by including a dummy variable that takes the value 0 for commercial banks and 1 for cooperative banks. Lastly, the magnitude

[120] The HHI ranges between 0 (perfect competition) and 1 (monopoly).

of retail banking in each country is controlled by including the logarithm of total deposits in the market.

4.3.4 Cooperative banks and regional growth

The third empirical step assesses the impact of institutional diversity on economic growth. Two general assumptions are made for this purpose. First, the analysis is conducted on a regional basis to accurately capture the contribution of local institutions. The locations are based on the administrative regional distribution of cooperative banks in the seven countries included in the study. Second, institutional diversity is measured by the cooperative banks' regional presence, the total assets of cooperative banks divided by regional GDP. It is assumed that this measure adequately incorporates the relative importance of the cooperative model in a given region.

The data on bank-level indicators are obtained from the respective cooperative banks database while the regional GDP is obtained from Eurostat. The procedure is a simplified version of dynamic panel model followed in Carbó Valverde et al. (2003), first introduced by Holtz-Eakin et al. (1988) and Arellano and Bover (1995). The dynamic panel procedure is employed since the lagged GDP values may partially explain the subsequent behaviour of some of the variables over time (Sala-i-Martin, 2002).

The main aim of the empirical tests is to examine the sign and direction of causality between the presence of cooperative banks and regional growth. As noted in Carbó Valverde et al. (2003), the direction of causality may be disentangled by running two models, where each variable is used as an endogenous and explanatory variable.

We consider the following simple autoregressive model:

$$y_{i,t} = \alpha y_{i,t-1} + \beta x_{i,t-1} + \eta_i + \varepsilon_{i,t} \quad (6)$$

where y, the endogenous variable, is explained by its lagged value and the lagged explanatory variable, x, and unobserved region-specific effects, η_i.[121] The subscripts i and t represent region and time period, respectively.

[121] Longer autoregressive terms were not included since the GDP growth data only covers 2000 to 2006.

The (time-invariant) region-specific effects (η_i) can be eliminated by taking first-differences so that:

$$y_{i,t} - y_{i,t-1} = \alpha(y_{i,t-1} - y_{i,t-2}) + \beta(x_{i,t-1} - x_{i,t-2}) + (\varepsilon_{i,t} - \varepsilon_{i,t-1}) \quad (7)$$

Two panel regressions are run, one in which the endogenous and exogenous variables comprise GDP growth and cooperative bank presence, respectively, and another in which the opposite holds. The direction and the sign of causality between these two parameters are then assessed by examining the signs and significance of the coefficient estimates for β.

4.3.5 *Measuring cooperative banks' earnings stability*

The fourth step of our empirical investigation is to analyse the stability of cooperative banks versus commercial banks. Following Cihák and Hesse (2007), z-scores are used as a measure of individual bank risk. They are computed for Austria, Finland, France, Germany, Italy, the Netherlands and Spain in order to highlight the impact of different ownership structures in a consistent manner where differences between cooperative banks, savings banks and commercial banks exist in this respect.

The index (Z) is calculated for each bank-year observation according to the following equation:

$$Z_{it} = \frac{(E_{it} / A_{it}) + \mu_i^{RoA}}{\sigma_i^{RoA}} \quad (8)$$

where E/A is the equity capital as a share of assets and μ^{RoA} and σ^{RoA} are the mean and standard deviation of pre-tax return on assets (RoA), respectively. The index measures a corporation's capacity to absorb deviations in income. More specifically, the z-score shows how many standard deviations from the mean income have to fall to make the corporation insolvent by depleting its equity. The greater the value, the lower is the probability of default.

4.3.6 *Determinants of cooperative banks' earnings stability*

A number of exogenous variables are used to examine the determinants of bank risk. First, a dummy variable is used to identify the earnings stability of cooperative banks. Bank size is measured by total assets. Large banks benefit from diversification opportunities, which may allow them to better absorb shocks. Conversely, large banks could also be more risk-prone due

to the implicit deposit insurance guarantees they enjoy. In order to distinguish between the stability of banks with different ownership structures and different sizes, an interaction variable for the size of cooperative banks is also included.

Other explanatory variables are also incorporated to control for bank-specific factors and market conditions. The cost-to-income ratio is included to account for differences in efficiency between banks. A dummy variable for listed institutions is included in order to control for governance issues relating to commercial banks. In general, better governed and more efficient banks should be able to absorb shocks better, implying a higher z-score. However, it is also possible that these effects will be less important once other individual characteristics are accounted for.

Market concentration, which also serves as an indicator of sector-wide competition, will be measured by the Herfindahl-Hirschman Index (HHI). There are different and partially compensating effects that concentration can have on the risks taken by a bank.[122]

Lastly, in order to control the impact of external imbalances and the ease with which capital can flow in and out of the country, an indicator developed by Chinn and Ito (2008) on financial openness will also be included in the estimation exercise. It is expected that more open markets will also be more volatile and open to external shocks due to the speed with which capital flows can enter and leave the country. Although this variable is not directly related to diversity in banking, it is nevertheless included to control for the differing levels of current and financial account imbalances.

The equation to be estimated is given as follows:

$$Z_{it} = \alpha + \beta_1 \ln A_{it} + \beta_2 (\ln A_{it} \times C_i) + \beta_3 C_i + \theta' X_{it} + u_{it} \quad (9)$$

[122] The current literature provides little guidance on the net impact of concentration on a bank's earning stability. The 'trade-off' view, recently advocated by Allen and Gale (2004) and empirically supported by Beck et al. (2006), claims that despite the efficiency gains, less concentrated and more competitive markets exacerbate agency problems and thereby lead to instability. Boyd and de Nicolo (2005), however, counter this argument by noting that the supra-normal loan rates that banks charge when concentration is low may lead to higher bankruptcy risks for borrowers, which may translate into a source of instability for the bank.

where the following parameters are used:

i	=	bank index;
t	=	year;
Z	=	z-score as described in equation (9)
$ln\ A$	=	natural logarithm of total assets;
C	=	dummy indicator for cooperative banks;
$ln\ A \times C$	=	interactive variable on size of cooperative banks;
X	=	other explanatory variables, including cost-to-income ratio, listed institutions dummy variable, HHI, and financial openness index.

In order to ensure that the results are robust to procedural choice, each estimation stage is composed of a pooled OLS regression and a fixed-effect panel regression, which accounts for unspecified individual effects.

4.4 Main results

4.4.1 Profitability, efficiency, competition and earnings stability

This section reports the comparison of profitability, efficiency, market power and earnings stability for commercial, savings and cooperative banks in Austria, Finland, France, Germany, Italy, the Netherlands and Spain during the period between 2000 and 2008. All comparisons are based on unweighted averages and the difference-in-means tests to highlight statistically significant divergences between cooperative banks and other banks.

Regarding profitability measures, Table 4.4.1 and Figure 4.4.1 depict the evolution of the return on assets (RoA). The findings point to mixed results. Comparing cooperative banks with other banks, the results show that statistical differences exist for all countries except France and Italy. In particular, cooperatives exhibit comparable or slightly superior earnings than commercial banks in Germany, Italy and Spain. In Finland, cooperatives enjoy a larger profitability margin than their commercial peers, although the figures point to a closing gap over the years. When the performance of cooperative banks is compared to that of savings banks, the differences are more moderate, with the exception of France, where savings banks are significantly less profitable.

The results for return on equity (RoE) in Table 4.4.2 and Figure 4.4.2 validate most of these findings. German cooperatives continue to outperform their peers (both commercial and savings banks) while French cooperatives are statistically indistinguishable from other banks while

remaining clearly more profitable than the savings banks. The results change significantly for Finland, where cooperatives are indistinguishable from other banks, and for Spain, where commercial and savings banks become more profitable.

In terms of cost efficiencies, the results remain evenly divided. In terms of cost-to-income ratios[123] (Table 4.4.3 and Figure 4.4.3), the commercial and savings banks are slightly more efficient than cooperative banks in Austria, Germany and the Netherlands while the opposite holds for France, Italy, Finland and Spain.

Turning to market power, Table 4.4.4 summarises the Lerner Index estimates. The average Lerner Index for the EU-15 is 26.5%. Statistical mean-difference tests show that cooperative banks exhibit less market power in Austria, Germany and the Netherlands while the opposite holds in France, Italy, Finland (albeit at a lesser degree) and Spain.

It should be highlighted that the use of the Lerner Index to determine market power could suffer from a type-I error – i.e. erroneous rejection of no market power – when there are consistent differences in cost efficiencies of different banks. After all, a high mark-up could simply be a reflection of low marginal costs, completely independent of a bank's ability to charge high prices, which is what the index intends to measure. Indeed, a quick look at Table 4.4.3 and Table 4.4.4 reveals that countries in which cooperative banks are more cost-efficient (Finland, Italy and Spain) are also where these banks have greater market power. For this reason, the results obtained in this section have to be interpreted with care, taking account of the possibility of an erroneous judgement. The estimation procedure that will follow in Section 4.4.2 will include the cost-to-income variable to control for the impact of cost efficiency.

In terms of earnings stability, Table 4.4.5 and Figure 4.4.5 show the key results. In all countries other than Germany and Spain, cooperatives are significantly more stable than other banks. In some cases the differences are astounding, i.e. France and the Netherlands, where these banks enjoy over 50% greater stability as measured by the z-score. Moreover, in Germany, cooperatives score better than the country's commercial banks (but not the

[123] It should be highlighted that cost-to-income scores are calculated on the basis of operating income and expenditures due to data availability. For this reason, the figures might not be readily comparable with published results.

savings banks) while for Spain no difference exists between the two types of banks.

To sum up, the results above highlight that despite slightly lower profitability, the cooperative bank model is not consistently different than other banks in terms of efficiency and market power. In turn, these banks enjoy a stable cushion of earnings, reducing their likelihood of insolvency and contributing to their stability. These results stand in marked contrast to the notion that cooperative institutions are, without exception, less efficient while enjoying greater market power. In addition to providing cases where cooperative banks are comparable (if not better) than their peers, our findings also highlight the role of diversity in contributing to broader financial stability.

Table 4.4.1 Return on assets (RoA) in percentage points, unweighted averages

		AUSTRIA			FRANCE			GERMANY			ITALY			FINLAND			NETHERLANDS			SPAIN		
	EU15 (All)	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**
2000-2003	0.79	0.96	0.59	0.62	1.10	0.97	0.48	0.41	0.51	0.44	0.82	1.02	1.11	1.19	2.18	n/a	0.93	0.44	0.99	0.92	1.02	1.05
2004-2008	0.76	0.99	0.51	0.57	1.17	1.01	0.67	0.44	0.50	0.38	0.93	0.86	1.22	1.06	1.81	n/a	0.86	0.46	n/a	0.93	0.95	0.84
2000-2008	**0.77**	**0.97**	**0.54***	**0.59**	**1.14**	**0.99**	**0.58**	**0.43**	**0.51***	**0.41**	**0.89**	**0.96**	**1.17**	**1.11**	**1.99***	**n/a**	**0.89**	**0.45***	**0.99**	**0.92**	**0.98***	**0.93**
Obs.	32,000	1,390			2,128			15,362			4,529			1,623			1,565			2,228		

Note: An asterisk (*) signifies that the score for the cooperative bank was different than the average for other banks with statistical significance level of 5%.

Figure 4.4.1 Return on assets (RoA) in percentage points, unweighted averages

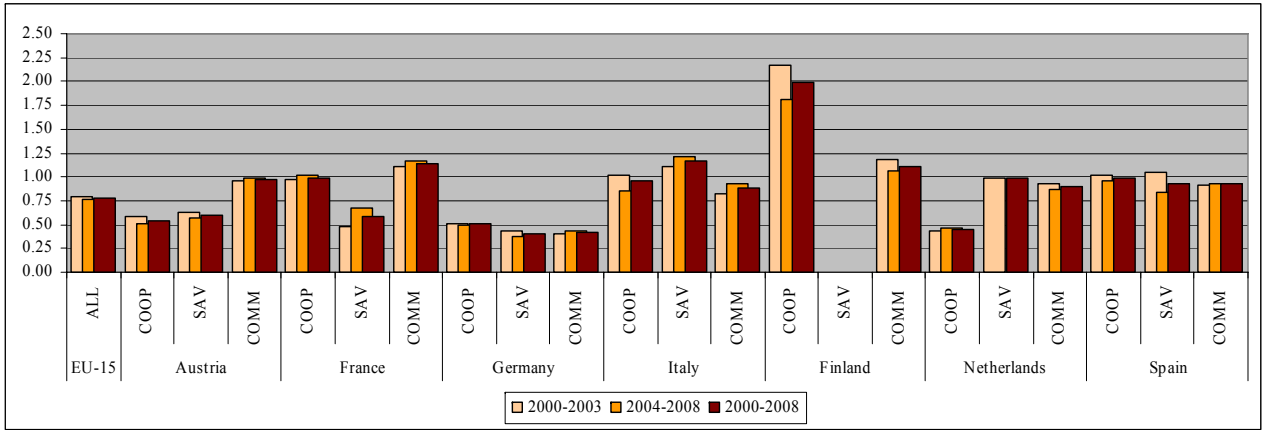


Table 4.4.2 Return on equity (RoE) in percentage points, unweighted averages

		AUSTRIA			FRANCE			GERMANY			ITALY			FINLAND			NETHERLANDS			SPAIN		
	EU15 (All)	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**
2000-03	10.7	11.3	8.8	9.2	13.8	11.6	9.1	6.1	9.7	9.4	10.2	9.4	12.3	24.9	22.2	n/a	12.5	6.0	11.8	10.6	10.3	15.5
2004-08	10.0	11.6	6.8	8.0	15.3	10.9	8.5	6.1	8.7	7.3	11.9	8.9	13.7	20.5	17.6	n/a	13.3	6.6	n/a	12.3	10.2	12.7
2000-08	**10.4**	**11.5**	**7.5***	**8.6**	**14.6**	**11.2**	**8.8**	**6.1**	**9.2***	**8.3**	**11.2**	**9.2***	**13.1**	**22.2**	**19.8**	**n/a**	**13.0**	**6.4***	**11.8**	**11.4**	**10.3***	**13.9**
OBS	31,970	1,390			2,128			15,362			4,526			1,623			1,565			2,228		

Note: An asterisk (*) signifies that the score for the cooperative bank was different than the average for other banks with statistical significance level of 5%.

Figure 4.4.2 Return on equity (RoE) in percentage points, unweighted averages

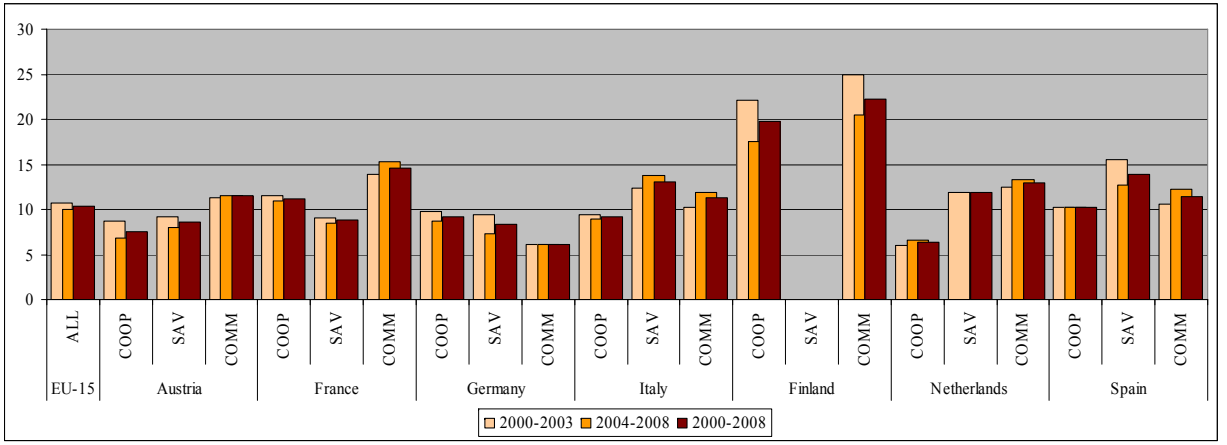


Table 4.4.3 Cost-to-income ratio† in percentage points, unweighted averages

		AUSTRIA			FRANCE			GERMANY			ITALY			FINLAND			NETHERLANDS			SPAIN		
	EU15 (All)	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav
2000-03	78.9	73.7	81.7	82.8	73.3	71.4	79.7	86.4	88.5	87.9	81.3	71.1	77.1	62.2	57.1	n/a	61.8	70.8	50.0	72.7	56.2	70.6
2004-08	76.7	72.7	79.5	79.3	69.4	67.1	74.1	83.9	87.1	85.5	78.1	67.4	74.3	59.2	56.0	n/a	55.0	66.6	n/a	71.9	60.8	74.4
2000-08	**77.7**	**73.1**	**80.3***	**81.0**	**71.3**	**69.1***	**76.8**	**85.0**	**87.8***	**86.7**	**79.4**	**69.3***	**75.5**	**60.4**	**56.5***	**n/a**	**57.8**	**68.5***	**50.0**	**72.3**	**58.7***	**72.8**
Obs.	32,780	1,390			2,127			15,362			5,317			1,623			1,565			2,221		

Notes: †Due to data availability, cost-to-income ratio is calculated as the ratio of operating expenses to operating income, making the scores incomparable to some published figures. An asterisk (*) signifies that the score for the cooperative bank was different than the average for other banks with statistical significance level of 5%.

Figure 4.4.3 Cost-to-income ratio† in percentage points, unweighted averages

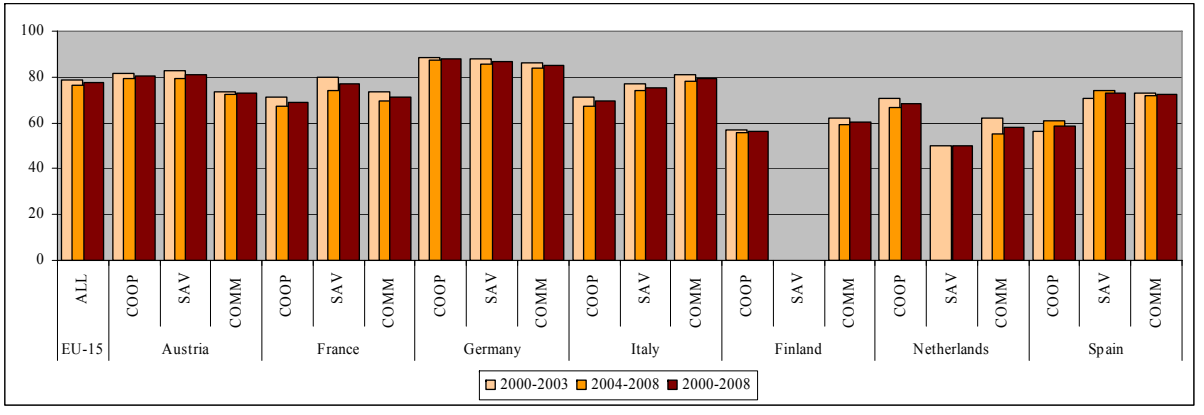


Table 4.4.4 Market power indicators (Lerner Index) in percentage points, unweighted averages

		AUSTRIA			FRANCE			GERMANY			ITALY			FINLAND			NETHERLANDS			SPAIN		
	EU15 (All)	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**	**Com**	**Coop**	**Sav**
2000-03	26.8	34.6	26.3	24.8	36.5	34.1	27.2	23.5	18.5	19.0	27.9	34.9	28.6	42.4	48.5	n/a	44.0	35.8	51.4	35.2	47.9	33.4
2004-08	27.9	36.6	28.1	27.7	37.3	38.7	32.1	24.8	18.9	20.5	30.0	37.5	30.3	37.7	49.8	n/a	45.5	39.8	n/a	35.6	43.8	29.5
2000-08	**27.4**	**35.8**	**27.5***	**26.3**	**36.9**	**36.6**	**29.8**	**24.2**	**18.7***	**19.8**	**29.1**	**36.1***	**29.4**	**40.1**	**49.2***	**n/a**	**44.8**	**38.0***	**51.4**	**35.4**	**45.7***	**31.2**
Obs.	24,739	1,224			1,735			13,362			4,228			1,398			1,365			1,427		

Note: An asterisk (*) signifies that the score for the cooperative bank was different than the average for other banks with statistical significance level of 5%.

Figure 4.4.4 Market power indicators (Lerner Index) in percentage points, unweighted averages

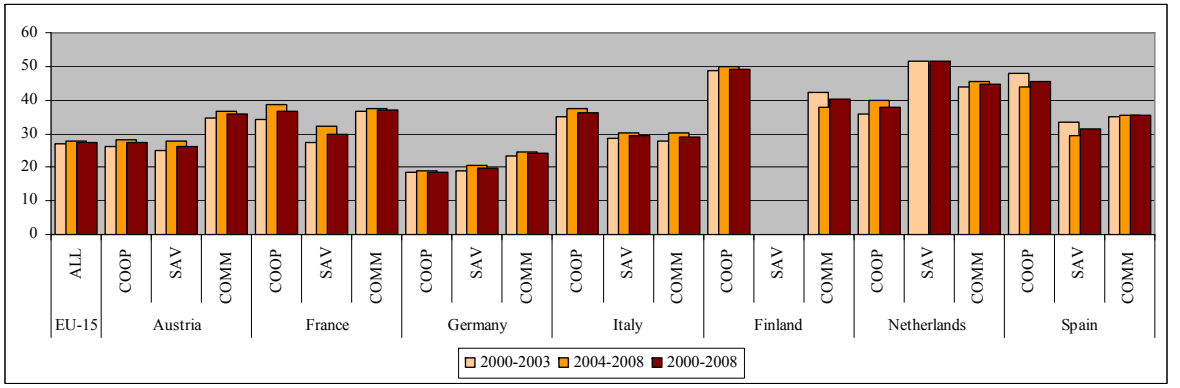
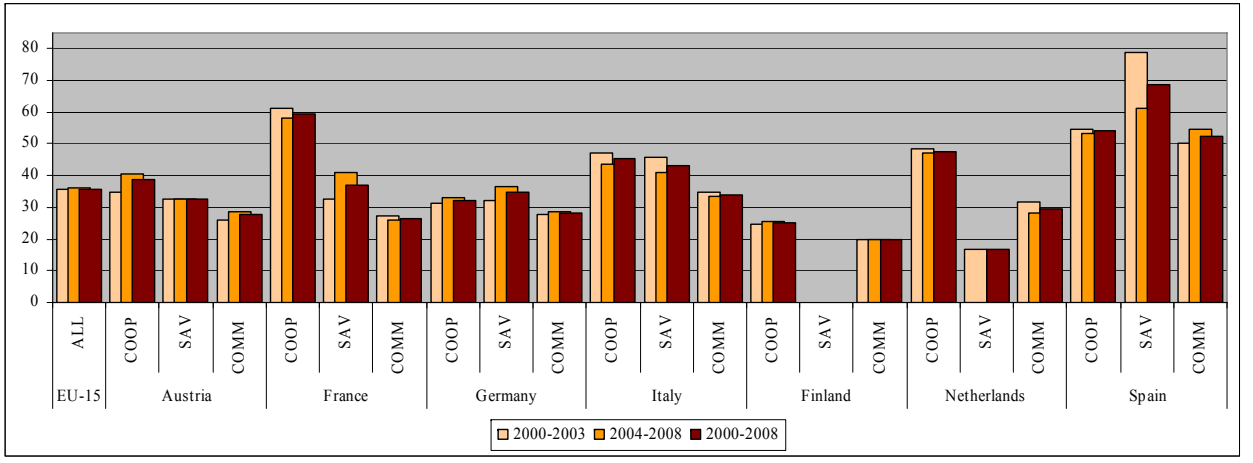


Table 4.4.5 Earnings stability (z-scores), unweighted averages

	EU15 (All)	AUSTRIA			FRANCE			GERMANY			ITALY			FINLAND			NETHERLANDS			SPAIN		
		Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav	Com	Coop	Sav
2000-03	35.8	25.9	34.6	32.5	27.3	61.3	32.6	27.9	31.2	32.3	34.8	47.2	45.8	19.9	24.6	n/a	31.5	48.3	16.7	50.1	54.8	79.0
2004-08	36.0	28.8	40.7	32.8	25.8	58.2	41.0	28.7	33.2	36.8	33.6	43.7	41.0	19.9	25.5	n/a	28.4	47.1	n/a	54.8	53.3	61.2
2000-08	**35.9**	**27.6**	**38.6***	**32.6**	**26.6**	**59.7***	**37.0**	**28.4**	**32.3***	**34.6**	**34.1**	**45.5***	**43.1**	**19.9**	**25.1***	**n/a**	**29.7**	**47.6***	**16.7**	**52.3**	**54.0***	**68.8**
Obs.	32,427	1,381			2,109			1,5158			5,267			1,620			1,562			2,209		

Note: An asterisk (*) signifies that the score for the cooperative bank was different than the average for other banks with statistical significance level of 5%.

Figure 4.4.5 Earnings stability (z-scores), unweighted averages



4.4.2 Determinants of competition

The determinants of market power are shown in Table 4.4.6. A regression based on a pooled sample of all EU-15 banks is also included in the first column to allow for comparisons. As described in Section 4.3.3, the dependent variable, the Lerner Index, was estimated for each bank. A dummy variable to identify cooperative banks ('cooperative dummy') is included in all regressions to assess the level of market power after all relevant aspects have been controlled. As in all the empirical exercises, the data set covers only commercial, cooperative and savings banks.

Turning to the results, bank concentration, measured by the Herfindahl-Hirschmann Index (HHI) for bank deposits, has a strong positive impact on market power in all samples, except in Spain. This result is easily interpretable since banks in countries with a high concentration rate are likely to have a greater market power due to their overwhelming presence.

The second and third rows measure the impact of bank size on market power. The second size variable, "Size-squared", checks whether size has a non-linear impact, for example, whether both larger and smaller banks may enjoy greater market power than medium-sized banks. When considered in combination, size has a U-shaped impact on market power in all countries except France and the Netherlands. In other words, both large and small banks enjoy greater market power than their medium-sized peers, confirming Fernandez de Guevara and Maudos' (2007) results. This could be due to the predominance of smaller banks in local markets, where their extensive branch networks and banking relationships may act as barriers to entry, and the dominant position of larger banks across the nation.

As noted in the analysis of unweighted averages for market power in Table 4.4.4 and Figure 4.4.4, there is an inverse relationship between cost-to-income and market power. This implies that banks that have low costs are able to enjoy greater power. One potential explanation is that being less costly could imply that the bank is able to obtain a greater margin at any given price, which could be the driving factor behind high market power.

In Italy and the Netherlands, well capitalised (or less leveraged) banks appear to enjoy less market power. This finding probably has to do with the choice of sample period. Since our sample includes several years with a rapid rise in asset prices, being leveraged might have contributed to greater profits and thus a higher mark-up in markets where liquidity is

more or less homogenous. For other countries, this effect appears to be offset by the fact that banks with a better capital position often have easier access to external funding and thus lower marginal costs when compared to their less capitalised competitors.

Turning to barriers to entry, branch growth appears to have either no impact or a positive impact (except in Germany) while foreign entry appears to improve competition in Germany and Finland (although the opposite is true in Spain and Italy). Moreover, increasing branch network density implies significantly lower market power in several countries, notably Austria, Finland and Italy.[124] Put together, these findings point out that market power is low in countries where the branch network becomes more densely populated while immediate growth in branch networks is often associated with increasing market power.

Perhaps the most important result in the table is the signs and significance levels of the coefficient estimates for the 'cooperative dummy'. The results show that cooperative banks have less market power in the pooled sample of Austria, Germany, Spain and the Netherlands, while the opposite holds for Finland and Italy.[125] A comparison with the Table 4.4.4 and Figure 4.4.4, the differences between cooperative banks and other banks diminishes significantly once various factors, most notably cost-efficiency, are controlled for.

To sum up, our results show that both in the pooled EU-15 sample and in four out of the seven countries included in the study, cooperative banks have less market power. It is important to highlight that the results on market power should be interpreted with care since the estimation procedures have taken a narrow view of bank operations due to the restricted estimation of the cost function. As noted in the beginning of section 4.3, this has been largely due to unavailability of data on the breakdown of income and expenditure items, such as interest and non-interest income and fixed assets. Therefore, a more definitive analysis should consider alternative methods for measuring market power and enrich the cost estimation exercise with the use of more detailed data on income and expenses.

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[124] Confirms previous work of Ayadi et al (2009).

[125] Our finding of greater market power for Italian cooperative banks is confirmed by Guiterrez (2008).

Table 4.4.6 Determinants of market power in the EU banking industry, 2000-2008, random-effects panel regressions

	EU-15	**AT**	**DE**	**ES**	**FI**	**FR**	**IT**	**NL**
Concentration, size, efficiency and capitalisation								
Concentration, HHI deposits	0.028	0.533	6.479	-0.713	0.171	0.045	1.108	0.173
	(0.000)**	(0.002)**	(0.000)**	(0.012)*	(0.000)**	(0.720)	(0.000)**	(0.200)
Size, log of assets	-0.005	-0.001	-0.005	-0.009	-0.006	0.013	-0.005	-0.005
	(0.000)**	(0.839)	(0.000)**	(0.006)**	(0.000)**	(0.031)*	(0.005)**	(0.235)
Size-squared (log of assets)²	0.001	0.001	0.001	0.001	0.001	-0.000	0.001	0.000
	(0.000)**	(0.045)*	(0.000)**	(0.014)*	(0.000)**	(0.605)	(0.000)**	(0.111)
Cost-to-income score	-0.895	-0.882	-0.900	-0.893	-0.910	-0.865	-0.898	-0.910
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Capitalisation, capital & reserves / total liabilities	-0.017	0.031	-0.003	-0.023	-0.007	-0.010	-0.026	-0.121
	(0.000)**	(0.055)	(0.559)	(0.060)	(0.344)	(0.585)	(0.001)**	(0.000)**
Barriers to entry and contestability								
Branch growth	-0.000	0.300	-0.133	0.330	0.041	-0.001	0.246	0.017
	(0.997)	(0.002)**	(0.000)**	(0.000)**	(0.000)**	(0.834)	(0.005)**	(0.097)
Branch density, inhabitants per branch	0.000	-18.195	0.048	0.051	-6.464	0.001	-0.335	0.011
	(0.353)	(0.000)**	(0.000)**	(0.026)*	(0.001)**	(0.711)	(0.000)**	(0.927)
Foreign entry, number of foreign subsidiaries	0.070	-0.358	-2.226	0.241	-0.759	-0.003	0.589	0.327
	(0.000)**	(0.174)	(0.000)**	(0.000)**	(0.000)**	(0.928)	(0.000)**	(0.053)
Other control variables								
Cooperative dummy	-0.003	-0.011	-0.007	-0.014	0.012	-0.024	0.007	-0.002
	(0.001)**	(0.010)*	(0.000)**	(0.005)**	(0.000)**	(0.000)**	(0.005)**	(0.425)
Market size, log of total deposits	-0.007	0.100	0.123	0.007	-0.019	-0.025	-0.042	-0.025
	(0.000)**	(0.009)**	(0.000)**	(0.521)	(0.004)**	(0.500)	(0.000)**	(0.063)
Constant	1.085	0.406	-1.113	0.904	1.210	1.239	2.047	1.325
	(0.000)**	(0.271)	(0.000)**	(0.000)**	(0.000)**	(0.014)*	(0.000)**	(0.000)**
R^2 (pooled sample)	0.975	0.954	0.966	0.971	0.996	0.921	0.955	0.988
Observations	23,876	1,220	13,368	1,395	622	1,692	4,233	1,346

Note: *, ** indicate statistical significance at 5% and 1%, respectively; p-values within parentheses.

4.4.3 Cooperative banks and regional growth

This subsection turns to the question of whether the regional presence of cooperative banks contributes to regional growth. A first look at the raw data in Figure 4.4.6 hints at a positive relationship between lagged difference in cooperative bank presence and current GDP growth. The positive relationship appears particularly strong in Finland and the Netherlands while being somewhat weaker in Austria and Germany. For Spain, France and Italy, the impact of cooperative bank presence on growth is ambiguous, possibly due to missing observations or less detailed regional coverage.

The scatter plots do not account for the fact that the direction of the causality may indeed be running in the opposite direction. More specifically, it is entirely possible that lagged growth could enhance bank presence. For example, increased economic activity could lead to an expansion of regional demand for loans, especially among the local sectors comprised of households and small- and medium-sized enterprises (SMEs), translating into more activity for cooperative banks with a strong foothold in these markets.

In order to avoid making potentially wrong statements based on the direction of causality, a series of Granger-causality tests are run, the results for which are summarised in Table 4.4.7. The table displays the coefficient estimates for the explanatory variable, i.e. estimate for β in equation (7), and the degree of significance for the coefficient (p-values). Two tests are run to account for causality running in each direction, summarised in two panels.

As detailed in the first panel on the left, cooperative bank presence has a significant positive impact on growth rates in four countries (Austria, Germany, Finland and the Netherlands) as well as for the pooled sample (EU-7). The impact is particularly strong in Finland and the Netherlands, where a lagged increase of 1% in relative activities of cooperative banks (i.e. assets-to-GDP ratio) leads to more than 61% and 300% increases in GDP growth, respectively.

Figure 4.4.6 Impact of cooperative presence on regional growth

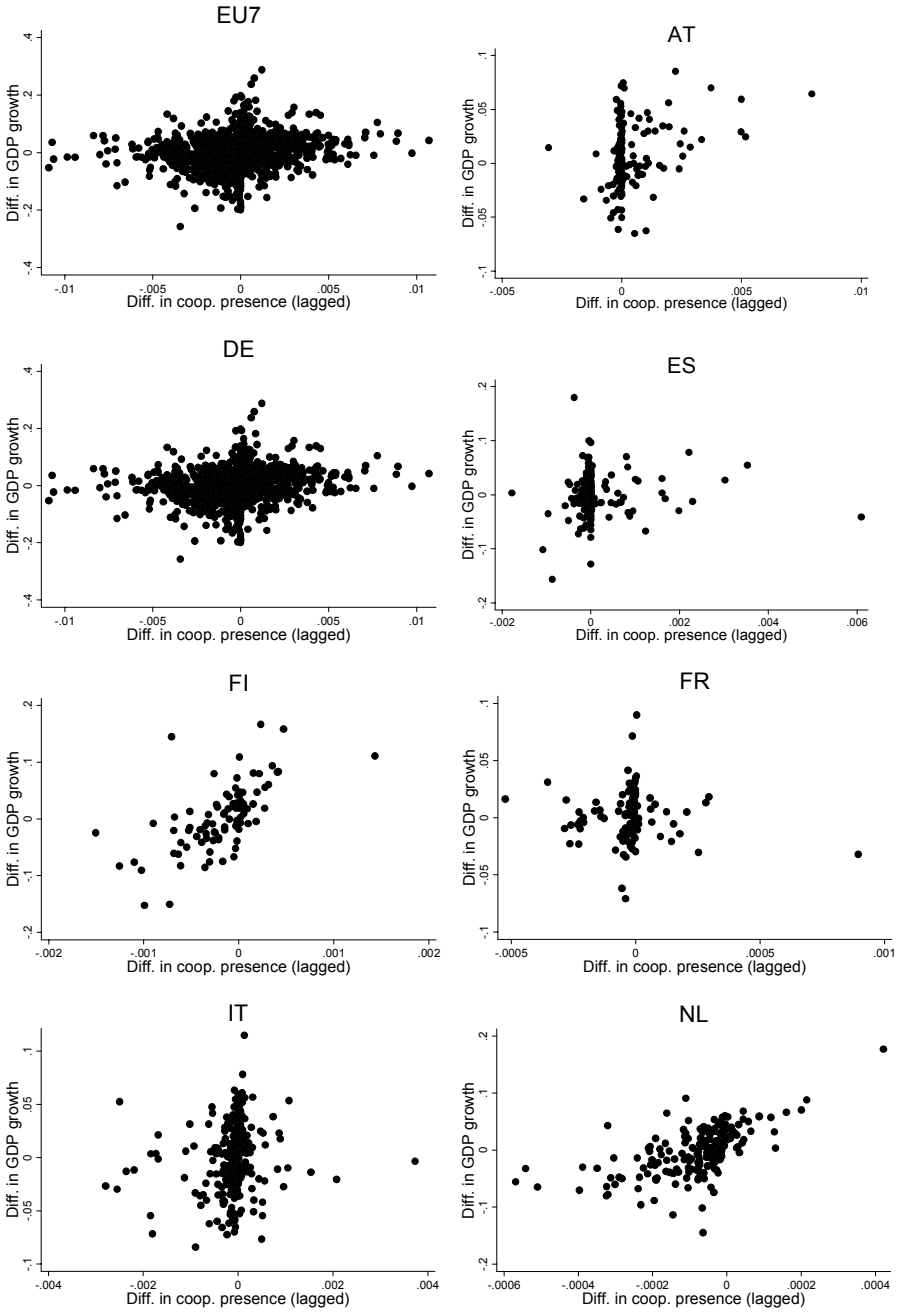

Table 4.4.7 Regional growth and cooperative bank presence: Granger-causality tests

	COOP. PRESENCE □ GROWTH *(Cooperative presence causes GDP growth)*		**GROWTH □ COOP. PRESENCE** *(GDP growth causes cooperative presence)*	
	Coeff. estimate, β	p-value	Coeff. estimate, β	p-value
EU-7	3.147	(0.000)**	0.002	(0.001)**
AT	8.708	(0.000)**	-0.009	(0.039)*
DE	2.728	(0.000)**	0.003	(0.001)**
ES	3.425	(0.396)	-0.001	(0.676)
FI	61.108	(0.001)**	0.000	(0.863)
FR	3.542	(0.833)	0.000	(0.589)
IT	4.855	(0.225)	0.000	(0.754)
NL	304.428	(0.000)**	-0.001	(0.000)**

Notes: All results are based on fixed-effect panel regressions for differences in GDP growth and cooperative presence parameters. The reported coefficient estimates correspond to β in equation (7). The regressions also include autoregressive terms for the left-hand side variable, although the coefficient estimates are not included, to save space. * stands for significance at 5%; ** stands for significance at 1%.

The second panel of columns on the right summarises the results for the causality tests running in the opposite direction, i.e. explaining differences in presence with changes in growth. For Germany and for the pooled sample, economic growth has a positive impact on the presence of cooperatives. In both cases, the relationship between presence and growth is self-reinforcing.[126] Several interpretations of this result are possible. Cooperative banks have a significant market share in SME lending, which are often acknowledged as the drivers in most EU countries, notably in Germany. This could be the reason that the impact of growth on bank presence is particularly strong. Increased cooperative bank activity may

[126] The Granger-causality tests reported in the table should be interpreted with care due to the potential simultaneity bias that could arise when the two variables, differences in GDP growth and cooperative presence are co-determined simultaneously. The use of the instrumental variables (IV) approach is made difficult here due to the unavailability of reliable covariates for regional cooperative presence. Nevertheless, the results from two-stage least squares (2SLS) regressions (not reported here) with lagged variables as instruments confirms the robustness of the results for the pooled sample, Finland and the Netherlands. Table 4.4.7 does not incorporate this procedure since the use of lags as instruments is not commonly accepted as a reliable method and leads to a significantly lower number of observations, which ultimately undermines the power of the tests.

serve as a multiplier, enhancing the allocation of credit and thereby increasing growth even further. Another interpretation is that increased availability of cooperative banks may mitigate some of the access problems, thereby giving the larger population the means to prosper and contribute to economic growth.

Interestingly, for Austria and the Netherlands, the impact of growth on presence is negative, implying that regions with worsening growth records do not have an equivalent outflow of cooperative activity. This result could be a reflection of the commitment of cooperative banks to remain as the key provider of banking services to the underprivileged regions. It could also be a particularity of the two economies, where demand for the services provided by cooperatives hold up better than the rest of the economy in times of difficulty. Notwithstanding these two arguments, cooperative banks in the two countries appear to fulfil a stabilising role by remaining in areas experiencing poor growth and thereby contributing to future growth.

To sum up, our results show that cooperative presence appears to have a significant pro-growth impact in Austria, Finland, Germany and the Netherlands. For Germany, there is a self-reinforcing effect: more growth enhances activity, which in turn increases growth further. For Austria and the Netherlands, however, a different pro-growth dynamic is at play: cooperatives maintain their activities in areas experiencing low growth and thereby help soothe income differences.

4.4.4 Determinants of earnings stability of banks

In order to further analyse the role of cooperative banks, this section reports the determinants of stability, paying close attention to whether being a cooperative actually implies greater stability once alternative explanatory variables are accounted for.

The results of the regressions that examine the determinants of earnings stability are given in Table 4.4.8.[127,128] The odd-numbered columns

[127] In order to eliminate outliers in our data set, bank-year observations outside the mid-95 percentiles of the z-score distribution are removed from the sample.

[128] For each country, two separate procedures are followed to ensure that the results are robust. The left-side column for each country shows the pooled OLS results. In order to control for the impact of shorter series, dummies that correspond to the number of reported years are also included in these regressions. In the second column, the results of fixed-effect

correspond to ordinary least squares (OLS) regressions, which pool the data into a single sample by not distinguishing between observations corresponding to different time periods or countries. In turn, the even-numbered columns take advantage of these differences and report the results of fixed effects (FE) panel regressions.[129,130]

The results of the empirical exercise are as follows:

Regarding the country-specific estimators, the coefficient estimate for financial openness index is negative (except for Spain) and has a high level of significance in almost all regressions, except for some of the pooled OLS results, reinforcing the view that that more open systems could be more risk-prone.[131]

Bank concentration, captured by the Herfindahl-Hirschman Index (HHI), has a positive impact on earnings stability except in Spain and the Netherlands.[132] With the exception of both the OLS results and fixed-effects estimates for Austria, the coefficient estimates are highly significant in at least one of the regressions. More important, the coefficient for the first two columns that accounts for all countries reveals that banks in more

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(FE) panel regressions are reported. However, the use of this procedure means that a number of individual-specific time-invariant variables, i.e. the savings banks dummy, listed institutions, etc., are dropped since these effects are absorbed by the fixed intercept estimates.

129 The panel regression procedures fully take into account bank-specific effects. It is therefore not possible to include the time-invariant dummy variables *saving bank, listed institution* and the two country dummies.

130 An alternative method, namely the random-effects method, was found to be inappropriate due to individual effects that are uncontrolled by our estimators. More specifically, Hausman specification tests revealed that random-effects estimations did not appropriately capture all individual effects that were readily accounted for in the fixed-effect models.

131 The significance of the result on financial openness should be tempered by the fact that the index varies between 2.0 and 2.5 for the country-year observations. In other words, the impact of moving from an open to a less open financial system would have a very modest impact (a drop of 1.5 to 7 standard deviations for the corresponding z-scores) for the countries in the sample.

132 Supplementary regressions (not reported here) using the asset concentration of the top five banks (CR5) lead to similar results.

concentrated systems are able to secure steadier earnings streams over time.[133]

Turning to bank-specific factors, the impact of cost-efficiency, as measured by the cost-to-income ratio, is less clear. Consistent results can only be established for Austria (where no impact exists) and the Netherlands (where efficiency is negatively related to stability).

The main results of the empirical exercise are obtained by examining the size and ownership parameters. First, bank size, captured by the *log(Asset)* variable, appears to influence stability inversely. In other words, on average larger banks (commercial or otherwise) have less stable earnings. This could be confirming the hypothesis that institutions that deem themselves as 'too-big-to-fail' indeed take more risks, i.e. engage in moral hazard. The impact of size on stability is particularly striking when individual effects are controlled for by the fixed-effects panel regression procedures. The coefficient estimates for the interactive variables [*log(Asset)* × *Cooperative bank*] and [*log(Asset)* × *Savings bank*] show that size is a less destabilising factor for cooperative and savings banks.[134] In France, the countervailing factor (the summation of the coefficients for *log(Asset)* and *log(Asset)* × *Cooperative bank*) is positive, implying that the bigger cooperatives are simply more stable than banks of all sizes.

In order to verify whether cooperative banks are simply more stable, not withstanding their size, the OLS estimates also include the dummy variable for these banks. The coefficient estimates for this dummy variable show that French and Dutch cooperative banks are more stable than other banks; in these countries, the size of a cooperative has no impact on the stability of its earnings. The coefficient estimates for interacting variables show that holding all other factors constant, smaller cooperative banks perform below the country average while larger ones have more stable earnings than banks of all sizes. The results are identical but less pronounced in Germany, where the offsetting impact of savings bank size is relatively small.

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[133] This finding is in line with the findings of Beck et al. (2006), who use a sample of 69 countries over the years 1980-97 to show that systemic banking crises are less likely in systems with more concentrated systems.

[134] This result is in line with the findings of Beck et al. (2009), who explain the finding by noting that larger cooperative and savings banks may have an added advantage in smoothing out their profits.

Table 4.4.8 Determinants of stability (z-scores)

	ALL COUNTRIES		AUSTRIA		FINLAND		FRANCE	
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Financial openness index	-2.385	-4.851	-2.563	-5.420	0.105	-4.588	0.187	-1.069
	(0.000)**	(0.000)**	(0.349)	(0.000)**	(0.893)	(0.000)**	(0.907)	(0.039)*
Herfindahl-Hirschman Index (HHI)	17.642	59.816	31.430	16.145	33.393	50.020	34.938	158.289
	(0.217)	(0.000)**	(0.921)	(0.790)	(0.000)**	(0.000)**	(0.697)	(0.000)**
Cost-to-income ratio	-8.823	-1.591	-7.065	-2.413	-16.037	6.227	-14.077	-0.464
	(0.000)**	(0.000)**	(0.148)	(0.108)	(0.000)**	(0.000)**	(0.001)**	(0.775)
log(Asset)	-2.574	-9.475	1.113	-7.403	-8.666	-13.245	-2.339	-8.541
	(0.000)**	(0.000)**	(0.468)	(0.000)**	(0.095)	(0.000)**	(0.000)**	(0.000)**
log(Asset) x Cooperative bank	3.096	3.508	4.333	6.034	6.758	6.210	0.769	21.539
	(0.000)**	(0.000)**	(0.008)**	(0.001)**	(0.192)	(0.071)	(0.590)	(0.000)**
log(Asset) x Savings bank	2.675	6.366	-4.591	2.204	..	..	1.204	23.345
	(0.000)**	(0.000)**	(0.008)**	(0.180)			(0.245)	(0.000)**
Cooperative bank	-7.592	..	-16.160	..	-60.666	..	28.498	..
	(0.002)**		(0.125)		(0.238)		(0.019)*	
Savings bank	-4.841	..	35.808	..	..	..	4.035	..
	(0.151)		(0.001)**				(0.648)	
Listed institution	4.501	..	10.116	..	-49.059	..	2.184	..
	(0.000)**		(0.010)**		(0.016)*		(0.242)	
Constant	60.670	83.252	39.997	70.913	141.902	49.946	72.240	17.124
	(0.000)**	(0.000)**	(0.039)*	(0.000)**	(0.020)*	(0.000)**	(0.000)**	(0.009)**
Observation & country dummies	Yes	..	Yes	..	Yes	..	Yes	..
Procedure	OLS	FE	OLS	FE	OLS	FE	OLS	FE
Observations	27,107		1,303		1,617		1,943	
R-squared	0.149	0.141	0.135	0.137	0.108	0.297	0.308	0.201

Notes: For coefficient estimates, robust p-values are in parentheses. OLS: ordinary least squares pooled regression; FE: fixed-effect panel regression. * and ** refer to statistical significance at 5% and 1%, respectively. For FE regressions, only the within R^2 is reported.

Table 4.4.8 (continued) Determinants of stability (z-scores)

	GERMANY		ITALY		NETHERLANDS		SPAIN	
	9	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Financial openness index	-2.516	-2.535	..	..	..	..	5.663	-0.400
	(0.000)**	(0.000)**					(0.242)	(0.695)
Herfindahl-Hirschman Index (HHI)	808.776	1,079.998	-127.193	47.747	-195.423	37.672	33.413	-477.762
	(0.000)**	(0.000)**	(0.172)	(0.006)**	(0.027)*	(0.065)	(0.921)	(0.000)**
Cost-to-income ratio	5.985	-1.473	-13.458	-1.040	-51.700	-6.627	-51.176	-3.514
	(0.000)**	(0.000)**	(0.000)**	(0.263)	(0.000)**	(0.000)**	(0.000)**	(0.094)
log(Asset)	-0.170	-7.094	-1.856	-12.898	0.455	-8.158	-3.538	-15.085
	(0.750)	(0.000)**	(0.000)**	(0.000)**	(0.592)	(0.000)**	(0.019)*	(0.000)**
log(Asset) x Cooperative bank	0.632	4.046	-1.313	2.363	-2.453	-0.748	1.783	3.810
	(0.256)	(0.000)**	(0.007)**	(0.001)**	(0.076)	(0.484)	(0.249)	(0.025)*
log(Asset) x Savings bank	1.645	7.015	3.746	0.412	41.598	2.194	-3.079	-4.734
	(0.007)**	(0.000)**	(0.009)**	(0.831)	(0.000)**	(0.864)	(0.158)	(0.019)*
Cooperative bank	-0.686	..	1.620	..	54.664	..	-2.301	..
	(0.856)		(0.691)		(0.000)**		(0.871)	
Savings bank	-6.302	..	-19.966	..	-318.227	..	55.857	..
	(0.140)		(0.070)		(0.000)**		(0.003)**	
Listed institution	-8.013	..	1.948	..	-17.027	..	9.392	..
	(0.009)**		(0.264)		(0.000)**		(0.035)*	
Constant	19.466	35.088	71.636	111.259	85.302	105.584	123.053	206.623
	(0.001)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Observation & country dummies	Yes	..	Yes	..	Yes	..	Yes	..
Procedure	OLS	FE	OLS	FE	OLS	FE	OLS	FE
Observations	13,691		5,148		1,394		2,011	
R-squared	0.024	0.321	0.065	0.285	0.163	0.197	0.099	0.134

Notes: For coefficient estimates, robust p-values are in parentheses. OLS: ordinary least squares pooled regression; FE: fixed-effect panel regression. * and ** refer to statistical significance at 5% and 1%, respectively. For FE regressions, only the within R^2 is reported.

4.5 Conclusions

The results summarised above confirm that there are no consistent differences between cooperative banks and their commercial and savings bank peers in terms of profitability, cost-efficiency, and market power, while cooperative banks, especially the larger ones, enjoy greater earnings stability than their commercial peers.

When using financial indicators (RoA and RoE), cooperative banks are slightly less profitable in all countries with the exception of Germany, Spain and Finland.

In terms of cost efficiency, the differences between cooperatives and other banks are also mixed. Cooperatives seem to enjoy significant cost benefits, in terms of cost-to-income in Finland, France, Italy and Spain, while scoring lower in Austria, Germany and the Netherlands.

In terms of market power, the results are once again mixed. In Austria, Germany and the Netherlands, cooperative banks have a significantly less market power while the opposite is true for Italy, Finland and Spain. In Germany, smaller banks as well as larger banks enjoy greater market power; these results could mitigate some of the differences favouring cooperative banks. These results have to be interpreted with care in order to avoid making erroneous judgements due to the close relationship of mark-ups with cost-efficiencies.

In terms of stability of earnings, cooperatives are significantly more stable than other banks in all countries other than Germany and Spain, where savings banks are taking the lead. In some cases the differences are astounding, i.e. France and the Netherlands, where these banks enjoy greater stability. These results confirm the expectation that cooperative banks enjoy a stable cushion of earnings, reducing their likelihood of insolvency.

In terms of contribution to regional growth, regional presence of cooperative banks has a positive impact on GDP growth in most countries, most notably in Austria, Finland, Germany and the Netherlands. For Germany, there is a self-reinforcing relationship between cooperative presence and growth. Quite intriguing, in Austria and the Netherlands, cooperative banks appear to play a stabilising role, maintaining their presence in regions experiencing low growth and thereby contributing to future growth. These findings call for re-examination of the role of

cooperative banks, especially in regions where growth is depressed, either cyclically or persistently.

Taken together, these findings imply that in addition to coexisting with other banks under similar conditions, cooperative banks have responded to shifts in market developments while fulfilling an integral role of contributing to stability and regional growth in their economies.

Table 4.5.1 Comparison of cooperative banks with other banks

	Performance & efficiency			Market power	Earning stability
	RoA	RoE	Cost-to-income		
Austria	-	-	-	+	+
Finland	+	0	+	-	+
France	0	0	+	0	+
Germany	+	+	-	+	+
Italy	0	-	+	-	+
Netherlands	-	-	-	+	+
Spain	+	-	+	-	+

Note: n.a. = No data were available for comparison; **+/- signify that cooperative banks scored more/less preferably** (in difference in means test with a p-value < 5%); 0 means that there was no significant difference between the two types of banks.

Table 4.5.2 Determinants of market power

	Bank size	Foreign entry	Branching
Austria	0	-	-
Finland	0	-	-
France	+	-	-
Germany	U-shaped	+	-
Italy	+	-	+
Netherlands	+	0	-
Spain	0	+	+

Note: +/- indicate the sign of the coefficient estimate, i.e. statistically different from 0 with a p-value of less than 5%.

Table 4.5.3 Causal relation between cooperative presence and regional growth

	Impact of presence on growth	Impact of growth on presence
Austria	+	-
Finland	+	0
France	0	0
Germany	+	+
Italy	0	0
Netherlands	+	-
Spain	0	0

Note: n.a. = No data were available. +/- indicate the sign of the coefficient estimate (statistically different from 0 with a p-value < 5%).

Table 4.5.4 Banking sector determinants of earning stability

	Coop. banks	Coop. size	Sector concentration	Cost-to-income
All banks	-	+	+	-
Austria	0	+	0	0
Finland	0	0	+	+/-
France	+	+	+	-
Germany	0	+	+	+/-
Italy	0	+	+	-
Netherlands	+	+	0	-
Spain	0	+	+	-

Note: n.a. = No data were available for comparison. +/- indicate the sign of the coefficient estimate when it is statistically different from 0 with a p-value < 5%.

5. FINAL CONCLUSIONS

On 5 June 2008, the European Parliament issued a Resolution containing the following statement:

> *The diversity of legal models and business objectives of the financial entities in the retail banking sector (banks, savings banks, cooperatives, etc.) is a fundamental asset to the EU's economy which enriches the sector, corresponds to the pluralist structure of the market and helps to increase competition in then internal market.*

An earlier report (Ayadi et al., 2009) argues as follows: "*not only legal, political and risk-related considerations serve to highlight the need for a European banking model based on diversity…*"

In an uncertain market environment, diversity has advantages as it cannot be predicted which form of corporate structure or business model is best suited to all particular circumstances. As put by Ayadi et al. (2009), the case for diversity includes:

> *Reducing institutional risk, defined as the dependence on a single view of banking that may turn out to have serious weaknesses under unexpected conditions such as the current crisis.*

Leaving aside the merits of any particular business model, there are powerful *systemic* benefits to be derived from diversity of business models and ownership structures in the banking sector, to which cooperative banks contribute alongside other banks. Indeed, cooperative banks as members' institutions are not subject to the short-term pressure of the capital market which can induce banks to take excessive risks and ultimately undermine their stability. They are likely to enhance competition and access because of their different business model centred on proximity to the clients and relationship banking. Their local character and their particular focus and expertise on the local community also tend to reduce powerful centrifugal tendencies in the financial system.

All in all, a pluralistic approach to ownership and business models is likely to be conducive to greater financial stability and regional growth. With their contrasting capital structures and business strategies, SHV and cooperative banks balance their risks and activities differently. Systemic risk is thereby reduced and access improved. The more diversified a financial system is in terms of size, ownership and structure of businesses, the better it weathers the strains produced by the normal business cycle, in particular avoiding the bandwagon effect, and the better it adjusts to changes in customer preferences. Ultimately, a diverse system is a prerequisite for stability and growth.

The issue of having a financial system populated by a diversity of organisational forms is as significant as the merits and drawbacks of each particular form of organisation. The case for sustaining a powerful cooperative sector in the financial system is wider than any alleged intrinsic merits of the cooperative model.

This has important public policy implications. The debate particularly emphasises the expected role of different types of financial institutions to finance the real economy, to contribute to systemic stability and to promote inclusion. This raises the role of dual-bottom line or STV institutions to fulfil other equally important objectives than mere short-term shareholder value creation. This suggests that financial performance and economic efficiency are neither the only nor the ultimate standard of assessment. These are indisputably important but they are not sufficient to assess the contributions of STV institutions to the economy. Allowing for new standards of assessment that take into consideration the variety of objectives of STV institutions would emphasise the value of diversity in the European banking sector. Beyond such assessment, the functional implications of diversity (such as regulation, financial stability and liquidity creation) merit further investigation.

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ANNEX 1. SUMMARY OF THE EUROPEAN COOPERATIVE SOCIETY DIRECTIVE

The SCE (Council Regulation (EC) No 1435/2003 and Directive 2003/72/EC) shares many similarities with the European Company Society (SE), which was introduced earlier in 2001 for public limited companies. Much like the SE, the SCE allows cooperatives to be created either via a merger of several existing institutions or by conversion of an existing cooperative with sufficient cross-border activities. A third option, not available for SEs, is also established to enable the creation of cooperatives from scratch by five or more natural persons from different member states.

Other familiar characteristics includes a minimum capital requirement of €30,000; limited liability of shareholders; specific provisions for single registration within the EU; a requirement to have at least one general meeting per year; and the flexibility afforded to two-tiered structures that allow distinct management and supervisory bodies, as in Germany, instead of a single administrative body.

Less common provisions reflect the organisational differences between cooperatives and investor-owned corporations. The principal objective of an SCE is the satisfaction of its members' needs and interests. Accordingly, the benefits, participation and voting rights of non-members are limited. The Directive distinguishes between two types of membership: user-members and non-user members. In principle, user-members are understood as those who "expect to use or produce the SCE's goods and services" (Art. 14). Members' admittance is subject to the approval of the management or administrative organ, with the possibility of appeal to the general meeting of the cooperative. Members are also entitled to their subscribed capital should they decide to terminate their membership, which has to be paid within three years upon resignation. These repayments may be adjusted in proportion to the losses charged against the SCE's capital.

The voting rights of the user-members are allocated in accordance with the 'one member, one vote' principle. A partial (and restricted) exception is provided when national laws permit the number of votes to be determined in proportion to the members' participation in the cooperative's activities. Depending on the laws of the member state in which the SCE has registered offices, non-user-(investor)members may also be admitted and may be granted some voting rights, but those rights cannot exceed 25% of the voting power of all (user- and non-user-)members.

The law was transposed into national laws of the member states by 18 August 2006. Since then, there have been no major cooperatives that have taken up the new SCE vehicle. One key reason could be that most cooperatives engage in local activities and have little reason to go beyond their region, never mind national borders. The slow conversion process may also be explained by the complexity and rigidity of the codes existing in different countries. Although these explanations could be true for the smaller institutions, they are less likely to hold for large and highly integrated systems, which already engage in international activities. Another factor in explaining the low pick-up is the presence of significant tax-related obstacles between member states.[135] Primary concerns include tax charges that are triggered by the transfer of assets and/or head offices between different member states. Although these challenges are partly mitigated by the individual cases brought to the European Court of Justice (ECJ), a more decisive, community-wide solution could be more effective in the future. In addition to these challenges, the value-added taxes (VAT) applicable to cross-border intragroup transactions could explain why the vehicle has not been taken up. In these cases, various methods that allow the definition of a group to transcend national borders could help make the SCE more palatable.[136]

[135] The tax obstacles for SEs and SCEs are highly similar. For an extended discussion of the challenges faced by public limited-liability corporations and the proposed policy responses, see CEPS (2008).

[136] The Commission adapted on 28 November 2007 two associated proposals for a directive (COM (2007)746-7) to modernise VAT, allowing financial institutions and insurance firms to claim the tax charges on their intragroup transactions, provided that they opt for taxing their services. As for corporate taxation, the intragroup transfers will not be subject to taxation under the Common Consolidated Corporate Tax Base (CCCTB), which would allow companies to pool the group's profits to a single consolidated base defined by common rules, thereby annulling the impact of cross-border profit shifting on the organisation's tax obligations. Despite significant discussion during 2007-08, the CCCTB project has progressed rather slowly due to fundamental differences among member states.

ANNEX 2. DEMUTUALISATION OF UK BUILDING SOCIETIES

Although technically speaking, building societies in the UK are not cooperative banks (not the least because, by regulation, they are not "banks" and do not offer the full range of banking services), as mutuals they are a subset of STV banks. It is instructive, therefore, to consider the case study of the UK where in 1986 the law was changed to allow mutual building societies to convert to SHV (Public Limited Company – plc) bank status. As a result, in the second half of the 1990s, a powerful trend emerged towards demutualisation. Eleven building societies (accounting for 75% of the combined assets of all building societies), including the largest (the Halifax, which merged with the Leeds Permanent in 1995 and effectively undertook a combined demutualisation) converted to plc status.

A demutualisation could only occur if two-thirds of existing members voted in favour of it. Unlike in continental Europe, demutualisation of building societies involved payments to current members as the concept of intergenerational legacy was not enshrined in British law. Although the reserves of building societies were built up over several generations of members, on a demutualisation the current members had claim on the economic value of the mutual. In effect, members were 'compensated' for surrendering the benefits of mutuality. In essence, demutualisation involved the appropriation of the mutual's intergenerational endowment by the current cohort of members. This also implied that potential future members had no say in the process and the current generation of members could deny future generations the benefits of membership of the mutual. This represented an intergenerational transfer of benefits and wealth (to current members from the accumulation generated by past members and the benefits of potential future members) and, under these circumstances, it may not be surprising that members tended to vote in favour of demutualisation so as to make a claim on this intergenerational transfer. In total, £35 billion was distributed to members including to 'carpet-baggers' who opened accounts solely in order to gain membership and vote for conversion and reap the windfall.

This arrangement is generally not possible in other European countries and the new SCE statute requires that in the case of a cooperative bank, the reserves of any converted bank must be transferred to another cooperative bank or otherwise used for purposes of general interest. Above all, they cannot be appropriated by the current members.

Since the wave of demutualisations in the 1990s, most remaining mutual building societies in the UK have put in place various mechanisms (such as charitable assignments) to prevent current members from having any claim on the economic value of a demutualised society.

By 2008 all the converted building societies had lost their independent status either because they were purchased by other banks (e.g. Abbey National and Alliance and Leicester were purchased by Bank Santander) or because they failed and needed to be taken into public ownership (Northern Rock and, to some extent, Bradford and Bingley).

As argued in chapter 2, although both SHV and STV banks create value for their owners the nature and 'usability' of this value differs. This is where problems began to emerge when the value of a mutual (as measured by reserves) became 'excessive'. As building societies' reserves were built up, the implicit or embedded value to the owners was steadily increased. However, this value could not be released to the owners while the building society remained as a mutual and conversion to plc status became one way that embedded value could be released to members.

Curiously, mutuals are potentially vulnerable when they have too little capital but also when they have too much. The former is because it is more difficult for a mutual to augment its reserves other than through profits, and the latter because it encourages members to seek to unlock embedded value by changing the society's structure. Apparent 'success' (as measured by profits and the build up of excess reserves) for a mutual can sow the seeds of its own destruction!

A central feature of a plc bank is that there is a continuous repricing of its value through changes in the stock market price of shares. Ownership rights are tradable and the shareholder can sell and claim the full value of his or her stake in the company: the shareholder is able to liquidate in full his or her ownership claim on the bank. This is because the value of the company is reflected in the current share price. It also means that, if a new shareholder wishes to acquire a claim on the value of the company that has been built up over many years, it can do so but has to pay the market price for this value as reflected in the share price. This is not the case with mutual

building societies, as new shareholders can buy into the accumulated value of reserves simply by opening a share deposit. Past accumulation of embedded value is not reflected in the price of the ownership claim.

This in turn leads to an important and crucial distinction between what will be termed *locked* versus *open* value for owners. In effect, the ownership stake in a mutual is *locked* within the firm as there is no way that owners can liquidate that value other than through conversion to SHV (plc) status. On the other hand, the ownership stake that an equity holder has in a plc can be immediately *unlocked* in the secondary market in shares. This is precisely where problems began to arise with building societies in the early 1990s, because they had built up substantial reserves and hence the value of ownership stakes by their members.

The distinction between the creation of value for owners in plcs and mutuals is given in Table A1, where a distinction is made between *locked* and *open* value-creation for owners. This not only illustrates the distinction between *locked* and *open* value, it also highlights what is perhaps the fundamental difference between a mutual and an SHV bank. If a mutual uses its 'margin advantage' through its pricing (higher deposit rate/lower loan rate), value is created in usable form for owners *by virtue of their being customers*. By definition, this is not possible for a plc. Similarly, if a plc distributes profits after they have been earned (dividends or bonuses) *open* value is also created for owners in usable form.

It is when we come to retentions that the major distinction emerges. In the case of a mutual, value is created but in non-usable form. With a plc such retentions also create value but in a usable form. This is because the value created will normally be reflected in the share price and hence it can be liquidated by owners. In this way value can be extracted at very little cost and without fundamentally disturbing the ownership structure of the firm.

Table A1. Value creation for owners: plcs vs mutuals

Value Created Via	***Mutual***	***Plc***
(1) Margin advantage exploited in pricing	Open	n/a
(2) Distributions of profits	n/a	Open
(3) Retention of profits in reserves	Locked	Open

In summary, therefore, the two key distinctions between the mutual and the plc as shown in the table are that: the mutual has the option of

giving value to owners in the price structure of its products and services to a greater extent than can the plc, and while value is created in both cases when reserves are increased, it is *open* in the case of the plc but *locked* with the mutual. There is one exception to this in that the Britannia Building Society (now the second largest) has a membership reward scheme which is a form of dividend payment made to members.

Problems emerged when the value of building societies (as measured by reserves) became 'excessive' because reserves represent locked value (LV). On the other hand, low mortgage rates and high deposit rates represent open value (OV). When the 'margin advantage' was used to increase reserves, the ratio of locked to open value (LV/OV) rose, which resulted in members seeking to transform LV into OV by liquidating the reserves. The main way of doing this was through conversion.

The economic rationale for the demand for conversion could be regarded as a demand by existing members of societies to unlock their entitlement to *locked* value. In practice, however, it became opportunistic in that the motive was to secure windfall gains (sometimes amounting to several thousand pounds for individual members) which could also be reaped by new members who made deposits at building societies with the sole purpose of pressing for conversion and expropriating a share of the reserves. These new opportunistic members came to be known as 'carpet-baggers'.

For a more detailed discussion of the reasons for conversion see Drake and Llewellyn, 2001.

The subsequent history of the demutualised building societies indicates that problems emerged on both sides of the balance sheet. Abbey National (the first of the societies to convert) encountered problems because of its diversification on the assets side of the balance sheet, while Northern Rock and Bradford & Bingley failed because of diversification on the liabilities side as they became excessively dependent upon securitisation and wholesale funding.

It is not to be expected that building societies would be immune from the enormity of the banking crisis: collateral damage was inevitable. Nevertheless, building societies have generally been less scathed by the financial crisis than have banks in general and demutualised building societies in particular. In fact, such converted building societies proved to be the most vulnerable as they moved too far away from their traditional banking model. As argued in a leading article in *The Times* (16 June 2008),

> What is doubly sad is that some of the most battered banks are former building societies – those once prudent institutions woven into the fabric of British life.

None of the demutualised institutions has survived as an independent institution, and two have failed and been taken into state ownership. While many banks faced serious financial problems in the crisis and needed state injections of capital, only two medium-sized retail banks actually failed and they were both previous building societies that had demutualised partly in order to undertake business that was not feasible or allowed as a mutual but which proved in the end to be the origin of their downfall.

The experience of converted building societies in the financial crisis has led to a reappraisal of the wisdom of mutual building societies converting to plc status. It has been argued, for instance, that:

> today the demutualisation dream lies in tatters. All of the building societies that did it have either gone or are shadows of their former selves…a perfectly viable industry which performed a vital public service in a reasonably well managed responsible fashion, has been completely destroyed (Warner, 2008).

A lot has been lost in the British financial system as a result of the large-scale demutualisation of building societies in terms of systemic diversity, a critical mass of mutuality in banking and the benefits to competition that this brings, and the intrinsic merits of the mutual model in some areas of finance. The largest building society to convert was the Halifax. For many years it operated as a very successful bank and had a dominant position in some retail markets. However, it too succumbed to the temptations of new business models and was eventually forced to seek refuge within LloydsTSB. A former director of the Halifax as a mutual has argued, "With hindsight, [conversion] was a mistake that damaged a fine business" (Kay, 2008). More generally, *The Times*, in a leading article, has also questioned the wisdom of demutualisation:

> Of itself, the move to plc status was harmless. But it had two dangerous elements. It liberated those once cautious building society bosses to diversify into new activities, and provided them with the capital to do so. It also loaded them with remuneration packages so poorly structured that they encouraged short-term recklessly.

A study by the Oxford Centre for Mutual and Employee-owned Business (Michie and Llewellyn, 2009) has considered the possibility and feasibility of remutualising Northern Rock and possibly other concerted building societies.

ANNEX 3. ESTIMATING THE COST FUNCTION

The estimation of the cost function follows the translog frontier cost function treatment followed in the procedure in Fernandez de Guevara and Maudos (2007). In the simple approach followed there, a bank's costs (c) are assumed to be a function of a bank's key output, i.e. total assets (A). Due to the unavailability of data on fixed income, we use a two input model based on the cost of deposits (w_1) and labour (w).[137] A time trend variable is also included to account for changes in efficiency that may be due to technological improvements over time.

The cost equation to be estimated is defined as follows:

$$\ln c_{it} = \gamma_0 + \sum_{h=1}^{2} \gamma_h \ln w_{hit} + \gamma_A \ln A_{it} + \tfrac{1}{2}\gamma_{AA}(\ln A_{it})^2 + \tfrac{1}{2}\sum_{h=1}^{2}\sum_{m=1}^{2}\gamma_{hm} \ln w_{hit} \ln w_{mit} + \sum_{h=1}^{2}\gamma_{hA} \ln w_{hit} \ln A_{it} + \mu_1 Trend + \tfrac{1}{2}\mu_2 Trend^2 + \mu_A Trend \ln A_{it} + v_{it} + u_{it} \quad (1)$$

where

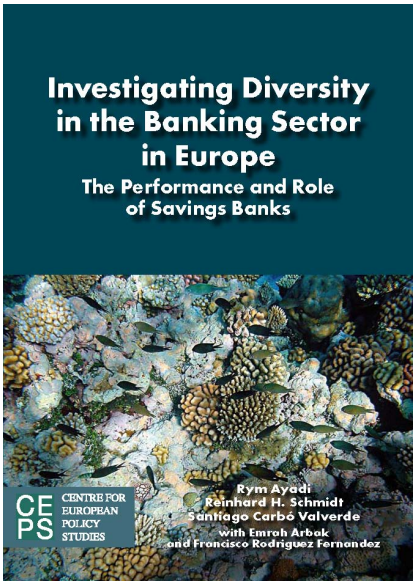
I	=	bank index;
t	=	year;
$ln\ c$	=	natural logarithm of total operating costs;
$ln\ w_1$	=	natural logarithm of price of deposits, measured by operating expenses/customer deposits;
$ln\ w_2$	=	natural logarithm of price of labour, measured by personnel expenses/total assets;
$ln\ A$	=	natural logarithm of total assets;
$Trend$	=	time trend.

[137] The use of more detailed formulations, such as the multiproduct function and the use of capital inputs, was made difficult due to the unavailability of a detailed breakdown of incomes and expenditures, notably interest and non-interest components in Finland and the Netherlands.

In order to obtain a measure of competition, which will be discussed in the next section, it is also necessary to get an estimation of the marginal cost, i.e. changes in costs arising from incremental increases in output, faced by each bank. Using equation (2), marginal cost can be written as a function of average costs (c_{it}/A_{it}):

$$mc = \frac{\partial c_{it}}{\partial A_{it}} = \left[\gamma_A + \gamma_{AA} \ln A_{it} + \sum_h \gamma_{hA} \ln w_{hit} + \mu_A Trend \right] \cdot \frac{c_{it}}{A_{it}} \qquad (2)$$

Lastly, the cross-country comparisons envisioned in the study require the estimation of a common cost efficiency frontier for all banks in the sample. However, a robust cross-country analysis of bank efficiency requires controlling for heterogeneity in environmental conditions which are beyond the responsibility/influence of bank management. The environmental variables are GDP per capita at constant prices, population density (inhabitants per square kilometre) and bank branches per capita in each national market. In addition, country-level dummy variables are introduced to control for the influence of other country-specific issues, such as regulatory and institutional factors.



Of related interest

Investigating Diversity in the Banking Sector in Europe

The Performance and Role of Savings Banks

Rym Ayadi, Reinhard H. Schmidt & Santiago Carbó Valverde

June 2009/ISBN 978-92-9079-868-2

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In a banking environment dominated by the shareholder-value (SHV) institutions, non-SHV institutions such as savings banks and others have been criticised for being an exception to the rule, for being relatively inefficient, for not being subject to the discipline of the capital market and corporate control, and for having weak corporate governance arrangements.

Drawing the lesson from the banking crisis, this CEPS study stresses that there are economic and welfare benefits to be derived from institutional diversity in the financial system. In particular, the study finds that:

- There are no radical differences between savings banks and their commercial peers in terms of profitability, efficiency and earnings stability.
- A larger critical mass of savings banks (and other STV institutions) is likely to enhance competition in the financial system.
- The evidence also suggests that savings banks contribute to a reduction in social exclusion and offer wider access to financial services.

Institutional diversity is thus found to have a positive and significant effect on regional growth, indeed the local focus of most saving banks appears to contribute positively to regional development.

The case for diversity includes, as the study suggests, "reducing institutional risk, defined as the dependence on a single view of banking that may turn out to have serious weaknesses under unexpected conditions such as the current crisis".

On the strength of the case studies on the national savings bank systems of Spain, Germany and Austria, the report concludes that "the crisis has made it even more evident than before how valuable it is to promote a pluralistic market concept in Europe and, to this end, to protect and support all types of ownership structures without abandoning the principle of 'same business, same risks, same rules'". The investigation of the role of savings banks in this study demonstrates the value of their presence in terms of the financial, economic and social welfare of the countries in which they operate.