

# Regulation and Competition Policy in the Banking Sector\*

Elena Carletti and Xavier Vives\*

August 2008

## Abstract

The banking sector has long been exempted from the application of competition policy because of the potential trade-off between competition and stability. In this paper we review the academic literature on this issue, we describe the design of competition policy in Europe and its application in the EU in the last two decades. The analysis highlights that competition policy is now taken seriously in the financial sector. The European Commission has by now investigated mergers, cartels, abuses, and state aids in this sector, and it has taken some landmark decisions. Still, much remains to be done in terms of academic research and of the role that the European Commission can play in fostering competition in banking in Europe.

---

\* Prepared for the Public-Private Research Center IESE Business School Conference “Fifty years of the Treaty: Assessment and Perspectives of Competition Policy in Europe,” November 19-20, 2007, Barcelona. We thank Arnoud Boot and Nicholas Veron for very helpful comments, and Mireia Raluy and Radomir Todorov for excellent research assistance.

\* **Corresponding addresses:** Elena Carletti, Center for Financial Studies, University of Frankfurt, Mertostrasse 17-21, 60325 Frankfurt, Germany, email: [carletti@ifk-cfs.de](mailto:carletti@ifk-cfs.de); Xavier Vives: IESE Business School, Av. Pearson, 21, 08034 Barcelona, Spain, email: [xvives@iese.edu](mailto:xvives@iese.edu).

## 1. Introduction

The banking sector, and the whole financial sector more generally, is one of the most regulated sectors of the economy because of reasons linked to systemic risk and consumer protection. In most countries its regulation dates back to well before the introduction of competition policy. Given this peculiarity and the idea that competition is detrimental to stability, competition in the banking sector was basically suppressed until financial market liberalization started in the US in the 1970s and continued later on in Europe. Since the beginning of the liberalization process, several important banking crises have occurred (in diverse places like the US (S&Ls), Scandinavia, Spain, and the recent one derived from the subprime crisis).

Special provisions in the application of competition policy to the banking sector remained also long after the start of the liberalization process. For example, until December 2005 competition policy was applied in Italy by the central bank rather than by the competition authority. Similarly, in the Netherlands the banking sector was exempted by competition policy until 2000, two years later than the other sectors. In contrast, neither the European Treaty nor the merger regulation include special provisions for banking, with the only exception of the provision of art. 21 of the merger regulation that leaves Member States the possibility to protect legitimate interests such as prudential control. The important question –which we address in this paper– is to which extent competition policy has been applied in practice, and how competition policy has affected the development of regulation and the stability of the sector.

Several aspects can make competition policy prominent in banking. Indeed, the banking sector is important because of its weight in the economy and because it is crucial to provide finance to firms. Financial firms often need to collaborate (e.g. in payment systems) and this may raise competition issues. Finally, there are concerns that the implementation of the single financial market in the EU is being slow and that this may hinder competition.<sup>1</sup>

---

<sup>1</sup> Competition problems may also arise in trading, securities services and the organization of exchanges. Those, however, are out of the scope of the present paper.

The paper starts with a brief review of the academic literature on competition and stability in banking, discussing the rationale for regulating the banking sector in Section 2, the competitive mechanisms specific to the sector in Section 3, and the potential trade-off between competition and stability in Section 4. The discussion highlights how the literature is moving away from the traditional view that competition hurts stability. However, results are still too inconclusive to generate clear policy implications except for the need to enforce competition policy in banking.

After doing that, the paper describes the normative arrangements of competition policy in the banking sector in Europe in Section 5; and in Section 6 it reviews the most important cases analyzed by the Commission in the financial sector. Given the structure of the financial sector across Europe, mergers and cartels have played so far a much greater role. We first describe the evolution of the concentration process in Section 6.1 and then look in Section 6.2 at cases which involved conflicts between the Commission and the Member States. Concerning cartels we review in Section 6.3 the so-called “Lombard Club” in Austria, various cases involving Visa International and the recent examination against the Groupement des Cartes Bancaires. Then, in Section 6.4 we move to the description of the case of abuse of dominance position investigated by the Commission against Clearstream. Finally in Section 6.5 we turn to state aid, and describe the two important cases of Credit Lyonnais and of the capital transfers to the German Landesbanken in the early 80s. It is in the area of state aid that stability and competition considerations come directly into play and restructuring of banks in financial difficulties assumes a special connotation. Before concluding we turn in Section 7 to the issues of financial integration and current developments in financial regulation and supervision, and describe the main results of the enquiries that the Commission conducted in the financial sector.

Several messages are derived in Section 8. In line with the developments in the academic literature, it emerges that competition policy is now taken seriously in the financial

sector. The European Commission has by now examined cases in all areas of antitrust and has adopted important, landmark decisions. It has opposed anticompetitive mergers and has contrasted the attempt to pursue national protectionism by certain Member States as well as forms of cooperation in pricing schemes and in credit card systems. Also, the Commission has underlined how regulatory measures imposing for example minimum capital requirements cannot justify the granting of state aid to financial institutions if they entail distortions of competition. In this sense, the Commission has opposed both anticompetitive behavior and protectionism that in many cases is encouraged directly by national regulators or governmental authorities.

Still much remains to be understood in terms of the relation and balance between competition and stability. The concern that regulation can act as a barrier to competition and the difficulty of understanding the working of competition in a highly regulated environment where economic aspects like asymmetric information, switching costs and network externalities are present needs both further research and special attention in the application of competition policy.

## **2. Regulation in the banking sector: Rationale and instruments**

It is well known that banks are special because they are more vulnerable to instability than firms in other sectors, and because people hold a non-negligible share of their wealth in bank deposits.<sup>2</sup> Instability can originate from the liability side or the asset side of banks. The former is related to runs and systemic crises; the latter to the excessive risk that banks can take in their investment decisions because of the high leverage and opaque assets. This is particularly the case when deposits are insured, because deposit rates are insensitive to banks' risk exposure.

Runs can be related to panics or arise from fundamentals. As shown by Diamond and Dybvig (1983), panic bank runs are random events linked to self-fulfilling prophecies. Given the assumption of first-come-first-served and the low liquidation value of the long

---

<sup>2</sup> See Carletti (2008) and Carletti and Hartmann (2002) for a review of the issues discussed in Sections 2-4.

term assets, there are multiple equilibria. If all depositors believe that a panic will not occur, only the consumers in need of early consumption withdraw their funds and their demands are satisfied. In contrast, if depositors believe a crisis will occur, all of them rush to avoid being last in the line. Which of these two equilibria occurs depends on extraneous variables or “sunspots”. Although sunspots have no effect on the real data of the economy, they affect depositors' beliefs in a way that turns out to be self-fulfilling.

The key issue in the panic approach is the equilibrium selection. There is no real account of what triggers a crisis. This is particularly a problem for policy analysis. Ways to get around the multiplicity of equilibria are suggested by Postlewaite and Vives (1987), and, more recently, by Rochet and Vives (2004) and Goldstein and Pauzner (2005), who use the techniques of global games to generate a unique equilibrium.

The fundamental view of bank runs asserts that crises are linked to the business cycle (e.g., Gorton, 1988). When the economy goes into recession, the returns on bank assets will be low. If depositors receive information about the impending downturn, they anticipate banks' financial difficulties and try to withdraw their funds early. Given their liabilities are fixed, banks may be unable to remain solvent. Thus, crises are a response to unfolding economic circumstances.

Runs may trigger a systemic crisis. The propagation, or contagion, can occur through the interbank market, the payment system or through asset prices. The latter may lead to contagion also across different sectors, as shown in Allen and Carletti (2006, 2008) in a context where markets are incomplete and asset prices are determined by the available liquidity or in other words by the “cash in the market”.

Systemic risk and consumer protection are the main rationales for the introduction of safety net arrangements in the form of deposit insurance and lender of last resort. Deposit insurance prevents the occurrence of panic runs while maintaining banks' ability to provide liquidity insurance (Diamond and Dybvig, 1983).

The issue of the optimal form of central bank intervention has long been debated. According to the "classic" view (Bagehot, 1873), central banks should lend freely at a penalty rate and against good collateral. This should guarantee that the lender of last resort (LOLR) is only used for illiquid banks and in emergency circumstances. In practice, however, it is difficult, even for central banks, to distinguish illiquidity from insolvency. Banks in need of LOLR are under a suspicion of insolvency since they could otherwise raise funds from the market. As long as markets are sufficient to deal with systemic liquidity crises, there should be no need for central bank's loans to individual banks. However, the interbank market may fail, as it has happened in the recent subprime crisis and then help to individual banks makes sense (as explained in Rochet and Vives, 2004).

A related aspect in this debate concerns the potential negative effects of the safety net arrangements. The main argument is that they worsen the problem of excessive risk taking and call for further regulatory measures in the form, for example, of minimum capital requirements. Moreover, the form of central bank intervention is important for competition policy. Direct subsidies or bailouts of financial institutions fall into the category of state aid and have a direct impact on the application of competition policy to the banking sector.

### **3. Competition in the banking sector**

Analyzing competition in the banking sector is quite complicated. On the one hand, the standard competitive paradigm does not work because of features like asymmetric information in corporate relationships, switching costs and networks in retail banking. On the other hand, some banks' specificities, like the fact that they compete for loans and deposits, can lead to departures from the competitive outcome as banks may want to corner one market to achieve monopoly in the other.

Broecker (1990) analyzes how competition in the credit market affects the screening of borrowers by banks when borrowers are of heterogeneous quality and screening tests are imperfect. The main result is that competition worsens the "winner's curse" problem as a

higher loan rate tends to worsen the quality of firms accepting the loan. Increasing the number of banks reduces firms' average credit-worthiness and raises the probability that a bank does not grant any loan. In the limit, the equilibrium maintains some degree of oligopolistic competition. The lower quality of borrowers as competition increases implies also an increase of loan rates to compensate for the higher portfolio risk (Marquez, 2002); but not when information acquisition is endogenous, since in this case banks acquire information to soften competition and more competition reduces the winner's curse problem (Hauswald and Marquez, 2006). The presence of adverse selection affects also the structure of the industry, as it generates endogenous entry barriers and leads to equilibria with blockaded entry, where only a finite number of banks is active (Dell'Ariscia et al., 1999; Dell'Ariscia, 2001).

Switching costs are an important source of market power in retail banking. In moving from one bank to another, consumers incur costs associated with the physical change of accounts, bill payments or lack of information (Vives, 2001a). The competitive effects of switching costs are twofold. On the one hand, they lead to the exercise of market power once banks have established a customer base which remains locked in. On the other hand, they induce fierce competition to enlarge the customer base. Thus, switching costs may lead banks to offer high deposit rates initially to attract customers and to reduce them subsequently, when consumers are locked in. Different results may however be obtained when switching costs are combined with asymmetric information about borrowers' credit-worthiness (Bouckaert and Degryse; 2004).

Finally, the presence of networks also affects the degree of competition as it introduces elements of non-price competition in the interaction among banks. For example, the possibility for banks of sharing Automatic Teller Machine (ATM) networks can be used as strategic variable to affect price competition on the deposit market and foreclose any potential entrant (Matutes and Padilla, 1994). A similar conclusion can be reached in frameworks where banks decide to offer remote access to their customers, such as postal or telephone services, in order to introduce vertical differentiation between banks and reduce the degree of horizontal differentiation (Degryse, 1996).

One important final note is that competition in networks can also be analyzed in two-sided markets. Rochet and Tirole (2002) analyze this issue in the context of credit card associations, where customers' banks and merchants have market power, and consumers and merchants decide rationally whether to buy or accept credit cards. As in the ATM literature, merchants can use card acceptance to increase customer base and relax price competition. Differently from the ATM literature, however, the system has to attract two sides of the market, i.e., issuers and acquirers, merchants and consumers. Thus, changes in interchange fees and prices affect the relative price structure of the two sides with important consequences on the equilibrium outcome.

In summary, competition in banking is imperfect and there are many frictions and barriers to entry which may generate rents.<sup>3</sup> In retail banking switching costs for customers are very important; and reputation and branch networks act as entry barriers. In corporate banking established relationships and asymmetric information are relevant frictions that explain why the market for small and medium sized firms remains local. Electronic banking pushes in the direction of contestability, but it is also subject to exogenous and endogenous switching costs. In other segments of banking, like wholesale and investment banking, competition is at the international level and may be fierce.<sup>4</sup>

#### **4. Competition and stability: A real trade off?**

The analysis of the potential trade-off between competition and stability has gained significant importance in the academic literature in the last decade. Despite this, the results are still not completely conclusive.

Some studies have shown that coordination failures and panic runs can occur independently of the degree of competition in the market. In a model with elements of product differentiation, network externalities and possibility of bank failures, Matutes and Vives (1996) show that depositors have self-fulfilling perceptions of banks' success

---

<sup>3</sup> Degryse and Ongena (2008) provide evidence of those rents.

<sup>4</sup> See Vives (2001a,b).



probabilities that lead to multiple equilibria. One equilibrium sees no banks being active. This is due to a coordination problem among depositors, which occurs irrespectively of the degree of competition in the deposit market. However, by raising deposit rates, more competition may exacerbate the coordination problem among depositors. As in Diamond and Dybvig (1983), deposit insurance eliminates the non-banking equilibrium and stabilizes the system, but it is not always welfare-enhancing.

Following the empirically findings in Keeley (1990) of a negative effect of higher charter values on risk taking, the theoretical literature has initially stressed how competition worsens banks' incentives to take risk (e.g., Allen and Gale, 2004) and how regulation can help in mitigating this perverse link (e.g., Hellmann et al., 2000; Matutes and Vives, 2000). The general idea is that greater competition reduces banks' charter values (or rents available to shareholders and/or managers). This increases the attractiveness of the gains from taking risks, and therefore the incentives to exploit the non-convexity in banks' payoff functions.

This result implies the need of regulating the banking system to limit the adverse consequences of intense competition and achieve stability. One possibility is to limit competition directly through ceilings on interest rates or limits on entry. Another possibility is to design regulation so to "correct" the negative effects of competition on banks' risk taking. Risk-adjusted deposit insurance premia or appropriate capital requirements may be sufficient for this purpose, even though, depending on the circumstances, they may need to be complemented by interest rate ceilings or entry restrictions (Matutes and Vives, 2000).

Although the view of a detrimental relationship between competition and stability remains pervasive, some recent studies have suggested that such a relationship needs not be robust. For example, when entrepreneurs –and not banks– choose the risk of the investment project, greater competition in the loan market reduces entrepreneurs' incentives to take risks, thus implying also safer portfolios for banks (Boyd and De Nicoló, 2005; and also Caminal and Matutes, 2002). If competition has an ambiguous

effect on stability, the role of regulation needs rethinking. Boot and Marinc (2007) analyze the impact of capital regulation on entry and bank monitoring. The main insight of the analysis is that when banks are heterogeneous in quality and compete for market share, increasing capital requirements leads to more entry into banking. Competition improves the monitoring incentives of better quality banks and deteriorates the incentives for lower quality banks.

All in all it seems plausible to expect that, once a certain threshold is reached, an increase in the level of competition will tend to increase risk-taking incentives and the probability of bank failure. This tendency may be contained by reputational concerns, by the presence of private costs of failure of managers or by regulation. Constraining regulation may be particularly important for institutions that have run into trouble, their margins being severely eroded, and develop an incentive to use “gambling for resurrection” strategies. In any case the question remains open as to what degree of market power should be allowed in banking. Competition policy should be enforced in banking as the exercise of market power may be very important in the sector – despite electronic banking. The question is whether the application of competition policy should be modulated because of the stability concern.

## **5. Competition policy in the banking sector in the European Union**

We now turn to the institutional design of competition policy for the banking sector. Before the liberalization process the status quo was far away from the optimal balance between the benefits of competition (in terms of efficiency, quality provision, innovation and international competitiveness) and the potential increase in instability. Regulation was tight and central banks in Europe were too complacent with collusive agreements among banks, sometimes even fostering them. The costs of tight regulation should be apparent. For example, rate regulation induces overinvestment in services, excess entry, and introduces the possibility of regulatory capture. The situation has now changed and currently the three main areas of competition policy, mergers, cartels and abuse of a dominant position, as well as the rules concerning state aid, apply fully to the banking sector.

Several points concerning the development and the current design of competition policy are worth being stressed. In the US the de facto antitrust exemption for banking ended with the Supreme Court decisions in 1944, 1963 and 1964; but the criteria for the evaluation of mergers are still somewhat more lax than those used in other sectors. The safe heaven thresholds for the Herfindahl index below which a merger is not challenged are higher for banking than for other industries.<sup>5</sup> Furthermore, mergers are analyzed and decided upon by the relevant regulator (OCC, FDIC or FED) with the DOJ conducting a parallel review which may result in an appeal against the decision of the regulator. This arrangement created several problems in the past as the DOJ appealed against the decision of the Fed three times between 1990 and 1992, and required from the merging parties more divestitures than the Fed in seven cases between 1997 and 1999.<sup>6</sup>

The European Commission did not apply the old articles 85 and 86 of the Rome Treaty till the Zuechner case in the early 1980s. This was because banking was seen as a special sector, where business was heavily influenced by the monetary and financial policies of member state authorities, in particular central banks and supervisors, rather than by market forces (Ghezzi and Magnani, 1998).

In line with the evolution at the European level the design of competition policy in banking has been substantially strengthened also at the national level and many exceptions have been removed over the last two decades. For example, since December 2005 competition policy in Italy is enforced also in the banking sector by the general competition authority rather than by the Bank of Italy. In the Netherlands, the Competition Act of 1998 applies to the banking sector, but only since 2000. Similarly, in Portugal, the banking system is subject to merger control since 2003, although with a delay of five years relative to the other sectors. Finally a decision of the French Supreme Court in 2003 concerning the merger between Credit Agricole and Credit Lyonnais made

---

<sup>5</sup> Bank mergers are not challenged if the HHI does not increase by more than 200 above 1800 if parties' market share is below 35%.

<sup>6</sup> The appeals concerned the cases First Interstate of Hawaii/First Hawaiian and Fleet/Norstar in 1991 and Society Corporation/Ameritrust Corporation in 1992.

it clear that the banking sector was subject to merger control in France (see Carletti et al., 2006, and 2007).

Despite these changes, some important specificity concerning the relationship between competition and stability remains in the institutional design of competition policy in banking. As stated in art. 21(3) of the European merger regulation, “Member States may take appropriate measures to protect legitimate interests other than those taken into consideration by the EC Merger Regulation (...). Public security, plurality of the media and prudential rules shall be regarded as legitimate interests (...).” Taking it literally, this provision implies that, at least in merger control, stability considerations may override competition concerns. In Canada a merger of financial institutions may be exempted from merger control if the Minister of Finance certifies that it is in the best interest of the Canadian financial system. In the Netherlands the Minister for Economic Affairs can overturn a merger decision of the competition authority if this conflicts with the one of the supervisory authority. In Switzerland the supervisor may replace the competition authority and approve a bank merger, if that is necessary to protect the interest of creditors (see again Carletti et al., 2006, and 2007).

Whereas it is plausible to assume a more lenient approach toward market power in banking, it remains unclear whether the presumption that stability considerations should override competition concerns is warranted. The question is rather to which extent stability considerations should influence the design of competition policy. Relatively to the European framework, one wonders also whether, given the level of integration of financial markets and the supranational effects of mergers examined by the Commission, the stability exception should rather be implemented by some kind of supranational authority. This issue is related to the current debate of whether a European banking regulator is needed (see, e.g., Vives, 2001b), also in light of the attempt of some Member States to use the stability exception to put obstacles to financial integration.

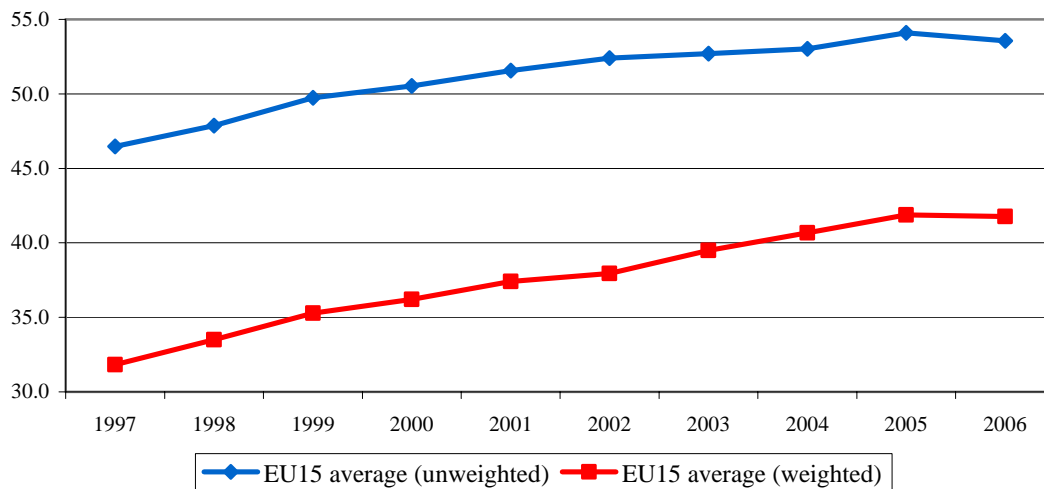
## 6. The application of competition policy to the banking sector in the European Union

Given the market structure of the banking sector, mergers and cartels have played so far a much greater role in the application of competition policy in Europe. Concerning the former, we distinguish between cases leading to competitive considerations and cross-border cases in which factors other than competitive considerations played an important role.

### 6.1. Mergers

The banking industry has experienced an important process of consolidation in the last two decades. The number and the size of mergers and acquisitions (M&As) have increased substantially in most European countries. This process has taken place mostly at the domestic level, increasing substantially the levels of concentration in most countries such as Belgium, France, Greece, Portugal, Spain, and the UK (see Table 1 and Figure 1).<sup>7</sup>

**Figure 1.**  
**Share of CR5 in % of total assets**



Source: ECB (2006, 2007)

<sup>7</sup> It is worth emphasizing that the appropriate concentration measures in banking as a multiproduct industry are in relation to the relevant product and geographic market. Aggregate measures provide an imperfect indication of the concentration in the relevant market.

**Table 1. Banking concentration in European markets (CR5 in assets)**

Country	CR% in total assets		
	1997	2003	2006
Belgium	54.0	83.5	84.4
Denmark	70.0	66.6	64.7
Germany	17.0	21.6	22.0
Ireland	41.0	44.0	45.0
Greece	56.0	66.9	66.3
Spain	32.0	43.1	40.4
France	40.0	46.7	52.3
Italy	25.0	27.5	26.3
Luxembourg	23.0	31.8	29.1
Netherlands	79.0	84.2	85.1
Austria	44.0	44.2	43.8
Portugal	46.0	62.7	67.9
Finland	88.0	81.2	82.3
Sweden	58.0	53.8	57.8
United Kingdom	24.0	32.8	35.9

Source: ECB (2004, 2005, 2007a)

Cross-border M&As have also increased significantly in the last decade despite remaining inferior in number and size relative to domestic transactions,. Whereas during the period 2000-2004, cross-border deals accounted on average for only 14% of the total value of M&As in the euro area, this percentage increased to 38% between 2005 and 2006 (ECB, 2007a); and it is expected to grow further also in light of the high levels of domestic concentration reached in some countries.

Few domestic mergers have led so far to significant competitive concerns and have been blocked by the competition authority, withdrawn or subject to remedies. This contrasts with the US, where typically mergers have been approved subject to some branch divestiture to limit concentration in the local markets.<sup>8</sup> This may reflect different worries of the competition authorities. In the US, as well as in the UK, there is a concern about

---

<sup>8</sup> Prager and Hannan (1998) provide evidence that horizontal mergers of US banks in the period 1991-94 increase market power.

the effect of consolidation on retail banking and, in particular, on lending to SME.<sup>9</sup> In contrast, in continental Europe market power at the local level does not seem to be always perceived as a big problem by national authorities. In Spain, for example, mergers of large domestic banks (like Santander with Central Hispano in October 1999, or Bilbao-Vizcaya with Argentaria in January 1999) raised concerns only in terms of the potential softening of competition in the product market deriving from concentrated equity participations in industries like energy or telecommunications. In Belgium, no remedies have been imposed to bank mergers so far despite the high sector concentration. In general, national regulatory authorities in Europe, with the acquiescence sometimes of competition authorities, have worried more about protecting and enlarging their national champions than about the possible consequences of consolidation for customers. Nevertheless, mergers among large national banks (like UBS and SBC in Switzerland)<sup>10</sup> do seem to have a potentially large impact at the retail level which needs to be carefully examined.

Two important cases where the UK and the European Commission took a tougher stance were the attempt of Lloyds TSB Group to acquire Abbey National and the merger between the Swedish SE Banken and FöreningsSparbanken in 2001. Following the British procedure, the first case was analyzed by the Competition Commission upon request of the Secretary of State for Trade and Industry. The examination showed potential anticompetitive effects in the market for personal current accounts (PCAs), where the new entity would have increased its market share up to 27%, and in the market for the supply of banking services to SMEs, where it would have reached a market share of 17%. This would have further increased the dominance of the big four banks active in the British market (Barclays, Royal Bank of Scotland/NatWest, HSBC and Lloyds itself) leading to a combined market share of 77% in the market for PCAs and of 86% in the one for SMEs. Tacit collusion concerns loomed large since Abbey was perceived to be a maverick. Based on these elements, the merger was found to lead to severe

---

<sup>9</sup> In the UK concerns about market power in the payments system also have led to its regulation by the Office of Fair Trading.

<sup>10</sup> See Neven and Von Ungern-Sternberg (1998).

anticompetitive effects that could have not been addressed even with remedies. The decision of blocking this merger indicated that domestic consolidation in the UK was no longer possible thus opening up the system to foreign takeovers such as the acquisition of the same Abbey National by Santander later in 2004.

Around the same time, in June 2001, SE Banken and FöreningsSparbanken notified the European Commission of their plans to merge. The two parties were the third and fourth largest financial institutions in Sweden and their merger would have allowed them to become the leading institution with market shares of 43% in deposits, 41% in total lending, and 50% in the mutual funds market. The analysis led the Commission to conclude in its Statement of Objections that the merger had anticompetitive effects on several markets and in particular on the market for services offered to households and SMEs. As a result of these objections the parties decided to withdraw their merger proposal. The anticipation of concessions in the magnitude of 1 million forced offloads out of the 5 million customer base made the deal unattractive (FT, 20 September 2001). As Jacob Wallenberg, SEB chairman put it, this case “(...) shows that in a small country you can become dominant so quickly that it's very difficult to create strong entities with the efficiencies that allow you to take steps into a larger market place.” (FT, 20 September 2001). This raises the need to look towards cross-border mergers to realize economies of scale once competition policy in banking is taken seriously by either domestic or EU authorities. In this sense competition authorities become a major player in the restructuring of the sector in the EU (see Vives, 2005).

## ***6.2. The interaction between the EU competition authority and Member States in cross border bank mergers***

Differently from domestic mergers, cross-border mergers do not entail substantial anticompetitive effects. However, they can - and have been - subject to regulatory and supervisory obstacles through the provisions of art. 21 of the merger regulation.

The “seminal” case in this respect was the attempt by Banco Santander Central Hispano (BSCH) to acquire joint control of the Portuguese Champalimaud group in 1999. The



Portuguese authorities immediately opposed the operation, even before the parties notified it to the European Commission. Upon request by the Commission, the Minister explained that the concentration raised prudential concerns because of the lack of clarity and transparency of the resulting group, as well as other concerns related to the infringement of procedural rules and the protection of national interests. It was made clear in the press that “a restructuring of the Portuguese banking system will be necessary and it appears (...) of good sense that, in a first phase, ...this is made among national groups. Foreign groups, including BSCH, will have to compete on their own and should not perturb such a restructuring. It would be totally false to arrange the system by suddenly transferring the control of large national institutions to foreign owners” (Visão, 24 June 1999). The Commission objected these motivations by arguing that neither the procedural infringement of the parties nor the protection of national interest could be considered legitimate interests in the sense of art. 21(3) and lead to an opposing decision. In particular, the attempt of a Member State to protect national interest was clearly against financial integration and the principle of non discrimination by reason of nationality embodied in art. 12 of the Treaty. The only legitimate interest which could have been used without prior approval of the Commission was the one linked to prudential considerations, but the proposed merged was not raising any credible prudential concern. The dispute between the Commission and the Portuguese authorities went on till November 1999, when BSCH notified the Commission its intention to acquire Banco Totta & Acored and Credito Predial Portugues, two commercial banks belonging to the Champalimaud Group. The new operation cancelled the previous proposal, and it was approved by both the Commission and the Portuguese Government without conditions.

Two other important examples of the attempt of Member States to hinder the process of European integration under the provision of art. 21(3) were the planned takeovers of the Italian Banca Nazionale del Lavoro (BNL) and Banca Antoniana Popolare Veneta (Antonveneta) by the Spanish Banco Bilbao Vizcaya Argentaria (BBVA) and the Dutch ABN AMRO, respectively, in 2005. Both takeovers were approved by the Commission under the simplified procedure in April 2005. As normal praxis, they were also notified to

the Bank of Italy for supervisory approval. The supervisory process, however, did not run smoothly. Shortly after the approval by the Commission, both BBVA and ABN AMRO complained that the Bank of Italy was creating obstacles to their respective bids in infringement of art. 21 of the EC Merger Regulation. ABN AMRO argued that the Bank of Italy favored the counter-bid by the Italian bank BPI, thus applying discriminatory treatment toward foreign acquirers; whereas BBVA claimed that the Bank of Italy had conditioned the approval of the bid upon the acquisition of more than 50% shares in BNL. The Commission intervened at first only in favor of BBVA indicating to the Bank of Italy that it was operating in violation of art. 21(4) of EC merger regulation. The Bank of Italy removed the condition imposed on the approval of the bid, but BBVA abandoned the bid given its limited success after the offering period.

Differently, the battle between ABN AMRO and BPI became much more complex. ABN AMRO lodged complaints for violations of national law before the Italian Stock Market Authority, Consob, the Bank of Italy and national courts. This helped revive the case and bring it back to the attention of the Italian government and other competent authorities. The Commission also intervened with the Commissioner McCreevy sending a formal letter to Mr. Fazio threatening to sue Italy. The turning point came in July 2005 when the Court confiscated the shares of BPI and its allies and the Consob froze the BPI's offer, just two weeks after the Bank of Italy had approved the request of BPI to acquire control of Antonveneta. Following this, the Bank of Italy itself suspended its approval and calls asking the resignation of Fazio mounted by inside the Italian government and by the public opinion. The whole episode led to a dramatic change in the Italian financial sector. After Fazio resigned in December 2005, the Government approved quickly a new law which reformed the mandate of the Italian governor and transferred the competence over competition policy from the Bank of Italy to the Italian Antitrust Authority.

Another important case of conflicts between the European Commission and the Member States was the merger between Unicredito Italiano and Bayerische Hypo-und Vereinsbank AG (HVB) in 2005. According to the examination conducted by the Commission, the merger had its greatest effects in Poland, where the parties would

become the leading market player with 21% of the assets through the undertakings Pekao owned by Unicredito and BPH controlled by HVB. More specifically, the parties would obtain the leadership in the market for the custody accounts and the distribution of mutual funds and the second position in the market for services to household customers with market shares around 35-45% and 15-25%, respectively. However, given the structure of the Polish market and the presence of other important competitors, the Commission considered the anticompetitive effects not to be significant enough and cleared the proposed merger in October 2005. The Polish government opposed the clearance decision by filing a formal complaint with the European Court of Justice, and by requiring Unicredito to sell its entire holding in BPH. The claim was that, according to the Privatization Agreement signed at the time of the acquisition of Pekao in 1999, Unicredito could not acquire any bank in Poland for the subsequent ten years without ministerial authorization.<sup>11</sup> This clause was meant to protect competition on the Polish banking market. The Commission regarded the attempt to enforce the “non-competition clause” of the Pekao privatization as being incompatible with the EC rules on the freedom of establishment and the free movement of capital, and it launched an official procedure against Poland for misuse of art. 21 of the EC merger regulation. The conflict ended in April 2006 with an agreement between Poland and Unicredito. According to this, Unicredito was allowed to merge Pekao and BPH under the condition that it would sell 200 of the 480 branches of BPH and the brand BPH itself, and that it would preserve employment at both Pekao and BPH for two years.

A different example of cross border merger was represented recently by the tripartite takeover of ABN AMRO by the consortium formed by RBS, Santander and Fortis. The Commission imposed remedies consisting in the upfront divestiture of ABN AMRO’s Dutch factoring subsidiary and part of its commercial banking business in the Netherlands because of overlap with Fortis (which was perceived to be an aggressive competitor in those markets). In this case it is notable that the Dutch supervisor did not

---

<sup>11</sup> It is interesting to note how the market was positive towards the proposed concentration. Analysts quoted by Reuters envisaged that the merger would be favorable to the Polish economy as it would encourage consolidation and efficiency in the banking system.

put obstacles to a cross-border acquisition that has as objective to partition the local bank and integration by pieces in the three acquirers.

The cases described above show how Member States can abuse the provision of art. 21(3) so to protect and strengthen national interests. This is further worsened by the potential discretion embedded in the supervisory control. Until recently, the national supervisory regulations for the prudential assessment of mergers and acquisitions lacked specificities in terms of the evaluation criteria, procedural rules and –in most cases–transparency; and, according to a survey conducted by the Commission in April 2005, the “misuse of supervisory powers” represented one of the main obstacles to cross-border consolidation. Competition policy can therefore play a crucial role not only in watching and preventing excessive market power, but also in limiting the discretion and power of national supervisors. This claim is also supported by the empirical results in Carletti et al. (2007) that the opaqueness of the supervisory control of M&As leads to inefficiencies in the supervisory process that can be at least partly removed by strengthening merger control. The need to ensure more transparency and legal certainty in the supervisory control led recently to the adoption of Directive 2007/44/EC of the European Parliament and of the Council of 5 September 2007 (the “Qualifying Holdings Directive”). The new Directive, which must be implemented by March 2009 and is based on the approach of maximum harmonization, specifies evaluation criteria and uniform procedural rules for the prudential assessment of acquisitions of qualified holdings, and it requires supervisors to justify their negative decisions. The reasons behind a negative decision are to be made public at the request of the proposed acquirer or at discretion of the Member States. Although this directive represents an important step in addressing the problems embedded in the supervisory control, it fails to ensure sufficient transparency. The approach concerning the disclosure of the negative decisions still leaves much to the discretion of the supervisory authorities and has the potential of reintroducing supervisory obstacles in the consolidation process (Kerjean, 2008). Only if these obstacles are removed, the natural pecking order of consolidation first via national mergers, then regional (geographically nor by cultural affinity), and finally fully international can proceed (see Vives, 2005).

### **6.3. Cartels**

The most important cartel in the banking sector examined by the Commission is the so-called “Lombard Club” which took place among the eight biggest Austrian banks between 1994 and June 1998. The cartel consisted of a highly institutionalized price-fixing scheme covering the whole Austrian territory in a “down to the smallest village” approach. The agreement included the fixing of interest rates for loans and savings for households and for commercial customers and of fees charged on consumers for certain services. The Commission discovered the cartel following reports in the Austrian press. On the basis of the overwhelming evidence found during numerous investigations, the Commission declared the cartel represented a serious infringement of art. 81 of the EU Treaty. Fines were imposed for a total of 124.26 million euros on eight Austrian banks. These were then reduced by 10% under the so-called Leniency Notice of 1996 given the high co-operation that the banks offered during the investigation and their lack of objections. Overall, the “Lombard Club” cartel was one of the most shocking cartels ever discovered, and it showed that price fixing is clearly persecuted in banking as in any other sector.

Another important area where the Commission intervened under art. 81 of the Treaty relates to card and payment systems. The first case concerned various rules and regulations that Visa International notified to the Commission in January 1977 applying for negative clearance under art. 81(1) or an exemption under art. 81(3). The Commission sent initially a comfort letter in 1992, but reopened the case in 1997 after a complaint filled by a British association of retailers. The case turned out to be quite complicated and lasted for several years. The Commission issued several decisions pertaining to different aspects of the proposed agreement. The mostly disputed aspect concerned the EU intra-regional Multilateral Interchange Fee (MIF), that is the interchange reimbursement fee that the acquiring bank has to pay to the issuing bank for each intra-regional transaction with a Visa card where issuer and acquirer are different. The initial point of dispute was the possibility for the Visa Board to set the MIF at whatever level and to keep it secret. At the end of a long and complicated negotiation process, Visa proposed a package of

reforms and the Commission granted an exemption under art. 81(3). The reformed proposal contained a reduction of both the level of the intra-regional MFI to a fixed rate per transaction of EUR 0.28 for direct debit cards and the level of the ad valorem per transaction fee applicable to certain types of credit and deferred cards till an average level of 0.7% by 2007. These modifications represented a reduction of more than 50% of the costs for an average direct debit card transaction and of more than 20% for the other category. Visa proposed also to fix the fees in a transparent way on the basis of cost studies carried out by Visa and audited by an independent accounting firm. The MIF would not exceed a cap based on three categories of costs: the cost of processing transactions, the cost of free funding for cardholders and the cost of providing the payment guarantee. The imposition of a cap on the MIF was meant to prevent the association of issuers from setting excessively high interchange fees. According to Rochet (2007), however, such cap has no economic basis since there is no clear evidence of a market failure and pricing distortions may go either way.

The Commission intervened again against Visa under art. 81 in October 2007 when it imposed a fine of €10.2 million. The infringement concerned the refusal of Visa to accept Morgan Stanley as a member in the United Kingdom from March 2000 till September 2006. Visa motivated its refusal with the argument that Morgan Stanley was a competitor and that as such, according to an internal rule, it could have not been accepted as a member. The Commission objected that at the time of the infringement Morgan Stanley was not present in the EU market. Moreover, the exclusion of Morgan Stanley from Visa membership was found to hinder significantly the competitiveness of Morgan Stanley on the market for providing merchants with credit card capabilities in the United Kingdom (as retailers expect banks to offer card acceptance contracts as a package including both Visa and MasterCard). The case ended with an unusual settlement. In August 2004 the Commission sent a Statement of Objections to Visa, which then concluded a settlement agreement with Morgan Stanley in September 2006 and admitted the latter as a member. As a consequence, Morgan Stanley withdrew its complaint but the Commission still went ahead and fined Visa.

In October 2007 the Commission intervened against the Groupement des Cartes Bancaires under art. 81 of the Treaty. The Groupement managed the system of payments by “CB” card which accounts for over 70% of card payments in France. The examination concerned some price measures adopted by the Groupement which hindered the issuing of cards in France at competitive rates by certain member banks. In particular, banks that were not “sufficiently” active in terms of acquisition of merchants or installation of ATM had to pay a fee of up to €1 on each card issued. These measures were motivated by the need to combat free-riding on the investments made by the main incumbent banks and to encourage new competitors to be fully active on both sides of the market. The Commission found, however, that these measures, although applicable in principle to all members, had been applied only against certain, smaller members thus restricting competition in the French payment card market. Since the Groupement had voluntarily notified the measures to obtain a decision of compatibility with the competition rules, the Commission ordered the annulment of the current measures and the prohibition to impose similar ones in the future without imposing any fine. It can be argued, however, whether the Commission in its analysis took proper account of the two-sided nature of the credit card market (issuing cards and acquiring merchants). Indeed, in a two-sided market for a practice to be anti-competitive it has to be shown that it constitutes a barrier to entry to the system and not only to one side of the market (since a barrier on one side may encourage entry on the other side).<sup>12</sup>

All these cases make clear the determination of the Commission to pursue price fixing and exclusion agreements in the banking sector, in particular when they go against the creation and functioning of the Single Euro Payments Area (SEPA). Such behavior contrasts with the previous approach of some national regulators that supported and even encouraged collusion and rent creation among banks with the aim of avoiding disruptions and preserving a stable system. But what is the best approach? Should competition rules be applied fully to the banking sector or should the persecution of cartels be more lenient in the banking sector? Does price fixing enhance stability? Most of the academic

---

<sup>12</sup> See Rochet and Tirole (2003) for an analysis of two-sided markets, and Wright (2004) for the dangers of using one-sided logic to two-sided markets.

literature suggests that some market power is beneficial for stability, but most likely there are more efficient ways of preserving stability than price fixing. Competition should be fostered and stability should be maintained with an efficient prudential framework and adequate arrangements for crises resolution.

#### ***6. 4. Abuse of dominant position***

The Commission examined only one case of abuse in the financial system so far in relation to the clearing and settlement of securities. The examination originated from an ex-officio investigation into clearing and settlement services launched by the Commission in March 2001. After collecting information from a number of operators, the Commission focused its examination on Clearstream Banking AG and its parent company Clearstream International SA for potential abuse against Euroclear Bank in the market for the provision of cross-border clearing and settlement services for securities issued according to German law to intermediaries situated in other Member States. Clearstream operated in a clear dominant position in that market being the only Central Securities Depositories (CSDs) conducting the “primary” clearing and settlement services (i.e., Germany’s only *Wertpapiersammelbank*), and therefore being an unavoidable trading partner. Despite numerous requests, Clearbank denied Euroclear the access to the CASCADE RS, an IT platform through which it provides clearing and settlement services for registered shares issued in Germany, for more than two years till November 2001. Also, between January 1997 and January 2004, Clearstream charged a higher per transaction price to Euroclear Bank than to other security depositories outside Germany. The Commission recognized that both behaviors constituted an abuse of dominant position in terms of refusal to supply and price discrimination, which impaired Euroclear Bank’s ability to provide a comprehensive and innovative pan-European service in the downstream market for cross border clearing and settlement of EU securities. The negative decision was adopted although the infringements had already come to an end in order to clarify the legal situation in an evolving and important market for European integration like clearing and settlement services.



### ***6.5. State aid***

State aid includes all forms of guarantees granted directly by the State, i.e., by central, regional or local authorities, and by undertakings under the dominant influence of public authorities. It is in this area that stability and competition considerations come directly into play. State intervention typically takes the form of public ownership or financial support in the form of the lender of last resort, taxpayers' money or transfer of assets. This is particularly likely in countries where the State is used to intervene in the banking sector like France, Germany and Italy.

A central case of state aid in the banking sector analyzed by the Commission was the rescue through a series of complicated bailouts of the state-owned Credit Lyonnais (CL) – the largest French bank at the time - by the French authorities in the years 1994-1997. The problems of CL originated from an accumulation of bad projects that eventually threatened the company's solvency with losses of FRF 1,8 and 6,9 billion in 1992 and 1993, respectively. Examples of such projects were a "major office block development in the northern French town of Lille that helped local politicians to regenerate the town but then proved difficult to let" [ERisk.com], and the purchase of the US insurance company Executive Life, which, according to US authorities, was in violation of regulations. A further dubious operation was the financing of the purchase of two film production studios - including the MGM studios. The French State provided the first aid in 1994 in the form of a capital increase of FRF 4,9 billion and the underwriting by the State of the risks attached to about FRF 42,7 billion of non-performing property assets transferred to a special hiving-off company. Only one year later, the State intervened again by creating another hive-off vehicle, the "Consortium de Réalisation" (CDR), which took about FRF 190 billion of CL's troubled assets. These interventions were approved by the Commission in 1995 provided that the net cost to the State would not exceed FRF 45 billion. Important conditions attached to the approval were the separation of the ownership of CDR from CL and the future privatization of CL. However, in September 1996 the French authorities submitted to the Commission a new plan to grant emergency aid amounting to nearly FRF 4 billion together with a restructuring aid. The Commission

approved the emergency aid but at the same time initiated the at-the-time art. 93(2) procedure (now art. 88(2)). In July 1997 the French authorities submitted a new restructuring plan for CL as requested by the Commission. The plan, which constituted an additional aid of value between FRF 53 and 98 billion, was subject to a series of modifications and finally received a conditional approval in May 1998 under the derogation of the at-the-time art. 92(3)(c). CL was fully privatized in 1999 and was finally acquired by Credit Agricole in 2003.

The episode of CL, which led to estimated costs for the French taxpayers between \$20 and \$30 billion (up to 2.5% of GDP at that time), illustrates several pitfalls. First, it shows that state ownership did not prevent bad transactions from taking place. Political interference and government guarantees blurred any notion of risk/return management and market discipline, thus leading to an accumulation of projects that eventually threatened the company's solvency. Second, the case showed the difficulty for the Commission to judge the compatibility of large aids with the Treaty, especially on short notice. Moreover, as noted by some commentators (e.g. Tsakatoura, 2002), the CL case showed that, despite not being clearly stated in the regulation, the Commission considered banking as a special sector with respect to state aid. Considerations linked to stability concerns presumably played an important role in the Commission's final decision.

Another important case of state aid concerned the capital transfer in the early 90s to seven German regional public banks (Landesbanken) and the consequent abolition of the so-called state guarantees. The investigation originated from a complaint of the Association of German private banks stating that various Landesbanken received capital transfers in the form of public housing and other assets from the local governments, which partly or fully owned the banks, in order to satisfy increased minimum capital requirements. The allegation was that the transfers constituted state aid as they were remunerated below-market rate and created a distortion of competition in favor of the Landesbanken. The investigation was long and complicated, economically as well as politically. In 1999, the Commission adopted the first negative decision concerning the transfer to WestLB and it

ordered a recovery of some €800 million. In 2003, the Court of First Instance, however, annulled the decision on the basis of lack of clarity in the calculations of the Commission. The Commission reopened the investigation, showed that the remuneration agreed by the local governments in return for the transfer of the assets was very low (less than 1%) and below the market rate, and ordered Germany to recover the appropriate amounts from the Landesbanken. The amounts to be recovered differed in size ranging from €6 million plus interest for Landesbank Hessen-Thüringen to €79 million plus interest for WestLB. The investigation also led to the gradual abandonment of the state guarantees for both Landesbanken and Saving Banks. This raised the question of whether the Landesbanken would change their asset investment strategies. According to some commentators (e.g., Herald Tribune, 21 October 2004), the Landesbanken would increasingly abandon arbitrage trading in securities with very low profit margins. The failure of Sachsen LB in August 2007 and its subsequent bailout for €17 billion may have indeed been a result of the aggressive strategy pursued by the bank after the removal of the state guarantees (FT, 22 August 2007).

The two landmark cases examined show the commitment of the Commission not to let uncontrolled aid to the banking sector proceed without check. The aim is to reach an appropriate balance with the legitimate objective to preserve financial stability. The doubt remains, however, whether the granted aids were the least costly methods of preserving the receiving institutions. In this respect, it is important to evaluate also the future effects of state aid in terms of risk taking and moral hazard problems for the institution receiving the subsidy as well as for its competitors for which, as found by Gropp et al. (2006), this negative potential effect seems to be even more severe.

## **7. Integration and liberalization in the financial industry in Europe: Recent developments**

Much has happened in the European financial landscape since the creation of a single market in 1992 and the introduction of the euro in 2002. Numerous regulatory measures have been adopted by the European Union in order to create broad and deep capital markets through financial liberalization and integration. One important measure was the

launching through the Lamfalussy process of the Financial Services Action Plan (FSAP), which aimed at creating a single and integrated financial market in Europe by 2005, in particular in retail banking.

The integration of European banking markets has proceeded through minimal harmonization and home-country regulation. Since the implementation of the Second Banking Directive in 1989, banks have been free to establish branches in other European countries and remain under the regulation of their home supervisor. Mutual recognition has been complemented with increasing harmonization of the standards for prudential regulation through several financial sector directives and the work of the Lamfalussy committees. The goal is to establish an institutional infrastructure to facilitate supervisory convergence, cooperation and information sharing. In particular, the Committee of European Banking Supervisors is mandated to develop common standards, guidelines and interpretative recommendations. A notable work of the Committee relates to the implementation of the Capital Requirements Directive (CRD) for banks and investment firms. Other important legislative steps for the integration of financial markets are the forthcoming Solvency II Directive for insurance companies, and the Markets in Financial Instruments Directive for financial markets. Work is underway to integrate securities clearing and settlement systems. According to the EU regulation 2560/2001 on cross border transfers and cash withdrawals since 1 July 2003 consumers are charged the same for cross border transfers and for domestic transfers, and can withdraw cash in the 15 euro countries at the same cost as in their own country.

Nonetheless, the existing framework does not provide yet a level playing field for financial institutions across Europe and financial integration is not yet fully achieved. Considerable cross-country differences persist in the legal and regulatory framework for financial institutions' operations mainly because of remaining national discretion. Apart from stability concerns, the lack of convergence implies a high regulatory burden for cross-border financial institutions.

Financial integration has progressed slowly and unevenly across different activities and segments. It is high in wholesale banking and in certain areas of corporate finance (especially in public corporate bond issuance and private equity markets), modest in some relationship aspects of banking and low in retail banking, particularly in loans to consumers (Barros et al., 2005 and ECB, 2007b). Retail banking is the most important sub-sector of banking, representing over 50% of the total EU gross income and approximately 2% of total EU GDP in 2004 (ECB, 2007b). Despite technological progress and innovation, retail banking remains regional, since proximity to clients, access to information and long term relationships are still the key competitive drivers. Cross-border banking is especially performed via foreign establishments –branches or subsidiaries – in the target jurisdiction. Foreign establishments have recently expanded their role although they still account only for approximately 15% of the total banking assets. Most of those assets are held by foreign subsidiaries (ECB, 2007b).

The concern for the low integration and competition in retail banking led the Commission to open a sector inquiry in 2005. The inquiry, which was concluded in January 2007, highlighted several major barriers for cross-border competition. The Commission found high concentration levels in several markets for payment cards and payment systems, large variations in merchant fees and in interchange fees between banks, high and sustained profitability (in particular in card issuing), and divergent technical standards. According to the Commission all these elements contribute to restrict entry, charge higher fees, put obstacles to passing over lower fees or costs to cardholders, sustain market power, and prevent efficient operations.

Concerning the retail banking product markets, the Commission stressed how the conjunction of sustained high profitability, high market concentration and evidence of entry barriers raises concerns about banks' ability to influence the level of prices for consumers and small firms in some Member States. The presence of credit registers, holding confidential data that lenders use to set loan rates, may be used to exclude new entrants to retail banking markets. Some forms of cooperation among banks, as those taking place among savings and cooperative banks, can reduce competition and deter

market entry. The widespread practice of product tying can reduce customer choice and increase banks' power in influencing prices. Finally, the presence of high switching costs can lead to high profit margins for banks.

Some of the concerns expressed in the Commission's inquiry are certainly legitimate although it has to be stressed that the existence of high profits is not per se the symptom of lack of competition. The analysis should center on the sources of market power like exogenous and endogenous switching costs and practices such as tying. Furthermore, in two-sided markets, such as payment cards, care must be taken to conduct a proper analysis that deals with their specificities.

## **8. Concluding remarks**

Banking is no longer an exception in the enforcement of competition policy rules. This is as it should be, since the provision of a competitive "financial input" in the production process is crucial for the competitiveness of an economy. Given the fragility of the financial system, however, there may be a potential trade-off between competition and stability. Although recent theories have questioned such a trade-off, it remains unclear whether competition policy should be more lenient with market power in the banking industry. This applies, for example, to the evaluation of mergers. The reason is that market power may have a moderating effect on the incentives to take risk. The question of whether a certain, implicit or explicit, "banking exception" in competition policy will remain is therefore still open.

Two other reasons explain the attention of antitrust authorities to the sector. The first is that financial institutions tend to enter into collaborative agreements (this is the case for example, in credit cards or clearing and settlement systems). The second is that, as we have seen, many financial markets remain segmented in Europe and competition is perceived to be weak. Although clearly competition policy should aim at improving consumer welfare rather than forcing integration per se, it has a crucial role in keeping markets open. The lifting of artificial impediments to cross border mergers will permit to have large, well diversified institutions without having excessive market power in any

market. This is the area where regulatory changes should concentrate most, and where competition policy has and should be used to prevent artificial and unjustified barriers to financial integration based on a misuse of supervisory powers. In this respect, it is also questionable that in an integrated financial market and monetary area prudential matters stay in national hands, particularly for EU-wide institutions (see Vives, 2001b). This undermines the rationale for the prudential exception to protect a legitimate national interest. However, care should be taken since cross-border mergers may be a substitute for direct entry and could end up with large institutions meeting in different European markets raising tacit collusion concerns because of this multi-market contact.

## References

- Allen, F. and E. Carletti (2006), "Credit risk transfer and contagion," *Journal of Monetary Economics* 53, 89-111.
- Allen, F. and E. Carletti (2007), "Mark-to-market accounting and liquidity pricing," *Journal of Accounting and Economics*, forthcoming.
- Allen, F. and D. Gale (2004), "Financial intermediaries and markets", *Econometrica*, 72 (4), 1023-1061.
- Bagehot, G. (1873), *London Street: A description of the money market*, H.S. King, London.
- Barros, P., E. Berglöf, P. Fulghieri, J. Gual, C. Mayer and X. Vives (2005), "Integration of European banking: the way forward," *Monitoring European Deregulation 3*, CEPR, 2005.
- Boot A.W.A. and M. Marinc (2007) "Competition and entry in banking: Implications for capital regulation," working paper, University of Amsterdam.
- Bouckaert, J. and H. Degryse (2004) "Softening competition by inducing switching in credit markets", *Journal of Industrial Economics*, 52, 27-52.
- Boyd, J.H. and G. De Nicoló (2005), "The theory of bank risk-taking and competition revisited", *Journal of Finance*, 60 (3), 1329-1343.
- Broecker, T. (1990), "Creditworthiness tests and interbank competition", *Econometrica*, 58, 429-452.
- Caminal, R. and C. Matutes (2002), "Market power and banking failures", *International Journal of Industrial Organization*, 20(9), 1341-1361.
- Carletti, E. (2008), "Competition and Regulation in Banking," in A. Thakor and A. Boot (eds.), *Handbook of Financial Intermediation and Banking*, Elsevier.
- Carletti, E., and P. Hartmann (2002), "Competition and stability: what's special about banking?", in P. Mizen (ed.), *Monetary History, Exchange Rates and Financial Markets: Essays in Honour of Charles Goodhart*, vol. 2, Cheltenham, UK: Edward Elgar, 202-229.



- Carletti, E., P. Hartmann and S. Ongena (2006), “Cross-border banking and competition policy”, *European Central Bank Research Bulletin*, 4, 7-10.
- Carletti E., P. Hartmann and S. Ongena (2007), “The economic impact of merger control”, Center for Financial Studies, Frankfurt.
- Degryse, H. (1996) “On the interaction between vertical and horizontal product differentiation: An application to banking”, *Journal of Industrial Economics*, 44(2), 169-182.
- Degryse H. and S. Ongena (2008), “Competition and regulation in the banking sector: A review of the empirical evidence on the sources of bank rents,” in A. Thakor and A. Boot (eds.), *Handbook of Financial Intermediation and Banking*, Elsevier.
- Dell’Ariccia, G. (2001), “Asymmetric information and the structure of the banking industry”, *European Economic Review*, 45, 1957-1980.
- Dell’Ariccia, G., E. Friedman and R. Marquez (1999), “Adverse selection as barrier to entry in the banking industry”, *RAND Journal of Economics*, 30, 515-534.
- Diamond, D.W. and P.H. Dybvig (1983), “Bank runs, deposit insurance and liquidity”, *Journal of Political Economy*, 91, 401-419.
- ECB (2004), *EU Banking Structures*, European Central Bank, Frankfurt.
- ECB (2005), *EU Banking Structures*, European Central Bank, Frankfurt.
- ECB (2006), *EU Banking Structures*, European Central Bank, Frankfurt..
- ECB (2007a), *EU Banking Structures*, European Central Bank, Frankfurt.
- ECB (2007b), *Financial integration in Europe*, European Central Bank, Frankfurt.
- Ghezzi, F. and P. Magnani (1998), ‘L’applicazione della disciplina antitrust comunitaria al settore bancario’, in M. Polo (ed), *Industria Bancaria e Concorrenza*, Bologna: Il Mulino, 259-328.
- Goldstein, I. and A. Pauzner (2005), “Demand deposit contracts and the probability of bank runs”, *Journal of Finance*, 60, 1293-1328.

- Gorton G. (1988), "Banking panics and business cycles", *Oxford Economic Papers*, 40, 751-781.
- Gropp, R. H. Hakenes and I. Schnabel (2006), "Competition, Risk Shifting, and Public Bail-out Policies", working paper, University of Frankfurt.
- Hauswald, R. and R. Marquez (2006), "Competition and strategic information acquisition in credit markets", *Review of Financial Studies*, 19(3), 967-1000.
- Hellman, T.F., K. Murdock and J. Stiglitz (2000), "Liberalization, moral hazard in banking and prudential regulation: are capital requirements enough?," *American Economic Review*, 90(1), 147-165.
- Keeley, M. (1990), "Deposit insurance, risk and market power in banking," *American Economic Review*, 80, 1183-1200.
- Kerjean, S. (2008), "The legal implications of the prudential supervisory assessment of bank mergers and acquisitions under EU law," Legal Working Paper Series N. 6, European Central Bank, Frankfurt.
- Marquez, R. (2002), "Competition, adverse selection and information dispersion in the banking industry," *Review of Financial Studies*, 15(3), 901-926.
- Matutes, C. and A.J. Padilla (1994), "Shared ATM networks and banking competition," *European Economic Review*, 38, 1057-1069.
- Matutes, C. and X. Vives (1996), "Competition for deposits, fragility, and insurance," *Journal of Financial Intermediation*, 5, 184-216.
- Matutes, C. and X. Vives (2000), "Imperfect competition, risk taking and regulation in banking", *European Economic Review* 44. 1, 1-34.
- Neven, D. and T. von Ungern-Sternberg, (1998), "Competition policy in Switzerland". *Antitrust Bulletin*, Summer, 467-517.
- Postlewaite, A. and X. Vives (1987), "Bank runs as a equilibrium phenomenon," *Journal of Political Economy*, 95, 3, 487-491.

- Prager, R. and T. Hannan (1998), "Do substantial horizontal mergers generate significant price effects? Evidence from the banking industry," *Journal of Industrial Economics*, 46(4), 433-452.
- Rochet, J.C. (2007), "Interchange fees in payment card systems: price remedies in a two-sided market", IDEI Working Paper.
- Rochet, J.C. and J. Tirole (2002), "Cooperation among competitors: The economics of credit card associations", *RAND Journal of Economics*, 33(4), 1-22.
- Rochet, J.C. and J. Tirole (2003), "Platform competition in two-sided markets", *Journal of the European Economic Association*, 1, 990-1029.
- Rochet, J. C. and X. Vives (2004), "Coordination failures and the lender of last resort: was Bagehot right after all?" *Journal of the European Economic Association* 2(6), 1116–1147.
- Tsakatoura, A. "State aid in the EU banking industry", Inter-Lawyer, Lay Firms Directories, webpage.
- Vives, X. (2001a), "Competition in the changing world of banking", *Oxford Review of Economic Policy*, 17(4), 535-547.
- Vives, X. (2001b), "Restructuring financial regulation in the European Monetary Union", *Journal of Financial Services Research*, 19(1), 57-82.
- Vives, X. (2005), "Europe banks future on the urge to merge", *The Wall Street Journal Europe*, May, 13.
- Wright, J. (2004), "One-sided logic in two-sided markets", *Review of Network Economics*, 3, 44-64.