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Determinants of Bank Efficiency in Europe

Assessing Bank Performance Across Markets

Franz R. Hahn

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1. Introduction – The Goal of the Study[1)]

Investigating the efficiency characteristics of financial services institutions has become a very active research field in the economics, finance and management literature. Since the structure of the financial services industry is changing rapidly, the measurement of X-efficiency of banks and related financial institutions has increasingly aroused public interest. As put in *Goddard et al.* (2001), "policy makers and bankers alike are interested in investigating such issues because if financial firms are becoming more efficient, then improved profitability, lower prices, and improved service quality for consumers, as well as greater safety and soundness can be expected if efficiency savings are directed towards improving capital buffers that absorb risk. Of course, the opposite is the case if structural changes result in less efficient intermediaries with the additional danger of taxpayer-financed bailouts if substantial losses are sustained".

In following *Farrell* (1957), in the modern efficiency literature technical efficiency of an individual production unit is predominantly measured by the equiproportionate reduction in current inputs to produce predetermined levels of output (or vice versa). However, the ability of a production unit to transform inputs into outputs is influenced by both its internal technical efficiency (the quality of its managements) and its external operating environment. Examples of external factors affecting managerial efficiency include the form of ownership, location (country) or markets characteristics, labor relations, and government regulations. Thus, not controlling for external environmental factors (such as external market conditions) may substantially bias the measurement of managerial efficiency resulting in adverse and inferior public policy reactions. In addition, international comparison of productive

[1)] I would like to thank Prof. G. Tichy and my colleague Stephan Schulmeister for their support and suggestions, many of which improved the study's organization and coverage. I owe a special debt to my long-time research assistant Christa Magerl for providing research support at the highest level. This research project and many others of mine have greatly benefited from her commitment to excellence. Naturally, the usual disclaimer applies. Financial support was granted by the Anniversary Fund of the Austrian Central Bank (OeNB) which I am deeply grateful for.

efficiency by firms is substantially impaired when managerial inefficiencies cannot be separated from those components of inefficiency that are external to a firm.

In this study we make an attempt to assess the technical efficiency (or X-efficiency) of the banking sectors of sixteen European countries, including Central and Eastern countries, and two overseas economies (Japan, the United States of America) with the focus on both, the internal and controllable factors and the environmental and non-controllable factors critical to banking markets. Due to very tight overall data restrictions at both the bank and the environment level, we constrain the focus of our analysis on the study of small- to medium-sized banks and, importantly, assume that the geographic region where the head offices of the banks under study are located be a good delineation of the relevant external and, thus, non-controllable banking market environment. Given the focus on small- to medium-sized banks covered in our data panel, we use the NUTS 2 level of EUROSTAT as analytically appropriate geographic approximation of the home market for locally and regionally operating banks in Europe. For the United States of America, we consider the "home federal state" of the bank under study to be a feasible proxy for its home market. For Japan we choose the "home prefecture" of the bank under study, respectively. For (almost) all countries included in our sample, reliable environmental data at the defined regional level relevant to banking could only be gained from the respective national accounts and demographic statistics.

The given data restrictions determine both range and structure of the empirical analysis. Thus, in the given setting we consider the non-parametric Data Envelopment Analysis (DEA) approach to be most appropriate for the analysis of banking efficiency under different external markets conditions. To be specific, we use a non-parametric two-stage DEA model which allows for the identification of any inefficiencies that are attributable either to the bank management or to the market or external environment condition under which the banks operate. This approach draws on *Charnes et al.* (1981) who were the first to deal with the problem of disentangling managerial from environmental effectiveness within the frame of DEA. This pure non-parametric setup is superior to the usual two-stage approach combining DEA efficiency estimates with a second-stage regression analysis since it is free from dependency problems which seriously impair statistical inference.

By allowing, methodologically, for a distinction between managerial and external market conditions which may affect excellence in banking, the empirical findings of this study may contribute to a deeper and more comprehensive understanding of the overall determinants of X-efficiency in local OECD banking.

2. Why to Compare Bank Efficiency Across Markets?

Since the 1980s in almost all countries emphasis in banking has been on improving profitability and efficiency. The driving force in this process has been increased adoption of market-dominated economic strategies and the liberalization and deregulation of capital markets worldwide allowing a much freer flow of capital at all levels. In the wake of this structural change competitive pressure on banks, retail and wholesale alike, has constantly risen due to the emergence of new rivalry not only through increased financial markets activities (that is, disintermediation) but also through new financial intermediaries such as pensions funds and money market funds. The new shape of the financial system, nationally and internationally, has also changed the regulatory view on prudential banking.

For prudential authorities excessive risk-taking in banking is viewed as one of the main sources held responsible for the intrinsic fragility of the banking system. It is said that banks' desire for excessive risk-taking has the potential to destabilize the banking system to a degree that triggers banking crises with undesirable macroeconomic consequences. Undoubtedly, over the last decades banks have played a pivotal role in the impressive increase of the activity of financial markets, and of international capital movements, both of which contributed substantially to the dramatic enhancement of the banks' overall risk exposure.

Banking authorities in many countries (i. e., the United States of America, European Union member states) responded to these developments by the implementation of risk-based capital adequacy standards. Capital requirements are supposed to deter bank managers not only from holding overly risky assets in the first place, but also from gambling irresponsibly with the depositors' money when the bank faces tough times. Consequently, minimum capital requirements for financial institutions as outlined in the two Basel Capital Accords have been implemented by regulatory

authorities in more than 100 countries. More generally, across the most advanced economies the harmonization of regulatory and supervisory principles and standards have become very important political issues ranking very high on the international agenda.

A very articulate example in this respect has been the Single Market Program (SMP) of the European Commission that aims at harmonizing regulations and boost competition among the member states of the European Union. The banking system has been a prime target of the SMP since in all European Union member states, though with marked differences, the banking industry is among those sectors with the highest level of government controls and the lowest level of competition verve due to a strongly protected banking environment. The European Union legislation designed in the 1980s and implemented thereafter in the 1990s constitutes a strong commitment of the European Union authorities to create open banking markets across the European Union banking systems. With the Financial Services Action Plan (FSAP) initiated in the late 1990s the European Commission has renewed its determination to continue with the completion of the Europe-wide single market in financial services.

Likewise, since the 1990s the banking legislation in the United States of America has lifted restrictions that inhibited competition in interstate-banking and abolished the demarcation between commercial and investment banking. In addition, the U.S. banking authorities have been the driving forces behind the New Basel Accord and its stronger risk orientation of capital adequacy requirements in domestic and international banking. Though Japan has been somewhat reluctant to comply with international regulatory standards in banking, the Japanese government has recently also taken legal actions in order to reshape the Japanese banking system and allow for more competition in the financial services sector altogether.

Against this backdrop, the following bank performance analysis across markets focuses on the crucial question if harmonization of the regulatory environment and the growing strength of international competition have led to a sizeable convergence of efficiency levels in banking. For this reason, it is critical to sort out the environmental or external factors from the pure managerial or internal factors that affect banking efficiency. The most critical external factors affecting banking

efficiency are, of course, those that determine the relevant bank market environment.

According to *Goddard et al.* (2001), the first cross-country European study of banking efficiency has most probably been the empirical investigation on bank performance in Finland, Norway and Sweden conducted by *Berg et al.* (1993). Since then more than a dozen international studies aimed at comparing the performance of European banking sectors have been conducted, only a few of which have accounted for country-specific differences in the banking conditions external to banks' management (see, for example, *Casu – Molyneux*, 2003, for a discussion of recent international studies on productive efficiency in banking). However, all these studies which explicitly account for the influence of environmental factors on banking efficiency are seriously hampered by the fact that they center on country-specific environmental conditions at the aggregate level only. The most preferred environmental indicator for capturing the economic conditions under which a bank has to operate is the GDP (gross domestic product) per capita. The key motivation for this is that the aggregate income per head is viewed as a good proxy for whether a bank enjoys a more or a less favorable economic market environment. For example, high-income countries are expected to be more likely to enjoy the virtues of fiercer competition than low-income countries. This applies to many domestic markets, particularly to the financial and banking markets. At the center of this view is that banks in rich countries have to prevail under much tougher market conditions than banks in less developed countries where banks may enjoy the advantage of, at least, some local market power.

In more recent studies, the set of environmental and structural indicators assumed to be relevant to banks has been enlarged by measures such as the numbers of branches per bank, ATMs (automatic teller machine) per branch, ATMs per inhabitant, the number of transactions in ATMs per inhabitant, and ATMs per square kilometers. These indicators are supposed to be closely linked to the level of performance of services demanded and expected by a more upmarket clientele. Again, these more recent studies also place their international comparison analyses on the assumption that there is a single banking market per country and this

aggregate market environment is representative for the great majority of banks doing business within the domestic borders.

Notwithstanding, there is no doubt in the trade literature that the banking systems in the OECD economies and elsewhere mostly consist of often countless locally and regionally operating banks which frequently face local and regional market conditions quite different from those basic parameters relevant to large nation-wide or even international-oriented banks. The Austrian banking system, for example, is made of more than 800 universal banks, most of which locally and regionally operating units. Only a handful larger Austrian banks, twenty at the best, entertain a network of branches that reaches every corner of the country. The German banking system is structured much the same and, if space were available, we could add to this list one European country after the other.

Concerning data sample composition, the paper by *Casu – Molyneux* (2003) is quite characteristic for the great number of international efficiency studies done in banking. The authors base their analyses on a pooled sample of 530 banks, drawn from five European countries (France, Germany, Italy, Spain and the United Kingdom) that consists of data (non-consolidated balance sheet and income statement data) of the five countries' largest banks covering the period 1993 to 1997. In this sample, the difference in size of the banks across the countries considered is more than substantial. The authors themselves put their finger on the downside of their dataset by pointing out that "the average total assets size of UK banks is more than double that of Italian banks and nearly four times that of Spanish banks". This gives rise to the suspicion that the banks covered in this sample not only differ in their cost structures (or in their scale of production) but also are very likely to face banking environments quite different from each other and certainly not sufficiently well described by national account-related measures such as GDP per head at the national level or structural indicators such as nation-wide ATM-related or branch-related metrics. For example, for some banks it may well hold that market-related indicators at the local or regional level be more appropriate to capture their predominant external market conditions than nation-wide measures. On the other hand, for banks with a strong international orientation domestic-based market

conditions may turn out to be much too narrow to adumbrate the external environments under which these banks predominantly run their operations.

The study of *Casu – Molyneux* (2003) is also symptomatic for the findings in international-oriented efficiency analyses in banking. That is, its key results support the findings of previous studies in that the banking efficiency gap among European countries has not grown smaller but even wider (at least over the period of 1993 to 1997). The authors conclude seemingly somewhat disenchanted "that the EU's SMP has not had a major influence in promoting a convergence of bank efficiency levels".

Cutting a long story short, as a result most, if not all studies on banking efficiency, particularly at the international level, suffer to some degree from selectivity (or sampling variation) problems, omitted data problems and misspecification problems, respectively, not least due to the fact that, in efficiency studies, availability determines which data are used for analysis. As known, estimation biases caused by these problems are notorious for leading to misleading and deceptive findings in applied econometrics.

Hence, in order to gain meaningful, that is, largely unbiased results from international comparisons of banking performance that also allows for evaluating the extent of convergence of efficiency across markets due to increased competition and/or contestability and regulatory harmonization we hold that the analytical setup most likely to achieve this goal has to meet the following three principle requirements:

(i) the panel of banks under comparative consideration ought to be balanced, sufficiently large in N (number of banks) and T (length of investigation period), and should consist of units of both similar size and similar business activities across the economies,

(ii) the banks under study ought to be primarily locally or regionally operating entities, and

(iii) across the economies, internal productive conditions and external local and regional market conditions relevant to the banks' performance should be sufficiently

well reflected by a set of (readily) available statistical indicators of high quality and low noise.

Meeting these requirements may not preclude severe estimation biases with certainty but we maintain that it be very helpful for substantially lessening the likelihood that efficiency studies in banking across markets are flatly distorted through estimation biases caused by distortions such as selectivity or sample variation problems etc.

Before proceeding with the design of a setup for an international analysis of banking performance that is in accord with these guidelines, at least as much as possible, we continue with a brief review of the standard estimation techniques in applied efficiency analysis apt to separate internal from external efficiency-determining factors.

3. How to Compare Bank Efficiency Across Markets?

3.1 The Standard Approaches: Data Envelopment Analysis and Stochastic Frontier Analysis

At the center of efficiency measurement is the frontier approach. This method is aimed at estimating frontier functions and measuring the efficiencies (rather, inefficiencies) of firms (or decision-making units, in short DMUs) relative to these estimated frontiers. Many different methods have been used to estimate frontiers, the most prominent and widely used of which are the Data Envelopment Analysis (DEA) and the Stochastic Frontier Analysis (SFA)[2]. Both methods refer to the concept of efficiency proposed by *Farrell* (1957) that consists of two components: technical efficiency and allocative efficiency. The former reflects the ability of a firm (or DMU) to gain maximal output from a given set of inputs (or vice versa), the latter reflects

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[2] *Lovell* (1993) gives an authoritative account of this literature. Other methods used in applied work but not surveyed here are the Distribution Free Approach (DFA) and the Thick Frontier Approach (TFA), both of which are built on assumptions similar in spirit to the SFA. These methods differ mainly in their assumptions with respect to the shape of the efficient frontiers and in their treatment of random errors, respectively.

the ability of a firm (or DMU) to optimally deploy the inputs in accordance with their respective prices. These two measures combined yield the measure of total economic efficiency. For formal definitions of these concepts we refer the reader to *Coelli et al.* (1998).

Methodologically, the non-parametric DEA involves mathematical programming and, as put in *Simar – Wilson* (2007), "measures efficiency relative to a non-parametric, maximum likelihood estimate of an unobservable true frontier, conditional on observed data resulting from an underlying data-generating process (DGP)". The parametric SFA does much the same but uses econometric techniques to measure efficiency relative to a maximum likelihood estimate of an unobservable true frontier. Both principle methods are rooted in suggestions first expressed in *Farrell* (1957) stating that the frontier function estimated from sample data be based either on a non-parametric piece-wise-linear function or a parametric, smooth and differentiable non-linear function, both of which incorporating strong convexity assumptions.

Hahn (2005), among others, gives a non-technical introduction to the formal structure of both methods and resumes, in accordance with the respective literature, the upsides and downsides of both techniques. Accordingly, the main advantage of DEA over SFA is that DEA models do not require a priori assumptions with respect to the analytical form of the frontier. The downside is that DEA, at least in its standard version, does not account for data randomness. Consequently, a key implication of DEA is that all deviations from the frontier are assumed to be due to inefficiency. The main advantage of SFA over DEA is exactly that the former is capable of differentiating between various deviations from the benchmark, most importantly, between deviations due to inefficiency and random causes such as bad (or good) luck or measurement errors. However, this benefit does not come without a cost because it requires the imposition of distributional assumptions regarding the inefficiency component of the error term which gives room for some arbitrariness. This and the rather arbitrary choice of the functional form of the production (cost) function is widely considered to be the main shortcomings of SFA.

For a competent introduction to the methods of both DEA and SFA we refer the reader to *Coelli et al.* (1998). For a more advanced encounter with SFA we highly

recommend *Green* (2003) and *Lovell* (1993), respectively. An excellent advanced treatise of DEA is *Cooper et al.* (2000).

3.2 Efficiency Measurement – The Paradigm Divide

Efficiency analysis based on the concept of *Farrell* (1957) is not free from methodological pitfalls. First and foremost, measuring technical efficiency in a meaningful manner with the help of frontier analysis requires that the firms and institutions under consideration share the same production technology and face similar environmental conditions (see, for example, *Coelli et al.*, 1999). In applied analysis, both key requirements may be closely interrelated because environmental factors are capable of affecting the efficiency level basically via two different avenues. First, environmental conditions may directly influence the shape of the technology and, thus, may be one of the causes for the existence of multiple technologies of production. Second, environmental factors, though not influencing the boundary or frontier itself, may rather affect the efficiency process itself via steering its mean and variance. In the latter case all firms face the same production frontier but the environmental surroundings of a firm co-determine the distance that separate each firm from the frontier, that is, from the "best practice" benchmark drawn from the DMUs under consideration.

Within the SFA framework, these alternative views can be illustrated in the following simplistic way as shown in *Coelli et al.* (1999). Given that the production frontier of the firms under study can be properly depicted by the simple Cobb-Douglas technology the model accounting for multiple technologies due to environmental influences can be expressed as follows:

$$\ln y_{it} = \beta_0 + \sum_{k=1}^{K} \beta_k \ln x_{k,it} + \sum_{j=1}^{M} \theta_j \ln z_{j,it} + v_{it} - u_{it,} \tag{1}$$

with y_{it} denoting the output of the $i-th \;\; DMU \;\; (i=1,2,...,N)$ in period $t \;\; (t=1,2,3,...,T)$, x_{it} indicates inputs of production and z_{jt} represents environmental characteristics, β and θ are the unknown parameters to be estimated, v_{it} stands for the symmetric and u_{it} for the non-negative random term, respectively. The disturbance term v_i is assumed to be independently and identically distributed (iid) normal with zero

mean and σ_v standard deviation, i. e., $N(0,\sigma_v^2)$. Though also iid and independently generated from v_i the inefficiency term u_i is supposed to follow a statistical distribution allowing for $u_i \geq 0$ such as, for example, the truncated normal distribution or the upper half of the $N(0,\sigma_u^2)$.

Obviously, the structure of the frontier function (1) allows for a situation where the shape of the frontier varies with differing environmental or external conditions.

In the given context, the alternative view, that is, all firms share the same Cobb-Douglas technology and differing environmental factors directly affect technical efficiency, can be expressed by an augmented frontier function closely related to equation (1):

$$\ln y_{it} = \beta_0 + \sum_{k=1}^{K} \beta_k \ln x_{k,it} + v_{it} - u_{it} \,. \tag{2}$$

In this alternative model, the inefficiency term u_{it} is a function of a vector of environmental characteristics z_{it} whereas its underlying truncated distribution may be governed, for example, by the following specification:

$$N(m_{it} = \delta_0 + \sum_{j=1}^{M} \delta_j z_{j,it}, \sigma_u^2) \,, \tag{3}$$

with δ_0 and δ_j being the parameters to be estimated. This model formulation was first introduced by *Battese – Coelli* (1995).

Unfortunately, the question whether observable differences in efficiency levels are due to multiple production technologies caused by either external environmental conditions or internal management decisions or are due to factors that leave the boundary unaffected but instead influence the efficiency scores directly cannot be resolved on the basis of econometric inference. Rather, it depends on the researcher's philosophical perspective and on her research experience, that is, a priori knowledge of the subject matter which of these alternative approaches appears to be most appropriate. We will encounter this banana problem of efficiency measurement again and again in the chapters to come.

3.3 Accounting for Environmental Factors in Efficiency Measurement[3)]

The assumption that all the firms investigated share the same production technology and face similar environmental conditions is generally considered to be too strong an assumption since the ability of a production unit to transform inputs into outputs is usually influenced by both its internal technical efficiency (the quality of its management) and its external operating environment which is often different from firm to firm. Examples of external factors affecting managerial efficiency include the form of ownership, market structure and market regulation. Thus, not controlling for external environmental factors such as external market conditions may substantially bias the measurement of managerial efficiency. Most importantly, the measurement of productive efficiency across firms is substantially impaired when managerial inefficiencies cannot be separated from those components of inefficiency that are external to a firm. In the following we review the various empirical approaches used in efficiency analysis to deal with the fact that firms face different environments. We start with the approaches which assume that external factors do not affect the technology but rather the efficiency process and continue with a discussion of the models that base the analysis on the multiple technology hypothesis.

3.3.1 Single Technology-based Methods

In the respective literature various ways are proposed concerning the proper account of the impact of external variables when measuring firm efficiency based on the view that all firms under consideration share the same technology (see for an introduction to this topic, i. e., *Coelli et al.*, 1998). In the DEA-oriented efficiency measurement literature the two-stage approach is the most prominent. This approach uses the relative efficiency measure computed by a DEA model as the dependent variable in a censored regression with the explanatory variables supposed to capture the impact of the external factors. Though this approach allows for testing the influence of external factors in terms of sign and significance it ignores the information contained in the input slacks and output surpluses. Consequently, this procedure does not provide an adequate analytical technique to separate the

3) This chapter draws heavily on *Hahn* (2005) and *Hahn* (2007A), respectively.

management component of inefficiency from the external components. *Fried et al.* (1999) introduce an extension of the two-stage model aimed at obtaining a measure of the management component of inefficiency that is unaffected by the influences of external or environmental factors. Only a pure measure of managerial inefficiency allows for comparing the performance of managers across firms because only in rare cases do firms operate under the same external environment. In order to isolate the internal factors *Fried et al.* (1999) propose the following four-stage procedure. First, a DEA frontier based on the traditional input-output relation according to the standard production theory is computed. Second, depending on model specification the input slack (or the output surplus) is used as dependent variable in a regression analysis approach with a set of external factors as regressors measuring the relevant features of the external environment in which the DMU under investigation is operating. Third, these parameter estimates are used to adjust the input slacks or output surpluses of the DMUs so that the adjusted values represent the allowable slack or surplus due to the operating environment (*Fried et al.,* 1999). In the final stage the initial data is reassessed according to the calculations in the third stage and the initial DEA model is re-estimated on the basis of the adjusted data set.

In so doing, this procedure is aimed at adapting the external conditions of the DMUs in the sense that the environmental factor is no longer critical in terms of biasing managerial inefficiency. As a result, a new frontier can be computed which is (or is supposed to be) net of environmental interferences and better qualified to measure the pure managerial component of inefficiency.

However, within the DEA setup the two-stage approach in general and the four-stage model by *Fried et al.* (1999) in particular are heavily flawed by the fact that all DEA-related estimates are serially correlated. As put in *Simar – Wilson* (2007), "the correlation arises in finite samples from the fact that perturbations of observations lying on the estimate frontier will in many, and perhaps all, cases cause changes in efficiencies estimated for other observations. A similar problem arises in OLS regression, where estimated residuals are serially correlated in finite samples even when the underlying true residuals are not. However, in the regression case, the correlation disappears more quickly than in the DEA context where convergence rates are much slower in higher dimensions". As a result, standard regression analysis

applied in the context of non-parametric efficiency estimation is invalid. However, there is a well-known remedy for correcting such dependency problems and this is the Bootstrap approach[4]. But, as stressed forcefully in *Simar – Wilson* (2007), applying naïve Bootstrap methods based on resampling from an empirical distribution may not resolve the inconsistency problem linked to non-parametric efficiency measurement[5]. Above all, a description of the underlying DGP is required to make clear what is actually estimated in the multiple-stage approaches that deploy both parametric and non-parametric methods. *Simar – Wilson* (2007) show in their eminent paper that a DGP can be described that allows consistent inference on the basis of the two-stage approach. For gaining unbiased p-values for hypothesis tests, *Simar – Wilson* (2007) propose a single and a double Bootstrap with the latter having the advantage over the former that the root mean square error of the intercept and slope estimators in the second-stage regression analysis (preferably truncated regression) decreases much faster with the sample size growing.

Yet, as usual in statistical inference, Monte Carlo experiments and empirical research show very clearly that the proposed Bootstrap procedures are even with a plethora of observations far from delivering the expected asymptotic (and unbiased) estimates. Beyond that, it appears that even small deviations of the assumed DGP from the true DGP, the latter is, in applied work, normally unknown, are prone to generating significant estimates distortions rendering in many cases inference close to void.

The dependency problem also occurs in the context of SFA. Not surprisingly, within this parametric setting the two-stage approach is not apt to resolve the inherent inconsistency problem either. *Battese – Coelli* (1995) note that in the two-stage model inconsistency occurs because inefficiency effects are assumed to be identically distributed in the first stage while regressions analysis in the second stage presumes that these very inefficiency effects be not identically distributed. Instead, these authors propose a SFA model that is capable of estimating the parameters of

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4) For a competent introduction to the Bootstrap methodology, see *Efron – Tibshirani* (1993).

5) Resampling-based Bootstrap methods in non-parametric efficiency studies have been used by *Xue – Harker* (1999), *Hirschberg – Lloyd* (2002), *Casu – Molyneux* (2003), and *Hahn* (2007C).

the stochastic frontier and the inefficiency model simultaneously. Their model has proved to be able to cope with the nuisance of inconsistency associated with the two-stage approach.

To be specific, the Battese-Coelli procedure estimates the parameters δ_0 and δ_j of equation (3) simultaneously, with all the other unknown parameters of model (2), by maximum likelihood. In addition, the reparameterization $\sigma^2 = \sigma_v^2 + \sigma_u^2$ and $\gamma = \sigma_u^2 / \sigma^2$, replacing σ_u^2 and σ_v^2 in (3) is employed which has advantages during estimation. Since the value of γ must lie between zero and one the γ–parameterization facilitates the iterative maximization algorithm involved. A value of γ of zero (one) is related to a situation with the deviations from the frontier entirely due to noise (inefficiency). As expressed in *Coelli et al.* (1999) technical efficiency is then estimated as:

$$
\begin{aligned}
TE_{it} &= E\left[\exp(u_{it}) \mid \varepsilon_{it}\right] \\
&= \left\{\exp\left[-\mu_{it} + \frac{1}{2}\sigma_*^2\right]\right\}\left\{\Phi\left[\frac{\mu_{it}}{\sigma_*} - \sigma_*\right] \Big/ \Phi\left[\frac{\mu_{it}}{\sigma_*}\right]\right\},
\end{aligned} \tag{4}
$$

where $\Phi(\bullet)$ denotes the distribution function of the standard normal variable,

$$
\mu_{it} = (1-\gamma)\left[\delta_0 + \sum_{j=1}^{M} \delta_j z_{j,it}\right] - \gamma\varepsilon_{it}, \tag{5}
$$

and

$$
\sigma_*^2 = \gamma(1-\gamma)\sigma^2. \tag{6}
$$

The technical efficiency estimates TE obtained by the Battese-Coelli model include the influence of environmental factors and, hence, are, technically speaking, gross measures. In order to gain efficiency scores net of environmental factors the term $\sum_{j=1}^{M} \delta_j z_{j,it}$ in equation (3) has to be replaced by $\min\left(\sum_{j=1}^{M} \delta_j z_{j,it}\right)$ and the technical efficiency predictions have to be re-calculated. In so doing, efficiency is measured under the terms that all firms are assumed to face identical external conditions. Assuming that all major environmental factors have been accounted for, the thus gained net efficiency scores are supposed to be reliable measures of pure

managerial efficiency. Consequently, the difference between the gross and the net efficiency measure of the *i-th* firm may be viewed as the contribution of the environment to the inefficiency of that firm.

3.3.2 Multiple Technology-based Methods

Viewing environmental conditions as factors of influence affecting directly the technology of a firm has the computational advantage that estimating technical efficiency subject to differing environmental milieus causes no consistency-related distortions of the type encountered by the opposing approach discussed in the previous chapter. This applies to both SFA and DEA.

As to the SFA frame, estimation of technical efficiency that allows for discriminating between internal and external influences takes two steps. Given equation (1) is the appropriate frontier model to be estimated, evaluating this model as it is yields efficiency measures that are net of environmental effects. In order to gain gross efficiency measures, the term $\sum_{j=1}^{M} \delta_j z_{j,it}$ has to be replaced by $\max\left(\sum_{j=1}^{M} \delta_j z_{j,it}\right)$ and equation (1) has then to be re-estimated. This procedure yields a boundary supported by the most favorable environment. Comparing all firms under study with this frontier provides inefficiency scores that include environmental influences. Consequently, the difference between gross and net efficiency score of a firm is due to the environmental milieu which surrounds the firm under consideration.

Within the non-parametric paradigm of DEA, there are several ways through which factors that are not under control of the management can be accommodated, all of which proceed on the assumption that these external influences affect the shape of the technology. That is to say, the underlying hypothesis is that external influences and non-controllable variables induce the existence of multiple technologies. According to *Coelli et al.* (1998) and *Fried et al.* (1999), respectively, the DEA methods used to account for environmental influences can be basically classified into two categories: the frontier separation approach and the all-in-one approach.

The former approach can only cope with environmental influences which can be expressed by a single indicator that characterizes different external environments by way of categorization. If there is a natural ordering the DMUs under study are divided

accordingly and a DEA is carried out for the sub-sample with the least favorable environment, followed by a DEA conducted for the sub-sample consisting of the DMUs with the least and second least favorable environment, and so on. At the final stage, the respective DEA is run for all DMUs. This procedure ensures that each DMU is only compared with those DMUs which face no better (that is, more favorable) environment than itself. If there is no natural ordering the procedure starts with calculating frontiers for all sub-samples, then all inefficient DMUs are projected onto their respective frontiers, and after being pooled with the efficient DMUs a single DEA is solved for this composed sample. The contribution of the environmental influence can be identified by comparing the efficiency scores of the final DEA with the scores gained by the DEA solved for the respective sub-sample.

The all-in-one approach differs from the frontier separation approach in that more external factors than one can be considered simultaneously and these variables are incorporated directly into the linear program formulation. The environmental factors can be included in either form, input and output, and as a neutral, controllable or non-controllable variable. Consider, for example, the standard linear program formulation of an input-oriented variable-return-to-scale (VRS) DEA model expressed in the usual matrix-vector notation:

$$
\begin{aligned}
&\min_{\theta,\lambda} \theta \\
&subject \quad to \qquad y_i \le Y\lambda \\
&\qquad\qquad\quad\;\; \theta x_i \ge X\lambda \\
&\qquad\qquad\quad\;\; z_i \ge Z\lambda \\
&\qquad\qquad\quad\;\; N1'\lambda = 1 \\
&\qquad\qquad\quad\;\; \lambda \ge 0
\end{aligned}
\tag{7}
$$

with $X=(x_1,x_2,....,x_n)\in R^{m\times n}$, $Z=(z_1,z_2,....,z_n)\in R^{s\times n}$, and $Y=(y_1,y_2,....,y_n)\in R^{g\times n}$ representing the controllable input, the environmental non-controllable input and the output matrices, respectively. The input (controllable and non-controllable) vectors and output vectors for the $i-th$ decision-making unit DMU ($i=1,\cdots,n$) are represented by $x_i\in R^m$, $z_i\in R^s$ and $y_i\in R^g$, respectively, where $N1$ is a (Nx1) vector of ones representing the convexity constraint to support the variable-return-to-scale technology. The symbol λ stands for the non-negative weight vector to form a frontier, and the optimal solution of θ, ranging between zero (lowest level) and one

(highest level), is the efficiency score for the $i-th$ DMU. The environmental, non-controllable factors as expressed in model (7) are assumed to have an a priori-known or observable direction as to their impact on efficiency. If the direction of influence is not known or not observed the environmental variables enter into the model in an equality form.

This DEA model version has also the advantage, besides being capable of considering more environmental factors than one, that firms are only compared with those firms that face no better environmental conditions than themselves. One criticism that is leveled against this purely non-parametric model is that the researcher has to know, at least in some special cases, the direction of the influence of the external variables in advance. Admittedly, the latter may not always be the case, but as discussed above this constraint is a minor one and can be easily bypassed. Hence, this approach is attractive from a solely methodological point of view because it is deeply rooted in the non-parametric foundation of DEA and, hence, its findings are not contaminated by estimation distortions caused by parametric-non-parametric hybrid estimators of the sort discussed above.

In the given context, we consider, under the terms that the available data material is (sufficiently) free from outliers, measurement errors and random noise, the production model chosen is well-founded and valuable data about the relevant environmental or market setting is available, the DEA-based multiple-technology estimation methods discussed in this section to be most promising to provide solid efficiency measurements at the firm level subject to non-controllable, external market conditions.

4. Banking-related Data Across OECD Countries

4.1 Bank-level Data

The main source of the bank-level data used in the investigation to follow is the BankScope database of the London-based International Bank Credit Analysis Ltd (IBCA). This database contains a broad set of both, quantitative and qualitative information of banks of advanced and emerging economies. However, in order to

compose a meaningful sample we have to impose a number of requirements to be met by the data.

First, in order to maintain a high level of data quality the geographical coverage is restricted to Austria, Belgium, Croatia, the Czech Republic, France, Germany, Hungary, Italy, the Netherlands, Poland, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom. In addition to these European countries, data availability allows for extending our sample by the two major overseas economies, Japan and the United States of America.

Second, the data coverage encompasses the years from 1998 to 2004 because data prior to (and after) this period appear to be of lesser quality.

Third, in order to get sufficiently comparable data for all countries considered, we narrow the range of bank types down to commercial banks, savings banks, cooperative banks and mortgage banks.

Fourth, by the same token we adopt the broad variable definition as suggested by IBCA BankScope in order to minimize data bias due to different accounting standards in the countries under study.

Fifth, since the analysis is centered on small- to medium-sized banks we restrict the dataset to these size groups and focus primarily on the determination of an environmental setting that is critical to local or regional banking. Consequently, we exclude all banks with a balance sheet total beyond bn 24 USD. (that is, a bank has been excluded from the sample when its balance sheet total exceeds this limit within the investigation period from 1998 to 2004). Both empirical evidence and expert opinion strongly suggest that universal banks with a balance sheet total below this limit are very likely to operate primarily on a local and regional basis.

Finally, we discard all banks which report inconsistent, incomplete or no business data at all in one of the years investigated in order to make allowance for a balanced sample.

As a result, the dataset gained by this data selection mechanism covers more than 2,600 banks each year of period of investigation and, more importantly, bears a high

Table 1: Summary Statistics – All Banks

	1998	1999	2000	2001	2002	2003	2004
Total assets							
Minimum	100	87	34	71	65	71	74
Maximum	17,790	19,787	19,662	19,726	18,495	19,996	19,693
Mean	1,492	1,622	1,774	1,897	1,995	2,085	2,240
Median	600	651	711	752	808	839	887
Standard deviation	2,261	2,420	2,633	2,804	2,912	3,072	3,316
Coefficient of variation	1.52	1.49	1.48	1.48	1.46	1.47	1.48
Loans							
Minimum	1	1	2	1	1	1	1
Maximum	11,185	10,783	11,495	11,733	13,686	14,352	15,654
Mean	891	977	1,077	1,139	1,208	1,273	1,381
Median	340	389	425	441	456	480	509
Standard deviation	1,434	1,536	1,686	1,780	1,885	2,006	2,219
Coefficient of variation	1.61	1.57	1.57	1.56	1.56	1.58	1.61
Deposits							
Minimum	3	1	20	42	33	14	4
Maximum	14,206	14,700	15,572	15,776	16,051	17,976	17,774
Mean	1,210	1,310	1,427	1,521	1,596	1,667	1,778
Median	499	549	592	633	663	698	739
Standard deviation	1,829	1,942	2,110	2,244	2,333	2,469	2,628
Coefficient of variation	1.51	1.48	1.48	1.48	1.46	1.48	1.48
Capital and reserves							
Minimum	0	2	1	3	3	3	3
Maximum	1,588	1,607	1,699	2,707	2,818	2,795	2,820
Mean	90	99	110	120	129	137	152
Median	36	39	44	47	49	51	56
Standard deviation	151	164	182	202	217	233	265
Coefficient of variation	1.68	1.66	1.65	1.68	1.69	1.71	1.75
Cost-income ratio							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	136.6	144.0	131.9	149.3	144.4	144.9	148.9
Mean	64.8	65.7	66.1	67.6	67.0	66.7	65.9
Median	65.9	66.4	67.3	69.0	67.8	67.3	66.5
Standard deviation	13.0	13.4	13.3	13.6	13.6	13.4	13.2
Coefficient of variation	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Return on assets							
Minimum	-9.51	-8.10	-4.74	-5.07	-4.36	-5.06	-8.30
Maximum	8.05	8.09	9.86	9.56	9.13	9.02	6.71
Mean	0.85	0.75	0.73	0.63	0.63	0.71	0.72
Median	0.70	0.61	0.57	0.47	0.48	0.57	0.57
Standard deviation	0.86	0.85	0.92	0.85	0.84	0.80	0.78
Coefficient of variation	1.02	1.13	1.26	1.35	1.33	1.12	1.08
Return on equity							
Minimum	-1,317.3	-268.7	-575.1	-212.5	-112.5	-112.2	-272.7
Maximum	77.7	104.3	712.9	112.7	127.4	132.8	168.4
Mean	11.5	10.6	9.8	8.0	8.1	9.6	9.6
Median	12.3	10.5	9.7	8.3	7.9	9.4	9.2
Standard deviation	30.9	14.0	22.4	13.9	11.5	10.8	11.8
Coefficient of variation	2.70	1.32	2.28	1.73	1.42	1.12	1.23
Capital ratio							
Minimum	0.0	0.4	0.2	0.3	0.3	0.3	0.2
Maximum	37.1	35.5	35.1	39.8	40.0	37.7	36.7
Mean	6.8	6.8	7.0	6.9	7.0	7.1	7.2
Median	5.5	5.5	5.7	5.7	5.8	5.9	6.1
Standard deviation	4.11	3.98	4.01	3.92	3.97	3.96	3.96
Coefficient of variation	0.60	0.58	0.58	0.57	0.57	0.56	0.55

Number of observations: 2,604.

Table 2: Summary Statistics – Banks in Western Europe

	1998	1999	2000	2001	2002	2003	2004
Total assets							
Minimum	100	87	34	71	65	71	74
Maximum	14,850	15,349	15,780	17,026	17,032	18,813	19,693
Mean	1,241	1,364	1,491	1,587	1,664	1,717	1,832
Median	503	552	599	643	671	678	728
Standard deviation	1,880	2,053	2,260	2,406	2,518	2,629	2,848
Coefficient of variation	1.52	1.51	1.52	1.52	1.51	1.53	1.55
Loans							
Minimum	1	1	2	1	1	1	1
Maximum	9,227	8,748	9,865	11,225	12,905	14,352	15,609
Mean	682	767	863	924	994	1,052	1,136
Median	287	320	355	373	389	397	423
Standard deviation	1,052	1,178	1,351	1,472	1,605	1,757	1,947
Coefficient of variation	1.54	1.54	1.56	1.59	1.62	1.67	1.71
Deposits							
Minimum	34	45	20	42	33	14	4
Maximum	11,116	10,966	11,994	13,453	13,560	15,996	16,523
Mean	980	1,074	1,168	1,238	1,297	1,335	1,418
Median	407	459	499	525	559	568	593
Standard deviation	1,443	1,562	1,715	1,823	1,915	1,994	2,130
Coefficient of variation	1.47	1.45	1.47	1.47	1.48	1.49	1.50
Capital and reserves							
Minimum	2	2	1	3	3	3	3
Maximum	1,512	1,607	1,699	1,762	2,057	2,129	2,240
Mean	72	80	88	94	102	108	117
Median	29	32	36	38	40	42	46
Standard deviation	129	141	152	162	178	186	205
Coefficient of variation	1.78	1.77	1.73	1.71	1.74	1.73	1.75
Cost-income ratio							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	136.6	125.1	131.9	142.6	144.4	142.1	142.9
Mean	65.4	66.4	66.7	68.2	67.3	66.3	65.8
Median	66.7	67.1	67.8	69.6	68.2	67.1	66.4
Standard deviation	12.6	13.2	13.0	12.9	12.8	12.7	12.8
Coefficient of variation	0.19	0.20	0.19	0.19	0.19	0.19	0.19
Return on assets							
Minimum	-2.18	-1.96	-4.74	-2.46	-3.60	-5.06	-8.30
Maximum	7.47	8.05	9.86	6.73	7.48	9.02	6.55
Mean	0.86	0.75	0.75	0.64	0.62	0.69	0.70
Median	0.73	0.63	0.61	0.50	0.51	0.61	0.61
Standard deviation	0.74	0.65	0.81	0.64	0.66	0.69	0.69
Coefficient of variation	0.86	0.87	1.07	1.00	1.06	1.00	0.99
Return on equity							
Minimum	-500.0	-42.8	-50.7	-72.9	-46.1	-92.1	-272.7
Maximum	73.3	104.3	712.9	112.7	127.4	132.8	168.4
Mean	13.3	12.1	11.6	9.6	9.1	10.4	10.0
Median	13.3	11.3	10.5	8.8	8.3	10.0	9.6
Standard deviation	15.1	9.0	19.3	8.7	8.4	9.0	11.7
Coefficient of variation	1.13	0.74	1.66	0.91	0.92	0.87	1.17
Capital ratio							
Minimum	0.4	0.4	0.2	0.3	0.3	0.3	0.2
Maximum	37.1	35.5	35.1	38.6	40.0	37.7	36.7
Mean	6.6	6.6	6.8	6.8	6.9	7.0	7.1
Median	5.1	5.1	5.3	5.4	5.5	5.7	5.8
Standard deviation	4.24	4.15	4.20	4.05	4.12	4.08	4.00
Coefficient of variation	0.64	0.62	0.62	0.60	0.60	0.58	0.56

Number of observations: 1,786

Table 3: Summary Statistics – Banks in Eastern Europe

	1998	1999	2000	2001	2002	2003	2004
Total assets							
Minimum	108	109	117	143	160	172	187
Maximum	9,228	9,583	10,127	15,628	15,195	15,763	16,059
Mean	1,838	2,028	2,324	2,912	3,105	3,251	3,605
Median	737	948	1,183	1,231	1,361	1,434	1,653
Standard deviation	2,494	2,685	2,953	3,907	3,911	4,003	4,364
Coefficient of variation	1.36	1.32	1.27	1.34	1.26	1.23	1.21
Loans							
Minimum	12	47	15	21	104	113	109
Maximum	5,206	5,387	5,559	7,213	7,038	6,802	6,894
Mean	925	1,024	1,091	1,276	1,415	1,530	1,571
Median	362	459	558	531	580	680	863
Standard deviation	1,313	1,394	1,418	1,771	1,803	1,839	1,773
Coefficient of variation	1.42	1.36	1.30	1.39	1.27	1.20	1.13
Deposits							
Minimum	19	32	28	44	114	110	117
Maximum	8,633	8,525	8,910	10,601	10,740	11,620	14,046
Mean	1,483	1,644	1,863	2,256	2,375	2,502	2,718
Median	665	719	894	967	976	1,029	1,285
Standard deviation	2,065	2,232	2,429	3,066	3,000	3,118	3,376
Coefficient of variation	1.39	1.36	1.30	1.36	1.26	1.25	1.24
Capital and reserves							
Minimum	3	9	11	11	14	14	15
Maximum	1,439	1,523	1,499	2,707	2,818	2,755	2,820
Mean	163	189	210	272	286	294	334
Median	69	82	101	99	132	134	163
Standard deviation	261	296	309	476	486	478	507
Coefficient of variation	1.60	1.56	1.47	1.75	1.70	1.63	1.52
Cost-income ratio							
Minimum	6.1	10.2	21.4	24.2	20.7	18.9	17.2
Maximum	88.0	135.8	92.4	117.9	101.9	93.2	92.0
Mean	52.7	58.1	55.3	58.6	56.3	58.5	58.0
Median	55.4	55.3	53.5	57.8	56.4	58.3	58.5
Standard deviation	17.4	23.8	17.7	19.3	16.9	17.4	15.8
Coefficient of variation	0.33	0.41	0.32	0.33	0.30	0.30	0.27
Return on assets							
Minimum	-9.51	-8.10	-4.60	-5.03	-1.92	-0.76	-0.89
Maximum	4.52	7.07	4.42	4.85	4.96	5.54	6.35
Mean	1.07	0.89	1.01	1.08	1.00	1.35	1.23
Median	1.25	0.95	0.82	0.88	0.93	1.18	1.12
Standard deviation	2.40	2.21	1.51	1.51	1.17	1.12	1.07
Coefficient of variation	2.25	2.49	1.49	1.40	1.17	0.83	0.87
Return on equity							
Minimum	-1,317.3	-81.7	-81.5	-51.5	-30.2	-15.7	-14.4
Maximum	76.3	55.6	46.9	35.0	27.4	48.0	30.5
Mean	-28.1	6.5	9.1	11.3	9.9	13.6	12.6
Median	12.1	9.7	10.6	14.6	9.8	14.1	12.7
Standard deviation	212.7	22.9	19.8	14.3	12.1	9.7	8.1
Coefficient of variation	-7.56	3.53	2.18	1.27	1.22	0.71	0.64
Capital ratio							
Minimum	0.4	3.0	2.3	3.1	3.8	3.8	3.0
Maximum	33.5	29.9	26.8	39.8	31.3	30.9	31.9
Mean	11.6	10.6	10.0	10.0	9.6	9.6	9.8
Median	11.5	9.7	8.8	8.3	8.7	8.7	9.1
Standard deviation	7.17	6.17	5.32	6.25	5.02	5.13	5.06
Coefficient of variation	0.62	0.58	0.53	0.63	0.52	0.53	0.52

Number of observations: 41.

Table 4: Summary Statistics – Banks in the USA

	1998	1999	2000	2001	2002	2003	2004
Total assets							
Minimum	102	109	126	142	153	158	158
Maximum	17,790	19,787	19,662	19,726	18,495	19,996	19,484
Mean	1,983	2,256	2,497	2,760	2,942	3,144	3,473
Median	992	1,071	1,185	1,306	1,394	1,452	1,662
Standard deviation	2,720	3,003	3,179	3,409	3,529	3,780	4,116
Coefficient of variation	1.37	1.33	1.27	1.24	1.20	1.20	1.19
Loans							
Minimum	47	69	42	30	44	19	14
Maximum	11,185	10,783	11,495	11,479	13,686	11,246	15,654
Mean	1,292	1,496	1,682	1,775	1,867	1,949	2,267
Median	639	768	845	868	920	968	1,118
Standard deviation	1,804	2,037	2,225	2,249	2,362	2,372	2,853
Coefficient of variation	1.40	1.36	1.32	1.27	1.27	1.22	1.26
Deposits							
Minimum	3	1	70	91	87	22	21
Maximum	12,372	11,148	11,712	13,008	12,781	17,976	16,145
Mean	1,420	1,547	1,741	1,920	2,028	2,168	2,348
Median	736	765	831	935	992	1,022	1,140
Standard deviation	1,823	1,945	2,174	2,326	2,399	2,661	2,818
Coefficient of variation	1.28	1.26	1.25	1.21	1.18	1.23	1.20
Capital and reserves							
Minimum	7	7	8	11	12	12	12
Maximum	1,588	1,311	1,596	2,032	2,255	2,795	2,802
Mean	175	189	217	250	274	298	347
Median	91	97	114	136	143	155	170
Standard deviation	230	242	275	320	346	392	466
Coefficient of variation	1.32	1.28	1.27	1.28	1.26	1.32	1.35
Cost-income ratio							
Minimum	21.3	21.6	22.3	19.3	18.3	17.4	15.9
Maximum	133.3	144.0	124.5	149.3	132.9	144.9	148.9
Mean	61.1	59.2	59.5	60.8	60.3	63.0	61.6
Median	59.9	59.3	59.5	60.6	58.5	61.2	59.9
Standard deviation	15.7	13.7	14.2	15.0	16.6	18.1	17.1
Coefficient of variation	0.26	0.23	0.24	0.25	0.27	0.29	0.28
Return on assets							
Minimum	-1.60	-2.03	-2.23	-1.93	-4.36	-1.47	-1.30
Maximum	8.05	8.09	7.35	9.56	9.13	5.76	6.71
Mean	1.67	1.74	1.64	1.62	1.70	1.64	1.60
Median	1.59	1.62	1.52	1.52	1.63	1.58	1.51
Standard deviation	0.88	0.93	0.94	0.94	0.99	0.82	0.97
Coefficient of variation	0.52	0.54	0.57	0.58	0.58	0.50	0.60
Return on equity							
Minimum	-25.1	-24.1	-38.5	-36.8	-26.2	-18.5	-19.0
Maximum	77.7	81.7	70.3	66.7	66.1	56.4	65.7
Mean	18.8	20.1	18.3	17.7	18.1	17.5	16.7
Median	17.4	19.0	17.3	17.4	17.9	16.0	15.6
Standard deviation	9.8	10.3	10.5	9.6	9.3	9.2	9.8
Coefficient of variation	0.52	0.51	0.57	0.54	0.51	0.53	0.59
Capital ratio							
Minimum	5.1	4.4	4.9	4.9	4.7	5.4	5.7
Maximum	31.2	34.2	28.4	26.8	29.7	26.9	31.2
Mean	9.4	9.1	9.4	9.6	9.8	9.9	10.2
Median	8.5	8.4	8.5	8.6	8.8	8.8	9.1
Standard deviation	3.70	3.65	3.64	3.45	3.47	3.54	3.94
Coefficient of variation	0.39	0.40	0.39	0.36	0.35	0.36	0.39

Number of observations: 295

Table 5: Summary Statistics – Banks in Japan

	1998	1999	2000	2001	2002	2003	2004
Total assets							
Minimum	101	102	110	109	91	93	100
Maximum	15,665	15,920	17,643	17,421	17,656	18,091	19,246
Mean	2,095	2,156	2,335	2,434	2,544	2,700	2,878
Median	857	892	964	1,013	1,088	1,155	1,229
Standard deviation	2,959	3,022	3,273	3,391	3,482	3,697	3,917
Coefficient of variation	1.41	1.40	1.40	1.39	1.37	1.37	1.36
Loans							
Minimum	21	22	25	36	40	40	37
Maximum	10,565	10,592	11,104	11,733	12,272	12,662	13,458
Mean	1,417	1,431	1,496	1,537	1,583	1,654	1,730
Median	520	529	539	562	589	604	637
Standard deviation	2,085	2,092	2,202	2,275	2,325	2,447	2,551
Coefficient of variation	1.47	1.46	1.47	1.48	1.47	1.48	1.47
Deposits							
Minimum	90	95	102	95	78	79	85
Maximum	14,206	14,700	15,572	15,776	16,051	16,676	17,774
Mean	1,910	2,006	2,155	2,262	2,374	2,521	2,682
Median	776	833	907	959	1,025	1,086	1,164
Standard deviation	2,695	2,807	2,990	3,138	3,234	3,428	3,627
Coefficient of variation	1.41	1.40	1.39	1.39	1.36	1.36	1.35
Capital and reserves							
Minimum	0	3	2	4	4	5	5
Maximum	974	1,000	1,094	1,098	1,133	1,247	1,348
Mean	99	108	121	121	125	132	145
Median	46	48	51	53	55	55	60
Standard deviation	136	146	170	163	166	180	197
Coefficient of variation	1.37	1.36	1.40	1.35	1.33	1.36	1.36
Cost-income ratio							
Minimum	16.0	17.3	22.2	21.4	23.1	31.4	31.0
Maximum	120.0	116.7	120.0	116.7	114.3	100.0	95.0
Mean	66.0	67.5	69.1	70.6	70.9	70.9	69.5
Median	66.7	68.4	69.9	70.6	70.3	71.4	70.0
Standard deviation	11.0	11.0	11.5	12.9	12.3	11.0	10.8
Coefficient of variation	0.17	0.16	0.17	0.18	0.17	0.16	0.15
Return on assets							
Minimum	-6.01	-4.20	-4.71	-5.07	-2.48	-2.83	-2.78
Maximum	2.13	1.79	1.98	1.30	1.90	1.82	1.46
Mean	0.27	0.15	0.06	-0.07	-0.02	0.14	0.24
Median	0.27	0.27	0.20	0.15	0.16	0.23	0.27
Standard deviation	0.56	0.66	0.69	0.73	0.60	0.49	0.39
Coefficient of variation	2.04	4.32	11.85	-11.07	-34.49	3.40	1.64
Return on equity							
Minimum	-179.6	-268.7	-575.1	-212.5	-112.5	-112.2	-86.4
Maximum	33.3	29.7	56.5	30.0	25.4	37.9	23.2
Mean	3.4	-0.2	-2.1	-3.8	-1.8	1.8	3.6
Median	5.1	4.8	3.7	2.8	3.0	4.4	5.0
Standard deviation	16.2	21.7	32.0	22.1	15.1	13.1	10.6
Coefficient of variation	4.69	-115.20	-14.87	-5.85	-8.42	7.29	2.92
Capital ratio							
Minimum	0.0	1.0	0.7	1.7	1.8	1.5	1.6
Maximum	15.7	16.5	16.8	17.7	18.5	18.9	19.3
Mean	5.5	5.7	5.7	5.6	5.5	5.4	5.5
Median	5.3	5.4	5.5	5.2	5.2	5.0	5.2
Standard deviation	2.09	2.15	2.27	2.18	2.23	2.20	2.19
Coefficient of variation	0.38	0.38	0.40	0.39	0.40	0.41	0.39

Number of observations: 482

likelihood to meet the demanding data requirements for unbiased DEA efficiency measurement as outlined in chapter 2 of this study.

The broad set of individual bank data is mainly composed of drawings from non-consolidated income statements and balance sheets corresponding to the years 1998 to 2004. These data are transformed into purchasing power parity volumes, computed by the OECD.

Table 1 to Table 5 provide summary statistics of the used bank sample and supplies additional information on the structural composition of the dataset at the bank-level. A very detailed statistical account of OECD banking is provided in the Data Appendix.

4.2 Bank-related Environmental Data

As for the European countries, the data covering the environmental conditions relevant to local banking have been drawn from the EUROSTAT database. Environmental data for the United States of America and Japan have been gained from the respective national statistical agencies. Since we concentrate our analysis on the study of small- to medium-sized banks we assume that the geographic region where the head office of the bank is located is a good delineation of the home or local market environment critical to the banks under investigation. This is not to say that financial services supply of these banks is restricted by their home region borders. We do hold, however, that the clientele of local and regional banks, to a large degree, consists of residents of the very region where these banks are domiciled. Given the size of the great majority of banks covered in our data panel, we consider the NUTS 2 level of EUROSTAT to be an analytically appropriate geographic approximation of the home market for locally and regionally operating banks. Accordingly, we connect firm-specific data of individual banks to environmental data of their "home NUTS 2 regions". For the United States of America, as for the geographic demarcation of the relevant home market for small- to medium-sized banks we consider the "home federal state" of the bank under study

most feasible. For Japan, we view the "home prefecture" of the respective bank under study as an appropriate proxy for its home market[6]).

Unfortunately, for the great majority of countries covered environmental data relevant to banks at the NUTS 2 level are very scarce and mostly of questionable quality. Data availability and coverage at the sub-national level (state, prefecture) in the both overseas countries are of similar low quality. For (almost) all countries included in our sample, reliable data at the defined regional level could only be gained from the respective national accounts (regional GDP), labor market statistics (regional unemployment rate and labor force), and demographic statistics (population and population density)[7]). These data restrictions given at the environmental level determine to a large degree both the scope and structure of the empirical investigation. Most importantly, the lack of relevant data coerced us into portraying the local market environment of a bank under study solely on the basis of a "summary statistics" as represented by the real income per head. Thus, in this study the local market environment of a bank is taken to be all reflected in the real income per head of the NUTS 2 region where the respective bank domiciles. Though rather simplistic, there is evidence that the status of economic development of a region determines, indeed, to a large degree both structure and quality of local banking services. Hence, we maintain that the level of the regional income per capita be a sufficiently suitable proxy for the external environmental or market condition relevant to locally or regionally operating banks. Accordingly, we hold that in high-income regions as compared to low-income regions bank customers are more likely to show both a higher demand for advanced banking services (i. e. investment banking products) and a higher product quality awareness. Further, high-income regions are, usually, economically more developed than low-income regions which again results in higher demand for high-end banking products in the former and for low-end banking products in the latter. On the other hand, banks doing

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[6]) Japan is divided into 47 prefectures, each of which is led by a directly elected governor and a single-chamber parliament. In terms of jurisdiction, the Japanese prefectures resemble to a large degree sub-national entities, such as states, of countries with a federal constitution.

[7]) However, indicators based on labor market and demographic statistics, respectively, proved to be not useful for the construction of environmental banking variables.

business in high-income regions have to provide banking services under much tougher market competition than banks in low-income regions. There is ample evidence that banks in low-income regions exert some local market power indicating that their market environment is more favorable, in terms of competitive pressure, than that of banks located in rich regions where rivalry among local banks is usually much tougher (see, for example, *Hahn*, 2007B). Hence, the direction of the influence of the external local market conditions as represented by the income level per head of the region where the bank is domiciled is ambiguous.

Consequently, we take this stylized fact into account by categorizing the local bank markets as represented by the respective regions classifications into five income level groups without attaching a natural order to this grouping. The respective division is defined as follows: very low GDP per capita (group 1) consists of regions with a real income per head not larger than 16,700, low GDP per capita (group 2) of regions with a real income per head between 16,701 and 20,300, medium GDP per capita (group 3) between 20,301 and 22,500, high GDP per capita (group 4) between 22,501 and 27,000, and very high GDP per capita (group 5) consists of regions with a real income per head above 27,000. The respective categorization of the geographic regions has been partly guided by the ambition to gain as much structure as possible and partly predetermined by data availability at the bank-level with the aim to get each income cohort filled up with sufficient observation points. Further, as to the composition across the income level groups we have tried to replicate the stylized fact that most small- to medium-sized banks in the OECD countries are doing business in regions covered by group 3 to group 5. Consequently, the frequency scale of our bank sample has been tilted towards these regions accordingly (see Figure 1). For example, regions belonging to group 1 are typically rural areas with, by OECD standards, underdeveloped economic capacities as represented, for example, by the "neuen Bundesländer" in Germany or the poorly developed regions of Eastern and Southern Europe (i.e. Italy's Mezzogiorno), respectively. The great majority of Austrian banks considered are operating in local markets belonging to group 3, group 4 and group 5. The former two groups cover regions comparable in economic development to "Vorarlberg" or to the "Triangolo Industriale" in northern Italy, the latter to metropolitan areas like London, Paris, or Vienna and Munich.

Figure 1: Regional Income per Capita at the NUTS 2 level

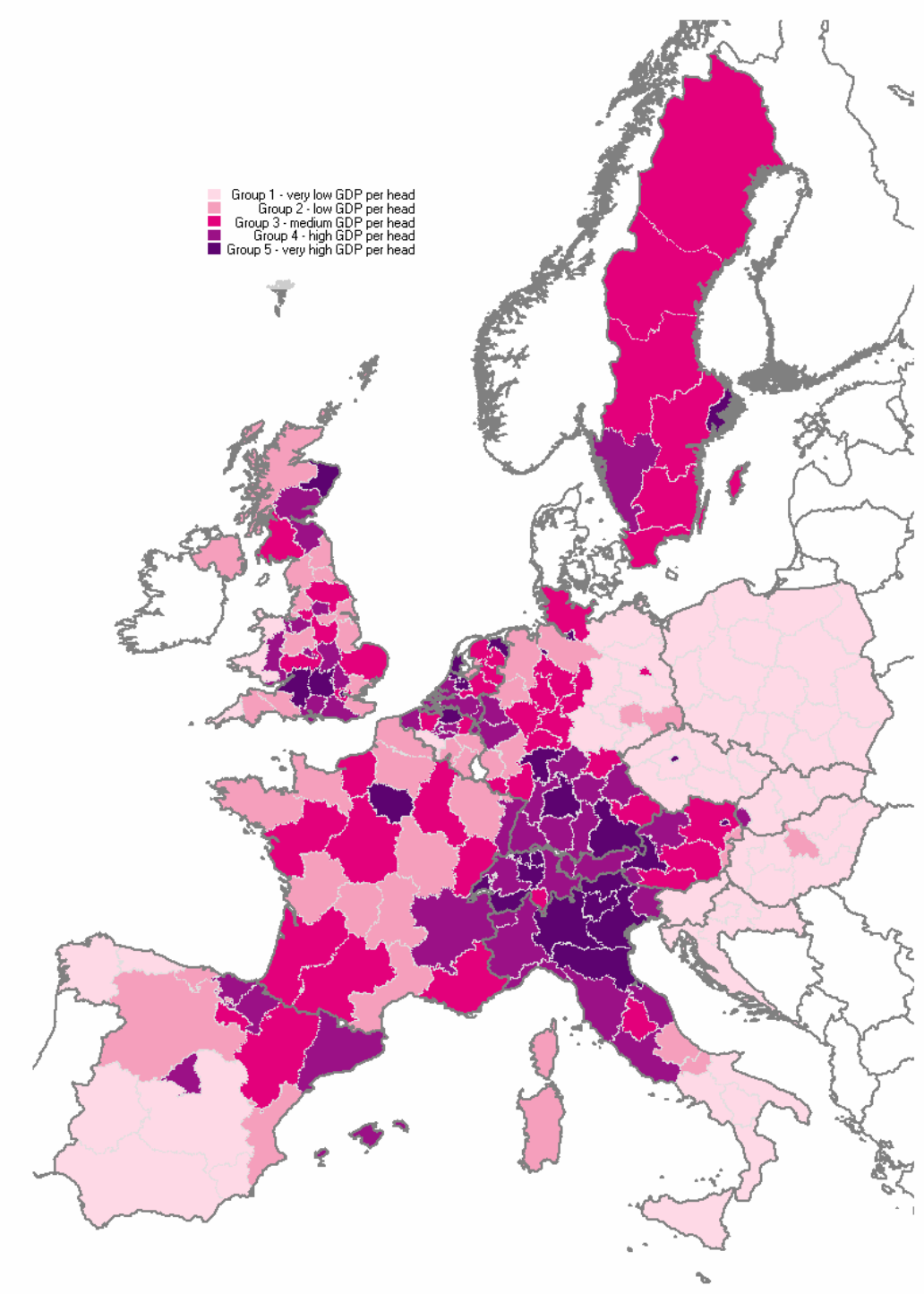


Table 6: Regional Income per Capita

	Very low GDP per capita (group 1)	Low GDP per capita (group 2)	Medium GDP per capita (group 3)	High GDP per capita (group 4)	Very high GDP per capita (group 5)	Total
Western Europe						
Minimum	12,674	16,758	20,571	22,666	27,070	12,674
Maximum	16,655	20,288	22,552	26,891	58,243	58,243
Mean	15,317	18,709	21,568	24,742	32,572	24,971
Median	15,450	19,088	21,551	24,243	31,031	23,983
Standard deviation	757	1,077	570	1,277	5,924	6,415
Coefficient of variation	0.05	0.06	0.03	0.05	0.18	0.26
Number of banks domiciled	131	190	394	555	516	1,786
Eastern Europe						
Minimum	6,325	19,132	–	23,165	28,957	6,325
Maximum	15,548	19,132	–	23,165	28,957	28,957
Mean	12,413	19,132	–	23,165	28,957	16,090
Median	13,415	19,132	–	23,165	28,957	14,922
Standard deviation	3,023	–	–	–	–	6,909
Coefficient of variation	0.24	–	–	–	–	0.43
Number of banks domiciled	30	2	–	2	7	41
USA						
Minimum	–	–	20,503	22,743	27,051	20,503
Maximum	–	–	22,114	26,980	98,819	98,819
Mean	–	–	20,883	25,884	33,031	31,573
Median	–	–	20,503	26,410	33,065	30,573
Standard deviation	–	–	602	1,169	5,824	6,103
Coefficient of variation	–	–	0.03	0.05	0.18	0.19
Number of banks domiciled	–	–	6	50	239	295
Japan						
Minimum	15,493	16,788	20,481	22,677	27,829	15,493
Maximum	15,698	20,236	22,509	25,961	40,508	40,508
Mean	15,524	18,633	21,558	24,111	35,777	22,818
Median	15,493	18,896	21,577	23,954	40,507	21,541
Standard deviation	73	940	611	818	6,132	6,075
Coefficient of variation	0.00	0.05	0.03	0.03	0.17	0.27
Number of banks domiciled	20	131	202	62	67	482
Total						
Minimum	6,325	16,758	20,481	22,666	27,051	6,325
Maximum	16,655	20,288	22,552	26,980	98,819	98,819
Mean	14,858	18,681	21,558	24,764	32,933	25,180
Median	15,450	19,042	21,551	24,243	31,595	23,930
Standard deviation	1,767	1,022	588	1,288	5,961	6,857
Coefficient of variation	0.12	0.05	0.03	0.05	0.18	0.27
Number of banks domiciled	181	323	602	669	829	2,604

It is worth noting that auxiliary computations on the basis of DEA models of type (7) also proved to be quite supportive for the chosen income level partition per region.

Table 6 reports structural details and descriptive statistics of the available local and regional (environmental) setting the banks under study are embedded in.

5. The Empirical Analysis

5.1 The Production Approach

A still unresolved problem in the banking performance literature is the definition and measurement of the concept of bank output and, of course, bank input. A competent discussion of this cumbersome topic is provided, among others, by *Goddard et al.* (2001). We won't dwell on this controversial subject here and instead refer the reader to the respective literature (see *Hahn*, 2005, for competent references). In line with the most recent empirical literature, we prefer to use the intermediation approach which stresses the role of financial institutions such as banks as copula between the supply and the demand of funds. In addition, for checking the robustness of the findings we also apply the traditional production approach. This view is primarily aimed at capturing the provision of transaction and document-processing services in banking and, hence, suggests to use "labor costs" (personnel expenses) and "capital costs" (expenses for equipment) as inputs and "loans", "deposits" and "other earning assets" as outputs, respectively.

According to the respective literature, the intermediation approach is considered to be best suited for assessing frontier efficiency with the aim to gauge banking profitability since it stresses the importance of minimizing total costs, not just production costs, in order to maximize profits. Thus, the intermediation model is our prime model consisting of the input variables "total costs" (interest expenses, non-interest expenses, personnel expenses), "deposits" (total customers and short term funding), and the output variables "loans" and "other earning assets".

Table 7 shows some descriptive statistics of the variables used in both models.

Table 7: Summary Statistics of Inputs and Outputs in Local OECD Banking

	1998	1999	2000	2001	2002	2003	2004
Deposits							
Minimum	3	1	20	42	33	14	4
Maximum	14,206	14,700	15,572	15,776	16,051	17,976	17,774
Mean	1,210	1,310	1,427	1,521	1,596	1,667	1,778
Median	499	549	592	633	663	698	739
Standard deviation	1,829	1,942	2,110	2,244	2,333	2,469	2,628
Coefficient of variation	1.51	1.48	1.48	1.48	1.46	1.48	1.48
Total costs							
Minimum	0	-12	-11	-3	-20	-17	1
Maximum	1,092	2,009	3,207	3,506	2,465	1,497	1,293
Mean	40	42	47	50	52	52	54
Median	16	17	19	20	21	21	22
Standard deviation	71	78	97	104	95	90	90
Coefficient of variation	1.77	1.85	2.07	2.07	1.81	1.71	1.68
Loans							
Minimum	1	1	2	1	1	1	1
Maximum	11,185	10,783	11,495	11,733	13,686	14,352	15,654
Mean	891	977	1,077	1,139	1,208	1,273	1,381
Median	340	389	425	441	456	480	509
Standard deviation	1,434	1,536	1,686	1,780	1,885	2,006	2,219
Coefficient of variation	1.61	1.57	1.57	1.56	1.56	1.58	1.61
Other earning assets							
Minimum	0	0	0	0	0	0	0
Maximum	12,222	9,749	14,676	15,366	15,775	14,490	13,756
Mean	524	561	609	654	684	707	746
Median	200	214	225	245	263	274	290
Standard deviation	894	924	1,024	1,102	1,121	1,147	1,205
Coefficient of variation	1.71	1.65	1.68	1.69	1.64	1.62	1.62

5.2 The Estimation Approach

As outlined at the outset, at the center of this study is the assessment of the impact of external market conditions on banking efficiency and to what extent this influence has changed in the course of time characterized through low or no international capital controls, through increasing disintermediation, fierce competitive rivalry and stark contestability and an ongoing process of international harmonization of regulatory principles.

Since our dataset provides reliable information on volumes and costs but not on prices we hold that the DEA approach be more operational and, thus, more appropriate for the analysis to come than the SFA approach. Further, due to the still

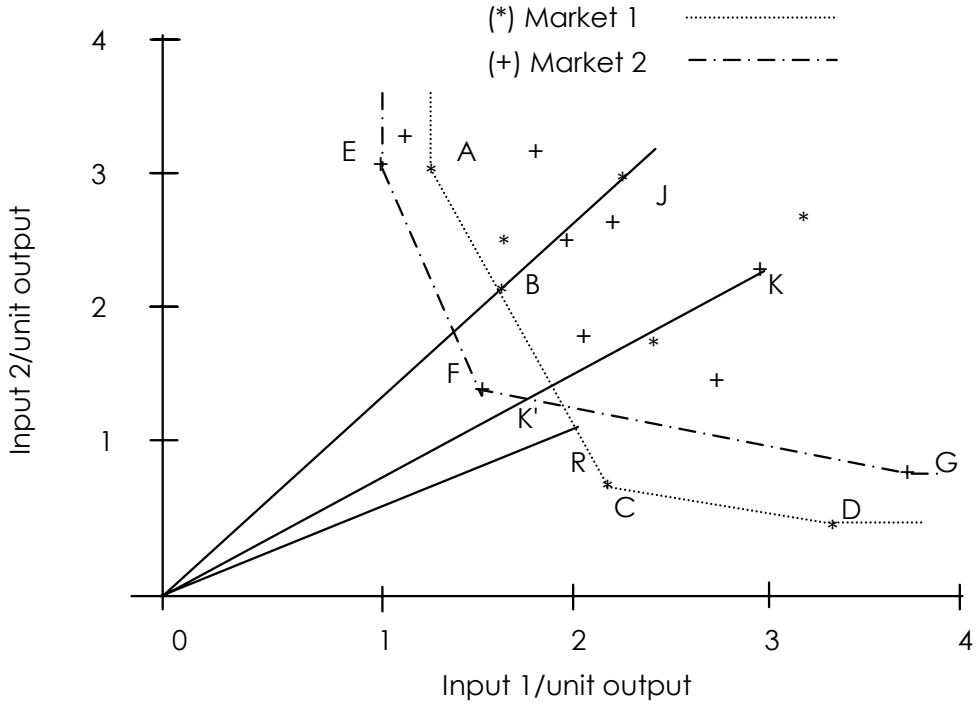
unresolved dependency problems associated with the parametric/non-parametric hybrid estimators and, evenly important, the center of our study is on efficiency analysis across differing markets we opt for the non-parametric frontier separation approach which allows for the existence of multiple technologies. As stressed above, this approach requires a great deal of diligence in dealing with the available quantitative and qualitative information on the banking production process and on the local bank market conditions, respectively. Unfortunately, little evidence is available so far apt to clarify to what extent the ranking of efficiencies vary with the methodological approach chosen. To the best of my knowledge, the only study that applies both the single-technology and the multiple-technology method to the same data set has been that of *Coelli et al.* (1999). Using the SFA methodology and, in so doing, circumventing the notorious dependency problem the authors come to the conclusion that "the ranking of efficiencies do not vary greatly with the method selected" but detect in part substantial disparities as to the level of efficiency scores gained by either method. Further, a very strong argument in favor of the non-parametric frontier separation approach is that the only useful environmental variable across markets available to us, that is, the regional income level per head, is exceptionally well qualified for categorization as frequently shown in various areas of empirical economics. Since there are good arguments that the used categorical variable can exert both a positive or a negative impact on banking efficiency we proceed by applying the method proposed by *Charnes et al.* (1981) which allows to disentangle managerial from environmental effectiveness in a two-stage procedure. This method, as outlined above, does not require an a priori predetermination of the direction of the influence of the environmental factor applied.

First, we start with calculating DEA efficiency scores for each bank unit with reference only to other banks which do business under the same external market conditions as the unit under study itself. The respective markets conditions are represented by the income level per head of the regions where the banks under study are domiciled. Efficiency scores gained by this first round DEA-run reflect performance net of external market effects since all banks under study face the same environmental conditions. Thus, any inefficiencies are solely due to managerial incapacity. Consequently, the scores drawn from the same income level group can be view as pure managerial efficiency (or inefficiency). In the second stage, we

artificially eliminate managerial inefficiency by projecting for each of the five income level groups the observed input/output levels onto their respective frontiers, pool these projected points across the five income level groups and assess these projected points by running a single DEA afresh. Any inefficiency yielded at the second stage can be solely attributed to the differing external market conditions.

A vivid exposition of this two-stage DEA method has been introduced by *Thanassoulis* (2001). It is worth replicating this exposition here in order to get the estimation technique applied across as thoroughly as possible. Accordingly, assuming that the banks' production process relates two inputs to a single output under a constant-returns-to-scale technology and the banks do business under two distinct market environments, market 1 and market 2, labeled * and +, respectively. Figure 2 then shows the observed points and the frontiers of banks doing business under either environment. The frontier related to environment 1 is depicted by ABCD and environment 2 by EFG.

Figure 2: Managerial Efficiency under Distinct Market Environments



The efficiency score attributable to the bank's management is, for instance, for bank ***J*** equal to the ratio $\frac{OB}{OJ}$.

The second stage requires the projection of the input levels of the banks onto the respective frontier while preserving the input mix of each bank. That is to say, given our example, the input levels of bank ***J*** are adjusted to those at B.

Figure 3 shows the Pareto-efficient mix of inputs of each bank under study with the inter-environment efficient boundary represented by EFCD. From the given picture, it follows straight that the efficiency attributable to the market conditions is in the case of bank ***M*** equal to the ratio $\frac{OM''}{OM'}$

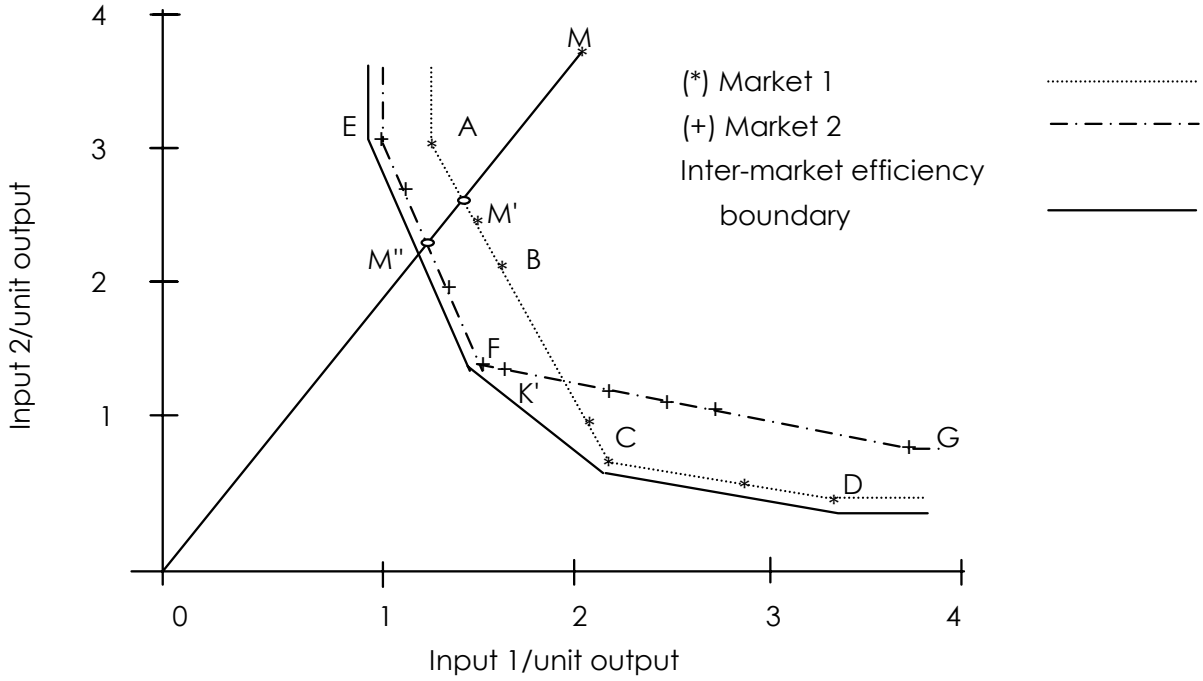
Further, it is easy to see that the inter-environment efficiency, that is, the gross efficiency score gained for each bank by a DEA solved for all banks under study with no explicit consideration of the external market conditions under which the banks operate is defined, for example, for bank ***M*** as follows:

$$Gross\ efficiency\ \ of\ \ M = managerial\ \ efficiency \times market - related\ \ efficiency,$$

$$\frac{OM''}{OM} \quad = \quad \frac{OM'}{OM} \quad \times \quad \frac{OM''}{OM'} \quad .$$

Note that the second-stage efficiency scores provide information about the direction of the influence of the external market conditions on gross efficiency of the banks under consideration. Reordering the income level groups according to the size of their impact on banking efficiency, starting with the group with the lowest mean efficiency, and continuing with the next lowest group, and so on ad nauseam, and solving a single DEA for the group with the lowest income level per head, proceeding with a single DEA for the pooled data consisting of the group with the lowest income level per head and the group with the second lowest income level per head, etc. gains efficiency scores on the basis that each bank is compared with those banks that enjoy no better, that is, more favorable, market environment than itself. This procedure yields efficiency scores very similar to those gained by the first-round DEA of the just discussed approach.

Figure 3: Market-environment related Efficiency



For assessing managerial and environment-related efficiency for our balanced bank sample, we solve the DEA using an input-oriented model with a variable-returns-to-scale technology identical in structure to model (7)[8]. Though the bank-level data have been pre-adjusted for outliers we checked the sensitivity of the results to remaining noise by applying the method proposed by *Resti* (1997). The procedure suggested by *Resti* (1997) carries out two DEA, the first DEA uses all the observations available and the second DEA uses only the data points of those banks that have scored efficiency level less than unity in the first DEA. High correlation between these two efficiency score vectors indicates that the results are robust. We conducted this sensitivity test for each year under investigation and the findings show clearly that the remaining noise in the data is of second order and, thus, does not distort our estimations in a statistical sense.

[8] Using slacks-based models as introduced by *Tone* (2001) proved not useful since the results turned out to be not different in a statistical sense from that gained by the models applied.

Finally, for checking whether differences in efficiency as measured by DEA occur by chance or are statistically significant we apply the familiar rank-sum test first introduced by *Wilcoxon* (1945) and *Mann – Whitney* (1947), respectively. This non-parametric test is based on the ranking of data belonging to two groups A and B, with the test statistic T defined as:

$$T = \frac{S - m(m+n+1)/2}{\sqrt{mn(m+n+1)/12}}, \tag{8}$$

whereas $\boldsymbol{S}$ is defined as the sum of ranks of group A within the pooled group $C = A \cup B$, $\boldsymbol{m}$ represents the size of group A, and $\boldsymbol{n}$ the size of group B. Since $\boldsymbol{S}$ is approximately normal distributed with mean $m(m+n+1)/2$ and variance $mn(m+n+1)/12$, the test statistic $\boldsymbol{T}$ follows an approximately standard normal distribution, given $\boldsymbol{S}$ be normalized. Accordingly, we check with the Mann - Wilcoxon-test the null hypothesis whether group A and group B share the same population at a given level of significance (for example, $\alpha = 0{,}05$, that is, 5 percent).

5.3 The Empirical Findings

In this section we report the major findings gained by the analysis based on the two-stage procedure applied to our extensive dataset as described in the previous chapter. As usual in the efficiency measurement literature, the efficiency scores reported scale up from zero (lowest level) to one (highest level), reflecting the percentage of efficient usage of productive resources available. In order to save space, we only report the computations based on the intermediation model since the findings gained by the production model are, in substance, identical with the former (of course, the results based on the production model are made available on request). For the same reason, we only report the Mann-Wilcoxon statistic for the tests between group 5 and group 1.

The results presented are based on calculations using the entire bank sample (that is, including the banks of the two overseas countries) since the results between the sub-sample consisting of solely Europe-based banks and the total sample turned out to be not different in a statistical sense. The computations have been carried out separately for each year of the investigation period 1998 to 2004. Since the analysis is

based on a balanced sample, the gained efficiency scores can, in principle, be interpreted either way, cross-sectional and longitudinal.

Table 8: Average Efficiency in Local OECD Banking Across Markets

	1998	1999	2000	2001	2002	2003	2004
Gross efficiency							
Very low GDP per capita	0.1800	0.1612	0.1779	0.2118	0.1799	0.1549	0.1604
Low GDP per capita	0.2038	0.1896	0.2026	0.2329	0.1793	0.1719	0.1891
Medium GDP per capita	0.1828	0.1723	0.1893	0.2232	0.1723	0.1666	0.1830
High GDP per capita	0.2383	0.2194	0.2343	0.2729	0.2030	0.1931	0.2207
Very high GDP per capita	0.2400 *	0.2279 *	0.2420 *	0.2872 *	0.2281 *	0.2026 *	0.2151 *
All regions	0.2177	0.2035	0.2185	0.2568	0.1994	0.1847	0.1982
Management-caused efficiency							
Very low GDP per capita		0.8216	0.7932	0.7807	0.7923	0.7688	0.7243
Low GDP per capita	0.6811	0.6932	0.6730	0.6200	0.6039	0.6360	0.6457
Medium GDP per capita	0.5881	0.5655	0.5435	0.5399	0.5179	0.5013	0.5021
High GDP per capita	0.2980	0.2731	0.4036	0.4110	0.4209	0.4194	0.4326
Very high GDP per capita	0.2748 *	0.2609 *	0.2502 *	0.3227 *	0.2283 *	0.2041 *	0.2225 *
All regions	0.4424	0.4271	0.4476	0.4643	0.4305	0.4209	0.4221
Market-caused efficiency							
Very low GDP per capita	0.2201	0.2002	0.2002	0.2795	0.2290	0.2024	0.2202
Low GDP per capita	0.3024	0.2814	0.2814	0.3912	0.3078	0.2803	0.3009
Medium GDP per capita	0.3015	0.3026	0.3026	0.4171	0.3407	0.3384	0.3671
High GDP per capita	0.7883	0.8449	0.8449	0.6614	0.4900	0.4629	0.5101
Very high GDP per capita	0.8710 *	0.8517 *	0.8517 *	0.9030 *	0.9097 *	0.8969 *	0.8767 *
All regions	0.6023	0.6070	0.6070	0.6218	0.5770	0.5634	0.5772

* ... Significantly different from banks domiciled in very low GDP per capita regions at the 1 percent level.

To start with the apparent eye-catcher, the gross inefficiency levels of the banks under study (remember, the banks are of small to medium size) appear to be remarkably high and, more importantly, there seems to be no indication of improvement over time. According to this overall gross efficiency calculation, the efficiency level of the local and regional banks operating in Europe and Overseas increased slightly in the first half of the investigation period from a very low 0.22 (1998) up to a not much higher 0.26 (2001) and dropped thereafter in the second half down to levels below 0.20. This pattern applies to all banks no matter of the local bank market conditions the respective bank units operate under (Table 8 and

Figure 6). Not quite unexpected, the banks with local market conditions corresponding to the highest income levels (group 5) rank at the top while the banks with their lowest developed home markets (group 1) are at the bottom. The differences in efficiency levels among the banks grouped according to their income level of their home markets are not only visible to the naked eye, but in most cases also significant in a statistical sense.

Seen from a broad perspective across markets, these overall findings seem to indicate that efficiency in local banking has not improved significantly in recent times and the increased competition in banking at the international level has not yet reached local bank markets. Most importantly, the findings reflect no significant convergence of bank efficiency levels across markets due to greater competition across markets and greater harmonization of regulatory rules across jurisdictional boundaries, respectively.

This also applies to the development of bank efficiency levels across the continents, that is, Europe, USA and Japan (Table 9). Most remarkably, gross efficiency of local banking in Europe, USA and Japan shares both the time pattern and the low order of magnitude.

Figure 4: Management-caused Efficiency Across Markets Above Total Average

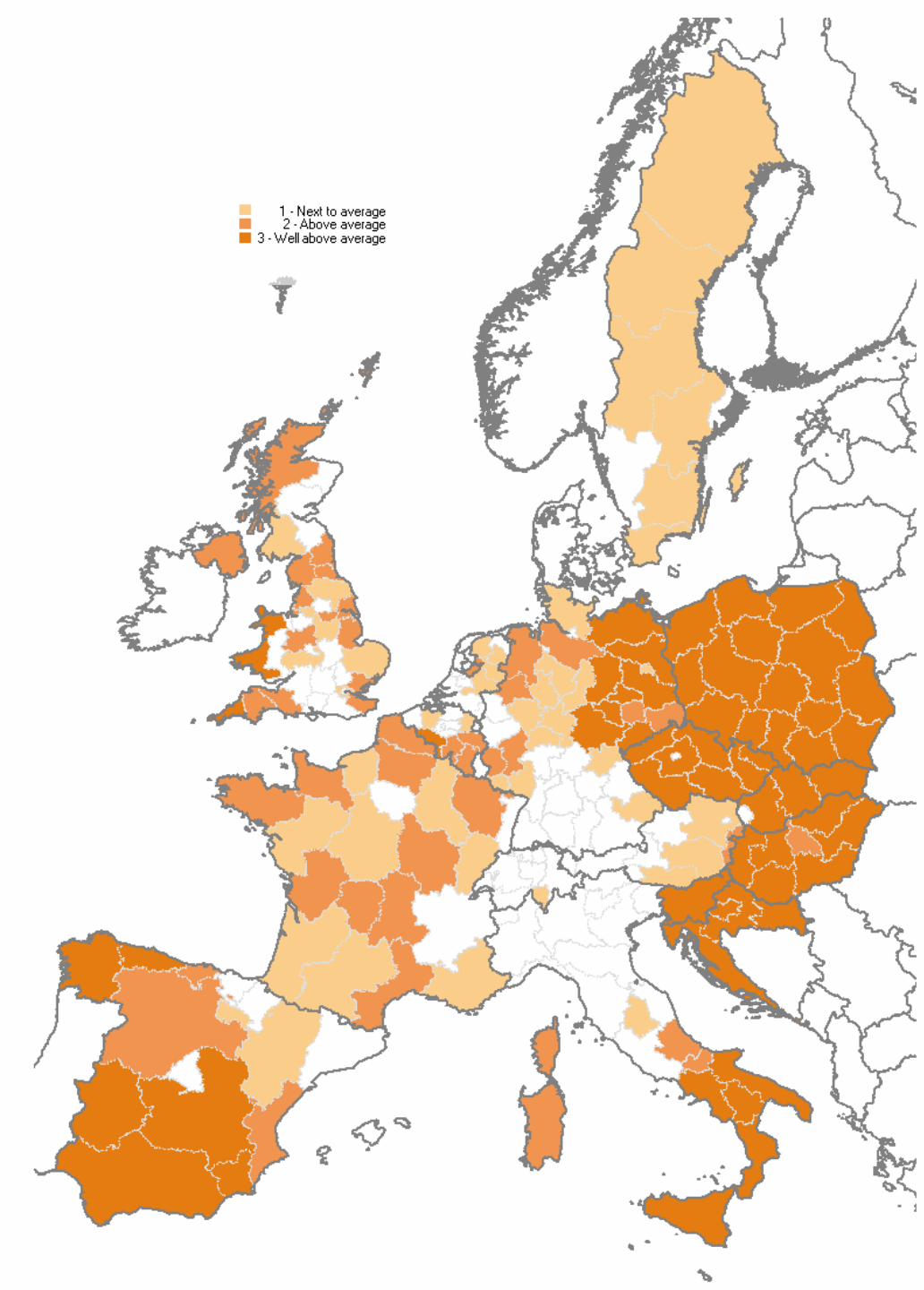


Figure 5: Markets with Increases in Management-caused Efficiency

Figure 6A: Average Gross Efficiency in Local OECD Banking Across Markets

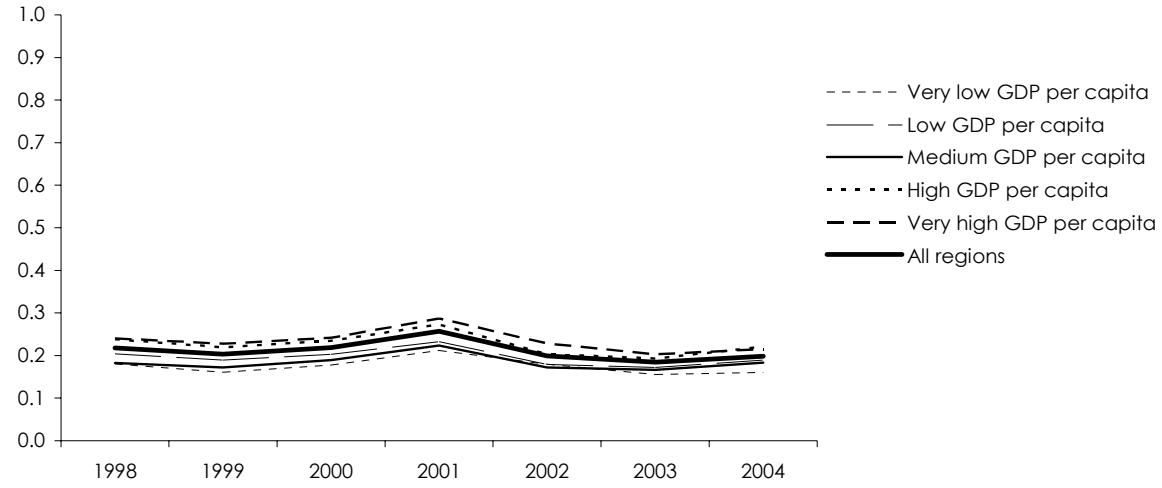
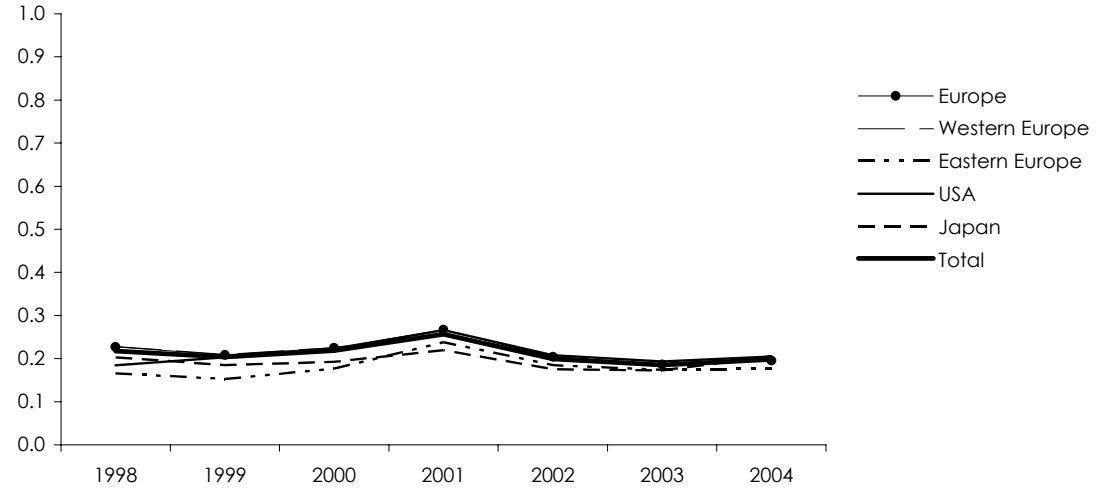
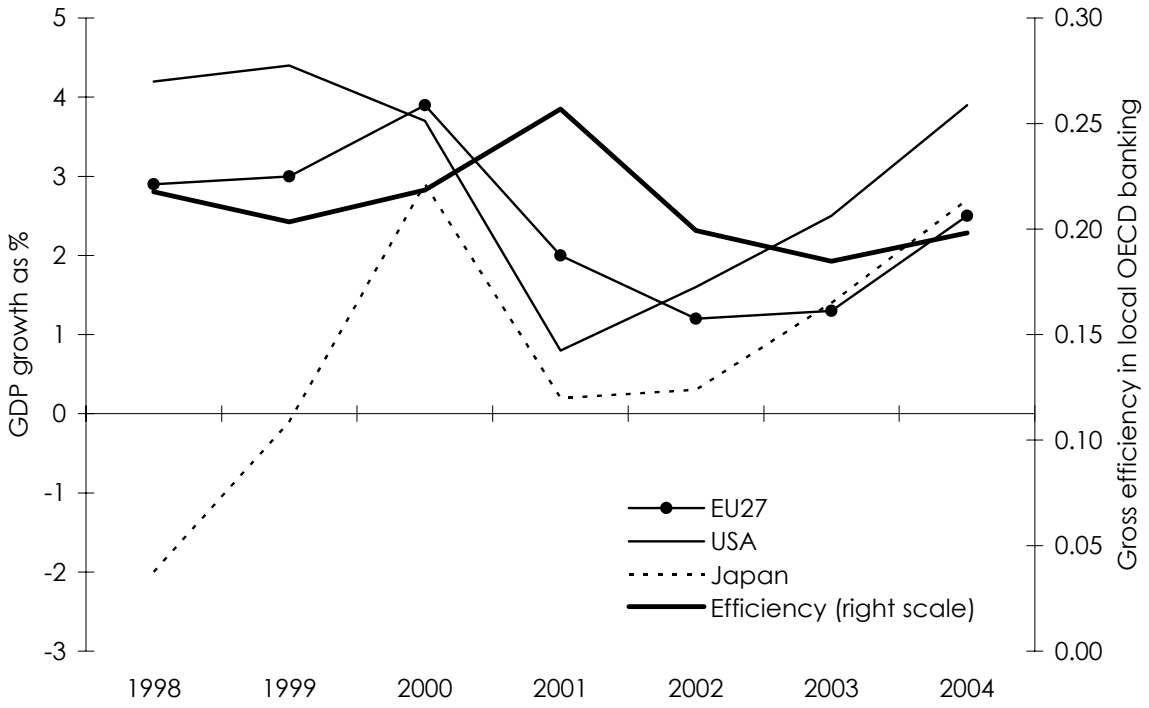


Figure 6B: Average Gross Efficiency in Local OECD Banking Across Continents



Viewed against the background of the international business cycle, the measured efficiency levels for the small- and medium-sized banks under study also show, if anything, a tendency to lag somewhat behind the cycle (Figure 7). However, the period of investigation is definitely too short to draw conclusive inference from it on these picky subjects.

Figure 7: Average Banking Efficiency and the International Business Cycle



Beyond and more importantly, the efficiency analysis that accounts for differences in local bank market conditions, as proxied by the income level per head of the very region where the banks are domiciled, yields a somewhat different and more interesting picture (Table 8).

Our DEA-based, more structured efficiency computations indicate that the managerial efficiency levels, that is, technical efficiency levels unaffected by external market conditions, are, on average, significantly higher than the gross efficiency scores for the banks considered. For the entire sample, the managerial efficiency scores exceed the 40 percent mark in each year of investigation, with the top score in 2001 (46 percent).

When compared across the continents (Table 9), managerial efficiency in local banking is highest in Japan (beyond 50 percent on average), followed by Europe (between 40 percent and 50 percent on average) and the USA (below 30 percent on average).

Further, for the overall sample, managerial efficiency follows the same pattern over time as gross efficiency, but the picture changes completely across local bank markets (Table 8 and Figure 6). Most significantly, the management of banks with home markets in economically underdeveloped regions are, in technical terms, significantly more efficient than banks with economically highly developed home markets (Table 8 and Figure 6). To be specific, managerial efficiency in banking and the level of economic development of the local bank market are strictly negatively related. The highest managerial efficiency levels with scores well above 70 percent, on average, are achieved by local banks doing business in rural, very poor developed regions (group 1), the lowest managerial efficiency levels (below 30 percent on average) score banks domiciled in the richest, most advanced OECD regions (group 5). Accordingly, the rest of the banks ranks in terms of managerial efficiency in reverse order to the economic level of their home market.

Table 9: Average Efficiency in Local OECD Banking Across Continents

	1998	1999	2000	2001	2002	2003	2004
Gross efficiency							
Europe	0.2269	0.2084	0.2248	0.2670	0.2044	0.1865	0.1950
Western Europe	0.2283	0.2097	0.2259	0.2583	0.2048	0.1867	0.1954
Eastern Europe	0.1654	0.1528	0.1767	0.2380	0.1850	0.1741	0.1765
USA	0.1846	0.2026	0.2216	0.2664	0.2075	0.1936	0.2053
Japan	0.2027	0.1853	0.1929	0.2194	0.1754	0.1726	0.2060
Total	0.2177	0.2035	0.2185	0.2568	0.1994	0.1847	0.1982
Management-caused efficiency							
Europe	0.4510	0.4311	0.4538	0.4729	0.4381	0.4262	0.4240
Western Europe	0.4458	0.4250	0.4492	0.4681	0.4324	0.4201	0.4185
Eastern Europe	0.6761	0.6972	0.6543	0.6803	0.6904	0.6958	0.6612
USA	0.2316	0.2421	0.2732	0.3179	0.2526	0.2365	0.2509
Japan	0.5386	0.5248	0.5309	0.5215	0.5106	0.5138	0.5198
Total	0.4424	0.4271	0.4476	0.4643	0.4305	0.4209	0.4221
Market-caused efficiency							
Europe	0.6114	0.6124	0.6124	0.6218	0.5655	0.5483	0.5571
Western Europe	0.6173	0.6198	0.6198	0.6265	0.5702	0.5531	0.5618
Eastern Europe	0.3533	0.2883	0.2883	0.4170	0.3589	0.3358	0.3488
USA	0.8190	0.8478	0.8478	0.8530	0.8998	0.8963	0.8841
Japan	0.4352	0.4391	0.4391	0.4800	0.4234	0.4169	0.4657
Total	0.6023	0.6070	0.6070	0.6218	0.5770	0.5634	0.5772

Figure 8A: Average Management-caused Efficiency in Local OECD Banking Across Markets

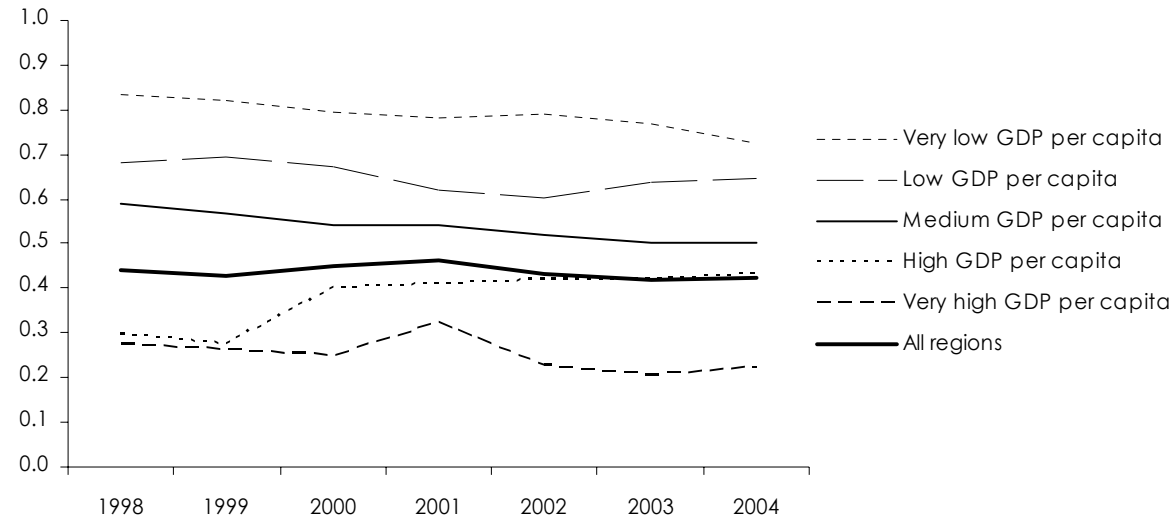
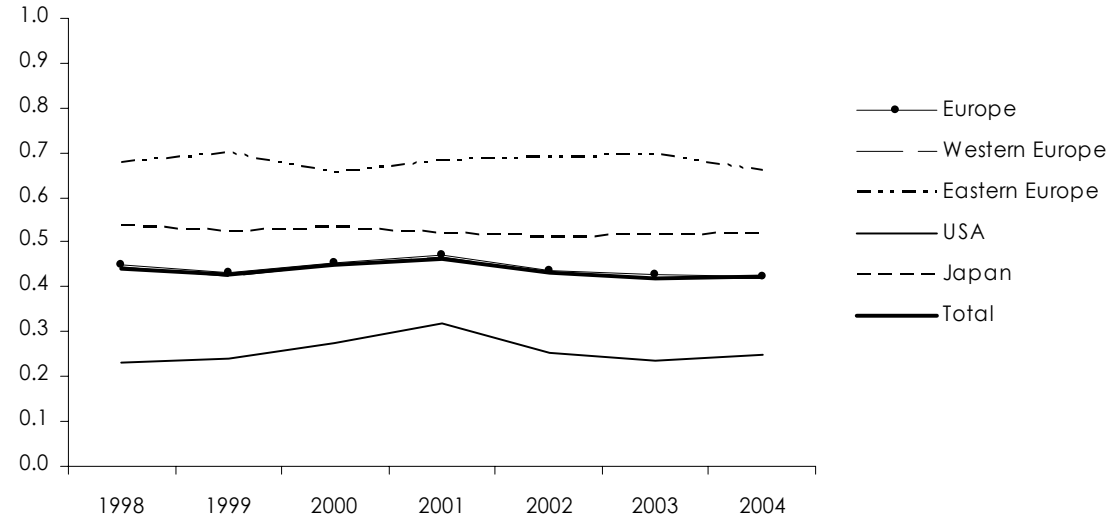


Figure 8B: Average Management-caused Efficiency in Local OECD Banking Across Continents



There are some very interesting facets to these findings which deserve closer and more detailed consideration. First, the efficiency levels of all but one bank group, as comprised by the income level per head of their home region, follow a decisive declining trend. As for the rural banks – the most efficient bank group of our sample – starting with a managerial efficiency score of 83 percent in the beginning of the

investigation period (1998), their scores, on average, fall sharply to levels near 70 percent by the year 2004. Second, this pattern, though in weakened form, also applies to the other bank groups under study with the exception of banks belonging to group 4, as indicated above. The question arises whether there is an economic rationale to these structured findings or whether these results are too inconclusive to reflect relevant information.

To start with, the higher managerial efficiency levels of rural banks (group 1) as compared with that of metropolitan banks (group 5) is very much in line with recent findings for the Austrian banking sector presented in *Hahn* (2005) and (2007B), respectively. These studies find evidence supporting the view that rural banks achieve, on average, higher levels of internal efficiency than urban banks due to their larger local market powers. Further, these studies also indicate that the declining trend of internal or managerial efficiency in rural banking be mainly caused by the decreasing deterrence powers of the incumbent local banks that significantly constrains the unfettered exercise of their local market powers. The latter occurs because the rural bank markets are getting more and more contestable since these markets are no longer out of reach for larger urban competitors.

As to the assessment of these internal efficiency results across OECD local bank markets, we are very much inclined to hold that the same insight as proposed in the respective studies by *Hahn* (2005, 2007B) can be drawn from the results of the present investigation. Internal efficiency in rural banking is very likely strongly driven by local market powers of incumbent local banks. However, the market power of the latter banks is on the decline due to growing degrees of contestability apprehending all levels and areas of banking across OECD countries caused by mounting competition through unfettered domestic and international financial markets activities and aggressive non-bank financial competitors, respectively.

As already indicated, a marked deviation from the sample takes managerial efficiency of the local and regional banks whose activities are centered in very developed but non-metropolitan areas, that is, in regions of income levels per head as embraced by group 4. Contrary to their rural and metropolitan counterparts, these banks have been capable of improving, on average, their managerial efficiency from 30 percent 1998 to 42 percent 2004. The driving force behind this

development has been, most likely, the extra-high need of bank consolidation and bank concentration in these highly developed, industrial but rural areas. These regions have been notorious for being grossly "over-banked", that is, being swamped with too many too small local and regional banks with substantial branch operations providing a broad range of banking services at higher-than market prices. These banks have recently come under particularly strong competitive pressure through broad inroads made, in their very home markets, by nation-wide or even international-oriented banks. In many OECD countries, large bank entities have started to expand their business activities to wealthy regions in the countryside by providing, among others via electronic-based outlets, standard and even high-end banking products at competitive prices to former regular customers of local savings banks and mutual banks, respectively. The response of the affected local and regional banks to this growing squeeze exerted by large supra-regional banks has been the adoption of strategies aimed at closing the gap between actual and optimal size in order to improve cost efficiency and re-gain competitiveness. In many countries, this aim has been primarily achieved by way of mergers among local and regional savings and mutual banks. Though the empirical evidence of bank mergers is rather mixed, according to *Hahn* (2007B), however, the mergers of small local banks doing business primarily in rich, economically highly developed but mostly rural areas have had a sizeable and lasting impact on the post-merger performance of these still locally and regionally centered banks. Obviously, the internal efficiency scores estimated for the banks having their home markets in regions of type "group 4" and reported in Table 8 and Figure 8 add to this evidence vividly.

Since gross efficiency can be decomposed multiplicatively into internal- (managerial) and external-related (environmental) technical efficiency assessing the impact of external market conditions on overall banking efficiency is a straight corollary of the already presented and discussed estimation results (Table 8 and Figure 10). Not surprisingly, local banks in metropolitan areas (group 5) enjoy the most favorable market environment of all banks under study. No surprise at the low end either, local banks in poor, underdeveloped and rural areas (group 1) face the toughest and most unpleasant external market conditions.

From this it follows straight that market-caused efficiency in local banking is highest in the USA, followed by Europe and Japan, respectively (Table 9).

Thus, the expectation has been confirmed by our analysis that banks benefit, on average, from the more advanced high-end demand structure of an upmarket clientage. On the other hand, the analysis also stresses that the management of banks doing business under favorable market conditions are more tempted to become complacent than the management of banks which face tougher market parameters. According to the calculations reported in Table 8 and Figure 10, external market conditions as measured by their contribution to gross efficiency in local banking have remained rather stable for the majority of banks under study. There is only one exception, namely the banks with local markets of type "group 4". These banks have experienced a considerable and statistically significant change of their market conditions to the worse as reflected by the sharp downturn of the positive contribution of market-related efficiency to overall efficiency during the investigation period (1998: 79 percent; 2004: 51 percent).

Finally, a decomposition of gross efficiency into management-caused efficiency and market-caused efficiency shows clearly that the gross performance of local banks with poorly developed home markets is, on average, positively influenced by management and negatively by the market environment while the performance of local banks with high-developed mostly urban home markets is debilitated, on average, by managerial complacency (Figure 11). Again, local banks with highly developed but mostly rural home markets (group 4) have been standing out from the crowd by (over-)compensating efficiency losses due to worsening market conditions through efficiency gains due to improved management.

Figure 9: Market-caused Efficiency Across Markets Above Total Average

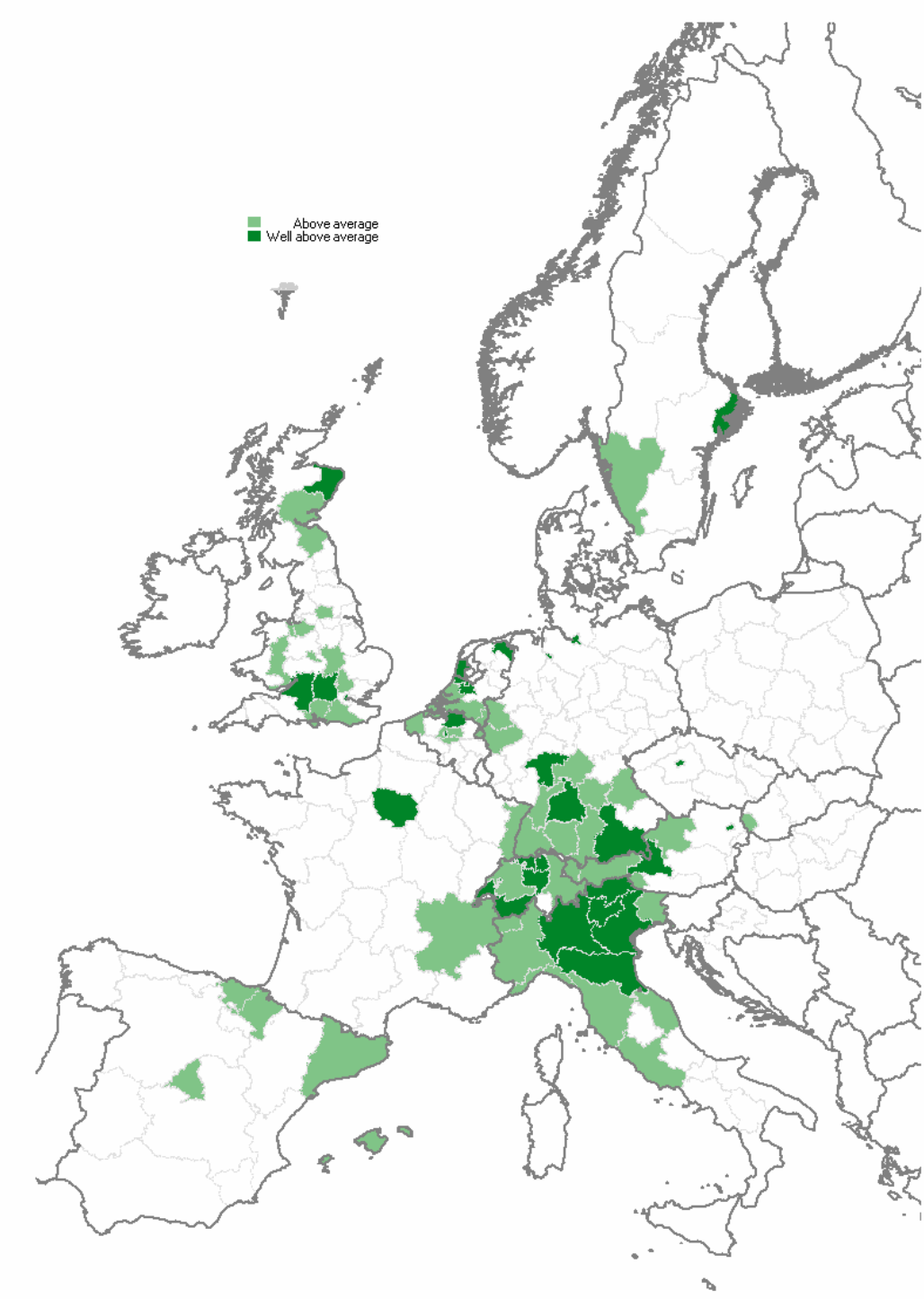


Figure 10A: Average Market-caused Efficiency in Local OECD Banking Across Markets

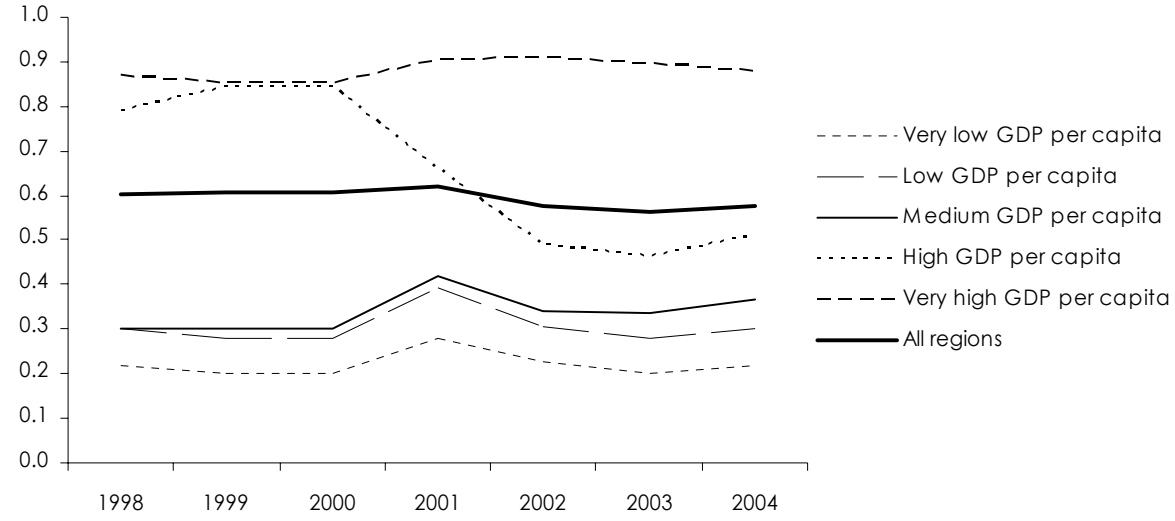


Figure 10B: Average Market-caused Efficiency in Local OECD Banking Across Continents

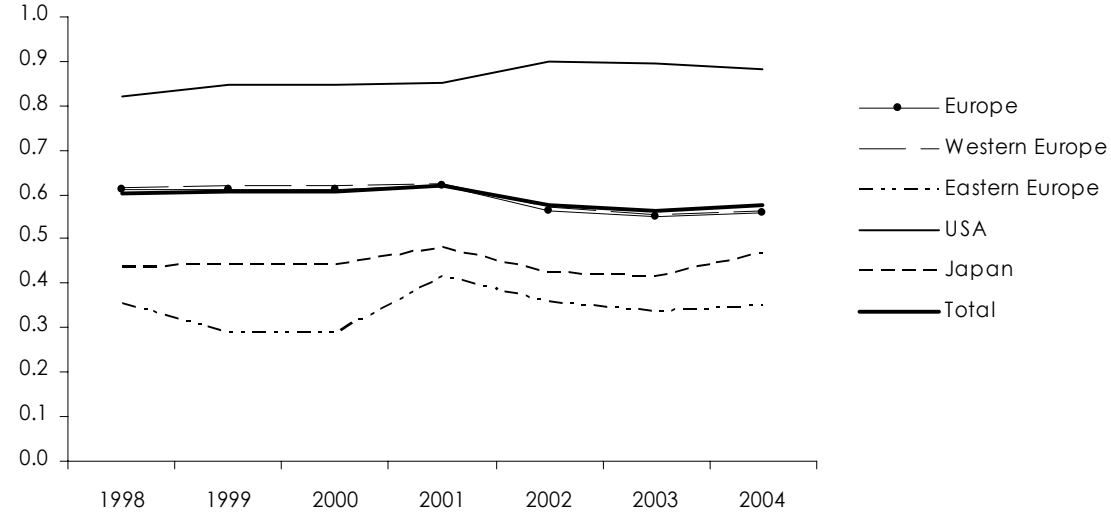
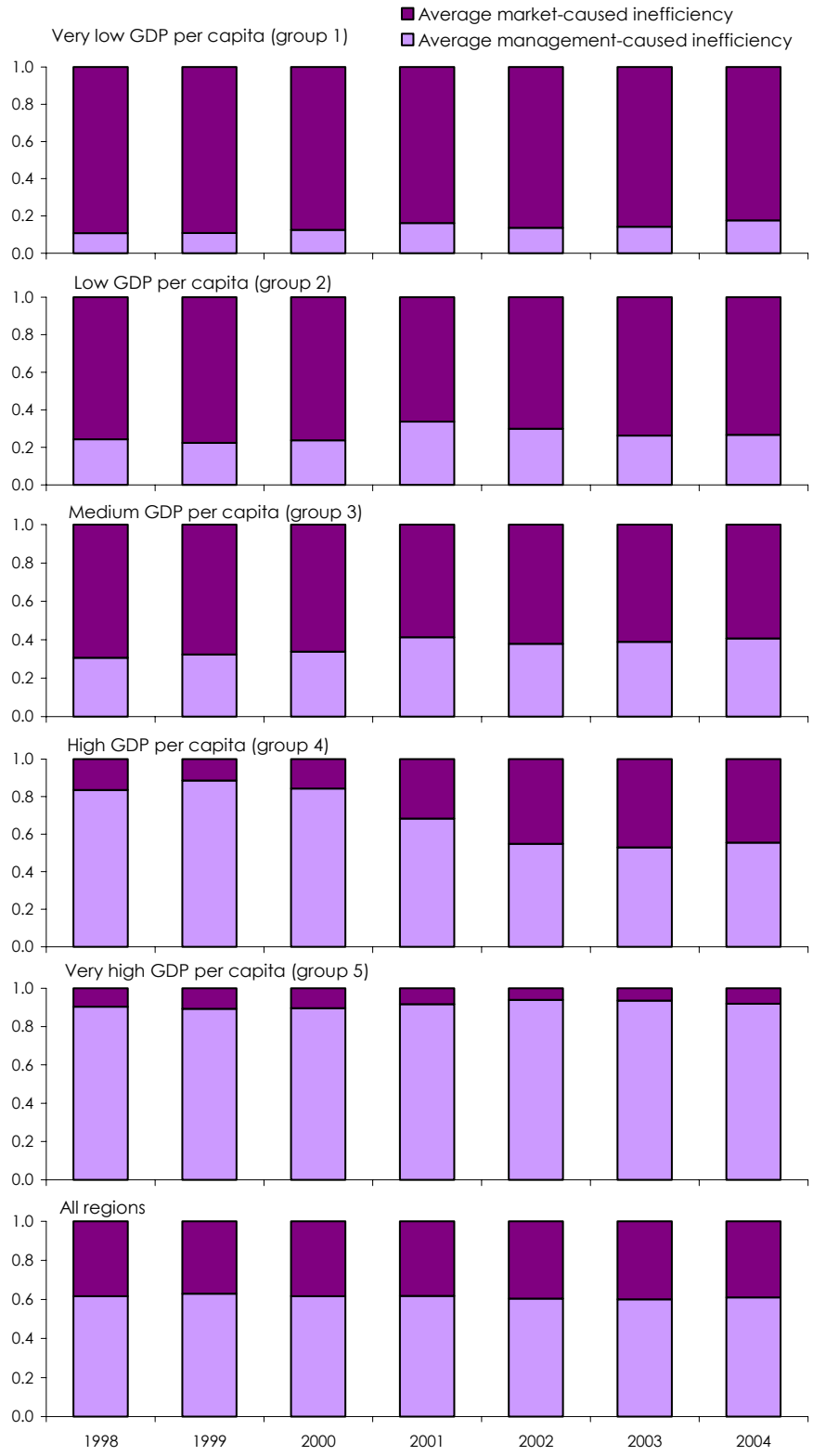


Figure 11: Decomposition of Average Gross Inefficiency in Local OECD Banking



6. Summary and Concluding Remarks

In this study we made an attempt to assess the technical efficiency (or X-efficiency) of the banking sectors of sixteen European countries, including CEE countries, and two overseas economies (Japan, the United States of America) with the focus on both, the internal and controllable factors and the environmental and non-controllable factors critical to banking markets. Due to very tight overall data restrictions at both the bank and the environment level, we constrained the focus of our analysis on the study of small- to medium-sized banks and, importantly, assumed that the geographic region where the head offices of the banks under study are located be a good delineation of the relevant external and, thus, non-controllable banking market environment. Since we exclusively target small- to medium-sized banks, we used the NUTS 2 level of EUROSTAT as analytically appropriate geographic approximation of the home market of locally and regionally operating banks in Europe. For the United States of America, we considered the "home federal state" of the bank under study most feasible, for Japan the "home prefecture" of the bank under study, respectively. For (almost) all countries included in our sample, reliable environmental data at the defined regional level relevant to banking could only be gained from the respective national accounts and demographic statistics.

The given data restrictions determined both range and structure of the empirical analysis. Consequently, in the given setting we considered the non-parametric Data Envelopment Analysis (DEA) approach to be most appropriate for the analysis of banking efficiency under different external markets conditions. To be specific, we used a non-parametric two-stage DEA model which allows for the identification of any inefficiencies that are attributable either to the bank management or to the market or external environment condition under which the banks operate. This pure non-parametric setup not only allows for the existence of multiple technologies but also is superior to the usual two-stage approach combining DEA efficiency estimates with a second-stage regression analysis because it is free from dependency problems which seriously impair statistical inference.

The main source of the bank-level data used in the investigation is the BankScope database of the London-based International Bank Credit Analysis Ltd (IBCA). This database contains a broad set of both quantitative and qualitative information of

banks across OECD and emerging economies. However, in order to compose a meaningful sample we had to impose a number of requirements to be met by the data. First, in order to maintain a high level of data quality the geographical coverage was restricted to Austria, Belgium, Croatia, the Czech Republic, France, Germany, Hungary, Italy, the Netherlands, Poland, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom. In addition to these European countries, data availability allowed for extending our sample by the two major overseas economies, Japan and the United States of America. Second, the data coverage encompasses the years from 1998 to 2004 because data prior to (and after) this period appeared to be of lesser quality. As a result, the dataset gained by this data selection mechanism covers more than 2,600 banks each year of period of investigation.

As indicated above, for the great majority of countries covered environmental data relevant to banks at the NUTS 2 level are very scarce and mostly of questionable quality. Thus, in this study the local market environment of a bank was taken to be all reflected in the real income per head of the NUTS 2 region where the respective bank domiciles. Though rather simplistic, there is evidence that the status of economic development of a region determines to a large degree both structure and quality of local banking services. Hence, we maintain that the level of the regional income per capita be a sufficiently suitable proxy for the external environmental or market condition relevant to locally or regionally operating banks. Accordingly, in order to gain more structure we categorized the local bank markets as represented by the respective regions classifications into five income level groups. For example, regions belonging to group 1 are typically rural areas with, by OECD standards, underdeveloped economic capacities as represented, for example, by the "neuen Bundesländer" in Germany or the poorly developed regions of Eastern and Southern Europe (i.e. Italy's Mezzogiorno), respectively. The great majority of Austrian banks considered are operating in local markets belonging to group 3, group 4 and group 5. The former two groups cover regions comparable in economic development to "Vorarlberg" or to the "Triangolo Industriale" in northern Italy, the latter to metropolitan areas like London, Paris or Vienna and Munich.

As to the key findings of the empirical investigation, the gross inefficiency levels of the banks under study appear to be remarkably high and, more importantly, there seems to be no indication of improvement over time. According to this overall gross calculation, the efficiency level of the local and regional banks operating in Europe and Overseas across all markets increased slightly in the first half of the investigation period from a very low 0.22 (1998) up to a not much higher 0.26 (2001) and dropped thereafter in the second half down to levels below 0.20. This pattern applies to all banks no matter of the local bank market conditions the respective bank units operate under. Not quite unexpected, the banks with local market conditions corresponding to the highest income levels rank at the top while the banks with the lowest developed home markets are at the bottom.

Seen from a broad perspective across markets, these overall findings seem to indicate that efficiency in local banking has not improved significantly in recent times and the increased competition in banking at the international level has not yet affected local bank markets. Most importantly, the findings reflect no convergence of bank efficiency levels across markets due to greater competition across local markets and greater harmonization of regulatory rules across jurisdictional boundaries, respectively. This also applies to the development of bank efficiency levels across the continents, that is, Europe, USA and Japan. Most remarkably, gross efficiency of local banking in Europe, USA and Japan shares both the time pattern and the low order of magnitude.

However, a closer and detailed examination of the findings unveils that the sharp increase in competition at all levels of banking and the greater harmonization of regulatory rules across markets have indeed made a conspicuous mark on the performance of local and regional banks in the major OECD countries.

To start with, the DEA-based computations presented in this study indicate that the managerial efficiency levels in banking, that is, technical efficiency levels unaffected by external market conditions, are, on average, significantly higher than the gross efficiency scores. For the entire sample, the managerial efficiency scores exceed the 40 percent mark in each year of investigation, with the top score in 2001 (46 percent). More concretely, for the overall bank sample, managerial efficiency follows the same pattern over time as gross efficiency.

When compared across the continents, managerial efficiency in local banking is highest in Japan (beyond 50 percent on average), followed by Europe (between 40 percent and 50 percent on average) and the USA (below 30 percent on average).

The findings become more interesting when compared across local bank markets. Most significantly, the management of banks with home markets in economically underdeveloped regions are, in technical terms, significantly more efficient than banks with economically high-developed home markets. To be specific, managerial efficiency in banking and the level of economic development of the local bank market are strictly negatively related. The highest managerial efficiency levels with scores well above 70 percent on average are reached by local banks doing business in rural, poor-developed regions (group 1), the lowest managerial efficiency levels (below 30 percent on average) score banks domiciled in the richest, most advanced OECD regions (group 5). Accordingly, the rest of the banks ranks in terms of managerial efficiency in reverse order to the economic level of their home region.

There are some very interesting additional facets to these findings. Above all, the internal efficiency levels of all but one bank group, as comprised by the income level per head of their home region, follow a decisive declining trend. As for the rural banks – the internally most efficient bank group of our sample – starting with a managerial efficiency score of 83 percent in the beginning of the investigation period (1998), their scores, on average, fall sharply to levels near 70 percent by the year 2004. This pattern, though in weakened form, also applies to the other bank groups under study with the exception of banks belonging to group 4.

Importantly, the higher managerial efficiency levels of rural banks (group 1) as compared with those of metropolitan banks (group 5) are very much in line with recent findings for the Austrian banking sector (*Hahn*, 2005 and 2007B). According to these studies, there is evidence supporting the view that rural banks achieve, on average, higher levels of internal efficiency than urban banks due to their larger local market powers. Further, these studies also indicate that the declining trend of internal or managerial efficiency in rural banking be mainly caused by the decreasing deterrence powers of the incumbent local banks since rural bank markets are getting more and more contested by supra-regional banks. The latter

tends to constrain the unfettered exercise of the local market powers of the incumbents significantly.

As to the presented internal efficiency measures across local OECD banking markets, we hold that the same insight as proposed in the respective studies by *Hahn* (2005, 2007B) can be drawn from the results of the present investigation. Internal efficiency in rural banking is very likely strongly driven by local market powers of incumbent local banks. However, the market powers of the latter banks is on the decline due to growing degrees of contestability apprehending all levels and areas of banking across OECD countries caused by mounting competition through aggressive supra-regional competitors and unfettered domestic and international financial markets activities, respectively.

Further, a marked deviation from sample takes managerial efficiency of the local and regional banks under study whose activities are centered in very rich but non-metropolitan areas, that is, in regions of income levels per head ranging from 22.501 to 27.000 as embraced by group 4. Contrary to their rural and metropolitan counterparts, these banks were capable of improving, on average, their managerial efficiency from 30 percent 1998 to 42 percent 2004. We argue that the driving force behind this development has been, most likely, the extra-high need of bank consolidation and bank concentration in these highly developed, industrial but rural areas. These regions have been notorious for being highly "over-banked", that is, being swamped by too many too small local and regional banks with substantial branch operations providing a broad range of banking services at higher-than market prices. These banks have recently come under particularly strong competitive pressure through broad inroads made, in their home turf, by nation-wide or even international-oriented banks. As indicated above, in many OECD countries, larger urban bank entities have started to expand their business activities to the wealthy areas in the countryside by providing, among others via electronic-based outlets, standard and even high-end banking products at competitive prices to former regular customers of local savings banks and mutual banks, respectively. The response of the affected local and regional banks to this growing squeeze exerted by large nation-wide operating banks has been the adoption of strategies aimed at closing the gap between actual and optimal size in order to improve cost efficiency

and re-gain competitiveness. In many countries, this goal has been primarily achieved by way of mergers among local and regional savings and mutual banks. Though the empirical evidence of bank mergers is rather mixed, according to *Hahn* (2007B), however, the mergers of small local banks doing business primarily in rich, economically highly developed but mostly rural areas have had a sizeable and lasting impact on the post-merger performance of these still locally and regionally centered banks. Obviously, the internal efficiency scores estimated for the banks having their home markets in regions of type "group 4" is in full accordance with this evidence.

Assessing the impact of external market conditions on overall banking efficiency, it comes as no surprise that local banks in metropolitan areas (group 5) enjoy the most favorable market environment of all banks under study. No surprise at the low end either, local banks in poor, underdeveloped and rural areas (group 1) face the toughest and most unpleasant external market conditions. From this it follows straight that market-caused efficiency in local banking is highest in the USA, followed by Europe and Japan, respectively.

Thus, the analysis confirms that banks benefit, on average, from the more advanced high-end demand structure of an up-market clientage. On the other hand, the analysis also shows that the management of banks doing business under favorable market conditions are more tempted to become complacent than the management of banks which face tougher market parameters. External market conditions as measured by their contribution to gross efficiency in local banking have remained rather stable for the majority of banks under study. There is again only one exception, namely the banks with local markets of type "group4" that experienced a considerable and statistically significant change of their market conditions to the worse as reflected by the sharp downturn of the positive contribution of market-related efficiency to overall efficiency during the investigation period (1998: 79 percent; 2004: 51 percent).

Finally, a decomposition of gross efficiency into management-caused efficiency and market-caused efficiency shows clearly that the gross performance of local banks with poorly developed home markets is, on average, positively influenced by management and negatively by the market environment while the performance of

local banks with high-developed mostly urban home markets is debilitated, on average, by managerial complacency. Again, local banks with highly developed but non-metropolitan home markets (group 4) were standing out from the crowd by (over-) compensating efficiency losses due to worsening market conditions through efficiency gains due to improved management.

We conclude that among the various local bank markets considered in this study, highly developed non-metropolitan bank markets are among those bank markets within the OECD area that have been affected most strongly by "global banking trends".

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Appendix

Tables A.1.1 to A.8.4: Structure and performance indicators of the total bank sample

Tables B.1 to B.30: Structure and performance indicators of the banking sector in the OECD area

Table A.1.1: Cost-income ratio of banks headquartered in economic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	6.1	10.2	21.4	20.6	20.7	14.5	19.7
Maximum	100.1	135.8	471.2	342.1	131.7	156.7	124.1
Mean	63.4	67.1	66.3	67.5	67.1	67.1	65.0
Median	64.2	66.7	64.8	66.6	66.6	66.6	65.0
Standard deviation	*13.8*	*16.2*	*29.5*	*23.3*	*15.4*	*15.5*	*14.8*
Coefficient of variation	0.22	0.24	0.45	0.34	0.23	0.23	0.23
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	27.4	25.9	28.6	27.1	13.3	25.6	11.2
Maximum	200.0	114.3	108.8	152.3	127.8	130.8	134.2
Mean	67.0	67.4	68.2	69.8	68.9	67.7	66.4
Median	67.2	68.1	68.8	70.6	69.2	68.7	67.3
Standard deviation	14.5	11.8	12.0	13.3	13.5	12.3	12.5
Coefficient of variation	0.22	0.18	0.18	0.19	0.20	0.18	0.19
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	16.0	15.8	10.7	24.1	16.1	6.1	8.0
Maximum	115.1	150.0	150.0	200.0	114.3	111.1	140.6
Mean	66.3	66.4	68.2	69.7	68.5	67.8	67.4
Median	67.1	66.7	68.7	69.9	68.7	68.2	67.1
Standard deviation	11.3	12.1	12.3	12.5	11.3	11.2	11.6
Coefficient of variation	0.17	0.18	0.18	0.18	0.17	0.17	0.17
Observations	653	653	653	653	653	653	653
High GDP per capita							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	200.0	200.0	339.6	325.3	535.3	177.5	308.3
Mean	65.2	66.6	67.4	68.7	68.1	66.3	65.7
Median	66.1	67.1	68.2	69.7	68.1	67.2	66.3
Standard deviation	15.4	16.7	18.4	19.3	22.8	14.7	16.5
Coefficient of variation	0.24	0.25	0.27	0.28	0.34	0.22	0.25
Observations	794	794	794	794	794	794	794
Very high GDP per capita							
Minimum	2.6	2.2	2.8	2.9	2.6	2.4	1.0
Maximum	1,247.2	1,249.6	556.3	722.6	555.5	675.9	798.9
Mean	64.7	66.4	63.7	66.4	66.9	67.4	67.1
Median	63.0	64.7	63.2	66.0	66.7	66.5	66.2
Standard deviation	47.7	42.5	23.5	32.3	25.7	29.0	33.7
Coefficient of variation	0.74	0.64	0.37	0.49	0.38	0.43	0.50
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	1,247.2	1,249.6	556.3	722.6	555.5	675.9	798.9
Mean	65.3	66.6	66.3	68.1	67.8	67.2	66.6
Median	65.5	66.7	66.8	68.7	67.9	67.4	66.7
Standard deviation	30.5	27.9	20.0	23.7	20.7	20.4	23.1
Coefficient of variation	0.47	0.42	0.30	0.35	0.31	0.30	0.35
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.1.2: Cost-income ratio of banks by size classes of total assets

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	18.2	22.1	18.2	16.6	13.3	20.0	28.3
Maximum	327.0	1,249.6	232.3	500.0	350.0	675.9	798.9
Mean	67.4	75.7	67.5	72.0	76.2	76.4	78.2
Median	65.7	70.7	66.7	70.2	74.6	73.3	71.5
Standard deviation	24.4	68.8	18.7	30.6	27.8	44.1	64.8
Coefficient of variation	0.36	0.91	0.28	0.43	0.37	0.58	0.83
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	1.8	2.0	2.8	2.9	2.7	9.4	9.7
Maximum	197.5	255.6	556.3	722.6	555.5	177.5	308.3
Mean	65.7	67.2	68.1	70.7	70.4	69.1	68.7
Median	66.7	67.6	68.8	70.7	70.1	69.2	69.0
Standard deviation	15.1	16.4	21.8	25.1	22.5	14.3	15.1
Coefficient of variation	0.23	0.24	0.32	0.35	0.32	0.21	0.22
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	7.4	6.7	1.4	1.0	1.1	0.8	1.5
Maximum	1,247.2	157.0	339.6	481.6	184.0	321.9	193.6
Mean	65.7	63.9	64.7	65.4	64.3	64.9	63.8
Median	63.9	64.4	65.4	66.5	65.2	64.9	64.1
Standard deviation	50.2	13.6	17.1	19.4	14.7	18.8	15.3
Coefficient of variation	0.76	0.21	0.26	0.30	0.23	0.29	0.24
Observations	913	975	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	6.3	3.6	3.6	3.4	2.6	2.4	0.7
Maximum	83.9	484.9	129.7	88.9	113.4	131.4	159.3
Mean	56.2	59.9	57.7	57.2	56.9	56.6	56.1
Median	58.7	58.6	58.8	58.0	57.9	57.4	57.6
Standard deviation	14.2	36.1	15.7	13.9	14.7	16.6	17.2
Coefficient of variation	0.25	0.60	0.27	0.24	0.26	0.29	0.31
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	14.5	13.3	22.6	22.4	23.8	26.4	27.0
Maximum	77.9	86.1	87.5	84.8	107.9	81.8	87.9
Mean	55.0	56.0	56.3	57.8	59.0	57.9	57.9
Median	60.9	57.9	60.9	60.7	61.6	60.2	60.4
Standard deviation	19.3	19.2	17.5	17.9	20.2	15.0	16.3
Coefficient of variation	0.35	0.34	0.31	0.31	0.34	0.26	0.28
Observations	17	18	20	22	22	23	25
All banks							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	1,247.2	1,249.6	556.3	722.6	555.5	675.9	798.9
Mean	65.3	66.6	66.3	68.1	67.8	67.2	66.6
Median	65.5	66.7	66.8	68.7	67.9	67.4	66.7
Standard deviation	30.5	27.9	20.0	23.7	20.7	20.4	23.1
Coefficient of variation	0.47	0.42	0.30	0.35	0.31	0.30	0.35
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.1.3: Cost-income ratio of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	10.7	6.7	10.7	12.6	11.0	6.1	4.8
Maximum	200.0	301.0	160.7	722.6	555.5	321.9	187.0
Mean	66.2	67.8	68.0	70.1	69.4	68.5	67.8
Median	66.7	68.0	69.0	70.4	69.4	69.0	68.0
Standard deviation	13.6	14.3	12.1	22.2	18.5	13.9	12.4
Coefficient of variation	0.21	0.21	0.18	0.32	0.27	0.20	0.18
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	2.9	2.8	2.9	2.9	2.7	2.4	2.0
Maximum	200.0	173.6	556.3	481.6	127.8	306.6	159.3
Mean	64.8	67.1	66.6	69.1	67.8	67.6	66.4
Median	66.4	67.5	66.9	69.3	68.7	67.9	67.2
Standard deviation	14.6	15.9	22.8	23.5	14.5	16.7	14.5
Coefficient of variation	0.22	0.24	0.34	0.34	0.21	0.25	0.22
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	2.6	2.2	2.8	9.5	11.8	9.4	9.7
Maximum	150.6	157.0	221.8	258.0	316.4	247.3	193.6
Mean	65.3	65.8	66.7	67.6	67.9	67.7	66.9
Median	66.0	66.0	67.0	68.2	67.5	66.7	66.3
Standard deviation	15.0	15.9	17.3	17.5	19.2	18.3	17.0
Coefficient of variation	0.23	0.24	0.26	0.26	0.28	0.27	0.25
Observations	612	612	612	612	612	612	612
High dynamic							
Minimum	6.3	3.6	3.6	3.4	2.6	2.4	1.0
Maximum	197.5	1,249.6	124.5	160.3	156.5	675.9	798.9
Mean	60.8	63.9	59.8	62.3	63.8	64.9	64.6
Median	60.0	60.7	59.3	61.6	62.1	62.8	60.7
Standard deviation	19.1	65.7	16.5	17.6	18.7	37.3	43.2
Coefficient of variation	0.31	1.03	0.28	0.28	0.29	0.57	0.67
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	1,247.2	484.9	471.2	500.0	535.3	313.3	670.1
Mean	69.9	64.3	63.9	64.3	63.7	60.3	62.5
Median	57.1	58.5	58.0	58.2	57.3	57.9	57.7
Standard deviation	108.4	42.3	44.4	46.7	46.2	28.1	51.0
Coefficient of variation	1.55	0.66	0.70	0.73	0.73	0.47	0.82
Observations	195	195	195	195	195	195	195
All regions							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	1,247.2	1,249.6	556.3	722.6	555.5	675.9	798.9
Mean	65.3	66.6	66.3	68.1	67.8	67.2	66.6
Median	65.5	66.7	66.8	68.7	67.9	67.4	66.7
Standard deviation	30.5	27.9	20.0	23.7	20.7	20.4	23.1
Coefficient of variation	0.47	0.42	0.30	0.35	0.31	0.30	0.35
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.1.4: Cost-income ratio of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	21.3	21.6	23.3	21.2	18.3	17.4	8.9
Maximum	133.3	144.0	122.4	152.8	184.0	247.3	193.6
Mean	61.7	64.1	62.2	63.8	64.2	65.3	64.0
Median	60.7	63.2	61.9	63.3	63.2	63.5	63.1
Standard deviation	14.0	14.2	12.3	14.5	16.0	18.7	17.3
Coefficient of variation	0.23	0.22	0.20	0.23	0.25	0.29	0.27
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	2.9	2.8	2.9	2.9	2.7	2.4	2.0
Maximum	128.9	301.0	232.3	500.0	350.0	313.3	670.1
Mean	64.4	65.8	64.6	67.3	66.3	66.8	66.3
Median	65.1	64.5	64.5	66.7	66.3	66.4	65.7
Standard deviation	14.3	18.9	16.0	27.4	19.7	22.0	31.8
Coefficient of variation	0.22	0.29	0.25	0.41	0.30	0.33	0.48
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	2.6	2.2	2.8	9.5	23.1	20.9	24.4
Maximum	200.0	147.6	160.0	160.3	316.4	675.9	136.0
Mean	66.3	67.7	67.0	68.8	69.7	69.0	67.6
Median	66.7	67.9	67.9	69.6	70.0	68.5	67.3
Standard deviation	15.0	14.3	13.5	13.8	16.2	26.0	12.2
Coefficient of variation	0.23	0.21	0.20	0.20	0.23	0.38	0.18
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	6.1	3.6	3.6	3.4	2.6	2.4	1.0
Maximum	109.6	150.0	471.2	258.0	150.9	161.5	182.2
Mean	64.9	66.4	68.3	69.4	68.8	67.7	67.5
Median	66.0	67.2	68.7	70.0	68.7	68.2	67.7
Standard deviation	11.8	13.0	19.9	15.7	13.9	13.1	13.8
Coefficient of variation	0.18	0.20	0.29	0.23	0.20	0.19	0.21
Observations	691	691	691	691	691	691	691
Highest populated							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	1,247.2	1,249.6	556.3	722.6	555.5	321.9	798.9
Mean	66.2	67.0	66.0	68.3	67.3	66.3	66.0
Median	65.3	66.6	67.1	68.9	67.8	67.4	66.4
Standard deviation	49.3	43.5	25.7	31.8	27.4	19.4	29.4
Coefficient of variation	0.74	0.65	0.39	0.47	0.41	0.29	0.44
Observations	1,053	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	1.8	2.0	1.4	1.0	1.1	0.8	0.7
Maximum	1,247.2	1,249.6	556.3	722.6	555.5	675.9	798.9
Mean	65.3	66.6	66.3	68.1	67.8	67.2	66.6
Median	65.5	66.7	66.8	68.7	67.9	67.4	66.7
Standard deviation	30.5	27.9	20.0	23.7	20.7	20.4	23.1
Coefficient of variation	0.47	0.42	0.30	0.35	0.31	0.30	0.35
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table A.2.1: Capital ratio of banks headquartered in economic regions
Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	-13.2	2.1	-0.3	1.2	1.9	1.8	1.8
Maximum	54.1	58.9	64.1	43.1	31.3	34.2	31.9
Mean	8.8	8.8	8.8	8.5	8.2	8.2	8.2
Median	7.1	7.3	7.2	6.6	6.7	6.7	6.7
Standard deviation	7.0	6.8	6.7	5.9	5.1	5.0	4.9
Coefficient of variation	0.80	0.77	0.76	0.69	0.62	0.62	0.60
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	-4.0	-7.1	0.9	0.7	1.1	1.0	1.1
Maximum	15.1	21.8	27.3	20.7	19.1	18.8	23.4
Mean	5.7	5.8	5.9	5.9	5.9	5.9	6.1
Median	5.2	5.2	5.4	5.3	5.3	5.4	5.5
Standard deviation	2.4	2.6	2.7	2.5	2.5	2.5	2.7
Coefficient of variation	0.42	0.45	0.46	0.43	0.43	0.42	0.44
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	0.0	0.9	-0.4	0.8	0.8	0.8	0.8
Maximum	37.1	35.9	34.1	37.1	37.2	36.7	33.9
Mean	5.5	5.5	5.7	5.7	5.8	5.9	6.0
Median	4.9	4.9	5.1	5.1	5.1	5.3	5.4
Standard deviation	3.2	3.0	2.9	3.1	3.3	3.3	3.2
Coefficient of variation	0.57	0.55	0.52	0.55	0.56	0.56	0.52
Observations	653	653	653	653	653	653	653
High GDP per capita							
Minimum	0.4	0.0	-1.3	0.3	0.3	0.3	0.2
Maximum	96.4	82.7	83.0	83.3	85.0	86.6	93.5
Mean	7.3	7.2	7.3	7.3	7.3	7.3	7.5
Median	5.6	5.7	5.8	5.8	5.9	6.0	6.2
Standard deviation	7.2	6.0	5.8	6.1	6.1	6.0	6.6
Coefficient of variation	0.98	0.83	0.80	0.84	0.84	0.82	0.88
Observations	794	794	794	794	794	794	794
Very high GDP per capita							
Minimum	0.4	0.4	0.2	0.4	0.3	0.3	0.3
Maximum	89.8	79.9	87.6	83.0	82.4	84.1	94.0
Mean	10.2	10.0	10.2	10.1	10.3	10.2	10.4
Median	7.9	7.6	7.9	8.1	8.2	8.3	8.4
Standard deviation	8.9	8.2	8.7	8.3	8.6	8.4	8.7
Coefficient of variation	0.87	0.83	0.85	0.82	0.84	0.82	0.84
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	-13.2	-7.1	-1.3	0.3	0.3	0.3	0.2
Maximum	96.4	82.7	87.6	83.3	85.0	86.6	94.0
Mean	7.9	7.8	8.0	7.9	8.0	8.0	8.1
Median	5.8	5.8	6.0	6.0	6.1	6.2	6.4
Standard deviation	7.2	6.5	6.7	6.5	6.6	6.5	6.8
Coefficient of variation	0.91	0.84	0.84	0.83	0.84	0.82	0.83
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.2.2: Capital ratio of banks by size classes of total assets

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	2.3	2.0	2.5	2.5	3.1	2.9	2.8
Maximum	96.4	79.9	64.1	83.0	73.2	80.7	80.3
Mean	14.5	14.3	14.2	14.6	14.5	14.6	15.1
Median	10.9	10.9	11.3	10.4	10.3	10.4	10.6
Standard deviation	12.9	12.0	10.9	12.6	12.1	12.7	13.2
Coefficient of variation	0.89	0.84	0.77	0.86	0.84	0.87	0.88
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	-13.2	1.2	-0.4	1.2	1.9	1.8	1.2
Maximum	84.9	75.1	87.6	74.0	82.4	84.1	94.0
Mean	7.6	7.7	8.0	7.9	8.0	8.0	8.2
Median	5.7	5.7	6.0	6.0	6.1	6.2	6.5
Standard deviation	5.7	5.4	6.5	5.7	6.1	6.0	6.1
Coefficient of variation	0.75	0.70	0.81	0.73	0.76	0.74	0.74
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	0.0	-7.1	-1.3	0.3	0.3	0.3	0.2
Maximum	91.3	44.5	59.6	42.3	77.5	65.1	68.6
Mean	6.3	6.2	6.4	6.5	6.8	6.8	6.9
Median	5.2	5.3	5.5	5.6	5.7	5.8	6.0
Standard deviation	4.7	3.9	3.9	3.8	4.5	4.0	4.1
Coefficient of variation	0.76	0.62	0.62	0.58	0.66	0.59	0.59
Observations	913	975	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	0.8	0.8	0.5	0.7	0.4	0.5	0.4
Maximum	80.0	82.7	83.0	83.3	85.0	86.6	93.5
Mean	6.0	6.0	6.4	6.3	6.4	6.6	7.3
Median	5.1	5.1	5.7	5.4	5.2	5.5	6.0
Standard deviation	6.3	6.4	6.2	6.2	6.2	6.2	8.5
Coefficient of variation	1.05	1.05	0.98	0.98	0.97	0.94	1.15
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	1.8	1.7	1.6	1.7	1.6	1.6	1.2
Maximum	8.7	8.0	11.9	11.6	11.2	10.2	21.6
Mean	4.4	4.4	4.8	5.0	5.2	5.2	5.7
Median	4.2	3.9	4.1	3.6	3.8	3.8	3.9
Standard deviation	1.7	1.8	2.5	2.9	2.9	2.8	4.1
Coefficient of variation	0.40	0.40	0.51	0.59	0.56	0.53	0.72
Observations	17	18	20	22	22	23	25
All banks							
Minimum	-13.2	-7.1	-1.3	0.3	0.3	0.3	0.2
Maximum	96.4	82.7	87.6	83.3	85.0	86.6	94.0
Mean	7.9	7.8	8.0	7.9	8.0	8.0	8.1
Median	5.8	5.8	6.0	6.0	6.1	6.2	6.4
Standard deviation	7.2	6.5	6.7	6.5	6.6	6.5	6.8
Coefficient of variation	0.91	0.84	0.84	0.83	0.84	0.82	0.83
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.2.3: Capital ratio of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	0.9	0.9	0.5	0.8	0.8	0.8	0.8
Maximum	96.4	82.7	83.3	83.3	85.0	86.6	86.9
Mean	6.8	6.8	6.9	6.8	6.8	6.8	7.0
Median	5.1	5.2	5.4	5.4	5.5	5.6	5.8
Standard deviation	5.8	5.2	5.1	5.0	5.0	4.8	4.8
Coefficient of variation	0.86	0.76	0.74	0.73	0.73	0.70	0.69
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	0.8	0.8	-0.4	0.7	0.4	0.5	0.4
Maximum	84.9	75.1	87.6	68.1	73.2	74.4	68.8
Mean	7.7	7.8	8.0	7.7	7.6	7.6	7.7
Median	5.8	5.8	6.0	6.1	6.1	6.2	6.3
Standard deviation	6.6	6.8	6.8	5.6	5.7	5.6	5.6
Coefficient of variation	0.85	0.87	0.86	0.73	0.75	0.74	0.72
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	-4.0	-7.1	-0.3	0.3	0.3	0.3	0.2
Maximum	57.3	63.9	59.6	61.6	77.5	77.1	83.5
Mean	7.3	7.1	7.3	7.4	7.6	7.8	7.9
Median	6.2	6.1	6.3	6.3	6.5	6.5	6.6
Standard deviation	5.7	5.2	5.3	5.3	6.3	6.0	6.2
Coefficient of variation	0.78	0.73	0.73	0.72	0.82	0.78	0.78
Observations	612	612	612	612	612	612	612
High dynamic							
Minimum	0.9	0.8	1.1	1.1	1.1	1.1	1.2
Maximum	91.3	61.0	78.1	74.0	82.4	84.1	94.0
Mean	11.4	10.7	11.1	11.4	11.5	11.4	11.9
Median	8.0	7.9	8.0	8.2	8.5	8.5	8.5
Standard deviation	10.9	8.8	9.9	10.6	10.3	10.0	11.1
Coefficient of variation	0.96	0.82	0.89	0.93	0.89	0.88	0.94
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	-13.2	0.0	-1.3	1.0	1.2	1.1	1.0
Maximum	63.5	62.7	64.1	61.4	60.6	65.1	68.6
Mean	11.6	11.2	11.0	11.0	11.0	11.3	11.1
Median	8.9	8.8	8.5	8.3	8.4	8.4	8.5
Standard deviation	9.5	8.9	8.9	8.7	8.7	9.3	9.6
Coefficient of variation	0.81	0.79	0.82	0.79	0.79	0.83	0.87
Observations	195	195	195	195	195	195	195
All regions							
Minimum	-13.2	-7.1	-1.3	0.3	0.3	0.3	0.2
Maximum	96.4	82.7	87.6	83.3	85.0	86.6	94.0
Mean	7.9	7.8	8.0	7.9	8.0	8.0	8.1
Median	5.8	5.8	6.0	6.0	6.1	6.2	6.4
Standard deviation	7.2	6.5	6.7	6.5	6.6	6.5	6.8
Coefficient of variation	0.91	0.84	0.84	0.83	0.84	0.82	0.83
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.2.4: Capital ratio of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	-4.0	-7.1	0.4	0.3	0.3	0.3	0.2
Maximum	30.9	26.2	25.4	31.1	56.0	65.1	93.5
Mean	10.0	9.9	10.2	10.2	10.5	10.5	11.1
Median	8.7	8.7	8.8	8.8	9.2	9.2	9.2
Standard deviation	4.6	4.6	4.7	4.6	5.1	5.4	7.7
Coefficient of variation	0.46	0.47	0.46	0.45	0.48	0.51	0.69
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	1.4	2.0	2.0	1.9	1.9	1.8	1.2
Maximum	54.3	50.1	43.9	41.2	46.7	43.7	52.0
Mean	7.8	7.7	7.9	7.9	8.0	8.0	8.1
Median	6.8	6.8	7.0	7.2	7.3	7.5	7.5
Standard deviation	4.8	4.6	4.5	4.4	4.5	4.2	4.4
Coefficient of variation	0.62	0.60	0.57	0.56	0.56	0.53	0.54
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	1.2	1.1	0.9	1.7	1.9	1.8	1.8
Maximum	62.6	63.9	78.1	68.1	73.2	74.4	68.8
Mean	8.3	8.3	8.5	8.4	8.5	8.4	8.4
Median	6.0	6.0	6.3	6.3	6.4	6.5	6.6
Standard deviation	7.1	6.5	7.0	7.0	7.1	6.5	6.3
Coefficient of variation	0.85	0.79	0.83	0.83	0.84	0.78	0.75
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	-13.2	0.0	-1.3	0.7	0.4	0.5	0.4
Maximum	91.3	60.5	64.1	57.0	59.3	54.5	48.8
Mean	6.8	6.8	7.0	6.8	6.7	6.7	6.8
Median	5.3	5.4	5.6	5.6	5.7	5.7	5.8
Standard deviation	5.7	5.1	5.2	4.9	4.5	4.4	4.1
Coefficient of variation	0.85	0.75	0.75	0.72	0.67	0.65	0.61
Observations	691	691	691	691	691	691	691
Highest populated							
Minimum	0.0	0.4	-0.4	0.4	0.3	0.3	0.3
Maximum	96.4	82.7	87.6	83.3	85.0	86.6	94.0
Mean	7.9	7.7	7.7	7.7	7.8	7.9	8.1
Median	5.2	5.2	5.4	5.4	5.5	5.5	5.7
Standard deviation	9.0	8.1	8.2	8.0	8.2	8.3	8.6
Coefficient of variation	1.14	1.06	1.07	1.04	1.06	1.06	1.07
Observations	1,053	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	-13.2	-7.1	-1.3	0.3	0.3	0.3	0.2
Maximum	96.4	82.7	87.6	83.3	85.0	86.6	94.0
Mean	7.9	7.8	8.0	7.9	8.0	8.0	8.1
Median	5.8	5.8	6.0	6.0	6.1	6.2	6.4
Standard deviation	7.2	6.5	6.7	6.5	6.6	6.5	6.8
Coefficient of variation	0.91	0.84	0.84	0.83	0.84	0.82	0.83
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table A.3.1: Return on assets of banks headquartered in economic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	-31.7	-8.1	-9.6	-5.0	-5.1	-9.7	-3.5
Maximum	5.8	7.1	7.3	4.8	5.0	7.3	8.3
Mean	0.9	0.9	0.8	0.8	0.6	0.7	0.8
Median	0.9	0.8	0.8	0.6	0.6	0.6	0.7
Standard deviation	2.4	1.1	1.3	0.9	0.9	1.0	0.9
Coefficient of variation	2.63	1.29	1.64	1.16	1.35	1.39	1.17
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	-3.3	-6.3	-8.2	-5.1	-2.1	-2.2	-2.8
Maximum	3.1	2.9	3.0	4.3	4.1	5.6	4.3
Mean	0.6	0.5	0.4	0.3	0.3	0.5	0.5
Median	0.6	0.5	0.5	0.3	0.3	0.5	0.4
Standard deviation	0.6	0.8	0.9	0.8	0.7	0.6	0.7
Coefficient of variation	1.05	1.67	2.14	2.51	2.18	1.29	1.40
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	-6.0	-8.7	-4.7	-9.4	-7.1	-4.7	-6.2
Maximum	7.4	7.7	6.2	8.6	6.7	9.0	6.5
Mean	0.6	0.5	0.4	0.3	0.4	0.5	0.5
Median	0.5	0.5	0.4	0.3	0.3	0.4	0.4
Standard deviation	0.7	0.9	0.8	0.8	0.7	0.7	0.7
Coefficient of variation	1.26	1.81	1.89	2.57	2.03	1.55	1.32
Observations	653	653	653	653	653	653	653
High GDP per capita							
Minimum	-3.2	-9.4	-6.3	-7.7	-9.3	-10.4	-4.5
Maximum	5.3	7.9	6.3	5.6	6.5	12.8	12.9
Mean	0.8	0.7	0.7	0.6	0.6	0.7	0.7
Median	0.7	0.6	0.6	0.5	0.5	0.6	0.6
Standard deviation	0.8	0.9	0.8	0.8	0.9	0.9	0.8
Coefficient of variation	0.92	1.21	1.21	1.32	1.44	1.31	1.15
Observations	794	794	794	794	794	794	794
Very high GDP per capita							
Minimum	-39.2	-10.1	-30.8	-26.4	-10.3	-15.7	-11.5
Maximum	52.2	46.7	18.7	20.2	30.3	20.5	43.8
Mean	1.4	1.3	1.3	1.1	1.1	1.1	1.1
Median	1.1	0.9	1.0	0.9	0.8	0.8	0.9
Standard deviation	3.1	2.2	2.0	1.7	1.6	1.5	2.1
Coefficient of variation	2.28	1.76	1.55	1.57	1.48	1.46	1.82
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	-39.2	-10.1	-30.8	-26.4	-10.3	-15.7	-11.5
Maximum	52.2	46.7	18.7	20.2	30.3	20.5	43.8
Mean	1.0	0.8	0.8	0.7	0.7	0.8	0.8
Median	0.7	0.6	0.6	0.5	0.5	0.6	0.6
Standard deviation	2.1	1.5	1.5	1.3	1.2	1.2	1.4
Coefficient of variation	2.17	1.83	1.76	1.79	1.70	1.52	1.75
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.3.2: Return on assets of banks by size classes of total assets

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	-25.3	-9.4	-8.2	-9.4	-9.3	-4.7	-3.6
Maximum	52.2	46.7	13.7	11.8	6.5	12.0	8.9
Mean	1.6	1.2	1.4	1.1	0.8	1.0	1.0
Median	1.1	0.8	1.0	0.9	0.7	0.7	0.8
Standard deviation	3.8	3.3	2.1	1.8	1.3	1.4	1.3
Coefficient of variation	2.38	2.67	1.50	1.57	1.56	1.47	1.33
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	-31.7	-10.1	-30.8	-26.4	-10.3	-10.4	-11.5
Maximum	38.3	25.3	18.4	11.8	15.6	20.5	32.3
Mean	0.9	0.8	0.7	0.6	0.6	0.7	0.7
Median	0.7	0.6	0.6	0.5	0.5	0.6	0.6
Standard deviation	1.8	1.3	1.5	1.2	1.0	1.2	1.3
Coefficient of variation	1.90	1.65	2.05	1.96	1.66	1.70	1.82
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	-39.2	-3.3	-4.7	-5.0	-2.1	-15.7	-3.6
Maximum	8.0	10.7	18.7	20.2	30.3	12.8	43.8
Mean	0.8	0.8	0.8	0.8	0.7	0.8	0.8
Median	0.6	0.6	0.6	0.5	0.5	0.6	0.6
Standard deviation	1.6	1.0	1.2	1.2	1.3	1.1	1.5
Coefficient of variation	2.09	1.24	1.41	1.62	1.81	1.38	1.86
Observations	913	975	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	-2.3	-2.5	-2.1	-2.8	-1.9	-2.6	-1.0
Maximum	5.4	8.1	7.4	5.5	6.5	8.4	12.9
Mean	0.7	0.9	0.9	0.7	0.8	0.9	1.0
Median	0.5	0.5	0.5	0.5	0.6	0.6	0.7
Standard deviation	1.1	1.1	1.1	1.1	1.1	1.1	1.4
Coefficient of variation	1.58	1.23	1.33	1.62	1.31	1.20	1.36
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	-1.7	0.1	-0.3	-0.8	-1.0	-1.1	-0.8
Maximum	1.7	1.8	2.8	3.1	2.8	2.9	3.0
Mean	0.4	0.7	0.7	0.6	0.5	0.7	0.7
Median	0.4	0.4	0.4	0.4	0.2	0.4	0.6
Standard deviation	0.9	0.6	0.8	0.9	1.0	1.0	0.8
Coefficient of variation	2.45	0.88	1.16	1.38	2.02	1.37	1.12
Observations	17	18	20	22	22	23	25
All banks							
Minimum	-39.2	-10.1	-30.8	-26.4	-10.3	-15.7	-11.5
Maximum	52.2	46.7	18.7	20.2	30.3	20.5	43.8
Mean	1.0	0.8	0.8	0.7	0.7	0.8	0.8
Median	0.7	0.6	0.6	0.5	0.5	0.6	0.6
Standard deviation	2.1	1.5	1.5	1.3	1.2	1.2	1.4
Coefficient of variation	2.17	1.83	1.76	1.79	1.70	1.52	1.75
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.3.3: Return on assets of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	-2.2	-8.0	-8.2	-3.2	-2.5	-5.1	-8.3
Maximum	4.4	5.1	6.3	8.6	4.6	4.9	4.4
Mean	0.8	0.6	0.6	0.5	0.4	0.5	0.5
Median	0.7	0.6	0.5	0.4	0.4	0.5	0.5
Standard deviation	0.6	0.6	0.7	0.6	0.6	0.5	0.6
Coefficient of variation	0.84	1.03	1.26	1.39	1.32	1.05	1.05
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	-2.4	-4.2	-30.8	-26.4	-10.3	-4.4	-6.2
Maximum	52.2	46.7	16.2	9.6	15.6	20.5	32.3
Mean	1.0	0.8	0.8	0.6	0.6	0.7	0.8
Median	0.7	0.5	0.5	0.5	0.5	0.6	0.6
Standard deviation	2.4	2.1	1.7	1.4	1.1	1.2	1.5
Coefficient of variation	2.47	2.57	2.29	2.38	1.90	1.64	1.85
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	-9.5	-8.7	-5.0	-9.4	-7.1	-15.7	-4.6
Maximum	38.3	25.3	18.7	9.4	6.7	12.0	7.7
Mean	1.0	0.9	0.9	0.8	0.8	0.8	0.8
Median	0.8	0.6	0.6	0.6	0.6	0.7	0.7
Standard deviation	1.9	1.5	1.5	1.1	1.0	1.3	1.0
Coefficient of variation	1.99	1.72	1.71	1.45	1.36	1.66	1.18
Observations	612	612	612	612	612	612	612
High dynamic							
Minimum	-19.2	-9.4	-4.7	-3.7	-5.1	-9.7	-11.5
Maximum	25.7	16.0	13.7	11.8	6.5	16.0	13.8
Mean	1.6	1.6	1.6	1.4	1.3	1.4	1.4
Median	1.1	1.1	1.2	1.1	0.9	1.1	1.1
Standard deviation	2.5	1.9	2.0	1.6	1.3	1.6	1.8
Coefficient of variation	1.62	1.19	1.21	1.17	1.03	1.20	1.31
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	-39.2	-10.1	-9.6	-7.7	-7.4	-10.4	-7.0
Maximum	7.5	10.7	8.1	20.2	30.3	9.9	43.8
Mean	0.9	1.2	1.2	1.4	1.5	1.4	1.5
Median	1.4	1.2	1.2	1.1	1.1	1.1	1.1
Standard deviation	4.5	2.2	1.9	2.4	2.7	1.7	3.4
Coefficient of variation	4.71	1.85	1.60	1.72	1.81	1.25	2.24
Observations	195	195	195	195	195	195	195
All regions							
Minimum	-39.2	-10.1	-30.8	-26.4	-10.3	-15.7	-11.5
Maximum	52.2	46.7	18.7	20.2	30.3	20.5	43.8
Mean	1.0	0.8	0.8	0.7	0.7	0.8	0.8
Median	0.7	0.6	0.6	0.5	0.5	0.6	0.6
Standard deviation	2.1	1.5	1.5	1.3	1.2	1.2	1.4
Coefficient of variation	2.17	1.83	1.76	1.79	1.70	1.52	1.75
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.3.4: Return on assets of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	-3.3	-3.3	-1.1	-1.3	-2.1	-0.7	-6.2
Maximum	8.0	10.7	8.1	20.2	30.3	9.9	43.8
Mean	1.6	1.5	1.5	1.5	1.5	1.5	1.6
Median	1.6	1.4	1.4	1.4	1.4	1.3	1.2
Standard deviation	1.1	1.2	1.0	1.7	2.1	1.1	3.0
Coefficient of variation	0.66	0.84	0.72	1.14	1.40	0.75	1.94
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	-9.5	-2.1	-4.6	-5.0	-2.2	-2.3	-3.2
Maximum	17.2	14.1	13.9	9.6	15.6	20.5	32.3
Mean	1.1	1.0	1.0	0.9	0.9	1.0	1.0
Median	0.9	0.8	0.8	0.7	0.6	0.7	0.8
Standard deviation	1.3	1.1	1.1	1.0	1.1	1.3	1.7
Coefficient of variation	1.21	1.08	1.11	1.15	1.27	1.31	1.73
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	-19.2	-9.4	-2.7	-3.1	-9.3	-9.7	-3.5
Maximum	38.3	25.3	18.4	11.8	9.1	12.8	11.6
Mean	1.1	0.9	1.0	0.8	0.7	0.8	0.8
Median	0.8	0.7	0.7	0.5	0.5	0.6	0.6
Standard deviation	2.0	1.6	1.5	1.2	1.1	1.2	1.1
Coefficient of variation	1.93	1.72	1.59	1.48	1.63	1.56	1.25
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	-31.7	-8.7	-9.6	-9.4	-5.4	-6.1	-4.6
Maximum	5.8	7.9	7.3	8.6	6.7	5.3	8.8
Mean	0.7	0.6	0.5	0.5	0.5	0.6	0.6
Median	0.7	0.5	0.5	0.4	0.4	0.5	0.5
Standard deviation	1.4	1.0	1.0	0.9	0.7	0.6	0.7
Coefficient of variation	2.07	1.82	2.11	1.98	1.61	1.14	1.19
Observations	691	691	691	691	691	691	691
Highest populated							
Minimum	-39.2	-10.1	-30.8	-26.4	-10.3	-15.7	-11.5
Maximum	52.2	46.7	18.7	11.8	7.5	16.0	13.8
Mean	0.9	0.8	0.7	0.5	0.6	0.6	0.7
Median	0.6	0.5	0.5	0.4	0.4	0.5	0.5
Standard deviation	2.7	1.9	1.8	1.4	1.0	1.2	1.1
Coefficient of variation	3.22	2.55	2.40	2.59	1.82	2.03	1.67
Observations	1,053	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	-39.2	-10.1	-30.8	-26.4	-10.3	-15.7	-11.5
Maximum	52.2	46.7	18.7	20.2	30.3	20.5	43.8
Mean	1.0	0.8	0.8	0.7	0.7	0.8	0.8
Median	0.7	0.6	0.6	0.5	0.5	0.6	0.6
Standard deviation	2.1	1.5	1.5	1.3	1.2	1.2	1.4
Coefficient of variation	2.17	1.83	1.76	1.79	1.70	1.52	1.75
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table A.4.1: Return on equity of banks headquartered in economic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	-134.5	-42.8	-575.1	-100.0	-72.2	-220.3	-76.6
Maximum	239.7	55.6	762.9	35.0	27.4	47.1	58.9
Mean	13.9	11.5	11.5	8.7	7.4	8.7	9.1
Median	12.9	10.9	11.4	9.2	7.7	9.1	9.6
Standard deviation	20.8	11.1	62.1	12.2	10.3	16.5	12.4
Coefficient of variation	1.50	0.97	5.42	1.40	1.38	1.90	1.37
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	-69.3	-111.1	-175.0	-212.5	-70.4	-68.4	-99.0
Maximum	82.2	45.7	53.7	43.5	52.7	69.2	60.8
Mean	10.1	7.5	5.3	3.5	4.1	7.3	6.6
Median	10.6	9.2	8.2	6.2	6.6	8.3	8.1
Standard deviation	11.3	13.9	18.7	19.3	14.5	11.7	13.0
Coefficient of variation	1.11	1.84	3.52	5.56	3.52	1.60	1.97
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	-500.0	-400.1	-272.2	-133.3	-175.0	-120.7	-134.9
Maximum	65.3	53.9	375.1	83.3	100.0	47.0	55.9
Mean	9.3	7.1	6.7	4.9	5.2	7.5	7.6
Median	11.4	9.4	8.2	6.7	6.2	8.0	7.8
Standard deviation	25.6	24.3	23.9	14.6	14.0	10.6	10.4
Coefficient of variation	2.74	3.42	3.58	2.99	2.67	1.41	1.37
Observations	652	653	653	653	653	653	653
High GDP per capita							
Minimum	-269.4	-77.8	-98.8	-87.8	-81.9	-113.5	-272.7
Maximum	69.0	78.7	257.3	112.7	98.7	133.3	168.4
Mean	12.3	11.0	10.0	8.8	8.8	10.6	10.3
Median	12.3	10.0	9.5	8.6	8.1	10.0	9.7
Standard deviation	13.9	10.1	14.5	11.5	10.4	11.7	14.7
Coefficient of variation	1.13	0.92	1.45	1.30	1.19	1.10	1.43
Observations	794	793	794	794	794	794	794
Very high GDP per capita							
Minimum	-1,317.3	-143.6	-120.0	-201.5	-145.7	-152.9	-65.0
Maximum	203.3	150.4	712.9	113.8	127.4	132.8	86.4
Mean	12.3	12.8	13.7	10.9	10.5	10.7	11.2
Median	12.6	11.4	11.0	9.7	8.9	9.7	9.8
Standard deviation	43.5	15.1	25.0	14.7	12.5	13.8	10.9
Coefficient of variation	3.53	1.18	1.83	1.35	1.19	1.29	0.97
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	-1,317.3	-400.1	-575.1	-212.5	-175.0	-220.3	-272.7
Maximum	239.7	150.4	762.9	113.8	127.4	133.3	168.4
Mean	11.6	10.5	10.2	8.1	8.0	9.5	9.6
Median	12.2	10.3	9.7	8.3	7.8	9.2	9.2
Standard deviation	30.1	16.3	27.2	14.6	12.7	12.8	12.4
Coefficient of variation	2.60	1.55	2.66	1.80	1.57	1.35	1.29
Observations	3,182	3,182	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.4.2: Return on equity of banks by size classes of total equity

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	-120.8	-400.1	-175.0	-133.3	-175.0	-120.7	-99.0
Maximum	103.2	69.4	45.5	83.3	50.0	49.3	24.2
Mean	12.0	7.0	8.0	7.5	6.4	7.2	6.7
Median	11.1	8.3	9.1	8.1	6.6	7.2	7.8
Standard deviation	12.8	25.4	17.5	13.3	12.8	11.0	11.2
Coefficient of variation	1.06	3.64	2.18	1.77	1.99	1.52	1.66
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	-1,317.3	-268.7	-575.1	-212.5	-145.7	-220.3	-272.7
Maximum	239.7	150.4	762.9	93.4	100.0	75.2	86.4
Mean	12.0	9.8	9.4	7.2	7.1	8.1	8.3
Median	12.1	9.8	9.1	7.9	7.5	8.6	8.7
Standard deviation	34.4	14.8	33.0	12.7	11.7	12.4	12.6
Coefficient of variation	2.86	1.51	3.50	1.76	1.66	1.53	1.51
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	-500.0	-102.9	-138.3	-201.5	-70.5	-152.9	-86.4
Maximum	77.7	104.3	257.3	113.8	127.4	132.8	168.4
Mean	11.1	12.1	11.9	9.6	9.3	11.1	11.0
Median	12.6	12.1	11.5	9.4	8.3	10.4	10.2
Standard deviation	27.4	14.9	17.9	16.3	13.4	13.0	11.8
Coefficient of variation	2.47	1.23	1.51	1.69	1.43	1.18	1.07
Observations	912	974	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	-152.0	-54.9	-272.2	-100.7	-47.6	-34.7	-20.6
Maximum	49.7	81.7	61.3	50.6	65.4	133.3	118.0
Mean	8.9	14.7	11.4	8.4	11.0	13.9	13.4
Median	13.3	13.0	12.5	10.9	10.8	11.4	11.6
Standard deviation	22.7	13.8	25.6	20.1	14.1	14.0	12.5
Coefficient of variation	2.55	0.94	2.24	2.38	1.28	1.01	0.94
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	-32.2	1.6	-7.6	-20.4	-31.3	-29.9	-21.6
Maximum	51.1	31.5	30.7	66.5	27.5	28.5	33.9
Mean	8.5	13.9	12.6	11.2	4.5	9.3	10.9
Median	12.6	10.3	11.0	11.5	7.1	11.4	11.9
Standard deviation	19.4	8.9	10.6	17.0	15.4	15.8	11.9
Coefficient of variation	2.29	0.64	0.84	1.53	3.47	1.69	1.09
Observations	17	18	20	22	22	23	25
All banks							
Minimum	-1,317.3	-400.1	-575.1	-212.5	-175.0	-220.3	-272.7
Maximum	239.7	150.4	762.9	113.8	127.4	133.3	168.4
Mean	11.6	10.5	10.2	8.1	8.0	9.5	9.6
Median	12.2	10.3	9.7	8.3	7.8	9.2	9.2
Standard deviation	30.1	16.3	27.2	14.6	12.7	12.8	12.4
Coefficient of variation	2.60	1.55	2.66	1.80	1.57	1.35	1.29
Observations	3,182	3,182	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.4.3: Return on equity of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	-152.0	-400.1	-272.2	-100.7	-112.5	-92.1	-99.0
Maximum	73.3	104.3	78.5	83.3	50.0	52.1	40.1
Mean	12.0	9.3	7.8	6.5	6.0	7.8	7.9
Median	12.4	9.8	9.0	7.4	6.2	7.9	8.0
Standard deviation	10.9	16.2	15.6	11.0	10.2	8.9	8.5
Coefficient of variation	0.91	1.75	2.01	1.70	1.71	1.15	1.08
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	-91.4	-268.7	-575.1	-201.5	-145.7	-71.3	-272.7
Maximum	103.2	83.8	712.9	55.5	49.4	133.3	62.5
Mean	10.9	8.6	9.7	6.2	7.0	9.4	9.0
Median	10.4	8.6	8.5	7.5	7.4	8.9	9.1
Standard deviation	12.6	17.2	38.0	16.3	12.2	10.3	14.9
Coefficient of variation	1.16	1.99	3.93	2.65	1.75	1.10	1.65
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	-500.0	-112.5	-138.3	-212.5	-175.0	-152.9	-79.2
Maximum	203.3	150.4	762.9	98.9	127.4	132.8	168.4
Mean	11.3	12.0	12.1	9.1	9.2	9.5	10.5
Median	12.5	11.3	10.4	9.7	9.5	10.5	10.3
Standard deviation	27.4	14.9	34.1	17.5	16.2	17.1	13.7
Coefficient of variation	2.43	1.24	2.82	1.91	1.76	1.79	1.30
Observations	611	612	612	612	612	612	612
High dynamic							
Minimum	-36.1	-20.0	-38.5	-36.8	-26.4	-220.3	-65.0
Maximum	100.0	81.7	94.4	93.4	65.4	82.2	118.0
Mean	15.5	15.6	15.0	13.4	12.7	13.2	13.0
Median	13.7	13.5	13.7	12.1	10.8	12.1	11.3
Standard deviation	12.2	10.8	12.3	11.4	10.2	17.3	12.7
Coefficient of variation	0.79	0.69	0.82	0.85	0.80	1.31	0.98
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	-1,317.3	-143.6	-98.8	-75.1	-81.9	-113.5	-49.5
Maximum	239.7	87.5	257.3	113.8	98.7	92.4	94.1
Mean	5.1	11.8	13.5	13.8	13.6	14.2	13.7
Median	14.1	13.1	12.2	13.1	12.9	12.9	12.9
Standard deviation	103.3	21.9	27.7	18.8	15.7	15.1	14.5
Coefficient of variation	20.38	1.85	2.05	1.37	1.16	1.07	1.06
Observations	195	194	195	195	195	195	195
All regions							
Minimum	-1,317.3	-400.1	-575.1	-212.5	-175.0	-220.3	-272.7
Maximum	239.7	150.4	762.9	113.8	127.4	133.3	168.4
Mean	11.6	10.5	10.2	8.1	8.0	9.5	9.6
Median	12.2	10.3	9.7	8.3	7.8	9.2	9.2
Standard deviation	30.1	16.3	27.2	14.6	12.7	12.8	12.4
Coefficient of variation	2.60	1.55	2.66	1.80	1.57	1.35	1.29
Observations	3,182	3,182	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.4.4: Return on equity of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	-500.0	-39.1	-28.2	-41.3	-46.1	-13.2	-134.9
Maximum	82.2	87.5	99.5	113.8	84.2	82.2	168.4
Mean	15.4	16.7	15.5	15.5	15.0	15.4	14.4
Median	15.2	15.3	14.3	14.0	13.9	13.8	12.7
Standard deviation	34.2	12.9	12.0	12.7	11.6	10.6	17.8
Coefficient of variation	2.22	0.77	0.77	0.82	0.77	0.69	1.24
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	-152.0	-60.0	-81.8	-51.5	-47.6	-21.1	-272.7
Maximum	56.9	54.8	52.9	55.5	52.7	69.2	63.6
Mean	13.4	13.0	12.5	10.7	10.4	11.9	11.0
Median	12.8	11.6	11.5	9.8	9.7	10.4	10.2
Standard deviation	13.7	10.8	11.4	10.9	10.1	9.4	16.2
Coefficient of variation	1.02	0.83	0.91	1.02	0.97	0.79	1.48
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	-75.4	-77.8	-93.3	-89.4	-70.4	-220.3	-99.0
Maximum	203.3	150.4	110.0	66.7	66.1	55.7	65.7
Mean	12.7	10.9	9.8	8.8	7.6	8.9	9.3
Median	12.4	10.2	10.0	8.5	7.8	9.2	9.1
Standard deviation	12.3	11.5	13.2	10.3	11.4	13.3	10.6
Coefficient of variation	0.97	1.05	1.35	1.16	1.50	1.49	1.14
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	-269.4	-400.1	-175.0	-212.5	-112.5	-74.6	-76.4
Maximum	239.7	52.2	762.9	83.3	100.0	133.3	44.0
Mean	11.0	7.2	7.9	5.3	6.0	8.3	7.9
Median	11.5	9.5	8.5	7.2	6.9	8.6	8.4
Standard deviation	17.2	23.6	34.3	16.7	12.5	10.1	9.4
Coefficient of variation	1.57	3.29	4.33	3.14	2.10	1.21	1.19
Observations	691	690	691	691	691	691	691
Highest populated							
Minimum	-1,317.3	-143.6	-575.1	-201.5	-175.0	-152.9	-86.4
Maximum	103.2	104.3	712.9	112.7	127.4	132.8	94.1
Mean	9.5	9.8	9.7	6.6	7.0	8.2	9.1
Median	11.2	9.6	8.9	7.5	6.9	8.1	8.6
Standard deviation	45.4	15.3	35.3	16.7	14.0	15.1	11.2
Coefficient of variation	4.80	1.56	3.63	2.53	2.01	1.85	1.23
Observations	1,052	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	-1,317.3	-400.1	-575.1	-212.5	-175.0	-220.3	-272.7
Maximum	239.7	150.4	762.9	113.8	127.4	133.3	168.4
Mean	11.6	10.5	10.2	8.1	8.0	9.5	9.6
Median	12.2	10.3	9.7	8.3	7.8	9.2	9.2
Standard deviation	30.1	16.3	27.2	14.6	12.7	12.8	12.4
Coefficient of variation	2.60	1.55	2.66	1.80	1.57	1.35	1.29
Observations	3,182	3,182	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table A.5.1: Net interest income ratio of banks headquartered in economic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	-10,691.2	-6,137.8	-1,762.3	-2,120.2	-8,189.5	-7,637.5	-2,901.4
Maximum	63,056.1	12,558.0	28,636.3	5,752.1	25,188.8	30,069.8	15,123.5
Mean	1,020.3	683.4	830.0	658.2	1,069.4	817.4	654.3
Median	328.6	373.8	348.7	405.2	448.1	402.3	371.6
Standard deviation	4,671.4	1,339.7	2,644.4	896.8	3,193.7	2,768.5	1,416.9
Coefficient of variation	4.58	1.96	3.19	1.36	2.99	3.39	2.17
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	-5,000.0	-6,467.6	-4,252.2	-4,205.7	-4,801.7	-7,877.9	-5,106.0
Maximum	27,321.1	128,305.1	27,152.4	33,050.1	52,133.3	28,265.9	25,271.0
Mean	781.5	1,486.9	916.2	1,050.0	1,165.5	839.6	759.4
Median	400.0	415.7	418.7	525.0	495.1	447.1	439.9
Standard deviation	2,087.5	8,084.3	2,740.9	2,900.6	3,567.5	2,317.3	1,934.1
Coefficient of variation	2.67	5.44	2.99	2.76	3.06	2.76	2.55
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	-23,181.2	-20,540.3	-28,315.1	-44,665.9	-18,043.5	-20,432.3	-8,035.9
Maximum	25,037.6	157,416.6	200,243.0	37,388.2	71,429.7	29,468.3	69,872.3
Mean	903.9	1,109.7	1,358.6	1,103.9	1,346.3	870.4	1,108.3
Median	422.3	433.4	459.4	533.1	570.1	475.5	499.9
Standard deviation	2,722.6	6,984.5	9,376.7	3,647.9	4,544.3	2,444.8	4,132.9
Coefficient of variation	3.01	6.29	6.90	3.30	3.38	2.81	3.73
Observations	653	653	653	653	653	653	653
High GDP per capita							
Minimum	-9,492.3	-9,396.5	-8,905.4	-9,063.6	-60,422.9	-7,517.5	-4,766.7
Maximum	206,404.0	118,746.0	22,452.0	34,836.0	249,081.0	394,019.0	540,233.1
Mean	755.8	749.7	703.3	758.2	1,173.9	1,382.3	1,319.5
Median	331.0	368.1	350.1	413.2	425.8	373.6	365.2
Standard deviation	7,495.3	4,372.5	2,023.7	2,150.0	9,399.4	15,897.7	19,222.6
Coefficient of variation	9.92	5.83	2.88	2.84	8.01	11.50	14.57
Observations	794	794	794	794	794	794	794
Very high GDP per capita							
Minimum	-29,817.1	-6,731.0	-635,749.1	-7,210.2	-26,066.7	-42,599.2	-4,622.4
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	718,766.7	265,000.7
Mean	629.5	791.1	347.8	926.3	928.0	1,663.5	1,046.0
Median	242.8	266.0	247.7	267.0	283.3	269.1	258.8
Standard deviation	7,791.0	7,865.9	20,880.4	10,400.5	8,845.7	26,691.8	11,401.5
Coefficient of variation	12.38	9.94	60.04	11.23	9.53	16.05	10.90
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	-29,817.1	-20,540.3	-635,749.1	-44,665.9	-60,422.9	-42,599.2	-8,035.9
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	718,766.7	540,233.1
Mean	764.7	916.3	745.2	914.0	1,112.9	1,272.3	1,064.4
Median	322.6	357.3	337.2	376.6	399.9	364.7	350.7
Standard deviation	6,268.7	6,658.3	13,247.8	6,584.1	7,505.1	17,853.6	11,936.7
Coefficient of variation	8.20	7.27	17.78	7.20	6.74	14.03	11.21
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.5.2: Net interest income ratio of banks by size classes of total equity

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	-1,405.6	-2,612.0	-2,502.2	-1,802.3	-2,696.2	-3,075.0	-285.9
Maximum	6,607.9	4,699.3	4,424.7	6,256.1	6,431.6	6,039.9	3,906.6
Mean	442.9	529.3	387.7	465.0	511.3	458.0	395.1
Median	283.5	366.5	300.2	328.5	383.5	360.4	349.9
Standard deviation	787.6	733.7	559.9	697.0	750.5	666.4	440.7
Coefficient of variation	1.78	1.39	1.44	1.50	1.47	1.45	1.12
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	-23,181.2	-10,951.0	-11,105.4	-9,063.6	-26,066.7	-15,235.7	-7,511.8
Maximum	63,056.1	46,653.2	28,636.3	37,388.2	32,409.9	32,540.1	38,512.2
Mean	648.7	769.2	846.7	931.2	1,025.3	756.6	748.4
Median	341.9	382.0	370.5	433.4	441.4	400.1	397.5
Standard deviation	2,647.1	2,583.4	2,592.0	2,749.6	2,871.2	2,346.7	1,983.3
Coefficient of variation	4.08	3.36	3.06	2.95	2.80	3.10	2.65
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	-29,817.1	-20,540.3	-28,315.1	-44,665.9	-60,422.9	-20,432.3	-8,035.9
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	394,019.0	265,000.7
Mean	1,196.9	1,318.2	1,348.8	1,126.1	1,407.0	1,357.9	911.1
Median	319.6	325.0	331.1	360.9	382.1	330.4	333.7
Standard deviation	11,097.8	11,353.5	11,800.8	10,957.1	11,755.1	15,767.7	8,431.5
Coefficient of variation	9.27	8.61	8.75	9.73	8.35	11.61	9.25
Observations	913	975	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	-1,712.0	-6,130.8	-635,749.1	-3,991.1	-1,456.9	-42,599.2	-2,392.2
Maximum	4,017.0	57,983.6	10,900.0	4,512.5	126,846.4	718,766.7	540,233.1
Mean	359.6	893.1	-2,757.4	385.5	1,079.3	5,260.5	4,387.9
Median	214.6	258.1	230.3	228.0	253.4	269.6	232.7
Standard deviation	567.5	4,665.5	46,063.8	701.7	8,654.0	55,456.5	38,027.3
Coefficient of variation	1.58	5.22	-16.71	1.82	8.02	10.54	8.67
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	-1,251.2	74.9	-284.0	-165.5	-2,493.5	-145.9	-2,849.6
Maximum	852.7	1,193.0	1,855.5	1,073.0	5,258.0	1,520.1	1,204.4
Mean	123.7	277.4	338.9	202.5	366.7	222.8	114.9
Median	204.4	251.9	143.7	176.0	140.4	162.6	139.6
Standard deviation	407.2	242.6	512.3	260.7	1,287.5	316.2	691.5
Coefficient of variation	3.29	0.87	1.51	1.29	3.51	1.42	6.02
Observations	17	18	20	22	22	23	25
All banks							
Minimum	-29,817.1	-20,540.3	-635,749.1	-44,665.9	-60,422.9	-42,599.2	-8,035.9
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	718,766.7	540,233.1
Mean	764.7	916.3	745.2	914.0	1,112.9	1,272.3	1,064.4
Median	322.6	357.3	337.2	376.6	399.9	364.7	350.7
Standard deviation	6,268.7	6,658.3	13,247.8	6,584.1	7,505.1	17,853.6	11,936.7
Coefficient of variation	8.20	7.27	17.78	7.20	6.74	14.03	11.21
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.5.3: Net interest income ratio of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	-25,612.8	-20,540.3	-28,315.1	-44,665.9	-18,043.5	-42,599.2	-8,035.9
Maximum	206,404.0	157,416.6	126,715.1	37,388.2	249,081.0	718,766.7	540,233.1
Mean	771.6	1,058.4	958.6	979.4	1,618.4	2,026.4	1,706.0
Median	363.8	415.5	408.0	501.1	554.2	457.2	460.1
Standard deviation	6,385.0	6,315.1	4,691.0	3,027.0	8,992.3	26,644.4	17,394.5
Coefficient of variation	8.28	5.97	4.89	3.09	5.56	13.15	10.20
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	-10,691.2	-10,951.0	-11,105.4	-2,670.5	-60,422.9	-7,877.9	-5,106.0
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	268,054.4	265,000.7
Mean	1,116.7	1,214.6	1,569.5	1,518.6	1,172.1	1,307.9	975.0
Median	348.0	376.7	361.7	407.1	400.2	376.3	355.5
Standard deviation	9,148.9	10,336.4	12,600.5	12,714.1	9,905.8	12,465.9	9,635.3
Coefficient of variation	8.19	8.51	8.03	8.37	8.45	9.53	9.88
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	-29,817.1	-6,731.0	-5,003.2	-9,063.6	-2,445.5	-15,235.7	-2,901.4
Maximum	27,321.1	60,441.7	25,951.2	9,347.0	15,505.7	16,360.4	15,423.5
Mean	532.6	775.8	675.5	500.0	635.0	482.7	504.8
Median	297.9	314.0	298.7	301.3	310.0	299.0	300.0
Standard deviation	2,342.0	3,663.5	2,027.2	1,215.6	1,312.8	1,253.7	991.7
Coefficient of variation	4.40	4.72	3.00	2.43	2.07	2.60	1.96
Observations	612	612	612	612	612	612	612
High dynamic							
Minimum	-1,251.2	-604.8	-4,152.2	-4,205.7	-5,243.3	-11,479.0	-2,109.9
Maximum	5,408.4	9,683.8	10,900.0	6,910.2	7,458.2	16,228.4	10,765.7
Mean	341.9	360.2	365.3	375.0	385.6	372.7	358.3
Median	233.3	229.9	215.6	221.7	231.5	206.3	210.0
Standard deviation	546.3	684.1	1,008.8	751.9	815.5	1,382.6	982.5
Coefficient of variation	1.60	1.90	2.76	2.01	2.11	3.71	2.74
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	-5,000.0	-6,467.6	-635,749.1	-7,440.0	-369.6	-404.4	-524.4
Maximum	63,056.1	4,216.9	7,582.3	20,129.5	10,179.1	14,280.0	12,855.5
Mean	821.0	266.6	-2,977.6	378.9	432.8	372.3	312.3
Median	214.0	215.9	216.7	218.9	222.4	222.0	204.8
Standard deviation	5,479.2	976.0	45,442.8	1,625.9	1,108.5	1,107.9	936.9
Coefficient of variation	6.67	3.66	-15.26	4.29	2.56	2.98	3.00
Observations	195	195	195	195	195	195	195
All regions							
Minimum	-29,817.1	-20,540.3	-635,749.1	-44,665.9	-60,422.9	-42,599.2	-8,035.9
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	718,766.7	540,233.1
Mean	764.7	916.3	745.2	914.0	1,112.9	1,272.3	1,064.4
Median	322.6	357.3	337.2	376.6	399.9	364.7	350.7
Standard deviation	6,268.7	6,658.3	13,247.8	6,584.1	7,505.1	17,853.6	11,936.7
Coefficient of variation	8.20	7.27	17.78	7.20	6.74	14.03	11.21
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.5.4: Net interest income ratio of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	-142.9	-5,847.8	-1,241.4	-1,802.3	-2,696.2	-456.2	-2,109.9
Maximum	6,607.9	4,722.0	10,900.0	6,256.1	6,431.6	3,743.9	1,680.3
Mean	325.9	313.6	432.4	285.8	334.9	296.2	245.9
Median	229.1	235.4	236.7	236.4	242.2	224.4	228.9
Standard deviation	529.0	659.4	1,171.7	471.9	592.7	310.9	273.7
Coefficient of variation	1.62	2.10	2.71	1.65	1.77	1.05	1.11
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	-6,694.0	-6,137.8	-7,850.0	-7,440.0	-8,189.5	-7,637.5	-2,360.2
Maximum	27,321.1	12,883.2	93,865.1	34,836.0	25,167.6	4,448.6	5,153.5
Mean	643.3	526.8	787.9	593.5	798.5	421.0	445.4
Median	314.1	320.3	296.7	333.3	350.0	329.2	307.0
Standard deviation	2,319.9	1,164.7	4,756.2	1,842.5	2,412.6	754.0	597.4
Coefficient of variation	3.61	2.21	6.04	3.10	3.02	1.79	1.34
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	-10,691.2	-1,614.1	-5,003.2	-9,063.6	-16,379.0	-11,479.0	-2,950.1
Maximum	30,975.2	46,363.0	27,741.9	19,862.8	71,429.7	30,069.8	30,075.7
Mean	548.4	761.4	766.5	839.9	1,035.8	732.2	730.6
Median	326.0	357.3	336.8	399.8	400.0	371.0	366.8
Standard deviation	1,621.4	2,727.1	2,514.1	2,092.2	4,043.2	2,360.5	1,901.6
Coefficient of variation	2.96	3.58	3.28	2.49	3.90	3.22	2.60
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	-23,181.2	-9,396.5	-4,152.2	-9,172.6	-2,914.4	-15,235.7	-5,106.0
Maximum	63,056.1	157,416.6	73,536.1	33,050.1	56,418.4	28,265.9	69,872.3
Mean	839.1	1,140.4	978.5	1,001.3	1,104.2	740.1	965.4
Median	370.7	405.2	390.7	468.8	499.9	417.7	429.2
Standard deviation	3,227.0	6,840.1	3,552.1	3,036.0	2,993.5	1,962.1	3,862.4
Coefficient of variation	3.85	6.00	3.63	3.03	2.71	2.65	4.00
Observations	691	691	691	691	691	691	691
Highest populated							
Minimum	-29,817.1	-20,540.3	-635,749.1	-44,665.9	-60,422.9	-42,599.2	-8,035.9
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	718,766.7	540,233.1
Mean	1,022.0	1,192.6	633.1	1,200.4	1,497.1	2,602.8	1,828.7
Median	328.3	372.3	363.0	420.2	450.1	390.9	375.9
Standard deviation	10,369.8	9,861.7	22,525.7	10,963.9	12,256.6	30,890.3	20,427.4
Coefficient of variation	10.15	8.27	35.58	9.13	8.19	11.87	11.17
Observations	1,053	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	-29,817.1	-20,540.3	-635,749.1	-44,665.9	-60,422.9	-42,599.2	-8,035.9
Maximum	243,633.3	248,931.9	256,832.7	261,540.9	257,108.9	718,766.7	540,233.1
Mean	764.7	916.3	745.2	914.0	1,112.9	1,272.3	1,064.4
Median	322.6	357.3	337.2	376.6	399.9	364.7	350.7
Standard deviation	6,268.7	6,658.3	13,247.8	6,584.1	7,505.1	17,853.6	11,936.7
Coefficient of variation	8.20	7.27	17.78	7.20	6.74	14.03	11.21
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table A.6.1: Net commission income ratio of banks headquartered in economic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	-4,953.4	-1,100.8	-400.0	-560.1	-2,297.1	-2,895.3	-1,772.3
Maximum	8,493.2	3,964.6	8,949.8	2,954.0	6,476.9	7,010.8	5,559.7
Mean	164.2	162.4	227.5	157.8	237.0	199.6	157.6
Median	51.8	63.1	65.3	72.9	73.8	76.5	77.0
Standard deviation	801.0	440.3	914.6	306.7	813.1	762.8	475.1
Coefficient of variation	4.88	2.71	4.02	1.94	3.43	3.82	3.02
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	-5,189.3	-2,525.5	-1,351.1	-951.7	-155.6	-387.6	-1,497.1
Maximum	8,735.9	4,648.3	2,802.2	6,073.2	17,881.6	5,256.9	3,188.7
Mean	69.3	93.8	88.9	115.4	203.7	146.5	112.1
Median	25.6	37.6	33.3	37.5	42.1	45.5	40.0
Standard deviation	553.3	403.3	293.2	387.3	1,221.1	504.4	327.6
Coefficient of variation	7.98	4.30	3.30	3.36	6.00	3.44	2.92
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	-5,695.7	-2,713.0	-3,402.2	-1,698.6	-3,844.8	-733.2	-2,403.7
Maximum	2,897.4	2,438.0	33,976.3	8,037.5	20,511.7	5,931.8	17,239.2
Mean	61.8	81.8	179.8	184.9	184.5	148.2	196.7
Median	53.3	64.6	72.0	76.6	74.3	73.5	75.9
Standard deviation	302.9	236.9	1,397.2	568.7	915.0	438.6	869.6
Coefficient of variation	4.90	2.90	7.77	3.08	4.96	2.96	4.42
Observations	653	653	653	653	653	653	653
High GDP per capita							
Minimum	-3,796.6	-2,799.0	-4,603.2	-2,403.4	-8,389.5	-3,006.3	-1,049.7
Maximum	20,074.2	22,369.4	33,110.3	9,290.3	33,358.1	65,352.4	84,830.9
Mean	114.2	172.7	204.4	196.1	229.7	262.3	267.1
Median	57.5	78.2	84.6	84.7	85.7	81.2	84.1
Standard deviation	825.5	1,012.8	1,277.4	728.4	1,386.8	2,476.5	3,033.4
Coefficient of variation	7.23	5.87	6.25	3.71	6.04	9.44	11.36
Observations	794	794	794	794	794	794	794
Very high GDP per capita							
Minimum	-14,958.1	-2,848.8	-220,608.2	-1,274.0	-13,882.4	-35,834.6	-1,829.5
Maximum	39,667.5	62,889.0	80,538.8	18,221.8	32,386.3	243,784.9	80,925.0
Mean	139.2	193.6	39.4	159.6	154.5	430.9	372.4
Median	29.8	50.7	50.0	45.8	48.5	50.0	45.0
Standard deviation	1,574.3	2,031.8	7,145.2	850.5	1,348.6	8,217.4	4,105.1
Coefficient of variation	11.31	10.50	181.22	5.33	8.73	19.07	11.02
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	-14,958.1	-2,848.8	-220,608.2	-2,403.4	-13,882.4	-35,834.6	-2,403.7
Maximum	39,667.5	62,889.0	80,538.8	18,221.8	33,358.1	243,784.9	84,830.9
Mean	111.1	151.8	129.5	168.8	191.3	280.9	264.1
Median	46.4	61.7	64.4	65.5	67.5	64.9	65.1
Standard deviation	1,074.6	1,330.3	4,362.1	693.2	1,232.1	5,064.7	2,911.5
Coefficient of variation	9.67	8.77	33.69	4.11	6.44	18.03	11.02
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.6.2: Net commission income ratio of banks by size classes of total equity

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	-1,001.3	-2,014.5	-500.0	-645.2	-3,204.6	-876.2	-528.1
Maximum	9,724.7	3,358.3	1,167.4	5,309.5	6,810.4	3,107.1	2,703.7
Mean	132.7	110.9	83.0	108.7	109.4	118.6	106.1
Median	35.6	60.2	59.0	50.5	56.4	60.1	57.2
Standard deviation	665.4	343.3	138.0	365.4	537.7	333.5	250.1
Coefficient of variation	5.01	3.10	1.66	3.36	4.91	2.81	2.36
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	-9,492.3	-2,848.8	-4,603.2	-2,403.4	-13,881.9	-35,834.6	-2,403.7
Maximum	11,495.9	22,369.4	33,110.3	18,221.8	32,386.3	8,920.6	30,657.6
Mean	84.6	149.2	202.4	208.8	220.4	156.1	194.5
Median	55.2	74.2	78.2	83.4	84.6	82.6	81.9
Standard deviation	579.4	768.3	1,138.6	775.9	1,170.3	1,100.8	914.5
Coefficient of variation	6.85	5.15	5.62	3.72	5.31	7.05	4.70
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	-14,958.1	-2,033.4	-6,262.8	-1,698.6	-13,882.4	-18,070.8	-1,497.1
Maximum	39,667.5	62,889.0	80,538.8	14,550.0	33,358.1	65,352.4	72,438.5
Mean	167.2	189.9	257.4	149.3	200.8	225.3	290.4
Median	39.7	47.0	53.6	55.2	51.6	51.3	56.6
Standard deviation	1,789.4	2,167.2	3,082.2	690.0	1,531.5	2,658.1	3,255.1
Coefficient of variation	10.70	11.41	11.98	4.62	7.63	11.80	11.21
Observations	913	975	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	-193.2	-2,002.6	-220,608.2	-735.0	-2,698.9	-423.6	-1,829.5
Maximum	2,002.9	2,957.2	2,224.7	710.7	2,244.0	243,784.9	84,830.9
Mean	46.1	42.4	-1,116.0	38.2	37.1	1,550.4	735.4
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard deviation	174.5	281.3	15,967.2	126.4	252.8	17,372.9	7,370.5
Coefficient of variation	3.78	6.63	-14.31	3.31	6.82	11.21	10.02
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	-1,542.2	-3.4	0.0	0.0	-1,151.3	-74.7	-192.0
Maximum	375.5	1,134.1	1,048.6	893.0	1,166.7	3,004.2	1,091.9
Mean	-38.8	124.1	128.1	97.4	102.9	157.9	80.2
Median	0.0	40.6	0.9	0.1	0.0	0.0	0.0
Standard deviation	387.1	255.4	255.3	198.3	425.3	610.3	225.6
Coefficient of variation	-9.97	2.06	1.99	2.04	4.13	3.86	2.81
Observations	17	18	20	22	22	23	25
All banks							
Minimum	-14,958.1	-2,848.8	-220,608.2	-2,403.4	-13,882.4	-35,834.6	-2,403.7
Maximum	39,667.5	62,889.0	80,538.8	18,221.8	33,358.1	243,784.9	84,830.9
Mean	111.1	151.8	129.5	168.8	191.3	280.9	264.1
Median	46.4	61.7	64.4	65.5	67.5	64.9	65.1
Standard deviation	1,074.6	1,330.3	4,362.1	693.2	1,232.1	5,064.7	2,911.5
Coefficient of variation	9.67	8.77	33.69	4.11	6.44	18.03	11.02
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.6.3: Net commission income ratio of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	-9,492.3	-2,848.8	-6,262.8	-1,698.6	-13,882.4	-18,070.8	-2,403.7
Maximum	39,667.5	62,889.0	80,538.8	18,221.8	33,358.1	243,784.9	84,830.9
Mean	103.6	187.3	231.8	191.6	243.4	509.0	411.1
Median	52.4	71.2	75.7	78.8	82.8	80.3	77.6
Standard deviation	1,360.2	1,918.3	2,657.7	780.1	1,647.6	7,927.1	4,390.6
Coefficient of variation	13.13	10.24	11.46	4.07	6.77	15.57	10.68
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	-2,298.3	-2,713.0	-3,402.2	-868.2	-13,881.9	-3,006.3	-1,497.1
Maximum	17,743.4	16,785.9	33,976.3	14,550.0	14,113.2	20,854.4	13,388.5
Mean	153.3	136.9	217.6	215.7	173.7	204.2	163.6
Median	50.7	69.3	71.4	72.2	73.9	72.0	70.3
Standard deviation	918.9	674.9	1,431.4	821.6	1,032.6	1,134.5	665.1
Coefficient of variation	5.99	4.93	6.58	3.81	5.94	5.55	4.06
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	-14,958.1	-880.8	-1,401.1	-2,403.4	-577.3	-6,129.7	-1,772.3
Maximum	8,735.9	6,129.0	33,110.3	6,584.7	7,290.5	8,446.3	35,855.1
Mean	60.0	122.6	198.0	112.0	139.7	101.8	219.4
Median	25.2	42.5	33.4	36.4	40.0	41.3	40.0
Standard deviation	735.7	434.4	1,468.8	465.3	518.3	579.8	1,935.7
Coefficient of variation	12.25	3.54	7.42	4.15	3.71	5.70	8.82
Observations	612	612	612	612	612	612	612
High dynamic							
Minimum	-1,542.2	-2,014.5	-1,100.5	-951.7	-3,204.6	-35,834.6	-945.0
Maximum	9,724.7	22,369.4	2,685.1	2,598.0	6,810.4	5,256.9	3,534.9
Mean	145.1	165.9	101.0	117.9	143.8	45.7	138.6
Median	41.1	50.0	49.9	47.3	47.7	43.5	48.3
Standard deviation	665.6	1,212.3	240.8	289.2	543.1	1,983.3	392.1
Coefficient of variation	4.59	7.31	2.38	2.45	3.78	43.39	2.83
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	-5,189.3	-2,525.5	-220,608.2	-469.0	-125.4	-426.6	-370.7
Maximum	11,263.4	1,804.3	5,402.9	8,612.5	17,881.6	3,726.3	5,559.7
Mean	92.7	47.8	-1,040.8	106.6	173.5	99.3	80.4
Median	17.4	19.0	23.1	23.8	32.8	35.0	36.8
Standard deviation	1,043.2	357.0	15,769.2	633.2	1,297.4	383.5	410.0
Coefficient of variation	11.26	7.47	-15.15	5.94	7.48	3.86	5.10
Observations	195	195	195	195	195	195	195
All regions							
Minimum	-14,958.1	-2,848.8	-220,608.2	-2,403.4	-13,882.4	-35,834.6	-2,403.7
Maximum	39,667.5	62,889.0	80,538.8	18,221.8	33,358.1	243,784.9	84,830.9
Mean	111.1	151.8	129.5	168.8	191.3	280.9	264.1
Median	46.4	61.7	64.4	65.5	67.5	64.9	65.1
Standard deviation	1,074.6	1,330.3	4,362.1	693.2	1,232.1	5,064.7	2,911.5
Coefficient of variation	9.67	8.77	33.69	4.11	6.44	18.03	11.02
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.6.4: Net commission income ratio of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	-64.3	-2,848.8	-551.8	-522.6	-399.0	-87.5	-249.9
Maximum	734.9	1,106.0	1,730.9	948.7	1,324.2	1,636.6	521.2
Mean	37.5	34.8	49.9	36.1	47.4	44.5	33.3
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard deviation	93.4	235.1	151.7	113.7	146.6	142.1	68.8
Coefficient of variation	2.49	6.76	3.04	3.15	3.10	3.19	2.06
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	-1,299.1	-1,449.3	-1,100.5	-951.7	-2,297.1	-2,895.3	-840.1
Maximum	8,735.9	4,648.3	33,976.3	9,290.3	5,193.3	1,399.7	1,522.1
Mean	95.7	110.8	194.3	130.9	146.0	86.1	92.6
Median	31.7	49.3	50.0	50.0	55.6	52.8	50.0
Standard deviation	452.6	364.6	1,666.2	482.9	538.8	237.1	167.6
Coefficient of variation	4.73	3.29	8.58	3.69	3.69	2.75	1.81
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	-1,898.3	-2,014.5	-1,551.1	-2,403.4	-3,844.8	-35,834.6	-583.8
Maximum	8,493.2	22,369.4	33,110.3	5,809.1	20,511.7	7,191.6	6,602.7
Mean	106.2	152.1	190.7	176.8	257.0	130.8	188.1
Median	56.7	77.8	81.8	78.3	80.0	83.4	83.6
Standard deviation	492.2	871.8	1,314.8	519.5	1,335.2	1,479.0	550.1
Coefficient of variation	4.63	5.73	6.90	2.94	5.20	11.31	2.92
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	-5,695.7	-2,799.0	-1,100.5	-1,698.6	-1,151.3	-3,007.1	-1,772.3
Maximum	4,289.9	6,129.0	8,805.4	8,931.5	4,045.2	8,446.3	35,855.1
Mean	74.2	120.3	153.8	161.8	163.6	142.1	214.2
Median	47.9	62.6	67.9	71.5	73.7	63.8	66.7
Standard deviation	384.7	425.5	569.7	588.3	427.5	543.2	1,568.9
Coefficient of variation	5.19	3.54	3.70	3.64	2.61	3.82	7.32
Observations	691	691	691	691	691	691	691
Highest populated							
Minimum	-14,958.1	-2,713.0	-220,608.2	-1,274.0	-13,882.4	-18,070.8	-2,403.7
Maximum	39,667.5	62,889.0	80,538.8	18,221.8	33,358.1	243,784.9	84,830.9
Mean	163.2	218.4	61.9	216.5	219.5	617.7	480.4
Median	50.1	66.7	70.5	72.2	77.6	70.2	71.2
Standard deviation	1,769.1	2,152.1	7,407.5	962.8	1,763.5	8,697.8	4,869.3
Coefficient of variation	10.84	9.85	119.73	4.45	8.04	14.08	10.14
Observations	1,053	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	-14,958.1	-2,848.8	-220,608.2	-2,403.4	-13,882.4	-35,834.6	-2,403.7
Maximum	39,667.5	62,889.0	80,538.8	18,221.8	33,358.1	243,784.9	84,830.9
Mean	111.1	151.8	129.5	168.8	191.3	280.9	264.1
Median	46.4	61.7	64.4	65.5	67.5	64.9	65.1
Standard deviation	1,074.6	1,330.3	4,362.1	693.2	1,232.1	5,064.7	2,911.5
Coefficient of variation	9.67	8.77	33.69	4.11	6.44	18.03	11.02
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table A.7.1: Loan ratio of banks headquartered in economic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	84.2	90.0	92.4	91.8	91.4	92.1	93.3
Mean	45.7	47.6	48.1	46.5	47.3	48.3	49.0
Median	44.4	47.4	47.7	46.0	46.4	47.2	48.1
Standard deviation	15.2	15.0	14.7	14.7	15.3	15.4	15.6
Coefficient of variation	0.33	0.32	0.31	0.32	0.32	0.32	0.32
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	0.9	0.7	0.6	0.5	1.6	0.3	0.3
Maximum	96.2	96.3	97.9	97.7	97.6	95.9	97.4
Mean	61.7	61.9	62.2	61.5	61.9	61.7	61.6
Median	64.4	64.8	64.4	64.2	64.2	64.6	63.9
Standard deviation	14.9	14.6	14.8	14.9	15.2	15.4	15.9
Coefficient of variation	0.24	0.24	0.24	0.24	0.24	0.25	0.26
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	1.2	1.7	1.0	1.0	0.7	0.6	0.6
Maximum	97.6	95.0	94.9	94.6	95.0	95.3	95.3
Mean	61.5	61.4	61.4	60.6	60.3	60.1	59.5
Median	63.2	63.0	63.0	62.4	61.9	61.6	61.2
Standard deviation	13.0	13.1	13.6	13.6	13.7	13.9	13.8
Coefficient of variation	0.21	0.21	0.22	0.22	0.23	0.23	0.23
Observations	653	653	653	653	653	653	653
High GDP per capita							
Minimum	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Maximum	98.5	99.7	99.9	99.9	99.9	99.9	99.9
Mean	59.7	60.9	62.1	61.1	61.1	61.5	61.4
Median	62.0	62.7	63.6	62.4	62.5	62.7	62.5
Standard deviation	16.6	15.8	16.1	15.9	15.9	15.9	16.5
Coefficient of variation	0.28	0.26	0.26	0.26	0.26	0.26	0.27
Observations	794	794	794	794	794	794	794
Very high GDP per capita							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	99.0	99.1	99.6	99.3	99.3	99.4	99.3
Mean	56.3	57.8	59.2	58.3	58.2	58.4	58.9
Median	59.2	61.4	63.3	61.8	61.9	61.9	62.7
Standard deviation	20.6	20.4	20.6	20.3	20.6	21.1	21.3
Coefficient of variation	0.37	0.35	0.35	0.35	0.35	0.36	0.36
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	99.0	99.7	99.9	99.9	99.9	99.9	99.9
Mean	58.0	59.0	59.9	58.9	58.9	59.1	59.2
Median	61.1	61.8	62.5	61.2	61.5	61.5	61.5
Standard deviation	17.7	17.3	17.6	17.4	17.6	17.8	18.0
Coefficient of variation	0.31	0.29	0.29	0.30	0.30	0.30	0.30
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.7.2: Loan ratio of banks by size classes of total assets
Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	97.3	94.0	95.4	95.9	95.9	93.4	92.0
Mean	49.5	51.5	53.4	53.0	52.6	52.9	53.2
Median	50.0	53.1	55.0	53.7	54.8	54.8	56.6
Standard deviation	20.4	19.8	19.7	20.1	19.2	19.9	19.3
Coefficient of variation	0.41	0.38	0.37	0.38	0.37	0.38	0.36
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	99.0	99.7	99.9	99.9	99.9	99.9	99.9
Mean	59.0	60.1	61.2	59.6	59.5	59.6	59.6
Median	61.9	62.6	63.8	62.1	62.1	62.2	62.1
Standard deviation	16.8	16.5	16.9	17.0	17.0	17.3	17.6
Coefficient of variation	0.28	0.27	0.28	0.28	0.29	0.29	0.30
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	1.2	0.8	0.0	0.0	0.0	0.0	0.0
Maximum	98.5	98.5	99.6	99.1	99.1	98.9	98.3
Mean	59.1	59.5	59.7	59.5	59.4	59.5	59.3
Median	61.7	61.8	61.6	61.3	61.6	61.3	61.2
Standard deviation	17.4	17.2	17.7	17.1	17.5	17.8	18.0
Coefficient of variation	0.29	0.29	0.30	0.29	0.30	0.30	0.30
Observations	913	975	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	0.5	0.4	0.4	0.5	0.5	0.5	0.3
Maximum	98.0	99.0	99.1	97.8	97.9	98.5	99.1
Mean	61.0	60.9	61.1	60.2	60.9	61.1	62.2
Median	65.8	64.1	63.7	63.0	63.6	62.5	65.1
Standard deviation	17.8	17.4	17.0	17.8	18.4	17.7	18.2
Coefficient of variation	0.29	0.29	0.28	0.30	0.30	0.29	0.29
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	31.1	25.8	26.9	27.5	26.7	26.4	22.6
Maximum	77.3	73.5	73.0	73.0	77.4	76.0	81.3
Mean	49.1	46.1	46.9	48.0	48.9	48.6	48.6
Median	45.8	43.8	44.3	43.3	47.6	46.9	47.4
Standard deviation	13.7	14.7	13.5	13.8	15.3	16.1	16.8
Coefficient of variation	0.28	0.32	0.29	0.29	0.31	0.33	0.35
Observations	17	18	20	22	22	23	25
All banks							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	99.0	99.7	99.9	99.9	99.9	99.9	99.9
Mean	58.0	59.0	59.9	58.9	58.9	59.1	59.2
Median	61.1	61.8	62.5	61.2	61.5	61.5	61.5
Standard deviation	17.7	17.3	17.6	17.4	17.6	17.8	18.0
Coefficient of variation	0.31	0.29	0.29	0.30	0.30	0.30	0.30
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.7.3: Loan ratio of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	99.0	99.7	99.9	99.9	99.9	99.9	99.9
Mean	59.2	60.2	61.3	60.5	60.6	60.9	60.6
Median	61.9	62.5	63.1	62.4	62.5	62.6	62.3
Standard deviation	14.8	14.0	14.5	14.5	14.5	14.7	14.8
Coefficient of variation	0.25	0.23	0.24	0.24	0.24	0.24	0.24
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	97.9	98.4	98.3	98.9	99.3	99.2	99.2
Mean	56.2	57.1	57.8	56.9	56.8	56.9	56.9
Median	58.1	59.6	60.4	59.3	59.1	59.0	58.8
Standard deviation	17.5	17.2	17.1	16.9	17.0	17.2	17.6
Coefficient of variation	0.31	0.30	0.30	0.30	0.30	0.30	0.31
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	98.2	98.0	98.6	98.4	98.1	98.8	99.0
Mean	58.6	59.0	59.8	58.5	58.0	58.0	58.4
Median	62.4	62.3	63.5	61.0	60.1	60.6	60.2
Standard deviation	18.1	18.1	18.2	18.0	18.5	18.7	18.8
Coefficient of variation	0.31	0.31	0.30	0.31	0.32	0.32	0.32
Observations	612	612	612	612	612	612	612
High dynamic							
Minimum	0.1	0.1	0.0	0.5	0.0	0.0	0.0
Maximum	98.0	96.9	97.6	97.9	97.9	98.5	98.1
Mean	58.4	59.9	61.2	60.3	60.6	60.8	61.1
Median	61.8	62.8	66.1	65.2	64.8	64.8	63.8
Standard deviation	22.7	22.1	22.4	22.0	22.1	22.3	23.0
Coefficient of variation	0.39	0.37	0.37	0.36	0.37	0.37	0.38
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	0.2	0.8	1.2	0.6	0.1	0.0	0.0
Maximum	97.9	99.1	99.6	99.1	98.9	99.0	99.2
Mean	55.0	56.5	56.4	55.4	56.3	57.2	58.1
Median	60.3	62.1	59.1	58.4	60.0	61.4	65.3
Standard deviation	23.1	23.0	23.6	23.5	23.8	23.9	23.9
Coefficient of variation	0.42	0.41	0.42	0.42	0.42	0.42	0.41
Observations	195	195	195	195	195	195	195
All regions							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	99.0	99.7	99.9	99.9	99.9	99.9	99.9
Mean	58.0	59.0	59.9	58.9	58.9	59.1	59.2
Median	61.1	61.8	62.5	61.2	61.5	61.5	61.5
Standard deviation	17.7	17.3	17.6	17.4	17.6	17.8	18.0
Coefficient of variation	0.31	0.29	0.29	0.30	0.30	0.30	0.30
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.7.4: Loan ratio of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	98.0	94.8	99.6	94.5	93.4	93.4	94.2
Mean	60.9	63.0	65.5	63.7	64.3	64.8	66.3
Median	63.5	65.0	67.7	65.5	66.0	66.3	68.1
Standard deviation	15.6	15.1	14.8	14.5	14.9	14.9	15.0
Coefficient of variation	0.26	0.24	0.23	0.23	0.23	0.23	0.23
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	95.9	96.3	97.9	97.7	97.6	95.9	97.7
Mean	59.2	60.7	61.7	60.6	60.9	60.7	61.8
Median	60.4	62.3	63.2	61.9	62.3	62.0	63.6
Standard deviation	16.7	16.3	16.3	16.1	16.4	17.0	17.2
Coefficient of variation	0.28	0.27	0.26	0.27	0.27	0.28	0.28
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	0.3	0.8	0.8	0.8	0.1	0.6	0.6
Maximum	94.9	93.7	94.3	95.4	95.0	94.7	94.5
Mean	57.6	59.3	60.7	59.8	60.0	60.6	60.7
Median	60.1	61.4	62.3	61.2	62.0	62.5	62.4
Standard deviation	16.4	15.8	15.7	15.7	15.8	16.0	16.0
Coefficient of variation	0.28	0.27	0.26	0.26	0.26	0.26	0.26
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	97.6	95.9	95.5	98.4	96.8	98.8	99.0
Mean	59.3	59.6	60.0	59.1	58.9	59.2	58.7
Median	61.9	62.3	62.2	61.2	61.6	61.4	61.2
Standard deviation	15.1	14.8	15.0	15.0	15.2	15.6	15.9
Coefficient of variation	0.26	0.25	0.25	0.25	0.26	0.26	0.27
Observations	691	691	691	691	691	691	691
Highest populated							
Minimum	0.0	0.1	0.0	0.2	0.0	0.0	0.0
Maximum	99.0	99.7	99.9	99.9	99.9	99.9	99.9
Mean	56.1	56.6	57.0	56.3	56.1	55.9	55.5
Median	60.7	60.8	61.3	59.8	59.8	59.7	59.0
Standard deviation	20.7	20.3	20.7	20.6	20.6	20.6	20.7
Coefficient of variation	0.37	0.36	0.36	0.37	0.37	0.37	0.37
Observations	1,053	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	99.0	99.7	99.9	99.9	99.9	99.9	99.9
Mean	58.0	59.0	59.9	58.9	58.9	59.1	59.2
Median	61.1	61.8	62.5	61.2	61.5	61.5	61.5
Standard deviation	17.7	17.3	17.6	17.4	17.6	17.8	18.0
Coefficient of variation	0.31	0.29	0.29	0.30	0.30	0.30	0.30
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table A.8.1: Deposit ratio of banks headquartered in economic regions
Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very low GDP per capita							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	94.4	95.1	98.1	96.8	95.4	95.4	95.3
Mean	68.4	68.8	68.7	70.2	70.7	71.1	70.7
Median	71.3	71.1	71.3	73.1	73.2	73.4	73.0
Standard deviation	16.4	16.0	16.0	15.9	15.7	15.6	15.8
Coefficient of variation	0.24	0.23	0.23	0.23	0.22	0.22	0.22
Observations	246	246	246	246	246	246	246
Low GDP per capita							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	95.4	97.1	97.6	97.5	97.5	97.2	97.2
Mean	76.4	76.5	75.7	76.2	76.8	77.1	76.7
Median	81.4	80.8	81.8	81.9	81.6	80.9	81.2
Standard deviation	20.2	20.5	20.7	20.3	20.2	20.0	20.5
Coefficient of variation	0.26	0.27	0.27	0.27	0.26	0.26	0.27
Observations	359	359	359	359	359	359	359
Medium GDP per capita							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Maximum	96.3	97.1	97.4	97.4	97.6	97.5	98.2
Mean	75.8	75.2	73.9	74.6	74.8	75.3	75.5
Median	78.7	76.8	75.3	76.1	76.1	76.8	76.9
Standard deviation	16.9	18.4	19.0	18.8	18.7	18.5	18.1
Coefficient of variation	0.22	0.24	0.26	0.25	0.25	0.25	0.24
Observations	653	653	653	653	653	653	653
High GDP per capita							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	94.9	96.0	96.0	96.1	96.6	97.0	97.2
Mean	67.0	66.1	65.2	65.7	66.1	66.4	65.9
Median	69.9	68.8	67.2	67.8	68.3	68.9	68.7
Standard deviation	19.3	19.4	19.4	19.5	19.5	19.7	19.9
Coefficient of variation	0.29	0.29	0.30	0.30	0.29	0.30	0.30
Observations	794	794	794	794	794	794	794
Very high GDP per capita							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	95.1	96.3	95.9	97.0	96.9	96.9	96.8
Mean	59.6	59.0	58.4	58.9	59.4	59.7	59.6
Median	63.8	62.1	61.7	62.8	63.1	63.9	64.5
Standard deviation	24.7	24.1	24.1	24.1	24.0	23.8	23.9
Coefficient of variation	0.41	0.41	0.41	0.41	0.40	0.40	0.40
Observations	1,131	1,131	1,131	1,131	1,131	1,131	1,131
All regions							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	96.3	97.1	98.1	97.5	97.6	97.5	98.2
Mean	67.4	66.8	66.0	66.7	67.1	67.4	67.2
Median	71.8	70.2	69.2	70.3	70.5	71.2	71.1
Standard deviation	21.9	22.0	22.1	22.0	21.9	21.8	22.0
Coefficient of variation	0.33	0.33	0.33	0.33	0.33	0.32	0.33
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. GDP per capita, average 2000 to 2003, Purchasing Power Parities (EU 25 = 1); very low < 16,700, low > 16,700 < 20,300, medium > 20,300 < 22,560, high > 22,560 < 27,040, very high > 27,040.

Table A.8.2: Deposit ratio of banks by size classes of total assets

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Very small bank							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	94.3	97.0	97.0	95.3	95.3	95.3	96.5
Mean	62.4	63.2	63.3	62.4	63.4	63.4	64.3
Median	63.2	64.5	64.0	63.2	65.5	65.1	66.0
Standard deviation	20.4	19.7	19.3	20.7	20.1	20.8	20.7
Coefficient of variation	0.33	0.31	0.30	0.33	0.32	0.33	0.32
Observations	362	331	301	279	254	243	221
Small-sized bank							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	96.3	97.0	98.1	97.5	97.6	97.5	98.2
Mean	69.7	69.1	67.9	68.8	69.0	69.3	68.7
Median	73.8	72.2	70.7	71.9	72.1	72.4	72.3
Standard deviation	20.0	20.0	20.0	19.7	19.6	19.3	19.7
Coefficient of variation	0.29	0.29	0.30	0.29	0.28	0.28	0.29
Observations	1,725	1,687	1,656	1,634	1,607	1,584	1,562
Medium-sized bank							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	95.4	97.1	97.6	97.0	96.9	97.2	97.2
Mean	66.8	65.7	65.4	66.4	66.9	67.5	67.8
Median	71.3	69.2	68.7	69.6	69.9	70.5	71.1
Standard deviation	23.6	24.0	24.1	23.7	23.4	23.1	22.8
Coefficient of variation	0.35	0.37	0.37	0.36	0.35	0.34	0.34
Observations	913	975	1,016	1,043	1,079	1,096	1,123
Large-sized bank							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	93.6	95.3	95.1	95.3	95.6	96.1	96.0
Mean	59.6	60.4	59.4	59.4	59.8	60.1	59.4
Median	64.6	64.8	65.2	63.5	65.1	65.2	66.2
Standard deviation	28.7	28.6	28.5	28.3	28.6	29.0	29.0
Coefficient of variation	0.48	0.47	0.48	0.48	0.48	0.48	0.49
Observations	166	172	190	205	221	237	252
Very large bank							
Minimum	3.7	3.7	3.8	3.7	4.2	4.8	5.1
Maximum	70.4	75.0	73.0	71.8	73.7	76.2	76.9
Mean	44.1	41.5	43.9	45.1	47.6	48.8	49.8
Median	40.0	38.4	41.5	43.0	50.4	52.0	56.2
Standard deviation	17.7	19.0	19.3	18.4	19.2	20.0	19.7
Coefficient of variation	0.40	0.46	0.44	0.41	0.40	0.41	0.40
Observations	17	18	20	22	22	23	25
All banks							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	96.3	97.1	98.1	97.5	97.6	97.5	98.2
Mean	67.4	66.8	66.0	66.7	67.1	67.4	67.2
Median	71.8	70.2	69.2	70.3	70.5	71.2	71.1
Standard deviation	21.9	22.0	22.1	22.0	21.9	21.8	22.0
Coefficient of variation	0.33	0.33	0.33	0.33	0.33	0.32	0.33
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; WIFO computations. Very small = total assets < mn 100 €, small-sized = total assets > mn 100 € < mn 1,000 €, medium-sized = total assets > mn 1,000 € < mn 10,000 €, large-sized = total assets > mn 10,000 € < mn 100,000 €, very large = total assets > mn 100,000 €.

Table A.8.3: Deposit ratio of banks headquartered in dynamic regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Less dynamic							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	96.3	97.0	97.6	97.4	97.6	97.5	98.2
Mean	70.0	69.2	67.9	68.4	68.8	69.0	69.1
Median	72.5	71.1	69.4	69.7	70.2	70.8	71.3
Standard deviation	19.4	20.0	20.2	20.3	20.2	20.2	20.2
Coefficient of variation	0.28	0.29	0.30	0.30	0.29	0.29	0.29
Observations	1,256	1,256	1,256	1,256	1,256	1,256	1,256
Low dynamic							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	94.6	96.7	98.1	97.5	97.5	96.9	97.2
Mean	67.2	67.2	66.6	67.2	67.7	67.9	67.8
Median	70.8	69.9	69.1	70.0	70.5	71.3	70.9
Standard deviation	21.3	21.9	21.8	21.7	21.7	21.6	21.9
Coefficient of variation	0.32	0.33	0.33	0.32	0.32	0.32	0.32
Observations	769	769	769	769	769	769	769
Medium dynamic							
Minimum	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Maximum	95.1	97.1	96.9	96.7	96.8	97.2	97.2
Mean	67.8	66.9	66.7	67.4	67.4	67.9	68.1
Median	72.9	70.6	70.5	72.0	71.7	72.1	72.6
Standard deviation	22.9	22.8	22.5	22.6	22.8	22.6	22.5
Coefficient of variation	0.34	0.34	0.34	0.33	0.34	0.33	0.33
Observations	612	612	612	612	612	612	612
High dynamic							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	93.8	92.6	91.5	94.5	92.9	92.7	93.1
Mean	61.0	60.4	58.9	59.5	60.1	61.3	60.3
Median	69.0	68.5	66.7	66.9	68.0	68.1	68.4
Standard deviation	25.3	24.2	24.8	24.9	24.4	23.8	24.2
Coefficient of variation	0.42	0.40	0.42	0.42	0.41	0.39	0.40
Observations	351	351	351	351	351	351	351
Highest dynamic							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	93.3	94.4	94.4	95.2	96.3	97.0	97.2
Mean	61.1	61.2	61.9	63.7	64.9	64.4	62.8
Median	71.0	68.5	70.5	72.8	73.8	73.0	72.0
Standard deviation	26.2	24.9	25.3	24.0	23.8	24.1	24.1
Coefficient of variation	0.43	0.41	0.41	0.38	0.37	0.37	0.38
Observations	195	195	195	195	195	195	195
All regions							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	96.3	97.1	98.1	97.5	97.6	97.5	98.2
Mean	67.4	66.8	66.0	66.7	67.1	67.4	67.2
Median	71.8	70.2	69.2	70.3	70.5	71.2	71.1
Standard deviation	21.9	22.0	22.1	22.0	21.9	21.8	22.0
Coefficient of variation	0.33	0.33	0.33	0.33	0.33	0.32	0.33
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Real growth rate 2000/2004; less dynamic < 2.2 percent, low dynamic > 2.2 percent < 5.5 percent, medium dynamic > 5.5 percent < 8.9 percent, high dynamic > 8.9 percent < 12.7 percent, highest dynamic > 12.7 percent.

Table A.8.4: Deposit ratio of banks headquartered in density regions

Summary statistics

	1998	1999	2000	2001	2002	2003	2004
Least populated							
Minimum	3.0	1.8	0.1	0.5	0.0	0.0	0.0
Maximum	90.1	89.8	90.0	90.1	90.2	90.1	90.0
Mean	67.2	64.6	64.4	64.4	64.8	64.5	63.4
Median	70.3	66.4	68.0	68.2	68.9	67.7	68.3
Standard deviation	18.2	17.8	18.1	18.2	17.6	18.0	18.6
Coefficient of variation	0.27	0.28	0.28	0.28	0.27	0.28	0.29
Observations	251	251	251	251	251	251	251
Sparsely populated							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	96.3	97.0	96.2	97.4	97.6	97.5	98.2
Mean	70.6	69.6	68.7	69.0	68.9	69.1	68.4
Median	74.6	72.6	71.7	72.8	72.9	72.8	72.1
Standard deviation	18.4	18.4	18.8	19.2	19.2	18.9	19.2
Coefficient of variation	0.26	0.26	0.27	0.28	0.28	0.27	0.28
Observations	471	471	471	471	471	471	471
Medium populated							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	95.0	96.3	97.6	96.3	97.0	96.9	97.2
Mean	66.4	66.1	64.9	65.3	65.8	66.3	66.4
Median	68.9	68.3	66.5	67.2	67.3	68.7	69.3
Standard deviation	19.1	19.1	19.4	19.5	19.5	19.4	19.4
Coefficient of variation	0.29	0.29	0.30	0.30	0.30	0.29	0.29
Observations	717	717	717	717	717	717	717
Densely populated							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	95.4	97.0	97.4	97.3	97.0	97.0	97.2
Mean	72.3	71.8	71.0	72.1	72.5	72.9	72.8
Median	75.0	73.6	72.3	74.4	74.3	74.9	74.5
Standard deviation	19.3	19.8	20.0	19.4	19.3	19.3	19.4
Coefficient of variation	0.27	0.28	0.28	0.27	0.27	0.26	0.27
Observations	691	691	691	691	691	691	691
Highest populated							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	95.1	97.1	98.1	97.5	97.5	97.2	97.2
Mean	63.4	63.3	62.7	63.5	64.0	64.4	64.5
Median	70.4	69.2	67.7	68.3	68.7	69.4	69.7
Standard deviation	26.4	26.5	26.2	26.2	26.1	26.0	26.0
Coefficient of variation	0.42	0.42	0.42	0.41	0.41	0.40	0.40
Observations	1,053	1,053	1,053	1,053	1,053	1,053	1,053
All regions							
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	96.3	97.1	98.1	97.5	97.6	97.5	98.2
Mean	67.4	66.8	66.0	66.7	67.1	67.4	67.2
Median	71.8	70.2	69.2	70.3	70.5	71.2	71.1
Standard deviation	21.9	22.0	22.1	22.0	21.9	21.8	22.0
Coefficient of variation	0.33	0.33	0.33	0.33	0.33	0.32	0.33
Observations	3,183	3,183	3,183	3,183	3,183	3,183	3,183

Source: BankScope; EUROSTAT; WIFO computations. Population per square kilometer, average 1999 to 2004; least populated < 64, sparsely populated > 64 < 114, medium populated > 114 < 198, densely populated > 198 < 374, highest populated > 374.

Table B.1: Structure and performance indicators of the banking sector for Austria

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	1.8	1.4	1.1	1.8	1.1	1.2	0.9	1.0
Interbank deposits	30.6	30.3	28.5	29.8	26.7	27.8	28.1	27.4
Loans	50.7	50.9	48.8	48.3	50.1	48.2	47.2	46.3
Securities	11.6	14.3	18.4	16.7	18.7	19.1	20.7	21.9
Other assets	5.3	3.1	3.2	3.4	3.4	3.7	3.2	3.4
Foreign assets	*20.9*	*21.0*	*28.4*	*26.8*	*27.3*	*29.0*	*30.8*	*34.2*
Liabilities								
Capital and reserves	4.6	4.6	4.4	4.7	4.8	5.1	5.1	5.1
Borrowing from Central bank	0.0	0.0	1.3	0.4	0.6	0.7	1.6	1.9
Interbank deposits	31.7	29.3	32.0	32.3	28.8	28.4	27.9	28.3
Non-bank deposits	42.7	44.0	36.9	37.5	38.5	38.2	37.1	35.2
Bonds	17.1	17.4	19.9	19.1	20.9	21.1	22.0	22.9
Other liabilities	3.8	4.7	5.5	5.9	6.3	6.6	6.4	6.6
Foreign liabilities	*23.1*	*22.1*	*31.4*	*29.5*	*28.6*	*29.0*	*28.9*	*31.2*
Income statement			As a percentage of gross income					
Interest income	318.5	223.2	205.3	193.5	173.9	152.6	149.4	152.6
Interest expenses	249.4	162.5	155.5	143.5	122.9	102.1	100.4	108.0
Fees and commissions receivable	22.7	20.5	30.6	29.3	29.8	31.1	32.4	34.9
Fees and commissions payable	5.9	4.2	7.5	7.3	7.4	8.0	8.7	9.8
Other non-interest income (net)	14.2	23.0	27.0	28.0	26.7	26.5	27.3	30.3
Performance ratios								
Cost-income ratio	0.65	0.69	0.67	0.68	0.70	0.69	0.67	0.64
Profit before tax as a percentage of balance sheet total	0.40	0.39	0.51	0.55	0.33	0.42	0.59	0.58
Profit before tax as a percentage of equity	8.6	8.1	11.3	11.3	6.9	8.0	11.1	10.9
Risk-based capital ratio[1])	–	13.2	14.9	15.2	15.0	16.1	16.5	16.3
Value added per hour worked (1995 = 100)	93.5	100.0	108.2	93.3	96.2	98.6	104.4	–
Staff costs per employee (1,000 USD)	50.4	75.8	59.4	59.4	63.6	80.0	92.0	95.1
Profit before tax per employee (1,000 USD)	20.5	28.4	37.7	39.8	25.7	41.4	70.5	76.0
Bank concentration			As a percentage of balance sheet total					
5 largest banks	34.7	39.9	47.3	46.7	46.1	44.5	43.9	45.6
Bank density								
Number of institutions	1,210	1,041	923	907	897	896	861	865
Residents per institution	6,345	7,635	8,680	8,868	9,012	9,060	9,494	9,518
Residents per institution and branch	1,345	1,388	1,462	1,475	1,506	1,533	1,579	1,605
Institutions and branches per 100 km^2	6.8	6.8	6.5	6.5	6.4	6.3	6.2	6.1
Institutions and branches per 100 km^2 populated area	34.0	34.1	32.7	32.5	32.0	31.6	30.9	30.6
Number of ATM[2]) per 1,000 residents	0.13	0.43	0.74	0.82	0.87	0.92	0.98	0.90
Cards with cash function per resident	0.30	0.48	0.90	1.13	1.17	1.16	1.07	1.08
Cards with debit function per resident	0.30	0.41	0.76	0.97	1.00	1.02	0.81	0.81
Cards with credit function per resident	0.09	0.14	0.23	0.25	–	–	–	–
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	4.9	4.1	3.5	3.4	3.6	3.6	3.6	–
Employed persons in banking as percent of total employment	2.5	2.4	2.3	2.3	2.3	2.3	2.3	–
Hours worked in banking as percent of total hours worked	2.4	2.4	2.3	2.3	2.4	2.4	2.4	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	70.7	-4.0	-63.6	12.5	–	–
Outflows, as a percentage of total direct investment	–	–	19.5	25.6	28.0	42.3	–	–
Inward stock, as a percentage of capital and reserves	–	10.3	23.5	23.6	22.0	15.1	13.2	–
Outward stock, as a percentage of balance sheet total	0.1	0.4	1.0	1.3	1.9	2.1	2.1	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.2: Structure and performance indicators of the banking sector for Belgium

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	0.2	0.2	1.1	1.0	0.8	1.2	0.7	0.7
Interbank deposits	32.1	32.8	19.3	21.3	21.8	23.8	24.4	25.5
Loans	34.1	32.7	38.2	34.5	36.5	35.1	34.8	35.9
Securities	28.6	29.1	33.1	33.1	31.6	30.7	29.3	27.7
Other assets	4.9	5.1	8.2	10.2	9.3	9.2	10.8	10.2
Foreign assets	*34.5*	*38.7*	*47.8*	*50.5*	*53.4*	*56.0*	*56.8*	*61.1*
Liabilities								
Capital and reserves	3.4	2.5	3.6	3.8	3.9	3.7	3.3	2.9
Borrowing from Central bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interbank deposits	42.9	40.7	31.4	30.7	28.8	31.1	31.6	36.4
Non-bank deposits	34.1	33.2	39.4	40.6	42.7	42.3	43.0	41.5
Bonds	14.1	16.4	14.2	11.8	11.5	9.9	8.3	6.8
Other liabilities	5.6	7.1	11.3	13.1	13.0	13.0	13.9	12.4
Foreign liabilities	*41.2*	*43.5*	*44.9*	*47.3*	*46.5*	*47.3*	*47.4*	*52.2*
Income statement			As a percentage of gross income					
Interest income	570.3	527.9	466.1	399.7	438.6	345.1	439.8	388.2
Interest expenses	488.7	457.1	415.0	348.4	379.3	287.4	375.6	327.9
Fees and commissions receivable	–	13.7	28.6	24.6	25.1	23.6	28.0	30.8
Fees and commissions payable	–	8.4	13.2	10.9	12.0	11.3	13.6	14.2
Other non-interest income (net)	–	23.9	33.6	35.0	27.6	30.1	21.3	23.1
Performance ratios								
Cost-income ratio	0.72	0.68	0.61	0.63	0.67	0.61	0.67	0.64
Profit before tax as a percentage of balance sheet total	0.29	0.33	0.65	0.59	0.44	0.61	0.45	0.52
Profit before tax as a percentage of equity	8.3	12.9	18.2	15.4	11.6	15.8	13.6	17.0
Risk-based capital ratio[1])	–	13.3	13.7	13.9	15.4	13.7	12.6	10.2
Value added per hour worked (1995 = 100)	99.2	100.0	142.4	139.7	155.3	144.2	153.9	–
Staff costs per employee (1,000 USD)	46.2	78.4	59.2	59.9	62.5	76.4	85.8	86.2
Profit before tax per employee (1,000 USD)	19.9	35.9	57.9	54.9	45.3	78.0	74.2	96.6
Bank concentration			As a percentage of balance sheet total					
5 largest banks	48.0	51.2	75.3	78.3	82.0	83.5	–	–
Bank density								
Number of institutions	115	143	72	67	65	61	59	54
Residents per institution	86,678	70,888	142,306	153,448	158,923	170,066	176,576	193,950
Residents per institution and branch	539	550	744	840	936	1,030	1,087	1,131
Institutions and branches per 100 km^2	60.6	60.4	45.1	40.1	36.2	33.0	31.4	30.3
Institutions and branches per 100 km^2 populated area	178.3	177.8	132.7	118.0	106.4	97.1	92.4	89.3
Number of ATM[2]) per 1,000 residents	–	0.36	1.06	1.11	1.13	1.20	1.27	1.29
Cards with cash function per resident	–	0.93	1.36	1.36	1.44	1.51	1.51	1.52
Cards with debit function per resident	–	0.71	1.07	1.06	1.15	1.21	1.20	1.21
Cards with credit function per resident	–	0.22	0.29	0.30	0.29	0.30	0.30	0.31
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	4.2	4.6	4.1	3.7	3.9	3.6	3.7	–
Employed persons in banking as percent of total employment	2.8	2.6	2.5	2.4	2.4	2.4	2.3	2.2
Hours worked in banking as percent of total hours worked	2.9	2.8	2.6	2.6	2.6	2.5	2.4	2.3
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	–	–	11.2	-3.6	-5.0	-1.8
Outflows, as a percentage of total direct investment	–	–	–	–	5.7	3.9	1.6	9.4
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.3: Structure and performance indicators of the banking sector for Denmark

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets (commercial banks and savings banks)								
Cash and balance with Central bank	1.3	4.1	3.8	4.1	5.6	6.8	–	–
Interbank deposits	15.2	19.1	16.2	14.1	16.1	15.1	–	–
Loans	44.2	43.3	44.6	44.9	39.7	40.2	–	–
Securities	19.0	29.0	26.4	28.6	27.0	30.9	–	–
Other assets	20.4	4.5	9.0	8.4	11.6	7.0	–	–
Foreign assets	*32.6*	–	*36.2*	*28.1*	*29.1*	*29.9*	–	–
Liabilities (commercial banks and savings banks)								
Capital and reserves	7.9	6.9	6.7	6.2	5.8	6.0	–	–
Borrowing from Central bank	0.4	4.7	3.0	4.4	5.3	4.8	–	–
Interbank deposits	26.1	23.2	24.3	24.5	23.4	25.6	–	–
Non-bank deposits	46.9	55.7	43.5	40.7	37.5	40.1	–	–
Bonds	0.0	2.0	6.3	10.2	8.4	9.3	–	–
Other liabilities	18.6	7.5	16.2	14.1	19.7	14.2	–	–
Foreign liabilities	*37.5*	–	*38.2*	*34.8*	*37.2*	*41.3*	–	–
Income statement (commercial banks and savings banks)				As a percentage of gross income				
Interest income	320.1	159.7	166.7	170.3	148.2	124.2	–	–
Interest expenses	232.5	92.5	111.0	109.7	85.4	64.1	–	–
Fees and commissions receivable	–	16.7	28.0	25.4	25.9	25.6	–	–
Fees and commissions payable	–	1.9	4.5	4.3	4.1	4.3	–	–
Other non-interest income (net)	–	17.9	20.9	18.3	15.5	18.5	–	–
Performance ratios (commercial banks and savings banks)								
Cost-income ratio	0.69	0.54	0.60	0.53	0.54	0.52	–	–
Profit before tax as a percentage of balance sheet total	-0.27	1.41	1.03	1.12	0.96	1.03	–	–
Profit before tax as a percentage of equity	-3.3	18.5	15.2	16.5	15.7	17.0	–	–
Risk-based capital ratio[1])	–	–	–	–	–	–	–	–
Value added per hour worked (1995 = 100)	83.8	100.0	132.8	136.7	166.7	178.8	180.9	183.8
Staff costs per employee (1,000 USD)	40.6	55.0	52.7	51.3	56.9	75.3	–	–
Profit before tax per employee (1,000 USD)	-8.7	49.5	51.2	55.1	59.9	87.2	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	76	74	60	68	–	–	–	–
Bank density								
Number of institutions	–	204	200	198	192	188	184	170
Residents per institution	–	25,637	26,690	27,056	28,000	28,670	29,364	31,876
Residents per institution and branch	–	2,361	2,223	2,426	2,523	2,547	2,541	2,573
Institutions and branches per 100 km^2	–	5.1	5.6	5.1	4.9	4.9	4.9	4.9
Institutions and branches per 100 km^2 populated area	–	20.6	22.3	20.5	19.8	19.6	19.7	19.5
Number of ATM[2]) per 1,000 residents	–	0.21	0.51	0.52	0.52	0.53	0.54	0.55
Cards with cash function per resident	–	0.56	0.65	0.69	0.71	0.74	0.81	0.89
Cards with debit function per resident	–	0.53	0.57	0.59	0.61	0.63	0.67	0.72
Cards with credit function per resident	–	0.03	0.09	0.09	0.10	0.11	0.15	0.18
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	3.6	4.1	3.4	3.5	3.7	3.8	3.8	4.0
Employed persons in banking as percent of total employment	2.6	2.4	2.2	2.2	2.2	2.2	2.2	2.2
Hours worked in banking as percent of total hours worked	2.8	2.5	2.2	2.1	2.1	2.1	2.1	2.1
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	6.1	11.6	15.5	6.3	10.8	15.1	-8.8	10.8
Outflows, as a percentage of total direct investment	38.0	10.8	8.1	5.1	26.1	27.0	-0.3	0.2
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.4: Structure and performance indicators of the banking sector for Finland

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	3.4	2.5	1.9	2.3	2.5	1.4	1.7	1.8
Interbank deposits	3.3	13.8	22.0	25.7	23.6	25.9	24.6	23.5
Loans	66.1	51.3	55.5	49.4	52.1	50.2	49.2	50.5
Securities	12.6	22.9	14.2	16.5	16.0	8.5	7.5	8.2
Other assets	14.6	9.5	6.4	6.1	5.7	14.1	17.0	16.0
Foreign assets	*14.0*	*8.5*	*12.8*	*15.8*	*14.9*	*16.2*	*18.5*	*37.9*
Liabilities								
Capital and reserves	6.9	6.0	6.4	10.8	10.9	10.5	9.3	9.3
Borrowing from Central bank	0.5	0.8	0.3	0.7	0.5	1.0	1.2	1.4
Interbank deposits	2.4	14.0	18.6	20.3	16.7	14.5	14.8	14.3
Non-bank deposits	51.6	44.3	41.8	38.8	40.9	38.6	36.0	35.0
Bonds	8.6	14.5	10.1	7.2	6.9	6.3	7.3	9.3
Other liabilities	30.0	20.5	22.8	22.1	24.0	29.0	31.5	30.7
Foreign liabilities	*29.6*	*12.1*	*14.2*	*15.2*	*12.2*	*19.4*	*23.8*	*40.5*
Income statement			As a percentage of gross income					
Interest income	288.9	254.0	150.8	102.9	142.1	88.4	122.2	152.1
Interest expenses	234.9	175.2	88.8	64.2	82.6	44.3	60.5	84.4
Fees and commissions receivable	–	29.9	26.1	14.9	25.0	19.2	28.1	29.8
Fees and commissions payable	–	3.4	4.2	3.0	5.4	4.3	8.0	9.5
Non-interest income (net)	–	-5.3	16.2	49.4	20.9	41.0	18.1	12.0
Performance ratios								
Cost-income ratio	0.81	0.94	0.53	0.35	0.58	0.49	0.58	0.49
Profit before tax as a percentage of balance sheet total	0.40	0.14	1.36	2.92	0.99	1.60	0.81	0.93
Profit before tax as a percentage of equity	5.6	2.5	20.7	25.1	9.2	14.3	8.2	9.4
Risk-based capital ratio[1])	–	–	–	–	–	–	–	–
Value added per hour worked (1995 = 100)	79.2	100.0	121.0	115.9	105.7	101.6	107.5	–
Staff costs per employee (1,000 USD)	45.4	37.9	31.9	34.0	37.8	48.2	52.3	53.4
Profit before tax per employee (1,000 USD)	16.1	7.3	67.5	153.8	59.0	125.4	81.6	105.1
Bank concentration			As a percentage of balance sheet total					
5 largest banks	64.6	–	79.3	78.1	77.4	78.5	–	–
Bank density								
Number of institutions	519	375	352	351	350	348	342	342
Residents per institution	9,607	13,621	14,705	14,781	14,860	14,980	15,285	15,337
Residents per institution and branch	1,493	2,708	3,305	3,271	3,263	3,295	3,386	3,371
Institutions and branches per 100 km^2	1.0	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Institutions and branches per 100 km^2 populated area	6.2	3.5	2.9	2.9	2.9	2.9	2.9	2.9
Number of ATM[2]) per 1,000 residents	–	0.47	0.88	0.84	0.79	0.76	0.66	0.65
Cards with cash function per resident	–	0.86	1.18	1.19	1.21	1.21	1.20	1.18
Cards with debit function per resident	–	0.38	0.56	0.67	0.75	0.79	0.86	0.90
Cards with credit function per resident	–	0.08	–	–	–	–	–	–
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	3.6	3.4	2.1	2.2	1.7	1.6	1.7	–
Employed persons in banking as percent of total employment	2.5	2.0	1.4	1.3	1.3	1.3	1.2	–
Hours worked in banking as percent of total hours worked	2.4	2.0	1.3	1.2	1.2	1.3	1.2	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	3.4	3.6	66.4	81.4	10.5	25.3	-7.7	29.4
Outflows, as a percentage of total direct investment	15.5	-37.9	12.3	24.3	16.5	–	-224.1	8.3
Inward stock, as a percentage of capital and reserves	2.3	4.0	91.2	53.7	56.1	66.7	66.2	62.0
Outward stock, as a percentage of balance sheet total	1.1	0.5	3.5	4.5	5.1	0.5	1.3	1.5

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.5: Structure and performance indicators of the banking sector for France

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	0.8	0.2	0.8	1.1	1.3	1.2	1.4	0.8
Interbank deposits	40.3	38.9	32.2	29.7	30.6	29.9	28.8	28.0
Loans	40.2	38.5	36.8	37.6	38.1	37.6	35.7	33.7
Securities	7.9	16.3	20.2	20.4	21.5	22.9	24.1	24.9
Other assets	10.7	6.0	10.0	11.2	8.5	8.4	10.0	12.6
Foreign assets	*24.7*	*18.8*	*22.4*	*22.3*	*22.9*	*22.5*	*26.0*	*31.0*
Liabilities								
Capital and reserves	3.4	4.4	4.6	4.6	4.9	5.1	4.7	3.9
Borrowing from Central bank	1.6	0.1	0.1	0.3	0.1	0.1	0.1	0.1
Interbank deposits	41.7	38.6	36.8	31.8	33.2	32.0	29.8	29.3
Non-bank deposits	22.7	28.2	28.3	30.4	30.7	30.7	32.9	31.2
Bonds	19.4	21.3	17.2	18.7	18.7	19.3	17.8	16.3
Other liabilities	11.3	7.5	13.0	14.2	12.5	12.9	14.7	19.1
Foreign liabilities	*25.2*	*17.6*	*23.4*	*24.0*	*23.8*	*23.6*	*27.3*	*32.3*
Income statement			As a percentage of gross income					
Interest income	415.7	332.9	290.5	276.1	259.3	219.0	186.8	207.5
Interest expenses	338.3	278.5	251.4	239.2	216.3	175.7	149.1	169.7
Fees and commissions receivable	–	22.6	33.5	31.9	34.7	34.4	37.6	38.7
Fees and commissions payable	–	6.8	9.1	7.6	9.0	8.8	9.7	9.9
Other non-interest income (net)	–	29.7	36.5	38.7	31.4	31.1	34.4	33.3
Performance ratios								
Cost-income ratio	0.72	0.66	0.66	0.62	0.65	0.64	0.63	0.66
Profit before tax as a percentage of balance sheet total	0.36	0.15	0.67	0.59	0.55	0.57	0.65	0.62
Profit before tax as a percentage of equity	10.1	3.6	12.1	12.7	11.3	11.0	13.3	14.3
Risk-based capital ratio[1])	–	–	–	–	–	–	–	–
Value added per hour worked (1995 = 100)	98.2	100.0	133.9	132.6	133.5	134.3	137.0	–
Staff costs per employee (1,000 USD)	52.5	69.9	–	–	–	–	–	–
Profit before tax per employee (1,000 USD)	21.6	14.0	44.7	47.4	46.9	59.2	78.6	85.2
Bank concentration			As a percentage of balance sheet total					
5 largest banks	51.9	47.4	46.8	47.0	44.7	–	–	–
Bank density								
Number of institutions	1,981	1,453	1,108	1,006	951	895	384	373
Residents per institution	29,364	40,894	54,796	60,756	64,701	69,198	162,303	168,103
Residents per institution and branch	2,070	2,118	2,221	2,287	2,274	2,291	2,356	2,354
Institutions and branches per 100 km^2	5.2	5.2	5.0	4.9	5.0	5.0	4.9	4.9
Institutions and branches per 100 km^2 populated area	28.7	28.7	27.9	27.3	27.6	27.6	27.0	27.2
Number of ATM[2]) per 1,000 residents	0.25	0.38	0.58	0.60	0.63	0.68	0.70	0.76
Cards with cash function per resident	–	0.41	0.67	0.71	0.74	0.77	0.79	1.31
Cards with debit function per resident	–	0.40	–	–	–	–	–	0.62
Cards with credit function per resident	–	0.01	–	–	–	–	–	0.50
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	4.1	3.3	3.5	3.1	3.2	3.0	2.9	–
Employed persons in banking as percent of total employment	2.4	2.2	1.9	1.9	2.0	2.0	2.0	–
Hours worked in banking as percent of total hours worked	2.3	2.2	1.9	1.9	2.0	2.0	2.0	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	18.8	13.3	19.6	7.7	9.9	20.2	6.4	5.8
Outflows, as a percentage of total direct investment	21.7	12.5	8.7	22.6	29.1	18.4	3.5	4.9
Inward stock, as a percentage of capital and reserves	15.9	17.2	27.3	29.8	30.6	28.1	30.9	–
Outward stock, as a percentage of balance sheet total	0.9	1.5	3.1	3.5	3.2	2.4	2.5	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.6: Structure and performance indicators of the banking sector for Germany

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	2.4	1.3	1.2	1.2	1.2	1.3	1.1	1.1
Interbank deposits	24.4	21.9	21.6	22.7	23.2	23.0	24.0	23.3
Loans	54.5	54.6	48.4	47.6	47.4	47.7	46.0	46.5
Securities	16.3	19.7	23.6	24.0	24.4	24.6	25.4	26.0
Other assets	2.5	2.5	5.2	4.5	3.8	3.5	3.5	3.1
Foreign assets	*19.3*	*17.0*	*28.5*	*31.7*	*30.2*	*30.5*	*33.9*	*36.0*
Liabilities								
Capital and reserves	3.8	4.2	4.0	4.1	4.4	4.5	4.1	4.1
Borrowing from Central bank	4.2	3.0	2.1	1.7	1.8	2.5	2.6	2.8
Interbank deposits	23.7	26.2	28.1	28.4	28.7	27.7	28.0	27.0
Non-bank deposits	52.1	47.1	42.5	42.9	42.7	44.0	44.6	44.7
Bonds	12.4	14.9	17.4	17.6	16.5	15.9	15.2	15.8
Other liabilities	3.8	4.6	6.0	5.3	5.8	5.4	5.5	5.6
Foreign liabilities	*11.4*	*13.4*	*23.5*	*25.1*	*22.4*	*21.6*	*23.9*	*23.7*
Income statement			As a percentage of gross income					
Interest income	280.1	258.0	269.8	270.2	227.6	235.1	237.8	209.4
Interest expenses	206.9	179.0	205.7	205.7	161.2	162.1	158.8	143.6
Fees and commissions receivable	–	18.6	30.2	27.1	24.5	28.6	31.4	27.7
Fees and commissions payable	–	1.9	4.8	4.8	4.5	5.5	6.3	5.7
Other non-interest income (net)	–	4.2	10.4	13.2	13.6	3.9	-4.0	12.2
Performance ratios								
Cost-income ratio	0.65	0.64	0.69	0.70	0.64	0.73	0.74	0.62
Profit before tax as a percentage of balance sheet total	0.48	0.57	0.32	0.21	0.15	-0.01	0.14	0.51
Profit before tax as a percentage of equity	11.9	12.6	7.9	5.1	3.4	-0.1	3.3	12.4
Risk-based capital ratio[1])	–	–	–	–	–	–	–	–
Value added per hour worked (1995 = 100)	–	100.0	130.8	123.4	129.1	136.0	148.0	–
Staff costs per employee (1,000 USD)	37.4	56.6	51.6	51.6	53.7	66.8	74.0	78.9
Profit before tax per employee (1,000 USD)	16.3	32.4	21.7	14.6	11.2	-0.5	14.3	57.2
Bank concentration			As a percentage of balance sheet total					
5 largest banks	17.1	16.7	19.9	20.2	20.5	21.6	–	–
Bank density								
Number of institutions	3,913	3,435	2,575	2,370	2,215	2,076	1,995	1,934
Residents per institution	20,282	23,773	31,918	34,743	37,238	39,750	41,354	42,639
Residents per institution and branch	1,825	1,730	1,961	2,078	2,205	2,312	1,855	1,910
Institutions and branches per 100 km^2	12.2	13.2	11.7	11.1	10.5	10.0	12.5	12.1
Institutions and branches per 100 km^2 populated area	60.9	66.1	58.7	55.5	52.4	50.0	62.3	60.5
Number of ATM[2]) per 1,000 residents	0.14	0.44	0.58	0.60	0.61	0.62	0.64	0.65
Cards with cash function per resident	–	–	1.29	1.52	1.45	1.41	1.39	1.37
Cards with debit function per resident	–	0.77	1.08	1.13	1.14	1.09	1.07	1.11
Cards with credit function per resident	–	0.14	0.21	0.22	0.24	0.24	0.25	0.26
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	3.4	3.3	2.9	2.9	3.2	3.4	3.5	–
Employed persons in banking as percent of total employment	–	2.4	2.2	2.2	2.2	2.2	2.1	–
Hours worked in banking as percent of total hours worked	–	2.5	2.5	2.5	2.5	2.4	2.3	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	74.3	-1.4	2.9	-8.4	25.2	-3.5	-15.5	70.4
Outflows, as a percentage of total direct investment	17.5	10.2	58.4	7.3	51.5	245.0	-30.4	3.8
Inward stock, as a percentage of capital and reserves	9.6	7.4	16.3	12.9	6.3	5.9	5.9	–
Outward stock, as a percentage of balance sheet total	1.1	1.4	1.8	1.9	1.6	1.7	1.5	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) deuomatic teller machines and cash dispensers.

Table B.7: Structure and performance indicators of the banking sector for Greece

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets (commercial banks)								
Cash and balance with Central bank	17.5	21.8	12.0	6.6	2.9	3.1	–	–
Interbank deposits	5.3	11.4	9.4	9.5	11.6	11.7	–	–
Loans	28.5	28.1	43.8	47.7	52.5	57.0	–	–
Securities	38.7	34.8	30.6	31.8	28.9	24.1	–	–
Other assets	10.0	3.9	4.2	4.4	4.1	4.1	–	–
Foreign assets	–	–	–	–	–	–	–	–
Liabilities (commercial banks)								
Capital and reserves	3.9	4.8	8.9	9.3	6.6	6.8	–	–
Borrowing from Central bank	0.4	1.5	0.5	0.0	1.7	2.5	–	–
Interbank deposits	1.3	8.9	7.7	6.4	10.8	11.2	–	–
Non-bank deposits	81.0	73.5	63.6	64.2	62.6	65.1	–	–
Bonds	0.0	0.7	0.1	0.1	0.2	1.7	–	–
Other liabilities	13.3	10.6	19.2	20.0	18.1	12.7	–	–
Foreign liabilities	–	–	–	–	–	–	–	–
Income statement (commercial banks)				As a percentage of gross income				
Interest income	354.8	258.8	174.5	142.7	153.2	129.3	–	–
Interest expenses	310.5	209.4	119.0	78.7	80.6	55.4	–	–
Fees and commissions receivable	–	29.7	19.7	15.4	22.5	21.5	–	–
Fees and commissions payable	–	1.7	4.2	3.9	4.7	4.9	–	–
Other non-interest income (net)	–	22.6	29.0	24.6	9.6	9.5	–	–
Performance ratios (commercial banks)								
Cost-income ratio	0.64	0.64	0.53	0.58	0.68	0.63	–	–
Profit before tax as a percentage of balance sheet total	0.87	1.26	1.86	1.39	0.66	0.87	–	–
Profit before tax as a percentage of equity	20.8	24.4	19.2	14.3	9.8	12.3	–	–
Risk-based capital ratio[1])	–	13.2	14.2	12.5	12.5	12.8	–	–
Value added per hour worked (1995 = 100)	–	100.0	121.0	132.4	129.9	131.5	141.3	–
Staff costs per employee (1,000 USD)	25.2	32.8	34.3	35.7	37.6	46.8	–	–
Profit before tax per employee (1,000 USD)	12.1	21.8	41.4	34.7	18.6	30.7	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	83	76	65	66	–	–	–	–
Bank density								
Number of institutions	–	39	41	58	59	57	60	61
Residents per institution	–	272,677	266,280	188,793	186,231	193,395	184,405	181,685
Residents per institution and branch	–	–	–	3,674	3,534	3,487	3,391	3,128
Institutions and branches per 100 km^2	–	–	–	2.3	2.4	2.4	2.5	2.7
Institutions and branches per 100 km^2 populated area	–	–	–	18.8	19.6	20.0	20.6	22.4
Number of ATM[2]) per 1,000 residents	–	0.13	0.32	0.40	0.46	0.50	0.53	0.56
Cards with cash function per resident	–	0.23	0.54	0.65	0.69	0.71	0.69	0.74
Cards with debit function per resident	–	0.02	0.32	0.41	0.48	0.50	0.48	0.53
Cards with credit function per resident	–	0.10	0.28	0.38	0.47	0.51	0.51	0.55
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	3.8	4.4	4.5	4.1	4.2	4.0	–
Employed persons in banking as percent of total employment	2.1	2.7	2.8	2.8	2.7	2.9	2.8	–
Hours worked in banking as percent of total hours worked	2.1	2.7	2.9	2.8	2.8	3.0	2.9	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	21.9	–	–	55.1	367.5	-59.4	29.7	–
Outflows, as a percentage of total direct investment	–	–	–	-0.2	9.8	219.6	37.4	–
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.8: Structure and performance indicators of the banking sector for Ireland

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	–	0.6	0.7	0.9	0.7	0.8	0.8	0.7
Interbank deposits	–	18.7	16.0	15.5	14.2	15.1	14.0	15.4
Loans	–	55.1	49.1	49.6	49.3	46.7	47.5	45.9
Securities	–	18.7	22.3	23.5	27.7	29.2	29.5	19.4
Other assets	–	6.9	12.0	10.5	8.0	8.2	8.2	18.6
Foreign assets	–	*51.3*	*72.3*	*65.2*	*48.8*	*48.5*	*66.8*	*58.7*
Liabilities								
Capital and reserves	–	6.7	6.3	6.6	5.7	5.2	5.0	4.0
Borrowing from Central bank	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interbank deposits	–	22.6	30.6	31.2	27.6	31.6	29.3	26.2
Non-bank deposits	–	56.2	39.2	38.7	32.8	29.5	28.3	24.2
Bonds	–	7.6	12.2	12.8	24.3	24.0	28.6	26.5
Other liabilities	–	6.9	11.7	10.7	9.7	9.8	8.9	19.2
Foreign liabilities	–	*53.0*	*66.5*	*60.2*	*49.3*	*46.7*	*65.6*	*59.4*
Income statement				As a percentage of gross income				
Interest income	–	180.3	248.7	257.2	216.7	211.0	206.6	225.8
Interest expenses	–	110.1	187.6	191.4	153.8	149.0	147.9	163.5
Fees and commissions receivable	–	24.0	28.9	31.2	27.7	29.5	28.4	25.3
Fees and commissions payable	–	2.3	3.6	4.4	4.8	5.4	4.7	4.1
Other non-interest income (net)	–	8.1	13.5	7.3	14.2	13.8	17.6	16.5
Performance ratios								
Cost-income ratio	–	0.59	0.50	0.56	0.51	0.51	0.50	0.47
Profit before tax as a percentage of balance sheet total	–	1.50	1.21	0.87	1.00	0.84	0.90	0.81
Profit before tax as a percentage of equity	–	20.2	17.9	12.3	15.6	15.2	16.6	17.2
Risk-based capital ratio[1])	–	13.9	13.6	13.8	15.6	15.0	14.5	14.0
Value added per hour worked (1995 = 100)	–	100.0	104.0	111.6	121.4	132.0	125.1	–
Staff costs per employee (1,000 USD)	–	40.4	65.0	59.6	77.2	88.0	116.1	129.0
Profit before tax per employee (1,000 USD)	–	41.0	110.5	76.1	124.3	153.4	215.6	244.4
Bank concentration				As a percentage of balance sheet total				
5 largest banks	44	44	41	43	–	–	–	–
Bank density								
Number of institutions	–	44	54	55	48	42	42	42
Residents per institution	–	81,848	70,369	70,160	81,798	95,024	96,648	98,779
Residents per institution and branch	–	2,680	4,068	3,765	4,031	4,131	4,268	4,358
Institutions and branches per 100 km^2	–	1.9	1.3	1.5	1.4	1.4	1.4	1.4
Institutions and branches per 100 km^2 populated area	–	13.7	9.5	10.4	9.9	9.8	9.7	9.7
Number of ATM[2]) per 1,000 residents	–	0.25	0.34	0.35	0.36	0.57	0.72	0.71
Cards with cash function per resident	–	1.00	0.81	0.83	0.86	0.98	1.02	1.06
Cards with debit function per resident	–	0.01	0.21	0.23	0.27	0.27	0.32	0.31
Cards with credit function per resident	–	0.33	0.36	0.45	0.48	0.50	0.49	0.52
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	4.9	5.0	5.3	5.6	6.6	6.6	–
Employed persons in banking as percent of total employment	–	2.8	3.1	3.1	3.0	3.2	3.4	–
Hours worked in banking as percent of total hours worked	–	2.8	3.2	3.1	3.1	3.3	3.5	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	–	–	–	27.0	135.2	94.5
Outflows, as a percentage of total direct investment	–	–	–	–	–	22.1	13.1	28.8
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.9: Structure and performance indicators of the banking sector for Italy

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	7.2	3.0	0.7	1.4	0.6	0.6	0.6	0.6
Interbank deposits	5.8	6.4	8.9	7.9	10.8	11.1	11.1	10.8
Loans	44.7	41.8	45.2	47.2	45.6	45.8	45.0	44.4
Securities	15.1	16.6	12.5	11.6	10.1	10.3	9.5	10.1
Other assets	27.1	32.2	32.6	31.8	32.9	32.3	33.8	34.1
Foreign assets	*6.6*	*9.0*	*9.1*	*8.1*	*9.0*	*8.4*	*9.0*	*8.8*
Liabilities								
Capital and reserves	5.8	6.8	6.8	6.8	6.8	6.9	6.7	7.1
Borrowing from Central bank	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Interbank deposits	5.9	6.5	8.4	7.6	10.1	10.6	10.6	10.3
Non-bank deposits	44.9	37.5	26.7	27.3	26.4	26.2	25.7	25.1
Bonds	7.7	8.1	14.3	15.1	15.0	15.5	16.1	16.1
Other liabilities	35.4	40.9	43.7	43.2	41.6	40.8	40.9	41.3
Foreign liabilities	*13.5*	*13.5*	*15.5*	*15.3*	*13.1*	*13.3*	*13.0*	*13.8*
Income statement				As a percentage of gross income				
Interest income	220.9	233.9	135.1	143.8	133.6	120.5	118.1	121.3
Interest expenses	143.0	153.7	71.1	73.6	61.8	51.0	49.6	53.3
Fees and commissions receivable	9.4	10.6	26.8	23.4	23.7	23.7	24.8	26.4
Fees and commissions payable	4.7	2.7	4.7	5.0	6.0	6.3	6.5	7.2
Other non-interest income (net)	17.3	11.8	14.0	11.3	10.5	13.0	13.1	12.9
Performance ratios								
Cost-income ratio	0.62	0.68	0.56	0.55	0.60	0.61	0.61	0.60
Profit before tax as a percentage of balance sheet total	1.04	0.42	1.27	0.99	0.80	0.73	0.89	0.89
Profit before tax as a percentage of equity	16.4	5.9	17.6	14.0	10.9	10.1	12.7	11.8
Risk-based capital ratio[1])	–	12.6	13.6	14.0	14.7	15.3	15.4	15.5
Value added per hour worked (1995 = 100)	–	100.0	113.2	112.7	112.3	112.8	117.3	–
Staff costs per employee (1,000 USD)	68.8	67.9	56.0	55.0	61.1	77.7	84.6	87.6
Profit before tax per employee (1,000 USD)	40.4	18.2	60.7	48.6	44.0	52.9	76.2	83.7
Bank concentration				As a percentage of balance sheet total				
5 largest banks	24	26	23	29	–	–	–	–
Bank density								
Number of institutions	1,138	959	827	820	794	779	774	773
Residents per institution	49,841	59,275	68,854	69,486	71,987	73,947	75,162	75,818
Residents per institution and branch	3,199	2,336	1,962	1,893	1,867	1,844	1,835	1,818
Institutions and branches per 100 km^2	5.9	8.1	9.6	10.0	10.2	10.4	10.5	10.7
Institutions and branches per 100 km^2 populated area	28.0	38.5	45.9	47.6	48.4	49.4	50.1	51.0
Number of ATM[2]) per 1,000 residents	0.17	0.38	0.56	0.64	0.69	0.68	0.68	0.69
Cards with cash function per resident	–	0.24	0.37	0.44	0.49	0.52	0.55	0.60
Cards with debit function per resident	–	0.24	0.37	0.44	0.48	0.51	0.52	0.54
Cards with credit function per resident	–	0.12	0.30	0.35	0.38	0.45	0.46	0.49
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	3.6	3.7	3.4	3.2	3.3	3.3	3.3
Employed persons in banking as percent of total employment	–	2.4	2.2	2.2	2.1	2.1	2.0	2.0
Hours worked in banking as percent of total hours worked	–	2.5	2.4	2.4	2.3	2.3	2.2	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	94.1	17.6	28.7	11.8	27.5	17.0	23.4	–
Outflows, as a percentage of total direct investment	62.3	56.5	23.0	11.4	23.4	72.1	13.7	–
Inward stock, as a percentage of capital and reserves	26.1	22.5	31.5	28.0	23.6	26.6	28.0	–
Outward stock, as a percentage of balance sheet total	1.6	2.4	4.1	3.9	3.3	3.4	3.3	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.10: Structure and performance indicators of the banking sector for Luxembourg

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets (commercial banks)								
Cash and balance with Central bank	0.2	0.2	1.0	1.0	1.1	1.1	–	–
Interbank deposits	60.4	58.3	48.1	47.8	51.3	51.8	–	–
Loans	24.0	18.9	20.3	20.9	19.1	17.9	–	–
Securities	7.6	18.9	24.1	23.4	25.4	26.2	–	–
Other assets	7.8	3.7	6.5	6.9	3.2	2.9	–	–
Foreign assets	*88.5*	*77.5*	*84.7*	*82.2*	*86.0*	*86.9*	–	–
Liabilities (commercial banks)								
Capital and reserves	3.5	2.5	2.7	2.7	4.2	4.3	–	–
Borrowing from Central bank	–	–	–	–	3.5	3.6	–	–
Interbank deposits	47.0	46.9	44.8	46.4	43.9	43.4	–	–
Non-bank deposits	40.2	39.3	35.0	32.1	31.8	33.3	–	–
Bonds	4.5	6.2	9.2	10.1	12.0	11.3	–	–
Other liabilities	4.8	5.1	8.3	8.6	4.7	4.1	–	–
Foreign liabilities	*82.2*	*69.1*	*70.0*	*68.5*	*70.4*	*70.9*	–	–
Income statement (commercial banks)				As a percentage of gross income				
Interest income	818.0	698.1	643.1	647.7	523.3	458.3	–	–
Interest expenses	753.0	632.6	597.0	593.0	471.5	404.3	–	–
Fees and commissions receivable	–	–	–	–	46.2	47.1	–	–
Fees and commissions payable	–	–	–	–	14.0	13.8	–	–
Non-interest income (net)	–	–	–	–	16.0	12.8	–	–
Performance ratios (commercial banks)								
Cost-income ratio	0.37	0.47	0.45	0.47	0.40	0.41	–	–
Profit before tax as a percentage of balance sheet total	0.22	0.51	0.56	0.53	0.52	0.54	–	–
Profit before tax as a percentage of equity	6.2	19.9	20.5	18.5	12.4	12.8	–	–
Risk-based capital ratio[1])	–	–	–	–	–	–	–	–
Value added per hour worked (1995 = 100)	–	100.0	103.0	94.3	92.3	89.5	95.5	–
Staff costs per employee (1,000 USD)	51.9	86.0	68.6	67.5	75.6	89.8	–	–
Profit before tax per employee (1,000 USD)	49.6	170.0	140.9	135.7	137.5	180.0	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	–	21	26	28	–	–	–	–
Bank density								
Number of institutions	177	220	202	189	177	169	162	155
Residents per institution	2,158	1,862	2,171	2,336	2,521	2,663	2,798	2,950
Residents per institution and branch	806	711	–	–	2,300	2,419	–	–
Institutions and branches per 100 km^2	18.3	22.3	–	–	7.5	7.2	–	–
Institutions and branches per 100 km^2 populated area	53.9	65.5	–	–	22.1	21.2	–	–
Number of ATM[2]) per 1,000 residents	–	0.46	0.75	0.82	0.85	0.87	0.88	0.90
Cards with cash function per resident	–	1.03	1.35	1.53	1.61	1.69	1.61	1.68
Cards with debit function per resident	–	0.64	0.69	0.80	0.88	0.94	0.87	0.88
Cards with credit function per resident	–	0.55	0.65	0.72	0.74	0.75	0.73	0.80
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	19.1	18.6	14.7	14.7	15.9	14.7	–
Employed persons in banking as percent of total employment	–	9.3	9.3	9.4	9.1	8.8	8.5	–
Hours worked in banking as percent of total hours worked	–	9.1	9.3	9.4	9.2	8.7	8.4	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Outflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) lux_comatic teller machines and cash dispensers.

Table B.11: Structure and performance indicators of the banking sector for the Netherlands

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	2.3	0.5	1.0	1.9	1.4	1.8	–	–
Interbank deposits	23.3	19.5	11.5	11.4	11.0	12.7	–	–
Loans	61.1	60.5	59.5	58.7	60.0	57.6	–	–
Securities	10.6	15.3	23.3	23.2	23.2	23.5	–	–
Other assets	2.7	4.3	4.7	4.8	4.4	4.4	–	–
Foreign assets	*28.0*	–	–	–	–	–	–	–
Liabilities								
Capital and reserves	4.0	4.6	4.0	3.8	3.7	3.7	–	–
Borrowing from Central bank	0.8	0.7	0.5	0.2	0.5	0.8	–	–
Interbank deposits	23.6	22.1	22.4	21.6	20.2	20.5	–	–
Non-bank deposits	45.5	52.2	45.1	46.4	46.9	47.0	–	–
Bonds	14.9	12.8	16.3	17.3	18.3	18.7	–	–
Other liabilities	11.1	7.7	11.7	10.6	10.3	9.3	–	–
Foreign liabilities	*23.1*	–	–	–	–	–	–	–
Income statement				As a percentage of gross income				
Interest income	–	248.2	225.1	218.1	199.0	179.0	–	–
Interest expenses	–	181.5	172.2	163.5	138.1	118.2	–	–
Fees and commissions receivable	–	–	32.9	28.5	28.5	26.2	–	–
Fees and commissions payable	–	–	3.9	3.4	4.5	4.3	–	–
Other non-interest income (net)	–	–	18.0	20.4	15.1	17.2	–	–
Performance ratios								
Cost-income ratio	0.69	0.67	0.71	0.70	0.71	0.67	–	–
Profit before tax as a percentage of balance sheet total	0.55	0.75	0.75	0.61	0.43	0.62	–	–
Profit before tax as a percentage of equity	12.3	15.8	17.2	15.2	11.5	16.0	–	–
Risk-based capital ratio[1])	11.7	11.9	10.7	11.0	11.5	11.5	–	–
Value added per hour worked (1995 = 100)	83.2	100.0	107.7	109.4	116.4	127.2	131.8	–
Staff costs per employee (1,000 USD)	45.5	84.1	104.6	107.7	116.3	–	–	–
Profit before tax per employee (1,000 USD)	24.7	60.8	67.0	60.3	49.2	–	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	73.7	76.1	81.1	82.5	82.7	84.1	–	–
Bank density								
Number of institutions	180	174	87	86	88	86	–	–
Residents per institution	83,039	88,851	183,011	186,547	183,489	188,640	–	–
Residents per institution and branch	1,829	2,240	3,040	3,338	3,706	–	–	–
Institutions and branches per 100 km^2	19.5	16.5	12.5	11.5	10.4	–	–	–
Institutions and branches per 100 km^2 populated area	50.1	42.3	32.1	29.4	26.7	–	–	–
Number of ATM[2]) per 1,000 residents	0.18	0.36	0.43	0.45	0.47	0.47	0.48	0.46
Cards with cash function per resident	–	1.06	1.63	1.94	1.97	2.04	2.06	1.95
Cards with debit function per resident	–	0.10	1.32	1.63	1.65	1.69	1.71	1.63
Cards with credit function per resident	–	–	0.31	0.31	0.32	0.35	0.36	0.32
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	3.3	3.7	3.4	3.4	4.0	4.5	4.6	–
Employed persons in banking as percent of total employment	2.4	2.2	2.4	2.4	2.3	2.2	2.2	–
Hours worked in banking as percent of total hours worked	2.7	2.4	2.6	2.5	2.5	2.4	2.4	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	43.8	49.9	35.0	44.5	58.4	44.4	52.6	–
Outflows, as a percentage of total direct investment	44.1	47.7	12.2	19.4	19.8	36.2	55.9	–
Inward stock, as a percentage of capital and reserves	78.4	64.0	97.8	131.3	142.8	83.5	–	–
Outward stock, as a percentage of balance sheet total	5.6	5.2	3.7	3.9	4.0	5.7	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.12: Structure and performance indicators of the banking sector for Portugal

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets (commercial banks)								
Cash and balance with Central bank	12.1	6.7	3.2	3.1	2.6	4.5	–	–
Interbank deposits	19.8	23.7	22.6	22.4	21.4	21.4	–	–
Loans	40.5	33.3	53.5	55.3	57.9	54.9	–	–
Securities	18.9	23.2	15.2	13.6	12.5	14.0	–	–
Other assets	8.6	13.1	5.5	5.6	5.6	5.1	–	–
Foreign assets	*6.9*	*21.2*	*21.4*	*21.1*	*18.8*	*20.6*	–	–
Liabilities (commercial banks)								
Capital and reserves	11.0	8.2	11.3	11.8	12.3	12.2	–	–
Borrowing from Central bank	0.4	1.9	0.7	0.2	0.0	0.1	–	–
Interbank deposits	10.5	23.9	30.6	29.9	29.3	28.5	–	–
Non-bank deposits	68.4	52.5	46.7	45.5	44.4	42.6	–	–
Bonds	1.1	1.0	7.5	9.6	11.0	13.6	–	–
Other liabilities	8.6	12.5	3.2	3.0	3.0	3.0	–	–
Foreign liabilities	*6.6*	*19.5*	*30.9*	*34.0*	*32.7*	*33.5*	–	–
Income statement (commercial banks)	As a percentage of gross income							
Interest income	228.8	284.6	224.7	240.8	213.0	176.9	–	–
Interest expenses	147.6	208.5	157.9	170.6	141.7	115.7	–	–
Fees and commissions receivable	–	11.7	21.2	20.1	22.9	23.1	–	–
Fees and commissions payable	–	2.0	3.5	3.6	4.2	3.9	–	–
Other non-interest income (net)	–	14.2	15.5	13.3	9.9	19.6	–	–
Performance ratios (commercial banks)								
Cost-income ratio	0.42	0.65	0.59	0.57	0.61	0.54	–	–
Profit before tax as a percentage of balance sheet total	–	0.65	1.03	0.78	0.67	0.70	–	–
Profit before tax as a percentage of equity	12.5	7.7	8.8	6.3	5.4	5.6	–	–
Risk-based capital ratio[1])	–	11.3	10.7	11.8	12.0	12.0	–	–
Value added per hour worked (1995 = 100)	–	100.0	190.3	214.4	230.8	265.0	239.9	–
Staff costs per employee (1,000 USD)	20.5	36.0	36.2	34.3	37.4	46.3	–	–
Profit before tax per employee (1,000 USD)	19.2	21.6	44.7	36.6	34.7	46.7	–	–
Bank concentration	As a percentage of balance sheet total							
5 largest banks	58	74	59	60	–	–	–	–
Bank density								
Number of institutions	–	285	216	–	206	202	198	–
Residents per institution	–	35,194	47,342	–	50,332	51,689	53,040	–
Residents per institution and branch	–	–	–	–	1,870	1,875	1,902	–
Institutions and branches per 100 km^2	–	–	–	–	6.0	6.0	6.0	–
Institutions and branches per 100 km^2 populated area	–	–	–	–	30.1	30.2	29.9	–
Number of ATM[2]) per 1,000 residents	–	0.37	0.95	1.02	1.07	1.15	1.20	1.31
Cards with cash function per resident	–	0.62	1.15	1.29	1.41	1.58	1.50	1.55
Cards with debit function per resident	–	0.62	1.15	1.29	1.41	1.41	1.50	1.55
Cards with credit function per resident	–	0.13	0.30	0.32	0.37	0.45	0.49	0.58
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	5.2	5.2	5.4	5.2	5.5	5.5	–
Employed persons in banking as percent of total employment	–	1.9	1.6	1.5	1.5	1.4	1.6	–
Hours worked in banking as percent of total hours worked	–	1.7	1.5	1.4	1.4	1.3	1.4	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	65.5	-54.7	36.0	6.8	44.1	-10.2	3.9	43.1
Outflows, as a percentage of total direct investment	62.4	53.3	15.1	6.8	-511.4	-1.7	6.0	84.6
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.13: Structure and performance indicators of the banking sector for Spain

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	7.2	3.1	1.3	1.7	1.2	1.5	1.2	1.1
Interbank deposits	18.7	27.4	18.1	17.1	16.8	15.5	15.1	14.5
Loans	44.9	43.6	53.5	53.7	55.6	56.6	58.0	58.9
Securities	20.8	19.3	19.9	20.6	20.0	20.8	20.3	19.0
Other assets	8.5	6.6	7.3	6.9	6.3	5.7	5.4	6.5
Foreign assets	*5.4*	*14.7*	*13.6*	*13.9*	*14.2*	*13.8*	*13.9*	*15.1*
Liabilities								
Capital and reserves	8.3	8.0	8.3	8.3	8.5	8.1	8.5	7.7
Borrowing from Central bank	2.3	5.5	1.5	0.9	1.4	2.3	1.4	1.6
Interbank deposits	16.0	23.0	23.0	21.3	21.2	21.8	22.1	21.9
Non-bank deposits	63.6	56.1	57.1	59.0	58.4	55.7	52.9	51.2
Bonds	1.1	2.3	3.7	4.2	4.9	7.1	9.9	11.5
Other liabilities	8.8	5.1	6.4	6.3	5.7	5.1	5.1	6.2
Foreign liabilities	*9.2*	*11.0*	*21.6*	*21.4*	*21.2*	*22.2*	–	–
Income statement			As a percentage of gross income					
Interest income	238.0	243.5	146.0	160.7	142.7	131.2	128.1	138.8
Interest expenses	156.2	166.6	81.8	88.4	72.9	61.5	59.2	72.0
Fees and commissions receivable	14.5	18.5	25.3	23.8	24.6	25.4	26.8	28.7
Fees and commissions payable	4.1	3.5	4.3	4.3	4.6	4.6	5.0	4.9
Other non-interest income (net)	7.9	8.1	14.7	8.1	10.1	9.6	9.3	9.4
Performance ratios								
Cost-income ratio	0.61	0.63	0.61	0.56	0.57	0.54	0.58	0.51
Profit before tax as a percentage of balance sheet total	1.31	0.82	0.96	0.86	0.82	0.86	0.82	0.86
Profit before tax as a percentage of equity	15.0	9.9	11.0	9.9	9.3	10.0	9.0	10.1
Risk-based capital ratio[1])	–	–	11.6	12.2	12.2	12.1	12.7	12.9
Value added per hour worked (1995 = 100)	116.9	100.0	109.9	116.9	116.5	110.0	122.2	–
Staff costs per employee (1,000 USD)	47.8	52.7	51.4	48.7	55.4	64.7	–	–
Profit before tax per employee (1,000 USD)	34.1	31.1	37.8	36.4	40.3	55.4	–	–
Bank concentration			As a percentage of balance sheet total					
5 largest banks	38.3	48.2	0.0	0.0	–	55.0	–	–
Bank density								
Number of institutions	327	318	281	281	275	269	..	..
Residents per institution	119,270	123,862	143,289	144,916	150,233	156,151	–	–
Residents per institution and branch	1,097	1,077	1,026	1,045	1,061	1,059	–	–
Institutions and branches per 100 km^2	7.0	7.2	7.8	7.7	7.7	7.8	–	–
Institutions and branches per 100 km^2 populated area	87.9	90.3	97.0	96.2	96.2	98.0	–	–
Number of ATM[2]) per 1,000 residents	–	0.68	1.11	1.15	1.21	1.24	1.30	1.30
Cards with cash function per resident	–	0.00	1.16	1.27	1.38	1.39	1.48	1.53
Cards with debit function per resident	–	0.00	0.74	0.81	0.79	0.79	0.77	0.74
Cards with credit function per resident	–	0.00	0.40	0.44	0.51	0.57	0.68	0.77
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	4.5	3.8	3.7	3.9	3.9	3.8	3.6	–
Employed persons in banking as percent of total employment	2.3	2.1	1.7	1.7	1.6	1.7	1.6	–
Hours worked in banking as percent of total hours worked	2.4	2.2	1.8	1.8	1.7	1.8	1.8	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	59.0	15.6	1.8	0.8	-0.5	3.2	-2.1	–
Outflows, as a percentage of total direct investment	87.5	43.6	25.1	11.8	2.9	-1.7	33.2	–
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.14: Structure and performance indicators of the banking sector for Sweden

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets (commercial banks)								
Cash and balance with Central bank	2.3	0.6	0.5	0.8	0.7	0.6	–	–
Interbank deposits	18.8	22.1	30.8	30.4	27.6	28.4	–	–
Loans	53.5	43.6	38.8	39.5	39.4	38.2	–	–
Securities	11.7	28.5	19.3	19.2	19.7	21.1	–	–
Other assets	13.7	5.1	10.6	10.1	12.6	11.6	–	–
Foreign assets	*8.2*	*33.0*	*34.5*	*36.6*	*39.1*	*38.6*	–	–
Liabilities (commercial banks)								
Capital and reserves	5.6	5.9	5.3	5.6	5.1	5.7	–	–
Borrowing from Central bank	1.1	0.0	1.1	1.8	0.6	0.8	–	–
Interbank deposits	41.7	23.4	24.0	24.7	25.0	22.5	–	–
Non-bank deposits	34.9	51.7	39.1	38.1	38.7	40.9	–	–
Bonds	6.8	6.1	16.2	17.2	16.0	14.9	–	–
Other liabilities	9.9	12.9	14.3	12.6	14.6	15.2	–	–
Foreign liabilities	*8.2*	*41.9*	*49.2*	*43.2*	*47.0*	*42.4*	–	–
Income statement (commercial banks)			As a percentage of gross income					
Interest income	385.6	205.1	185.3	163.4	179.4	139.0	–	–
Interest expenses	311.8	140.8	144.6	121.0	124.0	86.0	–	–
Fees and commissions receivable	–	–	35.6	28.7	35.0	33.0	–	–
Fees and commissions payable	–	–	5.3	5.2	6.7	6.5	–	–
Other non-interest income (net)	–	–	29.0	34.1	16.3	20.6	–	–
Performance ratios (commercial banks)								
Cost-income ratio	0.78	0.72	0.67	0.64	0.71	0.64	–	–
Profit before tax as a percentage of balance sheet total	0.22	1.33	1.11	1.07	0.54	0.73	–	–
Profit before tax as a percentage of equity	3.6	22.1	19.5	19.5	10.3	13.1	–	–
Risk-based capital ratio[1])	–	19.2	18.0	18.4	17.3	18.8	–	–
Value added per hour worked (1995 = 100)	–	100.0	130.2	132.2	145.9	159.4	165.2	–
Staff costs per employee (1,000 USD)	56.1	59.6	64.0	57.4	63.9	81.2	–	–
Profit before tax per employee (1,000 USD)	17.6	68.3	79.7	80.6	42.9	75.3	–	–
Bank concentration			As a percentage of balance sheet total					
5 largest banks	70.0	86.0	88.6	87.5	90.5	89.9	–	–
Bank density								
Number of institutions	–	239	213	–	210	208	203	191
Residents per institution	–	36,933	41,653	–	42,500	43,067	44,305	47,279
Residents per institution and branch	–	–	–	–	3,984	4,330	4,413	4,466
Institutions and branches per 100 km^2	–	–	–	–	0.5	0.5	0.5	0.4
Institutions and branches per 100 km^2 populated area	–	–	–	–	2.1	1.9	1.9	1.9
Number of ATM[2]) per 1,000 residents	0.23	0.27	0.29	0.29	0.30	0.30	0.30	0.31
Cards with cash function per resident	–	0.70	0.55	0.54	0.54	0.58	0.92	0.97
Cards with debit function per resident	–	0.40	0.52	0.54	0.55	0.62	0.70	0.76
Cards with credit function per resident	–	0.14	0.32	0.26	0.29	0.32	0.17	0.20
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	3.5	3.1	3.0	2.7	2.6	3.1	–
Employed persons in banking as percent of total employment	–	1.4	1.4	1.4	1.4	1.3	1.3	–
Hours worked in banking as percent of total hours worked	–	1.4	1.4	1.4	1.3	1.2	1.2	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	9.8	-0.4	6.7	10.8	16.4	-162.2	–	–
Outflows, as a percentage of total direct investment	25.6	1.7	28.9	7.5	25.4	23.0	–	–
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.15: Structure and performance indicators of the banking sector for the United Kingdom

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets (commercial banks)								
Cash and balance with Central bank	1.4	0.7	0.6	0.5	0.5	0.5	–	–
Interbank deposits	14.6	13.8	9.1	9.0	8.7	9.3	–	–
Loans	66.1	52.1	53.9	52.5	54.8	56.1	–	–
Securities	8.4	18.5	19.7	21.1	20.5	19.1	–	–
Other assets	9.4	15.0	16.8	16.8	15.4	15.0	–	–
Foreign assets	–	–	–	–	–	–	–	–
Liabilities (commercial banks)								
Capital and reserves	4.8	3.9	5.2	5.1	4.7	4.6	–	–
Borrowing from Central bank	0.0	0.0	0.0	0.0	0.0	0.0	–	–
Interbank deposits	–	16.3	12.2	12.3	13.7	13.6	–	–
Non-bank deposits	87.9	52.2	49.6	48.3	47.4	47.3	–	–
Bonds	2.9	11.2	15.8	16.9	17.2	17.0	–	–
Other liabilities	4.4	16.5	17.3	17.4	17.1	17.5	–	–
Foreign liabilities	–	–	–	–	–	–	–	–
Income statement (commercial banks)	As a percentage of gross income							
Interest income	260.8	157.7	166.1	151.6	130.2	118.2	–	–
Interest expenses	199.6	100.4	109.3	95.2	73.3	64.5	–	–
Fees and commissions receivable	–	34.5	34.2	34.6	35.1	34.8	–	–
Fees and commissions payable	–	4.0	5.9	6.4	6.7	7.4	–	–
Other non-interest income (net)	–	12.2	14.8	15.4	14.7	19.0	–	–
Performance ratios (commercial banks)								
Cost-income ratio	0.66	0.64	0.56	0.57	0.61	0.57	–	–
Profit before tax as a percentage of balance sheet total	0.72	1.17	1.30	1.09	0.86	1.04	–	–
Profit before tax as a percentage of equity	14.4	28.6	21.5	20.1	17.5	21.7	–	–
Risk-based capital ratio[1])	–	10.9	11.2	11.2	11.2	11.7	–	–
Value added per hour worked (1995 = 100)	96.1	100.0	129.9	138.1	148.2	153.8	167.6	–
Staff costs per employee (1,000 USD)	39.3	45.7	48.8	48.9	54.6	64.3	–	–
Profit before tax per employee (1,000 USD)	15.3	36.9	67.1	60.5	53.5	75.2	–	–
Bank concentration	As a percentage of balance sheet total							
5 largest banks	49.2	–	–	–	41.0	–	–	–
Bank density								
Number of institutions	–	560	478	–	444	421	407	394
Residents per institution	–	103,616	123,192	–	133,608	141,458	147,012	152,838
Residents per institution and branch	–	–	–	–	3,945	4,198	4,304	4,397
Institutions and branches per 100 km^2	–	–	–	–	6.2	5.9	5.8	5.7
Institutions and branches per 100 km^2 populated area	–	–	–	–	32.7	30.9	30.3	29.8
Number of ATM[2]) per 1,000 residents	0.30	0.36	0.56	0.62	0.69	0.78	0.91	0.97
Cards with cash function per resident	–	1.44	2.05	2.24	2.40	2.66	2.75	2.73
Cards with debit function per resident	–	0.49	0.84	0.92	1.00	1.06	1.10	1.11
Cards with credit function per resident	–	0.53	0.80	0.87	0.99	1.12	1.17	1.16
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	4.1	4.0	3.4	3.4	4.6	5.0	5.6	–
Employed persons in banking as percent of total employment	2.5	2.4	2.3	2.2	2.2	2.2	2.3	–
Hours worked in banking as percent of total hours worked	2.5	2.4	2.3	2.3	2.2	2.2	2.3	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	23.4	29.6	17.7	37.6	18.2	5.1	42.1	–
Outflows, as a percentage of total direct investment	4.7	20.2	9.1	19.6	20.2	40.4	28.7	–
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.16: Structure and performance indicators of the banking sector for Iceland

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets (commercial banks and savings banks)								
Cash and balance with Central bank	7.1	4.0	3.1	2.2	2.3	0.9	–	–
Interbank deposits	3.0	5.7	10.9	11.7	12.2	13.7	–	–
Loans	74.4	75.1	68.9	68.8	64.1	62.3	–	–
Securities	10.6	10.2	13.5	14.7	19.1	21.0	–	–
Other assets	5.0	5.0	3.7	2.6	2.4	2.1	–	–
Foreign assets	*2.1*	*2.0*	*2.6*	*3.3*	*9.3*	*18.6*	–	–
Liabilities (commercial banks and savings banks)								
Capital and reserves	7.6	8.0	6.4	6.7	7.8	7.9	–	–
Borrowing from Central bank	1.7	1.8	4.3	4.9	5.9	1.6	–	–
Interbank deposits	1.0	3.1	3.7	4.0	3.6	3.7	–	–
Non-bank deposits	58.4	62.4	33.5	32.9	32.9	30.7	–	–
Bonds	8.2	8.9	19.6	19.5	18.8	36.8	–	–
Other liabilities	23.1	15.8	32.5	32.0	31.0	19.4	–	–
Foreign liabilities	*18.3*	*10.6*	*40.4*	*41.0*	*38.9*	*46.8*	–	–
Income statement (commercial banks and savings banks)			As a percentage of gross income					
Interest income	197.3	138.2	211.2	258.8	158.4	119.8	–	–
Interest expenses	125.9	69.9	149.6	184.2	106.3	73.5	–	–
Fees and commissions receivable	23.7	26.1	27.9	31.9	29.3	26.5	–	–
Fees and commissions payable	0.0	1.3	6.5	5.8	4.7	4.9	–	–
Other non-interest income (net)	4.9	6.9	17.0	-0.7	23.3	32.1	–	–
Performance ratios (commercial banks and savings banks)								
Cost-income ratio	0.74	0.73	0.63	0.63	0.57	0.50	–	–
Profit before tax as a percentage of balance sheet total	0.63	0.70	0.96	0.67	1.32	1.64	–	–
Profit before tax as a percentage of equity	8.0	8.6	12.7	9.2	15.6	18.3	–	–
Risk-based capital ratio[1])	–	11.5	10.4	12.5	14.0	14.4	–	–
Value added per hour worked (1995 = 100)	–	–	–	–	–	–	–	–
Staff costs per employee (1,000 USD)	33.5	38.7	47.8	40.4	52.8	75.0	–	–
Profit before tax per employee (1,000 USD)	7.9	10.7	29.7	19.6	46.2	88.0	–	–
Bank concentration			As a percentage of balance sheet total					
5 largest banks	–	–	–	–	–	–	–	–
Bank density								
Number of institutions	–	42	38	37	35	–	–	–
Residents per institution	–	6,367	7,400	7,705	8,217	–	–	–
Residents per institution and branch	–	1,183	1,465	1,485	1,546	–	–	–
Institutions and branches per 100 km^2	–	0.2	0.2	0.2	0.2	–	–	–
Institutions and branches per 100 km^2 populated area	–	0.3	0.3	0.3	0.3	–	–	–
Number of ATM[2]) per 1,000 residents	–	–	–	0.80	–	–	–	–
Cards with cash function per resident	–	–	–	–	–	–	–	–
Cards with debit function per resident	–	–	1.07	1.13	1.15	1.10	1.20	1.35
Cards with credit function per resident	–	–	0.72	0.71	0.71	0.74	0.80	0.94
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	–	–	–	–	–	–	–
Hours worked in banking as percent of total hours worked	–	–	–	–	–	–	–	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	-4.5	8.3	3.5	14.5	7.7	38.3	0.2	61.0
Outflows, as a percentage of total direct investment	–	–	20.3	7.0	26.9	21.7	67.3	21.3
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.17: Structure and performance indicators of the banking sector for Norway

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	0.5	0.8	2.1	2.0	4.0	1.8	–	–
Interbank deposits	3.4	3.1	4.9	4.0	2.9	4.5	–	–
Loans	77.2	78.1	79.0	79.9	79.1	78.2	–	–
Securities	13.7	13.7	8.7	8.9	8.4	8.3	–	–
Other assets	5.1	4.4	5.3	5.1	5.6	7.2	–	–
Foreign assets	*7.7*	*6.7*	*10.3*	*9.5*	*8.0*	*11.2*	–	–
Liabilities								
Capital and reserves	3.9	7.3	7.0	6.8	6.3	6.0	–	–
Borrowing from Central bank	9.1	1.5	1.6	1.1	0.1	0.7	–	–
Interbank deposits	12.2	5.4	10.8	10.4	12.5	12.2	–	–
Non-bank deposits	60.6	70.2	53.0	53.7	53.7	50.3	–	–
Bonds	8.2	8.5	15.9	16.9	15.7	18.4	–	–
Other liabilities	6.0	7.1	11.7	11.2	11.7	12.3	–	–
Foreign liabilities	*21.0*	*14.4*	*24.1*	*24.2*	*23.4*	*27.2*	–	–
Income statement				As a percentage of gross income				
Interest income	295.7	172.8	222.9	251.9	254.5	205.6	–	–
Interest expenses	216.0	98.9	151.6	177.8	175.4	130.9	–	–
Fees and commissions receivable	12.7	17.5	20.4	21.3	22.5	22.5	–	–
Fees and commissions payable	0.0	0.3	3.7	4.7	5.3	5.4	–	–
Other non-interest income (net)	7.6	9.0	12.0	9.3	3.7	8.1	–	–
Performance ratios								
Cost-income ratio	0.71	0.69	0.60	0.61	0.64	0.60	–	–
Profit before tax as a percentage of balance sheet total	-0.66	1.44	1.40	0.94	0.54	0.74	–	–
Profit before tax as a percentage of equity	-17.7	19.6	18.9	13.5	8.2	11.8	–	–
Risk-based capital ratio[1])	–	13.4	12.1	12.6	12.0	12.4	–	–
Value added per hour worked (1995 = 100)	–	–	–	–	–	–	–	–
Staff costs per employee (1,000 USD)	44.1	57.6	63.9	66.4	76.2	94.1	–	–
Profit before tax per employee (1,000 USD)	-21.7	64.1	87.5	63.9	44.2	78.9	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	67.6	50.2	60.5	59.6	58.9	59.7	–	–
Bank density								
Number of institutions	164	153	152	151	152	151	–	–
Residents per institution	25,860	28,484	29,546	29,887	29,862	30,232	–	–
Residents per institution and branch	2,164	2,496	3,152	2,929	3,256	3,284	–	–
Institutions and branches per 100 km^2	0.6	0.5	0.4	0.5	0.4	0.4	–	–
Institutions and branches per 100 km^2 populated area	0.9	0.8	0.6	0.7	0.6	0.6	–	–
Number of ATM[2]) per 1,000 residents	–	–	0.47	0.48	0.48	0.49	0.47	0.47
Cards with cash function per resident	–	–	–	–	–	–	–	–
Cards with debit function per resident	–	–	1.65	0.18	1.81	1.88	2.03	1.97
Cards with credit function per resident	–	–	0.27	0.36	0.42	0.50	0.55	0.63
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	–	–	–	–	–	–	–
Hours worked in banking as percent of total hours worked	–	–	–	–	–	–	–	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	17.6	45.7	5.3	22.6	1.8	64.0	–
Outflows, as a percentage of total direct investment	–	8.0	-2.3	-3.7	12.0	10.4	-7.8	–
Inward stock, as a percentage of capital and reserves	63.5	38.6	35.3	36.0	35.2	34.9	–	–
Outward stock, as a percentage of balance sheet total	1.4	2.0	0.7	1.1	1.9	1.8	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.18: Structure and performance indicators of the banking sector for Switzerland

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	1.1	0.9	0.7	1.5	0.7	0.7	0.7	0.6
Interbank deposits	19.0	17.8	25.0	24.2	23.4	27.8	28.4	28.5
Loans	64.9	56.2	44.1	43.0	42.3	41.9	40.1	39.2
Securities	10.2	14.5	19.8	20.2	18.9	20.9	21.6	23.4
Other assets	4.7	10.7	10.3	11.1	14.6	8.7	9.2	8.4
Foreign assets	*34.4*	*38.6*	*56.4*	*58.6*	*59.9*	*58.8*	*61.4*	*65.1*
Liabilities								
Capital and reserves	6.5	6.4	6.0	5.9	5.8	5.9	5.5	5.3
Borrowing from Central bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interbank deposits	20.4	18.7	28.1	26.6	24.8	28.8	29.1	28.3
Non-bank deposits	49.4	48.2	41.8	42.1	41.4	43.6	41.9	42.6
Bonds	17.6	13.4	8.8	9.9	10.0	8.7	8.6	9.5
Other liabilities	6.1	13.3	15.3	15.4	18.0	13.0	14.9	14.4
Foreign liabilities	*28.4*	*33.0*	*52.4*	*54.8*	*54.5*	*52.6*	*55.8*	*58.7*
Income statement			As a percentage of gross income					
Interest income	265.3	153.2	137.7	149.3	117.0	113.5	107.0	115.0
Interest expenses	214.1	109.9	100.4	108.1	71.5	65.7	65.8	76.4
Fees and commissions receivable	34.4	33.7	43.9	42.7	41.0	43.1	44.5	40.6
Fees and commissions payable	2.4	2.3	4.9	5.0	5.0	5.1	5.2	4.8
Other non-interest income (net)	16.8	25.3	23.7	21.1	18.4	14.2	19.4	25.6
Performance ratios								
Cost-income ratio	0.60	0.56	0.56	0.60	0.59	0.61	0.60	0.54
Profit before tax as a percentage of balance sheet total	0.52	0.56	1.01	0.63	0.49	0.68	0.79	1.10
Profit before tax as a percentage of equity	7.8	8.4	17.2	10.4	8.4	11.6	13.7	19.5
Risk-based capital ratio[1])	–	10.5	12.7	11.8	12.2	11.2	11.0	10.4
Value added per hour worked (1995 = 100)	–	–	–	–	–	–	–	–
Staff costs per employee (1,000 USD)	62.2	97.7	112.2	113.8	121.1	144.7	162.3	173.9
Profit before tax per employee (1,000 USD)	31.2	50.8	106.9	69.2	61.5	103.5	133.4	202.6
Bank concentration			As a percentage of balance sheet total					
5 largest banks	53.7	65.8	76.7	77.8	77.4	79.7	–	–
Bank density								
Number of institutions	457	382	335	327	316	301	299	295
Residents per institution	14,872	18,536	21,519	22,279	23,237	24,602	24,930	25,136
Residents per institution and branch	1,462	1,723	2,264	2,320	2,415	2,487	2,545	2,515
Institutions and branches per 100 km^2	11.6	10.3	8.0	7.9	7.6	7.4	7.3	7.4
Institutions and branches per 100 km^2 populated area	41.5	36.7	28.4	28.0	27.2	26.6	26.2	26.3
Number of ATM[2]) per 1,000 residents	0.33	0.53	0.67	0.69	0.71	0.72	0.72	0.75
Cards with cash function per resident	–	0.79	1.15	1.19	1.23	1.26	1.26	1.31
Cards with debit function per resident	–	0.52	0.73	0.74	0.79	0.80	0.81	0.85
Cards with credit function per resident	–	0.32	0.43	0.45	0.45	0.45	0.45	0.47
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	–	–	–	–	–	–	–
Hours worked in banking as percent of total hours worked	–	–	–	–	–	–	–	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	40.3	23.9	53.9	87.8	43.9	-215.8	71.1
Outflows, as a percentage of total direct investment	–	24.1	47.5	25.6	24.0	65.2	14.9	41.6
Inward stock, as a percentage of capital and reserves	–	53.3	67.5	70.8	89.2	99.1	–	–
Outward stock, as a percentage of balance sheet total	–	5.2	6.6	7.0	7.4	7.7	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.19: Structure and performance indicators of the banking sector for Turkey

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets (commercial banks)								
Cash and balance with Central bank	6.8	5.3	2.3	2.8	2.2	2.1	–	–
Interbank deposits	9.6	15.5	15.9	10.6	6.6	5.4	–	–
Loans	45.1	40.8	30.0	20.9	22.0	25.6	–	–
Securities	11.2	11.1	22.3	36.0	42.0	44.2	–	–
Other assets	27.2	27.3	29.5	29.6	27.2	22.7	–	–
Foreign assets	*9.1*	*17.8*	*10.8*	*12.7*	–	–	–	–
Liabilities (commercial banks)								
Capital and reserves	4.6	4.3	6.1	10.0	11.2	13.1	–	–
Borrowing from Central bank	2.1	0.3	0.6	0.2	0.1	0.0	–	–
Interbank deposits	4.5	4.8	23.6	12.9	9.2	9.5	–	–
Non-bank deposits	58.1	65.4	59.2	66.8	67.9	64.9	–	–
Bonds	0.3	1.0	0.2	0.3	0.1	0.0	–	–
Other liabilities	30.5	24.2	10.3	9.9	11.6	12.6	–	–
Foreign liabilities	*8.4*	*8.7*	*15.5*	*12.8*	–	–	–	–
Income statement (commercial banks)			As a percentage of gross income					
Interest income	291.5	330.1	432.0	702.7	249.6	236.7	–	–
Interest expenses	208.7	234.4	341.7	475.9	182.0	175.2	–	–
Fees and commissions receivable	47.9	122.9	256.5	27.5	12.2	18.1	–	–
Fees and commissions payable	40.4	130.5	277.1	0.1	0.1	0.1	–	–
Other non-interest income (net)	9.7	11.9	30.2	-154.1	20.3	20.4	–	–
Performance ratios (commercial banks)								
Cost-income ratio	0.52	0.41	1.01	0.95	0.53	0.33	–	–
Profit before tax as a percentage of balance sheet total	3.30	4.59	-3.23	-7.18	1.87	3.36	–	–
Profit before tax as a percentage of equity	58.9	78.8	-44.7	-57.3	15.2	23.7	–	–
Risk-based capital ratio[1])	–	13.0	7.6	6.6	9.4	12.4	–	–
Value added per hour worked (1995 = 100)	–	–	–	–	–	–	–	–
Staff costs per employee (1,000 USD)	12.2	12.7	19.5	18.4	19.3	21.7	–	–
Profit before tax per employee (1,000 USD)	10.4	20.4	-26.3	-58.3	19.3	41.8	–	–
Bank concentration			As a percentage of balance sheet total					
5 largest banks	–	–	–	–	–	–	–	–
Bank density								
Number of institutions	62	68	79	61	54	50	48	47
Residents per institution	905,710	907,897	853,418	1,123,426	1,289,370	1,414,240	1,495,604	1,533,298
Residents per institution and branch	10,217	9,545	8,235	9,404	10,689	11,082	11,266	11,102
Institutions and branches per 100 km^2	0.7	0.8	1.1	0.9	0.8	0.8	0.8	0.8
Institutions and branches per 100 km^2 populated area	3.2	3.8	4.8	4.2	3.8	3.7	3.7	3.8
Number of ATM[2]) per 1,000 residents	–	0.08	–	–	–	–	–	–
Cards with cash function per resident	–	–	–	–	–	–	–	–
Cards with debit function per resident	–	0.21	–	–	–	–	–	–
Cards with credit function per resident	–	0.03	–	–	–	–	–	–
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	–	–	–	–	–	–	–
Hours worked in banking as percent of total hours worked	–	–	–	–	–	–	–	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	1.4	1.7	0.0	20.7	1.9	2.0	39.5
Outflows, as a percentage of total direct investment	–	–	10.7	0.0	30.3	14.4	3.5	1.7
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.20: Structure and performance indicators of the banking sector for Australia

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	1.0	1.3	0.4	0.7	0.2	0.0	–	–
Interbank deposits	8.2	4.6	3.2	3.5	1.5	1.0	–	–
Loans	57.1	58.6	59.1	57.5	62.5	64.7	–	–
Securities	7.4	8.3	4.9	3.5	10.0	9.9	–	–
Other assets	26.2	27.1	32.3	34.9	25.7	24.4	–	–
Foreign assets	–	–	–	–	*2.3*	*2.0*	–	–
Liabilities								
Capital and reserves	9.4	9.9	12.3	11.5	7.1	6.9	–	–
Borrowing from Central bank	–	–	–	–	0.0	0.0	–	–
Interbank deposits	8.7	6.4	5.9	7.4	1.3	1.0	–	–
Non-bank deposits	54.7	55.9	53.1	52.4	41.4	41.0	–	–
Bonds	–	–	–	–	0.7	0.5	–	–
Other liabilities	27.3	27.8	28.7	28.7	49.6	50.6	–	–
Foreign liabilities	–	–	–	–	*22.2*	*23.5*	–	–
Income statement				As a percentage of gross income				
Interest income	270.4	176.5	156.7	163.7	114.6	123.9	–	–
Interest expenses	210.5	112.2	108.3	114.9	65.8	73.8	–	–
Fees and commissions receivable	–	–	–	–	18.1	18.2	–	–
Fees and commissions payable	–	–	–	–	–	–	–	–
Non-interest income (net)	–	–	–	–	–	–	–	–
Performance ratios								
Cost-income ratio	0.66	0.65	0.52	0.52	0.55	0.59	–	–
Profit before tax as a percentage of balance sheet total	0.67	1.25	1.39	1.25	3.72	2.93	–	–
Profit before tax as a percentage of equity	6.7	12.1	10.5	11.7	46.5	40.4	–	–
Risk-based capital ratio[1])	9.3	12.1	9.9	10.4	10.4	10.2	–	–
Value added per hour worked (1995 = 100)	–	–	–	–	–	–	–	–
Staff costs per employee (1,000 USD)	–	–	–	–	29.1	37.4	–	–
Profit before tax per employee (1,000 USD)	5.8	14.5	19.3	14.6	49.5	55.9	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	65.3	66.1	72.6	74.8	75.4	76.5	–	–
Bank density								
Number of institutions	37	34	25	27	50	51	–	–
Residents per institution	464,243	535,059	771,280	723,296	395,140	391,843	–	–
Residents per institution and branch	2,469	2,729	3,885	4,131	4,038	4,071	–	–
Institutions and branches per 100 km^2	0.1	0.1	0.1	0.1	0.1	0.1	–	–
Institutions and branches per 100 km^2 populated area	0.4	0.4	0.3	0.3	0.3	0.3	–	–
Number of ATM[2]) per 1,000 residents	0.27	0.35	0.61	0.68	0.83	1.02	1.07	1.15
Cards with cash function per resident	–	–	–	–	–	–	–	–
Cards with debit function per resident	–	0.70	0.95	0.93	1.21	1.22	1.24	1.24
Cards with credit function per resident	–	0.38	0.49	0.50	0.53	0.55	0.58	0.61
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	–	–	–	–	–	–	–
Hours worked in banking as percent of total hours worked	–	–	–	–	–	–	–	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	10.2	30.3	6.9	23.9	20.5	10.7	5.0	-13.4
Outflows, as a percentage of total direct investment	100.0	21.7	-5.2	-8.8	43.4	26.1	21.6	-16.7
Inward stock, as a percentage of capital and reserves	42.2	33.3	26.3	36.1	49.9	46.5	–	–
Outward stock, as a percentage of balance sheet total	3.7	3.6	4.7	5.7	5.5	4.3	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.21: Structure and performance indicators of the banking sector for Canada

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets (commercial banks)								
Cash and balance with Central bank	1.2	0.5	0.4	0.4	0.3	0.3	–	–
Interbank deposits	6.8	9.4	5.4	4.7	5.0	4.9	–	–
Loans	77.7	66.5	60.4	58.1	57.5	55.4	–	–
Securities	10.2	19.6	23.5	24.1	23.8	26.4	–	–
Other assets	4.2	3.9	10.4	12.7	13.4	12.9	–	–
Foreign assets	–	–	–	–	–	–	–	–
Liabilities (commercial banks)								
Capital and reserves	5.7	5.2	5.3	5.3	5.4	5.5	–	–
Borrowing from Central bank	0.0	0.0	0.0	0.0	0.0	0.0	–	–
Interbank deposits	12.5	14.2	9.3	8.7	7.3	7.7	–	–
Non-bank deposits	73.4	64.4	62.1	59.8	61.8	60.4	–	–
Bonds	1.9	2.1	2.0	1.8	1.6	1.5	–	–
Other liabilities	6.6	14.1	21.2	24.4	23.9	25.0	–	–
Foreign liabilities	–	–	–	–	–	–	–	–
Income statement (commercial banks)			As a percentage of gross income					
Interest income	264.9	188.4	144.3	126.9	108.4	103.1	–	–
Interest expenses	195.9	123.2	100.5	78.0	56.3	52.0	–	–
Fees and commissions receivable	–	–	–	–	–	–	–	–
Fees and commissions payable	–	–	–	–	–	–	–	–
Non-interest income (net)	–	–	–	–	–	–	–	–
Performance ratios (commercial banks)								
Cost-income ratio	0.64	0.64	0.67	0.68	0.69	0.68	–	–
Profit before tax as a percentage of balance sheet total	1.22	1.09	1.14	0.86	0.63	1.01	–	–
Profit before tax as a percentage of equity	21.0	20.0	20.5	15.4	11.5	18.2	–	–
Risk-based capital ratio[1])	–	–	–	–	–	–	–	–
Value added per hour worked (1995 = 100)	–	–	–	–	–	–	–	–
Staff costs per employee (1,000 USD)	–	–	–	–	–	–	–	–
Profit before tax per employee (1,000 USD)	–	–	–	–	–	–	–	–
Bank concentration			As a percentage of balance sheet total					
5 largest banks	82.9	85.3	88.0	88.2	88.1	87.3	–	–
Bank density								
Number of institutions	2,920	2,553	1,918	1,700	1,517	1,405	1,295	1,255
Residents per institution	9,485	11,478	16,001	18,248	20,681	22,534	24,669	25,692
Residents per institution and branch	2,087	2,142	2,240	2,167	2,202	2,195	2,254	2,266
Institutions and branches per 100 km^2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Institutions and branches per 100 km^2 populated area	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Number of ATM[2]) per 1,000 residents	0.42	0.60	1.04	1.15	1.27	1.39	1.50	1.64
Cards with cash function per resident	–	–	2.12	–	–	–	–	–
Cards with debit function per resident	–	0.88	1.17	–	–	–	–	–
Cards with credit function per resident	–	0.98	1.37	1.52	1.66	1.67	1.77	1.87
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	–	–	–	–	–	–	–
Hours worked in banking as percent of total hours worked	–	–	–	–	–	–	–	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Outflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.22: Structure and performance indicators of the banking sector for Japan

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	0.0	0.0	0.0	0.0	0.0	0.0	–	–
Interbank deposits	13.6	8.6	4.9	6.5	5.7	5.4	–	–
Loans	56.2	65.3	59.0	60.4	58.9	56.6	–	–
Securities	14.6	15.7	22.6	21.1	22.6	26.1	–	–
Other assets	15.5	10.4	13.5	12.1	12.7	11.9	–	–
Foreign assets	–	–	–	–	–	–	–	–
Liabilities								
Capital and reserves	3.2	3.3	4.6	3.9	3.3	3.9	–	–
Borrowing from Central bank	0.5	0.1	0.1	0.0	0.0	0.0	–	–
Interbank deposits	0.0	0.0	0.0	0.0	0.0	0.0	–	–
Non-bank deposits	68.9	69.0	69.6	73.6	74.1	75.5	–	–
Bonds	5.8	6.4	3.4	3.4	3.3	3.0	–	–
Other liabilities	21.6	21.3	22.3	19.0	19.2	17.6	–	–
Foreign liabilities	–	–	–	–	–	–	–	–
Income statement			As a percentage of gross income					
Interest income	554.9	307.8	161.2	255.4	231.2	106.8	–	–
Interest expenses	488.5	217.2	66.7	80.4	51.6	18.7	–	–
Fees and commissions receivable	21.3	20.5	23.7	42.4	47.1	26.8	–	–
Fees and commissions payable	5.8	5.2	6.2	12.2	14.2	8.2	–	–
Other non-interest income (net)	18.1	-5.9	-12.0	-105.1	-112.5	-6.8	–	–
Performance ratios								
Cost-income ratio	0.66	0.65	0.72	1.25	1.34	0.66	–	–
Profit before tax as a percentage of balance sheet total	0.36	-0.34	0.01	-0.77	-0.66	0.13	–	–
Profit before tax as a percentage of equity	11.2	-10.4	0.2	-20.5	-20.0	3.4	–	–
Risk-based capital ratio[1])	–	–	–	–	–	–	–	–
Value added per hour worked (1995 = 100)	78.9	100.0	121.7	142.8	146.2	149.7	146.2	–
Staff costs per employee (1,000 USD)	57.8	97.2	88.7	79.8	80.5	88.4	–	–
Profit before tax per employee (1,000 USD)	52.9	-69.9	2.3	-149.0	-123.4	28.3	–	–
Bank concentration			As a percentage of balance sheet total					
5 largest banks	42.0	38.4	40.5	39.0	42.4	–	–	–
Bank density								
Number of institutions	6,278	4,927	2,830	2,491	2,206	2,025	1,935	1,771
Residents per institution	19,668	25,466	44,821	51,043	57,770	63,067	66,021	72,141
Residents per institution and branch	2,760	2,610	3,169	3,282	3,456	3,594	3,710	3,828
Institutions and branches per 100 km^2	11.8	12.7	10.6	10.3	9.8	9.4	9.1	8.8
Institutions and branches per 100 km^2 populated area	62.3	67.0	55.8	54.0	51.4	49.5	48.0	46.5
Number of ATM[2]) per 1,000 residents	0.72	1.01	1.12	1.12	1.10	1.08	1.07	1.07
Cards with cash function per resident	–	2.08	3.17	3.25	3.35	3.43	3.48	3.52
Cards with debit function per resident	–	0.08	2.52	2.67	2.82	3.05	3.05	3.05
Cards with credit function per resident	–	1.81	1.83	1.92	1.99	2.06	2.14	–
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	3.8	3.9	4.0	4.5	4.7	4.8	4.6	–
Employed persons in banking as percent of total employment	2.5	2.3	2.1	2.0	2.1	2.0	2.0	–
Hours worked in banking as percent of total hours worked	2.3	2.2	2.1	2.0	2.1	2.1	2.1	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	3.9	27.1	32.9	30.3	29.6	48.1	73.9	18.6
Outflows, as a percentage of total direct investment	14.1	10.6	17.3	34.0	35.3	21.2	32.7	20.1
Inward stock, as a percentage of capital and reserves	0.3	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	1.0	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.23: Structure and performance indicators of the banking sector for New Zealand

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets								
Cash and balance with Central bank	0.4	0.5	1.1	0.9	0.9	1.0	1.3	1.1
Interbank deposits	12.2	8.6	2.8	3.5	2.8	2.7	2.6	3.4
Loans	63.3	77.2	72.5	75.4	75.6	76.6	76.9	80.3
Securities	19.4	9.7	9.5	9.2	9.1	7.7	8.5	7.8
Other assets	4.8	3.9	14.1	11.0	11.6	11.9	10.8	7.4
Foreign assets	*2.4*	*2.2*	*8.7*	*11.3*	*10.9*	*9.6*	*5.0*	*95.0*
Liabilities								
Capital and reserves	6.2	4.7	5.3	5.7	6.5	7.7	7.6	7.6
Borrowing from Central bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interbank deposits	–	–	–	–	–	–	15.3	11.5
Non-bank deposits	91.2	91.0	88.7	90.2	87.9	86.6	50.9	53.3
Bonds	–	–	–	–	–	–	21.5	24.3
Other liabilities	2.5	4.2	6.1	4.1	5.6	5.7	4.7	3.3
Foreign liabilities	*13.8*	*21.2*	*30.8*	*33.5*	*29.3*	*26.9*	*19.2*	*61.3*
Income statement	As a percentage of gross income							
Interest income	250.8	213.9	206.8	200.5	181.3	185.6	191.3	226.1
Interest expenses	187.2	150.3	144.5	137.2	115.6	118.0	122.6	158.5
Fees and commissions receivable	–	–	–	–	–	–	–	–
Fees and commissions payable	–	–	–	–	–	–	–	–
Non-interest income (net)	–	–	–	–	–	–	–	–
Performance ratios								
Cost-income ratio	0.73	0.66	0.55	0.49	0.44	0.46	0.48	0.48
Profit before tax as a percentage of balance sheet total	0.78	1.51	1.44	1.57	1.93	1.63	1.66	1.61
Profit before tax as a percentage of equity	11.5	30.2	25.5	27.9	28.6	20.3	20.9	20.8
Risk-based capital ratio[1])	11.0	10.5	11.2	10.8	11.1	10.3	10.8	10.9
Value added per hour worked (1995 = 100)	–	–	–	–	–	–	–	–
Staff costs per employee (1,000 USD)	–	–	–	–	–	–	–	–
Profit before tax per employee (1,000 USD)	–	–	–	–	–	–	–	–
Bank concentration	As a percentage of balance sheet total							
5 largest banks	–	–	–	–	–	–	–	–
Bank density								
Number of institutions	20	15	18	17	17	18	16	16
Residents per institution	168,150	244,867	214,333	228,294	231,706	222,722	253,813	256,938
Residents per institution and branch	–	–	–	–	–	–	–	–
Institutions and branches per 100 km^2	–	–	–	–	–	–	–	–
Institutions and branches per 100 km^2 populated area	–	–	–	–	–	–	–	–
Number of ATM[2]) per 1,000 residents	–	–	–	–	–	–	–	–
Cards with cash function per resident	–	–	–	–	–	–	–	–
Cards with debit function per resident	–	–	–	–	–	–	–	–
Cards with credit function per resident	–	–	–	–	–	–	–	–
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	–	–	–	–	–	–	–
Hours worked in banking as percent of total hours worked	–	–	–	–	–	–	–	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Outflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.24: Structure and performance indicators of the banking sector for the USA

	1990	1995	2000	2001	2002	2003	2004	2005
	As a percentage of balance sheet total							
Assets (commercial banks and savings institutions)								
Cash and balance with Central bank	3.3	3.0	2.3	3.0	2.9	2.6	–	–
Interbank deposits	3.8	2.9	2.8	2.6	2.3	2.2	–	–
Loans	64.8	63.3	65.1	63.6	62.5	62.5	–	–
Securities	20.2	22.7	20.3	20.5	21.9	22.1	–	–
Other assets	7.9	8.0	9.5	10.3	10.5	10.5	–	–
Foreign assets	–	–	–	–	–	–	–	–
Liabilities (commercial banks and savings institutions)								
Capital and reserves	6.2	8.2	8.5	9.0	9.2	9.1	–	–
Borrowing from Central bank	0.0	0.0	0.0	0.0	0.0	0.0	–	–
Interbank deposits	2.1	1.9	1.8	1.8	1.6	1.8	–	–
Non-bank deposits	76.6	69.7	65.3	65.5	65.7	65.4	–	–
Bonds	0.6	0.9	1.2	1.3	1.2	1.2	–	–
Other liabilities	14.6	19.4	23.2	22.5	22.3	22.5	–	–
Foreign liabilities	–	–	–	–	–	–	–	–
Income statement (commercial banks and savings institutions)			As a percentage of gross income					
Interest income	212.6	136.1	128.3	113.0	91.6	81.6	–	–
Interest expenses	143.7	69.4	69.3	54.7	32.9	24.8	–	–
Fees and commissions receivable	–	–	–	15.4	14.3	15.6	–	–
Fees and commissions payable	–	–	–	–	–	–	–	–
Other non-interest income (net)	–	–	–	–	–	–	–	–
Performance ratios (commercial banks and savings institutions)								
Cost-income ratio	0.70	0.63	0.61	0.59	0.56	0.57	–	–
Profit before tax as a percentage of balance sheet total	0.41	1.68	1.73	1.73	1.93	2.04	–	–
Profit before tax as a percentage of equity	6.7	19.9	19.6	18.8	20.2	21.7	–	–
Risk-based capital ratio[1])	9.4	13.3	12.4	12.6	13.1	13.1	–	–
Value added per hour worked (1995 = 100)	78.3	100.0	135.8	146.0	146.0	155.2	169.4	–
Staff costs per employee (1,000 USD)	33.9	42.6	52.9	55.0	57.8	61.6	–	–
Profit before tax per employee (1,000 USD)	10.3	50.1	64.3	67.4	77.2	86.9	–	–
Bank concentration			As a percentage of balance sheet total					
5 largest banks	13.2	15.8	28.2	23.4	27.0	23.7	–	–
Bank density								
Number of institutions	31,842	23,958	20,674	20,018	19,425	18,929	18,354	17,882
Residents per institution	7,857	11,127	13,661	14,256	14,839	15,379	16,015	16,591
Residents per institution and branch	2,323	3,696	3,605	3,440	3,398	2,774	2,764	2,686
Institutions and branches per 100 km^2	1.1	0.7	0.8	0.8	0.9	1.1	1.1	1.1
Institutions and branches per 100 km^2 populated area	4.2	2.8	3.1	3.3	3.3	4.1	4.2	4.3
Number of ATM[2]) per 1,000 residents	0.37	1.98	0.97	1.14	1.22	1.27	1.30	1.33
Cards with cash function per resident	–	2.22	2.69	2.89	3.00	3.08	3.16	3.25
Cards with debit function per resident	–	0.79	0.79	0.85	0.86	0.86	0.91	0.91
Cards with credit function per resident	–	1.65	4.43	4.32	4.36	4.38	4.24	4.30
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	4.3	4.7	6.1	5.5	5.3	5.3	5.3	–
Employed persons in banking as percent of total employment	2.8	2.6	2.7	2.8	2.8	2.8	2.8	–
Hours worked in banking as percent of total hours worked	2.9	2.7	2.8	2.8	2.9	2.9	2.9	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	5.4	25.0	18.1	15.4	-1.9	48.6	24.6	12.4
Outflows, as a percentage of total direct investment	9.1	25.5	14.3	10.6	19.2	10.2	7.1	-64.4
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.25: Structure and performance indicators of the banking sector for the Czech Republic

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	–	9.1	11.9	13.0	20.4	19.6	–	–
Interbank deposits	–	17.2	21.8	20.3	14.9	11.2	–	–
Loans	–	48.1	35.1	33.3	34.6	36.9	–	–
Securities	–	18.2	23.1	26.9	20.4	25.0	–	–
Other assets	–	7.3	8.0	6.5	9.7	7.3	–	–
Foreign assets	–	*7.3*	*18.9*	*21.4*	*18.5*	*16.4*	–	–
Liabilities								
Capital and reserves	–	10.6	8.2	6.0	9.3	8.3	–	–
Borrowing from Central bank	–	3.9	0.7	0.2	0.1	0.0	–	–
Interbank deposits	–	21.5	18.0	13.3	13.5	13.1	–	–
Non-bank deposits	–	51.1	46.1	58.0	60.8	62.0	–	–
Bonds	–	3.0	3.8	2.9	6.5	7.7	–	–
Other liabilities	–	9.9	23.3	19.7	9.9	8.9	–	–
Foreign liabilities	–	*10.7*	*12.4*	*11.6*	*10.7*	*11.8*	–	–
Income statement				As a percentage of gross income				
Interest income	–	87.8	23.9	100.4	112.7	100.5	–	–
Interest expenses	–	58.7	15.3	62.9	61.1	45.7	–	–
Fees and commissions receivable	–	6.5	4.3	22.7	27.5	36.0	–	–
Fees and commissions payable	–	0.7	1.1	4.3	5.7	9.4	–	–
Other non-interest income (net)	–	65.1	88.2	44.0	26.6	18.7	–	–
Performance ratios								
Cost-income ratio	–	0.82	1.05	0.75	0.73	0.86	–	–
Profit before tax as a percentage of balance sheet total	–	0.36	0.01	1.05	1.79	1.83	–	–
Profit before tax as a percentage of equity	–	2.8	0.1	13.8	16.6	19.3	–	–
Risk-based capital ratio[1])	–	8.9	16.0	16.7	–	–	–	–
Value added per hour worked (1995 = 100)	–	100.0	165.2	166.6	129.2	170.4	179.0	–
Staff costs per employee (1,000 USD)	–	8.7	11.8	14.4	16.3	20.7	–	–
Profit before tax per employee (1,000 USD)	–	3.5	0.1	14.8	28.8	36.6	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	–	–	–	–	–	–	63.5	–
Bank density								
Number of institutions	–	58	40	38	37	35	–	–
Residents per institution	–	178,117	256,813	269,058	275,697	291,477	–	–
Residents per institution and branch	–	2,978	5,556	5,563	5,541	5,702	–	–
Institutions and branches per 100 km^2	–	4.4	2.3	2.3	2.3	2.3	–	–
Institutions and branches per 100 km^2 populated area	–	36.7	19.5	19.4	19.5	18.9	–	–
Number of ATM[2]) per 1,000 residents	–	–	0.16	0.19	0.22	0.25	0.27	0.29
Cards with cash function per resident	–	–	0.39	0.45	0.57	0.65	0.66	0.56
Cards with debit function per resident	–	–	0.39	0.44	0.55	0.60	0.60	0.64
Cards with credit function per resident	–	–	0.00	0.01	0.01	0.02	0.04	0.09
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	–	–	–	–	–	–	–
Employed persons in banking as percent of total employment	–	1.3	1.3	1.3	1.2	1.2	1.1	–
Hours worked in banking as percent of total hours worked	–	1.4	1.3	1.3	1.3	1.2	1.2	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	2.7	18.7	28.1	17.5	45.8	8.2	9.1
Outflows, as a percentage of total direct investment	–	–	111.6	5.5	85.4	59.4	1.7	3.2
Inward stock, as a percentage of capital and reserves	–	–	54.0	87.4	77.5	78.4	–	–
Outward stock, as a percentage of balance sheet total	–	–	0.4	0.6	1.0	0.7	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.26: Structure and performance indicators of the banking sector for Hungary

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets (commercial banks)								
Cash and balance with Central bank	–	20.8	17.1	12.3	10.5	6.5	–	–
Interbank deposits	–	12.2	9.2	10.4	7.4	6.4	–	–
Loans	–	40.7	52.3	55.1	61.6	64.7	–	–
Securities	–	21.5	18.5	19.8	18.4	19.3	–	–
Other assets	–	9.2	4.5	5.1	5.6	5.0	–	–
Foreign assets	–	–	*8.6*	*11.7*	*8.8*	*9.0*	–	–
Liabilities (commercial banks)								
Capital and reserves	–	8.5	10.4	10.6	10.5	9.9	–	–
Borrowing from Central bank	–	8.1	1.1	0.5	0.2	0.1	–	–
Interbank deposits	–	7.5	16.3	15.5	15.8	20.5	–	–
Non-bank deposits	–	60.8	64.7	64.8	62.8	55.5	–	–
Bonds	–	7.8	1.6	2.9	5.3	9.1	–	–
Other liabilities	–	7.2	5.9	5.7	5.3	4.9	–	–
Foreign liabilities	–	*13.9*	*20.8*	*19.2*	*17.2*	*21.4*	–	–
Income statement (commercial banks)				As a percentage of gross income				
Interest income	–	553.0	201.6	164.7	162.3	165.0	–	–
Interest expenses	–	386.3	122.6	93.6	89.2	93.6	–	–
Fees and commissions receivable	–	48.2	27.8	28.5	33.6	36.2	–	–
Fees and commissions payable	–	19.0	7.7	8.2	9.7	10.8	–	–
Other non-interest income (net)	–	-95.8	0.9	8.6	3.0	3.0	–	–
Income statement (commercial banks)								
Cost-income ratio	–	1.13	0.75	0.65	0.65	0.60	–	–
Profit before tax as a percentage of balance sheet total	–	1.59	1.23	1.68	0.18	1.82	–	–
Profit before tax as a percentage of equity	–	17.1	11.0	14.7	1.5	16.4	–	–
Risk-based capital ratio[1])	–	18.5	15.2	15.6	14.1	13.1	–	–
Value added per hour worked (1995 = 100)	–	100.0	72.5	98.4	125.2	168.9	162.8	–
Staff costs per employee (1,000 USD)	–	12.9	15.4	18.2	21.7	28.1	–	–
Profit before tax per employee (1,000 USD)	–	12.2	12.7	19.7	2.5	35.8	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	–	–	–	–	–	–	–	–
Bank density								
Number of institutions	–	–	250	233	–	218	216	215
Residents per institution	–	–	40,844	43,724	–	46,466	46,793	46,919
Residents per institution and branch	–	–	–	3,592	–	3,523	3,439	3,190
Institutions and branches per 100 km^2	–	–	–	3.0	–	3.1	3.2	3.4
Institutions and branches per 100 km^2 populated area	–	–	–	21.8	–	22.1	22.6	24.3
Number of ATM[2]) per 1,000 residents	–	–	0.24	0.25	0.27	0.29	0.33	0.35
Cards with cash function per resident	–	–	0.44	0.49	0.54	0.60	0.64	0.73
Cards with debit function per resident	–	–	0.41	0.45	0.49	0.52	0.60	0.63
Cards with credit function per resident	–	–	0.03	0.04	0.06	0.09	0.05	0.10
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	3.2	1.9	1.9	2.2	2.3	2.0	–
Employed persons in banking as percent of total employment	–	1.8	1.4	1.4	1.4	1.2	1.5	1.5
Hours worked in banking as percent of total hours worked	–	1.8	1.4	1.4	1.4	1.2	1.5	1.5
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	–	9.3	7.6	47.1	17.5	9.9
Outflows, as a percentage of total direct investment	–	–	–	1.4	9.3	20.4	10.7	25.9
Inward stock, as a percentage of capital and reserves	–	–	–	–	–	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	–	–	–	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.27: Structure and performance indicators of the banking sector for Poland

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	–	9.3	3.8	6.2	4.6	3.9	–	–
Interbank deposits	–	13.4	18.3	17.0	14.0	12.9	–	–
Loans	–	30.6	45.2	44.5	46.4	48.4	–	–
Securities	–	31.0	22.2	20.4	22.6	23.2	–	–
Other assets	–	15.7	10.5	11.9	12.4	11.5	–	–
Foreign assets	–	–	*10.8*	*12.2*	*10.8*	*10.8*	–	–
Liabilities								
Capital and reserves	–	8.8	8.3	9.2	10.2	10.1	–	–
Borrowing from Central bank	–	4.0	1.3	1.0	0.6	0.5	–	–
Interbank deposits	–	7.6	10.8	7.6	6.7	6.6	–	–
Non-bank deposits	–	60.8	64.9	66.0	65.6	64.7	–	–
Bonds	–	1.2	0.5	0.6	0.8	1.1	–	–
Other liabilities	–	17.6	14.2	15.6	16.1	17.1	–	–
Foreign liabilities	–	–	*6.4*	*6.9*	*6.9*	*9.0*	–	–
Income statement				As a percentage of gross income				
Interest income	–	212.3	193.5	175.7	125.0	102.4	–	–
Interest expenses	–	136.6	131.7	123.1	70.3	47.0	–	–
Fees and commissions receivable	–	15.1	23.9	24.6	27.0	33.7	–	–
Fees and commissions payable	–	2.2	3.3	3.4	3.9	5.7	–	–
Other non-interest income (net)	–	11.4	17.7	26.2	22.2	16.7	–	–
Performance ratios								
Cost-income ratio	–	0.49	0.63	0.62	0.64	0.68	–	–
Profit before tax as a percentage of balance sheet total	–	3.62	1.42	1.29	0.82	0.94	–	–
Profit before tax as a percentage of equity	–	35.6	15.7	13.5	8.0	9.1	–	–
Risk-based capital ratio[1])	–	11.4	12.9	15.0	13.8	13.8	–	–
Value added per hour worked (1995 = 100)	–	100.0	219.3	238.3	233.7	248.5	277.8	–
Staff costs per employee (1,000 USD)	–	8.2	11.6	12.8	13.6	15.0	–	–
Profit before tax per employee (1,000 USD)	–	14.2	7.6	8.6	5.9	7.7	–	–
Bank concentration				As a percentage of balance sheet total				
5 largest banks	–	–	–	–	–	–	–	–
Bank density								
Number of institutions	–	1,591	753	711	664	658	–	–
Residents per institution	–	24,254	50,805	53,799	57,578	58,047	–	–
Residents per institution and branch	–	12,480	8,792	7,984	7,699	7,560	–	–
Institutions and branches per 100 km^2	–	1.0	1.4	1.5	1.6	1.6	–	–
Institutions and branches per 100 km^2 populated area	–	9.9	13.9	15.3	15.9	16.2	–	–
Number of ATM[2]) per 1,000 residents	–	–	0.14	0.17	0.19	0.20	0.21	0.23
Cards with cash function per resident	–	–	0.29	0.38	0.44	0.39	0.44	0.51
Cards with debit function per resident	–	–	0.26	0.33	0.39	0.35	0.37	0.40
Cards with credit function per resident	–	–	0.01	0.02	0.03	0.04	0.07	0.11
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	1.8	4.0	3.5	3.1	3.1	3.1	–
Employed persons in banking as percent of total employment	–	1.7	2.0	2.0	2.0	2.0	1.9	–
Hours worked in banking as percent of total hours worked	–	1.6	2.1	2.0	2.0	2.0	1.9	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	11.9	21.1	36.5	36.4	10.6	18.6	33.1
Outflows, as a percentage of total direct investment	–	0.0	-158.8	119.3	30.7	-0.3	39.7	54.4
Inward stock, as a percentage of capital and reserves	–	15.0	79.1	83.9	82.4	82.8	–	–
Outward stock, as a percentage of balance sheet total	–	0.2	0.4	0.4	0.4	0.4	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.28: Structure and performance indicators of the banking sector for the Slovak Republic

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	–	–	10.4	11.9	13.6	15.0	9.1	4.3
Interbank deposits	–	–	18.7	13.7	9.4	6.1	24.5	32.2
Loans	–	–	40.0	29.8	31.1	37.1	35.8	38.1
Securities	–	–	19.9	29.0	29.5	36.2	27.9	23.3
Other assets	–	–	11.1	15.7	16.4	5.5	2.7	2.1
Foreign assets	–	–	*13.5*	*14.4*	*8.1*	*7.6*	*7.2*	*6.7*
Liabilities								
Capital and reserves	–	–	8.6	8.4	7.6	6.5	0.8	0.9
Borrowing from Central bank	–	–	2.9	2.3	1.3	0.9	0.3	0.2
Interbank deposits	–	–	15.5	15.3	8.8	8.9	17.6	25.7
Non-bank deposits	–	–	70.7	71.5	67.1	71.5	67.2	60.0
Bonds	–	–	3.5	2.8	9.1	2.3	5.7	6.0
Other liabilities	–	–	-1.3	-0.4	6.1	9.9	8.4	7.2
Foreign liabilities	–	–	*5.6*	*8.4*	*9.6*	*14.5*	*18.5*	*26.8*
Income statement				As a percentage of gross income				
Interest income	–	193.1	210.6	172.4	144.1	129.3	116.2	99.4
Interest expenses	–	131.7	148.3	106.0	77.7	64.0	53.2	45.3
Fees and commissions receivable	–	8.8	15.2	18.2	16.8	20.5	21.9	24.3
Fees and commissions payable	–	0.9	2.6	3.0	3.6	3.7	3.2	3.8
Other non-interest income (net)	–	30.8	25.1	18.3	20.3	17.9	18.2	25.3
Performance ratios								
Cost-income ratio	–	0.42	1.00	1.05	0.82	0.86	0.80	0.78
Profit before tax as a percentage of balance sheet total	–	–	0.63	1.05	1.20	1.17	1.32	1.23
Profit before tax as a percentage of equity	–	–	7.1	11.9	15.9	17.6	161.2	127.3
Risk-based capital ratio[1])	–	–	2.4	13.4	21.3	22.4	18.7	14.8
Value added per hour worked (1995 = 100)	–	100.0	27.2	28.0	55.1	57.8	68.8	56.4
Staff costs per employee (1,000 USD)	–	6.8	8.1	8.4	10.5	13.8	16.9	19.7
Profit before tax per employee (1,000 USD)	–	0.4	5.0	9.1	13.6	15.6	22.1	26.3
Bank concentration				As a percentage of balance sheet total				
5 largest banks	–	–	–	–	–	–	–	–
Bank density								
Number of institutions	–	33	23	21	20	21	21	23
Residents per institution	–	162,527	234,809	257,267	268,955	256,171	256,305	235,187
Residents per institution and branch	–	5,581	4,826	5,016	5,172	4,990	4,746	4,643
Institutions and branches per 100 km^2	–	2.0	2.3	2.2	2.1	2.2	2.3	2.4
Institutions and branches per 100 km^2 populated area	–	24.5	28.5	27.5	26.5	27.5	28.9	29.7
Number of ATM[2]) per 1,000 residents	–	–	0.20	0.22	0.25	0.28	0.32	0.34
Cards with cash function per resident	–	–	0.32	0.37	0.45	0.56	0.66	0.71
Cards with debit function per resident	–	–	0.32	0.36	0.40	0.47	0.53	0.58
Cards with credit function per resident	–	–	0.00	0.00	0.05	0.09	0.13	0.14
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	4.5	1.5	1.6	2.8	2.7	3.3	2.8
Employed persons in banking as percent of total employment	–	1.2	1.5	1.4	1.3	1.3	1.3	1.3
Hours worked in banking as percent of total hours worked	–	1.2	1.4	1.4	1.3	1.3	1.4	1.4
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	1.5	56.0	13.0	12.1	–	–
Outflows, as a percentage of total direct investment	–	–	-38.1	-54.3	-81.8	6.3	–	–
Inward stock, as a percentage of capital and reserves	–	–	35.6	82.5	98.5	–	–	–
Outward stock, as a percentage of balance sheet total	–	–	0.5	0.5	0.5	–	–	–

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

Table B.29: Structure and performance indicators of the banking sector for Slovenia

	1990	1995	2000	2001	2002	2003	2004	2005
				As a percentage of balance sheet total				
Assets								
Cash and balance with Central bank	–	4.0	3.2	5.3	3.1	2.8	2.5	2.1
Interbank deposits	–	17.2	11.7	10.2	8.4	6.8	9.0	9.9
Loans	–	41.2	52.3	49.4	47.9	50.2	53.5	54.1
Securities	–	28.1	25.4	28.6	34.0	34.0	29.3	28.4
Other assets	–	9.5	7.5	6.5	6.6	6.2	5.6	5.5
Foreign assets	–	*0.7*	*0.5*	*0.4*	*0.9*	*1.3*	*1.7*	*2.2*
Liabilities								
Capital and reserves	–	12.0	10.1	8.8	8.3	8.3	8.1	7.5
Borrowing from Central bank	–	2.8	0.2	0.0	0.0	0.0	0.0	0.0
Interbank deposits	–	16.0	12.8	11.4	12.8	16.1	19.9	28.8
Non-bank deposits	–	62.1	69.0	71.2	69.1	65.1	62.7	55.4
Bonds	–	3.0	1.9	2.0	1.9	2.1	2.8	2.7
Other liabilities	–	4.1	5.9	6.6	7.7	8.4	0.8	-5.0
Foreign liabilities	–	*12.1*	*10.6*	*10.7*	*11.9*	*15.5*	*18.5*	*26.9*
Income statement				As a percentage of gross income				
Interest income	–	192.4	166.5	172.2	153.4	144.6	117.5	107.0
Interest expenses	–	113.3	92.4	105.2	89.5	81.0	58.6	50.6
Fees and commissions receivable	–	31.1	27.2	29.3	29.0	29.3	32.0	31.8
Fees and commissions payable	–	6.8	4.9	5.4	5.0	5.3	6.3	6.3
Other non-interest income (net)	–	-3.5	3.7	9.1	12.0	12.4	15.5	18.1
Performance ratios								
Cost-income ratio	–	0.62	0.59	0.65	0.60	0.63	0.61	0.59
Profit before tax as a percentage of balance sheet total	–	1.16	1.14	0.45	1.11	1.00	1.06	1.02
Profit before tax as a percentage of equity	–	7.8	10.3	4.5	12.1	11.4	12.4	12.2
Risk-based capital ratio[1])	–	21.7	13.5	11.9	11.9	11.5	11.8	10.5
Value added per hour worked (1995 = 100)	–	100.0	131.2	132.4	142.9	149.6	174.7	–
Staff costs per employee (1,000 USD)	–	–	20.0	19.5	23.9	30.5	34.3	35.5
Profit before tax per employee (1,000 USD)	–	–	13.4	5.7	16.6	20.2	25.3	28.1
Bank concentration				As a percentage of balance sheet total				
5 largest banks	–	–	–	–	–	–	–	–
Bank density								
Number of institutions	–	31	25	21	20	20	20	22
Residents per institution	–	64,152	79,576	94,857	99,750	99,815	99,865	90,945
Residents per institution and branch	–	64,152	76,515	90,545	95,000	95,062	90,786	80,032
Institutions and branches per 100 km^2	–	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Institutions and branches per 100 km^2 populated area	–	2.2	1.8	1.6	1.5	1.5	1.6	1.8
Number of ATM[2]) per 1,000 residents	–	–	0.43	0.52	0.55	0.62	0.70	0.74
Cards with cash function per resident	–	–	–	0.98	1.08	1.48	1.41	1.43
Cards with debit function per resident	–	–	0.70	0.75	0.86	1.24	1.16	1.16
Cards with credit function per resident	–	–	–	0.02	0.03	0.03	0.04	0.04
Contribution of the banking sector to total economy								
Value added in banking as percent of total value added	–	4.4	3.7	3.4	3.4	3.3	3.5	–
Employed persons in banking as percent of total employment	–	1.4	1.7	1.7	1.8	1.8	1.8	–
Hours worked in banking as percent of total hours worked	–	1.4	1.6	1.7	1.7	1.8	1.8	–
Foreign direct investment of the banking sector								
Inflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Outflows, as a percentage of total direct investment	–	–	–	–	–	–	–	–
Inward stock, as a percentage of capital and reserves	–	25.9	55.8	24.5	44.4	44.2	53.6	51.6
Outward stock, as a percentage of balance sheet total	–	0.8	0.6	0.6	0.5	0.5	0.7	0.7

Source: BIS; EUKLEMS; EUROSTAT; OECD; UNCTAD; WIFO calculations. – 1) According to Basel I. – 2) Automatic teller machines and cash dispensers.

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