## JOHANN WOLFGANG GOETHE-UNIVERSITÄT FRANKFURT AM MAIN

### FACHBEREICH WIRTSCHAFTSWISSENSCHAFTEN

Reinhard H. Schmidt

The Future of Banking in Europe

No.72 March 2001



WORKING PAPER SERIES: FINANCE & ACCOUNTING

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No.72 March 2001

Goethe-University

Frankfurt, Germany

First version June 2000 Thus version March 2001

ISSN 1434-3401

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rschmidt@wiwi.uni-frankfurt.de <sup>2</sup> Revised version of a paper presented at the 7<sup>th</sup> German-French Economic Forum, Paris, July 4, 2000. The format of a lecture is maintained in the present text. The paper draws heavily on joint work with Marcel Tyrell and Andreas Hackethal. For advice and support in the preparation of the paper, I owe a great debt to these two collaborators as well as to Falko Fecht and Christian Pfeil and J.-C. Rochet, the discussant at the conference in Paris. Of course, none of them bears any responsibility for the views expressed here, nor for failures of omission and of commission.

#### Zusammenfassung

Der vorliegende Beitrag stellt einen Versuch dar, die Zukunft des Bankwesens in Europa unter der spezifischen Fragestellung zu analysieren, ob sich trotz der offensichtlichen und gravierenden Änderungen informations-technologischer, regulatorischer und politischer Art im Umfeld der Banken die traditionellen Besonderheiten der kontinentaleuropäischen Banksysteme in der Zukunft erhalten oder ob sie in der Folge dieser Änderungen eher verschwinden werden. Zu diesen Besonderheiten gehören unter anderem enge Beziehungen zwischen Banken und ihren Kreditnehmern, eine starke Rolle von nicht oder nicht primär gewinnorientierten Banken und beträchtliche Unterschiede zwischen den Bank- und Finanzsystemen verschiedener Länder.

Methodisch geht der Beitrag so vor, dass untersucht wird, wie Banken bei der Festlegung ihrer Strategien auf die Änderungen Art reagieren und wie sich dies auf den Wettbewerb im Bankwesen auswirkt, um daraus Schlüsse hinsichtlich des Fortbestehens bzw. des Verschwindens der angesprochenen traditionellen Besonderheiten von "Banking in Europe" zu ziehen. Es lässt sich zeigen, dass mindestens einige der traditionellen Besonderheiten – entgegen weit verbreiteten Erwartungen – zumindest mittelfristig nicht verschwinden werden.

#### Summary

At least in the past, banking in continental Europe has been characterised by a number of features that are quite specific to the region. They include the following: (1) banks play a strong role in their respective financial systems; (2) universal banking is prevalent; (3) not strictly profit-oriented banks play a significant role; and (4) there are considerable differences between national banking systems.

It can be safely assumed that the future of banking in Europe will be shaped by three major external developments: deregulation and liberalisation; advances in information technology; and economic, financial and monetary integration. The overall consequences of these developments would be much too vast a topic to be addressed in one short paper. Therefore the present paper concentrates on the following question: Are the traditional peculiarities of the banking and financial systems of continental Europe likely to disappear as a consequence of the aforementioned external developments or are they more likely to remain in spite of these developments?

The external developments affect the features specific to banking in continental Europe only indirectly and only via the strategies selected and pursued by the various players in the financial systems, notably the banks themselves, and in ways which strongly depend on the structure of the banking industry and the level of competition between banks and other providers of financial services. The paper develops an informal model of the relationships between (1) external developments, (2) bank strategies and the structure of the banking industry, and (3) the peculiarities of banking in Europe, and derives a hypothesis predicting which of the traditional peculiarities are likely to disappear and which are likely to remain. It argues that, overall, the peculiarities are not likely to disappear in the short or the medium term.

<u>Keywords</u>: Banking in Europe; financial systems; bank strategies, competition in banking; universal banking; non-profit banking; disintermediation

JEL Classification: G15, G20, G 21, P50

#### I. Introduction

#### 1. The general problem of economic predictions

The problem in writing this paper is that I am not a clairvoyant. I simply do not know what the future of banking in general, and banking in Europe in particular, will be — and indeed, nobody can rightly claim to know this. The future is uncertain, it unfolds as time goes by. One important source of uncertainty is innovation, which is inherently unpredictable. But apart from the nature and effects of innovations, one can identify certain general classes of factors which will shape the future of banking (in Europe) and which at the same time give cause for uncertainty with regard to this future. It is useful to distinguish between two general sources of uncertainty: Firstly, external factors relevant to the development of banking may change in ways that may be surprising. Secondly, banks and their managers as well as their competitors, regulators, policy makers and the clients of banks act on the basis of their expectations about the changing external factors, and each of them reacts to the consequences which they expect others to draw from the changes which they anticipate. The actions and reactions of the "players" in the banking world can be just as surprising as the external factors.

These two classes of determinants of the future and causes of uncertainty with respect to the future are not independent of each other. Economic agents hold beliefs about the future and have strong economic incentives to take these expectations into account when they determine how to act and to react, even though these beliefs may be quite vague. By acting and reacting as rationally as possible, the economic agents jointly create the future which they individually try to anticipate. Thus an economic prediction of the future (of banking in Europe or any other comparable issue) can only be a speculation about possible paths of development which are, however, constrained by the fact that agents act in anticipation of, and in response to, external developments, the strategies chosen by other economic agents, and their relevant beliefs.

In essence, economic evolution is an uncertain equilibrium path over time. Thus simply extrapolating currently observable trends would not be enough and might indeed lead to inappropriate conclusions. The necessity of taking into account the interrelationships between the object of a prediction and the expectations and actions of those who jointly shape this object is the essence of the concept of a rational expectations equilibrium.<sup>3</sup> Any attempt by an economist to predict the future (of banking in Europe) should make use of this concept.

<sup>&</sup>lt;sup>3</sup> See Grossman (1981). It should be kept in mind that this concept of rational expectations neither has to assume the unlimited rationality of all agents, nor does it abstract from uncertainty.

However, I should not take my inability to predict the future of banking in Europe too seriously. As the concept of rational expectations suggests, I share this inability with those who shape this future through their decisions and actions within banks and outside of banks. It may therefore even be helpful to put myself in their shoes.

#### 2. The focus of the paper

There are many questions which one might want to ask concerning the future of banking in Europe. It would, of course, be impossible to address all of them here. My choice of a specific question to focus on is dictated by my current research interests. At least to me the most interesting question is whether the considerable differences between the financial and banking systems of EU member countries will remain or whether banking in Europe will converge – either to a position located somewhere between the present systems, or to a system that is in effect modelled on the Anglo-Saxon system. I therefore want to focus on the future of the typical features of banking in much of *continental* Europe. These peculiarities are, or at least have been until quite recently, the following:

- (1) Not strictly profit-oriented types of banks, such as savings banks and financial cooperatives, play an important role.
- (2) Relationship banking is the dominant or at least the most characteristic model of banking.
- (3) Universal banks are the prevailing type of banking organisations.
- (4) The main function of banks is to act as intermediaries between depositors or savers and borrowers.
- (5) Financial systems are bank-dominated and not capital market-dominated.
- (6) Finally, there are considerable "structural" differences between the financial systems of different countries in Europe.

Many competent observers in the academic world and in the banking and business community seem to be convinced these days that financial and banking systems are likely to change and also to become more similar in the near future – both worldwide and particularly in European countries. Typically, they expect all financial systems to adapt to the Anglo-Saxon type of financial system, which is capital market-dominated and in which banks still play a role, but one that is different and much more limited than their traditional role in continental Europe.<sup>6</sup>

<sup>&</sup>lt;sup>4</sup> For a different selection of aspects of the same general theme see the book by Danthine *et al.* (1999).

<sup>&</sup>lt;sup>5</sup> Relevant recent work concerning this issue is summarised in Schmidt *et al.* (2001).

<sup>&</sup>lt;sup>6</sup> See Rajan/Zingales (1999) and, with a more moderate position, Danthine *et al.* (1999) and Danthine *et al.* (2000) as important sources from the academic world. One source from the banking community, though

More specifically, these observers do not see much of a future for traditional banking in the sense of financial intermediation; for relationship banking as the dominant model of banking; for non-profit banking or more specifically, banks which are not strictly profit oriented; for the dominance of banks in the respective financial systems; and finally for important "structural" differences between national financial and banking systems.

#### 3. The structure and methodology of the paper

The attempt to shed some light on the question whether these expectations can be sustained or, in other words, whether the six peculiarities of banking in Europe listed above are likely to remain or to disappear soon, determines the structure of the paper. Before embarking on an attempt to predict the future of banking in (continental) Europe under the aspect explained and the provisos mentioned above, I take a brief look at the past and the present – or rather the quite recent past – of the financial systems of three major European economies in order to provide a basis for comparison. I will then discuss three sets of external or exogenous factors which most observers would consider to be highly relevant to the future development of banking in Europe. These factors are

- (1) deregulation and liberalisation,
- (2) dramatic advances in the field of information technology (IT), and
- (3) the progressive economic and financial integration of Europe and the advent of the Euro.<sup>7</sup>

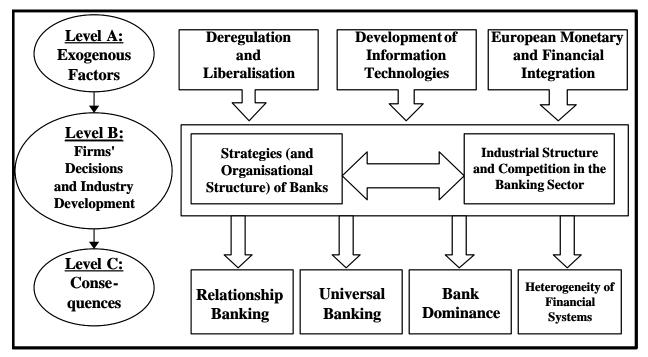
One of the main problems with predicting the future of banking in Europe consists in knowing how these exogenous factors can be linked to the "observable" specific characteristics of (continental) European financial and banking systems, which may or may not be likely to persist. As the opening paragraph tried to make clear, there seems to be only one way of establishing a relationship between them. It consists of taking into account the fact that the way in which the development of the external factors influences the observable features of the European banking system or systems, depends on the strategies chosen by the

certainly a very significant and influential one, is Rolf-E. Breuer, the CEO of Deutsche Bank. Over the years, Mr. Breuer has regularly made statements to the effect that a convergence to the Anglo-Saxon type of a financial system is to be expected. The most recent of these statements can be found in Deutsche Bank (2001). See also the collection of interviews with chief operators within the banking industry in Engler/Essinger (2000). An article by David Roche (2000) entitled "The 'Global' World is Anglo-Saxon" in the Wallstreet Journal Europe perfectly summarises this view and indicates how wide-spread it is. The opposing view that there will be a convergence towards a position which incorporates "the best features" of the Anglo-Saxon and the German financial systems can be found in OECD (1995, p. 119).

<sup>&</sup>lt;sup>7</sup> References to the relevant literature will be provided in section III.1 below

economic agents, mainly the banks themselves. But bank strategies are not the only "intermediary variable". <sup>8</sup> In addition to bank strategies, the intermediary variables also include the nature of competition in the various segments of the market for financial and banking services, and the structure of the banking industry in the individual countries and in

Europe as a whole. Thus bank strategies, competition and banking structures serve as conceptual bridges on the way from external developments to an assessment of whether the main



**Figure 1: Structure of the Argument** 

characteristics of continental European banking systems are likely to disappear or to remain.

The approach taken in this paper is therefore to outline an informal microeconomic framework or model, which is inspired by the concept of rational expectations, for the future of continental European banking. Its structure is summarised in Figure 1. Besides being informal and incomplete, this model has some additional weaknesses. Firstly, to a certain extent the intermediary variables are themselves features of banking systems which are partially observable. Secondly, they are not independent of one another. Furthermore, the lists of external factors, of intermediary variables and of observable attributes are incomplete; and last but certainly not least, our knowledge of the links between the elements is incomplete and

<sup>8</sup> The term "intermediary variable" may be unfamiliar to some readers. It corresponds to the term "intervening variable" used in the psychological literature to designate unobservable elements (such as perception or cognition) which create a (causal) link between observable inputs (stimulus) and outputs (behaviour).

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highly speculative. Nevertheless, I hope that this framework will serve the purpose of providing a conceptual structure for this paper and for answering the questions addressed in it.

#### II. The Past and "Present" of Financial Systems in Europe

National banking systems are a part of national financial systems. They can only be understood properly if one takes this "embeddedness" into account. When we study the financial systems of Germany, France and the United Kingdom (UK) as they were 15 to 20 years ago, i.e. before the wave of deregulation and liberalisation of the mid 1980s, before the start of European financial integration and before the revolutionary advances in IT of the past few years, and then look again at these three financial systems as they presented themselves in the recent past – say two years ago <sup>10</sup> – then the following picture emerges.

- 1. In the early 1980s, the German financial system was bank-dominated. Banks were very important financial intermediaries, and intermediation was the main function of the banking system. Business financing was mainly provided by banks. Banks also played a strong role in the "insider-controlled" governance systems of the large non-financial firms. Close relationships between banks and their customers or in the case of firms, "housebank relationships" were a fact. Financial markets were relatively underdeveloped. Non-bank financial intermediaries and capital markets were strongly influenced by the banks. The German banking sector was fragmented into different subsectors, and the market share of not strictly profit-oriented banks was high. The dominant, and certainly the most prominent, type of banking organisation was the integrated universal bank. It would seem that, contrary to the view conveyed in the popular and financial press, these fundamental characteristics of the German financial and banking systems did not change until very recently. <sup>11</sup>
- 2. The British financial system was the polar opposite. It was capital market-dominated. Banks played a limited role in providing long-term financing to firms. The typical bank in the UK was much more specialised than its German counterpart; bank-customer relations were "at arm's length". Bank concentration was higher, and the degree to which the banks could

<sup>9</sup> The concept of "embeddedness" goes back to Granovetter (1985), a theoretical sociologist, and plays an important role in many academic discussions of all kinds of social systems.

<sup>&</sup>lt;sup>10</sup> Limiting the considerations in this paper to the quite recent past – instead of "the present" - is motivated by the concern that the developments of the last two years are too complex to permit an assessment at present. This concern will be taken up again in the concluding section.

Surprising as it may seem, there do not exist more than a few English-language sources on the German financial system. The best-known source addressing the financial system as a whole is still Edwards/Fischer (1994). Many individual elements of the German financial system are covered extensively in Obst/Hintner (2000). For the proposition that the general character of the German financial system has not changed substantially in the past two decades, see the reference in note 5 *supra* and the articles summarised there.

rightly be called universal banks was lower than in Germany. As far as corporate governance systems are concerned, the UK had an "outsider-controlled" system, and the banks had hardly any role in it. The development of capital markets was already at that time more advanced; and non-bank financial intermediaries (NBFIs) and capital markets were much less dependent on banks than in Germany. The different roles of banks, NBFIs and capital markets, in comparison to Germany, are reflected in different levels of intermediation and different patterns of corporate finance. Again, when we look at the data referring to the late 1990s, we can recognise the same structural features. Thus the British financial and banking system has also not changed fundamentally. <sup>12</sup>

3. The case of France is more difficult, as it does not offer such a clear picture. At the beginning of the 1980s, the French financial system was strongly dominated by state influence; banks dominated the financial sector; at least the large firms were "generously" financed by banks which in turn were refinanced by central public institutions, notably "le trésor". Banking regulation was pervasive and oppressive, and irrespective of their legal status and ownership structure, banks were mainly instruments of government policy. Financial markets were *cloissonnés* and unimportant for all but the government; access to them was very restricted. All this changed drastically in the following years. The banks have lost their traditional burdens and privileges – and they have in the meantime suffered greatly from the consequences of libéralisation, banalisation, marchéisation etc. If one looks at purely quantitative measures like bank-related intermediation ratios and financing patterns, it seems that France and its financial system have made a huge step from being "more German than the Germans" – or from having a strongly bank-dominated system – to being "more British than the British". However, in contrast to British banks, which seem to know well what their specific strengths are and can exploit these strengths, it appears that French banks have at least for a long time been searching in vain for an orientation and a profitable strategy in their new environment. 13

The upshot of all of this is firstly that these three financial systems differed greatly at the beginning of the 1980s, and they were still very different at the end of the 1990s. In fact there does not seem to have been much convergence on a fundamental or structural level during

 $<sup>^{12}</sup>$  Among the best references concerning the British financial system are Buckle/Thompson (1998) and Bain (1992).

<sup>&</sup>lt;sup>13</sup> On the transformation of the French financial system in general see Bertero (1994), Faugère/Voisin (1994) and Zerah (1993), and specifically on the change of the banking system Plihon (1999).

this time span, except perhaps for the case of France.<sup>14</sup> This must come as a surprise, as the convergence of regulation in Europe, advances in IT and financial integration following the single market initiative have led many to expect that there would even be a "fundamental" convergence of the three systems.

#### III. An attempt to predict the future of banking in Europe

As indicated in the introduction, I want to present a framework or an informal model of the future of banking in continental Europe. Thus in much of what follows, I exclude the UK banking system from the set of empirical references, because it clearly represents a different type than those of continental Europe and one towards which others might develop.

#### 1. External factors and their impact on bank strategies and competition

#### a) The development of the exogenous factors

The exogenous factors and developments (level A in figure 1) which will probably continue to have an *indirect* influence on the observable peculiarities of banking in Europe (level C) and a *direct* influence on the strategies pursued by banks, on the nature of the competition in the market for banking services and on the structure of the banking industry (the intermediary variables at level B) are regulation, mainly deregulation and liberalisation, but also reregulation; advances in IT; and economic, financial and monetary integration in Europe.

Regulation: The dominant trend in the area of banking and financial regulation has been, and will continue to be in the future, that of deregulation and liberalisation. In most European countries banks are now allowed a much freer choice in the ways they conduct their business (conduct deregulation), and they may now engage in lines of business which had previously been barred to them. At the same time, others may now enter fields of economic activity which had formerly been reserved for banks (structural deregulation). Thus in terms of what they do, the distinction between banks and other financial service providers has become blurred, and this process is likely to continue. The degree to which deregulation has taken place in recent years differs greatly from country to country, which mainly reflects different degrees of restrictive regulation at the beginning of this process after 1980. 15

But there is also a trend towards substituting the old-fashioned conduct and structural regulation by other forms of regulation, notably capital requirements. These requirements are

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<sup>&</sup>lt;sup>14</sup> See Schmidt/Hackethal/Tyrell (2001) on the special case of France.

currently under discussion, and it can be safely predicted that they will change in the near future when the "new capital adequacy framework" of the Basle Committee becomes effective; European banks will certainly be affected by this development.

*Information technology*: The incredible advances in information technology and its application in banking range from the computerisation of many back-office functions to ATMs and most recently to electronic banking. One of the most important IT-related developments is that it is now technically feasible to have computerised securities trading systems with almost unlimited remote access, which is having a profound effect on the efficiency, and thus the overall attractiveness, of organised capital markets. As a result, capital markets will become deeper, more liquid and thus ultimately more attractive. This development has a historic parallel in the invention of the railroad, which reduced transportation costs, increased the size of markets and completely changed the structure of many industries. The invention of the railroad is the structure of many industries.

Financial and monetary integration: Partially as an immediate consequence of the political decision of 1986 to create a single market in Europe by the end of 1992, and partially as a consequence of its implementation, the complete mobility of capital, people and banking and many other financial services within the European Union became a reality in the early 1990s. The general model of financial integration in Europe is that of the "single passport". This concept combines minimum harmonisation, mutual recognition and home country control for banks and other important groups of financial service providers. The process of financial integration has gone a long way, but it is still not complete. By eliminating the exchange rate risk within the Euro zone, the recent introduction of the Euro as a common currency in most member countries of the EU has given this process an additional push. <sup>18</sup>

#### b) Their implications for bank strategies

The term "strategy" refers to the way in which a firm tries to establish and maintain competitive advantage. It includes many aspects, such as the determination of markets or fields of activity in which a given firm operates, its market entry and exit decisions, pricing, product design and organisational design. Strategies are a reflection of external factors and of

<sup>&</sup>lt;sup>15</sup> One of the best sources on the impact of deregulation on banking in various European countries is Gual/Neven (1993); see also Gual (1999) and Engler/Essinger (2000)

<sup>&</sup>lt;sup>16</sup> See Biais (1999) and Seiffert et al. (2000).

<sup>&</sup>lt;sup>17</sup> See Merton (1995), Mishkin/Strahan (1999) and again the interviews in Engler/Essinger (2000) on the impact of IT on banking and finance.

the competitive situation in the industry under consideration. Competition is itself the outcome of the strategies which the market participants choose and implement. Thus strategies and competition determine each other mutually and are jointly determined by external factors.

In what follows, I want to briefly sketch the likely implications of the aforementioned external factors for the strategies of banks and their main competitors. A certain overlap and, moreover, an interaction between the effects which the three external factors have on bank competition are unavoidable. In the next subsection, the arguments pertaining to competition are briefly summarised.

#### (1) Effects of (de-)regulation on bank strategies

- (a) Banks in many countries will widen the scope of products which they supply, while bank-products are now, and will probably be to a greater extent in the future, also offered by non-bank financial intermediaries. Therefore banks will face stiffer competition in the future. This will put
  - cost-containment
  - the entry into, and exit from, specific market segments, and
  - alliances, acquisitions and mergers

on the strategic agenda of all banks. Cost-containment appears possible in principle by exploiting economies of scale through internal growth and external growth via acquisitions and mergers, and by reducing branch networks, which is often a motive for horizontal mergers within countries. Market entry and exit strategies manifest themselves for instance in the attempt to leave the field of retail banking, which is considered to be unprofitable in some countries, and to enter specific areas in the broad field of investment banking.

- (b) The traditional forms of bundling together different banking products, of following integrated pricing strategies and cross-selling and cross-subsidising, which has been one of the pillars of universal banking and also of relationship banking in the past, may become less attractive or even no longer feasible as a consequence of the new forms of competition from market entrants and the increasing intensity of competition.
- (c) Strategies in the credit business are likely to change as a consequence of the new capital adequacy regulation. This new regulation will benefit large borrowers with external ratings,

<sup>&</sup>lt;sup>18</sup> As a selection from the literature on this issue, see ECB (1999), Danthine et al. (2000) and Walter/Smith

and big or network-affiliated lenders that possess sophisticated internal rating and risk-management systems, or can more easily bear the cost of setting them up. It is likely that some strictly profit-oriented banks, and particularly small profit-oriented banks, will withdraw altogether from lending to small and medium-sized businesses and non-rated firms. This opens up new opportunities for savings banks and co-operative banks, which are typically affiliated to networks and can therefore share the set-up costs of rating and risk management systems. Thus in the future banks will differ much more than during the past two decades with respect to how much, in which forms and to whom they lend.

(d) Although deregulation and liberalisation make mergers and acquisitions easier within countries and also across borders, strategies of external growth will differ greatly between banks which focus on retail banking and those which are mainly involved in investment banking.

All in all, de- and reregulation offer opportunities to gain competitive advantage by adopting differentiating strategies. <sup>19</sup> A one-size-fits-all approach, which seems to have dominated bank strategies in past decades and whose adoption may have been inspired by certain notions of "best practice", does not seem advisable for the future and will probably not shape the emerging new banking scene in Europe.

#### (2) Effects of information technology on bank strategies

The overall effects of IT-related advances are twofold: IT reduces the costs of providing banking services in general; and it changes the cost structure in such a way that fixed costs increase while variable costs decline sharply. These effects apply to banks, to non-bank financial intermediaries and to securities markets, though probably not with equal force. Banks should take these effects into account in their strategies; and the greater flexibility they now have as a consequence of recent deregulation makes it more likely that these effects are indeed incorporated into the strategies of banks in the future.

(a) The most dramatic effects of IT are probably on the internal processes and structures of banks. An obvious example is the opportunity to reduce costs by installing ATMs and concentrating and relocating back-office functions. IT also changes the balance between the centralisation and the decentralisation of decision-making authority. Decentralised decision making combined with centralised monitoring and performance measurement has become

much easier in recent years; and the full implications of this trend are yet to be seen. Banks which make full use of the potential to reduce costs and to increase flexibility are more competitive. As this applies to all or most banks, there will be more competition, to which banks will have to react by lowering their costs. This can be done by reducing staff and increasing flexibility via decentralising the organisations and trimming administrative hierarchies.

- (b) Although econometric research suggests that economies of scale or the benefits of sheer size are limited in banking in general and commercial banking in particular, one can nevertheless expect that IT-related developments increase the minimum efficient firm size in the banking industry and therefore encourage mergers in retail banking. Most of all, domestic mergers and acquisitions appear to be a way of reducing superfluous retail capacity. In spite of the failure of the recent attempted mergers between BNP and Societé Générale in France and between Deutsche Bank and Dresdner Bank and Dresdner Bank and Commerzbank in Germany, there are numerous examples of large bank mergers which have been successfully completed recently. Almost all of these have taken place within national borders, while cross border mergers of commercial banks are extremely rare. This suggests that their main motive may indeed have been to cut costs. The potential for closing costly branches would be limited in the case of a merger between Deutsche Bank and Societé Générale.
- (c) IT is changing the balance between banks, NBFIs and capital markets, i.e. banks have tended to lose ground to their competitors. Especially as far as lending to big corporations is concerned, capital markets have for quite some time been cutting into the traditional business of banks. At least for certain types of borrowers, disintermediation seems to be a reality.<sup>22</sup> Many banks are in fact reacting to this presumed trend by shifting their focus to fee-earning and investment-related services. Germany's biggest bank, the Deutsche Bank, is a good example for this strategic move. The advances which NBFIs have made during the last decade in the area of savings mobilisation, which represent a second type of disintermediation, are

<sup>19</sup> This is one of the core strategies in the classification system of Michael Porter (1980); specifically for the field of banking, see Smith/Walter (1997), Chapter 14, and Canals (1993).

For a summary of this line of research, see Berger (2000), and specifically for Europe Molyneux et al. (1996) and Berger et al. (2000).

<sup>&</sup>lt;sup>21</sup> In a recent study, the ECB (2000) reports that out of the 2,153 M&As in the banking industry in Europe between 1995 and the middle of 2000, only 16% had at least one aspect of a cross-border transaction; the rest were purely internal mergers and acquisitions.

While this applies to certain groups of former bank borrowers, notably large corporations, empirical arguments provided in Schmidt *et al.* (1999) cast doubt on the wide-spread assumption that disintermediation should a general trend. On this, see also Hackethal (2000 and 2001) and Hackethal/Schmidt (2000b).

also largely due to the fact that in the era of the Internet branch networks become less important for providing financial services than they used to be.

(d) Given that IT seems to benefit capital markets at the expense of financial intermediation, banks can react strategically by giving up territory they cannot defend anyway, such as lending to multinationals, or by withdrawing from retail banking, or by becoming allies and handsomely rewarded servants of the winning competitor, i.e. the capital market, providing capital market-related services. But there are still fields of activity in which banks retain a competitive and genuinely strategic advantage. These are quite traditional banking functions such as providing liquidity insurance, lending in difficult-to-monitor cases and providing allround advice and services. For offering these services and for serving the clients who need them and are willing to pay for them, especially small and medium-sized firms, the traditional approach of relationship banking – possibly also provided in the traditional organisational form of a universal bank – seems very well suited. 23 Banks should, and successful banks will, be able to bene fit from this strength. Furthermore, better communications technology makes it easier for banks to provide this comprehensive set of services to far-away clients. Thus it appears inappropriate to predict that the advent of IT leads to a complete "breaking up (of) the bank"<sup>24</sup> or, more precisely, of the value chains whose combination under one roof has been the hallmark of the traditional bank.

#### (3) Effects of economic, financial and monetary integration on bank strategies

Among managers of large banks and some of their professional advisers, there seems to be a widespread conviction that — in addition to the general trend towards globalisation — the "single market programme", and much more so the introduction of the Euro, have indeed already led, or will soon lead, to the emergence of one single market, in which rivalry between existing banks is so fierce that only the strongest competitors can survive. As strength is often assumed to come mainly from size, all one has to do in order to survive is to consolidate either actively or passively, that is, to acquire or to be acquired or to merge. At least in its generality, this prediction is not warranted. There is a need to differentiate between commercial and retail banking on the one side, and investment and wholesale banking on the other. The strategic implications of financial and monetary integration are different for these different lines of business. The fact that in continental Europe these different markets have

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<sup>&</sup>lt;sup>23</sup> Empirical evidence concerning the persistence of relationship banking in Germany is provided in Elsas/Krahnen (1998). See also Elsas/Krahnen (2000).

typically not been served by different groups of banks makes it a delicate task to draw practical conclusions from this general insight.<sup>25</sup>

- (a) We do not see much evidence of foreign banks' entering the retail markets of other countries through geographical expansion or cross-border mergers and acquisitions. Retail banking, which makes up the larger part of commercial banking, is a local and at best regional industry, and it is likely to remain so in spite of the Euro. Economies of scale are probably not easy to achieve in this industry, and if they are achievable, then mainly through cost reduction by eliminating branches, which is only feasible within countries. Thus cross-border consolidation is not a source of increased competition in retail commercial banking.
- (b) However, increased competition for commercial banks results from the benefits which financial and monetary integration in Europe offers for capital markets. This is a strategic threat to commercial banks, or to the commercial banking divisions of universal banks, as corporations are now in a better position to fund themselves through capital markets. The corporate bond market in Europe has seen a virtual explosion since the introduction of the Euro. Stock market activity has also increased considerably. The growing importance of securities markets may reduce the demand for bank loans by a less narrowly defined group of large corporations, and certainly makes a strategic shift of banks towards investment and wholesale banking attractive. <sup>26</sup>
- (c) An additional push in this direction comes from the fact that European integration stimulates mergers of non-financial firms. Banks will try to benefit from this business opportunity. Investment banking is to be a pan-European and in many segments even a global industry in which only "big players" can compete successfully. Some of these are American investment banks. Attempts to match their size and prowess will lead to additional mergers and acquisitions among European banks with a strong investment banking orientation and even the emergence of a "league" of big European investment-oriented banks. This trend is likely to find some support from national governments who want their "national champions" to be part of this "champions' league".
- (d) The increasing importance of investment and wholesale banking poses a strategic challenge to most banks in Europe. In the past, most banks were essentially commercial

<sup>&</sup>lt;sup>24</sup> This is the title of a book by Lowell Bryan, a consultant with McKinsey, from 1988. Similar assessments are also found in the more academically oriented literature; see e.g. Miller (1998).

<sup>&</sup>lt;sup>25</sup> One of the most competent sources on the effect of the single market and the advent of the Euro on the banking system, or banking systems, in Europe is Walter/Smith (2000). See also Danthine *et al.* (1999). <sup>26</sup> For new empirical data, which support this assessment, see ECB (2001).

banks. Now this situation is changing. At least in some banks, investment banking can no longer be treated as a useful addition to the main business, i.e. commercial banking. These banks face the difficulty that commercial (and retail) banking on the one side, and investment (and wholesale) banking on the other side require vastly different organisational designs. For instance, optimal pay structures and career paths are different for these two types of banks. Thus European integration challenges, indirectly at least, the conventional concept of a universal bank. Banks will have to decide to what extent they want to be "real" investment banks and how they adjust the rest of their business to this decision. As a consequence we are likely to see more specialisation of European banks in the future.

- (e) The deepening of European stock markets, to a large extent caused by financial integration in Europe, also leads to growing pressure on privately owned and publicly held banks to create value for their shareholders and to improve their financial performance. One can speculate that the pressure to create shareholder value might prevent some banks from undertaking mergers and acquisitions which would mainly increase the prestige and power of the top management of the respective banks.
- (f) Financial integration should make cross-border mergers and acquisitions in the banking industry easier in principle, and there are at least certain advantages to a strategy which entails elements of a pan-European expansion. Nevertheless, cross-border M&A activity in Europe has been very limited in recent years. One reason for this seems to be that the banking industry is shaped by national cultures and national idiosyncrasies. It seems highly unlikely that a "merger of equals" between two big banks from different European countries would "work". The same can be expected for straight takeovers. Alliances and other forms of cooperation might be more acceptable to the people who create value in the banks. However, their success is strongly dependent on the partners' willingness and lasting ability to respect the other partners' interests. Given the pressures under which they find themselves now, big privately owned and publicly traded banks and their top managers may not find that easy, and are therefore not likely to restrict their desire to dominate their foreign partners. <sup>28</sup> In this respect, not strictly profit-oriented banks might be in a better position; they may appear to be, and indeed may really be, more reliable partners in pan-European alliances.

<sup>27</sup> As of early 2001, the general organisational structure of the three traditional German *Grossbanken* has been adjusted in such a way that a divisional structure has replaced the older client-oriented structures. This tends to make German banks more similar to British banks which have for a long time been organised similarly.

<sup>&</sup>lt;sup>28</sup> The implicit allusion to the Daimler-Chrysler case is not accidental, see Der Spiegel from 26.2.2001.

In summing up, one can say that the effects of financial and monetary integration are different for mainly retail-oriented commercial banks than for more wholesale-oriented banks or for primarily investment banks. We are not likely to see a fully integrated European banking market except for wholesale (and) investment banking.<sup>29</sup>

#### c) Implications for competition

In the last subsection, three external factors were discussed at some length in an attempt to describe their isolated impact on the strategies of banks. Obviously, though, the three exogenous, or external, factors are interdependent in their influence on bank strategies. Therefore, a logical next step would be to analyse how these factors interact in shaping bank strategies. At the moment there does not seem to be enough theoretical and empirical research evidence to permit more than the "informed guess" that the three factors tend to reinforce each other in terms of what they imply for bank strategies.

One implication of the three external factors and their interaction is that we can expect competition in banking to intensify in the near future as a general tendency. Competition between existing competitors is likely to become stronger, mainly because of the effects of IT on the cost structures of banks. The efforts of banks to spread their higher fixed costs over a larger volume of business will induce them to compete for market shares, and this typically leads to a general pressure on bank profitability. Non-banks and near-banks and organised capital markets are likely to enter markets which were formerly reserved for banks of a given country. Market entry of various types of new competitors from other countries has now become at least a realistic possibility.

The strategic implications of this for an individual bank are very specific to the situation of the bank. All one can say on a general level is that each bank must react to the increasing competitive pressure by selecting very carefully the fields of activity it wants to be involved in the future, and then by adapting all of its internal processes and structures to the requirements of the market segment or segments in which it wants to compete. These segments can be defined by type of service provided, by type of client, and by geographic scope. Given that, obviously, not all banks will select similar strategies, we are likely to see more specialisation of banks in the future. Some will become mainly investment banks, some will remain mainly commercial banks; some will have a local or regional focus, while others will have a broader geographic outreach. Clearly, the strategic selection of product focus,

<sup>29</sup> This is also the view expressed and supported at great length in Walter/Smith (2000).

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client focus and geographical scope has to take into account that some combinations are less attractive than others. It would be nice to be able to make general statements concerning the nature of competition in the commercial banking and the investment banking segments. But this is not possible; for such a statement, the broad categories of commercial and investment banking would have to be broken down into much smaller segments.

There is a counterforce to the trend of increasing competitive pressure. The strategic reaction of individual banks to the increased competition can be twofold. Banks can try to gain a competitive advantage by growth, including mergers and acquisitions, in order to exploit economies of scale; or alternatively they can specialise in certain market segments. Given that economies of scale are difficult to achieve and that cross-border mergers and acquisitions may be very difficult to negotiate, and even more difficult to implement successfully, the specialisation alternative would seem to have a lot in its favour. If many banks decide to specialise more in the future, this will reduce the number of competitors in most market segments; and to the extent that competitive pressure is a function of the number of market participants, the widespread adoption of strategies emphasising specialisation could counter the competition-increasing forces listed above. However, in banking the relationship between the number of competitors and the intensity of competition is ambiguous. It is therefore impossible to state with precision whether the intensity of competition will generally increase in the future. Nevertheless, as a general tendency this appears highly likely.

Even though I have not been able to provide a detailed analysis of the competition in the various parts of the market for banking services, it seems to me that the considerations about bank strategies presented above are not inconsistent with the sketch in this subsection: the strategic implications of the external factors do not need to be completely rewritten when one takes into account that the strategies of banks must also be a function of the prevailing and expected competitive situation, which is itself an outgrowth of the strategies adopted by the banks.

#### 2. The development of banking structure(s) in Europe

There will be a process of consolidation in European banking. The number of banks will go down. Some banks will be unable to adapt and therefore simply disappear, be bought or merge. Whether this also implies a higher level of concentration depends on the specific market segment and the extent of new market entry into this segment.

#### a) The future of different segments of the banking market

(1) Commercial and retail banking: It seems safe to expect that, mainly as a consequence of IT and of the declining importance of traditional lending to corporations, concentration in national retail markets will go up. But it is unclear how far this process of consolidation and concentration will go. National peculiarities are strong in this area. It is hard to measure and to compare concentration levels between countries because of the different roles of the network-affiliated savings and co-operative banks in different countries. Not least because of these networks, which are traditionally important in Europe, the patterns of consolidation and concentration will differ greatly between countries. As explained above, large privately owned listed banks with a clear international focus might decide to leave the retail market. The example of Deutsche Bank and Dresdrer Bank supports this proposition. But big British banks are moving in precisely the opposite direction. Smaller privately owned banks can be expected to reduce their lending activity or even to give it up completely. Many of them have already taken this step.

As market entry by foreign banks is relatively unlikely in the retail market, the commercial and retail banking markets of the individual countries will in the future still be relatively closed to foreign market entrants and more concentrated than in the past. They will be dominated by a small group of banks or bank networks. Even though banks which are not strictly profit-oriented may be successful in building up transnational pan-European networks, the European market for retail banking will remain a patchwork of national markets.

(2) Investment banking: In several subcategories of investment banking, international focus and size are important, because size helps to attract high-calibre staff and to establish and use reputation. Both of these arguments also suggest that it is attractive for an investment banking firm to cover several areas in which valuable human capital and reputational capital can be used. As far as the relationship with customers is concerned, national borders are relatively unimportant for most parts of the investment banking business. We will therefore see an increasing trend towards concentration and consolidation in the investment banking industry on a European level. For reasons which are internal to the banking organisations it appears plausible that those European banks which will be successful in this market will still retain a distinct national identity. As the number of truly big banks in Europe (with a national flavour) is probably not great we might see the market dominated by one or two big financial institutions from each country. However some highly specialised small "boutiques" with a good reputation will be able to defend their positions.

#### b) The future of different types of banks

(1) Big banks: One of the interesting questions about a new banking structure is which role the really big national banks will play in the future. Today, most of them are national universal banks providing a large array of services to many groups of clients. In the past, some of them seem to have envisaged playing a similar role in several countries, that is, becoming truly European universal banks. But this now seems to be neither achievable nor attractive. <sup>30</sup> The costs of internal growth would simply be too high even for the largest banks; external growth seems very difficult because national banking cultures differ too much, and the benefits of being present in all market segments do not seem sufficiently great. So what we can expect to see is a number of big national banks which will remain universal banks in their home countries and at the same time pursue selective strategies in other countries, such as concentrating on specific businesses or specific types of client. Their number will probably decrease further as a consequence of domestic mergers.

(2) Not strictly profit-oriented banks: Co-operative and savings banks have in the past played an important role in many European banking systems. It is therefore natural to ask whether they will be able to maintain their positions in a future European banking system. 31 The prospects appear good for various reasons. One is that at least in some countries the big privately owned commercial banks are retreating from the domain in which the co-operative and savings banks have their strongest position, namely the local and regional retail market. The business clients of co-operative and savings banks are not likely to migrate to the capital markets. The networks to which these banks belong provide a balanced mixture of scale and flexibility and enable them to defend their traditional turf without having to forgo the opportunities which the recent developments of deregulation, IT and financial integration might offer them. They might even be particularly well placed to benefit from the option of financial integration. As was explained above, their tradition of being part of networks or federations and the limited performance pressure to which they are exposed because of their specific ownership and governance structures may make them more trustworthy partners in pan-European alliances than big, acquisition-hungry, strictly profit-oriented banks. However, whether the co-operative and savings banks can exploit this potential is open to question because of their unclear and, at least in the view of some observers, deficient ownership and governance systems. Moreover there is at least a possibility that the European Commission

<sup>&</sup>lt;sup>30</sup> See Büschgen (1993) and various contributions in Saunders/Walter (1996).

<sup>&</sup>lt;sup>31</sup> See White (1998) for empirical data, and the theoretical argument in Allen/Gale (2000) Chapter 3.

will break up the governmental support and ownership of these institutions. It is too early to say what this would imply for the savings banks; the answer will largely depend on the strategies chosen the big banks. If they withdraw from the retail market, as some big German banks seem to be contemplating, then the prospects for semi-privatised savings banks could remain good.

#### IV. Is banking in Europe likely to retain its specific features in the future?

In the introduction, six features were listed which are at least to a certain extent specific to the banking and financial systems of continental Europe. As was said there, many competent observers claim that in the process of modernisation and integration, these features might be lost and that, moreover, the banking and financial systems in continental Europe are likely to converge to the Anglo-Saxon type of financial and banking system.

The question which this paper addresses is whether these expectations are correct. In this final section, an answer is sketched. The results of the preceding analysis will prove useful for this undertaking. However, they are certainly not sufficient and must be combined with additional considerations. It also should not be forgotten that history plays an important role in shaping economic phenomena such as banking systems.

#### (1) The important role played by not strictly profit-oriented types of banks

In the past and at present savings banks and co-operative banks play an important role in the banking systems of many European countries, and they clearly differ from other banks. The analysis shows that co-operative and savings banks are not likely to be eliminated by market pressures for various reasons. Their specific feature of not being strictly profit-oriented even has some advantages in the new environment. They can benefit from the retreat of other banks from the segment of retail banking; and they could generate successful pan-European alliances in the future. This assessment can be supported by empirical evidence which shows that these banks have survived the recent turmoil in financial markets better than many private banks. There are theoretical considerations which would have led to predictions that this would be the case.<sup>32</sup>

#### (2) Relationship banking as the dominant mode of banking

Relationship banking will remain an important feature of banking in Europe. But it is questionable whether it will remain the dominant model for all companies. Big and even not-

<sup>&</sup>lt;sup>32</sup> See Allen/Gale (2000), Chapter 6.

so-big corporations have begun to use capital markets to a much larger extent than they used to, and many banks have shifted to investment banking. In this context, the scope for relationship banking is limited. Relationship banking will remain important or even increase its importance for small and medium-sized firms and thus also for the savings and cooperative banks which will specialise, to an even greater extent than they have in the past, in serving these clients if, or because, private banks turn away from them.<sup>33</sup>

#### (3) Universal banks as the prevailing type of banking organisations

In the past, the term universal bank was used in a broad sense to designate a bank which provides *all* kinds of banking services to *all* kinds of clients. Universal banks in this sense may continue to exist, but they are certainly no longer the prevailing form of banks even within national banking systems. The need to specialise is so great that banks will not want to remain universal banks in this broad sense. *A fortiori*, we will not have universal banks of this type covering several European countries. However, one can also speak of universal banks in the sense of banks which provide many services to *specific* groups of clients. Universal banks in this narrower sense are here to stay and may even gain in importance in catering for specific, but economically important, groups of clients such as small and medium-sized firms. They are the appropriate organisational form for relationship banking.<sup>34</sup>

## (4) The important role played by traditional banking and. bank-based financial intermediation

Financial intermediation, i.e. the combination of deposit mobilisation and lending, was once the essence of banking. The decline of financial intermediation in general and by banks in particular has been predicted for quite some time. Recent empirical research indicates that this prediction was wrong at least until the late 1990s and as far as the entire financial system of a country is concerned.<sup>35</sup> Bank intermediation ratios have remained stable in many large industrial countries, notably Germany and the UK. However, this might well have changed recently. The growth of securities market activity in the years 1999 and 2000 points in this direction; and some banks, in particular some big private banks, are eager to react to this situation by curtailing their involvement in traditional banking operations. But I do not expect this to be a general tendency.

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<sup>&</sup>lt;sup>33</sup> See also Canals (1993) and the empirical support in the references provided in note 23 *supra*.

<sup>&</sup>lt;sup>34</sup> For similar assessments see Walter (1997) and Doerig (1996).

<sup>&</sup>lt;sup>35</sup> See the references in note 24 *supra*.

# (5) The dominance of banks, as opposed to capital markets, in the respective national financial systems

The importance of banks relative to capital markets will decline in the future. However, this does not imply that the financial systems in continental European countries will soon change their general character and become capital market-dominated. Whether a financial system can be considered bank- or capital market-dominated depends on many more aspects than merely the level of capital market activity. I do not have the space to describe the other aspects here, but if I did, my description would not support the proposition that the financial systems of continental Europe are on their way to becoming capital market-dominated. In spite of all the changes, banks seem able to maintain their strategic position in a financial system if this position has traditionally been strong. Bank dominance might however disappear in countries like France, in which the formerly strong, or even dominant, role of banks was mainly a consequence of regulation and government policy. <sup>36</sup>

#### (6) Considerable differences between the financial systems of different countries

Even though the banking system in Europe will remain fragmented along national lines to a certain extent, banking markets and even capital markets are in the process of becoming more and more integrated. However, this alone will not eliminate the profound or "structural" differences which still exist between some financial systems in Europe. A financial system is a configuration of several elements which complement each other. This feature makes coherent financial systems resistant to "structural" change and thus also to forces which could be assumed to lead to a *gradual* convergence. Increasing similarity with respect to one or a few elements is not sufficient to change the fundamental structure of a given financial system and therefore does not lead to a convergence of entire financial systems. However, it is an open question whether the recent and the foreseeable developments mainly in the years 1999 and 2000, the era of the stock market rally and the new issues wave in many European countries including Germany, are important enough to undermine the coherence of the individual financial systems in Europe and thereby destabilise them, and whether they will converge after having been "sufficiently destabilised". <sup>37</sup>

#### References

<sup>36</sup> See Schmidt et al. (2001).

<sup>&</sup>lt;sup>37</sup> See Hackethal/Schmidt (2000a) and Schmidt/Spindler (2001).

- Allen, F/Gale, D. (2000): Comparing Financial Systems, Cambridge
- Bain, A.D. (1992): The Financial System, 2<sup>nd</sup> ed., Oxford
- Berger, A. (2000): The Integration of the Financial Services Industry: Where are the Efficiencies? Board of Governors of the Federal Reserve System, Working Paper
- Berger, A./De Young, R./Udell, G. ((2000): Efficiency Barriers to the Consolidation of the European Financial Services Industry, Board of Governors of the Federal Reserve System, Working Paper
- Bertero E. (1994): The Banking System, Financial Markets, and Capital Structure: New Evidence from France, in: Oxford Review of Economic Policy, No.10, pp. 42-54
- Biais, B. (1999): European Stock Markets and European Unification, in: J. Dermine, P. Hillion, (eds.), European Capital Markets with a Single Currency, Oxford, pp. 236-262
- Bryan, I. L. (1988): Breaking Up the Bank, New York
- Buckle, M./Thompson, J. (1998): The UK Financial System, Manchester
- Büschgen, H.-E. (1993): Geld und Banken nach dem Zweiten Weltkrieg: Internationale Kapitalbewegungen, Bankensysteme, grenzüberschreitende Kooperation, in: H. Pohl (ed.), Europäische Bankengeschichte, Frankfurt/M., pp. 535-481
- Canals, J. (1993): Competitive Strategies in European Banking, Oxford
- Danthine, J.-P./Giavazzi, F./Vives, X,/Von Thadden, E.-L. (1999): The Future of European Banking, CEPR London
- Danthine, J.-P./Giavazzi, F./Von Thadden, E.-L. (2000): European Financial Markets after EMU: A First Assessment, London, CEPR-Working Paper No. 2413
- Der Spiegel (2001): Der Drei-Welten-Konzern, der Spiegel v. 26.2.2001, pp.
- Doerig, H.-U. (1996): Universalbank: Banktypus der Zukunft, Bern
- ECB (1999): Possible Effects of EMU on the EU Banking Systems in the Medium to Long Term. Frank furt/M.
- ECB (2000): Mergers and Acquisitions Involving the EU Banking Industry Facts and Implications, Frankfurt/M.
- ECB (2001): Characteristics of Corporate Finance in the Euro Area, ECB Monthly Bulletin, February 2001 Frankfurt/M., pp. 37-50
- Edwards, J./Fischer, K. (1994) Banks, Finance and Investment in Germany, London et al.
- Elsas, R./Krahnen, J.P. (1998): Is Relationship Lending Special? Evidence from Credit-File Data in Germany, in: Journal of Banking and Finance, Vol. 22, pp. 1283-1316
- Elsas, R./Krahnen, J.P. (2000): Collateral, Default Risk, and Relationship Lending: An Empirical study on Financial Contracting, Working Paper, Center for Financial Studies, Frankfurt (forthcoming in: Journal of Banking and Finance, Vol. 25)
- Engler, H./Essinger, J. (2000): The Future of Banking, London
- Faugère, J.-P./Voisin, C. (1994): Le système finançier français, Paris

- Granovetter, M.(1985): Economic Action and Social Structure: The Problem of Embeddeness, in: American Journal of Sociology, Vol. 91. pp. 481-510
- Gual, J./Neven, D. (1993): Deregulation of the European Banking Industry, in: European Economy/Social Europe, No. 3, pp. 151-183
- Gual, J. (1999): Deregulation, Integration and Market Structure in European Banking, University of Navarra, Working Paper
- Hackethal, A. (2000): Banken, Unternehmensfinanzierung und Finanzsysteme, Frankfurt/M.
- Hackethal, A./Schmidt, R. H. (2000a): Finanzsystem und Komplementarität, in: Beihefte zu Kredit und Kapital, No. 15: Finanzmärkte im Umbruch, pp. 53-102
- Hackethal, A./Schmidt, R. H. (2000b): Financing Patterns: Measurement Concepts and Empirical Results, University of Frankfurt, Working Paper Series: Finance and Accounting, No. 33
- Hackethal, A./Tyrell, M. (1999): Complementarity and Financial Systems, University of Frankfurt, Working Paper Series: Finance and Accounting, No. 10
- Merton, R.C. (1995): Financial Regulation and the Management of Financial Institutions, in: Journal of Banking and Finance, Vol. 19, pp. 461-482
- Miller, G.P. (1998): The Obsolescence of Commercial Banking, in: Journal of Institutional and Theoretical Economics, Vol. 154, pp. 61-73
- Mishkin, F.S./Strahan, P.E. (1999): What Will Technology Do to Financial Structure? Brookings-Wharton Papers on Financial Services (Washington/Philadelphia), pp 249-287
- Molyneux, P./Altunbas, Y./Gardener, E. (1996): Efficiency in European Banking, New York
- Obst, G./Hintner, H. (2000): Geld, Bank- und Börsenwesen, 40<sup>th</sup> ed., J. von Hagen and J.H. von Stein (eds.), Stuttgart
- OECD (1995): National Systems for Financing Innovation, Paris
- Plihon, D. (1999): Les banques nouveaux enjeux, nouvelles stratégies, rev. ed. Paris
- Porter, M.C. (1980): Competitive Strategy, New York
- Rajan, R.G./Zingales, L. (1999): The Politics of Financial Development, University of Chicago, Working Paper
- Roche, D. (2000): The 'Global' World is Anglo-Saxon; Wall Street Journal Europe, 05.01.2000
- Saunders, A./Walter, I. (1996): Universal Banking Financial System Design Reconsidered, Chicago
- Schmidt, R.H. (2001): Differences between Financial Systems in European Countries: Consequences for EMU, in: Deutsche Bundesbank (ed.), The Monetary Transmission Process: Recent Developments and Lessons for Europe, London (in print)
- Schmidt, R.H./Grohs, S. (2000): Angleichung der Unternehmensverfassung in Europa ein Forschungsprogramm, in: St. Grundmann (ed.), Systembildung und Systemlücken in Kerngebieten des Europäischen Privatrechts, Tübingen, pp. 145-188

- Schmidt, R.H./Hackethal, A./Tyrell, M. (1999): Disintermediation and the Role of Banks, in: Journal of Financial Intermediation, Vol. 8, pp. 36-67
- Schmidt, R.H./Hackethal, A./Tyrell, M. (2001): Angleichung der Finanzsysteme in Europa Hauptergebnisse des DFG-Projektes, mimeo, (forthcoming in special issue of Zeitschrift für betriebswirtschaftliche Forschung)
- Schmidt, R.H./Spindler, G. (2001): Path Dependence, Corporate Governance and Complementarity, forthcoming in: Gordon, J./Roe, M. (eds.), Convergence and Persistence of Corporate Governance Systems, Chicago
- Smith, R./Walter, I. (1997): Global Banking, New York
- The Economist (2000): Bidding for the Future, Issue from February 12.-18., pp.75-78
- White (1998): The Coming Transformation of European Banking; Basle BIS Working Paper No. 54
- Walter, I. (1997): Universal banking: A Shareholder Value Perspective, in: Finanzmarkt und Portfolio Management, Vol. 11, pp. 14-34
- Walter, I./Smith, R. (2000): High Finance in the Euro-Zone: Competing in the New European Capital Market, New York/London
- Zerah, Dov (1993): Le Systéme finançier français: Dix ans de mutation, Paris