



**Fair Value:
The Greek Sovereign Debt within the French banking sector**

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Acronyms

ACP – Autorité de Contrôle Prudentiel
AFS – Available-for-Sale
AMF – Autorité des Marchés Financiers
APB – Accounting Principles Board
BIS – Bank of International Settlements
CA – Crédit Agricole
CAC40 – Cotation Assisté au Continu 40
CAGR – Compound Annual Growth Rate
CECEI – Credit Institutions and Investment Firms Committee
CNCE – Caisse national des caisses d Épargne
CT1– Core tier one
DPS – Dividends-per-share
EBA – European Banking Authority
ECB – European Central Bank
EFSF – European Financial Stability Facility
EPS – Earning-per-share
ESMA – European Securities and Markets Authority
FAS – Financial Accounting Standard
FASB – Financial Accounting Standards Board
FBF – Fédération Bancaire Française
FCAG – Financial Crisis Advisory Group
FV – Fair Value
FVA – Fair Value Accounting
GAAP - Generally Accepted Accounting Principles
GDP – Gross Domestic Product
HC- Historical Cost
HCA – Historical Cost Accounting
HTM – Held-to-maturity
IAS – International Accounting Standards
IASB – International Accounting Standard Board
IASC – International Standard Accounting Committee
IFRS - International Financial Report Standards
IIF – Institute of International Bank
IMF – International monetary fund
MoU – Memorandum of Understanding
NBI – Net banking income
OTC – Over-the-counter

P&L – Profit and Loss

RBS – Royal Bank of Scotland

SEC – Securities and Exchange Commission

SFAS – Statement of Financial Accounting Standard

SG – Société Général

Abstract

The core topic of this dissertation encompasses the impacts, magnitudes and possible treatments of Sovereign Debt valued at Fair Value within financial institutions. The European Sovereign Debt Crisis had heavily affected the economic and financial environment and consequently, the banking sector is facing some challenges to handle it. The accounting treatment and classification of Sovereign Debt is under the scope of IAS 39 – *Financial Instruments, Recognition and Measurements*. Considering this scenario, the purpose of the case is to understand the effect of the Greek Sovereign Debt crisis in the three most exposed French banks. Actually, the critical theme is to apprehend how each bank embraced the international accounting standards and the fair value concept in their financial statements. The different adoptions taken by banks are justified by the prudential ratios that banks are compelled to achieve, under the strictly regulated banking environment. All in all, from my analysis and considering that the three banks are under the same supervisor, and from the same country, Greek Sovereign Debt was classified under three different captions and almost in its entirety according to internal models - Fair Value Level 3. Notwithstanding, the mark-to-market approach is indeed the best solution for the financial sector, but regulators and standards policies must unravel the current shortfalls, under more mandatory disclosures, guided and exhaustive standards and stricter capital requirements in order to restore market's confidence and reach a healthy banking sector.

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1. Introduction

The imperative theme addressed in this dissertation is the Fair Value Accounting approach within the financial sector. The last years were marked with a financial meltdown worldwide. After the sub-prime crisis in the United States, markets had been suffering some struggling. Consequently, accounting methodologies have been questioned, namely, the pros and cons arising out from the Fair Value Accounting.

First of all, the concept and definition of Fair Value is presented. Thus, the current debate regarding the benefits and limitations of Fair Value Accounting is exhaustively analyzed, enhancing the possible alternative to this approach – the Historical Cost approach. What's more, considering the nature of a bank's financial assets, it would be expected their fair value measurement due to the fact that, it is the best approach to reach updated and transparent balance sheets. Nonetheless, because of the pro-cyclicality inherent to fair value and its limitations to what concerns the Level 3, some experts do not advocate this opinion.

Under these circumstances, the financial instrument subject to analysis in this dissertation is the Greek Sovereign Debt. In fact, Government Bonds are the heart of the matter of the European Crisis and they were appealing to banks because can be easily used as collateral. Additionally, the Basel Regulatory framework allowed for the zero-risk weighting of bonds issued by Eurozone governments.

According to International Accounting Standards (IAS) 39, this type of financial asset can be classified under two of the fourth available categories: Fair Value through Profit & Loss, Available-for-Sale Financial Assets, Held-to-Maturity and Loans and Receivables. Henceforward, depending on the previous classification, the accounting treatment and impact affects banks financial statements differently. In this sense, a presentation of the standards applied to classification, measurement and recognition of financial instruments is presented. Bearing in mind that the analysis is focus on Europe, the International Financial Reporting Standards (IFRS) and IAS where chosen.

All in all, this dissertation is divided in two main sections:

-The first one compromises a general approach to the Fair Value concept and its application within financial institutions. In this section, initially the history of the fair value concept is addressed as well as its application within assets, liabilities and equity. Likewise, the differences between the three different levels of the Fair Value hierarchy are exhaustively discriminated,

due to the fact it is one the most controversialist shortfalls associated to the Fair Value Accounting. Last but not least, an economic and financial approach to the European Sovereign Debt crisis is given, focusing on the special case of Greece.

-The second part is a practical case, where an analysis of three French banks most exposed to the Greek Sovereign Debt is done. In fact, France, which is the second largest economy of Europe and the fifth worldwide, in nominal figures, is most exposed country and, the three banks chosen – BNP Paribas, Société Générale and Crédit Agricole – represent more than 60% of the French banking sector.

Even considering that the three banks are under the same supervisor, and following the available options permitted by IAS 39, understanding how each bank treated and classified their Sovereign Debt is the core objective of this dissertation. Finally, the capital requirements required by the banks' regulation authorities play an important role in this analysis: the losses recorded by each bank affects directly their ability to achieve the compulsory solvency ratios.

2. Literature Review

2.1 History

Fair Value (FV) is not a new concept or a recent trend. It is part of the financial reporting for a long time, nevertheless its application and extension increased sharply in the last years.

Fair Value measurement dates back to the seventies'. The first noteworthy publication was done by the Financial Accounting Standards Board (FASB) through the APB (Accounting Principles Board) 18, which brought in the Equity method for investments. Likewise, the APB 29 "Accounting for Nonmonetary Transactions" and Financial Accounting Standard 15 (FAS) "Accounting by Debtors and Creditors for Troubled Debt Restructuring" were launched in this period. During the eighties', FV was extended to other areas, for instance pensions.

Moreover, in the nineties two factors enlarged FV application. Firstly, within the technology boom, and relating with the Internet emergence, many Mergers and Acquisitions appeared in the big scenario. Consequently, FASB noticed that they were not precisely reported because of the valuation of intangible assets and goodwill, which was subject to impairment tests from this time on. Therefore, a deeply analysis was made and several statements were announced regarding Business Combinations. Secondly, FAS 107 "Disclosures about Fair Value in Financial Instruments" and FAS 115 "Accounting for certain Investments in Equity and Debt Securities" were both published in 1991 and 1993, respectively, which boosted the use of the FV option within the financial institutions. Both areas continue to face nowadays a huge impact with fair value policies.

Finally, in the last decade FV had undergone an increasing utilization. Several reasons are behind this occurrence. In a nutshell, globalization had changed the big picture and, one of the immediate consequences, relies on the fact that investors, as well as financial analysts and regulators, started to ask for more relevant information.

As a consequence, this amplified the importance of more accurate financial statements. Also, traditional reporting standards do not provide actual and real values, but on the contrary, they are based on historical values. According to Zyla (Zyla, 2010)¹, traditional reporting presents a lack of relevance and scarcity of information to what concerns the value of internally generated intangible assets. Moreover, as mentioned earlier, intangible assets continued to attain even more significance changing the overall economic environment.

¹ ZYLA, Mark. L., (2010), Fair Value Measurements: Practical Guidance and Implementation

In 2006, FASB promoted FASB ASC 820, Fair Value Measurements and Disclosures (Statement of Financial Accounting Standard (SFAS) no. 157) with the purpose of “define fair value, establish a framework for measuring fair value, and expand disclosure about fair value measurements.”²This statement was primarily partially implemented due to the polemic generated, and FASB just got it fully implemented, for both financial and nonfinancial items, from 2009 on. In the meantime, the subprime crisis emerged. Both facts, the implementation of SFAS 157 and the financial collapse, caused some controversy around the consequences and implications of Fair Value Accounting (FVA). Some critics even affirmed that the implementation of the mentioned standard had, at least, worsened the credit crisis, subject further developed.

Before further analysis, it is relevant to briefly present the two organizations responsible for the development and implementation of the accounting standards and policies – FASB and IASB (International Accounting Standard Board). FASB is the American, private and non-profit organization designated for the Securities and Exchange Commission (SEC) to monitor and regulate the accounting of US public companies. FASB is responsible for developing the well-known U.S. Generally Accepted Accounting Principles (GAAP). IASB has the same characteristics but it is based in London and develops the International Financial Report Standards (IFRS). It was founded in 2001 but it is the successor of IASC that dates from 1973. Nonetheless, along this paper it is mentioned International Accounting Standards (IAS), the previous standards inherited from IASC. Last but not least, U.S. GAAP are more historical cost-based, whereas IASB presents a principle-based approach.

In this sense, globalization and its huge impact in the overall economies had underpinned the necessity of homogenizing the accounting standards worldwide. Thus, both accounting entities are trying to produce increasingly standardized and common reporting rules. This attempt started in 2002 and it is known as the Convergent Project, which promised a successful convergence, as soon as possible, as well as its maintainability. Furthermore, in 2006 both agencies had reaffirmed their commitment to converge U.S. GAP and IFRS through the Memorandum of Understanding (MoU). This last one “reflects standard-setting context of the ‘roadmap’ developed by the SEC in consultation with the IASB, FASB and European Commission for the removal of the reconciliation requirement for non-US companies that use IFRS’s and are registered in the US. The work programme includes a project on measuring fair value.”³ One of the main objectives is to achieve harmonization, which will just happen when all the companies and institutions throughout follow the same standard.

IASB assured that this convergence was not related with an enlargement of the FV application but, oppositely, it was made to clarify and uniform the different FV measurements along the

² SFAS 157, Fair Value Measurements, paragraph 1

³ IASB, Discussion Paper, Fair Value Measurements. Part 1: Invitation to Comment and relevant IFRS guidance, 26th November 2006.

IFRS's.

2.2 Fair Value concept

The FV concept is an accounting policy that has been studied and developed in an on-going perspective. According to both IASB - IFRS 13 – and FASB - SFAS 157, fair value can be defined as follows:

“Fair value is the *price* that would be received to sell an asset or paid to transfer a liability in an *orderly transaction* between *market participants* at the measurement *date*.”⁴

In order to a better understanding, the FV concept will be analyzed through the definition of price (i), asset or liability (ii), transaction (iii) and market participants (iv).

i. Price

Fair Value is defined as an exit price, which means the price to sell an asset or to transfer a liability to a market participant at the measurement date, instead of being an entry price. This definition presupposes, on the one hand that, the FV is not mandatory the price to the acquiring entity, and on the other hand, it might not be the price paid for the actual owner's entity. Moreover, FV as an exit price, might not be based on historical costs neither on future possible transactions.

There are some differences that make the distinction between entry and exit price very important. The potential of the asset or liability to the overall performance of an organization may affect the final measurement. As an example, there are some intangible assets – intellectual property - that are much more important to one entity than to other. If the potential buyer's entity would be able to perform much better because that asset is essential and complementary to some existing and/or on-going service / product, that entity might take this impact in its estimative, which would increase the price willing to pay.

Moreover, the FV of an asset or liability must be an exit price “whether that price is directly observable or estimated using a valuation technique.”⁵ In the case of an unobservable price, the reporting entity must consider the characteristics of the market participants that would enter into the transaction (concepts developed further on).

Finally, regarding the “price” notion, transaction costs do not enter to this calculation apart from location costs. Transaction costs are directly related to the transaction itself and are not a characteristic of the asset or liability. “Transaction costs are the incremental direct costs to sell

⁴IASB - IFRS 13 – and FASB - SFAS 157

⁵ ZYLA, Mark. L. (2010), Fair Value Measurements: Practical Guidance and Implementation

the asset or transfer the liability.”⁶

As mentioned above, the only exceptions are the costs related to location, i.e., the ones incurred to transfer the asset/liability to or from the most advantageous market. When location is a characteristic of an asset those costs must be taken into consideration when estimating the price in the most advantageous market.

This definition does not take into consideration the principle of continuity, i.e., it does not consider the fact of the company wants or not to maintain the asset and/or liability.

Last but not least, this definition considers a market-based measurement instead of an entity-based one. Thus, it deliberates the market assumptions that would be used by market participants as well as assumptions about risk.

ii. The asset or liability:

“A fair value measurement is for a particular asset or liability.”⁷ Hence, to achieve the FV, it must be considered the characteristics of the asset or liability that the market participants would consider at the measurement date, in order to sell the asset or transfer the liability.

The asset or liability can be a specific and unique one or a group of assets or liabilities, depending on the unit of account defined for that asset or liability by the IFRS's.

iii. The transaction

As mentioned above, the definition of fair value presupposes an orderly transaction. An orderly transaction is the one that can be seen before the measurement date, where the usual marketing activities for the asset or the liability, being measured, occur. According to IFRS 13, in order to measure the FV of an asset or liability, the transaction must take place either in the principal market or, in its absence, in the most advantageous market for that asset or liability to be negotiated.

The definition of transaction is critical and involves another two definitions: the principal market and the most advantageous market.

To what concerns the first one, entities should not have any difficulty to describe the principal market, besides the fact that it is mandatory to consider all the information available. According to IFRS 13, the principal market is “*in the absence of evidence to the contrary, the market in which the entity would normally enter into a transaction to sell the asset or to transfer the*

⁶ ZYLA, Mark. L., (2010), Fair Value Measurements: Practical Guidance and Implementation

⁷ Exposure Draft ED/2009/5 Fair Value Measurement

*liability*⁸. Additionally, the same standard states that “*the principal market is the market with the greatest volume and level of activity for the asset or liability*”⁸

Nonetheless, the principal market for the same asset or liability can differ within organizations. In this sense, the principal market must be considered from the perspective of the reporting entity. Additionally, the price to sell the asset or transfer a liability, at the measurement date, must be the one in the principal market, even if there is more advantageous price in a different market. IFRS 13 defines the most advantageous market as the one “that maximizes the amount that would be received to sell the asset or minimizes the amount that would be paid to transfer the liability”⁸, excluding transaction and transportation costs.

Evidently, the entity must have access to that specific market, but a transaction is not mandatory. In this case, “absence of an actual transaction”⁸, the FV measurement assumes a hypothetical transaction from the reporting entity’s point of view.

“Because the transaction is hypothetical, it is necessary to consider the characteristics of market participants who would enter into a transaction for the asset or liability”⁸ This takes us to the next description.

iv. Market participants

The market participants are the ones willing to transact in the principal market (or in the most advantageous market). According to IFRS 13, market participants must be:

- a) Independent;
- b) Knowledgeable, i.e. they have the necessary knowledge to enter into a transaction and it is supposed that they possess the same information regarding the asset or liability as the reporting entity;
- c) “Able to enter into a transaction for the asset or liability; and
- d) Willing to enter into a transaction for the asset or liability, i.e. they are motivated but not forced or otherwise compelled to do so.”⁹

Last but not least, and following the same standard, it is not necessary to identify or specify the market participants, but describing them taking into consideration some characteristics, such as:

- a) Type of asset or liability;
- b) The principal market for the item to be negotiated; and
- c) “Market participants with whom the reporting entity would enter into a transaction in that

⁸ IFRS 13 – Fair Value Measurements

⁹ SFAS 157

market.”¹⁰

2.2.1 Application to assets

The FV measurement assumes the highest and best use by the market participants, which corresponds to the one that maximizes the value of the asset or liability. This assumption considers market participant’s perspective, independently whether it differs or not from the reporting entity’s one.

This notion assumes the use of the asset that is physically possible, legally permissible (all the physical characteristics and legal restrictions that market participants considered to price an asset) and financially feasible. To what concerns to the last attribute, it evaluates whether or not “the use of the asset that is physically possible and legally possible generates the adequate income or cash flows to produce an investment return that market participants would require from an investment in that asset is not its highest and best use.”¹¹

Finally, according to SFAS 157, the highest and best use establishes two different valuation premises:

- i. *In-use valuation premise* - in the case when the highest and best use is achieved considering the asset as a combination with another group of assets or liabilities (installed or configured for this purpose). The fair value would be calculated taking into consideration that the transaction would occur with the same circumstances in both sides, i.e., the asset would be used with other assets as a group, or this group of assets would be available for all the market participants. Nevertheless, these factors will contribute to the calculation of the price but the asset will be always sold individually.
- ii. *In-Exchange valuation premise* – when the highest and best use of the asset is achieved on a stand-alone basis. Thus, the fair value would be the price received through a transaction to sell the asset to the market participants that would use the asset individually.

The last valuation premise is the most important for this dissertation. For the specific case of financial assets, the individually measurement will reveal the benefits of holding the asset within a diversified portfolio. Thus, the in-use premise is not relevant for this analysis.

¹⁰ IFRS 13 – Fair Value Measurements

¹¹ ZYLA, Mark. L, (2010), Fair Value Measurements: Practical Guidance and Implementation

2.2.2 Application to liabilities and to entity's own equity instruments

According to IFRS 13, the FV measurement to liabilities and to entity's own equity instruments undertakes that the liability or the equity instrument is actually transferred to the market participant, at the measurement date. In this sense, the concept considers a transfer price instead of extinguish price. The transfer of the liability or the entity's own equity instrument assumes that they would remain outstanding.

The concept of fair value for liabilities encompasses the definition of non-performance risk. According to Zyla¹², this is the risk of an entity not fulfilling an obligation; it is supposed to be the same before and after the transaction. The reason behind this remains on the fact that market participants would not enter into a transfer if the risk of fulfillment changed without changing the price of the obligation itself.

To what concerns this risk, it includes, but not only, the entity's credit risk. An entity, in order to an accurate FV measurement, should consider all the risks that could influence the fulfillment of an obligation. Finally, the effect of its own credit risk, and the others ones relevant for this purpose, will depend on the type of the liability and must be reflected for all the periods that the FV measurement is done for the liability. There are two types of liabilities: financial and non-financial liabilities.

Another topic that must be deeply analyzed is the way the FV measurement is done. Sometimes there is not an observable market price for the liability or entity's own equity instrument. IFRS 13 divides in two possible scenarios: liabilities and equity instruments held or not held by other parties as assets.

For the first one, the fair value of the liability or equity instrument follows the same rules to measure the FV of an asset – subject further developed in the next sections. Nonetheless, this price might be aftermost adjusted according to the features that the asset has and the liability or equity instrument does not and the other way around. IASB provides an example: “the observed price for an asset reflects a combined price for a package comprising both the amounts due from the issuer and a third-party credit enhancement. In such cases, the objective is to estimate the fair value of the issuer's liability, not the price of the combined package.”¹³ In this specific situation the reporting entity should adjust the price in order to eliminate the credit enhancement, which is not part of the liability. According to IFRS 13, there are some factors which indicate that the quoted price for the asset must be adjusted:

- a) “the quoted price for the asset relates to a similar (but not identical) liability or equity instrument held by another party as an asset”¹⁴, and

¹² ZYLA, Mark. L. (2010), Fair Value Measurements: Practical Guidance and Implementation

¹³ SFAS 157

¹⁴ IFRS 13 – Fair Value Measurements

- b) “the unit of account for the asset is not the same as for the liability or equity instrument”¹⁴.

Last but not least, if there is no corresponding asset for a liability it is necessary to estimate the price, always in the market participant’s point of view. IASB proposes the present value technique or other valuation techniques, further explained and analyzed. To what concerns the present value technique it is necessary that the reporting entity estimates the future cash outflows that the other entity would incur to fulfill the liability. According to the Exposure Draft May 2009, this estimation is done through:

- a) Estimating the cash flows the entity would incur in fulfilling the obligation;
- b) Excluding cash flows, if any, that other market participants would not incur; and
- c) Including cash flows, if any, that other market participants would incur but the entity would not incur.

2.3 Valuation Techniques

Valuation techniques are needed to estimate the price of a transaction between the market participants at the measurement date. According to FASB, SFAS 157, and IASB, IFRS 13, the valuation techniques must be consistent with three of the approaches: market, cost or income. There are cases in which a single technique is enough – valuation of an asset with quoted market prices – but in other circumstances a multiple valuation technique is needed. In the latest, “the results shall be evaluated and weighted, as appropriate, considering the reasonableness of the range of values indicated by those results.”¹⁵ IFRS 13 states “a fair value measurement is the point within that range that is most representative of fair value in the circumstances.”¹⁶

Following the same standard – IFRS 13 – an entity should use the valuation techniques most appropriate for each circumstance, always maximizing the use of observable inputs and minimizing the usage of unobservable ones. The choice between the different valuation techniques must be well considered, once their usage must be applied consistently. Nevertheless, a change in the valuation technique is permitted if it ends up in a better representation of the fair value for the circumstances. IFRS 13 gives some examples of events where a change might happen, like:

- a) “new markets develop;
- b) new information becomes available;
- c) information previously used is no longer available;
- d) valuation techniques improve; or
- e) market conditions change.”

¹⁵ FASB, SFAS 157, and IASB, IFRS 13

¹⁶ IFRS 13 – Fair Value Measurements

In order of a better understanding a brief description of the three valuation techniques is done in the further sections.

2.3.1 Cost Approach

The Cost Approach has in its basis the concept of current replacement cost, which is “the amount that would currently be required to replace the service capacity of an asset¹⁷”. It is mostly applied to tangible assets such as buildings or equipment, and to intangible assets such as customer relationships. Nevertheless, it is difficult to apply to an entire operating business.

To the cost of replacement is subtracted any adjustments for obsolescence. As mention above, the first one answers the question: how much would it cost at the measurement date, to replace a comparable asset or group of assets? Regarding obsolescence, it includes physical deterioration, functional and economic obsolescence, and “is broader than depreciation for financial reporting purposes (an allocation of historical cost) or tax purposes (based on specified service lives)”¹⁷.

2.3.2 Income Approach

The income approach uses valuation techniques to convert “future amounts (e.g. cash flows or income and expenses) to a single current (i.e. discounted) amount.”¹⁷ The FV measurement of these amounts is based on the value designated by current market expectations. Thanks to its nature it can be applied to an entire business or just to a specific asset.

The income approach encompasses several valuation techniques such as present value techniques (Discounted Cash Flow), option pricing models (Black-Scholes Model or binomial model) and the multi-period excess earnings methods (applied in some intangible assets).

2.3.3 Market Approach

The market approach estimates FV through prices and other relevant information generated by market transactions encompassing identical assets or liabilities. Basically, within this approach FV is estimated by comparing cash flows, earnings, or other metric of the reporting entity with a multiple or other metric of a similar entity whose shares are transacted in the market. Taking into consideration its easy nature – its basis is on similar’ transactions – it is a very used approach. Nonetheless, it is difficult to apply to intangible assets.

¹⁷ IFRS 13 – Fair Value Measurements

Furthermore, market multiples and the matrix pricing are the methodologies consistent with this approach. “Multiples might be in ranges with a different multiple for each comparable. The selection of the appropriate multiple within the range requires judgment, considering factors (qualitative and quantitative) specific to the measurement.”¹⁸ To what concerns the matrix pricing it is essentially used to evaluate debt securities. The main characteristic of this technique is the fact that it does not rely exclusively on quoted market prices, but instead, it considers securities’ relationship with benchmarked quotes securities.

2.3.4 Inputs to valuation techniques:

The term input is bettered analyzed in the last years in order to a more detailed guideline regarding FV measurement. Basically, inputs encompass all the assumptions that market participants would use in order to price an asset or a liability, including risk-related assumptions. For instance, to estimate the FV of a debt instrument, an assumption, related to risk, would be the yields on similar types of debt instruments.

According to IFRS 13, there are two types of inputs, which definitions are given below:

- a) Observable inputs are the ones developed through market data, “such as publicly available information about actual event or transactions”¹⁸. These inputs mirror the assumptions taken by market participants when pricing as asset or liability.
- b) Unobservable inputs, on the other side, are the ones “for which market data are not available and that are developed using the best information available about the assumptions that market participants would use when pricing the asset or liability.”¹⁸

As mentioned before, the aim of valuation techniques is to maximize the use of relevant observable inputs and minimizing the use of the unobservable ones.

2.4 Fair Value Hierarchy

In order to “increase consistency and comparability in fair value measurements and the related disclosures”¹⁸ it is established a hierarchy where three levels for the inputs are settled and prioritized. Level 1 is the one with highest priority and it corresponds to quoted market prices (unadjusted) for identical assets and liabilities. On the other extreme is the level 3, which corresponds to unobservable inputs and to the lowest priority.

What’s more, there are some situations in which the inputs used to evaluate an asset or liability are within different levels. Still, when estimating the FV measurement as a whole is “based on the significance of the lowest level of the input”.¹⁸ This significance entails judgment because it

¹⁸ IFRS 13 – Fair Value Measurement

will have a critical impact on the disclosures about the FV measurement.

2.4.1 Level 1

Regarding this level, two important topics must be mentioned. The first one relies on the definition of active market, which is the one where transactions take place with relevant frequency and volume to deliver pricing information on an on-going basis.

A quoted price in an active market is the one where relies the highest priority and it should be used whenever it is possible.

Moreover, the second point refers to the three exceptions of what is mentioned above. When an entity possesses a portfolio of similar assets, it may happen that it cannot access to their prices individually. In this case the reporting entity may opt for another valuation technique, ending up in a lower level of the FV hierarchy. Secondly, the situations where unforeseen examples take place after the close of the respective market but before the measurement date, which means that the FV price is not adjusted to the circumstances of the measuring date. The entity is allowed to recognise the effect of these events in the FV measurement. Once again, the other methodology elected will end up in a lower level. Lastly, for measuring the FV of liabilities or own entity's equity instruments based on quoted prices of similar item traded as assets but needing adjustments. Like mentioned before, any adjustment ends up in a lower FV level.

2.4.2 Level 2

This level corresponds to all the inputs observable either directly or indirectly to the asset or liability which are not quoted prices included in level 1. This includes: quoted prices for similar assets or liabilities in active or not-active markets; "inputs other than quoted prices that are observable of the asset or liability"¹⁹, such as credit risks and default rates; and "market-corroborated inputs"¹⁹.

Any necessary adjustment of this level will end up once again on decreasing the level.

2.4.3 Level 3

The last level relies on unobservable inputs, consequently imposing little or any market activity. Nevertheless the main goal stays the same: estimate an exit price using the best information available and the same assumptions as market participants. Any adjustment regarding this level is related to the availability of the information between the reporting entity and the market

¹⁹ IFRS 13 – Fair Value Measurement

participants.

2.5 Fair Value and Historical Cost – the current debate

The importance of choosing between different accounting policies relies on the fact that we live in an imperfect world. The nature and consequences of the world's imperfections make accounting not only essential but, as well, controversial. A lot of literature discusses the necessity of accounting standards throughout the times. In this sense, Fair Value Accounting (FVA) is not an exception. If we would live in a perfect world with perfect markets, mark-to-market prices equalizing accounting values would as well be perfect. Several authors have been giving their opinions and some controversialist arose, mainly due to two situations: FVA is a much more bold approach than Historical Cost (HC) and several FV standards were launched at the peak of the financial crisis. This subsection presents the main arguments of this actual debate.

In a nutshell, the major difference between these two policies is that FVA relies on a longer extent on market prices, and under HC approach (HCA) the valuation is based on historical/original prices, sometimes without subsequent adjustments.

The first advantage of FVA relies precisely on the fact that a balance sheet at observed prices shows the reality of the firms in the market place. Thus, investors will have a better understanding of the risk profile of each company, which consequently will insert discipline in the markets and, therefore, in the overall economy.

Nonetheless, with this first advantage comes the first critic. FVA, instead of just reflecting the fundamental value of an asset, it creates an extra endogenous source of volatility. It is important to briefly explain this artificial volatility. The usual prices' volatility refers to the one that purely reflects the underlying fundamentals, which it is not the critic point in FVA. In this case, the artificial volatility has its source in the market prices double-edge role. Besides their proper role in reflecting the fundamentals value, market prices influence the actions of market participants, injecting the so-called artificial volatility that is not justified by the fundamentals.

Furthermore, when firms sell assets massively, market prices decrease “more than it is justified by the fundamentals”²⁰ which exercise a negative effect on all other market participants, mainly the ones who had chosen to hold the assets. Short-horizon firms that anticipate this scenario will sell their assets which ends up amplifying the price fall. This phenomenon is normally called endogenous risk or artificial volatility “because it results from a feedback loop created within a system”.²⁰

²⁰ Sapra, Haresh, The Economic Trade-offs in the Fair Value Debate, Chicago Booth

On the opposite side, HC, relying on past transaction prices, is insensitive to recent price signals which ends up in a bad representation of the value of the assets and in inefficient sales. Under HCA, mainly shortsighted firms, try to sell assets that have been recently appreciated in value – since booking them at HC understates their worth.

On the one hand, HC results in countercyclical trades that, in the last instance, stabilize prices. On the other hand, FVA using current market prices as its basis result in pro-cyclical trades that destabilizes prices. In order to a better understanding, an example is presented:

- under HCA, when price falls (rises) the incentive is to hold (sell) but, on the contrary,
- under FVA, when price falls (rises) the incentive is to sell (hold).

From this example it is easily understandable that FVA may result in inefficient sales in bad times. Nonetheless, HCA seems to be particularly inefficient in good times.

According to Sapra, “proponents of fair value accounting claim that historical cost accounting induces managers to engage in gains trading by cherry-picking and selling those assets that have appreciated in value (i.e., winners) and holding on to those assets that have lost value (i.e., losers).”²⁰

According to Hyon Shin et al, the dilemma is precisely choosing “between ignoring price signals or relying on their degraded versions”²³. FVA “overcomes the price insensitivity by extracting the information conveyed by market prices, but it also distorts this information for illiquid assets (such as loans, privately placed bonds and insurance portfolios).”²¹

From this perspective and taking into consideration the environment where financial institutions operate, it is predictable that they were the biggest opponents of the FVA, namely the banking sector: loans are part of the assets’ side of a bank balance sheet and they are characterized as senior, long-term and very illiquid. These kinds of assets are traded in the so-called over-the-counter (OTC) market, which is characterized by its low degree of standardization and illiquidity.

Moreover, accounting earnings are important for the banking sector because they are directly connected with two topics: managerial compensation and prudential/regulatory ratios. In order to maximize expected earnings, the bank must choose between securitizing a loan portfolio, before the earnings are reported, or holding the portfolio in the bank’s balance sheet. At the same time it would be expectable that banks adjusted required capital when expectations about future losses change and not just when they are already realized (capital requirements settled by bank regulators are based on expected future losses).

²¹ Shin, Hyun Song et al, “Marketing-to-Market: Panacea or Pandora’s Box?”, August 12, 2007

Additionally, according to Hin, Hyun Song et al, securitization is also related with the choice of an accounting policy. Under the HCA banks or financial institutions only securitize their loan portfolio since their books do not reflect the embedded value of their portfolio fast enough. Taking into account the price insensitivity of HCA, firms tend to focus just on the short-run, which consequently makes them to sell their assets. In this sense, firms simply do not consider long run projects that sometimes are even more profitable. Several authors agree that the securitization boom had on its basis the HCA.

Another critical point of the FVA relies on the fact that market prices do not always correspond to the fundamental values of the assets because of the information publically available. Some examples are “transaction costs, limits to arbitrage; market prices may be subject to behavioral biases and investors irrationality. A liquid crunch can affect market prices...”²² Once again, there is not an answer to this problem, but instead finding one is the actual problem. HCA does not solve it either. Sapra encourages giving additional information in the disclosures. The author actually affirms that it is advisable to use market values, even if the markets are illiquid, supplementing the market values used with additional disclosures, “e.g., about the fundamental value of the asset when held-to-maturity.”²³

Before concluding, it is necessary for the next analysis - the recent financial crisis - a deeper clarification about the effect of FVA in pro-cyclicality. Laux&Leuz presents two arguments for the contribution of the FV to pro-cyclicality:

- i. FVA allows either assets’ write-ups and the increase in banks’ leverage in the booms – which ends up transforming the financial system more vulnerable and financial crisis even more severe.
- ii. FVA can make contagion in the financial markets – explained earlier.

Nevertheless, HCA does not provide any benefit in these situations. Besides smoothing the financial systems with opaque book values, under HCA firms are not allowed to assets write-ups in the booms and create “hidden” reserves critical in busts. From this point of view FV might be, instead of a contributor for the current crisis, a smoother of the gravity of the crisis. According to Harris & Kutasovic “A test of the relationship between accounting methodology and leverage is ultimately an empirical issue”²⁴ in order to exactly conclude if FV is pro-cyclical or not.

According to these authors, FVA is inefficient in busts but HC is particularly inefficient in good times. As the assets’ liquidity decreases, FVA becomes more inefficient in comparison with HCA, because strategic concerns overcome the fundamental analysis. As the authors mention “strategic concerns create pro-cyclical trades that destabilize prices in the mark-to-market

²² Laux & Leuz, The Crisis of Fair Value Accounting: Making sense of the recent Debate, Chicago Booth

²³ Sapra, Haresh, The Economic Trade-offs in the Fair Value Debate, Chicago Booth

²⁴ Harris & Kutasovic, “Did FASB 157 cause the financial crisis?”, Global Journal of Business Research

regime while strategic concerns result in countercyclical trades that reduce fundamental volatility in the historical cost regime.”²⁵ Moreover, HCA “may dominate FVA when assets have long duration, trade in very illiquid market of feature an important downside risk.”²⁷

However, even if it seems that HCA is a better solution for held-to-maturity assets, FV appears in the big scenario being advantageous to investors: firstly, these last ones can evaluate past decisions in the light of current market prices and; secondly, investors might have some doubts regarding the bank’s ability to hold those assets until maturity.

Concluding, on the one hand, FVA provides updated information, increase transparency (few defend this point as very important), assures that all price changes appears in the balance sheet and encourage prompt corrective actions. On the other hand, FVA it is not relevant for long-term assets, specially HTM, it might distort prices by marketing inefficiencies, investors’ rationality and liquidity problems, FV based on models is not reliable – level 3 and FVA contributes for the pro-cyclicality of the financial system.

The question must be seen as a controversial one and an open debate. To an accurate conclusion it must be defined a-priori which assets are being analyzed. For instance, few would dare to defend HC for liquid assets but, for others, it is the only solution for loans. Moreover, the fact that we face a world with more than one imperfection makes the analysis even more subjective. It is really important that all the characteristics and consequences must be well-know and studied in order to reach the exact impact of the accounting policy chosen. It is almost impossible to please everybody: all types of standards have their pros and cons and their specific trade-offs; each trade-off will differ from industry to industry. It is essential that before turning down FVA all the alternative options are studied and analyzed because if FV is inefficient in some phases, HC is even more in others.

2.6 Application of FV to Financial Instruments

The main focus of this dissertation is the fair value measurement within the financial instruments. What’s more, taking into consideration that both agencies, IASB and FASB, are walking in the same directions, IASB policies were chosen since the case regards European banks and their debt securities.

IASB had published several crucial standards related to financial instruments: IAS 39 Financial Instruments: Recognition and Measurement, IAS 32 Financial Instruments: Presentation, IFRS 9 Financial Instruments and IFRS 7 Financial Instruments: Disclosures, IFRS 13 Fair Value Measurement, among others.

²⁵ Shin, Hyun Song et al, “Marketing-to-Market: Panacea or Pandora’s Box?”, August 12, 2007

In this sense, according to IAS 32 “A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.”²⁶

IFRS 13 was part of the Memorandum of Understanding signed by both boards. Besides increasing transparency with FV measurement, it aims to provide additional information about the 3rd level of the hierarchy. According to IASB, “IFRS 13 requires entities to disclose information about the valuation techniques and inputs used to measure fair value, as well as information about the uncertainty inherent in fair value measurements.”

The main aspects of these standards will be further on developed and analyzed.

2.7 Fair Value Accounting within the recent financial crisis

As mentioned before, the financial sector, namely banks and insurance companies, developed some negative opinions regarding FVA. This debate occurred for the last decade but the financial sector had notorious voice within the recent financial crisis. According to the banking sector, FV contributed to the actual crisis, opposed to the proponents, which believe that FV was just a messenger of the bad news. In this section it is presented the impact of FV along the crisis, once again giving special attention to the bank sector.

At October 6th of 2008 the world woke up with a completely new reality. All the big stock exchanges of the world suffered sharp falls and the panic was installed in the financial markets after the U.S. rescue plan was approved. Nonetheless, in the middle of 2007 the crisis could already be predicted. As all the other crisis, it came from a boom. The boom in the credit market related with the low interest rates applied in the previous decade.

In a nutshell, American market was built on credit, but not in a wisely way. Banks lent money to people who would not be able to fulfill its obligation – that is why the well-known expression subprime – at a low interest rate and rising house prices, giving the idea that it was a good investment. Thus, banks and mortgage brokers borrowed even more money starting a money game cycle and creating more securitization. Also, investments banks such as Lehman Brothers got into mortgages to securitize them and then resell them again. Some banks even started to buy securities from another banks. After all, those loans were incorporated in Collateralized Debt Obligations, or CDOs, (even more complex forms of securitization) which spread even more the risk but were very complicated and often hid the bad loans. Banks increased their exposure and confidence. After three years with consecutive increases in the interest rates, people stopped paying, housing prices fell and the problems arose. The crisis of

²⁶ IAS 32: Financial Instruments: Presentation, IASB

confidence was settled and banks were facing the situation with the riskiest loans and assets were falling so sharply that made lenders to take their money back. There was no certainty regarding the value of the loans. The crisis started with some banks collapsing, even the larger banks had to request for bailouts from governments.

The first dramatic situation was the action took by the Federal Reserve to prevent Bear Stearns's bankruptcy. After that consecutive events took place: the rescue of Fannie Mae and Freddie Mac which were placed under government control, the insolvency of Lehman Brothers, the sale of Merrill Lynch to Bank of America, the 85 billion dollars injection got by American International Group (AIG, the biggest insurance company in the world) from the Treasury, Goldman Sachs and Morgan Stanley reconsidered the way of making business, Citigroup bought Wachovia Corporation or Washington Mutual was taken over by Morgan Chase are some examples.

Thanks to the globalization of the financial system and the importance of the American market this crisis quickly spread throughout the world. In Europe a number of nations decided to nationalize, or part-nationalize some failing banks in order to restore confidence: Fortis bank was partially nationalized, being acquired by BNP Paribas while RBS and Northern Rock were saved from bankruptcy. "European officials decided that bailout packages were needed for the banking sector and governments promised to guarantee private savings accounts to prevent massive withdrawals."²⁷

Last but not least, some people had blamed derivatives for this crisis. It is important to mention that, even in the case that banks and financial institutions had chosen to manage risk even with more risk until the bubble, these financial instruments are not guilty. Nevertheless, they gave a boost to this crisis.

Being cognizant with these facts, the question relies on the accounting system that was being used along this financial meltdown – a mixed model combining FVA and HCA. Several experts blame FVA for these events. Their main argument is that FV forced the falling of some asset prices and their consequent sales. The critical point of the FVA is the 3rd Level of the hierarchy – where complex mortgage and derivatives are measured. In this sense, "with illiquid markets financial institutions may be forced to take outsized losses by writing down the value of the security even if they both have the intent and ability to hold the assets to maturity. The resulting lower sale value may be below the security's value based on its future cash flows."²⁸

What's more, opponents blame FV for the huge losses as well as the capital impairment affirming that those values do not reflect the intrinsic value of the asset. Once again they point

²⁷ Assistant Lecturer Phd Maria Carmen HUIAN, "Some aspects regarding the role of fair value accounting during the current financial crisis"

²⁸ Harris & Kutasovic, "Did FASB 157 cause the financial crisis?", Global Journal of Business Research

out the pro-cyclicality, mentioned before, which ended up declining the performance reported, the deterioration of liquidity and insolvency and also capital raising. The preference from the HC during crisis relies simply on the fact that, this accounting policy, allows banks to choose when to realize gains and losses and the impairment testing is less strict. The actual problem to them is one of the advantages mentioned: the FV's quickly timely reaction to the market.

According to Harris & Kutasovic, the problems around Level 3 are the following: the first one is concerned with the fact that the market value based on the SFAS definition of FV as an exit price is lower than the value achieved through internal models, which ended up in the recognition of huge losses; secondly, level 3 was much greater than it was expected - "As an example in 2007, Morgan Stanley had a ratio of level 3 assets to its Stockholders' Equity in the amount of 250 per cent" and third "these level 3 assets ended up in the portfolio of pension funds and in global sovereign wealth funds. " ²⁹

"Level 3 assets due to their illiquidity and unique nature have no objective value." These assets are not traded in the organized market, which impedes the possibility to ascribe them a market value. "Additionally, models cannot be used to value these level 3 assets under FASB 157, so a mark-to-model method, which theoretically is the best approach for asset valuation in this case, is not allowed."³⁰

Moreover, and referring Laux&Leuz, European Banks were more resilient to FVA than the American ones. Once again there is no fundament in their arguments and "there is empirical evidence that European firms are generally less likely to take impairments and appear to smooth their earnings more" ³¹.

Another critic question was made along the financial crisis: if there were any implementation problems regarding FV standards. Both FASB and IASB are reasonably restrictive to what concerns deviations from market prices. The reason behind this decision is the fact that allowing deviations would open space for the question: the deviation is because the market prices are actually misleading or because managers just affirm so in order to avoid write-downs?

Managers will always have the benefit of having more information than the gatekeepers. A study prepared by the IMF in 2008 showed that US banks moved assets to Level 3 as the crisis revealed itself. It is possible that US banks did not move enough assets in order to prevent the contagion effect mentioned earlier. In this sense, it is important to clarify that the way standards allow and force the usage of FVA had an impact on the balance sheet of the financial sector.

Furthermore, another implementation problem might be the litigation risk. Deviation from market

²⁹ Harris & Kutasovic, "Did FASB 157 cause the financial crisis?", Global Journal of Business Research

³⁰ IAS 32: Financial Instruments: Presentatio, IASB

³¹ Ball et al., 2000; Leuz et al.,2003

prices, as shown in the later section, requires profession judgment. For instance, “it is conceivable that a manager is reluctant to use an appropriate model-based fair value that is higher than an observable price from a very illiquid market, especially when there is substantial down-side risk for the economy or the firm, as there typically is in financial crises.”³² In the actual environment, managers weigh personal costs and risks when pondering about deviations. Taking in consideration the severe penalties managers might undertake, it is understandable that they think and act differently from the investors. Once again, the way standards face FV have an impact on the managers’ actions.

Due to the several criticisms and asks to abandon FVA, SEC prepared a study in detail the role of FV in the crisis. The study was consolidated in a report published at the end of 2008 in which the continuity of the FVA was encouraged. In this report some surprising conclusions were pointed out like the fact that just half of the assets (and even less for the liabilities) were measured at FV, and this percentage fell for measurements of FV through profit or loss. According to this study, FV increases transparency and provide better decision making for investors. Furthermore, it clearly states that the guilty in the crisis were the poor assets’ quality, consecutive credit losses, and lack of investors’ confidence.

Once again referring Harris & Kutasovic, the implementation of FV in 2008 was not the trigger of this financial crisis. But on the contrary it “is a step in the right direction in that it provides a measure that best reflects a financial institution’s current financial condition by providing meaningful and transparent financial information and minimizing the possibility of manipulation.”³⁵ These authors go further and also affirm that eliminating the FV as the opponents wanted would “have increased market instability and would have made the financial crisis worse.”³³ Finally, they blame lack of business judgment, poor credit policies and internal controls and crisis of confidence for the financial meltdown lived.

Moreover, some advocates of FVA, such as Moyer Liz, stated that FV warns companies to stay as far as possible from the most volatile assets once it brings volatility and quickness to daily accounts. Moreover, they also advise to avoid instruments with no active market.

From this crisis and all the recent and open debate some conclusions and actions must be mentioned. First, the main conclusion regarding the sector in analysis relies on the fact that, considering the actual scenario, it will be a better idea to adjust banking regulation instead of the accounting system. The excessive use of complex derivatives traded in the OTC market ended up in lack of transparency and confidence.

Secondly, IASB and FASB during 2009 had created a Financial Crisis Advisory Group (FCAG) with the aim of studying and proving the necessary help to establish confidence again and

³² Laux & Leuz, *The Crisis of Fair Value Accounting: Making sense of the recent Debate*, Chicago Booth

³³ Harris & Kutasovic, “Did FASB 157 cause the financial crisis?”, *Global Journal of Business Research*

improve the information and methodologies for firms to follow the standards. In their first report published, the co-chair of FCAG says, “Accounting was not the root cause of the financial crisis, but it has an important role to play in its resolution.”³⁴

Third, investors as opposed to the banking sector prefer FVA and stand for it. A study from FASB showed that during the crisis the assets affected were trade below their book value. This proposes that investors perceive the net asset of banks as overstated and not understated as the opponents stated. Furthermore, another study by KPMG in 2007 suggests that in the beginning of the crisis European banks increased their disclosures about financial instruments. Once again, the option for more detailed and mandatory disclosures could support the reassure this lack of confidence.

Last but not least, it can be concluded that FV did not contribute to this crisis, but on the contrary, it provides warnings and it was a messenger of the bad news. Likewise, it struggles the opacity of banks’ book values.

2.8 Financial Crisis in Europe – The Sovereign Debt Crisis

The Sovereign Debt crisis in Europe had its origin in the end of 2009 and it is in part a fiscal crisis. Several countries, such as Greece, had spent more than they could collect with taxes. In this sense, they had to borrow more debt in order to finance their countries. After the American bubble, and as mentioned before, the European financial system was very fragile. Moreover, Governments in order to prevent their banking sector collapse injected huge amounts of money.

The trigger event was the announcement of the duplication of Greek’s Public Deficit. In 2009, deficit was 6,7% of its GDP and it was reviewed to 15,4% of its GDP. Also the expectative regarding its Sovereign Debt was more than 115% of the GDP. The debt problem was further compounded by the fact that foreign institutions, particularly foreign banks, held almost three-fourths of the government debt. Not only was the high fiscal deficit a problem, it was also camouflaged by derivative hedging. Consequently, the entire world put its eyes in Europe and the possibility of Greece’s default startled investors.

Furthermore, the financial assets of peripheral countries of the Eurozone suffered a remarkable pressure, particularly with the significant rise in sovereign spreads and significant declines in their respective stock exchanges. From February 2010 on, a strong pressure was made to Greek Financial assets. Also, investors became extremely sensitive to any news about the Eurozone economies, which were the most vulnerable to the level of public accounts. These economies became speculation targets by the market, creating a contagion effect.

³⁴ FCGA Press Release dated 28 July 2009, www.fasb.org/fcag.org

Consequently, the major rating agencies followed market concerns and carried out consecutive downgrading in sovereign debt of those countries, which was obviously followed by negative effects and consequences for the rating of their financial institutions and financing conditions of the peripheral European countries.

Starting in April 2010 with the Greek ask for a bailout package and with Moody's downgrade to "junk" Greek Sovereign Debt, the systemic events succeed in Europe establishing the alarm in the market. In that month, IMF and ECB agreed in a 110 billion of Euros bailout package to Greece and several austerity measures were applied in the country. The contagion effect started to be felt in the Eurozone. In June 2010, the euro closed with the lowest rate of exchange since 2006, with 1,2271\$ against the US dollar, according to "Banco de Portugal".

The crisis was settled. Ireland was the first country, after Greece, asking Troika (the committee composed of IMF, European Commission and European Central Bank) for help. Irish crisis is not related with bad public policies but it is indeed a bank collapse – related to a real estate bubble. Two years before Ireland's collapse, its rating was AAA, the highest rating, and from this summer on Moody's downgraded it to "junk" (Ba1). The ratings for the peripheral countries are presented in Figure 1, below.

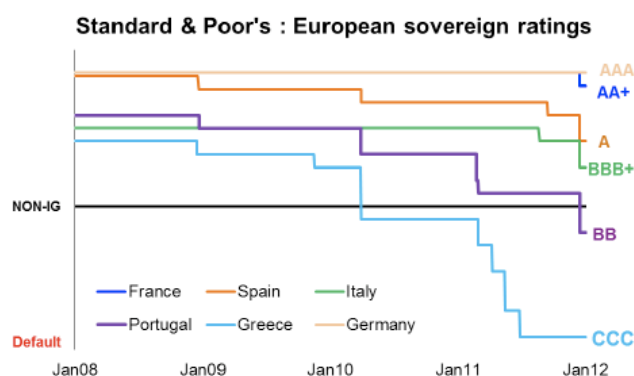


Figure 1 – Evolution of Ratings for European countries for the four years

At the beginning of 2011, European finance ministers created the European Stability mechanism, which is a permanent fund of 500 billion of Euros to lend to European countries in the last instance. The peripheral economies were starting to give signals of financial struggle.

In May 2011, Portugal asked for help, once again to Troika. A bailout package of 78 billion of euros was decided to this country. Austerity measurements from the government were applied as on the other countries.

In June 2011, Standard & Poor's downgraded the Greek rating to CCC, which was an historical record once it was the lowest rating given to sovereign debt.

At July 2011, a second bailout package is agreed to Greece. This time the amount was 109 billion of Euros and it involved the private sector. The rumors about Greece leaving the Eurozone started and by August 2011, the European Commission President, José Manuel Barroso, came to public with concerns about the spreading of the crisis beyond the peripheral countries. In this month, the interest rates on 10-years Italian government bonds topped 6 per cent as its debt/GDP ratio reaches 120%. Italy started to have internal problems encompassing the resignation of the Prime Minister. Spain changed the ruling political party in November 2011 and clear signs of financial difficulties were seen. By this time, the financial crisis had reached the third and fourth largest European economies.

At the year-end, European leaders had met in Brussels to discuss the Sovereign Debt crisis. January 2012 started with a downgrade from Standard & Poor's to eight European countries, including France. This downgrade was justified with the impossibility of the euro leaders to deal with the crisis. At the end of the month a "fiscal pact" is finally signed between 25 of the 27 European countries. According to BBC, in just two months ECB had loaned over one trillion to private European banks in order to increase liquidity. European markets were struggling and there was no sign of enhancements.

Finally, in March 2012, after having amassed a large percentage of private creditors who hold Greek Sovereign Debt, the Hellenic government secured the partial forgiveness of the national debt. This meant a debt restructuring of approximately 75% (including the principal, around 50%, plus accrued interests), which rose a forgiveness total amount of around 107 billion euros. It was considered the biggest failure of sovereign debt repayment ever.

3. Principles and Practices

The main goal of this chapter is to clarify the main characteristics and principles established by the Accounting Standards used in this dissertation analysis: IAS 32, IAS 39, IFRS 7 and IFRS 9. The reason behind these three norms is explained by the objectives of each one:

- The objective IAS 32 is establishing principles for presenting financial instruments as liabilities or equity and for offsetting financial assets and financial liabilities.
- The objective of IAS 39 is to launch principles to recognize and measure financial assets and liabilities.
- Last but not least, IFRS 7 provides information about disclosing financial instruments.

To what concerns IAS 32, Financial Instruments: Presentation, its aim is to prescribe principles for classifying financial instruments and for offsetting financial assets and liabilities.

Following this norm, Paragraph 11 gives the definition of a “Financial Asset” and a “Financial Liability”. Due to the main topic of this dissertation the definition of “Financial Asset” is described. In this sense, a financial asset can be any asset that is:

- a) “cash;
- b) An equity instrument of another entity;
- c) A contractual right:
 - i. To receive cash or another financial asset from another entity; or
 - ii. To exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or
- d) A contract that will or may be settled in the entity’s own equity instruments (...)”

Regarding IAS 39 “Financial Instruments: Recognition and Measurement”, its aim is to establish principles for recognizing, derecognizing and measuring financial assets and liabilities.

Firstly, this norm states that all financial assets and liabilities, including derivatives and certain embedded derivatives, must be recognized in the financial position’s statement. Secondly, all financial instruments are initially measured at fair value on the date of the acquisition; normally this amount coincides with the cost. Moreover, the only difference among different financial instruments is exclusion or not of the transaction costs.

Furthermore, IAS 39 defines how to measure a financial asset subsequent to initial recognition, according to four categories:

- I. Loans and Receivables - non-derivative financial assets with fixed or determined payments that are not quoted in an active market.
- II. Held-to-maturity investments – non-derivative financial assets with fixed or determined payments and fixed maturity that an entity has the intention to hold until maturity.
- III. Financial Assets measured at Fair Value through Profit or Loss – this category includes financial assets held for trading (short-term profit taking) and any other financial asset that the entity designates, “the fair value option”. Derivative assets are always in this category unless they are designated in an effective hedging relationship.
Financial assets designated by the entity at fair value through profit or loss upon initial recognition must meet at least one of the following criteria:
 - i. The fair value option “eliminates an accounting mismatch that would otherwise arise from measuring assets or liabilities or recognizing the gains or losses on them on different bases”;
 - ii. Those that are part of a group of financial assets, financial liabilities, or both that are managed, and their performance is evaluated by management on a fair value basis in accordance with a documented risk management or investment strategy
 - iii. Those that contain one or more embedded derivatives.
- IV. Available-for-Sale – all financial assets that do not fall into the other categories.

To what concerns measurement between the categories, the first ones (“Loans and Receivables” and “Held-to-maturity”) are carried at amortized cost, subject to a test for impairment. Regarding Financial Assets fair valued through profit or loss, as the name indicates, are measured at fair value, with value changes recognized in profit or loss. Last but not least, Available-for-Sale Financial Assets are measured at fair value and value changes recognized in other comprehensive income apart from impairment, interest recognized using the effective interest method and for monetary items, foreign exchange gains and losses. If the fair value cannot be measured reliably the asset is carried at cost subject to impairment.

The next topic which must be mentioned in the context of this dissertation is the “*Reclassifications*”. IAS 39 defines clearly in which circumstances an asset can be reclassified. In this sense, reclassifications for non-derivative assets allowed by this norm are:

- Reclassification from “Financial Asset at Fair Value through Profit & Loss” when the assets are not held any more with the purpose of sell in a near future into “Loans and Receivables” if the asset being reclassified has the characteristics defined from this caption or if the entity has the ability and intention to hold the asset for a foreseeable

future or until maturity. What's more, reclassifications for another category are just allowed under exceptional circumstances, which justify the respective incorporation.

- Reclassification from "Available-for-Sale" to "Loans and Receivables" when the entity has the intention and ability to hold the asset for a foreseeable future, and under rare circumstances.

Ultimately, IAS 39 elucidates about "*Impairment*". An entity must report at the end of each year the intention to impair a financial asset. According to this norm "*a financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset and that loss event has an impact on the estimated future cash flows of the financial asset or group of financial assets*".³⁵

Moreover, the loss events are defined, which can be financial difficulties from the issuer, disappearance of an active market for a specific financial asset, breaches of contracts, etc. Additionally it is fully explained for each type of asset how to measure and recognize the impairment. The most important caption to mention is "Available-for-Sale". As it was mentioned, value changes are recognized in equity. Nonetheless, when there is objective evidence that the asset is impaired, the cumulative loss shall be reclassified from equity to profit or loss even if the financial asset has not been derecognized. The amount of the cumulative loss removed from equity to P&L shall be the difference between the acquisition cost (net of amortization) and the current fair value.

To what concerns IFRS 9 – *Financial Instruments*, in 2009 IASB had issued it, which will ultimately substitute IAS 39. This standard will be mandatory from 2015 on and the main differences to IAS 39 are concerned with financial assets classification. Instead of the four categories explained above, IFRS 9 just considers two categories from financial assets: amortized cost and fair value. In May 2012 the IASB has introduced a new category for debt financial assets – the so called "Fair Value through Other Comprehensive Income" ("FVTOCI"). The IASB has decided that interest income arising out from this category would be recognized using the effective interest method and credit impairment losses would be recognized in profit or loss using the same methodology as those instruments measured at amortized cost. The IASB also tentatively decided that the cumulative fair value gains and losses recognized in other comprehensive income would be recycled to profit or loss upon derecognition.

Finally, IFRS 7 – "Financial Instruments: Disclosures" aims to prescribe disclosures that enable financial statement users to evaluate the significance of financial instruments to an entity, the nature and extent of their risks, and how the entity manages those risks. In a nutshell, this norm requires disclosure of information about the significance of financial instruments for an entity's

³⁵ - IAS 39 – Financial Instruments: Recognition and Measurement

financial position and performance and about the nature and extent of risks arising from financial instruments.

4. Industry analysis - The French Banking Sector

France is the world's fifth largest economy and the second largest economy of Europe, measured in GDP. The financial sector embodies a strong influence in this country. According to *Fédération Bancaire Française* (FBF), France presented, in 2011, 425 banks with nearly 39.000 branches in the country. According to the same source, the French banking sector represent 3% of the GDP over the last ten years and 1,6% of the national workforce.

The French banking sector is one of the biggest private-sector employers in France, for instance, in 2011 the banking sector employed around 37.000 people. Another indicator of the strengthen of French banks are their weight in the market capitalization of Paris. The financial sector represented around 13%, in 2011, of the *Cotation Assistée en Continu 40* (CAC40 – which is a French stock market benchmark that includes the forty biggest companies from EuroNext Paris - Exhibit 4). This sector had presented a significant growth, with a compound annual growth rate (CAGR) of 4,2% between 2007 and 2011. Nevertheless, it is expected, due to the European crisis, a deceleration with an estimated CAGR of 3,1% for the next five years – 2011 until 2016.

The main business line is the Retail Banking, which had accounted for almost 50% of the French Banks revenues in 2011³⁶. Retail Baking is followed by Investment Banking activity and in third place Asset Management, which is suffering a reduction due to the actual crisis. Regarding sectors, the most lucrative one is the credit one which had represented in 2011 around 44,4% of the industry's overall value.

The French banking sector is extremely supervised and regulated. The main entities are the following:

- Autorité de Contrôle Prudentiel (ACP);
- Autorité des Marchés Financiers (AMF);
- Minister of the Economy;
- Comité des établissements de credit et des entreprises d'investissement (Credit Institutions and Investment Firms Committee) (CECEI);
- La Commission Bancaire (The Banking Commission).

³⁶ Fédération Bancaire Française

4.1 The major players in the French Banking Sector

The French banking sector is very concentrated, with the four banks counting for more than 80% of the market – See Figure 2 – Major players. A briefly presentation of this sector is done above, based on a historical five years' analysis of the Net Banking Income and the Net Income of the major players.

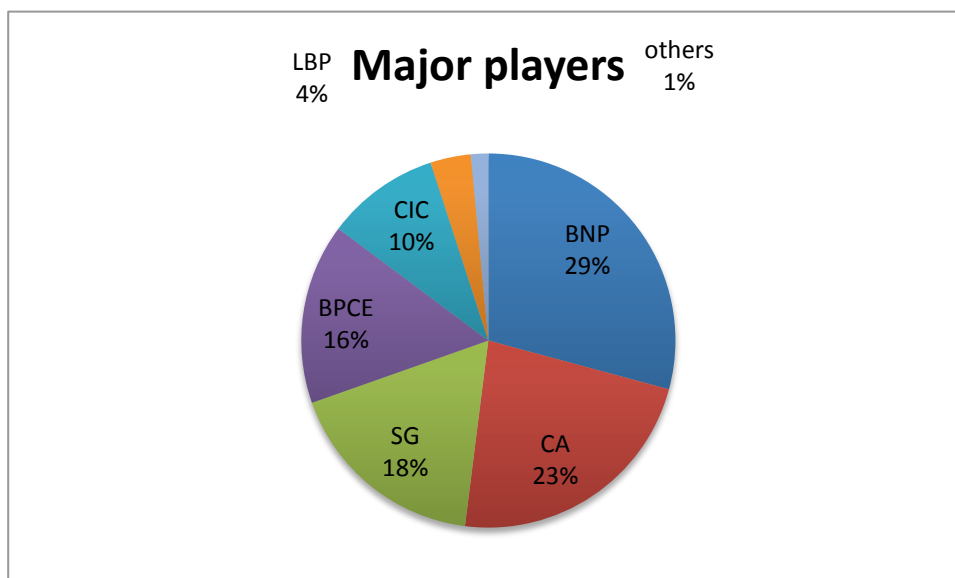


Figure 2 - Major Players in the French Banking Sector

In a nutshell, the Net Banking Income (NBI) is the banks specific indicator that shows the specific contribution of banks to increasing national wealth. Hence, it is equivalent of the added value for non-financial activities. This indicator is the difference between interest and commission received and paid, the operational income less operational expenditure, plus gains and losses on financials instruments. In this sense, NBI shows a clearly the situation before considering general operating costs, provisions for unpaid amounts and one-off items and taxes. Beneath are presented the evolution of NBI and Net Income for the major French players – Figure 3 and 4.

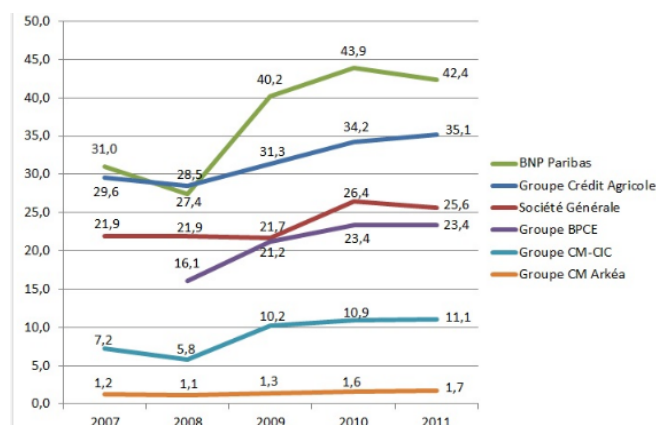


Figure 3 - Net Banking Income for the major French banks in the last five years

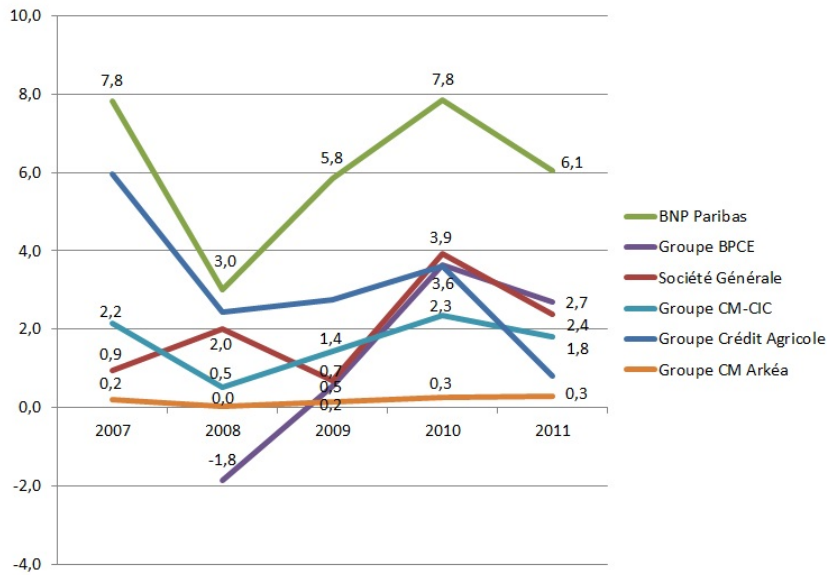


Figure 4 - Net Income for the French major banks for last the last five years (in billion of Euros)

In general it can be observed that French banks had suffered a slowdown during the last year. The main factor is the European Sovereign Debt crisis, affecting these banks because of their exposure or external presence. The second factor is the costs with the prudential regulations, both Basel II and III, which required more capital and a reduction of banks' balance sheets.

Firstly, BNP Paribas presented the highest NBI and NI and, it is as well the largest bank in France. Do notice that in average BNP's NBI almost doubles the NBI of its competitors and triples regarding the NI. According to the bank financial statements, the decreased presented in 2011 is due to the slowdown in the banking and investment services.

Secondly, Crédit Agricole (CA) with a market share of 23%, presented an increase in its NBI, nevertheless suffered a sharply decrease in its NI, from €3.611 to €812 million. The increase in the NBI refers to the enlargement of the CA's retail network in France.

At third place, Société Generale presents a market-share of 18% and a NBI of around €25.636 million. The reduction in both indicators is due to the economic slowdown of the current crisis.

The Group BPCE is the second largest group in France and it was founded in 2009 by the merger CNCE (Caisse Nationale des caisses d'Épargne) and Banque Fédérale des Banques Populaires. It had shown the ability to maintain its NBI in the last two years due, once again, due its large network of branches.

A detailed description is made for three banks: BNP Paribas, Société Générale and Crédit Agricole which are the ones analyzed in the case discussion of this dissertation. The next table

(Table 1) presents the general features of these banks. Moreover, the consolidated financial statements, for the next four years, are presented in Exhibits 6-11.

	Number of Employees	Number of Branches	Domestic Markets	Number of Clients
BNP Paribas	198.400	7.000	France, Italy, Belgium and Luxerbourg	22M
Crédite Agricole	161.280	11.600	France, Italy and Greece	54M
Société Générale	157.000	N/A	France	33M

Table 1 - General features of the three analysed banks

The next sections briefly present the main banking indicators.

4.1.1 Earnings-per-share (EPS) and Dividends-per-Share (DPS)

The next two graphics (Figure 5 and Figure 6) show the evolution of EPs and DPS for the three banks. As it can be observed, the three banks undergone through a slowdown in the past year. Do notice that CA's EPS reached negative values in 2011. Regarding DPS, the only bank which had distributed dividends in the last year was BNP Paribas.

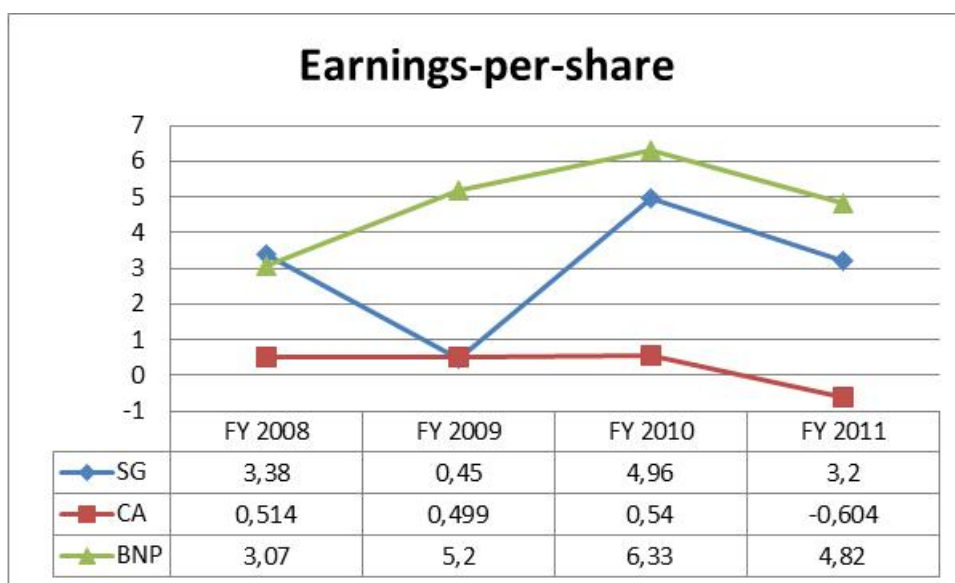


Figure 5 - Evolution of EPS for SG, BNP and CA

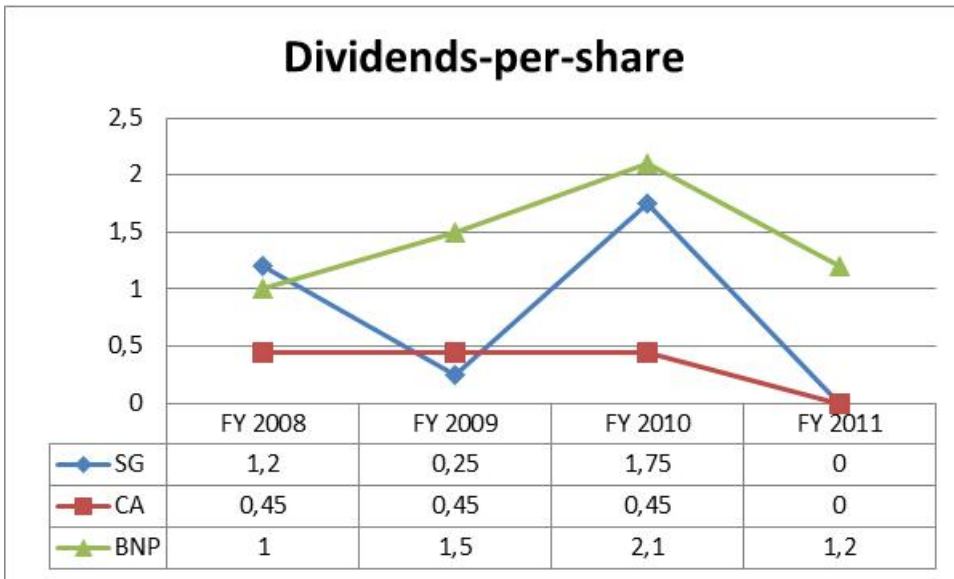


Figure 6 - Evolution of DPS for SG, BNP and CA

4.1.2 Shares-prices

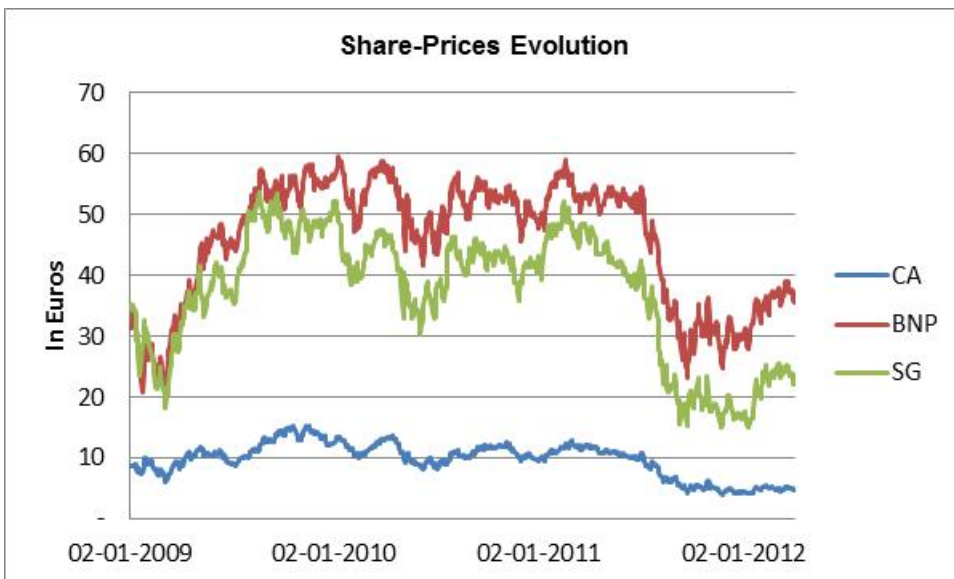


Figure 7 - Evolution of the Share prices for SG, BNP and CA

The graph above (Figure 7) shows the evolution of the shares prices for the last three years. Once again the better performance of BNP Paribas can be concluded. According to the indicators presented, CA was the bank, which faced major difficulties in the last years. The three banks are transacted in EuroNext Paris.

4.1.3 Ratings

The crisis had a negative influence in the ratings of the three banks. As it can be seen, all were downgraded along the year of 2011, and SG had a negative look in the beginning of 2012 – See Tables 2 and 3.

	Moody's	Standard and Poor's	FITCH
BNP Paribas	Aa3	AA-	A+
Crédite Agricole	Aa3	A	A+
Société Générale	A1	A	A+
French sovereign debt	Aaa	AA+	AAA

Table 2 - Ratings as at 31.12.2011

31.12.2010	Moody's	Standard and Poor's	FITCH
BNP Paribas	n/a	AA	AA-
Crédite Agricole	Aa1	AA-	AA-
Société Générale	Aa2	A+	A+

Table 3 - Ratings as at 31.12.2010

4.1.4 Core Tier 1

The Core Tier 1 ratio is the core ratio for the banking sector. This solvency ratio is related with the Shareholders' Equity accounting concept. The only difference is that it includes more items than the Equity Shareholders. According to European Banking Authority (EBA) it encompasses the highest quality assets and hybrid instruments provided by governments.

The Core Tier 1, according to Basel 2.5, for the three banks in analysis is presented below (Figure 8).

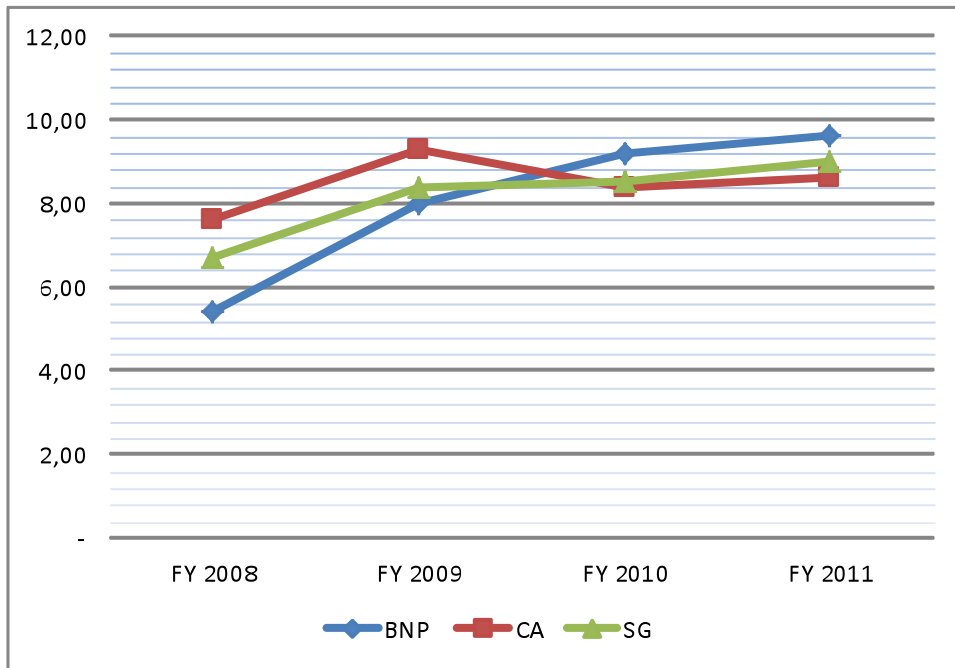


Figure 8 - Evolution of CT1 for SG, BNP and CA (in %)

In general, the Core Tier 1 had been increasing for the last four years. Exhibit 5 shows a briefly description of the Tier one values and the Risk-Weight-Assets for the three banks.

5. Case Study

The main goal of this dissertation is to analyze the measurement of Greek Sovereign Debt used by the three most exposed French banks. Additionally, depending on the measurement applied it is analyzed the diverse consequent impacts.

At first a brief description about Greek's economic and financial situation is presented. Secondly, an approach about the support plan for this country is taken. At last, the three banks are analyzed: a description of their assets is done, which will look closely to the two major captions measured at Fair Value: Available-for-Sale (AFS) Financial Assets and Financial Assets at Fair Value through Profit&Loss. For the last bank analyzed, Société Générale, a brief presentation of the Held-to-Maturity caption is done as well, due to the fact that this bank has Greek Debt within it.

5.1 Greece – Economic and financial situation

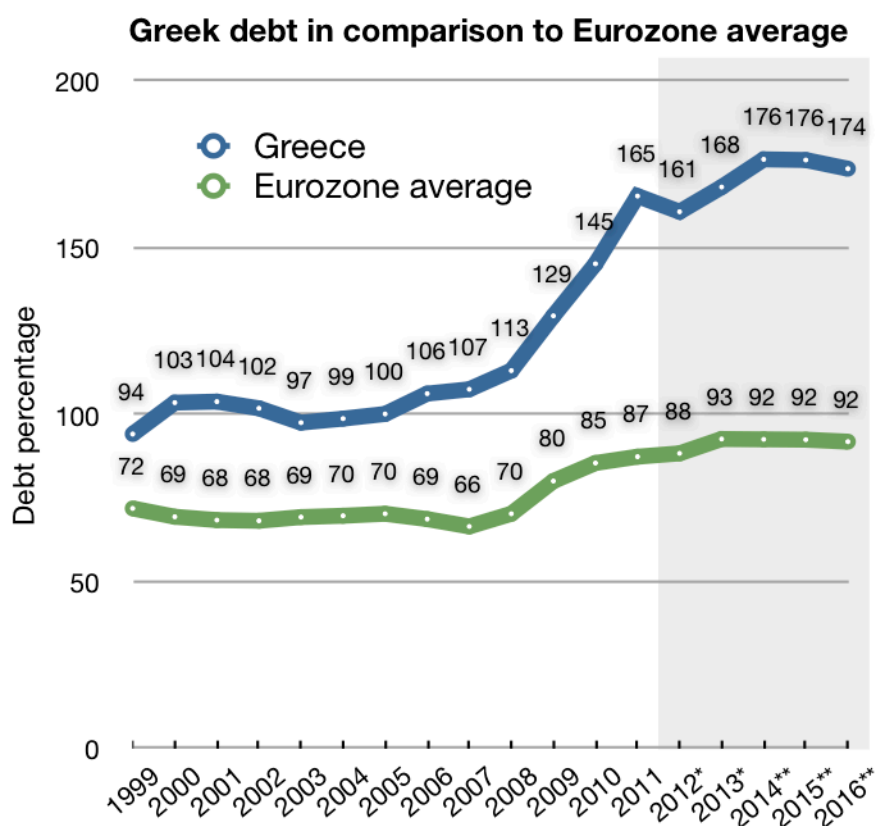
Greece had always experienced problems with public debt accompanied with massive manifestations and complains from its citizens: since its independence in 1832, it had spent more than half of its years in default³⁷. Since 2002, after the implementation of the Euro as a common currency between Eurozone's countries, Greece presented one of the highest growth rates in almost all its sectors. The opportunity to borrow money at better conditions prompted the actual crisis. In fact, since the Euro implementation came to public as a possibility, the yield of 10-year Greek Bonds dropped around 18 percentage points (from 24,5% to 6,5%) between 1997 and 1999.³⁸ At the same time, the implementation of the Euro had raised markets' confidence, mainly due to the fact that Maastricht Treaty settled the convergence criteria, where government deficit (3% of the GDP) and government debt (60% of the GDP) were strictly controlled.

Nonetheless, this convergence criterion was not respected by the consecutives Greek Governments, along with poor fiscal policies, exacerbated spending associated with complex hedging collapsed with the world financial crisis of 2008-09. At this time, Greece became the center of attention in Europe. As mentioned in previous sections, in 2009 the Greek Prime Minister came public and affirmed that public deficit was under-reported for 2009, several numbers were announced during that year, ending in a sharp adjustment from a formerly estimation of 5% to a shocking 15,4% of the GDP– this last number revised and announced by

³⁷ "Carmen Reinhart and Kenneth Rogoff, This Time is Different: Eight Centuries of Financial Folly, Princeton, 2009"

³⁸ Global Financial Data

Eurostat. In the figure presented below – Figure 9 – it can be seen the Greek Debt percentage in comparison with the other Eurozone countries, showing a superior amount for 2010 of about 58%.



Source: Eurostat

* estimates from Eurostat (spring 2012)

**estimates from Ernst & Young using data from Oxford Economics

Figure 9 – Greek Debt in comparison to Eurozone average

Greek’s default started to become a possibility, which would have a huge impact in the European and worldwide markets’. Investors lost confidence in European markets, struggling some countries such as Portugal, Portugal, Spain and Italy – the last two are the fourth and third bigger economies of Europe.

In May 2010, when the 10-year Government Bonds reached 13,688% in the secondary market (See Figure 10 and 11), Greece asked for a bailout plan. The ECB and the IMF agreed in a €110 billion package alongside with severe austerity measures: deep cut in public expenditures, tax increases, economic reform changing mainly the Greek’s pension reforms which were one of the most generous of Europe, the health care system and so on. At this time, this package aimed to reduce public deficit to 3% of the GDP by 2014.

Standard & Poor’s downgraded Greek Debt to BB+, which corresponds to “junk”. This notice had deteriorated European markets. Both Fitch and Moody’s followed the downgrade for Greek

Government Bonds. According to the Financial Times, after the downgrading ten-year bonds yield reached 15,3%.



Figure 10 - 10 year Greek Government Bond - secondary market rate (yield) FYs 2008, 2009 and 2010



Figure 11 - 10 year Greek Government Bond - secondary market rate (yield) FY 2011

Furthermore, during the summer of 2010, it was created by the 27 Euro member states a special and specific vehicle to help European Sovereign Debt Crisis, the European Financial Stability Facility, hence forth EFSF. EFSF can issue bonds or other debt securities and initially could borrow up to 440 million of Euros. Nevertheless, it suffered an enlargement on July 2011 to 780 million of Euros.

ECB had played a major role in this year. For the first time, this institution bought government bonds in the secondary market in order to restore confidence and reduce the systemic contagion throughout the Eurozone countries. A disordered default must be avoided.

Early in 2011, it was understood that Greek economy was not recovering. In July 2011, a second package of €109 billion was announced with lower interest rates and longer maturities for Greek loans. This second package involved better conditions and financial assistance and as well as a debt relief of about €50 billion. In this sense, private bondholders would enter voluntarily on bond exchanges and rollovers, and debt buybacks in order to decrease Greek debt in the short-term. The ones who accepted would write-down the net present value of their bonds in 21% (assuming 9% of interest rate), which mature until 31st December 2020. As a consequence, the three main credit ratings agencies cut Greece's rating to a level associated with "substantial risk of default."

Nevertheless, this debt relief never really happened. In 26th October, more measures were announced. At this date, European Leaders decided for another voluntary bond exchange with 50% on notional Greek debt held by private investors. The objective was to reach a debt-to-GDP ratio of 120% in 2020. Moreover, Eurozone states compromised to enter with more €30 billion, and the promise to stand ready to reinforce if necessary up to €100 billion.

This second package imposed more austerity measures which were not well received among Greek citizens. The Prime Minister faced with consecutive strikes, inclusive a 24 hours one, announced a referendum. After a strong criticism, he revoked it and resigned. On the 9th November of 2011 a government of national unity was formed and Lucas Papademos, ex-vice president of BCE, became interim prime minister until the elections for this year, 2012, were scheduled. At this time, the projections of the European Commission pointed that Greek Debt-to-GDP ratio would be around 198,3% for 2011 and 198,5% for 2012. In the middle of November, the negotiations with the private sector, regarding a relief of 50%, started again. Nevertheless, these negotiations and the sixth and last parcel of the first support plan took months to really take place.

Nevertheless, just on the 21st of February, seven months after the first meeting, the Euro leaders decided for a second bailout package of €237 billion for Greece. This consisted of a €130 billion of state aid packaged and private sector accepted a nominal haircut amounting 53,5%, bonds currently held. This value means a debt relief of 107.000 million of euros. In this sense, Greece would reach a debt ratio of 120,5% in 2020 as opposed to around 160% along 2011.

This agreement happened based on four pillars:

1. For each bond held a haircut of 53,5% of the NPV. Among the remaining 46,5%, 31,5% would be exchanged for 20 bonds issued by Greece with maturities of between 11 and 30 years guaranteed by EFSF, and 15% with be redeemed immediately in the form of EFSF's short term securities.
2. The coupon on new bonds will be 2% from 2012 to 2015, rising to 3% from 2015 to 2020 and 4,3% until 2042.
3. Accrued interest on the exchanged Greek debt, up to the date of the exchange, will be settled through the issue of short-term EFSF securities.
4. Each new bond issued by Greece will be accompanied by a security linked to movements in Greece's GDP over and above those expected in the plan.

On March 2012, the final agreement was established between the Greek Government, private-sector creditors and the Euro Group.

5.2 The choice of BNP Paribas, Société Générale and Crédit Agricole

According to the "Quarterly Review, June 2010" issued by the Bank of International Settlements (BIS) French and German banks stand for almost \$900 billion, in absolute terms, of Portugal, Greece and Spain sovereign exposure. Looking closely to the Greek Debt, table 4 shows clearly that France was the most exposed country.³⁹

<i>Country</i> <i>(in millions of Dollars)</i>	Total lending exposure to Greece	Total Government debt exposure to Greece
Total of 24 countries	145,783	54,196
European banks	136,317	52,258
Non-European banks	9,466	1,938
France	56,740	14,960
Germany	33,974	22,651
Italy	4,085	2,345
Japan	1,631	432
Spain	974	540
UK	140,060	3,408
US	7,318	1,505

Table 4 - Countries most exposed to Greek Sovereign Debt

³⁹ The countries that report data to BIS are: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, Australia, Canada, Chile, India, Japan, United States, Chinese Taipei, Singapore

In order to a deep analysis, the table presented in Exhibit 1 shows the results of a survey done by Barclays Capital regarding the top forty holders of Greek Government bonds and Greek Debt.

Moreover, as explained in the previous section BNP, SG and CA are the three biggest banks by market value in France and also known as the pillars of the French banking sector. These three banks had been suffering the consequences of the Greek crisis and instability. (See Exhibit 3) During 2011 Moody's had put the three banks on review and in December had cut their credit ratings. BNP and CA had seen their long-term debt cut to Aa3 and SG to A1. According to Moody's the main risks were: for CA the fact that holds a local unit – Emporiki Bank of Greece; SG had a large stake in General Bank of Greece and BNP holds a great amount of Greek Sovereign Debt. ⁴⁰ At December 2011, BNP fell 35% SG 53% and CA 52% in the Euro Next Paris.

In this sense, the final goal is to analyze and compare the different approaches chosen by these three banks and conclude about the impacts of the losses accepted in the overall performance of the banks.

5.3 Treatment of Greek Government Bonds

The next section presents a breakdown of the assets from these financial institutions as well as how they treated Greek Government Bonds in the accounting perspective.

5.3.1 Crédit Agricole

CA's Assets totaled 1.723.608 million of euros as at December 31st, 2011, in line with the amount recorded in December 2010.

Firstly, it is presented a brief description of the Company's assets, Table 5, then the main captions, and finally the treatment of Government Bonds, specifically the Greek Bonds.

⁴⁰ **Bloomberg** - Biggest French Banks Said Poised to Be Downgraded by Moody's

<i>(in million of euros)</i>	FY 2011	%	FY 2010	%
Investments				
Cash and Cash Equivalents	28.467		29.325	
Financial Assets at Fair Value through Profit&Loss	490.263	28%	413.656	26%
Hedging derivatives instruments	33.560		23.525	
Available for Sale Financial Assets	227.390	13%	225.757	14%
Loans and Receivables to credit Institutions	379.841		363.843	
Held to Maturity Financial Assets	15.343	1%	21.301	1%
Investment in equity accounted entities	18.286		18.111	
Loans and Receivables to customers	399.381		383.246	
Revaluation Adjustment on interest rate hedged portfolios	8.300		4.867	
Assets				
Non-current assets Held for Sale	260		1.581	
Current and deferred tax assets	8.231		7.731	
Accruals, prepayments and sundry assets	82.765		70.534	
Deferred Profit sharing	4.273		1.496	
Investments Property	2.682		2.651	
Property, plant and equipment	5.170		5.202	
Intangible Assets	1.868		1.743	
Goodwill	17.528		18.960	
Total Assets	1.723.608		1.593.529	

Table 5 – Total Assets of Crédit Agricole

Crédite Agricole's Assets:

As it can be seen, the caption Financial Assets at Fair Value through Profit&Loss represents 28% of the total assets of the caption. Furthermore, it is divided in two sub-captions: Financial Assets held for trading, which represents 9% of this caption and Financial Assets designated at fair value through Profit & Loss upon initial recognition, representing 90%.

To what concerns Available for Sale Financial Assets, it represents around 13% of CA's Assets. According to the group's policy, Available for Sale embodies most of the sovereign exposure. This caption is described beneath in table 6.

<i>(in million of euros)</i>	2011			2010		
	FV on BS	Gains	Losses	FV on BS	Gains	Losses
Available for sale financial Assets						
Treasury bills and similar securities	58.520	551	(4.303)	87.008	746	(3.200)
Bonds and other fixed-income securities	147.555	3.359	(4.223)	113.275	1.663	(949)
Shares and other equity securities	15.468	841	(2.036)	19.206	479	(55)
Non-consolidated investments	5.569	905	(619)	6.128	873	(265)
Available-for-sale Receivables	278			140	-	-
Total AFS securities	227.112	5.656	(11.181)	225.617	3.761	(4.469)
Total AFS receivables	278			140	-	-
Carrying amount of AFS FA	227.390	5.656	(11.181)	225.757	3.761	(4.469)
Income tax expense		(1.781)	3.536		(1.086)	1.333
Gains and Losses on AFS FA recognised in other comprehensive income (Net of Income tax)		3.875	(7.645)		2.675	(3.136)

Table 6 - Available for Sale Financial Assets

"Bonds and other fixed-income securities" is the main sub caption, representing around 65% of the Available for Sale Financial Assets, a percentage which had increased 15% in comparison with the previous year.

The gains and losses on Available for sale Financial Assets includes the reclassification of a Sovereign Debt portfolio into Held-to-maturity for which a sale of €2.991 million is planned. “This reclassification took place following a decision made as part of the group’s willingness to alleviate the burden of Sovereign Debt on the balance sheet for which a significant lowering of the long-term rating was recognized after the acquisition date.”

According to the consolidated financial statements from 2011 the assets were value at amortized cost before the transaction. At the transfer date, assets were valued at fair value and the difference was recognized directly in recyclable equity, in the amount of €-316 million.

Crédite Agricole’s Fair Value hierarchy breakdown:

Table 7 shows the breakdown by the three levels of the Fair Value’s hierarchy for all the financial instruments held by the group.

<i>(in million of euros)</i>	Total 31/12/2011	Level 1	Level 2	Level 3	Total 31/12/2010	Level 1	Level 2	Level 3
Financial assets held for trading	447.075	66.016	370.565	10.494	368.944	89.937	268.660	10.347
Loans and advances to customers	263	-	263		435	-	435	
Securities bought under repurchase agreements	21.684	-	21.684		35.556	-	35.556	
Securities held for trading	75.681	60.573	12.104	3.004	95.539	83.725	8.759	3.055
- Treasury bills and similar items	31.046	31.032	14		42.633	42.630	3	-
- Bonds and other fixed-income securities	28.511	19.550	7.996	965	27.816	21.960	4.643	1.213
- Shares and other equity securities	16.124	9.991	4.094	2.039	25.090	19.135	4.113	1.842
Derivative instruments	349.447	5.443	336.514	7.490	237.414	6.212	223.910	7.292
FA designated as FV through P&L upon initial recognition	43.188	29.149	12.584	1.455	44.712	31.554	11.547	1.611
Loans and Receivables to customers	78			78				
Asset baring unit-linked business	40.372	28.744	11.178	450	41.496	30.869	10.261	366
Securities designated at FV through P&L	2.738	405	1.406	927	3.216	685	1.286	1.245
- Treasury bills and similar items	3	3			8	8	-	-
- Bonds and other fixed-income securities	1.690	378	1.311	1	1.841	660	1.176	5
- Shares and other equity securities	1.045	24	95	926	1.367	17	110	1.240
Available-for-Sale financial assets	227.390	179.355	44.524	3.511	225.757	197.331	26.883	1.543
- Treasury bills and similar items	58.519	55.609	951	1.959	87.008	86.846	157	5
- Bonds and other fixed-income securities	147.559	110.387	36.879	293	113.275	91.993	21.233	49
- Shares and other equity securities	21.034	13.359	6.416	1.259	25.334	18.492	5.353	1.489
- Available for Sale receivables	278	-	278		140	-	140	-
Derivative Hedging instruments	33.560	2.415	31.137	8	23.525	129	23.396	
Total Financial Assets at Fair Value	751.213	276.935	458.810	15.468	662.938	318.951	330.486	13.501

Table 7 – Breakdown of the Assets through Fair Value’s hierarchy

As it can be seen, the majority of financial assets are valued according to Level 2 (61%). Additionally, 37% are valued according to quoted market prices and just 2,1% are valued through internal models. Nevertheless, the Greek Government Bonds are part of this small percentage, as it will be analyzed further on.

Crédite Agricole’s Sovereign Exposure:

Regarding CA’s sovereign exposure, it is presented beneath the numbers related to the countries undertaking support plans or financial difficulties in Eurozone.

<i>(in million of euros)</i>	31.12.2010	%	30.06.2011	%	31.12.2011	%
Italy	10.115	71,3%	8.532	74,7%	3.651	78,1%
Portugal	1.060	7,5%	814	7,1%	601	12,9%
Spain	2.241	15,8%	1.624	14,2%	172	3,7%
Ireland	111	0,8%	120	1,1%	140	3,0%
Greece	655	4,6%	326	2,9%	112	2,4%
<i>Banking Book</i>	535		-		-	
- Financial Assets Held to Maturity	n.d.		-		-	
- Loans and advance	n.d.		-		-	
- Financial Assets AFS	n.d.		275		11	
<i>Trading Book</i>	120		51		1	
Total	14.182	100,0%	11.416	100,0%	4.676	100,0%

Table 8 – Crédit Agricole’s Sovereign Exposure to European countries suffering financial difficulties

As it can be observed (Table 8), CA’s exposure to Greece had decreased more than a half from 2010 (4,6%) to 2011(2,2%). Furthermore, the entire sovereign exposure to these countries had sharply decreased from 14.182€ to 4.676€, around -203%.

Moreover, and to a better understanding, at first it is presented the actions reported at 30th June, at the time of the support plan dated 21st July, and at least the actions and decisions for the final reporting of 2011.

At 30th June, the valuation methodology for the Greek government bonds was divided in three different groups.

- The first group refers to the securities that mature before 31 December of 2020. In this specific case and because they are covered by the support plan, the valuation model was based on a 21% discount of the nominal value of the securities for which they are substituted. According to 1H2011, the net exposure was of 269 million of Euros, and this discount represents the loss accepted by the bank and its renounce to contractual cash flows. The impact in the shareholder’s equity was of €136 million. Moreover, the impairment recognised in Cost of Risk is divided in two amounts: impairment recognized on Greek Government Bonds classified as “Available-for-Sale” totalled -€173 million and classified as Held-to-maturity amounted to -€29 million.
- The second group of Greek securities are the ones with a maturity date superior than December 2020, totalling €6 million, which are not included in the support plan. For these last ones an internal valuation model was applied using non-observable inputs and market components. These securities were not subject to impairment because CA group had no assurance that the recovery of the future cash flows is going to be successful. In this sense, the unrealised loss (after tax and after life insurance policyholders’ participation in profits) is recognised directly in Other Comprehensive

Income with the amount of €118 million. The impact in the shareholder's equity was of €23 million.

- The last group included the bonds held by the group in the trading book sub caption that are characterized by its low maturity – inferior to six months – that continues to be measured according to quoted market prices. The net exposure of CA in the trading book amounts €51 million. These types of bonds are not subject of analysis in this dissertation due to their maturity and low amount.

As at 31st December, the overall gross exposure of CA regarding Greece reduced to €112 million from €330 million at 30th June, in the banking activity. To what concerns the insurance activity the reduction was from €4.974 million to €1.890 million, from 30th June until 31st December; nonetheless this activity is not analysed in this dissertation.

As mentioned before, except for Bonds in the trading book, all Greek government bonds were classified according to Level 3, internal models. The valuation methodology was based 30% in weighting market prices at 31st December and 70% based on macroeconomic assumptions such as Debt/GDP ratio, privatisation programme, performance, etc. The result was a reduction of around 74% heedlessly securities' maturity.

The next table (Table 9) shows all the changes since 30th June until the end of the year to what concerns Greek Sovereign Exposure. (Exhibit 2 shows the table presented in the Consolidated Financial Figures for the European countries under financial difficulties.)

<i>Changes in exposure (in million of euros)</i>	30.06.2011	Change in Fair Value	Recycling of Available-for- sale	Accrued interest	Impairment	Maturity dates	Disposals	31.12.2011
Held-to-Maturity	-	-	-	-	-	-	-	-
Available-for-Sale	279	-	4	2	(174)	-	-	111
Loans and Receivables	-	-	-	-	-	-	-	-
Book Portfolio	51	-	-	-	-	(50)	-	1
Total Greek Sovereign Exposure	330	-	4	2	(174)	(50)	-	112

Table 9 – Greek Sovereign Exposure's Changes from 30th June until 31st December

As it can be seen the only caption embodying Greek Sovereign Exposure at 31st December is "Available-for-Sale Financial Assets". Moreover, trading book is reduced just to €1 million with a maturity of one year.

In the year-end financial figures, €1.326 million is the amount recorded under the Cost of Risk related to the impairment of Greek Government Bonds. This amount is divided in two sub categories: impairment recognized from the Available-for-Sale Financial Assets of €1.136 million, and €190 million of impairment from the reclassification from Held-to-Maturity to Available-for-Sale Financial Assets.

Additionally, it must be mentioned the fact that Crédit Agricole possesses Emporiki Bank, a Greek Bank, which had suffered difficulties along 2011. In the consolidated Financial Statements, CA affirms that the overall impact of Greek crisis was of €2.378 million, reduced in the net income.

5.3.2 BNP Paribas

BNP's Assets

BNP Paribas presented 1.965.283 million of Euros as the total amount of Assets, once again in line with the previous year. To what concerns captions measured at Fair Value, the main focus are Financial Assets Fair Valued through Profit & Loss, which represents around 41,7%, and Available-for-Sale Financial Assets. This last caption had suffered a small decrease in comparison with the previous year, which is related to the treatment of Greek Governments as it can be concluded further on. (See Table 10 presented beneath.)

<i>(in million of euros)</i>	FY 2011	%	FY 2010	%
Investments				
Cash and Cash Equivalents	58.382		33.568	
Financial Assets Fair Valued through P&L	820.463	41,7%	832.945	41,7%
Available-for-sale Financial Assets	192.468	9,8%	219.958	11,0%
Loans and receivables due from credit institutions	49.369		62.718	
Held To Maturity financial assets	10.576	0,5%	13.773	0,7%
Equity Investments In Associates/Affiliates	4.474		4.798	
Loans				
Loans and receivables due from customers	665.834		684.686	
Assets				
Derivative Assets used for hedging purposes	-		5.440	
Other Noncurrent Assets	15.007		2.317	
Other Current Assets*2	105.110		94.681	
Property Plant & Equipment - Net	29.722		29.452	
Other Intangible Assets			2.498	
Total Intangible Assets - Net	13.878		-	
Goodwill	-		11.324	
Total Assets	1.965.283		1.998.158	

Table 10 - BNP Paribas Total Assets

Table 11 presents a briefly breakdown of the Available-for-Sale caption taking into consideration that it is the caption embodying the majority of the Government Bonds.

<i>(in million of euros)</i>	FY 2011	%	FY 2010	%
Fixed-Income Securities	174.989		202.561	
Treasury bills and other bills eligible for central bank refinancing	17.241		25.289	
Other negotiable certificates of deposit	11.145		7.154	
Government Bonds	96.302	55,0%	123.907	61,2%
Other bonds	50.301		46.211	
Variable Income	17.479		17.397	
Listed Securities	6.092		9.104	
Unlisted Securities	11.387		8.293	
Total AFS	192.468		219.958	

Table 11 - Available-for-Sale Financial Assets caption

Government Bonds symbolize 55% of this caption, having suffered a significant decrease comparing with 2010. This reduction is explained with the reclassification made by this Bank during the FY2011.

To what concerns Assets valued at Fair Value, table 12, presented beneath, shows the breakdown among the Fair value hierarchy. In line with CA's analysis, the majority of the assets are measured according the second level – around 70%, and just 3% are measured according to internal models.

<i>(in million of euros)</i>	FY 2011				FY 2010			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
F. Instruments at FV P&L held for trading	102.953	638.973	21.464	763.390	179.814	579.064	22.881	781.759
F. Instruments designated at FV P&L	41.982	13.496	1.595	57.073	37.356	12.127	1.703	51.186
Derivatives used for hedging purposes	-	9.700	-	9.700	-	5.440	-	5.440
Available for Sale Financial Assets	132.676	49.921	9.871	192.468	163.368	48.436	8.154	219.958
Total	277.611	712.090	32.930	1.022.631	380.538	645.067	32.738	1.058.343

Table 12 – Breakdown of Financial Assets by Fair Value's hierarchy

After this presentation regarding the main captions of assets measured at Fair Value, it is now presented how BNP Paribas treated Greek Government Bonds. Once again, it is necessary to refer the actions taken in the middle of the year (30th June 2011).

<i>(in million of euros)</i>	31.12.2010	%	30.06.2011	%	31.12.2011	%
Italy	21.910	66,6%	22.739	72,9%	17.716	82,4%
Portugal	1.875	5,7%	1.714	5,5%	1.454	6,8%
Spain	3.708	11,3%	2.518	8,1%	805	3,7%
Ireland	351	1,1%	389	1,2%	320	1,5%
Greece	5.046	15,3%	3.816	12,2%	1.201	5,6%
Total	32.890	100%	31.176	100%	21.496	100%

Table 13 - Sovereign Exposures to Eurozone countries facing financial difficulties

In the table above (Table13), it is presented the sovereign exposure of BNP Paribas to the five countries facing financial problems. The amounts represented incorporate both Sovereign Debt classified as banking book and trading book. The total sovereign exposure of this bank had sharply decreased from 32.980 million Euros at the end of the FY2010 to 21.383 million of Euros in FY2011. The principal reduction, from 15,3% to 5,6 %, was with Greece.

- Actions taken at 30th June 2011

As in the case of Crédit Agricole, BNP Paribas took different types of valuation methodology for the Greek Government Bonds, related to the support plan dated 21st July.

1. The securities held with a maturity superior to December 2020, which were about 1.748 million of Euros, were recognized in the balance sheet with a 21% discount. This discount ended in an impairment loss of €534 million recognized in the Cost of Risk.
2. The securities not eligible for the support plan totalled 1.029 million of Euros – amount valued according to internal models, Level 3 of the Fair Value Hierarchy.

Regarding the securities mentioned in the last two points, BNP Paribas reclassified them from the caption “Available-for-Sale” to the “Loans and Receivables”. According to the audited figures at the year-end (2011) this reclassification was based on the paragraph 50 E of IAS 39, which states that is possible in exceptional circumstances.

3. To what concerns securities from the trading book, according to the unaudited figures of June 2011, all were measured according level three, internal models.

- Actions taken at 31st December 2011

Due to the agreement dated on the 26th October, BNP Paribas had to make some significant modifications on the measurement of the Greek Government Bonds. The measures taken were based on the proposal of the Institute of International Finance (IIF), which represented the private-sector creditors.

Taking into consideration the second bailout package and the corroboration of BNP Paribas to help Greece’s imminent default, BNP wrote down Greek Government Bonds held in 75%. According to the 2011 audited figures, this loss was calculated based on: a discount rate of 12% on future cash flows; the haircut of 50% of NPV; the immediate repayment of 15% of amounts owed through EFSF’s securities with two years maturity and responsibility for paying market

interest rates, the payment of accrued interest through EFSF securities with a maturity of six months and once again paying market interest rates; a coupon of 3% until 2020 and 3,75% subsequently on securities maturing between 2023 and 2042 received in exchange for existing securities.

The 75% write down ended up in a loss of 3.241 million of Euros, recognized in Cost of Risk.

<i>(in million of euros)</i>	FY 2011	FY 2010
Net additions to impairment provisions	(6.751)	(4.594)
of which losses on Greek Sovereign Debt	(3.241)	-
Recoveries on loans and receivables previously written off	514	393
Irrecoverable loans and receivables not covered by impairment provisions	(560)	(601)
Total cost of risk for the period	(6.797)	(4.802)

Table 14 – Cost of Risk for the period

As it can be seen in the table above – Table 14 – the written down of Greek Sovereign Debt represented almost 50% of the net amount of impairment losses for the year 2011. Hence, on the 30th June 2011, BNP Paribas had reclassified 3.186 million of euros of Greek Sovereign Securities from “Available-for-Sale” to “Loans and Receivables”. As at 31st December, BNP presented on balance sheet 1.201 million of Euros (carrying value of the securities, according to BNP’s internal valuation model the securities amounted to €1.133 million) of Greek Bonds as “Loans and Receivables” – €1.046 million in Banking Book and €166 million in trading book.

5.3.3 Société Générale

Société Générale (SG), presented at the year-end 1.181.372 million of Euros as the total amount of Assets – Table 15, presented beneath. The prevalent caption measured at Fair Value is Financial Assets at Fair Value through profit or loss, symbolizing 35,8% of the total Assets of the company.

<i>(in million of euros)</i>	FY 2011	%	FY 2010	%
Investments				
Cash and Cash Equivalents	43.963		14.081	
Financial Assets at fair value through profit or loss	422.494	35,8%	455.160	40,2%
Available For Sale Assets	124.738	10,6%	103.836	9,2%
Due from Banks	86.440		70.268	
Held To Maturity Financial Assets	1.453	0,1%	1.882	0,2%
Investment In subsidiaries and affiliates	2.014		1.968	
Loans				
Consumer Loans	367.517		371.898	
Lease Financing Loans	29.325		29.115	
Assets				
Hedging Derivatives (Short-Term)	12.611		8.162	
Revaluation Differences on portfolios hedged against interest rate risk	3.385		2.376	
Other Assets	55.728		43.506	
Noncurrent Assets HFS	429		64	
Deferred Profit-Sharing	2.235		1.068	
Tax Assets	5.230		5.445	
Tangible And Intangible Fixed Assets	16.837		15.812	
Goodwill	6.973		7.431	
Total Assets	1.181.372		1.132.072	

Table 15 - SG Total Assets

Available-for-sale Financial Assets represent 10,6% of the total and is the caption embodying the majority of the Sovereign Debt of this bank. Furthermore, SG has Government Bonds in the caption Held-to-Maturity which represents just 0,1% of its total Assets.

<i>(in million of euros)</i>	FY 2011				FY 2010			
	L1	L2	L3	Total	L1	L2	L3	Total
Current Assets								
Bonds and other debt securities	93.919	19.302	685	113.906	78.457	12.807	556	91.820
Shares and other equity securities	6.608	1.159	330	8.097	7.171	589	264	8.024
Subtotal current assets	100.527	20.461	1.015	122.003	85.628	13.396	820	99.844
Long-term equity instruments	551	707	1.477	2.735	1.040	611	2.341	3.992
Total Available-for-Sale FA	101.078	21.168	2.492	124.738	86.668	14.007	3.161	103.836

Table 16 - Available-for-Sale Financial Assets broken by FV hierarchy

Table 16 presents a description of Available-for-Sale caption, broken down by the three levels of Fair Value hierarchy. "Bonds and other debt securities" represent 91% of this caption which justifies the fact that 81% of this caption is measured according to market prices, level 1. Level 2 denotes 17% of the total caption, and last but not least, just around 3% of the assets are measured according to internal models. Moreover, this caption had suffered a slightly increase of 20,1% from 2010 to 2011.

<i>(in million of euros)</i>	31.12.2010	%	30.06.2011	%	31.12.2011	%
Italy	4.100	44,1%	5.000	51,9%	2.277	51,4%
Banking Book	2.500		2.800		1.383	
Trading Book	1.600		2.200		894	
Portugal	300	3,2%	561	5,8%	420	9,5%
Banking Book	200		210		210	
Trading Book	100		351		210	
Spain	2.000	21,5%	1.800	18,7%	963	21,7%
Banking Book	1.000		1.600		680	
Trading Book	1.000		200		283	
Ireland	200	2,2%	396	4,1%	348	7,9%
Banking Book	-		300		300	
Trading Book	200		96		48	
Greece	2.700	29,0%	1.873	19,4%	423	9,5%
Banking Book	2.500		1.639		346	
Trading Book	200		234		77	
Total	9.300	100%	9.630	100%	4.431	100,0%

Table 17 - SG Sovereign Exposure to the Eurozone countries facing financial difficulties

To what concerns SG's sovereign exposure, as it can be seen in table 17, presented above, it was reduced in almost a half in the last year, more precisely 48%. Once again, the sharply reduction was regarding Greece, which decreased from €2.700 in 2010 to €423 million of Euros.

According to the unaudited figures H12011, SG possessed Greek Government Bonds in three different captions:

- Available-for-Sale Financial Assets in the amount of 1.417 million of Euros;
- Loans and Receivables with 187 million of Euros;
- 35 million of Euros in the Held-to-Maturity caption.

The amounts presented above are after the write-down done on the 21st July in 21% of the principal in all the securities held by that time. In this sense, Société Générale did not reclassify its Greek sovereign exposure, but instead, measured it according to the 3rd level of the Fair Value hierarchy.

Once again referring the report for the first half of the year, SG recognized losses from Greece in two different times:

- 1) Before the write-down of 21%, SG recognised €369,1 million of unrealised losses on Available-for-Sale directly in equity (amount before tax).
- 2) The write-down in 21% of the nominal value of the Greek securities was recorded in Cost of Risk in the amount of €394,8 million. This amount was recorded in the first half Corporate Centre income statement. The intention was to reallocate it to each business line when the bonds were exchanged.

As it was stated previously, this exchange never happened. Due to the second European Summit, SG realized the haircut of 50% of the principal of all the Greek securities held.

According to the audited financial figures of 2011, as at December 2011, banking book sovereign exposure to Greece was of €346 million. This amount was distributed in the three captions mentioned before:

- Available-for-Sale Financial Assets in the amount of 329 million of Euros;
- Loans and Receivables with 6 million of Euros;
- 11 million of Euros in the Held-to-Maturity caption.

Under the caption "Available-for-Sale" SG carried, before write-down and valued at amortised cost, €1.016 million and under "Held-to-maturity" €45 million. The securities measured in these captions, held on the 31st December 2011 were written down, in line with the previous two banks, in 75% of their nominal value.

The loss was recorded, once again, in the Cost of Risk in the amount of €783 million. From this amount, the impact in the Net Income of the Group was -€554 million of Euros, being the rest reallocated to the business lines' Profit & Loss. Société Générale released that the amount recognised from the haircut would have been of €736 million if considering the rare transaction prices of the market.

According to the consolidated financial statements for FY2011, the overall sovereign exposure (Table 17) was sharply reduced through the redemption of bonds at maturity, in the amount of €574 million, and one-off disposals of €699 million. Once again these actions were taken in line with a group's intention to soothe the overall sovereign exposure.

5.4 Basic for conclusions

The three analyzed banks represent around 60% of the banking sector in France and they are the most exposed worldwide banks to the Greek Sovereign Debt. The table (Table 18) beneath summarizes some of the most important figures for the three banks.

	As at 31st December of 2011		
(in million of euros)	Crédit Agricole	BNP Paribas	Societe Générale
Assets	1.723.608	1.965.283	1.181.372
Equity	49.292	85.626	51.112
Net Income	(1.470)	6.050	2.385
Market Share(%)	23%	29%	18%

Table 18- Main Figures of 2011

From this figures, BNP Paribas is the largest analyzed bank, with the highest amounts of assets, market-share and a net income for the fiscal year of 2011. It is followed by market-share and amount of assets by Crédit Agricole, nonetheless is the only bank presenting a negative net income for the period (€1,4 billion). Société Générale was the bank which share price decreased the most for the last year, around 57% in comparison with the previous year (see Table 19).

	Share Prices		
In Euros	CA	BNP	SG
31.12.2011	4,36	30,35	17,21
31.12.2010	9,50	47,61	40,22

Table 19 - Shares Prices for the three French banks analysed

In general, and like it was mentioned in previous sections, the shares' prices of the three banks suffered severely along 2011. The lowest variation was BNP Paribas, with a decrease of around 36% from 2010 to 2011. To what concerns specifically the Greek Debt and its impacts in each bank, the next table (Table 20) summarizes the Sovereign Exposures as well as the impact under the Cost of Risk.

<i>(in million of euros)</i>	31.12.2011			31.12.2010		
	CA	BNP	SG	CA	BNP	SG
Greek Sovereign Exposure	112	1.201	423	655	5.046	2.700
Total Cost of Risk	5.657	6.797	4.330	3.777	4.802	4.160
- Greek Impairment Recognised under Cost of Risk	1.326	3.241	890	n.a.	n.a.	n.a.
%	23%	48%	21%	n.a.	n.a.	n.a.
Total Cost of Risk without Greek impairment	4.331	3.556	3.440	n.a.	n.a.	n.a.

Table 20 - Cost of Risk and Sovereign Exposures to Greece

The three banks extremely reduced their exposure to Greece, in average, around 86% from 2010 to 2011. As it can be seen, BNP Paribas is the most exposed bank to Greece, followed by Société Générale and at last by Crédit Agricole. Considering that the three banks recorded the impairments arising out from the Greek Debt under the Cost of Risk, a briefly comparison is extremely valuable.

As it was expected by its size and performance, BNP is the one with the highest amount recorded under the Cost of Risk. Nonetheless, in absolute terms, it is the bank most affected by the Greek impairment, 48% of the Cost of Risk registered for the period. Without Greece, BNP would have presented a smaller amount in the Cost of Risk caption – precisely less 26% - than in the previous year.

Société Générale, being the second bank most exposed to Greece, had succeeded in maintaining substantially the same amount recorded under the Cost of Risk caption. Do notice that without Greece impairment, Société Générale would have reduced its Cost of Risk in 17% in comparison with 2010.

Crédit Agricole analysis requires a quite different approach. At the outset, and considering just the data presented in the tables above, CA presented a negative net income of €1.470 million, comparing to €1.263 million of 2010. Additionally, the amount recorded under Cost of Risk had duplicated (49.8%) and the share price had declined for a half from 2010 to 2011. Do notice that the Greek Debt impairment recorded under the Cost of Risk just weighted 23% of the total amount for the period. Though, like it was mentioned in the previous sections, CA possesses Emporiki Bank, a Greek bank. The total amount recorded for 2011, with the impairment of Emporiki, is €2.378 million, which corresponds to around 58% of the total amount in Cost of Risk for the period.

What's more, it was interesting to conclude about the different accounting treatment of the Greek Debt from each bank. On the one hand, BNP Paribas reclassified the Greek Sovereign Debt from “Available for Sale” caption to “Loans and Receivable”, mentioning the 50E paragraph of IAS 39. This specific paragraph states that “A financial asset classified as

available for sale that would have met the definition of loans and receivables (if it had not been designated as available for sale) may be reclassified out of the available-for-sale category to the loans and receivables category if the entity has the intention and ability to hold the financial asset for the foreseeable future or until maturity.” According to the consolidated financial statements, BNP Paribas aims to hold these assets until their maturity, which actually is one of the intentions of the exchange plan proposed to the private sector. With this reclassification, according to IAS 39, the Greek Sovereign Debt should be reclassified as its fair value on the date of reclassification. The FV of the financial asset on the date of reclassification becomes its new amortized cost. In this sense, supposedly, BNP Paribas changed its valuation concept regarding Greek Debt.

Furthermore, a deeply analysis to this reclassification, under IAS 39, triggered another controversy. According to the paragraph mentioned above, the financial assets previous classified under Available-for-Sale meet the definition of Loans and Receivables, which according to the same standard “are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market (...)”⁴¹. Being cognizant of this straightforward definition, some doubts arise from this reclassification. Even considering the illiquidity for the Greek Debt, it is still a quoted asset. Nonetheless, under “Loans and Receivables”, BNP Paribas is not compelled to recognized on a “regular” basis, the fair value changes in its equity, like it is required to “Available-for-Sale” Financial Assets.

On the other hand, Société Générale and Crédit Agricole did not reclassify its Greek Debt. Société Générale maintained its Greek Sovereign Debt classification under the three main captions of a bank: Available for Sale, Loans and Receivables and Held-to-Maturity, which would denote that the exposure present in Available for Sale would be at market prices, and the financial assets under the other captions, would be recorded at amortized cost. Lastly, Crédit Agricole has its entirely Sovereign Debt Exposure classified under “Available for Sale”.

In spite of everything, the overall exposure from the three banks is valued according to Level 3, with an exception from SG’s trading book, which is still valued at market prices considering its low maturity – less than one year. Do notice that the Level 3, valuation through internal models, corresponding to the last category of the FV hierarchy, just represents, in average, 3% of the assets measured at FV for the three analyzed banks.

Finally, from the previous analysis to these banks, the bank, which had experienced more damages from the Greek crisis, was Crédit Agricole. Before a final conclusion a brief comparison is made taking into consideration the EBA capital exercise, dated September 2011.

⁴¹ IAS 39 – Financial Instruments: Recognition and Measurement

This exercise was done with the purpose of creating an exceptional and temporary capital buffer to face the Sovereign Debt crisis. In the scope of this exercise, EBA requested the same concepts of the 2011 EU-wide stress test to calculate the Core Tier one capital (CT1) with one exception: for this specific one-off exercise, banks were allowed to include some more instruments that appear to be solid enough to absorb potential losses. The main objective was to reach a CT1 of 9% until the end of June 2012. The results for the three banks are shown below (Table 21). All the data presented refers to the position of the banks as at 30th September 2011.

Sep2011	Core Tier 1 (1)	Core tier 1 (2)	Capital shortfall relative to 9%	of which buffer on sovereign exposures
BNP	9.16%	8.76%	€1.5 billion	€2.5 billion
SG	8.42%	8.42%	€2.1 billion	€1 billion
CA	9.23%	9.23%	-	

Table 21 - Results to the EBA's capital exercise - September 2011

The difference between the CT1(1) and the CT1(2) is that the second one is after the buffer of sovereign exposures (to the overall Sovereign Debt). This buffer was determined according to the usual prudential rules, but EBA had asked banks to measure their sovereign exposure within the captions "Loans and Receivables" and "Held-to-Maturity" at market-prices. (EBA had presumed that the Sovereign Debt classified in "Available-for-sale" would be at market-prices, as the standards compels to.) Moreover, EBA had asked as well to remove the prudential filters from Sovereign Debt of Available-for-sale financial assets. This exercise had considered both trading and banking book.

The CT1 as at 31st December 2011 for each bank are presented below (Table 22).

%	FY 2011
BNP	9,60
CA	8,60
SG	9,00

Table 22 - Core Tier One as at 31st December2011

In December 2011, the French banks had already reached the CT1 of 9%, required for June 2012. To what concerns BNP Paribas, referring the results in the table above - Table 22, the difference between the CT1 (1) and CT1(2) is 40bp, which corresponds to the capital shortfall of €1,5 billion. EBA had established that the sovereign capital buffer determined in this exercise would not be revised. In this sense, BNP Paribas reached a CT1 of 9,2%, a diminution of 40 bp for European Sovereign Debt held.

What's more, by September 2011, IASB came to public through a letter to European Securities and Markets Authority (ESMA) declaring some concerns regarding the differences within the financial institutions methodologies to value the Greek Sovereign Debt. According to IASB there

were at the time inconsistencies whether Greek Debt classified, as Available-for-Sale, was subject of impairment. Moreover, IASB was cognizant with cases where Greek Debt was measured according to internal models, being classified under the caption previous mentioned. Both cases were seen in this dissertation.

6. Conclusions

Fair Value accounting has been increasingly used in accounting standards launched in the last decade. At the same time, the world had entered in a financial crisis, which consequently ended up with the collapse of some countries' financial systems. Under a massive lack of confidence in markets and numerous bankruptcies, several experts triggered a debate around the accounting methods in use, questioning the benefits and shortfalls of the Fair Value Accounting.

At first, the pro-cyclicality effect arising out from the Fair Value Accounting is seen as the foremost setback. Focusing on financial institutions, having a balance sheet at market prices induces an extra source of volatility. Market prices play a double-edge role: besides reflecting the fundamentals, influence the actions taken by market participants, which means that when the price of an asset falls, under Fair Value Accounting the incentive is to sell. Under massive assets sales, prices fall under the fundamentals; consequently markets destabilize, prejudicing the ones that decided to hold the assets. Nonetheless, with the main limitation comes the core benefit: fair value is the only accounting method which presents updated and transparent balance sheets. Balance sheets, under observed prices, mirror the real situation of a bank.

What's more, and focusing on the European Sovereign Debt Crisis which had put markets' liquidity under pressure, the second FV's shortfall crops up: the Level 3 from the Fair Value hierarchy, based on internal models. This level entails managerial judgment, once it is based on unobserved inputs. Contemplating Greece's example, due to the illiquidity of the Sovereign Debt, banks massively valued it under internal models. In the case of the three French banks analyzed, in average, Fair Value Financial Assets valued according to level 3 just represented 3% of the Total Assets Fair Valued. Do notice that almost the overall Greek exposures of these banks were according to internal models.

Still representative of such a small amount, the net income of these banks sharply reduced in the last year. Crédit Agricole presented a negative net income of €1,4 billion, 200% less than in 2010, followed by Société Générale, with a diminution of 39%. Whereas the direct impact of Greek Sovereign Debt impairment under Société Générale's Cost of Risk was of around 21%. Ultimately, BNP Paribas, reduced its net income in 23%, but the impairment recognized under the Cost of Risk represented 48% of the total for the period. Consequently, being cognizant with these numbers and the overall exposure of these banks to Greece, investors for sure preferred the Greek Debt mark-to-market valued, even more considering that investors had to assume losses of more than 50%. (See Table 23)

<i>(in million of euros)</i>	Crédit Agricole	BNP Paribas	Société Générale
31.12.2011	(1.470)	6.050	2.385
31.12.2010	1.339	7.843	3.917
%	209,8%	22,9%	39,1%
Impact of Greek impairment recognized under Cost of Risk	23,4%	47,7%	20,6%

Table 23 - Important Figures related to Greek impairment

Secondly, within the same country, and under the same supervisors, each bank classified differently its Greek Debt Sovereign Debt. From this case analysis, Greek Debt appears in three categories defined by IAS 39: “Available for Sale”, “Held-to-Maturity” and “Loans and Receivables”. Even considering the augmentation of the FV standards in the last decade, the actual ones give space for different types of action: Available-for-Sale Financial Assets are recorded according to market-prices and the changes of the fair value are directly recorded under the “Other Comprehensive Income” (equity); when the asset is impaired, the impairment is recognized under the Cost of Risk, and the previous losses are reversed from equity to P&L. Under the captions “Held-to-maturity” and “Loans and Receivables”, financial assets are recorded under their amortized cost and impairments are directly recognized in P&L. Thus, under the Available for Sale caption, banks are forced to recognize in an on-going basis the losses from the Greek Debt in their equity whereas, under the other two captions, banks just recognized Greek Sovereign Debt’s losses when the impairment is assessed.

All things considered, banks, under the actual standards, are able to classify and treat differently a quoted financial asset, suffering from markets illiquidity: the classification within the four categories of IAS 39 has the consequent impacts on banks’ performance and the internal model valuation can or cannot be representative of the real value of the financial asset. Hence, the managerial judgment opens space of another debate. Under level 3, when a bank decrease or increase a price, the question would be: as the financial asset had gone through an actual deviation from the previous price or the action compromises managers intention to obtain better results?

Thirdly, there must be a clearly distinction between accounting policies and prudential concerns. On the one hand, from the regulators’ point of view, Basel 2.5 imposed banks to meet a CT1 of 9% by June 2012. Regulators are pressuring even more the financial sector regarding capital requirements: under Basel 3 banks will have to meet a CT1 of 7% by the end of 2018. Another regulators’ concern is to improve the capital’s definition *per se*, ensuring that it actually absorbs potential losses. The recognition of economic losses is essential to reach an accurate measure of capital. On the one hand, in a nutshell, under Fair Value Accounting and due to its pro-cyclicality, when banks’ assets prices drop banks are compelled to sell its assets in order achieve the capital ratios. On the other hand, from an accounting perspective, IFRS 9 will compel banks to use even more a fair value approach to measure their financial instruments.

All in all, Fair Value Accounting increases transparency and consequently ascertains markets' confidence. Moreover, its application is expected to increase in the upcoming years. From an investors' point of view, Fair Value ensures their updated knowledge of banks' assets. For the banking sector, a Fair Value based approach for its assets, with enlarged and appropriate disclosures to reduce the pro-cyclicality effect, and lastly with more demanding capital requirements to guarantee buffers absorbing all the losses, will be the best solution to recover from the crisis and restore markets' confidence and liquidity.

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8. Exhibits

Rank	Country	Name	Bond and bills	Loans	Cumulative bonds holdings	Cumulative	Cumulative	Cumulative
			(€ bn)	(€ bn)	(€ bn)	% of bonds	debt (€ bn)	% of debt
1	Euro	Eurosystem SMP	49.0*	-	45	16%	45	13%
2	Euro	EU loans	-	38.0	45	16%	83	23%
3	Greece	Greek public sector fubds	30.0	-	75	26%	113	31%
4		Row official institutions (porbably 3-5 ,Asia)	25.0*	-	100	35%	138	38%
5	IMF	IMF loans	-	15.0	100	35%	153	43%
6	Greece	National Bank of Greece	13.7	-	114	40%	167	46%
7	Euro	Eur aerea NCBs(BoG, BdF, BoP, Bol.etc)	13.1*	-	127	44%	180	50%
8	Greece	Pireus	9.4	-	136	48%	189	53%
9	Greece	EFG	9.0	-	145	51%	198	55%
10	Germany	FMS (ex Depfa/ Hypo Real Estate)	6.3	-	151	53%	204	57%
11	Greece	Bank of Greece legacy loans	-	6.0	151	53%	210	58%
12	France	BNP	5.0	-	156	53%	215	60%
13	Greece	ATE	4.6	-	161	57%	220	61%
14	Greece	AlphaBank	3.7	-	165	58%	224	62%
15	Bel/Lux/France	Dexia	3.5	-	168	59%	227	63%
16	Greece	Hellenic Potbank	3.1	-	171	60%	30	64%
17	Italy	Generali	3.0	-	174	61%	23	65%
18	Germany	Commerzbank	2.9	-	177	62%	236	66%
19	France	Societe Generale	2.9	-	180	63%	239	66%
20	Greece	Marfin	2.3	-	182	64%	241	67%
21	Greece	Bank of Cyprus	2.0	-	184	65%	243	6%
22	France	Groupama	2.0	-	186	65%	245	68%
23	France	CNP	2.0	-	188	66%	247	69%
24	France	AXA	1.9	-	190	67%	249	69%
25	Germany	Deutsche ank/ Deutsche Postbank	1.6	-	192	67%	251	70%
26	Germany	LBBW	1.4	-	193	68%	252	70%
27	Netherlands	ING	1.4	-	195	68%	254	70%
28	Germany	Allianz	1.3	-	196	69%	255	71%
29	France	BPCE	1.2	-	197	69%	256	71%
30	Belgium	Ageas	1.2	-	198	70%	257	72%
31	UK	RBS	1.1	-	200	70%	259	72%
32	Germany	DZ Bank	1.0	-	201	71%	260	72%
33	Italy	Unicredito	0.9	-	201	71%	260	72%
34	Italy	Intesa San Paolo	0.8	-	202	71%	261	73%
35	UK	HSBC	0.8	-	203	71%	262	73%
36	Austria	Erste Bank	0.7	-	204	72%	263	73%
37	Germany	Munich Re	0.7	-	205	72%	264	73%
38	Netherlands	Rabobak (gross)	0.6*	-	205	72%	264	73%
39	France	Credit Agricole	0.6	-	206	72%	265	74%
40	Belgium	KBC	0.6	-	206	72%	265	74%
		Other	78.5	16.0	285	100.0%	360	100%
		Total	285.0	75.0	285	100.0%	360	100%

Exhibit 1 - Barclays Capital estimated top 40 holders of Greek Government Bonds

Changes in exposure (in million of euros)	30.06.2011	Change in Fair Value	Recycling of Available- for-sale	Accrued interest	Impairment	Maturity dates	Disposals	Acquisition s	31.12.2011
Held to Maturity	-	-	-	-	-	-	-	-	-
Greece	279	-	4	2	(174)	-	-	-	111
Ireland	120	20	-	6	-	-	-	-	146
Portugal	645	15	-	1	-	-	(72)	-	589
Italy	7.455	(523)	-	-	-	(169)	(3.187)	-	3.576
Spain	1.504	-	-	-	-	(632)	(823)	-	49
Available-for-Sale	10.003	(488)	4	9	(174)	(801)	(4.082)	-	4.471
Greece	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	(11)	29	18
Italy	200	-	-	-	-	(200)	-	192	192
Spain	95	-	-	-	-	-	-	29	124
Loans and Receivables	295	-	-	-	-	(200)	(11)	250	334
Greece	51	-	-	-	-	(50)	-	-	1
Ireland	-	-	-	-	-	-	-	-	-
Portugal	169	-	-	-	-	-	(161)	-	8
Italy	885	-	-	-	-	-	(757)	-	128
Spain	29	-	-	-	-	-	(29)	-	-
Book portfolio	1.134	-	-	-	-	(50)	(947)	-	137
Total Banking activities	11.432	(488)	4	9	(174)	(1.051)	(5.040)	250	4.942

Exhibit 2 - Changes of Sovereign exposure from 30th June to 31st December for the countries facing financial difficulties

Greek contagion fears spread to other EU banks

By Megan Murphy, Kerin Hope, Jennifer Thompson and James Wilson

"European banks' exposure to Greece unnerved investors again as Moody's said it might cut the credit ratings of France's three largest banks because of their large holdings in Greek debt.

Pressure is mounting on Eurozone leaders to agree a fresh bail-out for the debt-laden country involving private creditors bearing part of the costs, after Greece earlier this week became [the lowest-rated sovereign in the world](#).

Moody's on Wednesday placed [BNP Paribas](#), [Crédit Agricole](#) and Société Générale on review for a possible downgrade, citing the potential for "inconsistency" between the impact of a Greek default or restructuring and their current rating levels.

"Following the deterioration of Greece's creditworthiness, although still manageable, the risk is likely to have increased for certain banks," said Nick Hill, analyst at Moody's Investors Service.

"This results from both the direct effects of a potential default and the secondary effects, in terms of a potential deterioration of Greek private sector credit."

French banks are among Greece's biggest creditors, with \$53bn in overall net exposure to Greek private and public debt, according to the latest figures from the Bank for International Settlements. German banks are also exposed with \$34bn, including loans made through KfW.

While some analysts said the prospect of a Greek default had already been priced into European bank stocks, shares in BNP, Crédit Agricole and SocGen slid by between 2.3 and 2.6 per cent on Wednesday as shareholders digested the Moody's report.

Concerns are growing that a restructuring of Greece's debt could have a potentially disastrous knock-on effect on the European financial system, with several commentators drawing a comparison with the investor panic sparked by the collapse of US investment bank Lehman Brothers in 2008.

Ministers are considering three options for private sector involvement, set out in a briefing paper circulated by the European Commission and seen by the Financial Times. The most drastic is for a voluntary debt exchange, involving an extension of maturities on Greek government bonds to buy time for Athens to cope with its debt crisis. The second and third options are for a voluntary "rollover" of bonds, which would be less likely to trigger a bond downgrade.

A restructuring would have "very dangerous implications", the European Central Bank warned on Wednesday, in a report that highlights a number of risks to the Eurozone's biggest banks.

Vitor Constâncio, vice-president, said all banks that had posted Greek government debt as collateral with the ECB would face an impact if a Greek debt restructuring were treated as a default. The ECB has said it could not accept as collateral any defaulted bonds, leaving Greek banks in particular facing a massive financing need.

In Athens, bankers were sceptical of claims, contained in the same briefing paper, that they would need an additional €20bn (\$28bn) of capital if private sector creditors were involved in a new bail-out package. "We desperately need liquidity not capital," said one senior Athens banker. "We can't deleverage fast enough under current conditions."

Greek banks, which are waiting to access a €30bn package of additional state guarantees pledged by the government, have been dependent on the ECB for liquidity since losing access to wholesale and interbank markets 18 months ago at the start of the crisis.

All six first and second-tier Greek banks reported modest net profits in the first quarter, in spite of significantly increased provisions for bad loans. Their core tier one capital ratio stands at about 10.5 per cent. One banker said the ECB, as the Eurozone's lender of last resort, could continue to accept Greek collateral even if the sovereign rating was downgraded to a selective default. "This is what a lender of resort is there for," he said.

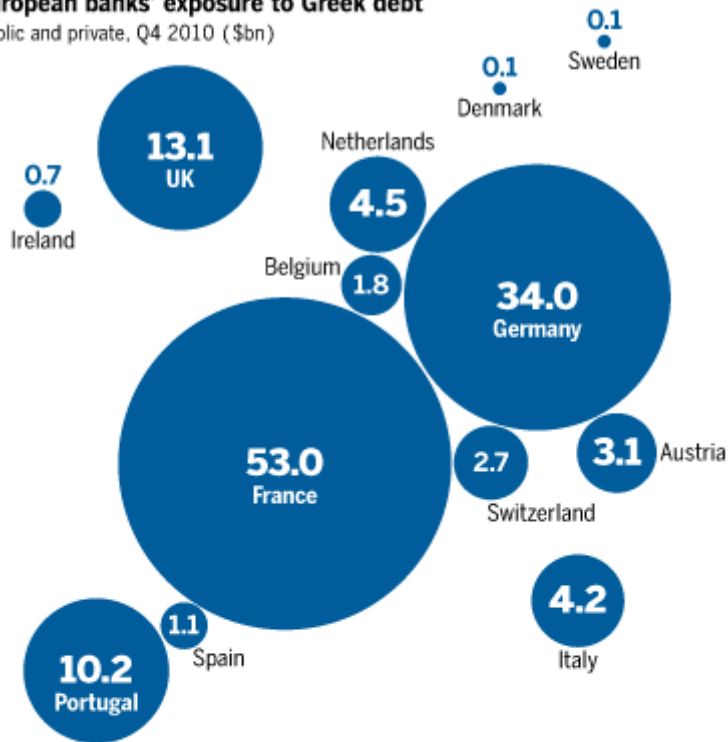
The Greek central bank is setting tighter conditions for allocating the new package of guarantees, including a medium-term plan or cutting costs and boosting capital ratios further."

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Fresh fears mount over contagion

European banks' exposure to Greek debt

Public and private, Q4 2010 (\$bn)



French banks under scrutiny

Crédit Agricole	Société Générale	BNP Paribas
		
Indirect net exposure to Greece (local subsidiary net customer loan book)*		
€21.1bn	€3.4bn	n.a.
Direct net exposure to Greek government bonds*		
€600m	€2.5bn	€5bn Dec 31 2010
Share price change, Jun 15 2011 (%)		
▼ 0.96	▼ 2.75	▼ 2.28

* Mar 31 2011

Sources: BIS; Moody's; Thomson Reuters Datastream

Exhibit 3 - Greek contagion fears spread to other EU banks by FT

Company	ICB Sector	Ticker symbol	Index weighting (%) at 20 December
Accor	hotels	AC	0.49
Air Liquide	commodity chemicals	AI	4.64
Alcatel-Lucent	telecommunications equipment	ALU	0.47
Alstom	industrial machinery	ALO	0.83
ArcelorMittal	steel	MT	2.05
AXA	full line insurance	CS	3.21
BNP Paribas	banks	BNP	5.01
Bouygues	heavy construction	EN	0.80
Capgemini	computer services	CAP	0.65
Carrefour	food retailers and wholesalers	CA	1.75
Crédit Agricole	banks	ACA	0.74
EADS	aerospace	EAD	1.70
EDF	electricity	EDF	0.90
Essilor	medical supplies	EI	1.91
France Télécom	fixed line telecommunications	FTE	3.96
GDF Suez	gas distribution	GSZ	4.41
Groupe Danone	food products	BN	4.73
L'Oréal	personal products	OR	3.41
Lafarge	building materials and fixtures	LG	0.86
Legrand	electrical components and equipment	LR	0.94
LVMH	clothing and accessories	MC	4.84
Michelin	tires	ML	1.40
Pernod Ricard	distillers and vintners	RI	2.28
PPR	broadline retailers	PP	1.47
Publicis	media agencies	PUB	0.83
Renault	automobiles	RNO	0.88
Safran	aerospace	SAF	0.90
Saint-Gobain	building materials and fixtures	SGO	1.99
Sanofi	pharmaceuticals	SAN	11.14
Schneider Electric	electrical components and equipment	SU	3.36
Société Générale	banks	GLE	1.98
Solvay	chemicals	UG	0.33
STMicroelectronics	semiconductors	STM	0.48
Technip	oil equipment and services	TEC	1.22
Total	integrated oil and gas	FP	14.13
Unibail-Rodamco	real estate investment trusts	UL	2.14
Vallourec	industrial machinery	VK	0.79
Veolia Environnement	water	VIE	0.53
Vinci	heavy construction	DG	2.60
Vivendi	broadcasting and entertainment	VIV	3.27

Exhibit 4 - CAC 40 - Source: Wikipédia

	Société Générale			
<i>(in million of euros)</i>	FY 2008	FY 2009	FY 2010	FY 2011
Core Tier 1 Capital Ratio (%)	6,70	8,40	8,50	9,00
Tier 1 Capital Ratio (%)	8,80	10,70	10,60	10,70
Core Tier 1 Capital	22.700	27.300	28.500	31.548
Total Tier 1 Capital	30.300	34.693	35.363	37.464
Risk Weighted Assets	345.518	324.080	334.795	349.275

	Crédit Agricole			
<i>(in million of euros)</i>	FY 2008	FY 2009	FY 2010	FY 2011
Core Tier 1 Capital Ratio (%)	7,60	9,30	8,40	8,60
Tier 1 Capital Ratio (%)	8,60	9,50	10,60	11,20
Core Tier 1 Capital	27.100	30.300	31.400	28.600
Total Tier 1 Capital	30.700	31.000	39.500	37.400
Risk Weighted Assets	357	326.400	371.700	333.700

	BNP Paribas			
<i>(in million of euros)</i>	FY 2008	FY 2009	FY 2010	FY 2011
Core Tier 1 Capital Ratio (%)	5,40	8,00	9,20	9,60
Tier 1 Capital Ratio (%)	7,80	10,10	11,40	11,60
Core Tier 1 Capital	29.000	49.600	55.400	58.900
Total Tier 1 Capital	41.799	62.910	68.536	70.993
Risk Weighted Assets	527.643	620.714	600.424	613.567

Exhibit 5 - Evolution of Core Tier 1, Core Tier 1 Capital and RWA for the three banks

BNP Paribas - Balance sheet				
<i>(in million of euros)</i>	FY 2011	FY 2010	FY 2009	FY 2008
ASSETS				
Investments				
Trading Account Assets				
Cash and Cash Equivalents	58.382	33.568	56.076	39.219
Financial Assets Fair Valued through P&L	820.463	832.945	828.784	1.192.271
Available-for-sale Financial Assets	192.468	219.958	221.425	130.725
Loans and receivables due from credit institutions	49.369	62.718	88.920	69.153
Held To Maturity financial assets	10.576	13.773	14.023	14.076
Equity Investments In Associates/Affiliates	4.474	4.798	4.761	2.643
Loans				
Loans and receivables due from customers	665.834	684.686	678.766	494.401
Assets				
Derivative Assets used for hedging purposes (Short-Term)	-	5.440	4.952	-
Other Noncurrent Assets	15.007	2.317	2.407	7.096
Other Current Assets*2	105.110	94.681	115.478	88.512
Property Plant & Equipment - Net	29.722	29.452	28.928	24.727
Other Intangible Assets		2.498	2.199	-
Total Intangible Assets - Net	13.878	-	-	12.728
Goodwill	-	11.324	10.979	-
Total Assets	1.965.283	1.998.158	2.057.698	2.075.551
Liabilities				
Due To Central Banks And Post Office Banks	1.231	2.123	5.510	1.047
Financial Liabilities Fair Valued through P&L	762.795	725.105	709.337	1.054.802
Debt securitites	157.786	208.669	211.029	157.508
Derivative Liabilities for hedging purposes (Long-Term)	14.331	8.480	8.108	6.172
Due To Banks-Demand & Term Deposits	149.154	167.985	220.696	186.187
Demand Deposits due to customers	546.284	580.913	604.903	413.955
Other Noncurrent Liabilities	356	301	356	282
Accrued Expenses and Other	84.499	68.974	77.187	87.405
Insurance Companies Technical Reserves	133.058	114.918	101.555	86.514
Provisions For Liabilities And Charges & Other	10.480	10.311	10.464	4.388
Subordinated Debt	19.683	24.750	28.209	18.323
Total Liabilities	1.879.657	1.912.529	1.977.354	2.016.583
Stockholder Equity				
Common Stock & APIC	25.678	25.659	25.061	13.828
Retained Earnings	43.825	40.961	37.433	37.909
Net income for the period attributable to shareholders	6.050	7.843	5.832	3.021
Change in assets and liabilities recognised directly in equity	(1.394)	169	1.175	(1.530)
Total Shareholders Equity Excluding Minority	75.370	74.632	69.501	53.228
Total Minority Interests	10.256	10.997	10.843	5.740
Total Shareholders Equity	85.626	85.629	80.344	58.968
Total Liabilities and Shareholders Equity	1.965.283	1.998.158	2.057.698	2.075.551

Exhibit 6 - BNP Balance-sheet

BNP Paribas - Income Statement				
<i>(in million of euros)</i>	FY 2011	FY 2010	FY 2009	FY 2008
Income Statement				
Interest income	47.124	47.388	46.460	58.839
Interest Expense	(23.143)	(23.328)	(25.439)	(45.341)
Commission and Fees	13.695	13.857	12.276	10.713
Commissions & Fees Paid	(5.276)	(5.371)	(4.809)	(4.854)
Net Gain(Loss) On Trading Account Securities	3.733	5.109	6.085	2.693
(Gain)/Loss On Sale of Investments	280	452	436	464
Net Income From Other Activities	26.836	30.385	28.781	20.273
Expenses from other activities	(20.865)	(24.612)	(23.599)	(15.411)
Net Banking Income	42.384	43.880	40.191	27.376
Operating Expenses				
General and Administrative Expenses	(24.608)	(24.924)	(21.958)	(17.324)
Depreciation and Amortization	(1.508)	(1.593)	(1.382)	(1.076)
Gross Operating Income	16.268	17.363	16.851	8.976
Provision For Loan Loss	(6.797)	(4.802)	(8.369)	(5.752)
Operating Income	9.471	12.561	8.482	3.224
Non-Operating Expenses				
Equity In Earnings of Affiliate/Joint Ventures	80	268	178	217
Net Income On Disposal Of Non-Current Assets	206	269	87	481
Impairment of Goodwill	(106)	(78)	253	2
Income Before Tax/Non-Recurs/Amort Of Goodwill	9.651	13.020	9.000	3.924
Income Tax Expense (Benefit)	(2.757)	(3.856)	(2.526)	(472)
Earnings				
Net Income	6.894	9.164	6.474	3.452
Minority/Non Controlling Interest	(844)	(1.321)	(642)	(431)
Basic EPS	5	6	5	3
Diluted EPS	5	6	5	3
Net Income ATTRIBUTABLE TO EQUITY HOLDERS	6.050	7.843	5.832	3.021
Comprehensive Income				
Foreign Currency Translation Adjustments	(61)	1.354	64	(605)
Unrealized Gain (Loss) On Securities	(2.255)	(2.442)	2.842	(4.696)
Change In Fair Value of Derivatives	625	5	(174)	583
Other Comprehensive Income	(57)	(2)	195	(405)
Total Comprehensive Income	5.146	8.079	9.401	(1.671)
Comprehensive Income Attrib to Shareholders	4.487	6.837	8.537	(1.781)
Comprehensive Income Attrib to Minority Int	659	1.242	864	110

Exhibit 7 - BNP Income Statement

Société Générale - Balance sheet				
<i>(in million of euros)</i>	FY 2011	FY 2010	FY 2009	FY 2008
Assets				
Investments				
Cash and Cash Equivalents	43.963	14.081	14.394	13.745
Financial Assets at fair value through profit or loss	422.494	455.160	400.157	488.415
Available For Sale Assets	124.738	103.836	90.433	81.723
Due from Banks	86.440	70.268	67.655	71.192
Held To Maturity Financial Assets	1.453	1.882	2.122	2.172
Investment In subsidiaries and affiliates accounted for by the equity method	2.014	1.968	2.001	185
Loans				
Consumer Loans	367.517	371.898	344.543	354.613
Lease Financing Loans	29.325	29.115	28.856	28.512
Assets				
Hedging Derivatives (Short-Term)	12.611	8.162	5.561	6.246
Revaluation Differences on portfolios hedged against interest rate risk	3.385	2.376	2.562	2.311
Other Assets	55.728	43.506	37.438	51.469
Noncurrent Assets HFS	429	64	375	37
Deferred Profit-Sharing	2.235	1.068	320	3.024
Tax Assets	5.230	5.445	5.493	4.674
Tangible And Intangible Fixed Assets	16.837	15.812	15.171	15.155
Goodwill	6.973	7.431	6.620	6.530
Total Assets	1.181.372	1.132.072	1.023.701	1.130.003
Liabilities				
Due To Central Banks	971	2.778	3.100	6.503
Financial Liabilities at fair value through profit or loss	395.247	358.963	302.753	414.256
Total Debt Securities	-	-	-	-
Hedging Derivatives	12.904	9.267	7.348	7.426
Due To Banks-Demand & Term Deposits/Other Pay	111.274	77.311	90.086	115.270
Customer Deposits	340.172	337.447	300.054	282.514
Securitised Debt Payables	108.583	141.385	133.246	120.374
Revaluation Differences on portfolios hedged against interest rate risk	4.113	875	774	583
Tax Liabilities	1.195	1.343	1.423	981
Noncurrent Liabilities HFS	287	6	261	35
Other liabilities and Accrued Expenses	59.525	55.003	48.800	57.817
Underwriting reserves of Insurance Companies	82.998	82.670	74.451	67.147
Provisions For Liabilities And Charges & Other	2.450	2.026	2.311	2.291
Subordinated Debt	10.541	12.023	12.256	13.919
Total Liabilities	1.130.260	1.081.097	976.863	1.089.116
Investments				
Common Stock	970	933	925	726
Additional Paid In Capital	24.111	24.021	23.544	17.727
Deferred Compensation (Stockholders Equity)	20.616	18.106	18.336	17.775
Net Income/Loss (Stockholders Equity)	2.385	3.917	678	2.010
Sub-total	48.082	46.977	43.483	38.238
Other Equity	(1.015)	(556)	(1.279)	(2.153)
Total Shareholders Equity Excluding Minority	47.067	46.421	42.204	36.085
Minority/Non Controlling Int (Stckhldrs Eqty)	4.045	4.554	4.634	4.802
Total Shareholders Equity	51.112	50.975	46.838	40.887
Total Liabilities and Shareholders Equity	1.181.372	1.132.072	1.023.701	1.130.003

Exhibit 8 - Société Générale Balance-sheet

Société Générale - Income Statement				
<i>(in million of euros)</i>	FY 2011	FY 2010	FY 2009	FY 2008
Interest income				
Interest and similar Income	32.389	28.294	30.545	40.188
Interest and similar Expense	(20.182)	(16.324)	(18.910)	(32.240)
Total Interest Expense		-	-	-
Dividend Income	420	318	329	466
Commission and Fees	9.898	10.038	10.445	10.505
Commissions & Fees Paid	(2.719)	(2.553)	(2.633)	(3.090)
Net Gain(Loss) On Financial Transactions	4.432	5.374	947	4.770
o/w net gains and losses on financial instruments at fair value through P&L	4.434	5.341	1.002	4.677
(Gain)/Loss On Sale of Investments	(2)	33	(55)	93
Income from other activities	23.675	19.662	18.281	15.383
Expenses from other activities	(22.277)	(18.391)	(17.274)	(14.116)
Net Income From Other Activities		1.271	1.007	1.267
Net Banking Income	25.636	26.418	21.730	21.866
Operating Expenses				
Salaries and Employee Benefits	(9.666)	(9.559)	(9.157)	(8.616)
General and Administrative Expenses	(6.449)	(6.053)	(5.679)	(6.040)
Depreciation and Amortization	(921)	(933)	(930)	(872)
Gross Operating Income	8.600	9.873	5.964	6.338
Cost of risk	(4.330)	(4.160)	(5.848)	(2.655)
Operating Income	4.270	5.713	116	3.683
Non-Operating Expenses				
Impairment of Goodwill	(265)	1	(42)	(300)
Equity In Earnings of Affiliate/Joint Ventures	94	119	15	(8)
Net Income On Disposal Of Non-Current Assets	12	11	711	633
Earnings before tax	4.111	5.844	800	4.008
Income Tax Expense (Benefit)	(1.323)	(1.542)	308	(1.235)
Earnings				
Consolidated Net income	2.788	4.302	1.108	2.773
Non-controlling interests	403	385	430	763
Net Income	2.385	3.917	678	2.010
Basic EPS	3	5	0	3
Diluted EPS	3.18	5	0	3
Comprehensive Income				
Foreign Currency Translation Adjustments	(14)	925	(74)	(708)
Unrealized Gain (Loss) On Securities	(722)	78	1.512	(3.335)
Change In Fair Value of Derivatives	(52)	(125)	(149)	297
Tax Related To Other Comprehensive Income			(414)	797
Other Comprehensive Income	(6)	5	10	-
Income Tax Exp Related to Comprehensive Income	280	(34)		
Total Comprehensive Income	1.926	4.640	1.552	(789)
Comprehensive Income Attrib to Minority Int	348	511	441	613

Exhibit 9 - Société Générale Income Statement

Crédit Agricole - Balance Sheet				
<i>(in million of euros)</i>	FY 2011	FY 2010	FY 2009	FY 2008
Investments				
Cash and Cash Equivalents	28.467	29.325	34.732	49.789
Financial assets at Fv through profit or loss	490.263	413.656	427.027	578.329
Hedging derivatives instruments	33.560	23.525	23.117	12.945
Available for Sale Financial Assets	227.390	225.757	213.558	175.249
Loans and Receivables to credit Institutions	379.841	363.843	338.420	326.597
Held to Maturity FA	15.343	21.301	21.286	18.935
Investment In equity accounted entities	18.286	18.111	20.026	15.806
Loans and Receivables to customers	399.381	383.246	362.348	349.037
Revaluation Adjustment on interest rate hedged portfolios	8.300	4.867	4.835	2.264
Assets				
Non-current assets HFS	260	1.581	598	1.582
Current and deferred tax assets	8.231	7.731	6.084	5.345
Accruals, prepayments and sundry assets	82.765	70.534	76.485	83.657
Deferred Profit sharing	4.273	1.496		5.355
Investments Property	2.682	2.651	2.658	2.629
Property, plant and equipment	5.170	5.202	5.043	4.675
Intangible Assets	1.868	1.743	1.693	1.412
Goodwill	17.528	18.960	19.432	19.614
Total Assets	1.723.608	1.593.529	1.557.342	1.653.220
Liabilities				
Due To Central Banks And Post Office Banks	127	770	1.875	1.324
Financial Liabilities at FV through P&L	439.680	343.586	366.319	497.947
Hedging derivatives instruments	34.605	25.619	24.543	16.327
Total Debt Securities	148.320	-	-	
Debt Securities		170.337	179.370	186.430
Revaluation Adjustment on interest rate hedged portfolios	5.336	1.838	1.889	(1.389)
Liabilities associated with non-current assets HFS	39	1.472	582	1.506
Due To Banks-Demand & Term Deposits/Other Pay	172.665	154.568	133.797	170.425
Due to Customers	525.636	501.360	464.080	421.411
Current and deferred tax liabilities	4.755	2.453	1.430	1.440
Accruals, prepayments ad sundry liabilities	73.690	65.518	73.658	74.738
Provisions For General Risks And Commitments			4.898	5.211
Insurance Companies Technical Reserves	230.883	230.881	214.455	194.861
Provisions	4.798	4.492		
Subordinated Debt	33.782	38.486	38.482	35.653
Total Liabilities	1.674.316	1.541.380	1.505.378	1.605.884
Stockholder Equity				
Total Shareholders Equity	49.292	52.149	51.964	47.336
Total Shareholders Equity Excluding Minority	42.797	45.667	45.457	41.731
Common Stock & APIC	30.164	29.102	28.332	27.372
Deferred Compensation (Stockholders Equity)	15.434	15.078	14.868	14.732
Other Equity	(1.331)	224	1.132	(1.397)
Net Income/Loss (Stockholders Equity)	(1.470)	1.263	1.125	1.024
Minority/Non Controlling Int (Stckhldrs Eqty)	6.495	6.482	6.507	5.605
Total equity and liabilities	1.723.608	1.593.529	1.557.342	1.653.220

Exhibit 10 - Crédit Agricole Balance-sheet

Crédit Agricole - Income Statement				
<i>(in million of euros)</i>	FY 2011	FY 2010	FY 2009	FY 2008
Interest income				
Total Interest Expense				
Interest receivable and similar income	34.570	32.374	35.346	47.106
Interest payable and similar expense	(19.401)	(17.480)	(21.056)	(34.993)
Commission and Fee income	10.779	10.775	9.798	9.309
Commissions & Fee expense	(6.107)	(5.879)	(5.022)	(4.911)
Net Gain(Loss) On Financial Instruments at FV through P&L	(52)	2.300	4.883	(8.162)
(Gain)/Loss On AFS financial Assets	(3.570)	3.147	172	(468)
Income related to other activities	33.900	30.684	26.450	22.983
Expenses related to other activities	(29.336)	(35.792)	(32.629)	(14.908)
Net Banking Income	20.783	20.129	17.942	15.956
Operating Expenses	(12.878)	(12.448)	(11.516)	(11.992)
Depreciation, Amortization and impairment of property, plant and equipment and intangible assets	(734)	(739)	(666)	(643)
Gross Operating Income	7.171	6.942	5.760	3.321
Cost of Risk	(5.657)	(3.777)	(4.689)	(3.165)
Operating Income	1.514	3.165	1.071	156
Equity In Earnings of Affiliate/Joint Ventures	229	65	847	868
Net Income On Disposal Of Non-Current Assets	5	(177)	67	428
Impairment of Goodwill	(1.934)	(445)	(486)	(280)
Pre-tax income	(186)	2.608	1.499	1.172
Income Tax Expense (Benefit)	(1.026)	(877)	(211)	66
Net Extraordinary / Non Recurring Items	14	21	158	28
Net Income	(1.198)	1.752	1.446	1.266
Minority/Non Controlling Interest	(272)	(489)	(321)	(242)
Basic EPS	0,60	0,54	0,499	1
Diluted EPS	0,60	0,54	0,499	1
Net Income, group share	(1.470)	1.263	1.125	1.024
Comprehensive Income				
Foreign Currency Translation Adjustments	90	129	(43)	(104)
Gains or losses on AFS securities	(1.773)	(890)	2.657	(3.822)
Change In Fair Value of Hedging Derivatives Instruments	174	(101)	(85)	442
Minimum Pension Liability Adjustments	(4)	(32)		
Other comprehensive income, excluding equity accounted entities, group share	(1.513)	(894)	2.529	(3.484)
Other Comprehensive Income - from equity accounted	(50)	(102)	72	(598)
Total other comprehensive income	(1.563)	(996)	2.601	(4.082)
Net Income, group share	(3.126)	1.263	1.125	1.024
Net income and other comprehensive income, group share	(3.033)	267	3.726	(3.058)
Comprehensive Income Attrib to Minority Interests	244	534	361	209
Net income and other comprehensive income	(2.789)	801	4.087	(2.849)

Exhibit 11 - Crédit Agricole Income Statement