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TOWARDS A SINGLE EUROPEAN BANKING MARKET?

**New Evidence from Euroland on the
Role of the Euro**

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1. Introduction

In 1988 the Commission requested a study, now widely known as the Cecchini report (Commission of the European Communities, 1988), to derive quantitative estimates of the benefits of the single market project. The report suggested a GDP growth bonus of 4.5 per cent of which one third was attributed to the impact of financial market integration. However, as the single market project progressed over the 1990s, economic growth remained comparatively low. While in retrospect it is difficult to assess whether or not the growth bonus has materialised, a widely held view is that it may require a 'single currency' to complete 'the single market' and thus to reap the promised benefits from financial market integration. Not surprisingly, new studies, partly again commissioned by the European Union (EU), are aiming at quantifying the growth impact of financial market integration. The estimates vary but are all in a non-negligible range. For example, the so-called Gyllenhammer Report (2002) suggests that financial integration could increase GDP growth rates every year by about 0.5 to 0.7 per cent. Giannetti et al. (2002) estimate a boost in the annual growth of the value added in the EU manufacturing industry in a range of 0.75 to 0.94 per cent, while a study by London Economics et al. (2002) advocates an EU-wide GDP increase of 1.1 per cent.¹² Given these numbers it is not surprising that an integrated market for financial services has been considered an essential part of the EU's single market project. In 1999, the Financial Service Action Plan (FSAP) was launched, which is widely considered to be the principal blueprint for financial integration in Europe (see, for example, Economic and Financial Committee, 2002) and should be completed by 2005. In the wording of a recent communication from the EU Commission to the council and the European parliament: 'The Lisbon European Council's deadline of

2005 to establish an integrated European market in financial services is central to the Community's employment and growth agenda.'

The state and development of financial market integration in Euroland depends of course on the financial market under consideration. While integration is considered to be more advanced in bond and equity markets as well as in wholesale banking markets, the retail banking markets in Euroland are still very fragmented. Consequently, if it is true that integration brings economic benefits by providing lower cost finance, most future benefits may come from a more integrated banking market, in particular since finance in Europe is traditionally bank-dominated. Integration in retail banking is often perceived to be lagging behind other financial markets since lending and borrowing activities take place mostly within a narrow geographic region. Thus, retail banking markets are localised nationally. On an international level, banks are not reaching out for all prospective Euroland customers, nor are consumers shopping around for credits in the whole Euroland. However, as European Central Bank (ECB) board member Padoa-Schioppa (2000) argues 'the multiplicity of currencies in the single market was a fundamental factor behind the preservation of the segmentation of the banking industry' and 'it is indeed the existence of a single currency and a single central bank which very often unifies a banking system'.

Against this background we have been investigating in a number of studies the state and development of integration in the Euroland retail banking market with particular emphasis on the actual and potential role of the single currency in this process. In the following we report on our research results, which suggest that the European banking market is changing rapidly with the

introduction of the Euro. Nevertheless, our results suggest that this is not so much the effect of cross-border activities in lending and borrowing, but rather the unifying impact of a single currency on the (monetary) policy determined interest rates, which are crucial determinants for bank lending and deposit rates. As such, a smoother and more homogeneous adjustment of bank interest rates to monetary policy impulses is instrumental in generating the consumer benefits promised by the proponents of market integration. However, this will not happen simply by integrating markets, but it requires also a strict monitoring of competition, particularly in national retail lending markets (see also Dermine, 2002 and Economic and Financial Committee, 2002).

The plan of this paper is as follows: In section 2 we discuss the major trends in European banking regulation and market developments. In section 3 we provide new evidence on the emergence of a single Euroland retail banking market. Section 4 concludes by pointing to the important role of competition policy and the special role of the single currency in the process of integrating European retail banking markets.

2. Structure and trends in European banking market integration

2.1. European banking: From heterogeneity to the single market project

The national differences in European banking, which the EU is trying to overcome, have their roots in the late nineteenth century. The European banking system developed historically from the unit-based banking system of the seventeenth and eighteenth century to the early nineteenth century bi-polar system, consisting of town-based banks financing domestic and international trade and country-based

banks financing the local, predominantly agricultural, economy. The shift towards a more diverse banking system consisting of savings banks, building societies, cooperatives, joint-stock town-based banks, and country banks was brought about at the end of the nineteenth century by the industrial revolution. With the increased importance of town-based banks, financial centres such as London or Paris emerged. In tandem, the first branch systems developed so that by the end of the century most European countries had a nation-wide branch system created by the large, joint-stock banks. In each country, the competition between country-based (regional) banks and town-based (national) banks took a different form and led to heterogeneity in European banking. Furthermore, the relationship between industry and banks shaped the market. Whereas in the UK, banks focussed more on financing trade and less on financing industry, the ties between industry and banks were much closer in continental Europe. Consequently, UK industrial firms looked to the financial markets for funding (see Molyneux, 1996). With the growing importance of industry over trade, the UK developed a more market-oriented financial system whereas the continental European system became mainly bank oriented. In general, however, bank lending plays a dominant role in providing funds to the corporate, private, and public sector throughout the European market.

Based on data for 1999 provided by the European Central Bank (2000a) (see Table 1), in Euroland bank loans amounted to a larger percentage of the gross domestic product (GDP) than in the U.S. or Japanese system. In contrast, market based forms of funding, which are an alternative for corporations, are used to a lesser extent in Euroland.

Table 1: Euro-area characteristics in June 1999 (in per cent of GDP)

	Euro Area	USA	Japan
Bank Loans	100.4	48.4	107.0
Outstanding domestic debt securities	88.8	164.6	126.5
- <i>issued by corporates</i>	3.3	29.0	14.6
- <i>issued by financial institutions</i>	31.0	45.4	18.8
- <i>issued by the public sector</i>	54.5	90.2	93.1
Stock Market Capitalisation	71.1	163.3	137.7

Source: ECB Monthly Bulletin, January 2000.

Note: All data are for June 1999 except for stock market capitalisation, which are for October 1999.

The EU is striving to overcome heterogeneity in European banking in order to create a single market for financial services. Reviewing the regulatory process towards financial integration in Europe reveals that even if the establishment of the common market has been an objective in the EU since the 1957 Treaty of Rome and has been reinforced by the 1985 White Paper and the 1986 Single European Act, very little had been achieved even on a regulatory level until the Second Banking Directive (Second BD) of 1989. Regarding key regulatory elements, the First BD of 1977, which allowed for cross border branching under the host country rule³ was not very effective in reducing differences between national regulatory systems and was thus replaced by the Second BD. This Second BD relied on three fundamental principles of harmonisation, mutual recognition, and home country control and supervision⁴ - the latter representing a complete turnaround in regulatory policy compared to the First BD. Additional directives which are aimed at further harmonisation of the different national EU banking markets have been passed concerning bank supervision, capital adequacy, solvency standards, money laundering, consumer credit, or publishing and consolidation of annual accounts, to name a few.⁵ Moreover, the post-BCCI directive amended the various previous directives with the view to reinforce prudential supervision as a consequence drawn from the collapse of the Bank of Credit and Commerce International. Among other things, this directive

tightened regulation of deposits, foreign bank establishment, and fund transfers considerably. In the area of consumer credit, in 1986 the European Community introduced a consumer credit directive. The main two objectives of this directive were consumer protection and facilitation of cross-border credit by means of harmonisation of the banks' information provision to its customers. This directive was amended and completed by two more consumer credit directives in 1990 and 1998, respectively.⁶ Following more than a decade of designing and implementing financial market legislation, the EU has now adopted a Financial Services Action Plan with the explicit objective to 'devise a strategy for improving the operation of the single market in financial services, based on effective application of current legislation and amendment of the legislation where it is ineffective or incomplete' (CEC, 1998). On 1 January 1999, the Euro replaced the national currencies of Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. Of the remaining EU countries, Greece initially failed to meet the required economic criteria but joined European Monetary Union (EMU) on 1 January 2001, whereas Denmark, Sweden, and the United Kingdom decided not join the EMU as yet.

2.2. Integration as a market-driven process

Assessing the Euroland banking markets, integration can be considered as far advanced from a purely legal perspective (Zimmerman 1995, Bredemeier 1995). However, many observers find that such a single market is not yet fully present in all areas of financial services. Whereas Euroland interbank and wholesale markets are considered to be more integrated, the extent of integration in the retail banking markets is often being questioned. For example, the Commission (1999) states that 'the Union's financial markets remain segmented and business and consumers continue to be deprived of direct access to cross-border financial

institutions.' Following this line of reasoning, for regulation to become effective the market should react to these legal developments. The major driving forces for integrating retail banking are cross-border lending and cross-border bank mergers and acquisitions (M&As). Moreover and more recently, information technology (IT) is often said to have the potential to create a single market. The impact of these three developments on retail market integration will be discussed briefly in the following sections.

Cross border lending

At present, the focus in bank lending and deposit taking is clearly domestic. Data reported by the ECB (2000b) shows that in 1999 79.8 per cent of all loans were domestic. This figure increases even to 91.2 per cent when considering only loans to the non-bank private sector. Regarding deposits, 72.8 per cent of all deposits and 86.5 per cent of deposits to the non-bank private sector were domestic. However, the growth rates for all Euroland activities - with the exception of deposits from the non-bank private sector - are positive and larger than the corresponding growth rates for domestic activities. Furthermore, the market shares of foreign banks in Europe are still low, as Table 2 shows. Whereas in most countries the market share of European banks is higher than that of third country banks, the size of the market share is still low for many countries. Overall, three groups of countries emerge: Finland, France, Germany, Italy, and Spain with a low market share of foreign banks, Austria and the Netherlands with a medium market share of foreign banks, and Belgium, Ireland, Portugal and Luxembourg⁷ with a high market share of foreign banks. One reason for the differing degree of foreign penetration has been suggested by Hasan et. al. (2000) who argue that differences in national bank efficiency conditions for each European banking industry can act as an effective barrier to entry. These authors

conclude from their study that '[f]rom a competitive point of view the results suggest that an adverse (advantageous) environmental condition could be an exogenous good (bad) competitive strategy for the home banking industry. Moreover, being technical efficient enough seems to be a good strategy to deter foreign competition.' Even if average market shares have been increasing over time, the evidence in Table 2 does not allow the conclusion that a truly Europe-wide banking system has emerged yet. In that case one would expect increasing market shares having lead by 2001 to uniformly high market shares.

Table 2: Market share of foreign banks as percentage of the total assets of domestic banks

country	from EEA countries in 2001		from third countries in 2001		total	
	branches	subsidiaries	branches	subsidiaries	1996	2001
Austria	2	50		1	6	53
Belgium	12	57	5	3	92	77
Finland	7	0	0	0	8	7
France	8	21 ¹	1	21 ¹	36	9
Germany	4	5	2	3	11	14
Ireland	51	129		43	92	223
Italy	9	2	1		11	12
Netherlands	7	23	0	4	17	34
Portugal	12	56	3	3 ¹	37	71
Spain	8	8	0	2	21	18
Euroland						
unweighted average	12	35	2	9	33	52
median	8	22	1	3	19	26

Source: Authors' calculations based on OECD Bank Profitability Statistics, blanks indicate missing values. ¹ Data for 2000.

Cross border mergers

The EU regulatory process sparked two phases of bank M&As in Europe: The first phase took place in the late 1980s and early 1990s in reaction to the Second BD and the second phase took place in the second half of the 1990s in anticipation of the EMU (Tourani-Rad and van Beek, 1999). Reviewing the evidence on M&As in European banking reveals that M&As predominantly take place within national borders and within the same type. From Table

3 note first that the total value of domestic M&As exceeds that of cross-border M&As, mainly driven by acquisitions of commercial banks and securities firms. Only for insurance companies the value of cross-border M&As exceed the value of domestic M&As. This implies that consolidation is still taking place on a national rather than international level. Furthermore, for commercial banks and securities firms M&As within Europe are as important as other foreign M&As, indicating a global rather than regional consolidation process. Second, consolidation within the sector is more common than consolidation across sectors – with domestic M&As and to a lesser extent Europe-Non-Europe M&As when the acquirer is a securities firm being the only exceptions.⁸ This trend is still ongoing as figures for 1995 to 2000 are showing (ECB 2000c, Belaisch et al. 2001). During these years, 73 per cent of all mergers were domestic compared to international mergers with EEA banks (10 per cent) and third country banks (16 per cent). Furthermore, the speed of M&As has increased in recent years for large banks, as the majority of the 30 largest Euroland banks are the result of a merger. However, cross-border M&As could continue to be difficult due to a government's interest in limited foreign ownership in key institutions. In particular, as argued by Carletti and Hartmann (2002) national supervisory authorities might in practice disfavour cross-border M&As and promote 'national champions' as a means to preserve their control of prudential policies. As an alternative cross-border alliances have been favoured by banks. In addition, M&As between smaller banks have been continuously ongoing for several years and resulted in an overall decrease of the number of banks per country. In particular, 80 per cent of all bank mergers involved banks in countries with the largest number of domestic banks – Germany, Italy, France and Austria, confirming the view of ongoing domestic consolidation. In Germany, the number of savings banks and credit cooperatives fell by 5 and 13 per cent, respectively,

between 1995 and 2000. Taken together these findings show that the typical EU bank can still be characterised as a domestic bank.

Table 3: Value of M&As in the financial sector between 1985 and 1997

TARGET	ACQUIRER					
	commercial bank		securities firm		insurance company	
	value	% of total	value	% of total	value	% of total
<i>Panel A: Domestic M&As</i>						
commercial bank	89.0	36.0	23.0	9.3	11.0	4.4
securities firm	9.0	3.6	19.0	7.7	6.0	2.4
insurance company	20.0	8.1	24.0	9.7	46.0	18.6
<i>Panel B: Intra-European M&As</i>						
commercial bank	15.0	17.9	4.3	5.1	11.2	13.4
securities firm	8.7	10.4	5.8	6.9	0.3	0.4
insurance company	0.4	0.5	1.1	1.3	37.0	44.2
<i>Panel C: Europe-Non-Europe M&As</i>						
commercial bank	14.5	14.5	15.6	15.6	1.0	1.0
securities firm	4.3	4.3	15.9	15.9	3.1	3.1
insurance company	0.3	0.3	12.9	12.9	32.7	32.7

Source: Berger, Demsetz, and Strahan (1999). Values are given in billion of US dollar. For each panel, the per cent figures sum to 100.

The potential impact of IT

IT has influenced all areas of banking through an internal as well as an external channel. In the context of this study, the external channel, which shapes the way in which customers access a bank's services, is of interest. Here, traditional branch banking is slowly – though not fully – being replaced by remote banking via automated teller machines (ATM), electronic money, telephone banking, on-line security trading, or internet banking. The crucial issue is to what extent remote banking has a potential to promote retail financial market integration. As stated recently in the Commission's Financial Services Action Plan 'E-Commerce is already revolutionizing retailing and distribution of many financial services. Suppliers - EU and non-EU – will be able to make contact with potential users across national boundaries at minimal distribution cost. Users will benefit from a wider range of innovative products. The overall impact will be to reinforce and cement market integration.'

As Table 4 reveals, the extent to which remote banking is implemented differs across Europe. ATMs and telephone banking are the most widely developed remote banking services, with an average growth rate of 50 per cent between 1993 and 1997. Access to telephone banking is still limited and ranges from below 5 per cent in Finland, Italy, and Sweden to 10 per cent in France and the United Kingdom. Telephone banking also increased during the 1990s but might be replaced by internet banking. The density and growth of 'electronic funds transfer at the point of sale' (EFTPOS) illustrates the use of electronic payment instruments. Exceptionally high growth rates can be observed here but the difference between European countries is still quite pronounced. It appears that at the end of the 1990s cash still plays an important role but is used for smaller and more spontaneous payments whereas electronic payments are used for larger and more regular transactions (ECB 1999c).

Table 4: Selected remote banking services across Europe

country	telephone banking ¹	ATM machines		EFTPOS terminals		electronic money in 1997	
		number in 1997 ²	change 1993-97	number in 1997 ²	change 1993-97	number of cards ³	number of loading machines
Austria	n.a.	533	+67 %	1,652	+621 %	3,400	3,495
Belgium	5 %	492	+76 %	6,284	+48 %	3,430	6,438
Denmark	n.a.	253	+134 %	11,923	+184 %	n.a.	3
Finland	2 %	445	-25 %	10,506	+27 %	189	2,100
France	10 %	462	+42 %	9,555	+4 %	n.a.	n.a.
Germany	6 %	504	+64 %	1,984	+475 %	35,000	20,000
Greece	n.a.	209	+155 %	2,831	+1,075 %	0	0
Ireland	5 %	286	+30 %	1,402	n.a. %	0	0
Italy	3 %	444	+69 %	4,896	+268 %	62	945
Luxembourg	n.a.	613	+109 %	11,071	+32 %	0	0
Netherlands	5 %	410	+41 %	7,715	+381 %	n.a.	n.a.
Portugal	n.a.	631	+123 %	6,022	+116 %	384	5,129
Spain	6 %	863	+55 %	16,691	+101 %	3,502	10,942
Sweden	4 %	268	+5 %	7,778	+155 %	n.a.	n.a.
United Kingdom	10 %	393	+20 %	8,984	+94 %	113	1,295

Source: ECB (1999c). n.a. indicates that data are not available. ¹ For Germany and Italy in per cent of retail bank accounts. For Netherlands and Sweden in per cent of payment transactions. For France, Minitel users. For all other countries, in per cent of retail customer base. Data for 1997 and 1998 with the exception of 1996 for Belgium. ² per 1 million inhabitants. ³ in thousands.

Cost considerations and competitiveness have been the main motivators for banks to introduce IT as cost reductions of 60 to 70 per cent can be achieved by ATMs and EFTPOS or 75 to 99 per cent by internet banking when compared to branch banking. IT influences the competitive position of banks as it allows for price reductions due to falling cost, faster response time to customer requests, more tailor-made bank services based on readily available customer information, and access to new markets due to the deterioration of geographic restrictions that were present in branch banking but less so in remote banking (ECB 1999a, 1999b). However, the advances in IT have not yet led to any significant integration of retail markets. One reason might be the still high cost of cross-border money transfer which prevents retail customers from using a foreign bank's service even if it is accessible on-line. Furthermore, the Commission's (1999) Action Plan clearly outlined that uncertainties remain in the areas of marketing rules for financial products, information and transparency regarding contractual characteristics including redress procedures. Thus, whereas the potential for IT to enhance the integration of financial markets in Europe is clearly given, many obstacles still have to be eliminated. Realising this need, the EU is currently discussing proposals for an E-Commerce Directive and a Distance Selling Directive.

3. Recent evidence on the emergence of a single Euroland retail banking market

Despite the regulatory efforts for creating an integrated Euroland banking market, the market reaction in terms of cross-border lending and cross-border mergers has been limited so far and IT has not yet developed to its full potential. Nevertheless, at a first glance lending rates across Euroland appear today to be more

similar than in the past. As discussed below, looking simply at interest rate convergence may be misleading when judging credit market integration. We therefore propose a different methodology. With this methodology we empirically investigate the current state of integration for three different credit instruments across eleven Euroland countries. Based on this analysis, we are able to confirm the limited extent of the integration process so far. However, we also find that the introduction of the single currency is already showing an impact on lending market integration, in particular with respect to corporate lending, pointing to the important role of a competitive environment in banking.

Convergence of interest rates?

The Cecchini report (Commission of the European Communities, 1988) originally predicted that post-integration prices will fall to a level equal to the prices of the country with the lowest pre-integration prices. The Cecchini study advances the hypothesis of price equalisation for financial assets within Europe as the characteristic of completely integrated markets. This 'law of one price' manifests itself in financial markets as the 'interest rate parity'. From the point of view of the Cecchini study convergence of interest rates would reflect the emergence of a single retail banking market in Euroland. In two recent studies (Kleimeier and Sander, 2002 and 2003) we have investigated the development of three key retail interest rates in the Euroland: mortgage loans to households (N2), consumer loans to households (N3), and the lending rate charged to the corporate sector (N4).⁹ The first study carried out for the European Credit Research Institute (ECRI) of the Centre for European Policy Study (CEPS) investigated the period from April 1995 to December 2000, while the second study updated the database to April 2002. The latter extension has confirmed the 'impression' in our first exercise that the single currency has played a major role in retail

lending market as discussed below. In the following we will therefore report the results of our 2003 study.

In Table 5 we show descriptive statistics of all three reported interest rates in both, nominal and real terms before and after the introduction of the single currency on 1 January 1999. A *first* observation is that all nominal rates are now closer together than they were in the pre-EMU period. This convergence can, however, largely be attributed to the effect of macroeconomic factors, in particular the single monetary policy. When policy-determined interest rates and – consequently – short-term money market rates are converging, lending rates should also align more closely. This in itself is thus not yet a sign of an integrated lending market. *Secondly*, mortgage rates are now closer together than other lending rates. For example, while Italy had the highest average mortgage rate of 11.1 per cent in the pre-EMU phase and Belgium with 6.1 per cent the lowest rate, both countries have in the EMU phase an almost identical average rate of about 6 per cent. This is not so surprising, since the credit characteristics of mortgages across countries are more similar throughout Euroland than lending rates charged for the other credit forms, which differ more widely in their underlying characteristics (as well as in their statistical definition). *Thirdly*, and more surprisingly, the real, consumer price inflation-corrected cost of mortgage borrowing still differs widely throughout the Euroland, with the highest real cost in France (4.96 per cent) and the lowest in Ireland (1.16 per cent). In a way one can say that the effectiveness of the convergence process for nominal mortgage rate leaves the consumer with diverging real cost of (mortgage) borrowing across Euroland. The reasons are, of course, the differences in consumer price inflation, typically and ironically leading to the highest real borrowing cost in those countries where the economy is most sluggish. *Fourth*, for real and

nominal consumer and corporate lending the cross-country differences have become smaller, but they still remain large, in particular for consumer lending rates.

Table 5: Average nominal and real cost of borrowing and interest rate spreads in EMU

country	mortgage lending rates		consumer lending rates		corporate lending rates	
	pre-EMU	EMU	pre-EMU	EMU	pre-EMU	EMU
Panel A: Nominal cost of borrowing						
Austria	6.64	5.74	8.29	7.05	7.05	6.14
Belgium	6.07	6.10	8.16	7.20	4.58	4.68
Finland	6.36	5.23	7.58	6.40		
France	8.07	6.43	10.31	8.51	6.56	5.05
Germany	6.17	5.73	11.47	10.48	7.95	8.25
Greece		7.22		16.13	20.03	11.54
Ireland	7.17	5.17			10.03	9.04
Italy	11.09	6.17			10.48	6.09
Netherlands	6.31	5.88			3.59	4.33
Portugal	9.88	5.63	14.05	9.77	10.22	5.63
Spain	8.27	5.41	11.54	8.11	7.35	4.77
Panel B: Real cost of borrowing						
Austria	5.20	4.13	6.85	5.45	5.61	4.53
Belgium	4.68	3.91	6.77	5.02	3.20	2.50
Finland	5.25	2.89	6.47	4.06		
France	6.63	4.96	8.88	7.03	5.13	3.58
Germany	4.96	4.01	10.25	8.75	6.73	6.52
Greece		4.19		13.10	14.03	8.50
Ireland	6.30	1.16			9.15	5.02
Italy	7.88	3.95			7.27	3.87
Netherlands	4.61	2.59			1.89	1.04
Portugal	7.94	2.48	11.11	6.62	7.28	2.47
Spain	5.42	2.52	8.70	5.22	4.50	1.88
Panel C: Spreads over money market rate						
Austria	3.18	1.92	4.83	3.23	3.59	2.31
Belgium	2.43	2.27	4.52	3.38	0.94	0.86
Finland	2.45	1.41	3.66	2.57		
France	4.01	2.61	6.26	4.68	2.51	1.23
Germany	2.67	1.91	7.96	6.65	4.44	4.42
Greece		1.54		10.45	4.57	5.85
Ireland	1.38	1.35			4.24	5.22
Italy	3.43	2.35			2.82	2.26
Netherlands	3.07	2.06			0.35	0.51
Portugal	3.45	1.81	7.62	5.95	3.79	1.81
Spain	1.76	1.61	5.04	4.29	0.84	0.95

Source: Kleimeier and Sander (2003) table A.3. Pre-EMU covers the period from April 1995 to December 1998 and EMU covers the period from January 1999 to April 2002.

The non-applicability of the law of one price in credit markets

While from the point of view of the Cecchini study convergence of interest rates would reflect the emergence of a single retail banking

market in Euroland, we have argued (e.g. Kleimeier and Sander, 2000) that the law of one price is not the correct point of reference to make statements on the state of integration of credit markets. Typically, interest rate parity is suggested as parity for interest rates on such assets like government bonds, which are perfect substitutes under the condition of perfect capital mobility. This is clearly not the case for bank assets like loans. On the one hand, loans are characterised by heterogeneity caused by risk differences, cultural influences in bank-client relationship, country-specific strategic bank behaviour in order to cope with informational imperfections (moral hazard, incentive effects etc.), etcetera. Consequently, one cannot expect the law of one price to hold in the strict sense in the retail banking market. On the other hand, there is clearly not (yet) a perfect 'capital' mobility that can bring about price equalisation by means of cross-border arbitrage. As discussed in the previous section, banks are neither reaching out for all prospective Euroland customers, nor are consumers shopping around for credits in the whole of Euroland, nor is electronic banking yet filling the cross-border lending gap. In other words, retail banking is (still) localised. Thus, retail interest rates may not as easily equalise as suggested by the Cecchini study. To the contrary, when interest rates are equalising in the presence of differing underlying credit characteristics this cannot even be interpreted as a sign of an emerging integrated banking market. Consequently, looking simply at interest rate convergence can be profoundly misleading.

We have therefore proposed to base the judgement on the degree of integration in the retail banking market on the existence of 'co-integration' among national credit markets in Euroland (Kleimeier and Sander, 2000). This concept realises that although full equalisation cannot be expected, market integration requires

that interest rates should exhibit a certain long-term equilibrium relationship. Thus, we do not require that the national interest rate of a country (L_{nat}) should equal the average interest rate in the remaining Euroland (L_{EU}) as would be required by the 'law of one price' shown in equation (1):

$$(1) \quad L_{nat} = L_{EU}$$

Rather, we accept as a possible long-term relationship that the rates may and eventually should even differ from each other, e.g. by reflected differences in the underlying credit characteristics such that:

$$(2) \quad L_{nat} = a + b L_{EU}$$

Equation (2) can be interpreted as a relationship that holds in the long-term, while in the short-term deviations from this long-run equilibrium are possible. The existence of such a long-term relationship would reflect the existence of an integrated financial system in which 'structural trends and systematic disturbances in banking cut across state borders'.¹⁰

Equation (2) could in principle be estimated by means of regression analysis. However, since interest rates typically follow a 'random-walk', also known as an 'integrated time series', one may obtain spurious results from regression analysis. To establish that there exists a certain long-term relationship one therefore has to undertake a *co-integration analysis* (for analytical details see Kleimeier and Sander, 2000 and 2002). If co-integration is found, this reflects that markets are integrated such that national interest rates are connected in terms of a long-term relationship as shown in equation (2). In the short-run, however, deviations from this long-run equilibrium can occur but should be corrected over time by one or more of the following three mechanisms:

- An international arbitrage process where banks increasingly shift their lending activities to countries where lending rates are the highest while consumers borrow in countries with the lowest interest rates (cross-border lending).

- When money market rates equalise by means of an international arbitrage process such changes will eventually be passed-through onto lending rates via domestic competition that ties lending and borrowing rates together (interest rate pass-through).

- Increased (international) competition, or the threat of it as suggested by the theory of contestable markets, may help to harmonise the pricing behaviour of banks and thus lead to a harmonisation of retail prices.

We have investigated the presence or non-presence of such a long-term relationship among Euroland retail banking markets and inquired into these three mechanisms that eventually bind national retail interest rates together. In the following we summarize the major finding of our analyses.

Are Euroland retail banking markets already integrated?

Our judgement on the emergence of an integrated European banking system is based on the result of the co-integration analyses that we performed for all retail lending rates for Euroland countries in both nominal and real terms. The period of investigation is April 1995 to April 2002. Our empirical results strongly indicate the presence of significant structural breaks around the time of the introduction of the single currency, indicating the important role of the EURO in Euroland banking market integration. We therefore investigated existence and degree of integration separately for country-specific pre-break and post-break period, of which in the following we speak loosely of a '*pre-EMU period*', largely characterised by the process of implementing the single market up

to the end of 1998 and a second '*EMU-period*', characterised by the presence of the single currency after 1 January 1999. While we are confident that the methodology we propose is helpful in monitoring the progress towards an integrated European banking market, the small existing database is, however, a major obstacle for making too strict judgements at the moment, for three reasons: First, there is no sufficiently harmonised data in particular on consumer credit (Diez Guardia 2000). This problem can and should be addressed in the future, but in the meantime the data provided by the ECB can be used as a first proxy. Secondly, the time period for which data for all countries are available simultaneously is very limited. And third, the introduction of the single currency has brought about structural changes that limit the available database further. In particular, by conducting a number of structural break tests we found that the introduction of the single currency in 1999 has sufficiently shaken up the structural long-term relationship. In other words, EMU has already brought about significant changes in the relation among national retail banking markets in Euroland. This evidence seems to be in line with the view that a single currency will have a major impact on the unification of a banking system. This, however, leaves our study (and any other research) in a dilemma: Either one ignores the structural breaks and includes past data that may not anymore reflect the current state of integration (this is, of course, unacceptable from a methodological point of view), or one bases judgements on the current state of integration only on data relating to the EMU phase. This is methodologically correct, but limits the database from which to derive judgements to two years, which obviously directly limits the power of the statistical work. We have chosen the second way, keeping in mind the limitation of the database in making judgements. Nevertheless, our second study (Kleimeier and Sander 2003) has by and large confirmed our earlier results, thus indicating both a certain

robustness of the results over time and the important role of the single currency in European retail banking market integration.

In the next step we tested for the existence of a long-term co-integrating relationship between national and the remaining Euroland retail banking markets (equation 2). If such a relationship can be established we speak of an integrated market. The degree of integration can then - and only then - be investigated by means of a corresponding 'error-correction model' (ECM). This ECM allows us to estimate how fast the national interest rates are driven back to their long-run equilibrium relationship that they have with the remaining average European countries. The existence and the re-approach towards such a long-term relationship after a disturbance are interpreted as evidence for the existence and degree of integration in the European retail banking market.¹¹ Do we then find evidence for an integrated European retail banking market? The brief answers are: No for mortgages, (maybe) no for consumer lending, and maybe (yes) for corporate lending. Looking into the evidence more closely we find:

1. There is only very limited evidence in favour of co-integration with respect to nominal mortgage rates. Only France's mortgage rates appear to be co-integrated with the rest of Euroland of the whole estimation horizon. For Germany and the Netherlands co-integration is only present for the pre-EMU period and – surprisingly – not for the EMU phase, whereas for Belgium co-integration is present only in the post-break period. This result is very much in line with the still localised character of mortgage lending and strengthens our earlier point that judgments about integration of retail banking markets based on interest rate convergence can be profoundly misleading.

2. In real, inflation-corrected terms, there is some more evidence in favour of the integration hypothesis despite the fact that

real mortgage rate diverge more than nominal ones because of the inflation differentials in the first two years of the EMU. The real mortgage rate results may thus reflect the fact that borrowers extensively compare prices nationally, that the national markets are more competitive and that inflation expectations play an important role in the long-term oriented mortgage market. This should, however, not be misread as evidence for a cross-border arbitrage process in 'real mortgages'.

3. We find somewhat more, but still very limited evidence for co-integration for nominal consumer rates. For France, Germany, Greece, Portugal, and Spain we find a statistically significant adjustment process towards a long-term equilibrium relationship, however, the speed of adjustment towards this equilibrium is very low for all countries except Portugal and Spain in the EMU period.

4. In real terms the evidence for co-integration is still very sketchy.

5. With regard to lending to the corporate sector the evidence is pointing to more cases where co-integration could be established for nominal interest rates in particular in the EMU phase, thus pointing to the more important role of competition (for example by the 'threat' of direct credit finance etc.) in this sector. Specifically, for Ireland, Italy, Portugal, and Spain we find a significant speed of adjustment toward the long-run equilibrium relationship in the EMU period. Moreover, the speed of adjustment is higher than for consumer rates with an average adjustment back to long-run equilibrium taking place within 1.5 to 2.5 months. Likewise, the strongest results in favour of integration in real borrowing costs can be found for corporate rates.

In sum, we find (almost) *no* evidence for an integrated banking market for mortgages. Our results for consumer lending

rates are best described by a (maybe) 'no'. But we do find quite some evidence for integration in lending to the corporate sector in the EMU phase from nominal as well as real rate analysis. A 'maybe yes' might therefore be justified, in particular in the EMU phase. Our 'no, no, and maybe' conclusion is, however, subject to three reservations. First, as noted above our sample size is for obvious reasons very limited for the EMU period, thus limiting the validity of conclusions. Second, as the effects of the single currency unfold the so far rather sketchy evidence for integration may increase. And finally, the mechanism that may eventually manifest itself in an integrated banking market may after all not be brought about by cross-border lending, mergers and acquisitions or international arbitrage but by either interest-rate pass-through or competition on a national or even regional or local base.

Is the transmission process efficient and symmetric?

Rather than cross-border arbitrage, a smooth pass-through of monetary policy rate changes onto lending rates in all EMU member-countries can eventually lead to 'tying together' of interest rates and 'produce' the statistical artefact of evidence for or against (co-)integration. Retail interest rates could in principle follow the same time pattern if banks in the different Euroland countries would pass changes in policy-related interest rates smoothly and with the same speed onto lending rates. In other words, when there is only one money market rate in Euroland and retail markets would not appear to be integrated, this could imply differences in the way changes in money market rates are extended to the borrowers within Euroland. A limited pass-through of interest rates could also be interpreted as pointing to a still high degree of imperfect competition in retail banking (Cotarelli and Kouralis, 1994). And if the pass-through process is heterogeneous this could be interpreted as a limited institutional convergence process in Euroland banking

(Kleimeier and Sander 2003 and Sander and Kleimeier 2003). In our studies we estimated a number of various specifications of pass-through models for all Euroland countries and both sub-periods. Without going too much into details some of the most important results are:

1. The pass-through of policy interest rates onto lending rates is less than perfect in the short-term as well as in the long-term, in all three lending markets and in practically all Euroland countries.

2. As a rule of thumb the pass-through is in most countries the least efficient in consumer lending and the most efficient in corporate lending, thus pointing to the fact that the pass-through may at least bear some responsibility for the finding of co-integration in corporate lending.

3. Comparing across countries, the pass-through does not exhibit common characteristics; instead it is characterised by a high degree of heterogeneity.

4. Although the extent and speed of the pass-through is positively affected by competitive features of national banking markets, legal and cultural differences are still important barriers to full convergence.

5. Generally, and regardless of the model specification, it appears that in the EMU phase there is some evidence for a smoother pass-through.

In sum, our results point to the fact that the transmission process from money market interest rates to lending rates in Euroland still exhibits strong national characteristics, which are rooted in the specific features of the national finance and banking systems. While we find some evidence for the emergence of a smoother pass-through process in the recent EMU years it is still a long way from calling it a uniform banking system, in particular

when speaking about consumer credits. These results explain at least a part of the lack of co-integration in retail banking found earlier.

The role of national competition

So far, we have found a limited but somewhat increasing evidence for co-integrated retail lending markets. While our first point was that arbitrage played a not so important role, the pass-through of policy rate changes onto lending rates also appeared to be imperfect. Consequently, additional regulatory efforts and pro-competition measures may be necessary to promote a smooth and more uniform pass-through of monetary policy changes. Increased competition or the threat of it as suggested by the theory of contestable markets may therefore help to harmonise the pricing behaviour of banks throughout Euroland and thus lead to a greater harmonisation of retail rates.

A first insight into the degree of competition can be obtained from looking into the market structure. As discussed in section 2, most European bank M&As have been national and have thus contributed to an increased national concentration in the banking sector, as Table 6 shows. This table reveals that concentration is especially high in smaller countries such as Finland, the Netherlands, Portugal or Belgium where the five largest banks account for more than three quarters of the market. In larger countries such as Germany, Italy, or Spain markets are less concentrated with an average market share per bank of less than 10 per cent as indicated by the Herfindahl index.

The market structure, as measured by concentration ratios, is, however, only an imperfect indicator of market behaviour and market conduct. In recent years, the European banking market was

put under pressure not only by the EU's efforts in financial market integration but also by a shift in banking activities, a trend towards disintermediation, and competition from non-bank financial firms. Whereas the core function of banks is deposit taking and lending,¹² European banks have long tended towards universal banking activities. Consequently, the banking activities allowable under European law reflect this universal nature of the European bank and includes next to deposit taking, lending, financial leasing, money transmission, payment services, guarantee provision and also investment activities such as trading for own account or for customer,

Table 6: Concentration indicators in 1999

CR5 share of the 5 largest credit institutions in total assets (as % of total)

	assets	loans	deposits
Austria	50.39	43.30	39.58
Belgium	77.39	80.38	74.73
Finland	74.33	68.02	63.35
France	42.70	46.40	69.20
Germany	18.95	15.75	15.01
Ireland	40.79	48.22	50.99
Italy	48.33	47.57	46.07
Netherlands	82.25	81.50	83.37
Portugal	72.60	72.90	79.59
Spain	51.90	47.90	45.30

Herfindahl index for total assets of credit institutions

	assets	loans	deposits
Austria	0.1016	0.0725	0.0541
Belgium	0.1552	0.1671	0.1352
Finland	0.1910	0.1741	0.1900
France	0.0509	0.0665	0.1333
Germany	0.0136	0.0124	0.0090
Ireland	0.0480	0.0610	0.0700
Italy	0.0600	0.0590	0.0575
Netherlands	0.1700	0.1601	0.1877
Portugal	0.1234	0.1296	0.1635
Spain	0.0716	0.0592	0.0542

Source : ECB (2000c).

participation in shares issues, corporate advice, arrangement of mergers and acquisitions, money brokering, portfolio management and advice, safekeeping of securities, and offering credit reference services and safe custody services (Zimmerman, 1995). Among these activities banks have more recently shifted their focus away from interest-generating activities such as deposit taking and lending towards fee-generating services such as investment banking. As Belaisch et al. (2001) report, in the Euroland on average 22 per cent of banks' operating income in 1998 came from commissions compared to only 16 per cent in 1992. One reason for this shift were falling net interest margins (NIM). From 1992 to 1998 NIM have declined from 2 to 1.5 per cent of banks assets. Belaisch et al. (2001) interpret that as the result of increased competition, which makes the traditional lending activities less attractive for banks and drives them into more profitable fee-generating activities. According to Davis (1999), this shift was furthermore driven by factors including deregulation, advances in technology, the growth of institutional investors and the growth of securities markets. The growth in securities markets for example encouraged corporate disintermediation whereas financial liberalisation increased non-bank competition from insurance companies or non-financial competition from department stores or car manufacturers.

As the above discussion reveals, there is a trend toward decreasing NIM. In order to validate this development in the retail market we have calculated the interest rate spreads – that is, the difference between the lending rate and the money market rate.¹³ Table 1 reports average spreads and reveals that with few exemptions spreads have fallen and the differences across countries have become smaller. However, it is a well-known fact that spreads are lower when interest rates are low. Thus, a part of this

development can be contributed to macroeconomic developments. Moreover, consumer lending rates have least profited from these developments with spreads ranging from an average of 6.6 per cent in Germany (not to mention Greece with 10.45 per cent) to 2.6 per cent in Finland under the single currency regime. In the more competitive corporate lending market spreads are mostly below 2 per cent with notable exemptions of Germany, Greece and Ireland, whereas for mortgages the spreads are ranging between 2.6 per cent (France) and 1.4 per cent (Ireland). These observations are in line with our earlier findings in the co-integration analysis: The more competitive credit markets are, the smoother the pass-through of interest rates and the more likely is a homogenous behaviour of credit markets across Euroland. In other words, creating a single European banking market cannot only rely on the Europe-wide deregulation and facilitation of cross-border activities. Rather, in the context of localised lending activities promoting and securing a competitive environment at the regional or even local level remains essential.

4. Conclusions

Our study reviews the process towards creating a single European retail banking market. The EU has aimed at integrating the traditionally heterogeneous banking market in Europe by means of harmonising legislation. While wholesale banking market integration is considered to be more advanced, retail banking integration is still in its infancy. Cross-border lending, cross-border bank mergers, and the promises of new technologies have not yet delivered the creation of a single retail banking market. In this paper we summarise the results of our recent empirical studies of this issue. In particular, we find that there are some tendencies for a more integrated corporate lending market, while consumer lending and

mortgage markets are still fragmented. We identify three reasons for a lack of integration: A lack of international arbitrage, a limited pass-through of interest rate changes onto lending rates, and a limited nationally and internationally competitive retail banking environment. Regarding the first point, lending is still a very much localised activity and may eventually remain to be so. If, however, cross-border lending is limited this lack of internationalisation of lending could have been healed by a competitive behaviour of loan pricing. In such a case, the changes in the bank's cost of funds would be fully passed onto the borrowers. Our study finds that also in this respect consumer credit lending is lagging behind its corporate lending cousin, explaining the lack of integration in Euroland consumer credit markets. While there is still strong evidence that national characteristics remain a deterrence to a truly single banking market, our empirical work also suggests that first signs of a closer integration are becoming visible after the introduction of the single currency.

Having said that, it appears that with the introduction of the single currency in particular formerly so-called non-core Euroland countries, such as Portugal and Spain, appear to benefit most from both lower policy-determined interest rates and a faster pass-through onto lending rates. Nevertheless, the efficiency of the European retail lending market could still be improved largely in order to reap the growth benefits promised by the Cecchini and all later follow-up studies. Our results, however, suggests that 'integration' alone may not be enough. Rather, the urgently needed growth bonus for Euroland may require a trinity of a single currency, integration, and a strict monitoring of competition in Euroland banking.

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Endnotes

¹ Note that the London Economics study, unlike the other studies, mentioned does not explicitly model dynamic growth effects, i.e. an impact on the annual growth rate, but only the first impact on the level of GDP.

² Another additional benefit of financial integration may come from the role of integrated capital markets in promoting insurance against asymmetric shocks as argued by Asdrubali et al. (1996). We are indebted to CERC's anonymous referee for bringing this point to our attention.

³ Under the host country rule a bank had to obtain permission to operate in a foreign country by the supervisory agencies of that country.

⁴ Harmonisation should lead to a system where banks operating in several countries face a common set of EU regulations. Mutual recognition implies that the banking charter of the home country is sufficient to operate in all EU

countries. Home country rule, finally, stipulates that foreign owned banks are regulated by their home country and not by the host country.

⁵ For details see Kleimeier (2001), Sander and Kleimeier (2000), Diez Guardia (2000), Zimmerman (1995).

⁶ For details and evaluation see Diez Guardia (2000).

⁷ The data is not reported here but already in 1997, foreign banks held a market share of more than 90 per cent in Luxembourg. See Belaisch et al. (2001).

⁸ It is interesting to note that the only strategy which can be characterised as clearly European is the acquisition strategy that insurance companies follow within Europe when acquiring banks. This strategy amounts to 13.4 per cent of all Intra-European M&As and is the only M&As type for which the intra-European percentage is higher than either the domestic or the non-Europe share. Thus, it appears that a European trend towards ALLFINANZ might be emerging.

⁹ The data source is the ECB's National Retail Interest Rates Statistics (N2, N3, and N4 refer to the number of the series as reported by the ECB). The rates are available on a monthly basis starting in the 1980s with most countries reporting regularly as of 1989.

¹⁰ For this sentence we have used the words of Padoa-Schioppa (2000) with which he refers to the localised US financial system that is commonly viewed as integrated.

¹¹ For technical details see Kleimeier and Sander (2002).

¹² For details on the theory of financial intermediation see Diamond (1984) and Bhattacharya and Thakor (1993).

¹³ De Bondt (1998) argues that interest rate spreads can be used as a rough indicator of imperfect competition. He uses a measure of spreads defined as the difference between lending and deposit rates, which can also be seen as the opportunity cost of intermediation.

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Stefanie Kleimeier received her PhD degree in 1993 from the University of Georgia in Athens (U.S.A) and currently holds the position of Associate Professor of Finance at the Universiteit Maastricht. She has extensive experience in graduate as well as executive teaching worldwide. Her research focuses on the areas of financial market linkages and corporate finance with specialisations in banking market integration in Europe and project finance. Her research has been published in leading academic journals such as the *Journal of Banking and Finance* and *Journal of International Money and Finance*. Dr Kleimeier also does consultancy work, for example for the European Credit Research Institute.

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