

## **CAPITAL ADEQUACY IN THE NEW EUROPE\***

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## **CAPITAL ADEQUACY IN THE NEW EUROPE**

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### **ABSTRACT**

In Europe the convergence of capital adequacy rules has been one of the biggest issues during the 1980s. This paper explores the nature and importance of capital adequacy for commercial banks in the Europe beyond 1992. It is suggested that this importance cannot be denied but that its singular impact may be overstated. Strategic and managerial problems require additional knowledge beyond capital adequacy regulation.

### **RESUMEN**

La convergencia en las normas del coeficiente de recursos propios ha sido una de las cuestiones más relevantes de la Europa de los ochenta. Este documento investiga la naturaleza y la importancia del coeficiente de recursos propios de los bancos comerciales de Europa después del 92. Se sugiere que no se le puede restar importancia, pero que tampoco se puede sobrestimar su impacto singular. Los problemas estratégicos y administrativos requieren un conocimiento adicional más allá de la regulación del coeficiente de recursos propios.

## **INTRODUCTION**

The landmark Basle, or BIS, agreement (July 1988) and the impending completion of the European internal market have put capital adequacy in the forefront of global and European banking strategies. The 'Basle philosophy' is setting the pace in bank supervisory standards across the globe. Even in Soviet Russia and emerging Central/European banking systems the new 'convergence' capital adequacy standards are an important target and strategic driver for many bankers and regulators. In Europe and in other developed banking systems, the convergence of capital adequacy rules has been one of the biggest issues during the 1980s. This paper explores the nature and importance of capital adequacy for commercial banks in the 'new Europe', the Europe that is emerging in the run-up and beyond to 1992. It is suggested that the emphasis on capital adequacy analysis may need to change from some of the apparent 'fixations' that seem to have characterised the 1980s convergence movement.

## **EUROPEAN BANKING AND REGULATION**

### **A perspective on European banking**

European banking is defined here as comprising the different banking markets of the EC. These markets have developed as a result of many heterogeneous influences, including diverse political, economic, geographical and social factors. In no two EC countries have development paths been exactly similar, but some broad distinctions can usefully be drawn.

One such broad distinction sometimes made<sup>1</sup> is between so-called bank-based systems (like those found in Germany, France, the Netherlands and Sweden) and market-based systems (such as those of the United Kingdom and the United States, the so-called 'Anglo-Saxon systems'). In the first group, banks have traditionally exhibited a stronger orientation towards the corporate sectors, whereas in the latter the open capital markets have been more important sources of corporate funding. As a result, public sector and mutual institutions have had opportunities to develop a more significant role within the so-called 'bank orientated systems'.

Five common elements<sup>2</sup> are often said to characterise continental banking compared with the British system:

- various special credit institutions which are usually publicly owned and provide funds for various sectors like industry, agriculture and property.
- increased importance of savings banks, co-operative (popular) banks and co-operative credit associations, together with their central institutions.
- a long history of commercial banks' participation in the ownership and management of industrial enterprises, 'relics of which still linger on'.
- the importance in many European countries of banks and other institutions which are organised on a local or regional basis, 'usually reflecting the prevalence of small enterprises in both industry and agriculture'.
- and a degree of similarity among the new banking laws that were enacted in many countries following the crisis during the early 1930s.

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<sup>1</sup>See, for example, Gardener and Molyneux (1990, p.21).

<sup>2</sup>See Revell (1987).

It is interesting in this general connexion to note that the so-called, 'retail banking revolution' really started in continental Europe, particularly in countries like Sweden, Germany and the Netherlands. This was partly the result of structural characteristics, coupled with the attitude of the commercial banks in those countries towards the retail sectors.

A study of banking structure involves *inter alia* an examination of the numbers, sizes and concentration of banking markets. Table 1 summarises some comparative data; the German, UK and French banking systems are easily the largest in the EC. A considerable variation exists in the concentration of the EC banking markets, and comparative country rankings can alter if the concentration measure is changed. For example, using the 5-firm measure of assets, Belgium ranks as the most concentrated banking market, but drops to third place using the corresponding 3-firm ratio. Despite these differences in concentration, every banking system in Western Europe has a group of dominant or 'core banks' which are recognised by the general public and the authorities.

Recent trends imply increased concentration<sup>3</sup> in EC national banking markets, no matter what measure is used. National integration and product/distribution alliances have far exceeded the much-publicised cross-border mergers and acquisitions that have attracted most of the publicity and hype in the run-up to Europe 1992, completing the European internal market and creating the so-called Single Financial Space (SFS). One important reason seems to be that given the strategic desire to get bigger in the face of the competitive threat of the SFS banks seem to prefer the lesser problems of merging with a domestic rival than the much greater managerial problems of putting together two very different cultures.

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<sup>3</sup> Although concentration is more difficult to measure as traditional market boundaries erode with deregulation and as new competitors appear.

TABLE 1

MARKET CONCENTRATION AND SIZE OF  
BANKING SECTORS IN EUROPE 1988

NUMBER OF BANKS IN MARKET		SIZE OF BANKING SECTOR	CONCENTRATION % OF TOTAL MARKET			
			ASSETS (\$ BILLION)			
					ASSETS	DEPOSITS
			5 firm	3 firm	5 firm	3 firm
4465	GERMANY	1465.0	31.2	21.2	30.5	19.1
661	U.K.	1337.8	32.6	26.5	30.3	21.6
367	FRANCE	1012.6	63.0	42.3	65.2	45.5
980	ITALY	529.2	55.1	35.2	68.5	41.6
349	SPAIN	332.3	34.7	21.9	38.8	24.3
81	NETHERLANDS	272.3	-	71.3	-	83.9
86	BELGIUM	228.3	84.7	57.1	87.5	59.0
120	LUXEMBOURG	198.1	22.4	16.7	-	16.5
216	DENMARK	111.9	50.9	36.7	58.6	45.3
n/a	GREECE	48.4	-	-	-	49.7
40	PORTUGAL	43.3	-	49.7	-	49.6
43	IRELAND	22.1	-	71.0	-	-

SOURCE: Gardener & Molyneux (1990, Table 3.2, p.33).

- NOTES:
1. The market size figure for Greece is a deposits figure.
  2. Sources of information for banking sector size; OECD (1988) and various central bank publications.
  3. 3-firm and 5-firm concentration ratios calculated using data taken from the consolidated accounts published in The Banker '500'.
  4. The number of banks in France increases to around 6000 if mutual associations are included.
  5. Only 12 of the 120 Luxembourg banks are domestic institutions.

A recent study<sup>4</sup> examined the major structure and performance characteristics of top banks operating in the EC and found that:

- Top French banks are on average the largest in the EC, but employ considerably less staff than their UK counterparts.
- The major UK banks have the largest branch networks and employ significantly more staff than many of their EC counterparts.
- Comparing the relative performance figures for top banks in the bigger banking markets it can be stated that Italian and Spanish banks have the highest ROAs and the highest ROC ratios.
- The performance figures for the top 44 German, 33 Italian and 13 Spanish banks are less dispersed than if we compare similar figures for the top 15 UK and 20 French banks.
- The biggest banks in Germany and France have markedly lower capital: assets ratios than banks in the UK, Spain and Italy.

The latter observations have a direct bearing on capital adequacy. In part they reflect the role of hidden reserves and attitudes to loan capital in Germany and the role of government in France.

Table 2 is a 'hidden value index' developed by Morgan Stanley that shows the extent of under-disclosure of asset values as reflected in the respective share price (P) to book value (BV) ratios. Germany, Italy, Spain and Switzerland rank in the top group of P/BV ratios; both Germany and Switzerland have traditionally under-disclosed their profits. Hidden values comprise items like excess provisions, undervaluation of investments, property held in balance sheets at the original purchase price and understated bond values. The

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<sup>4</sup>See Molyneux (1988a); reported also in Gardener and Molyneux (1990, pp.34-35).



problems of so-called 'hidden value' is a real practical problem in using continental balance sheet ratios to appraise capital adequacy.

TABLE 2  
HIDDEN VALUE INDEX

	P/BV	HIDDEN VALUE INDEX
BELGIUM	90	100
DENMARK	77	95
FINLAND	112	120
FRANCE	101	110
GERMANY	138	150
IRELAND	167	100
ITALY	214	160
NETHERLANDS	79	110
NORWAY	94	90
SPAIN	196	150
SWITZERLAND	188	180
U.K.	98	100

Note: 1988 P/BV  
High index figure shows greatest hidden value.

SOURCE: Morgan Stanley (1990, Table 3, p. 5).

### Competition and regulatory developments

Practically no banking market or sector in Europe is today unaware of intensifying competition, both existing and potential. New competitors and new forms of competitions typify this environment. A good example of this intensifying competitive trend is the challenge posed by banks to the insurance sector, and *vice versa*. 'Europe 1992' is the latest, perhaps most dramatic signpost along a regulatory path that started over two decades ago. It reflects a remarkable commitment by Western governments to deregulation.

In this general respect one needs to be more specific. Deregulation in this context refers to the opening up, or liberalisation, of financial markets

deregulation. At the same time, banking supervision (or prudential regulation) is expanding, or re-regulating. The new Europe, then, is characterised by the twin regulatory forces of structural deregulation and supervisory (and investor protection and conduct of business rules) re-regulation. Completing the European internal market, creating the SFS, is an example of structural deregulation. The new EC Solvency Ratio and Own Funds Directives, on the other and, como under the umbrella of supervisory re-regulation.

The economic objective of structural de-regulation is to secure the economic gains from resource allocation through a freer market, rather than via central government direction. At one level it is reflected in the European trend towards more 'strongly market-orientated' financial systems. The economic gains hypothesised from completing the internal market for the EC financial sectors in the Cecchini study are considerable<sup>5</sup>. They are reflected at one level in the simulated price falls and/or increased output as the internal market is completed. Table 3 summarises the EC financial product/service price falls simulated by Cecchini. Although the Cecchini methodology and assumptions may be criticised<sup>6</sup>, the results of greater and freer competition *ceteris paribus* are generally lower prices and/or increased output. One needs to be cautious here, of course, because some market conditions may imply price rises as competition intensifies. Such market conditions include cases where prices might have been kept artificially low before deregulation.

A structural reflection of this deregulation philosophy is seen in the current Europe trend towards de-mutualization and privatisation. Table 4 shows the change in market shares of European banks by ownership category. It depicts the net decline of the mutual and government sectors of ownership of European banks, together with the corresponding rise of the private sector. In this general connexion it is also important to note that the sector (column

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<sup>5</sup>See Commission of the European Communities (1988d).

<sup>6</sup>See Gardener and Teppett (1990).

TABLE 3

ESTIMATE OF POTENTIAL FALLS IN FINANCIAL PRODUCT PRICES  
AS A RESULT OF COMPLETING THE INTERNAL MARKET

	B	D	E	F	I	L	NL	UK
I. PERCENTAGE DIFFERENCES IN PRICES OF FINANCIAL PRODUCTS COMPARED WITH THE AVERAGE OF THE FOUR LOWEST OBSERVATIONS (%)								
BANKING								
Consumer Credit	-41	136	39	105	<sup>1</sup> :	-26	31	121
Credit cards	79	60	26	-30	89	-12 <sup>1</sup> :	43	16
Mortgages	31	57	118	78	-4	:	-6	-20
Letters of credit	22	-10	59	-7	9	27	17	8
Foreign exchange	6	31	196	56	23	33	-46	16
Travellers cheques	35	-7	30	39	22	-7	33	-7
Commercial loans	-5	6	19	-7	9	6	43	46
INSURANCE								
Life	78	5	37	33	83	66	-9	30
Home	-16	3	-4	39	81	57	17	90
Motor	30	15	100	9	148	77	-7	-17
Commercial fire,theft	-9	43	24	153	245	-15	-1	27
Public liability	13	47	60	117	77	9	16	-7
SECURITIES								
Private equity	36	7	65	-13	-3	7	114	123
Private gilts	14	90	217	21	-63	27	161	36
Institutional equity	26	69	153	-5	47	68	26	-47 <sup>1</sup> :
Institutional gilts	284	-4	60	57	92	-36	21	:
II. THEORETICAL, POTENTIAL PRICE REDUCTIONS								
Banking	15	33	34	25	18	16	10	18
Insurance	31	10	32	24	51	37	1	4
Securities	32	11	44	23	33	9	18	12
Total	23	25	34	24	29	17	9	13
III. INDICATIVE PRICE REDUCTIONS								
ALL FINANCIAL SERVICES								
Range	6-16	5-15	16-26	7-17	9-19	3-13	0-9	2-12
Centre of range	11	10	21	12	14	8	4	7

SOURCE: Commission of the European Communities (1988a, Table 5.1.4., p.91).

NOTE: 1. Observations for consumer credit in Italy and mortgages in Luxembourg and institutional gilts in the United Kingdom were manufactured.

TABLE 4

CHANGE<sup>a</sup> IN MARKET SHARES OF EUROPEAN BANKS  
BY OWNERSHIP CATEGORY (1983-8)(%)

COUNTRY	PRIVATE	PUBLIC	MUTUAL	FOREIGN
AUSTRIA	- 1.2	- 0.2	1.4	-
BELGIUM <sup>b</sup>	1.5	- 5.2	2.4	1.3
DENMARK <sup>c</sup>	- 0.1	- 1.0	1.1	-
FINLAND <sup>b</sup>	1.0	- 1.3	1.0	- 0.6
FRANCE	19.7	- 20.3	- 2.7	3.4
GERMANY	0.9	0.4	0.7	- 2.0 <sup>e</sup>
GREECE <sup>c</sup>	2.9	- 5.1	-	2.2
IRELAND	6.0	- 0.2	0.7	- 6.5
ITALY	- 9.1	7.5	1.2	0.4
NETHERLANDS	2.5	1.0	- 5.8	2.3
NORWAY	5.9	- 11.6	5.7	-
SPAIN	- 4.3	- 5.6	6.2	3.7
SWEDEN	- 1.6	0.7	- 2.0	2.9
SWITZERLAND <sup>d</sup>	2.0	- 2.2	1.1	- 0.8
UNITED KINGDOM	- 1.4	0.0	0.8	0.7

SOURCE: Gardener and Molyneux (1990, Table 2.6, p.22).

NOTES: a) Percentage share of total banking sector assets in 1988 minus percentage share of total banking sector assets in 1983.

b) 1982-8.

c) Change in market shares relate to total deposits (Denmark) and total credit (Greece).

d) 1985-8.

e) Foreign bank branches only.

headings) spread of ownership of European banking institutions varies markedly from one country to another<sup>7</sup>.

The centrepiece of the EC proposals for the banking sector is, of course, the Second Banking Directive and its concept of a single banking licence. The single banking licence is designed to implement the freedoms given by Articles 52 and 59 of the Treaty of Rome, viz. freedom of establishment and freedom of services. The single licence will allow banks and other credit institutions that are nationals of a member state to expand their activities throughout the community, either via branches or through the offer of cross-border services. From an economics perspective, it is these greater freedoms -including the possibility of 'trade without establishment' throughout the SFS- that are seen as the route to even more intense competition in the 'new Europe'.

The supervisory regulatory philosophy of the Second Banking Directive is enshrined in the principles of home and host country control, and the related concepts of 'mutual recognition'. The latter means essentially that the supervisory authorities in one country will recognise the prudential equivalence of other EC bank supervisors. Authorisation is a matter for the home country, but the principle of home country control has not yet been fully realised. However, the application of prudential rules, like those relating to capital adequacy, that are designed to ensure the solvency of the whole bank (including branches in other member states) against the risk of counterparty default are subject to home country control.

The EC rules on capital adequacy will, of course, be legally binding on EC member states. These rules have evolved through a comparatively long process of negotiation and study within the EC. But it is the wider, international convergence of capital adequacy that has occupied centre-stage throughout the second half of the 1980s. Although not legally binding, the agreement of major (and many minor) banking countries to abide by these rules

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<sup>7</sup>See Gardener and Molyneux (1990, p.21, Table 2.5).

has the same, positive effect. For economic purposes, these agreements are *de facto* mandatory supervisory rules.

### **The convergence movement<sup>8</sup>**

The Basle proposals for convergence are the culmination of a long and continuing process of co-operation between the authorities in different countries<sup>9</sup>; this process started in the early 1970s. The 1975 Basle Concordat and the revised 1983 Concordat are pragmatic indicators of the high level of co-operation that had already been achieved by the early 1980s. The Basle Committee has engineered important new advances in the extension of the international supervisory net.

The detailed history of convergence is a fascinating subject, but it is beyond the scope of this paper. However, it is relevant to outline at least some of the background to contemporary developments. The majority of developed countries had reorganised their national supervisory capital adequacy systems by the late 1970s. Many of the risks assumed by banks had become more international; banks rapidly expanded their international activities during the 1970s. At the same time, the world's financial markets started to become more globally integrated, or globalised. The August 1982 debt crisis and its aftermath increased the concern of supervisors with banking risks.

It became generally accepted that the capital standards of international banks should be improved. An increasing need was also becoming apparent for greater consistency in capital adequacy appraisals. Paul Volcker, Chairman of the US Federal Reserve Board, proposed to his fellow governors early in 1984 that efforts should be directed towards reconciling the different systems of

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<sup>8</sup>This section is taken from Gardener (1990b). See Cooke in Gardener (1990) for a more detailed account of the convergence movement.

<sup>9</sup>See Cooke in Gardener (1990, ch.18)

capital adequacy used in the individual G-10 countries. Volcker suggested a test of 'functional equivalence'. Following this proposal, the chairman of the Basle Committee was charged by the G-10 governors in March 1984 to initiate positive action towards capital adequacy convergence.

The work of the Basle Committee had close associations with that carried out in this area by the EC. From the beginning of the 1970s Brussels had developed and tested the capital ratios of Community banks. Early EC work was concerned with appraising various RAR schemes. A series of 'observations ratios' were developed by the early 1980s, but a common EC standard appeared to be a long way off at that time.

Although the convergence work and objectives of Basle and Brussels have been congruent in many respects, there have been practical difficulties and problems. Seven members of the Basle Committee are also members of the EC, and the Brussels proposals are designed ultimately to be legally enforceable on all EC member countries. The Basle proposals, on the other hand, are 'compacts' or consensus agreements amongst countries. Japan and the United States could not be expected to be led by EC proposals.

The landmark event for present purposes was the historic convergence agreement between the US Federal Banking Regulatory Authorities and the Bank of England, which was announced in January 1987. The new guidelines were aimed at establishing appropriate capital standards in both countries. A common scheme was agreed, which was implemented immediately alongside each country's existing domestic system. The short-term objective was to replace the respective domestic supervisory systems with the agreed convergence proposals.

It was clear that the US and UK authorities accorded a high priority to convergence. The speed with which the agreement was reached and implemented was extraordinary by international standards. The next dramatic move in the international movement was the Basle December (1987) proposals. The US/UK convergence proposals were shelved, and banking attention focused on the new Basle initiative. A six-month consultation period was proposed for banks and other interested parties to comment on the initial (December 1987) Basle

proposals. The July 1988 Basle paper incorporated the results of this consultation process.

## **THE CAPITAL ADEQUACY PROBLEM**

### **The Basle approach**

The Basle (1988) proposals for convergence of capital adequacy are based on a RAR (risk assets ratio) approach. This 'model' has also been developed by the EC; capital adequacy analysis for commercial banks worldwide is now essentially 'RAR-driven'. The Committee considers (1988, para 9) that:

"... a weighted risk ratio in which capital is related to different categories of asset or off-balance-sheet exposure, weighted according to broad categories of relative riskiness, is the preferred method for assessing the capital adequacy of banks:"

The emphasis on relative riskiness should be noted: the Basle RAR weights are not promulgated as absolute risk measures.

The Basle scheme's transitional arrangements are summarised in Table 5. A minimum RAR of 8 per cent is proposed for 1992. The Committee has been at pains to emphasise that it is not suggesting that other capital adequacy schemes are irrelevant. It believes, however, that a RAR has a number of advantages over simpler gearing ratios. It is suggested (1988; p.10, para 28), for example, that a RAR provides a fairer basis for international comparisons, facilitates the inclusion of off-balance-sheet (OBS) exposures and it does not deter banks from holding liquid and other low risk assets. In this latter connexion, one of the important aims of the Basle RAR proposals is to encourage prudent liquidity management (1988, para 34).



TABLE 5

BASLE TRANSITIONAL ARRANGEMENTS

	INITIAL	END - 1990	END - 1992
1. MINIMUM STANDARD	The level prevailing at end-1987	7.25%	8.0%
2. MEASUREMENT FORMULA	Core elements plus 100%	Core elements plus 100% (3.625% plus 3.625%)	Core elements plus 100% (4% plus 4%)
3. SUPPLEMENTARY ELEMENTS INCLUDED IN CORE	Maximum 25% of total core	Maximum 10% of total core (i.e. 0.36%)	None
4. LIMIT ON GENERAL LOAN LOSS RESERVES IN SUPPLEMENTARY ELEMENTS *	No limit	1.5 percentage points or exceptionally up to 2.0 percentage points	1.25 percentage points, or exceptionally and temporarily up to 2.0 percentage points
5. LIMIT ON TERM SUBORDINATED DEBT IN SUPPLEMENTARY ELEMENTS	No limit (at discretion)	No limit (at discretion)	Maximum of 50% of Tier 1
6. DEDUCTION FOR GOODWILL	Deducted from Tier 1 (at discretion)	Deducted from Tier 1 (at discretion)	Deducted from Tier 1

NOTE: \* This limit would only apply in the event that no agreement was reached on a consistent basis for including unencumbered provisions or reserves in capital (see paragraphs 20 and 21).

SOURCE: Committee on Banking Regulations and Supervisory Practices (1988, Annex 4).

The framework of risk weights has been kept as simple as possible. Only five risk weights are used; 0, 10, 20, 50 and 100 per cent. The Committee (1988, p.10, para 29) cautions:

"There are inevitably some broad-brush judgements in deciding which weights should apply to different types of asset and the weightings should not be regarded as a substitute for commercial judgement for purposes of market pricing of the different instruments."

Assets are assigned into categories of relative riskiness according to their deemed credit-risk exposure. The scheme focuses on credit risk and country transfer risk as a further aspect of credit risk.

An important feature of the Basle scheme is that it assigns great importance to the inclusion of all off-balance-sheet (OBS) activity within the RAR framework. Different instruments and techniques are divided into five broad categories. Credit-risk conversion factors are assigned to these broad categories of OBS instruments and techniques, but special treatment is accorded to interest and exchange-rate related items<sup>10</sup>.

Under the new arrangements, bank capital is divided into Tier 1 and Tier 2. These capital elements comprise the following:

Tier 1    (a) Ordinary paid-up share capital/common stock.  
          (b) Disclosed reserves.

Tier 2    (a) Undisclosed reserves.  
          (b) Asset revaluation reserves.  
          (c) General provisions/general loan cross reserves.  
          (d) Hybrid (debt/equity) capital instruments.  
          (e) Subordinated term debt.

The sum of Tier 1 and Tier 2 elements will be eligible for inclusion in the capital base, subject to a number of specific limits. For example, the

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<sup>10</sup>The first treatment is computing the current replacement cost (by marking to market) and adding on a factor that represents potential exposure during the contract's remaining life. The second method comprises conversion factors based on the nominal principal sum underpinning every contract according to its type and maturity.

total of Tier 2 (supplementary) elements will be restricted to a maximum of 100 per cent of the corresponding Tier 1 elements, and subordinated term debt will be limited to a maximum of 50 per cent of Tier 1 elements (ie 25 per cent of the capital base)<sup>11</sup>. In order to calculate the RAR ratios, various adjustments are also made to the capital base. Goodwill is deducted from Tier 1 capital; and investments in unconsolidated banking and financial subsidiary companies<sup>12</sup>, together with investments in the capital of other banks and financial institutions (at the discretion of national authorities), are deducted from total capital.

### **Capital adequacy in the EC**

There are detailed and technical aspects of Basle, but the basic scheme is the RAR model outlined in the last section. Cooke -see Gardener (1990a, ch.18)- emphasises that the Basle and EC schemes share a common philosophy and genesis. In fact they are practically inseparable in this respect. Important parties to the Basle agreement were also instrumental in shaping the Basle RAR model.

Following the historic Basle agreement, regulators in Europe and the G-10 countries have been heavily occupied in implementing the guidelines, interpreting particular sections of the proposed scheme, tackling some unresolved issues, dealing with the reactions and proposals of various banks to the scheme, and developing the RAR model itself. The EC regulators in Brussels practise a capital adequacy philosophy that is broadly in line with that of Basle. Indeed, the EC capital adequacy proposals mirror closely the Basle system, subject to some minor modifications. For instance, the EC definition of capital places no cap on the amount of general loss reserves

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<sup>11</sup>Restrictions are also made on specific elements of loan loss reserves and asset revaluation reserves.

<sup>12</sup>The presumption is that the framework will be applied on a consolidated basis.

that may be included within Tier 2 capital. Under the EC scheme, however, latent or hidden reserves in the form of undervalued equities are not counted within capital: this ruling will affect especially West German and Spanish banks. The EC proposals also embody some comparatively minor adjustments in Basle's individual risk asset weightings. All in all, however, the Basle and EC schemes are broadly similar. On balance, the EC' adjustments probably dilute Basle to a modest extent, although individual EC supervisory regulators like the Bank of England are likely to adopt a tough stance in their interpretation of particular rulings where national discretion is allowed.

Table 6 summarises some key European bank performance and condition ratios. France, Belgium, Italy and the Netherlands currently have comparatively low Basle ratios; the other banks (especially the United Kingdom, Spain and Switzerland) have good corresponding capital ratios. Table 7 depicts a recent scoring by Morgan Stanley's 'European Financial Commentary' (1990) of European banks' capital adequacy. A score of 5 reflects the estimated strongest countries. The German banks appear stronger in Table 7 compared with Table 6 because of the conservative attitude of the German authorities<sup>13</sup> and the general strength and 'hidden value' (see Table 2) in German banks' balance sheets. The general view of this analysis is that only in a few banking systems in Europe is capital adequate. Expected strong economic and financial sector growth, stimulated partly through deregulation, will put increasing pressure on bank capital adequacy in the SFS.

Strong competitive pressures in a deregulation environment are amongst the classic environmental factors<sup>14</sup> that are likely to increase the propensity for 'regulation-avoidance behaviour' of banks. A good example of this economic behaviour has been the attempts by many banks to create novel forms of Tier 1

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<sup>13</sup>This is a factor that also makes German banks frequent issuers of equity.

<sup>14</sup>Other such factors include some inflationary pressures (that help to increase the marginal returns from innovating behaviour) and technological advances (that operate to lower the corresponding marginal costs of innovating). These are all elements of the so-called US 'theory' of financial innovation, embodied in the Kane/Eisenbeis regulatory dialectic model: see Gardener in Gardener and Revell (1987).

TABLE 6

KEY EUROPEAN BANK PERFORMANCE AND  
CONDITION MEASURES (1989)

COUNTRY	BANK	PRICE/BOOK VALUE	ROE	BASLE RATIO
U.K.:	Abbey National	1.05	14.7	>11
	NatWest	0.91	18.7	10.8
BELGIUM:	BBL	86	15.0	8.5
	General de Banque	102	13.4	7.0
FRANCE:	BNP	0.99	12.8	7.5E
	Credit Lyonnais	0.79	9.7	7.5
GERMANY:	Deutsche	260	10.4	>10E
	Commerzbank	120	9.2	>9E
ITALY:	Banco di Roma	196	3.34	>7E
	Credito Italiano	138	8.46	>9E
NETHERLANDS:	ABN	77	10.6	8.5
	AMRO	79	11.2	8.5
SPAIN:	BBV	1.89	22.3	>11E
	Santander	2.91	20.6	>11E
SWITZERLAND:	UBS	173	7.8	>11E
	SBC	130	7.6	>11E

SOURCE: Morgan Stanley (1990).

TABLE 7  
RANKING OF BASEL CAPITAL ADEQUACY

COUNTRY	INDEX SCORE
BELGIUM	1
DENMARK	3
FINLAND	2
FRANCE	2
GERMANY	5
IRELAND	5
ITALY	2
NETHERLANDS	3
NORWAY	1
SPAIN	4
SWITZERLAND	5
U.K.	4

SOURCE: Morgan Stanley (1990, Table 5).

and Tier 2 capital. These have included variable rate notes, perpetual preferred stock, repackaged perpetual debt and debate on whether revaluation surpluses may be upgraded to Tier 1 capital. Regulators have been forced to abandon a sole reliance on general principles and to adopt a case-by-case approach to all these kinds of proposals. G-10 supervisors have created a subcommittee -the Capital Liaison Group- to monitor capital definitions on a continuing basis. The Basle forum has probably been strengthened under the pressures it has experienced since 1988 to modify and adjust its original proposals.

Basle is one part, albeit an especially important and significant one, of the supervisory re-regulation tapestry that has accompanied the build-up to 1992. The proposed EC Investment Services Directive (ISD) has also produced a new proposal for a Capital Adequacy Directive (CAD) for European investment firms. CAD went through five drafts, and many radical changes were made at

several of these draft stages. This is indicative of the controversy and strong views that have been expressed by different countries. In this respect the Germans have voiced particularly strong views, although UK criticisms have also been strident. Indeed, the British and Germans represent two, divergent views, each reflective of their respective banking structures and corresponding regulatory philosophies. A major aim and issue with CAD has been how to create a 'level playing field' between banks and securities houses when they compete in the same investment markets.

Capital adequacy requirements for investment firms are measured in a different way than for commercial banks, although the basic aims are the same. Whereas the Solvency Ratio Directive is concerned with relative credit risk (though this risk category is to be extended) and employs balance sheet (stock) measures, CAD uses a quite different method of establishing solvency. CAD involves more of a flow (dynamic) approach that takes account of a wide range of different risks: these include position risk, settlement risk, interest rate risk, exchange rate risk, etc. CAD sets lower minimum levels of capital, but what qualifies as capital is more broadly defined<sup>15</sup>.

CAD is complex and highly technical in places, and this whole area of regulation is much less 'converged' -both globally and at an EC level- than the Basle proposals. The German view has been that CAD is not really needed in a universal banking system. They argue that the capital adequacy regime for all firms engaged in any type of banking should be identical, and based on the Banking Directive's Own Funds and Solvency Ratio Directives. CAD imposes additional requirements on banks when they deal in securities. This is less of a problem for banks in countries like the United Kingdom where banks conduct business through separately regulated subsidiaries. Early drafts of CAD also proposed a capital regime that was much less onerous than for banks<sup>16</sup>.

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<sup>15</sup>For instance, it includes debt of much shorter security.

<sup>16</sup>Present proposals are for two tiers of capital: equity capital plus subordinated debt equivalent to a maximum of 250 per cent of equity capital. The Germans have consistently argued that the equity component should be higher.

CAD has raised many important issues, and these are unlikely to be resolved in the foreseeable future. One question is whether banks and securities houses should be treated the same. Although many believe not, the institutional convergence between investment and commercial banking may reduce the case for complete regulatory separation. This question bears *inter alia* on the alleged uniqueness of banks, and the conflict between the attractive economic arguments<sup>17</sup> for functional regulation<sup>18</sup> in the face of the realities of the still-evolving institutional marketplace. The compromise proposal in CAD is that banks (at national supervisors discretion) should be allowed to separate their securities trading activities and capitalise them according to the ISD rather than the Banking Directive.

For commercial banks, however, the Basle framework is still the main capital-adequacy system, and the Basle proposals are now only one month away from their official phasing-in (end 1990). Bankers in many countries (including the United Kingdom and United States) are already concerned that their supervisory authorities are going to interpret Basle as a minimum standard for only the highest quality banks. This kind of debate and trend opens up the possibility of regulation asymmetries and distortions appearing. The US Fed has already expressed its determination to operationalise a series of capital requirements for banks of differing quality<sup>19</sup>.

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<sup>17</sup>Enshrined at one level in the view that equal business activity and equal risk require always equal regulation.

<sup>18</sup>Focusing on the nature of business activity rather than the kind of institution.

<sup>19</sup>See Brady (1990, pp.149-153).



## Strategic Issues

Several important developments are currently under way in EC capital adequacy analysis. One is the agreement on capital adequacy rules for loan loss provisioning. Another key issue is the development of the commercial bank supervisory apparatus to include non-credit risks. The sub-committees in Basle are researching into the supervisory measurement of foreign exchange, interest rate and equity price movements. For the moment, however, bank supervisory concern is still heavily focused on relative credit risk.

The positive aims of Basle and the EC measures on capital adequacy are undeniably laudable. A basic aim is to increase micro (the banking firm) and systemic (the macro-financial system) prudential safety and stability. Systemic risk reduction and containment are probably the strongest economic arguments for bank supervision, although even these rationales are strongly disputed. At least two basic questions may be posed<sup>20</sup> in this context. Is a RAR a sound methodological framework for bank risk appraisal? What are the behavioural (bank strategic) consequences of supervisory RAR systems?

There are serious methodological flaws, at least in theory, with the RAR framework. An obvious weakness is the sole concentration on credit risk; another weakness is the supervisory notion of 'relative riskiness'. The latter concept implies a kind of 'force fitting' system; one that is primarily the product of a bargaining process in which the very large banks are used as the 'role models' to set ratio components and levels. A more tangible weakness of RAR is its simple concept of risk; banking risks, for example, are assumed to be additive linearly. Although risk concentrations are crudely recognised, the possibility of diverging risk-realisation patterns in a balance sheet portfolio are not handled within the RAR model itself. No static, ratio model like RAR can really capture these kinds of dynamic aspects of risk appraisal.

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<sup>20</sup>Taking as a datum the existence of supervision in the real world and its primary economic rationale.

In practice, of course, the Basle and EC RAR systems can only at best be 'trigger mechanisms', or 'signalling devices', in capital adequacy and wider bank solvency appraisals. Two (at least) dangerous fixations can arise from the present supervisory process in the 'new Europe'. One is to imbue supervisory ratio systems, like the present RAR model, with a kind of excessive or 'unwarranted vitality'. Exact numbers and detailed mandatory requirements are used as a kind of 'veil' to mask the real economic uncertainty that inevitably surrounds an area like capital adequacy appraisal.

The other related fixation is that banks may be diverted away from a more fundamental risk appraisal of their own portfolios. At one level, of course, the growth in importance of the treasury and financial control functions in banks evidences managerial concern with monitoring and controlling their own internal risk exposures. Supervisory authorities, like the Bank of England, also pay great attention within the supervisory process to the adequacy of banks' internal control systems. Nevertheless, it is not the task of supervisors to control capital adequacy in the detailed way expected of a professional banking management. There is evidence<sup>21</sup>, however, that some major banks may internally allocate their capital primarily on the basis of supervisory capital standards. This may imply either that supervisory capital standards are too high and/or that management systems of internal risk allocation are inadequately developed.

A fundamental supervisory issue, then, is the impact of a system like RAR on bank strategies and decisions, evidenced in the risk and corresponding profit return position assumed by the regulated banks. Any supervisory ratio system may operate as a kind of tax on the regulatees, the banks regulated. One reaction (result) is to try and pass on this tax to the consumers of financial services, to increase the cost of intermediation. Another, not necessarily mutually exclusive, reaction is to seek increased profit in order

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<sup>21</sup>See, for example, Gardener (1990d).

to meet the new capital standards. A basic economic law<sup>22</sup>, however, is that higher potential returns are usually accompanied by more risks. If the latter are not priced correctly, a bank's net risk exposure may actually increase. In the highly competitive environment that characterises the SFS, these under-pricing dangers become more heightened. Under these conditions, demands for increased capital adequacy may be risk-producing for some banks and the system as a whole.

The third (again not necessarily mutually exclusive) reaction may be to attempt to innovate around the ratio restriction. The post-1982 securitisation trend in international financial markets and the post-July 1988 debates on allowable capital under Basle and the EC RAR schemes typify this kind of economic reaction that is characteristic of competitive markets. This kind of innovating behaviour (regulation avoidance) may be destabilizing and consume economic resources (like managerial expertise and time) that could be put to other, more productive uses.

These considerations spell out the need for caution in what capital adequacy supervision can legitimately be expected to achieve and how it should be developed. A slavish adherence to balance sheet ratios and legal, mandatory systems of supervisory control is out of keeping with the globalised market environment of the SFS. The clear danger is that excessive supervision may erode the kind of economic gains sought from deregulation. On the other hand, the dangers of temporary 'overshooting behaviour' by banks and other financial firms are likely to be higher as the system becomes deregulated. The practical case for capital adequacy supervision appears robust, but there is less clarity on how the balance should be struck between structural deregulation and supervisory re-regulation. What is clear is that strict, mandatory legalism in laying down rules and norms in supervision may not be economically sound and can produce paradoxical and unintended effects in the market.

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<sup>22</sup>The law of diminishing marginal utility of money, or the more familiar (positive) risk/return trade-off in finance theory.

A related fixation is that of the underlying notion of competitive equality. The legitimate aim of 'level playing fields' has sometimes been mis-interpreted as a corresponding objective of competitive equality. Two problems arise. First, the notion of competitive equality is most complex to conceive, let alone operationalise<sup>23</sup>. Competitive equality for depositors, lenders or stockholders? ... typifies the conceptual and practical difficulties. The second problem is that no regulatory authority can make unequals equal (in a competitive sense) by simply prescribing the same capital adequacy ratios for all. One obvious reason is that banks' cost of equity capital differs in different countries. Competitive equality under these conditions would seek to relate minimum capital levels to the corresponding costs of capital. The operational problems and dubious economic logic of such attempts need no real emphasis. The simple lesson here again is that the market will invariably undo regulatory illogic of this kind.

Competitive neutrality is a more useful and operational aim. Convergence should aim to ensure that banks in one country or market sector are not disadvantaged compared with their competitors. The continual eroding of traditional institutional barriers between competing financial firms implies that a greater emphasis in supervision must be accorded to functional supervision and the characteristics of different portfolios or risks. The latter considerations are more emphasised with the universalisation and de-mutualisation movements now under way in Europe. The other policy lesson is that convergence must be a continuing process that embraces a wider range of different institutions increasingly competing with each other.

These are, of course, various models of competitive neutrality. Competitive neutrality in supervision might be achieved, for example, with excessively penal (but equal) capital ratios for all bank competitors in any defined product/market segment. This is obviously undesirable *ceteris paribus*, but supervisors have an apparent bias to go for higher, rather than lower, capital adequacy levels. Practical supervision should aim for competitive

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<sup>23</sup>See Molyneux (1988b).

neutrality, consistent with systemic risk containment and market contestability, reducing the barriers to entry of new competitors. In this latter connexion supervision must play its role in helping to increase the contestability of banking markets.

## CONCLUSIONS

Capital adequacy is clearly a complex and highly important issue in the SFS. New alliances and banking partnerships throughout Europe are in part strategic responses to capital adequacy pressures. Stricter capital adequacy regulations and the need to finance continued expansion will increasingly put pressure on the capital adequacy positions of banks in the SFS. No one would deny the importance of capital adequacy in the 'new Europe', but its singular impact may have been overstated by some observers. In practice, European banks are facing their biggest strategic and managerial problems in managing different cultures, cost cutting, technology investment, shortened product life cycles, demographic shifts, asset quality and marketing. Having a good Basle/EC RAR ratio is no substitute for good quality management, but no European bank can ignore capital adequacy.

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