"The Regulation Framework for the Banking Sector: The EMU, European Banks and Rating Agencies before and during the Recent Financial and Debt Crisis"

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Abstract

In our survey article, we present a holistic regulation framework for the banking sector. The article is based on European banks that are part of the European Monetary Union (EMU). Initially, we focus on the timelines and review the integration of the European Monetary Union, relevant legislation and information on member countries' banking sectors. This information creates the framework for our analysis.
A regulation framework for the banking sector should be characterised by transparency, responsibility and performance in several important areas. These areas are the global and European framework for corporate financial reporting (CFR), risk management (RM), stockholder value creation (SVC), corporate governance (CG), corporate social responsibility (CSR) and sustainable development (SD).
The regulation framework for the banking sector must also consider the fiscal and monetary environment in which a banking institution operates. The global rating system and the rating agencies will also have an important impact on any regulation framework for the banking sector. These two factors play a key role when a financial, credit or debt crisis occurs.
Our article considers all of the above factors in creating a holistic regulation framework for the banking sector to present in the context of the recent financial, credit and debt crises that have taken place in the EMU.

Key words: Banking; Regulations; Financial Crisis; Debt Crisis; EMU;

JEL classification: G01; G21; G28; G30; H12;

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Introduction

Initially, this article will focus on the EMU, European banking legislation and the banking industry in Europe. The paper will review the actions taken to establish the European Monetary Union and the integration timeline for the Union. Then, a review of legislation in the banking and financial sectors in the European Union will be presented. In the review of European banking, key figures will be provided to indicate clusters of similarities between the banking sectors of various countries in the EMU. The analysis will also be focused on events and changes arising from the recent financial, credit and debt crises.
The second part of the article will present the global and European frameworks for corporate financial reporting (CFR), the authorities responsible for establishing the GAAP and accounting standards to harmonise accounting practices, and the amendments in the CFR framework due to the credit crisis in the financial markets. Then, risk management (RM) in the banking industry will be presented via an analysis of its main characteristics and regulatory concerns. Capital regulations and banks' capital requirements will also be discussed, as will the Basel Committee and Basel I and Basel II, Pillars I (minimum capital requirements) II (supervisory review), and III (market discipline and disclosure). Another topic presented will be recent improvements in RM procedures including CAD III and international regulatory framework for banks (e.g., Basel III. Stockholder value creation (SVC) for the banking industry and methods and models of performance measurement will be introduced. Then, corporate governance, audit-related, measures related to boards of directors, and measures relating to charters and by-laws will be addressed. Other topics will include director education, executive and director compensation, ownership, progressive practices, and states of incorporation. Finally, the appropriate indexes for corporate social responsibility (CSR) and sustainable development (SD) will be presented along with information on the 2002 Global Reporting Initiatives (GRI) Guidelines, environmental corporation policies. The analysis will be largely focused on events and changes arising from the recent financial, credit and debt crises and recent related improvements.
The third section of the article will indicate the impact of the fiscal and monetary environment on the banking industry, discuss characteristics of the banking industry, present the measures and indicators reflecting external influences on the banking industry, and analyse the global rating system and the rating agencies. This analysis will be focused on events in the fiscal and monetary environment and, again, changes arising from the recent financial, credit and debt crises.
All of the above will be used to generate a holistic regulation framework for the banking sector that will emphasise transparency, responsibility and performance.

1. EMU, European Banking Legislation and the Banking Industry of Europe

Based on the work of John H. Rogers (2007) and John Goddard, et. Al. (2007) and by collecting data from various reports from the European Central Bank and the Central Bank of Greece the present study will describe the environment established by the European Monetary Union (EMU). Then, this article will present the legislation and directives introduced to regulate the banking industry in the EMU along with the main accounting and other quantitative figures for the EU banking sector as follows:

1.1. The review of actions to establish the European Monetary Union

1.1.1. European Monetary Union integration timeline

The European Monetary Union was created in 1957. The timeline for economic integration has progressed as follows:

1957	The Treaty of Rome establishes customs unions
1970s	An informal joint float of several European currencies is instituted versus the dollar (called ‘‘the snake’’)
1979	The European Monetary System creates a formal network of mutually pegged exchange rates (France, Germany, Italy, Denmark, Ireland, Luxemburg, Netherlands)
1986	The Single European Act (‘‘Europe 1992’’) is established, which eventually facilitates the full development of the internal market, removing internal barriers to trade and to the movement of capital and labour
1991	The Maastricht Treaty meeting is held; the vision of an economic and monetary union (EMU) is first introduced
1991	Specified convergence criteria for EMU admission are developed, along with calls for the harmonisation of social policy (‘‘stage 2,’’ to begin 1/94)
1989-92	Spain (‘89), Britain (‘90), Portugal (‘92) join the EMS; Italy and Britain leave after the 9/92 crisis over the harmonisation of the value-added tax (VAT); the internal market is fully developed
1997	The Stability & Growth Pact specifies medium-term budgetary objectives for the EMU
1998	EMU members include Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxemburg, Netherlands, Portugal, and Spain
1999	The Euro is launched along with a single monetary policy for the entire EMU (set by the ECB); all monetary policy actions and most large-denomination private payments are completed in Euros. National currencies are ‘‘irrevocably fixed’’ but continue to circulate for a 3-year transition period
2001	Expansion of the EMU; Greece joins
2007	Expansion of the EMU; Slovenia joins
2008	Expansion of the EMU; Cyprus and Malta join
2009	Expansion of the EMU; Slovakia joins
2011	Expansion of the EMU; Estonia joins

1.1.2. The current situation

Economic growth had resumed in most countries by the 4th quarter of 2009. The main exceptions were the Baltic States, Greece, Iceland, Ireland, Portugal and Spain. Most developing countries have experienced a return to pre-recession growth rates, but growth rates in developed countries are generally below trend, and unemployment rates continue to rise. From January 2010 to the present, twelve member states in the eurozone have experienced public debt ratios higher than 60% of GDP. Particular concern developed in early 2010 regarding the fiscal sustainability of the economies of the PIIGS countries (Portugal, Ireland, Italy, Greece and Spain) following rating downgrades by the credit rating agencies. In May 2010, the eurozone governments and the IMF made €110 billion available to Greece. Also, the eurozone launched its €600bn European Financial Stability Facility during that period, and the European Central Bank launched its Securities Markets Program. In November 2010, an agreement was reached regarding an EU/IMF Ireland rescue package of €90 billion for Ireland. Beginning in December 2010, the European Central Bank bought Portuguese and

Irish bonds. In April 2011, Portugal was integrated into the European Financial Stability Facility with a rescue package of approximately €90 billion.

1.2. The review of legislation for banking and financial sectors in European Union.

The relevant legislation introduced in the EU banking and financial sectors is summarised in the timeline that follows:

1977	The First Banking Directive removes obstacles to the provision of services and the establishment of branches across the borders of EU member states, harmonises rules for bank licensing, and establishes EU-wide supervisory arrangements
1988	The Basel Capital Adequacy Regulation (Basel I) establishes minimum capital adequacy requirements for banks (8% ratio), defines Tier 1 (equity) and Tier 2 (near-equity) capital, and creates risk weightings based on credit risk for banks
1988	The Directive on the Liberalization of Capital Flows ensures free cross-border capital flows with safeguards for countries with balance of payment problems
1989	The Second Banking Directive creates a single EU banking license, introduces principles of home country control (home regulators had ultimate supervisory authority over foreign activity in their banks) and ensures mutual recognition (EU bank regulators recognise equivalent regulations); this Directive is passed in conjunction with the Own Funds and Solvency Directives, which incorporate capital adequacy requirements similar to those of Basel I into EU law
1992	The Large Exposures Directive indicates that banks should not commit more than 25% of their own funds to a single investment and that the total resources allocated to a single investment should not exceed 800% of their own funds
1993	The Investment Services Directive creates a legislative framework for investment firms and securities markets, providing for a single passport for investment services
1994	The Directive on Deposit Guarantee Schemes provides minimum guaranteed investor protection in the event of bank failure
1999	The Financial Services Action Plan (FSAP) creates a legislative framework for the single market in financial services
2000	The Consolidated Banking Directive allows for the consolidation of previous banking regulations
2000	The Directive on E-money governs access by non-credit institutions to; it harmonises rules/standards related to payments by mobile telephone and transport cards and at Basel payment facilities
2001	The Directive on the Reorganization and Winding-Up of Credit Institutions promotes the recognition throughout the EU of reorganisation measures and winding-up proceedings by the home states associated with EU credit institutions
2001	The Regulation on the European Company Statute presents the standard rules for company formation throughout the EU
2002	The Financial Conglomerates Directive provides a supervisory framework for a group of financial entities engaged in cross-sectoral activities (banking, insurance, securities)
2004	The New EU Takeover Directive provides a common framework for cross-border takeover bids

2005–2010 The White Paper on Financial Services Policy presents a plan to implement outstanding FSAP measures and arranges for the consolidation/convergence of financial service regulation and supervision

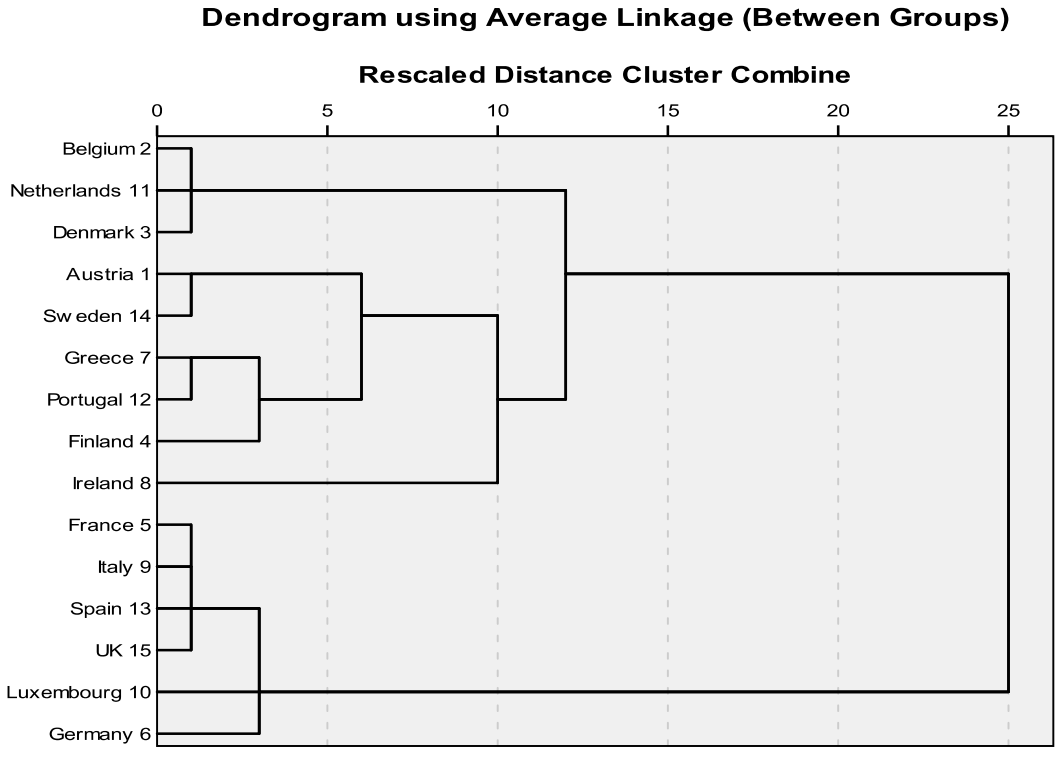
2006–2008 The Capital Requirements Directive updates Basel I and incorporates the measures suggested in the International Convergence of Capital Measurement and Capital Standards initiative (Basel II), improving the consistency of international capital regulations, improving the risk-sensitivity of regulatory capital, and promoting improved risk management practices among international banks

1.3. The main figures related to European banking; similarities between individual countries' banking sectors.

The evolution of the key financial figures for the European banking industry from 2005 to 2008 is presented in Table 1. Observations crucial to our analysis are immediately evident from Table 1:

a. The assets in the European banking sector seriously expanded during this time.
b. During the period from 2004 to 2008, bank assets expanded significantly in Spain (123%), Greece (101%) and Ireland (96%) .
c. Regarding Greece, it should be noted that the increase in bank assets was mainly due to their expansion into Eastern Europe, Asia and Africa. For that reason, private debt has remained quite low.
d. The number of banks and the number of branches has remained considerably stable.
e. The total number of employees in the European banking sector has remained stable, denoting a remarkable increase in productivity.

The data for Table 1 indicate the similarities between the banking sectors of several European countries based on hierarchical cluster analysis using all available methods, including Pearson correlation and Euclidian distances. The main conclusions according to the resulting dendrogram (correlation method, between groups) are as follows:



a. There are two large groups, one comprised of large countries like France, Germany, the UK, Italy, and Spain plus Luxembourg and another group comprised of all other countries, including Austria, Belgium, Denmark, Finland, Greece, the Netherlands, Portugal and Sweden.
b. Ireland remains in an uncertain position; based on the within-group analysis, it belongs to first group, but based on the between-groups analysis, it belongs to the second group.
c. The subgroup within the first group includes France, the UK, Italy and Spain, whereas Luxembourg and Germany stand alone.
d. There are three subgroups within the second group: the Netherlands, Belgium and Denmark; Austria and Sweden; and Greece and Portugal. Finland stands alone.

Table 1, *Timeline of Main Figures for the Banking Industries in the first 15 EU Countries (1985-2008)*

	Number of banks				Assets (billion euro)				Number of branches				Employees ('000s)			
Country	1985	1995	2004	2008	1985	1995	2004	2008	1985	1995	2004	2008	1985	1995	2004	2008
EMU countries																
Austria	1406	1041	796	803	–	–	635	1068	–	–	4360	4243	–	–	73	79
Belgium	120	143	104	105	286	589	914	1272	8207	7668	4837	4316	71	77	71	65
Denmark	259	202	202	171	96	126	607	1092	3411	2215	2021	2192	52	47	44	53
Finland	498	381	364	357	–	–	212	384	–	1612	1585	1672	–	31	25	26
France	1952	1469	897	728	1349	2514	4415	7225	25,782	26,606	26,370	39,634	449	408	425	492
Germany	4739	3785	2148	1989	1495	3584	6584	7875	39,925	44,012	45,505	39,531	591	724	712	686
Greece	41	53	62	66	69	94	230	462	1815	2417	3403	4095	27	54	59	66
Ireland	42	56	80	501	21	46	722	1412	–	808	909	895	–	–	36	41
Italy	1101	970	801	818	547	1070	2276	3628	13,033	20,839	30,946	34,139	319	337	337	340
Luxembourg	177	220	169	152	170	445	695	932	120	224	253	229	10	19	23	27
Netherlands	178	102	461	302	227	650	1678	2235	6868	6729	3649	3421	92	111	115	116
Portugal	226	233	200	175	38	116	345	482	1494	3401	5408	6391	59	60	53	62
Spain	364	506	346	362	311	696	1717	3831	32,503	36,405	40,621	46,065	244	249	246	276
Other EU countries																
Sweden	598	249	222	182	–	–	583	900	–	–	2018	2025	–	–	39	50
UK	772	564	413	391	1294	2000	6970	8840	2,224	17,522	13,386	12,514	350	383	511	496

Sources: ECB Structural indicators for the EU banking sector January 2010,

2. The Global and European Frameworks for Corporate Financial Reporting (CFR)

Globally, the term corporate financial reporting (CFR) is widely used in accounting frameworks like the following:

a. The Generally Accepted Accounting principles (GAAP) are used in the accounting, financial reporting, auditing, and business literature. To improve the legitimacy of accounting information and ensure its reliability and relevancy, accountants use this body of literature and/or a set of practices and "pronouncements with substantial authoritative support" referred to as the GAAP (Kieso & Weygandt, 2001). The GAAP vary from country to country, often allowing for alternative methods of addressing the same set of transactions. They are also not static; rather, they change dynamically according to national or global market conditions. Other similar principles are the Other Comprehensive Basis of Accounting (OCBOA) and Statutory Accounting Principles (STAT/SSAP).
b. The Generally Accepted Auditing Standards (GAAS) are very similar to the GAAP in accounting.
c. In the U.S. and U.K., generally fundamental accounting concepts include historical cost, conservatism (prudence), consistency, matching (accruals), materiality (substance over form), dual aspect (double entry), recognition, and others (FASB, 2003; IASB, 2001).
d. The Statements of Financial Accounting Concepts (SFAC) is the conceptual basis for the U.S. GAAP, whereas the IAS-1, the Presentation of Financial Statements, contains the IAS concepts. These guidelines also define and explain the elements of financial statements, identify characteristics of useful financial information (i.e., it must be relevant and reliable) and users of financial statements (i.e., internal and external) and introduce the fundamental accounting concepts (FASB, 2003; IASB, 2001). GAAP are often presented in statements indicating financial accounting standards (SFAS), statements of financial accounting interpretations (SFIN), accounting opinions, statements of position (SOP), accounting research bulletins (ARB), statements regarding financial reporting standards (FRS), standard statements of accounting practices (SSAP), and international accounting statements. The manner in which the GAAP are presented depends on the country, jurisdiction, or body issuing them. GAAP vary from country to country in terms of their sources and level of authority and in terms of any allowable alternatives. For example, the U.S. GAAP, the U.K. GAAP, the International GAAP (IAS), the German GAAP, the Chinese GAAP, the Canadian GAAP, and the Mexican GAAP are all unique.

2.1. Authorities responsible for establishing GAAPs.

The authorities responsible for establishing GAAP are generally

a. The International Accounting Standards Board (IASB)
b. The Financial Accounting Standards Board in the U.S. (FASB)
c. The Accounting Standards Board in the U.S. (ASB)
d. Other professional accounting bodies such as the American Institute of Certified Public Accountants (AICPA)
e. The Consultative Committee of Accountancy Bodies (CCAB) in the U.K.
f. The International Federation of Accountants (IFAC)
g. The Australian Society of Certified Public Accountants (ASCPA) together with the Australian Institute of Chartered Accountants in Australia (ICAA).

In addition, there are other jurisdictional bodies and national accounting authorities that also help to set accounting standards.

2.2. The accounting standards used to create accounting harmonisation.

The main bodies that compose accounting standards are as follows:

a. The *IAS*, *w*ith representatives from over 91 countries. The IASB sets the Global GAAP/IASs. The IASB is made up of trustees, a board, interpretations committees, and advisory committees. As of today, a total of 41 IAS statements have been issued. Underlying the IAS statements are the fundamental accounting concepts and conventions presented in the IAS-1 or *Presentation of Financial Statements*.

b. Currently, the FASB is the primary body responsible for issuing the U.S. GAAP in the form of statements regarding financial accounting standards, FASB Interpretations (FIN), Staff Positions (FSP), AICPA statements of positions and interpretations, accounting research bulletins, and others.

Research by Street et al. (2000) indicates that is narrowing the impact of differences between the IASs and US GAAP and suggests that the SEC should consider accepting the IASB standards without condition. The exact content of the IASs may not be the same as that of the U.S. GAAP, but in many ways the approach and the degree of detail provided are similar. Overall, the IAS and U.S. GAAP are more similar than dissimilar, and the movement toward harmonisation is only increasing these similarities.

According to a study conducted by Akwasi A. Ampofoa, 1, Robert J. Sellani (2005), certain goals will be important to the increasing harmonisation of international accounting standards:

a. There should be collaborations and common project-based initiatives by the major institutional forces designed to advance the goals set for the IASB. Good examples are the FASB and IASB projects.
b. The IASs should be presented in multiple languages and not just in English. This should allow researchers working in other languages, including German, Dutch, French, and Russian, to work toward harmonisation.
c. The IASs must be given legal backing by national parliaments and/or via global agreements – for example, through the Organization for Economic Cooperation and Development (OECD).
d. Accounting education programs worldwide should place more emphasis on producing global accountants and increase their mobility across the business world.
e. Internationalisation campaigns should allow for national differences, although such differences should be transparent and easily reconciled.
f. Concerns related to political economy should be considered in the formation of standards given that accounting reflects both social and transactional relationships. If this is made a goal, accounting standards may provide a means of overcoming social and economic inequities.

2.3. The framework for CFR and changes made due to the credit crisis in the financial markets

The following facts are essential to the framework of this banking-related study:

a. The European Union has already passed a law requiring publicly traded companies in member states to publish their financial statements using the International Financial Reporting standards (IFRs); this occurred in January 2005.
b. The establishment of the Public Company Accounting Oversight Board (PCAOB) as proposed by the Sarbanes Oxley Act (2002) in the U.S. and its strategic accounting alliances with the U.S. Financial Accounting Standards Board and the International

Accounting Standards Board have assisted in the convergence of accounting standards and made the prospect of the harmonisation and internationalisation of accounting standards a feasible goal for the coming decade.

c. Through the amendment to IAS 39 entitled the Reclassification of Financial Assets, introduced on 13-10-2008, the International Accounting Standards Board (IASB) announced changes related to the reclassification of financial assets to other portfolios at fair value through PL. The amendment took place after the US Financial Accounting Standards Board (FASB) announced similar changes to the US GAAP. Both were a response to the credit crisis in the financial markets. The aim was the harmonisation of the accounting principles used by listed companies in the US and Europe. Specifically, the amendments announced by the IASB included the following:
   - ✓ They made it permissible to reclassify all financial assets (bonds, stocks) except derivatives from financial assets portfolios (including trading portfolios) at fair value through PL to other investment portfolios (e.g., held-to-maturity or available-for-sale portfolios).
   - ✓ According to the amendments, these forms of reclassification are now permissible "only in rare circumstances" (IAS 39 amendment, par. 50B): e.g., in the case of a global credit crisis, as the IASB specifically mentioned in its press release from 13-10-2008.
   - ✓ The amendments indicated that the book value of the financial assets to be reclassified to held-to-maturity portfolios would have to be their fair value on the date of reclassification. Such securities (bonds) would need to be tested on an annual basis for impairment. The amendments also noted that shares could not be reclassified to held-to-maturity portfolios.
   - ✓ Similarly, the book value of financial assets to be reclassified to available-for-sale portfolio (bonds and/or shares) would be their fair value, and the resulting gains or losses from such changes in valuation would be recorded under a special reserve in the shareholders' equity. Any retained gains or losses would be recognised in the PL at the sale of these assets.
   - ✓ It was announced that the new reclassification regulations would applied retroactively (as of 1-7-2008). Financial assets would be reclassified at their fair value on the date of reclassification. It was noted that any gain or loss that had occurred before the reclassification date would not be reversed.
   - ✓ The amendments also indicated that after the reclassification of financial assets, the relevant financial statements would need to disclose the following information (IAS 39, par. 12A a-f):
     i. the amount of the financial assets reclassified from one category to another,
     ii. the carrying value and fair value of the reclassified financial assets during each reporting period,
     iii. the effect that the assets' valuation would have had on the PL had the reclassification not occurred, and
     iv. the justification for reclassification

2.4. Conclusion for CFR component

Again, the exact content of the IASs may not be the same as that of the U.S. GAAP, but in many ways, their approach and degree of detail are similar. The concept of IAS and U.S. GAAP are more similar than dissimilar, and the movement toward harmonization has made them even more similar. The CFR forms the basis for the recording, collection, publishing

and analysis of data for the banking sector. CFR permits the reclassification of financial assets only in rare circumstances in response to financial crises.

3. Risk Management (RM) Component for the Banking Industry.

Taking into account studies by Rosa Maria Lastra (2004), Thomas Garside and Jens Bech (2003), Bert Bruggink and Eugen Buck (2002) and Ian Wilson (2004), along with comments by Jaime Caruana, Governor of the Banco de Espania (2003) and the timeline for EU banking legislation presented in part 1 of our study, this article will present a framework for risk management for the banking industry.

3.1. The main characteristics of the banking industry as relevant to regulation

The banking industry is a highly regulated business for the following reasons:

a. The monetary nature of bank liabilities
b. The role of banks as payment intermediaries and providers of credit in an economy
c. The information deficiencies that characterise the business of banking, including those related to historical cost accounting, bank secrecy and confidentiality.

Bank balance sheets are characterised by three features:

a. A low ratio of cash to assets; fractional reserve banking
b. A low ratio of capital to assets; high leverage
c. Maturity mismatches: a combination of short-term liquid liabilities that can be withdrawn on demand on a first-come, first-served basis and longer-term highly illiquid assets.

These three defining features of the banking business are also the source of financial fragility and cause for regulatory concern.

3.2. Capital regulations and bank capital requirements

Capital regulation has become the principal regulatory response to problems with the structure of bank balance sheets. Capital requirements are a widely used regulatory tool, but they are not a panacea. According to the CAMEL procedure, which is used for supervisory purposes in the U.S., bank regulation should address five crucial elements:

C	:	Capital
A	:	Asset quality
M	:	Management
E	:	Earnings
L	:	Liquidity

Bank managers and their regulators must take these considerations into account to ensure safe and sound banking. In recent years, risk-based capital requirements have become the only true internationally accepted measure of bank soundness. Capital adequacy is not only a core element of modern banking regulation; it has also become one to which ratios devote an increasing amount of time and effort:

a. Capital provides a fund against which to charge unexpected or temporary losses.
b. Capital is considered by competitors, customers and rating agencies as a proxy for soundness. It has become an indication of shareholder value.
c. Capital is costly. Pressure to increase or maintain return on equity and profitability is always an important consideration for bank managers. More capital means a lower return

on equity for banks. Leverage has an important competitive effect. More highly leveraged institutions can charge lower prices using a smaller required spread and earn the same return on capital as less highly leveraged institutions do. Determining the right capital level is a fundamental strategic decision. Excess capital is also not ideal it is possible that excess capital will be under-utilised.

d. 'Regulatory incentives' are provided to banks with an appropriate amount of capital. It is becoming increasingly standard to link the intensity of bank supervision to the level of capitalisation, with banks with more capital receiving less attention and those with less subject to increased supervision and the possibility of Structured Early Intervention and Resolution (SEIR). These proposals, known as Prompt Corrective Action (PCA) rules, became law in the U.S. through the enactment of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) in 1991 and are likely to be implemented in Europe in the near future. It is significant that the academic debate in the U.S. has linked capital adequacy and deposit insurance; capital acts as a buffer for insurance funds and reduces incentives for moral hazard. This linkage, however, is not as strong in Europe, where banks typically enjoy 'minimalist' deposit insurance.
e. Capital adequacy mirrors market and institutional developments. Increased risk sensitivity, the use of internal models, and reliance on market discipline are among some of the recent trends in finance that have influenced capital rules.

3.3. The Basel Committee and the Basel I and Basel II Frameworks

3.3.1. Basel I

The roots of Basel I can be traced to the aftermath of the debt crisis following Mexico's suspension of payments in 1982. In its 1988 Accord, the Basel Committee chose a capital-to-asset ratio instead of a debt-to-equity ratio as a way of measuring capital. Rather than a simple leverage ratio, it also chose a risk-based capital ratio that would take into account credit risk,. The Accord, however, did not make provisions for the consideration of other types of risk such as market risk, interest rate risk, operational risk and liquidity risk. Basel I has been amended five times, with the last amendment issued in January 1996; that amendment is entitled the 'Amendment to the Capital Accord to Incorporate Market Risks'.

Basel I is a ratio of capital to risk-weighted assets.

1. Capital, the numerator in the Basel formula, is divided into the following parts:
    a. Tier 1, which consists of equity capital plus disclosed reserves minus goodwill. Tier 1 capital should constitute at least 50 per cent of the total capital base.
    b. Tier 2, which consists of asset revaluation reserves, undisclosed reserves, general loan loss reserves, hybrid capital instruments and subordinated term debt. Subordinated debt, with a minimum fixed term-to-maturity of five years, is available in the event of liquidation but not available as capital of a bank that continues trading; it is limited to a maximum of 50 per cent of Tier 1.
2. Risk-adjusted assets plus off-balance-sheet items adjusted to risk. There are five credit risk weights – 0 percent, 10 percent, 20 percent, 50 percent and 100 percent – with equivalent credit conversion factors for off-balance-sheet items. Some of the risk weights are rather 'arbitrary'; for instance, the 0 percent weight for Organization for Economic Cooperation and Development (OECD) government or central bank claims, the 20 per cent weight for OECD interbank claims, the 50 percent weight for residential mortgages, and the 100 per cent weight for all commercial and consumer loans.

3. A ratio of 8 percent capital (Tier 1 plus Tier 2) to risk-adjusted assets plus off-balance-sheet items became a regulation restriction for the banking industry following the standard for good practice at the time (US/UK 1986 Accord).

3.3.2. Basel II

In June 1999, the Basel Committee on Banking Supervision issued a proposal for a new capital adequacy accord; this was the first consultative paper on the subject. A second consultative paper presenting detailed proposals was issued in January 2001, and a third and 'final' consultative paper was issued in April 2003. On May, 11th 2004, the Basel Committee announced that a consensus had been reached regarding the New Basel Capital Accord — commonly referred to as Basel II — and that it expected to publish the text of the new framework at the end of June. The hope was to implement the standardised and foundational elements of the initiative by 2006 and the advanced elements of the initiative by the end of 2007. It included detailed proposals and supporting documents providing relevant technical details and other information. The proposals were very extensive, prescriptive and complex. The new Accord was intended to encourage the use of internal systems for measuring risk and allocating capital. The new Accord was also intended to align regulatory capital more closely with economic capital. Banks could hold significant amounts of economic capital for a variety of strategic and reputational reasons: for instance, to finance mergers and acquisitions or future business expansions or to satisfy rating agencies prior to expanding into other markets, thereby allowing flexible decision-making. The new capital framework, Basel II, included three pillars.

3.3.2.1. Pillar I - Minimum capital requirements

The minimum capital requirements indicated the minimum level of capital required given the following:

a. Credit risk. An enhanced approach to credit risk was used that included information such as public ratings, internal ratings, and mitigation.
b. Market risk. In the market risk framework, the definition of capital and the applicable ratios were unchanged.
c. Operational risk. This framework included an explicit treatment of operational risk.

Basel II also presented three approaches to calculating necessary capital based on credit risk. These three approaches varied in terms of their level of sophistication.

1. The standardised approach relied on external ratings and refined the risk categories used in the Basel I formula. For instance, the risk weight for corporate credits, which was 100 per cent under Basel I, would range from 20 per cent to 150 per cent under Basel II depending on external ratings. Sovereign debt risk weights would no longer be dependent upon whether a country was a member of the OECD; rather, they would depend on the external ratings for particular countries.
2. The internal ratings-based approach, which allowed banks to calculate their credit risk-based capital on the basis of an internal assessment of the probability that the counterparty will default.
3. The most sophisticated approach, the internal ratings-based (IRB) approach, which allowed banks to use their own internal assessments not only of the probability of default

but also of the percentage loss that the bank would suffer if the counterparty defaulted, along with a quantification of the exposure to the counterparty.

The internal ratings-based approaches, both foundational and advanced, extended to credit risk the internal models adopted in 1996 for use with market risk. The Committee established the criteria that institutions needed to meet to be eligible to use the IRB approach and specified the elements that ought to be taken into account in the models. There were four key required inputs under the IRB approach, whether foundational or advanced:

1. PD: The borrower's probability of default
2. LGD: The extent of the loss given a default, which estimates the severity of the loss
3. EAD: Exposure at default, the amount at risk in the event of default
4. M: The facility's remaining maturity.

3.3.2.2. Pillar II – Supervisory review

Pillar II – A supervisory review process of capital adequacy would need to be conducted to ensure that banks underwent appropriate monitoring and properly managed risk. Pillar II presented the concept of supervisory review based on the assumption that even complex rules would not appropriately regulate the risk profiles and business strategies that might determine the soundness of a particular banking institution. The inclusion of Pillar II by the Committee indicated that other elements of a bank's balance sheet were important: for example, the quality of its asset portfolio. The problem with Pillar II, however, was that it might lead to differential implementation across countries. In addition, whereas fluid dialogue occurs between supervisors and bank managers in some countries, communication is less fluid in other countries.

3.3.2.3. Pillar III - Market discipline and disclosure.

Pillar III - These requirements would allow institutions to be compared in terms of their capital adequacy. The focus of Pillar III was market discipline via disclosure. However, market discipline can also be fostered via other mechanisms. Calomiris and other members of the U.S Shadow Financial Regulatory Committee have advocated supplementing the Basel capital standards with an additional subordinated debt requirement to promote greater market discipline. This is because subordinated debt-holders have an incentive to monitor the risk incurred by a bank; they have a fixed income claim, and unlike those who hold equity, they are not entitled to share in upside gains by the bank.

3.4. More recent improvements in and differences between RM procedures.

3.4.1. CAD III

The European Commission has proposed a new capital directive known as the CAD III whose content is generally consistent with that of Basel II. There are, however, two fundamental differences between the Basel initiatives and this new directive:

a. Differential impact: 'Hard law' versus 'soft law'. The Basel proposals constitute 'soft law'. In contrast, EC law is 'hard law' and imposes a legal obligation on member states, obliging them to modify their national legal systems. The Community timetables are

important considerations for all EC countries. Thus, whereas a country may assume a reasonably relaxed approach in implementing the Basel rules, regulatory convergence has become a matter of critical importance at the EC level. Enforcement forms the key difference between 'hard law' and 'soft law'. The work of the Basel Committee reflects a trend in banking and finance toward the development of international financial standards or codes of good practice.

b. Scope of application: EC capital rules are designed to apply to credit institutions and investment firms, whereas the Basel rules target internationally active banks on a consolidated basis. The current EU rules regarding capital adequacy are the Own Funds and Solvency Ratio Directives, which are now incorporated into the Consolidated Banking Directive, CAD I and CAD II. In 1993, market risk was introduced in the first Capital Adequacy Directive (CAD I), but that document was later amended in 1998 (via CAD II) to allow for the use of VAR models. (This provision been proposed in the Basel rules for market risk, the 1996 Amendment to the Basel Accord.) This is an interesting example of what happens when the Basel and Brussels processes do not proceed in parallel. Given the informal role of the Basel Committee as an international bank regulator, any new EC directive on capital needs to be aligned with the Basel proposals. Therefore, CAD III should not be released until Basel II is adopted. However, given the U.S., Congressional and regulatory debate on the subject, there is a strong probability that Basel II will be delayed again. Another issue that is relevant for the EU is the possible use of the Lamfalussy process in the development of CAD III, as this would speed up the process of reaching an agreement on that legislative proposal. (In the Lamfalussy process, framework principles are adopted via directives, whereas technical rules are adopted by European Committee or Committees.)

After the recent financial crisis, a new round of conversations began that was intended to jumpstart the formulation of the new Basel III framework.

3.4.2. International regulatory framework for banks (Basel III)

BASEL III is a new global regulatory standard for bank capital adequacy and liquidity agreed upon by the members of the Basel Committee on Banking Supervision. The first version was published in late 2009 and gave banks approximately three years to satisfy all requirements. The Basel Committee's oversight body, the Group of Central Bank Governors and Heads of Supervision (GHOS), agreed on the broad framework for Basel III in September 2009, and the Committee established concrete proposals in December 2009. These consultative documents formed the basis of the Committee's response to the financial crisis and are part of the global initiatives to strengthen the financial regulatory system that have been endorsed by the G20 Leaders. The GHOS subsequently agreed on key elements of the reform package at its July 2010 meeting and determined how the measures would be implemented at its September 2010 meeting.

Basel III is a comprehensive set of reform measures designed to improve regulation, supervision and risk management within the banking sector. It builds on the Basel I and Basel II documents and seeks to improve the banking sector's ability to deal with financial and economic stress, improve risk management and increase bank transparency. It was developed in response to the deficiencies of previous financial regulations as revealed by the global financial crisis. The aim is to strengthen bank capital requirements and introduce new regulatory requirements for bank liquidity and bank leverage. Banks will be required to maintain proper leverage ratios and meet certain capital requirements. The goals of these measures are as follows:

- ✓ To improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source
- ✓ To improve risk management and governance
- ✓ To strengthen banks' transparency and disclosures.

The reforms target the following areas:

- ✓ Bank-level, or micro-prudential, regulation – intended to help increase the resilience of individual banking institutions to periods of stress.
- ✓ Macro-prudential, system-wide risk that can build up across the banking sector and the pro-cyclical amplification of such risk over time.

The OECD estimates that the implementation of Basel III will decrease annual GDP growth by 0.05 to 0.15 percentage points.

3.5. Conclusion regarding RM

RM, which in this context includes Basel I, II and III as well as CAD I, II and III, is intended to create frameworks for regulation and supervision within the global banking system. It should also be a managerial tool for addressing the problem of risk. Another concern is securitisation and the prediction of financial crises as necessary to protect banking institutions from bankruptcy.

4. Stockholder Value Creation (SVC) in the Banking Industry

Banking institutions are profit-making entities that also create value for stockholders. In general, value-based management models (VBMs) involve a range of calculative techniques, including EVA, CVA, cash flow return on investment (CFRI) (Liapis J. K (2010), total business returns and economic value management. These techniques are intended to facilitate firm decision-making so as to influence shareholder value. Such methods are advanced by major management consultancy firms, practitioners and academics. VBMs can be used to create shareholder value; identify value drivers; connect performance measurement, target-setting and rewards to value creation or value drivers; and connect decision-making and action planning, both strategic and operational, to value creation or value drivers. Perhaps as a result, it is generally expected that organisations that to use VBM will excel in these areas. The most famous VBM system is the EVA® method created by Stewart G. (1991).

4.1. Methods and models used for performance measurement

The study of accounting and finance has originated a wide range of methods and models used for performance measurement. Generally, these models can be sorted into three classes.
The first class is based on income and employs ratios such as P/E (price per earnings), EPS (earning per share), and ROE (return on equity).
The second class is based on discounted cash flows and DCF methods including NPV (net present value), IRR (internal rate of return) and ARR (accounting rate of return).
The third class is based on value added; famous models include the EVA, CVA, RI, and FCF models. The residual income model (RIM) seems to be the most suitable.

For banks in particular, the most commonly used profitability ratio is the return on risk average capital (RORAC) or the return on risk weighted assets, which is used in residual income models. The residual income model based on the residual method is equivalent to the historical profitability metric, which indicates the movements of equity accounts tied to operational activities.

4.2. Conclusion for the SVC component

A focus on SVC helps to preserve the traditional tools used for corporate management. Now, however, SVC indexes could be integrated with tools for managing overall risk and total bank performance. Bank profitability remains the core indicator for investors.

5. Corporate Governance

Corporate governance is defined by the Public Oversight Board (POB 1993) as "those oversight activities undertaken by the board of directors and audit committees to ensure the integrity of the financial reporting process". One of the most important aims of corporate governance is to ensure the quality of the financial reporting process. The issue of corporate governance has become more important since the highly publicised financial reporting fraud at Enron.

According to the work of W. Jiang et al. (2008), academic research has revealed an association between poor corporate governance and greater earnings management, implying lower quality. Prior studies have also found an association between poor corporate governance and weaker financial controls and higher levels of financial statement fraud. Overall, empirical research has documented a direct link between governance mechanisms and the reliability of financial reporting.

5.1. Gov-Indexes

The quality of corporate governance is represented by gov-indexes. These indexes take into account a bank's answers to the following questions, which evaluate its governance structures in various ways:

5.1.1. Audit-related questions

Audit-related questions include the following:

- ✓ Does the audit committee consist solely of independent outside directors?
- ✓ Were the auditors ratified at the most recent annual general meeting?
- ✓ Are the consulting fees paid to auditors less than the audit fees?
- ✓ Does the company have a formal policy on auditor rotation?

5.1.2. Board of directors comprises measures

Questions regarding boards of directors include the following:

- ✓ What size is the board
- ✓ Does one person serve as both the CEO and the chairman?

- ✓ Is shareholder approval required to change board size?
- ✓ Is the board controlled by more than 50% outside directors?
- ✓ Is the compensation committee comprised solely of independent outside directors?

5.1.3. Charter/by laws comprise measures

Questions regarding charters or bylaws include the following:
- ✓ Is a simple or supermajority vote required to approve a merger?
- ✓ Are shareholders allowed to call special meetings?
- ✓ Can the board amend bylaws without shareholder approval?

5.1.4. Director education

There are a few questions regarding director education that may also be helpful:
- ✓ How many directors have the appropriate educational background?
- ✓ Has at least one member of the board participated in an ISS-accredited director education program?

5.1.5. Executive and director compensation

Questions regarding executive and director compensation include the following:
- ✓ Were stock incentive plans adopted with shareholder approval?
- ✓ Is option repricing prohibited?
- ✓ Do directors receive all or a portion of their compensation in stock?

5.1.6. Ownership

Questions regarding ownership include the following:
- ✓ Do directors with more than one year of service own stock?
- ✓ Are executives/directors subject to stock ownership guidelines?
- ✓ Extent of officers' and directors' ownership of stock (over 30%)?

5.1.7. Progressive practices

Questions regarding progressive practices include the following:
- ✓ Is there a mandatory retirement age for directors?
- ✓ Is board performance regularly reviewed?
- ✓ Are there provisions for board-approved CEO succession?
- ✓ Are director terms limited?

5.1.8. State of incorporation

Questions regarding states of incorporation include the following:
- ✓ Is the company incorporated in a state without any anti-takeover provisions?

The gov-score can be computed as the sum of the firm's binary variables as indicated in Wei Jiang Picheng Lee, Asokan Anandarajan (2008). In that study, 51 factors were used and were coded 1 if the firm's governance was considered to be minimally acceptable or 0 otherwise; thus, higher values indicated stronger corporate governance.

There are alternative measures of governance such as the G-index (Gompers et al., 2003) and the entrenchment index (Bebchuk et al., 2005). The gov-score is broader in measuring governance, can be used to evaluate more firms, is more dynamic and better reflects recent changes in the corporate governance environment.
The appropriate indexes for corporate governance can be summarised as follows based on t he above analysis:

- ✓ Management experience indexes
- ✓ Indexes evaluating internal audit procedures
- ✓ Historical indexes gauging anti- fraud policies
- ✓ Total quality indexes evaluating corporate governance
- ✓ Gov-score, G-index.

5.2. Conclusion regarding CG

CG indicates management quality as represented by indexes that are highly correlated with profitability and performance in the banking industry and that ensure high-quality quality of management. For all of these reasons, CG remains a core component of bank regulation.

6. Corporate Social Responsibility (CSR) and Sustainable Development (SD)

Corporate social responsibility (CSR) is a multi-faceted concept that involves many definitions and varied practices.

- ✓ First, CSR has to do with philanthropic activities that a firm undertakes to support the community and influence public affairs. These activities can be executed with no substantive impact on a firm's core activities, technologies or business model.
- ✓ Secondly, CSR constitutes a set of practices developed in direct response to demands placed on society and the activities of the company by dynamic forces in the economy, society and the environment. The most strategic form of CSR probably comes into play when firms aim to reorient the ways in which they create value by heeding calls for less environmentally or socially damaging activities or more sustainable approaches to development.
- ✓ A third aspect of CSR, sustainable development (SD), implies not a fixed state of harmony but rather change processes in which the exploitation of resources, the direction of investment and the orientation of technological development and institutional change are made consistent with both future and present. SD is viewed as a societal project shaped by many social and economic factors (Christofakis et al., 2009). CR can be regarded as the set of ideas and practices through which businesses contribute to this societal project. In this way CR involves a company in the co-creation of organisational and social change along with other actors.

According to the work of Sutantoputra (2009), CSR is represented in financial statements via social disclosures and budgets reflecting corporate or banking expenditures made for social, community and environment causes. Currently, organisations can use CSR to gain competitive advantage because CSR indicates that a firm behaves contrary to common business practices including the misuse of natural resources and the exploitation of people in the community.

Voluntary disclosure theory involves the following:

- ✓ An environmental disclosure rating based on a comprehensive CSR reporting framework, the Global Reporting Initiatives (GRI) 2002 Guidelines, as developed by Clarkson et al. (2006). These researchers argued that firms with good environmental performance will be forthcoming about their identity as "Green Companies" and will thus disclose information that bad environmental performers will have a hard time disclosing. The GRI 2002 Guidelines have garnered global acceptance as a standard for reporting CSR practices because they help companies to decide what CSR information to report and how to report it.
- ✓ Another leading standard for CSR reporting, the AA1000, focuses on how firms can link the principles of accountability and sustainability. It can be used to design appropriate reporting mechanisms because it helps guide firms in identifying their goals and targets, monitoring their progress, undergoing audits and reporting their performance Gobbels and Jonker, (2003). However, firms may develop a vast range of goals/targets that spawn a wide range of measures of CSR practices. In many cases, this has made the measurement and comparison of CSR practices across companies difficult if not impossible. Firms that use the AA1000 have the freedom to decide what issues they want to address (Gobbels and Jonker, 2003).
- ✓ The European Commission (2004) has issued CSR guidelines entitled The ABCs of the Main Instruments of Corporate Social Responsibility, European Communities, Luxembourg.

6.1. Global Reporting Initiatives GRI 2002 Guidelines

The social disclosure ratings based on the GRI 2002 Guidelines cover a wide range of measures of the social impacts of firms. They can be helpful to those who use firms' CSR reports to assess their social performance.

- ✓ *Hard disclosure items (max score is 67), Map to GRI.*

(HD.1) Governance structure and management systems (max score is 6).

1. Existence of a department or management positions focused on addressing the impact of firm actions on society (0-1) 3.1
2. Existence of a social and/or a public issues committee as part of the board (0-1) 3.1, 3.6
3. Existence of terms and conditions applicable to employees and customers that address the firm's social practices (0-1)
4. Stakeholder involvement in devising corporate social policies (0-1) 1.1, 3.10
5. Implementation of ILO standards and consistency with UN Declaration of Human Rights (0-1) 3.14, 3.20
6. Executive compensation is linked to social performance (0-1) 3.5

(HD.2) Credibility (max score is 10).

1. Firm acknowledges the use of GRI sustainability reporting guidelines (0-1) 3.14
2. Independent verification of social information as indicated in the sustainability report (0-1)
3. Periodic independent verifications/audits of social performance and/or systems (0-1) 3.19, 2.20,21
4. Certification of social (labour) programs by independent agencies (0-1) 3.2
5. Product certification with respect to safety (0-1) 3.16
6. External labour performance awards (0-1)
7. Stakeholder involvement in the social disclosure process (0-1) 1.1, 3.10
8. Participation in voluntary social initiatives endorsed by the ILO or Department of Employment and Industrial Relations in the country in question (0-1) 3.15

9. Participation in industry-specific associations/initiatives intended to improve labour management practices (0-1) 3.15
10. Participation in other labour organisations/associations whose aim is to improve labour practices (if not indicated under 8 or 9 above) (0-1) 3.15

(HD.3) Social performance indicators (SPI) (max score is 48) related to labour practices working conditions.

1. SPI for employment information (types and numbers of employees by region/country, job creation and average turnover) (0-3) LA 1, 2
2. SPI for labour/management relations (the presence of independent trade unions and company policies and procedures) (0-3) LA 3, 4
3. SPI for health and safety (policies related to occupational accidents and diseases, standard injury, and lost days; information on absenteeism and number of work-related fatalities) (0-3) LA 5, 6, 7, 8
4. SPI for training and education (average hours per year per employee by category of employee) (0-3) LA 9
5. SPI for diversity and opportunity (description of equal opportunity policies, monitoring systems) (0-3) LA 10, 11
6. Human rights SPI for strategy and management (description of firm policies related to the Universal Declaration and the Fundamental Human Rights Conventions of the ILO (0-3) HR 1, 2, 3
7. SPI for non-discrimination (policies/programs/procedures that prevent all forms of discriminations in firm operations) (0-3) HR 4
8. SPI for freedom of association and collective bargaining (firm policies on acknowledging freedom of association and collective bargaining) (0-3) HR 5
9. SPI for child labour (policies forbidding the use of child labour directly as part of firm's internal operations and indirectly by firms' suppliers) (0-3) HR 6
10. SPI for forced and compulsory labour (policies addressing forced and compulsory labour) (0-3) HR 7
11. Society SPI for community relations (policies intended to manage impacts on community in areas affected by firm operations) (0-3) SO 1
12. SPI for bribery and corruption (policies and mechanism intended to help organisation and employees to address the problem of bribery and corruption) (0-3) SO 2
13. SPI for political contributions (policies, management systems and compliance mechanisms designed to manage political lobbying and contributions) (0-3) SO 3
14. Product responsibility SPI for customer health and safety (policies protecting customer health and safety during the use of products and services provided by the firm) (0-3) PR1
15. SPI for products and services (policies, management systems and compliance mechanisms related to product information and labeling) (0-3) PR2
16. Compliance mechanism for consumer privacy) (0-3) PR3

(HD.4) Social spending (max score is 3).

1. Summary of dollar savings achieved as a result of social initiatives (0-1)
2. Amount spent on community and political contributions intended to enhance social performance (0-1) SO 1, 3
3. Amount spent on fines related to social litigation/issues (0-1) SO 2, PR 1, HR 4, 5, 6, 7

✓ *Soft disclosure items (max score is 16).*

(SD.5) Vision and strategy claims (max score is 6).

1. CEO statement regarding social performance in letter to shareholders and/or stakeholders (0-1)

2. Statements regarding corporate social policy, values and principles, codes of conduct (0-1) 1.1, 1.2, 3.7
3. Statements about formal management systems related to social risk and performance (0-1) 3.19
4. Any statement indicating that the firm conducts periodic reviews and evaluations of its social performance (0-1) 3.19
5. Statements indicating the firm's measurable goals related to future social performance(0-1) 1.1
6. Statements about specific social innovations by the firm and improvements made (0-1) 1.1

(SD.6) Social profile (max score is 4).

1. Statements about the firm's compliance (or lack thereof) with specific social standards (0-1) 1.2
2. An overview of the social impact of the industry (0-1) 1.2
3. An overview of how the business operations and/or products and services associated with the firm impact its employees, its customers and society at large. (0-1) 1.2, 3.17
4. An overview of the firm's corporate social performance relative to that of its industry peers (0-1) 1.2

(SD.7) Social initiatives (max score is 6).

1. A substantive description of employee training in social management and operations (0-1) 3.19
2. Existence of response plans intended to address social incidents (0-1)
3. Internal social awards (for employees and customers) (0-1)
4. Internal social audits (of labour, employees and customers) (0-1) 3.20
5. Internal certification of employee programs (0-1) 3.19
6. Community involvement and/or donations to social causes (0-1).

6.2. Firm policies regarding the environment

These types of policies are especially significant nowadays. The following councils examine corporate policies to determine their suitability given concerns related to the environment.

1. The CEP, Council on Economic Priorities (Corporate Environmental Data Clearing House Reports)
2. The EPA (Environmental Protection Agency Online Databases)
3. The FEC, Federal Election Commission
4. The IRRC, Investor Responsibility Research Center (Corporate Environmental Profiles).

6.3. The appropriate indexes for CSR and SD

The appropriate indexes for CSR and SD can be summarised as follows based on the above analysis:

- ✓ Indexes based on corporate disclosures in annual reports
- ✓ Social rating indexes based on the RDI
- ✓ Social rating indexes based on the AA1000
- ✓ Other indexes.

6.4. Conclusions regarding CSR and SD

CSR and SD are the firm activities that address the relationship between the firm, the economy, the environment and society at large. Social responsibility and the actions that a firm takes to ensure sustainable development depend on appropriate corporate management. In the current business environment, particularly for banks, this component is of great importance. The environmental and social activities of banks are particularly essential to consider.

7. The Impact of Banks' Fiscal and Monetary Environment

The banking industry is greatly affected by and greatly influences its external economic environment.

7.1. Characteristics of the banking industry

The main characteristics of the banking industry in relation to its economic environment are as follows:

- ✓ Banks have a dominant position in their domestic economic system and are the most important engines of economic growth.
- ✓ Banks are typically the most important source of financing for the firms in a country and thus influence macroeconomic figures.
- ✓ Banks are usually the main depository for the economy's savings.
- ✓ Many economies have recently liberalised their banking systems through privatisation/disinvestment and reduced the role of economic regulations.

According to research by John Goddard, Philip Molyneux, and John O.S. Wilson Manouche Tavakoli (2007), most countries have replaced fiscal policy with monetary policy in recent years as the principal tool for macroeconomic policy, aiming to stabilise output and inflation. However, it has proven difficult to identify particular ways in which monetary policy influences the economy. Monetary policy is dependent on the 'external finance premium', the difference between the cost of raising financing externally through equity or debt and internally through retained profits. This premium exists due to information asymmetries in credit markets, giving rise to adverse selection and moral hazard effects and thereby increasing evaluation and monitoring costs for lenders. Tightening monetary policy raises the external finance premium and may affect bank lending through either a demand-side (balance sheet channel) or a supply-side (bank lending channel) effect. On the demand side, borrowers' interest expenses increase, while the value of their collateral decreases, making external financing more costly. On the supply side, as the central bank drains liquidity from the banking system through open market operations, banks are forced to reduce their lending because they lack the necessary funds.

Although the importance of the supply-side (bank lending channel) effect may have diminished over time due to developments such as deregulation and financial innovation, which have reduced banks' dependence on deposits as a source of financing, it remains difficult to empirically assess the relative importance of the balance sheet channel and the bank lending channel; it is therefore a direct measurement of the external finance premium. Even the general process of EU economic integration has affected individual sectors like the banking sector, and the present spatial and economic inequalities between the member cannot

be ignored. Perfect spatial economic integration will entail the perfect incorporation of the states in question into a dynamic development area (Papadaskalopoulos et al 2005).

7.2. Measures and indicators of external influences affecting the banking industry

Following Valeriya Dinger and Jurgen von Hagen (2009), the present study suggests that the size of the banking industry be measured as follows:

- ✓ Using the aggregate volume of bank assets in the country relative to its gross domestic product (GDP).
- ✓ Using the ratio of deposits to GDP, this indicates the deposit-gathering activities of banks.
- ✓ Using the ratio of domestic bank credit to GDP, thus measuring the loan supply function of the banking sector.

The aspects of the financial structure of a country that may generally influence bank rating systems are as follows:

- ✓ Equity as a % of GDP.
- ✓ Government bonds or government debt as a % of GDP.
- ✓ Private bonds as a % of GDP.
- ✓ Private bonds plus banking loans and credit allowances as a % of GDP or private debt.
- ✓ Bank assets as a % of GDP.
- ✓ Total for all banks (the sum of equity, government bonds, private bonds and bank assets) as a % of GDP.
- ✓ Country or governance ratings
- ✓ Financial and capital market indexes.

After the recent financial crisis, a new wave of market turmoil began based on the financial indebtedness of the Greek public sector. As other countries became involved, a debt crisis developed that is expected to negatively affect several economies in the Eurozone, the European Monetary Union and perhaps the global economy. Ireland and Portugal have already begun to feel the more serious effects of the debt crisis.

7.3. Conclusion regarding the fiscal and monetary environment

A firm's fiscal and monetary environment remains the most important external factor in the operation of the banking industry. The banking industry directly influences the economic environment, but at the same time, the reverse is also true, especially when a debt crisis like the current one develops.

8. The Global Rating System and the Rating Agencies and the Banking Industry

Rating agencies can evaluate the financial health of a bank on several levels. One practical issue is how to choose between the various ratings assigned to the same counterparty by different rating agencies. Table 2 represents the ratings awarded by each of the rating agencies, providing a common score index for each level along with the necessary definitions and grades.

Table 2 *Rating Agencies – Rating Ranks, Grades and Definitions*

Index - score – Rank	**Moody's**	**Long Term Ratings - definitions**	**S&P's – FITCH-R&I**	**Long Term Ratings - definitions**	**Grade**
1	Aaa	Exceptional credit quality	AAA	Highest credit quality	Investment Grade
2..4	Aa1 Aa2 Aa3	Excellent credit quality	AA+ AA AA-	High credit quality. Very strong capacity to meet financial commitments	
5..7	A1 A2 A3	Good credit quality	A+ A A-	Good credit quality. Strong capacity to meet financial commitments	
8..10	Baa1 Baa2 Baa3	Adequate credit quality	BBB+ BBB BBB-	Weakened capacity to meet financial commitments	
11..13	Ba1 Ba2 Ba3	Questionable credit quality	BB+ BB BB-	Inadequate capacity to meet financial commitments	Non-Investment Grade or Speculative Grade
14..16	B1,B2,B 3	Generally poor credit quality	B+,B,B-	Limited capacity to meet financial commitments	
17,19	Caa1, Caa2 Caa3	Extremely poor credit quality	CCC+, CCC-, CC	Vulnerability to nonpayment. High vulnerability to nonpayment	
20	Ca	In Default	C	Bankruptcy or similar action	
21	C	In Default, low recovery value	SD/D	Debt in selective default/default	

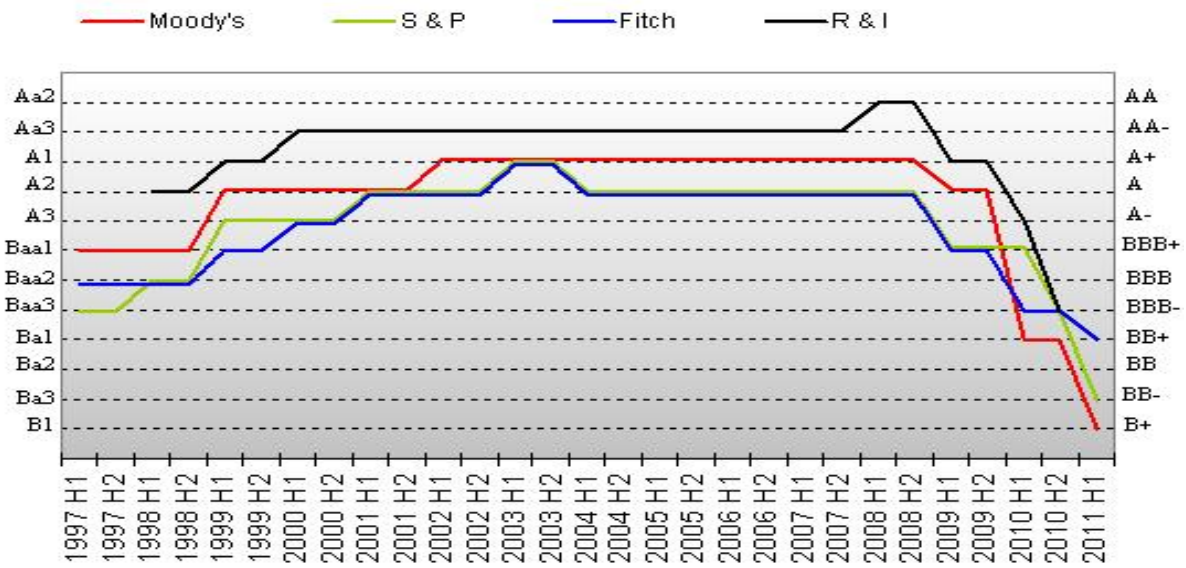
In general, for rating agencies, the above levels indicate the financial health of firms in the banking industry:

a. Score (1). Banks with exceptional financial strength. Typically, these will be major institutions with highly valuable and defensible business franchises, strong financial fundamentals, and a very attractive and stable operating environment.
b. Score (3). Banks with strong intrinsic financial strength. Typically, these will be important institutions with valuable and defensible business franchises, good financial fundamentals, and an attractive and stable operating environment.
c. Score (5). Banks with good financial strength. Typically, these will be institutions with valuable and defensible business franchises. These banks will demonstrate either acceptable financial fundamentals within a stable operating environment or better-than-average financial fundamentals within an unstable operating environment.
d. Score (7). Banks that possess adequate financial strength but may be limited by one or more of the following factors: a vulnerable or developing business franchise, weak financial fundamentals, or an unstable operating environment.

e. Score (9). Banks with very weak intrinsic financial strength that require periodic outside support or may eventually need outside assistance. Such institutions may be limited by one or more of the following factors: a business franchise of questionable value, financial fundamentals that are seriously deficient in one or more respects or a highly unstable operating environment.
f. Scores below 10 represent junk situations, non-investments or speculative areas.

The credit ratings used by Moody's, Standard and Poor's, and Fitch for all entities play a key role in pricing credit risk and developing investment strategies. It seems that the role of these rating agencies may expand with the implementation of Basel II; however, at this time, many are criticising these agencies for using non-transparent methodologies, not conducting consistent rating practices before and after financial crises, and inappropriately timing downgrades.

Diagram 1: The timeline for Greece Credit score from Rating Agencies



Source: Greece Public Debt Management Agency

Economic growth had resumed in most countries by the 4th quarter of 2009. The main exceptions were the Baltic States, Greece, Iceland, Ireland, Portugal and Spain. Most developing countries have experienced a return to pre-recession growth rates, but growth rates in the developed countries are generally below trend, and unemployment rates continue to rise. Twelve member states in the eurozone had public debt ratios higher than 60% of GDP in 2009. Particular concern developed in early 2010 concerning the fiscal sustainability of the economies of the PIIGS countries (Portugal, Ireland, Italy, Greece and Spain) following rating downgrades by the credit rating agencies. In April 2010, Greece's credit rating was downgraded to BB+, Spain's credit rating was downgraded from AA+ to AA and Portugal's credit rating was downgraded from A+ to A- by S&P. Table 3 presents figures for Greece's credit over time as determined by four major rating agencies.

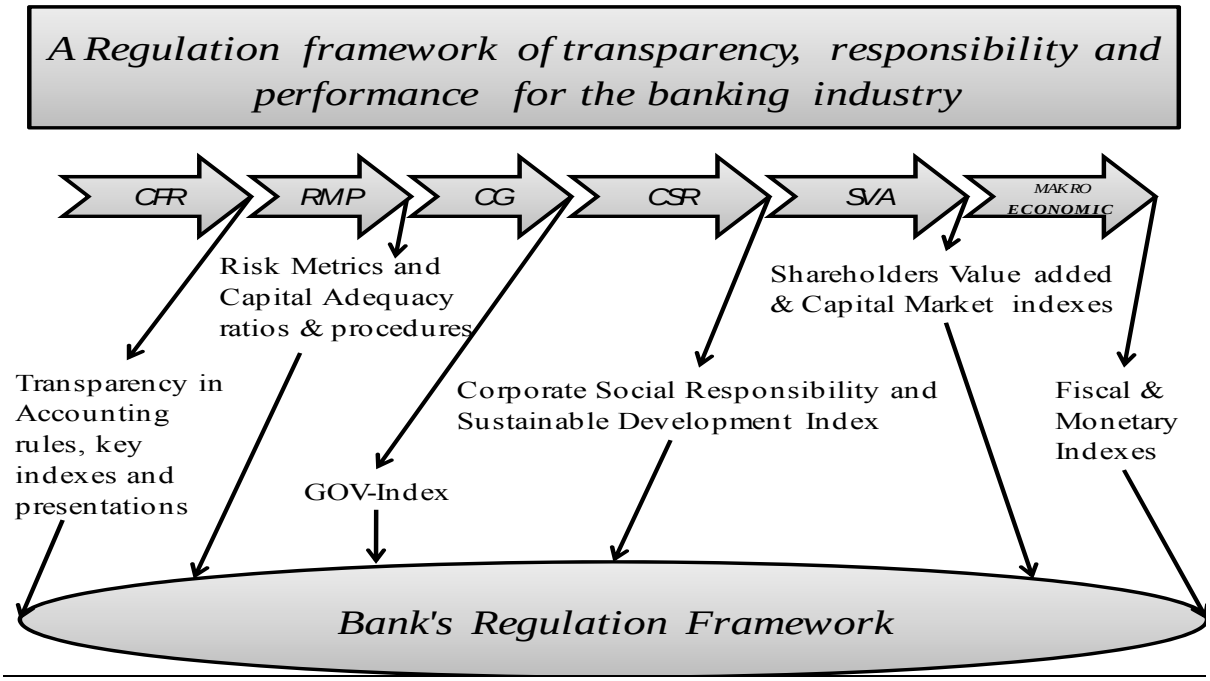
9. Conclusions and Summary of our analysis; a holistic Regulation Framework for the Banking Sector

Regarding CFR, it is important to note that although the exact content of the IASs may not be identical to that of the U.S. GAAP, the two systems use the same approach and degree of detail in many respects. The IASs and U.S. GAAP are more similar than dissimilar, and the trend toward harmonisation is increasing this similarity. CFR is the basis for the recording, collection, publishing and analysis of data for the banking sector. CFR permits the reclassification of financial assets only in rare circumstances associated with financial crisis. Regarding RM, it is important to note that Basel I, II and III and CAD I, II and III have been intended to help to finalise a framework for regulation and supervision for the global banking system. They are also intended to create managerial tools for addressing the problem of risk. Another important related issue is the securitisation and the prediction of financial crises as necessary to protect banking institutions from bankruptcy. Regarding SVC, it is important to note that it retains the main instruments for corporate management using a traditional approach. SVC indexes could be transposed with elements that manage the total risk and total performance of a Bank. The profitability of a Bank remains the core indicator for investors, and a separate conclusion is that CG is the quality of management; it could be represented by indexes that highly correlate with profitability and with the performance of the banking industry on one hand, while ensuring the quality of management on the other hand. Because of all the aforementioned factors, CG remains a core component for bank regulation systems. CSR and SD represent the activities of the company that have implications on the economy, the society and the environment, whereas the social responsibility and the actions for sustainable development of a company depend on corporate management. This component is of great importance, particularly for banks and especially in their environmental and social activities.

The fiscal and monetary environment remains the most important external factor for the operation of the Banking Industry. This is because the banking industry influences the economic environment directly while it is at the same time is influenced by the economic environment, especially at the time of debt crisis.

Nobody knows exactly how rating agencies determine the credit ratings of particular countries or banks. At this time, especially in Europe, many are criticising these agencies for the non-transparent methodologies that they use and the timing of their actions. In the wake of the public sector debt crisis in the EMU countries, a serious credit crisis may afflict the system.

Diagram 2: A framework for Regulation taking into account issues of transparency, responsibility and performance within the banking industry



A framework for regulation within the banking industry that takes into account issues of transparency, responsibility and performance must encompass all of the components that have been mentioned here: CFR, RMP, CSR&SD, SVA and MACROECONOMIC. The appropriate ratios must be incorporated into a holistic framework. Table 5 indicates the proposed structure of the model. It must to incorporate transparency in accounting rules, key indexes; risk metrics and capital adequacy ratios and procedures; corporate governance quality metrics and indexes; corporate social responsibility and sustainable development actions and indexes; shareholder value added for banking institutions and capital market indexes; and fiscal & monetary indexes for the countries in which the banking institutions operate.

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