

# **Back to the Future: Prospective Bank Risk Management in a Financial Analysis Perspective**

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## ***Abstract***

The growing deleveraging of European banking system is a given. Recent managerial and supervisory concerns concentrate on credit risk by means of consistent allowances and impairments. The analysis is aimed at verifying this focus perception and to verify as well if the supervisory suasion can be effectively regarded as proactive within the European banking. Preliminary results confirm the attention and the widespread trend suggesting the opportunity for authorities to broaden key risk indicators in order to avoid potential myopia and future unsustainability.

***Keywords:*** *European Banks, Key Risk Indicators, Sustainable Risk Management, Bank Profitability, Capital Management, Credit Risk, Allowances and Impairment.*

***JEL Keywords:*** *G21, G28, G11.*

## **1. Introduction**

There is a general tendency to consider that after the past two years of repair, the overall conditions of EU banks have improved. The aim of the paper is twofold. The leading target is the inference of the logical background of risk assessment by European Banking Authority (EBA) by analysing the selection and the construction of the Key Risk Indicators (KRI). The objective is the appraisal of the signalling aptitude of the KRI in order to deduce the risk management focus by committed authorities. The secondary goal is the assessment of the same trend within similar banks, not included in the EBA dataset, in order to verify if the focus is effectively generalized across the European

economic area. Therefore, the paper is aimed at evaluating future trend in banking risk management within the supervisory framework according to the actual suasion pursuit.

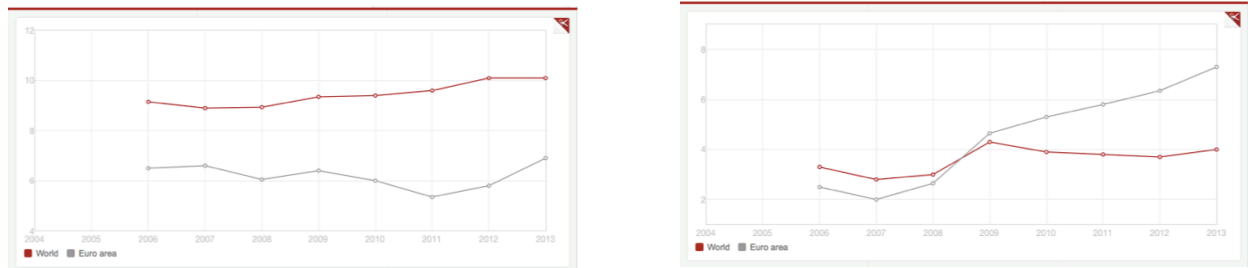
The research question concerning the assessment of recent focus on relevant risk drivers is performed by the breakdown of the KRIs provided by EBA. Since risk management processes are based on a primary step that is the “identification stage”, it is possible to extrapolate the logic of the supervisory emphasis by the analysis of the KRIs as a proxy of “relevant risk factors”. Therefore, it is possible to ascertain forthcoming risk management efforts within the banking sector and to verify if *prospective* risk management is effectively *sustainable* risk management. Recent managerial and supervisory concerns concentrate on credit risk by means of consistent allowances and impairments. The analysis is aimed at verifying this focus perception and to verify as well if the supervisory suasion can be effectively regarded as proactive within the European banking.

Preliminary results confirm the attention and the widespread trend suggesting the opportunity for authorities to broaden key risk indicators in order to avoid potential myopia and future unsustainability.

## **2. The cultural background**

The change in the banking business, especially “deleveraging” and “de-risking”, as a consequence of the crisis is a topic focusing the attention of different observers. In the recessive context, the increasing attention to equity strengthening can be traced back to regulatory and supervisory issues, forcing the banking system to build larger buffers of high-quality capital and reduce the riskiness of their portfolios. Liquidity and credit threats have been perceived as primary crisis drivers and, as a consequence, they are among main requirements for banks, according to the new Basel package that is not “business neutral” since it clamps many incentives towards a general reduction of risk intensive business [Ötoker-Robe and Pazarbasioglu, 2010]. In the regulatory perspective, promoting a more resilient banking sector “hedges” the risk of spill-over from the financial sector to the real economy. Consistently, to address the market failures revealed by the crisis, even the rating agencies forced banks towards a restored credibility by means of leverage reduction, as a fundamental market signal for the creditworthiness of the financial system; hence, consultants are concentrating on the banking business change, especially in the Eurozone, by promoting attention towards risk weighted indicators as leader targets in successful management [Sinn et al., 2013]. Therefore, a combination of supply-side factors motivates the deleveraging pressure on European banks, as well as market conditions – with less profitable opportunities of investment because of general deleveraging even of firms – contributed to shrink assets and boost capital ratios.

Chart 1: Bank Capital to Asset Ratio and Nonperforming Loans to Total Gross Loans (Source: The World Bank)



The deleveraging implementation can take different forms both internal and external. As far as the internal feature is concerned, banks could seek to increase the amount of retained earnings, by both boosting profits and reducing dividend pay-out, if appropriate. The actual opportunity to increase profits depends on the possibility of expanding lending activity that not always is effectively performing; furthermore, the decision to cut dividend can be pricy in terms of market value of shares. The external strategy encompasses the issue of new equity; as in the previous case there are different costs to consider especially in terms of governance and, once again, of market value of shares. An apparently less costly third set of adjustment strategies involve changes to the asset side of the bank’s balance sheet, by reducing the volume through asset sale and/or lending growth rate slowdown. Last but not least, a bank can seek to reduce its risk-weighted assets by replacing riskier (higher-weighted) investments with safer ones, by giving rise to what is addressed as “de-risking”.

Whatever the strategic decision, regulatory capital ratios will increase, such giving rise to both deleveraging and capital reinforcement at least from a supervisory perspective. Nevertheless, this positive “regulatory impact” is not totally free from negative traits: the inevitable reduction of the Return on Equity, the potential credit crunch in the form of reduction in the general availability of loans (or credit) or a tightening of the conditions required to obtain a loan, the sub-optimal asset allocation because of regulatory arbitrage.

Under these circumstances, there are many concerns about a too rapid capital built up because of considerable short-term macroeconomic costs by inducing banks to pull back from lending to finance investment. As a consequence a initial group of studies have tried to evaluate the potential macroeconomic impact of stronger regulation by studying the relationship between increases in bank capital and rises in lending spreads as well as changes in lending volumes [Cohen and Scatigna, 2014]. A second area of interest is related to the measures adopted by banks to improve capital ratios and, more specifically, on the reasons backing topic choices as the result of financial and economic conditions or also of business model and strategic decisions [Caselli et al., 2014]. In both areas of research the mainstream is the assessment of the effects of a general fairly acquainted tendency of the banking system.

The present study can be placed within the recalled cultural context, although the perspective of the analysis is totally original.

Given the regulatory and managerial consequences of the crisis, the research question is related to the suasion activity steered by supervisory authorities and especially by the EBA towards deleveraging and de-risking. The answer to this main question can be found in the Key Risk Indicators (KRI) reported by EBA in the Risk Dashboard as a part of the regular risk assessment conducted by the EBA itself and as a complement to the Risk Assessment Report. The EBA risk dashboard summarises the main hazards and exposures in the banking sector in the European Union (EU). Considering the overall progression of the European System of Financial Supervision (ESFS) in the perspective of proper risk management, EBA plays an important role in promoting convergence of supervisory practices being mandated to assess risks and vulnerabilities in the EU banking sector<sup>1</sup>. In a balanced scorecard perspective, the KRI and the Risk Dashboard are the kernel of the process enabling supervisory authorities to “translate vision and strategy” to the EU banking system. They enabled authorities to track financial results while simultaneously monitoring progress in building the capabilities and acquiring the “intangible assets” they would need for future growth. In a sense, they are the complement for regulatory measures and capital adequacy targets. Under these considerations, the study of the KRI gives the opportunity to infer the logical background of risk assessment by EBA. The objective is the critical appraisal of the signalling aptitude of the KRI in order to deduce the risk management focus by committed authorities and to assess whether the emerging hub is effectively comprehensive, since, as known, we see only what we look at and we find only what we look for. The backing idea is therefore to look at the KRI as in a Enterprise Risk Management (ERM) process, effected by an entity’s board and applied in strategy

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<sup>1</sup> The European Banking Authority is an independent EU authority, which works to ensure effective and consistent prudential regulation and supervision across the European banking sector. Its overall objectives are to maintain financial stability in the EU and to safeguard the integrity, efficiency and orderly functioning of the banking sector. The main task of the EBA is to contribute to the creation of the European Single Rulebook in banking whose objective is to provide a single set of harmonized prudential rules for financial institutions throughout the EU. The EBA was established on 1 January 2011 as part of the European System of Financial Supervision (ESFS) and took over all existing responsibilities and tasks of the Committee of European Banking Supervisors. The European system set up for the supervision of the financial sector is made of three supervisory authorities: the European Securities and Markets Authorities (ESMA), the European Banking Authority (EBA) and the European Insurance and Occupational Pensions Authority (EIOPA). The system also comprises the European Systemic Risk Board (ESRB) as well as the Joint Committee of the European Supervisory Authorities and the national supervisory authorities. Whilst the national supervisory authorities remain in charge of supervising individual financial institutions, the objective of the European supervisory authorities is to improve the functioning of the internal market by ensuring appropriate, efficient and harmonized European regulation and supervision.

setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives. In broad terms, supervisory authorities play the role of the “entity’s board” and the banking system is the “enterprise” and the “objective” is finally the optimization of efficiency/stability trade-off of the financial system in an extreme scenario as we are experimenting during these years. By looking at the KRI in this perspective, it is possible to go up the river trying to reach the ultimate mission, in order to state whether it is all-inclusive. Recent managerial concerns concentrate on credit risk by means of consistent allowances and impairments. The analysis is aimed at verifying this focus perception and to verify as well if the supervisory suasion can be regarded as proactive within the European banking.

### **3. Dataset and methodology**

The research question concerning the assessment of recent focus on relevant risk drivers is performed by the breakdown of the data provided by EBA. The secondary objective is the assessment of the revealed trend within similar banks, not included in the EBA dataset, in order to verify if the focus is effectively generalized across the European Economic Area (EEA). Therefore, the paper tries to evaluate future trends in banking risk management within the supervisory framework according to the actual suasion pursuit. The analysis is based on the dataset of Key Risk Indicators (KRI) provided by the EBA. The EBA KRI is an original set of 53 indicators collected on a quarterly basis by national supervisors, from a sample of 57 European banks in 20 European Economic Area (EEA) countries from 2009 onwards<sup>2</sup>. The banks in the sample cover at least 50% of the total assets of each national banking sector. On October 2013, the EBA published its first risk dashboard, summarizing the main risks and vulnerabilities in the European banking sector. The most recent data are referred to December 2013. As stated by EBA, the majority of the indicators are not publicly available; therefore these data provide a unique and valuable source of information. The data are extracted and elaborated directly on the EBA Risk Dashboard Interactive Tool as supplied by EBA [[www.eba.europa.eu/risk-analysis-and-data/risk-dashboard](http://www.eba.europa.eu/risk-analysis-and-data/risk-dashboard)]. Table 1 reports the full list of the KRI, while Table 2 explains the detailed calculation.

The logical methodology is that of a financial analyst: understanding the risk and profitability of banks in the EEA by means of available KRI in order to “restore” or, better, infer the risk map driving the institutional focus an to verify the sustainability of this tendency.

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<sup>2</sup> The name of the country is disclosed if the reporting authorizes are more than 3. The sample discloses France, Germany, Italy, Great Britain, Greece, Spain, Sweden.

**Table 1: Full List of Key Risk Indicator**

Code	KRI name
1	Tier 1 capital ratio
2	Total capital ratio
3	Tier 1 ratio (excluding hybrid instruments)
4	Credit risk capital requirements of total capital requirements
5	Standardised approach capital requirements of total capital requirements
6	Securitisation capital requirements of total capital requirements
7	IRB approach capital requirements of total capital requirements
8	Market risk capital requirements of total capital requirements
9	Operational risk capital requirements of total capital requirements
10	Settlement and delivery risk capital requirements of total capital requirements
11	Other capital requirements of total capital requirements
12	Past due (>90 days) loans to total loans and advances
13	Impaired loans and Past due (>90 days) loans to total loans
14	Coverage ratio (specific allowances for loans to total gross impaired loans)
15	Past due (>90 days) loans and debt instruments to total loans and debt instruments
16	Coverage ratio (specific allowances for loans and debt instruments to total gross impaired loans and debt instruments)
17	Coverage ratio (all allowances for loans and debt instruments to total gross impaired loans and debt instruments)
18	Impaired financial assets to total assets
19	Impaired debt instruments to total debt instruments
20	Accumulated impairments on financial assets to total (gross) assets
21	Impairments on financial assets to total operating income
22	Return on equity
23	Return on regulatory capital requirements
24	Cost-income ratio
25	Return on assets
26	Net interest income to total operating income
27	Net fee and commission income to total operating income
28	Dividend income to total operating income
29	Net realised gains (losses) on financial assets & liabilities not measured at fair value through profit and loss to total operating income
30	Net gains on financial assets and liabilities held for trading to total operating income
31	Net gains on financial assets and liabilities designated at fair value through profit or loss to total operating income
32	Net other operating income to total operating income
33	Net income to total operating income
34	Loan-to-deposit ratio
35	Customer deposits to total liabilities
36	Tier 1 capital to (total assets - intangible assets)
37	Debt securities to total liabilities
37	Debt securities to total liabilities
38	Deposits from credit institutions to total liabilities
39	Equity to total liabilities and equity
40	Cash and trading assets to total assets
41	Cash, trading, and AFS assets to total assets
42	Financial assets held for trading to total assets
43	Financial liabilities held for trading to total liabilities and equity
44	Loans and advances (excl. Trading book) to total assets
45	Debt-to-equity ratio
46	Off-balance sheet items to total assets
47	Total assets
48	Total loans
49	Total customer deposits
50	Total operating income
51	Impairments on financial assets
52	Past due (>90 days) loans and debt instruments; total gross impaired loans and debt instruments
53	Risk weighted assets

Table 2: The KRI database [EBA, 2014]

Number	KRI Code	KRI name	Numerator	Denominator
1	1	Tier 1 capital ratio <small>as in Basel 2.5</small>	TOTAL ORIGINAL OWN FUNDS FOR GENERAL SOLVENCY PURPOSES	TOTAL CAPITAL REQUIREMENTS *12.5
2	2	Total capital ratio <small>as in Basel 2.5</small>	TOTAL OWN FUNDS FOR SOLVENCY PURPOSES	TOTAL CAPITAL REQUIREMENTS * 12.5
3	3	Tier 1 ratio (excluding hybrid instruments) <small>as in Basel 2.5</small>	TOTAL ORIGINAL OWN FUNDS FOR GENERAL SOLVENCY PURPOSES -Hybrid instruments in Minority interests - Hybrid instruments in 1.1.4.1a Hybrid instruments - (-) Excess on the limits for hybrid instruments	TOTAL CAPITAL REQUIREMENTS * 12.5
4	13	Impaired loans and Past due (>90 days) loans to total loans	Row: Loans and advances Column: Net carrying amount of the impaired assets Row: Loan and advances Specific allowances for individually assessed financial assets and Specific allowances for collectively assessed financial assets Column: Closing balance Row: Loans & advances Columns: > 90 days ≤ 180days; > 180 days ≤ 1year; > 1year	Total loans advances (Rows: Loans and advances AFS, Loans and receivables, HTM) Row: Loan and advances Specific allowances for individually assessed financial assets and Specific allowances for collectively assessed financial assets Allowances for incurred but not reported losses on financial assets Column: closing balance
5	14	Coverage ratio (specific allowances for loans to total gross impaired loans)	Row: Loan and advances Specific allowances for individually assessed financial assets and Specific allowances for collectively assessed financial assets Column: Closing balance	Row: Loans and advances Column: Net carrying amount of the impaired assets Row: Loan and advances Specific allowances for individually assessed financial assets and Specific allowances for collectively assessed financial assets Column: Closing balance
6	18	Impaired financial assets to total assets	Row: Total Column: Net carrying amount of the impaired assets	Total assets
7	20	Accumulated impairments on financial assets to total (gross) assets	Row: Loan and advances, Debt instruments Specific allowances for individually assessed financial assets and Specific allowances for collectively assessed financial assets Allowances for incurred but not reported losses on financial assets Column: closing balance	Total assets Row: Loan and advances, Debt instruments Specific allowances for individually assessed financial assets and Specific allowances for collectively assessed financial assets Allowances for incurred but not reported losses on financial assets Column: Closing balance
8	21	Impairments on financial assets to total operating income	Impairment on financial assets not measured at fair value through profit or loss	Total operating income: rows: Interest income; Interest expenses; Expenses on Share capital repayable on Demand; Dividend income; Fee and commission income; Fee and commission expenses; Realised gains (losses) on financial assets & liabilities not measured at fair value through profit or loss, net; Gains (losses) on financial assets and liabilities held for trading, net; Gains (losses) on financial assets and liabilities designated at fair value through profit or loss, net; Gains (losses) from hedge accounting, net; Exchange differences, net; Gains (losses) on derecognition of assets other than held for sale, net; Other operating income; Other operating expenses
9	22	Return on equity	Total profit or loss after tax and discontinued operations (annualised)	Total equity (period average)
10	24	Cost-income ratio	Rows: Administration costs; Depreciation	Total operating income: rows: Interest income; Interest expenses; Expenses on Share capital repayable on Demand; Dividend income; Fee and commission income; Fee and commission expenses; Realised gains (losses) on financial assets & liabilities not measured at fair value through profit or loss, net; Gains (losses) on financial assets and liabilities held for trading, net; Gains (losses) on financial assets and liabilities designated at fair value through profit or loss, net; Gains (losses) from hedge accounting, net; Exchange differences, net; Gains (losses) on derecognition of assets other than held for sale, net; Other operating income; Other operating expenses
11	26	Net interest income to total operating income	Rows: Interest income; interest expenses	Total operating income as above.
12	27	Net fee and commission income to total operating income	Rows: Fee and commission income; fee and commission expense	Total operating income as above.
13	33	Net income to total operating income	Total profit or loss after tax and discontinued operations	Total operating income as above.
14	34	Loan-to-deposit ratio	Total loans advances (Rows: Loans and advances held for trading, designated at fair value through profit or loss, AFS, Loans and receivables, HTM)	Total deposits (Rows: Deposits held for trading, designated at fair value through profit or loss, measured at amortised cost)
15	35	Customer deposits to total liabilities	Total deposits (other than from credit institutions) (Rows: deposits (other than from credit institutions) held for trading, designated fair value through profit or loss, measured at amortised cost)	Total liabilities
16	36	Tier 1 capital to (total assets - intangible assets)	Original own funds	Total assets - intangible assets
17	45	Debt-to-equity ratio	Total liabilities	Total equity
18	46	Off-balance sheet items to total assets	Loan commitments given, financial guarantees given	Total assets

Once the inference is completed, the main findings are compared by means of dynamic analysis with the market performance of a consistent bank stock index across the EEA in order to verify if the emerging trends are effectively diffused in the Eurozone as a consequence of the “suasion activity” performed by EBA in the perspective also of the Banking Union. The evidence is obtained by comparing market results of the listed bank performances on the results extracted by the KRI dataset. Market figures are calculated on daily Euro price and returns of Euro Stoxx Banks and Euro Stoxx, as supplied by Stoxx Ltd. [[www.stoxx.com](http://www.stoxx.com)].

#### 4. Figures and targets in the EBA Risk Dashboard

By scrolling the list of the KRI (Table 1), we can easily identify four main areas of interest: Capital Adequacy (1 to 3) and Capital Requirement breakdown (4 to 11), Credit Risk, Asset Quality and Impairment (12 to 21), Profitability (22 to 33), Balance Sheet structure (34 to 46) including periodical differences of basics (47 to 52) and risk weighted assets (53). These areas are less extensive than the list of main risks and vulnerabilities under consideration as shown by the Risk Dashboard risk factors (see Figure 1) and mainly concentrated on asset quality, impairments and allowances. Table 3 reports the Risk Dashboard [EBA, 2014b].

Figure 1: KRI versus Risk Factors in the Risk Dashboard





Table 3: The Risk Dashboard [EBA, 2014b]

		Bank risk	Risk drivers	Memo: last quarter dashboard	Level of risk	Forward Trend	Contributing factors/interactions
Capital	Pillar 1	Credit risk	Asset quality	→		→	Asset quality deterioration is still a major challenge, also in light of uneven economic recovery in the EU. Calculation of banks' risk weighted assets remains a shadow over seemingly healthy capital ratios. Upcoming review of assets should boost clarity on problem loans and level of impairments/provisions.
		Market risk	Hightened volatility, hedge effectiveness	→		↑	Geopolitical tensions have returned (e.g. Russia and Ukraine), fueling uncertainty in some emerging markets. Hightened market volatility could be observed as well in result of US monetary policy, whereas diverse monetary policy stances by other central banks over the world may impact European banks activity.
		Operational risk	Cost cutting	↑		→	Cost cutting efforts are seen as jeopardizing internal controls efficiency and possibly exposing specific areas of activity. Execution risks and frauds are of particular concern. IT plus internet related risks (e.g. cyber-risks) keep on growing whilst redress costs increase.
	Pillar 2	Concentration risk, IRRBB and other	Interest rates	→		→	Low interest rates help maintain asset quality and improve affordability of bank credit, but affects profitability by reduced interest income. Low interest rates also provide incentives for loan forbearance.
		Reputational and legal	LIBOR/Euribor investigations, mis-selling	↑		→	Confidence in banks continues to be affected by past business practices. Fines/redress costs continue to materialize, in some cases affecting substantially profitability levels.
		Profitability	Margins, asset quality, provisions workout, business model changes	→		→	Non-performing loans can still rise, along with reduced new lending and interest income generation opportunities pressuring. Interest margins are low, cost cutting efforts and results are difficult to materialize. Legal and redress costs continue to materialize.
Liquidity & Funding	Access to funding and Maturity distribution	Market confidence, pricing	↓		↓	The stock of funding still relies heavily on public funding but an increasing number of banks is returning to the market. Ring-fencing can be observed and reliance on deposit is increasing. Unsecured funding markets continue to improve and average maturity profile in 'peripheral' countries is recovering.	
	Funding structure	Geographical fragmentation of funding markets. Leverage.	→		↓	Improving along with business model changes and macro-economic conditions slowly picking up. Fragmentation and retrenchment to home markets is still a concern (see also fragmentation). Ongoing de-risking, shrinking of balance sheet and of loan book persist.	
Environment	Regulatory environment	Timing and scope of implementing regulatory initiatives	→		→	Regulatory clarity has been somewhat achieved, though significant execution risks remain ahead, e.g. on implementing "bail in" rules (there are exogenous pressures from the possibility of bail-in by non-insured deposits). The Basel Committee's decision on the definition of the leverage ratio brought light to an important topic.	
	Fragmentation	Continued lack of confidence, sovereign/bank link, national-only regulatory/policy initiatives	→		→	For some banks, home bias and requirements to match assets and liabilities at country level are being maintained; cross-border interbank markets remain subdued. Rates for similar companies diverge in different countries. Reduced cross-border lending and external bank funding. Despite some improvements, geographical fragmentation of funding conditions continues and dispersed funding condition between large cross border banks and smaller banks in 'peripheral' countries continues (see also funding structure).	
	Sovereign risk	Fiscal policy and effectiveness, budgets imbalances	↓		↓	Increased confidence in sovereigns combined with historical levels in key interest rates led to sovereign yields at historical lows, yet risks of re-alignment remain. Links between banks and sovereign persist but are less pronounced. In the comprehensive assessment for the SSM, ex-ante agreed backstops need to be in place.	
Level				The level of risk summarises, in a judgmental fashion, the probability of the materialisation of the risk factors and the likely impact on banks. The assessment takes into consideration the evolution of market and prudential indicators, NSAs and banks' own assessments as well as analysts' views.			
Trend	↑	→	↓				
	Increasing	Stable	Decreasing				

The KRI focus suggests that the prevailing – expected or solicited– set of adjustment to deleveraging is about the asset architecture by reducing the volume through asset sale and/or lending growth rate slowdown as well as de-risking as shown by Chart 2. As expected, the Return on Equity (ROE) is positively correlated to the ratio of Net Income to Operating Income (NI/OI) and inversely correlated to deleveraging proxied by the ratio of Total Asset to Equity (TA/E). Nevertheless, the crucial point is in the fact that the quarterly variation of the Risk Weighted Asset (RWA) is strongly correlated to the deleveraging.

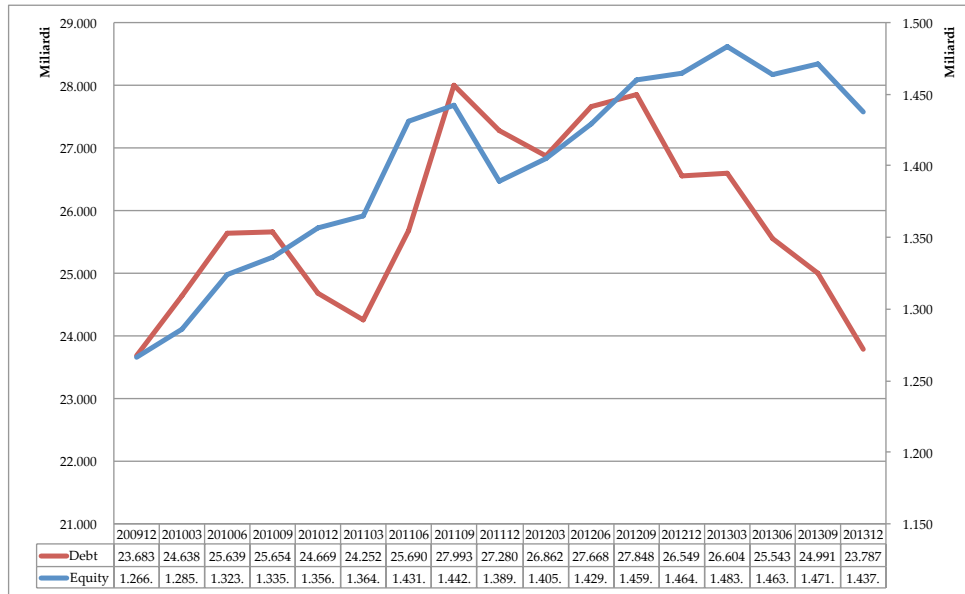
Chart 2: Profitability



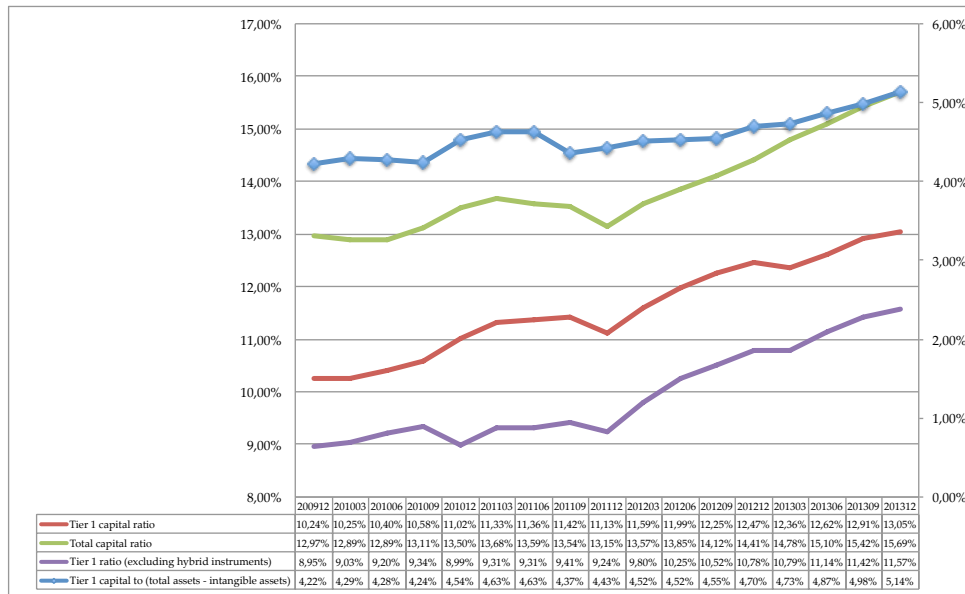
The EBA database illustrates that capital positions have been significantly strengthened and that funding conditions have recovered (see Chart 3). By looking at the dynamic of the Debt-Equity Ratio (DER) constituents can be easily verified that the deleveraging is systematically and constantly improving thanks to Equity (E). The growth of the equity is confirmed by the dynamics of both Tier 1 (see Chart 4) and of the basic items of the liability side that is to say Deposit and Debt securities (Chart 5).

A deeper insight into the loan/deposit ratio reveals that deleveraging is, in fact, due to a lending growth rate slowdown as shown by Chart 6, presenting a decreasing trend in the loan-to-deposit ratio. Therefore, deleveraging is a given, but the causes are not really unambiguous: Chart 7 shows that capital ratios improved on the back of falling RWA and Chart 8 reveals that the asset side has been severely affected by the clean-up of some major banks in preparation to the Asset Quality Review and stress test.

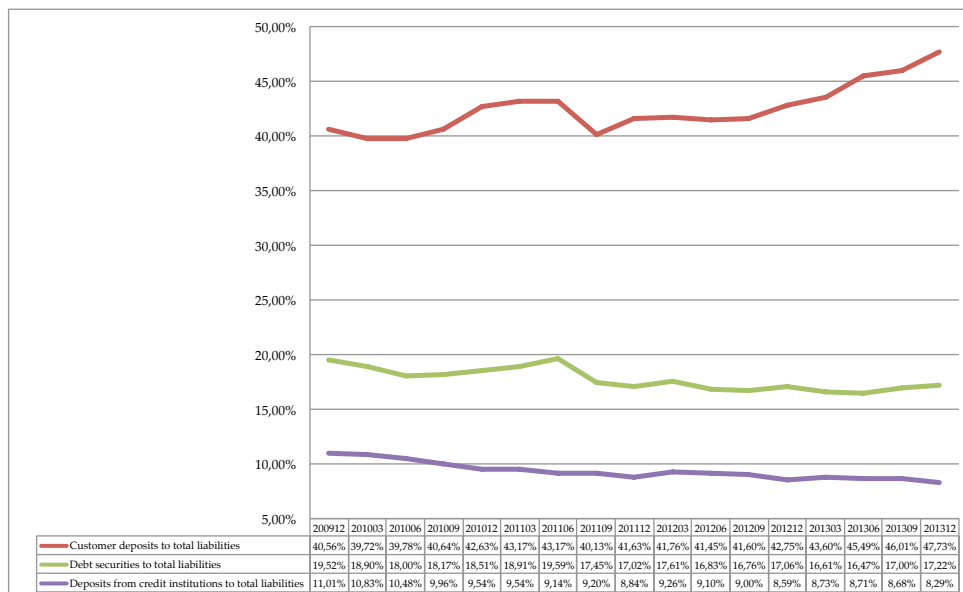
**Chart 3: DER components**



**Chart 4: Tier1 1**



**Chart 5: Deposits and Debt Securities**



**Chart 6: Loan and Deposit**

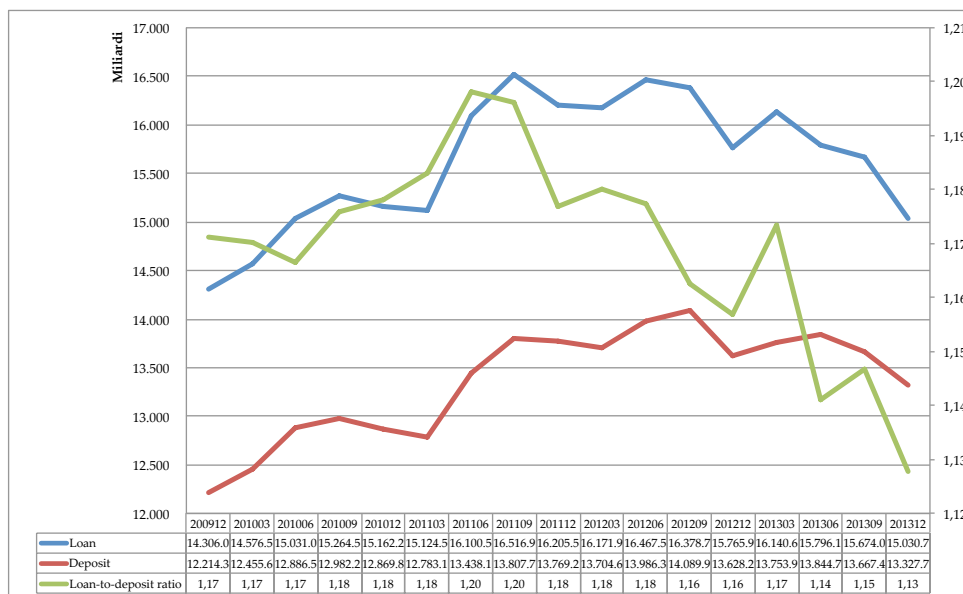


Chart 7: Assets

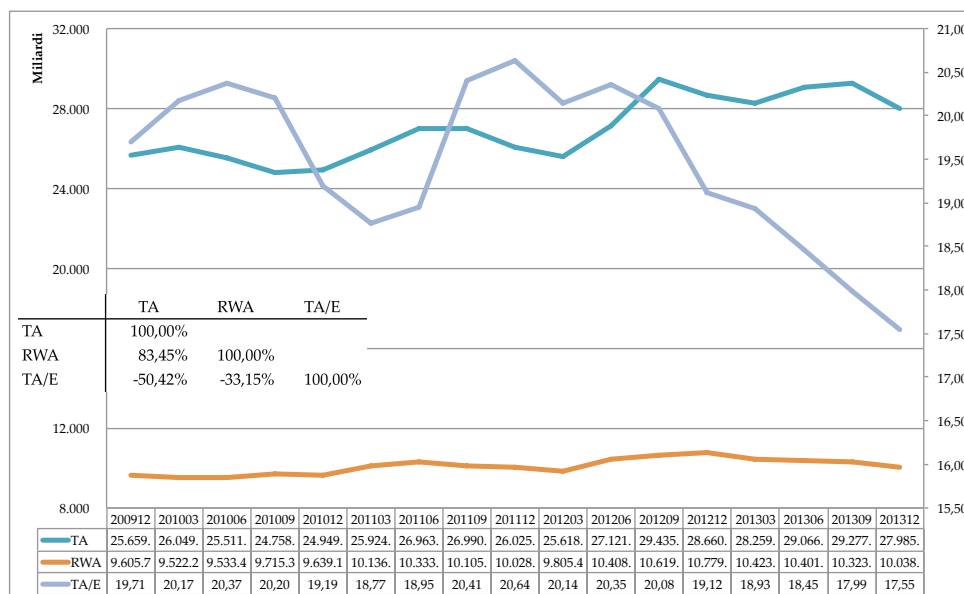
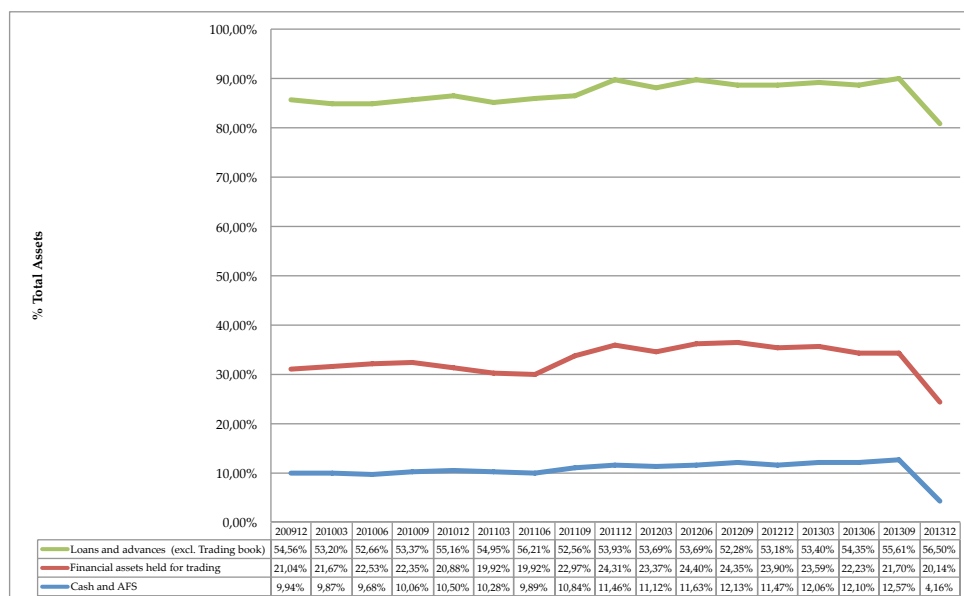


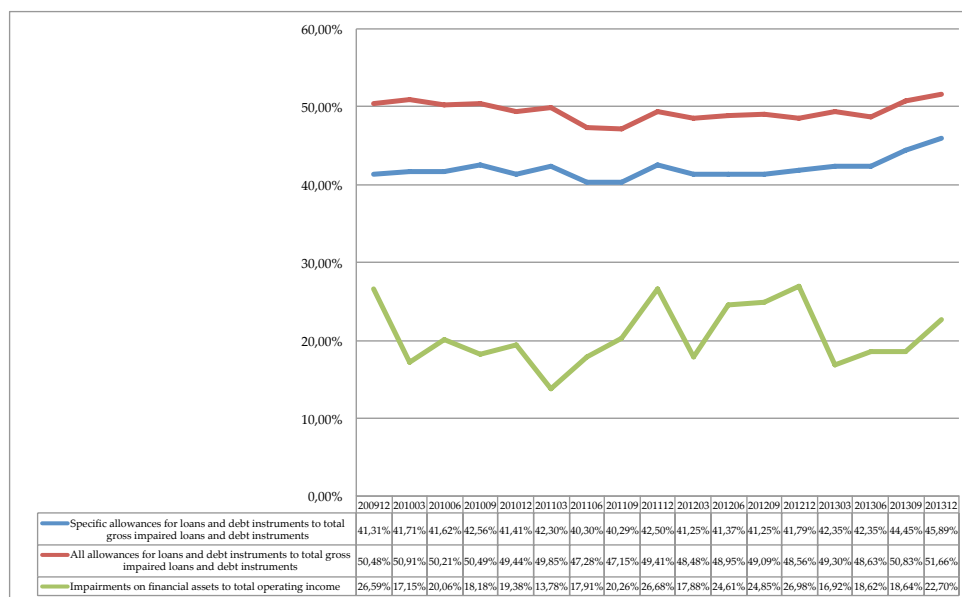
Chart 8: Asset Decomposition



A confirmation arrives from the depiction of the coverage ratios and of the ratio of the impairments to operating income. Chart 9 raises some questions about the extent to which provisioning is adequate and about the capacity of some banks to cope with rising credit risks. The balance-sheet clean-up of EU banks with significant front-loading provisioning, as pre-emptive measures in preparation for the EU wide asset quality review and stress test exercise, are contributing to profitability pressures. Moreover, the increase in the level of impairment provisioning may pose challenges in

maintaining adequate capital levels.

**Chart 9: Allowances and Impairment**

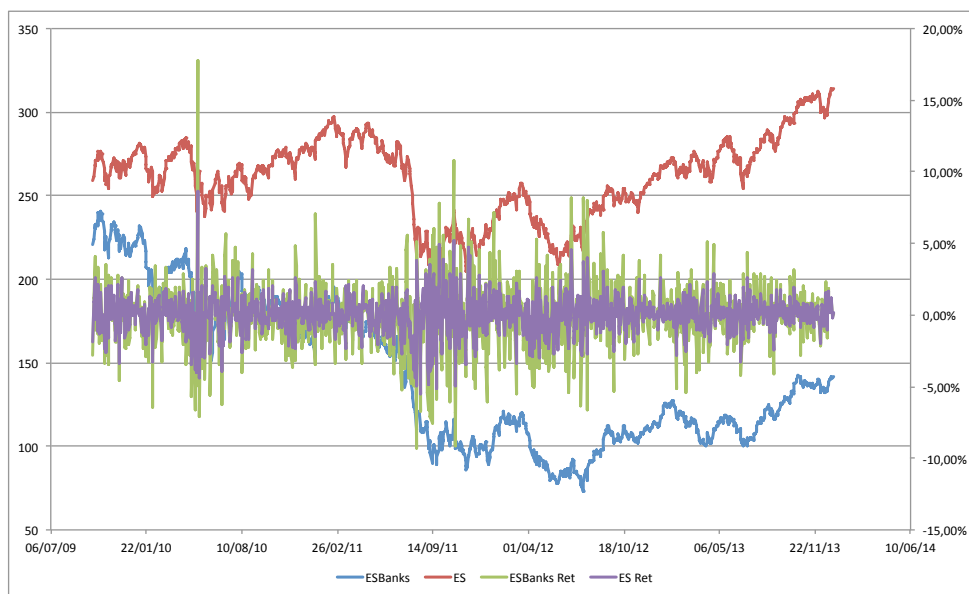


This analysis shows that credit risk is a major, but the question here is if it is the solely element to concentrate on. The long-term sustainability of a provisioning policy within the balance sheet is a crucial point. If, as stated by EBA in the last Risk Assessment Report [EBA, 2014a] “the quality of some banks’ loan portfolios continued to decline in 2013 and the first months of 2014 and remains a concern across the EU”, the stimulus towards asset quality review by means of allowance and provision could be no longer pursuable nor really efficient, by reducing dramatically profitability. At the same time, disregarding the effect of such a policy on other risk figures, such as interest rate risk and liquidity risk could be misleading. Moreover, de-risking and provisioning are only a part of a proper risk management approach and, in a sense, they are non “proper risk management”.

## 5. Market trends and EBA dynamics

The main findings of the previous section are compared, by means of dynamic analysis, with the market performance of consistent bank stock index across the EEA in order to verify if the emerging trends are diffused in the Eurozone. As a benchmark the Euro Stoxx Banks Index (ESB) has been selected as a valuable proxy of the Euro Area, together with the Euro Stoxx Index (ES), with daily values for the whole period under consideration (Chart 10).

Chart 10: Daily Euro Stoxx Prices and Return



For each series, the quarterly relevant market statistics have been calculated as reorted by Table 4.

Table 4: Quarterly Relevant Market Statistics

	ESB return	ESB volatility	ES return	ES volatility	Beta coeff.	Variance of resid.	Specific Risk	Tracking Error Vol
200912	-3,18%	14,58%	3,91%	10,18%	1,38	0,17%	4,07%	5,58%
201003	-5,97%	14,45%	0,82%	8,48%	1,58	0,29%	5,37%	7,32%
201006	-21,04%	28,26%	-11,71%	16,18%	1,66	0,76%	8,72%	13,82%
201009	8,12%	15,24%	6,75%	9,25%	1,49	0,43%	6,57%	7,91%
201012	-12,20%	13,16%	3,55%	7,54%	1,52	0,44%	6,62%	7,59%
201103	6,65%	14,51%	3,49%	7,58%	1,46	0,88%	9,38%	10,01%
201106	-7,10%	12,87%	-1,74%	8,10%	1,35	0,45%	6,67%	7,31%
201109	-40,09%	29,03%	-25,13%	18,19%	1,43	1,68%	12,95%	14,99%
201112	-4,79%	27,94%	4,92%	16,26%	1,63	0,80%	8,97%	13,58%
201203	7,09%	18,63%	8,79%	8,58%	1,87	0,90%	9,47%	12,03%
201206	-18,19%	22,32%	-8,78%	11,85%	1,60	1,37%	11,72%	13,78%
201209	11,71%	21,94%	7,33%	10,58%	1,92	0,72%	8,50%	12,84%
201212	9,95%	12,18%	6,48%	6,64%	1,66	0,28%	5,25%	6,82%
201303	-9,37%	15,05%	2,02%	7,52%	1,77	0,48%	6,95%	9,11%
201306	-1,03%	13,93%	-1,11%	8,78%	1,39	0,46%	6,76%	7,56%
201309	20,62%	11,54%	10,26%	6,62%	1,57	0,26%	5,10%	6,28%
201312	11,50%	9,92%	6,93%	5,72%	1,51	0,24%	4,93%	5,71%

After having estimated the specific risk, as the volatility of residuals deriving

from single index model applied on a quarterly basis, and the tracking error volatility defined as the root-mean-square of the return difference between the ESB and ES, the following correlation matrix has been calculated:

**Table 5: Correlation Matrix**

	Specific Risk	TEV	RWA	DER	TA/E
Specific Risk	100,00%				
TEV	91,55%	100,00%			
RWA	37,13%	50,17%	100,00%		
DER	55,40%	70,55%	81,32%	100,00%	
TA/E	55,47%	70,61%	81,41%	99,99%	100,00%

The correlation shows that Specific Risk of listed banks in the euro area is strongly correlated to risk weighted asset and deleveraging dynamics, so giving rise to the idea that the strategy revealed by EBA data is widespread across Europe. Certainly the paucity of the EBA dataset does not yet give the opportunity to perform a full analysis. For this reason the results of the regression of the tracking error volatility on the Risk Weighted Assets and Debt/Equity Ratio is here supplied only as a possible example of future studies (see Table 6).

**Table 6: TEV on RWA and DER**

LINEAR REGRESSION					
R	71,63%				
R <sup>2</sup>	51,30%				
Adj. R <sup>2</sup>	44,35%				
S	0,02421				
N. Obs	17				
<b>TEV = - 0,4688 - 0,1273 * RWA + 0,0306 * DER</b>					
ANOVA					
	d.f.	SS	MS	F	p-value
Regression	2,	0,00864	0,00432	7,37517	0,00649
Error	14,	0,00821	0,00059		
Total	16,	0,01685			
	Coefficient	St. error	t-Stat	p-value	
Alpha	-0,46884	0,20503	-2,28674	0,0383	
RWA	-0,12727	0,1919	-0,66322	0,51796	
DER	0,03061	0,01117	2,74103	0,01592	

## 6. Conclusion

The main findings regard an effective and widespread focus on credit risk as main/unique risk driver. A secondary result is the preference towards a “coverage” risk management by means of allowances and impairments. The evidence seems to be confirmed even by the listed performance dataset results that exhibit a similar dynamic within the listed stock results, this confirming the hypothesis that the credit risk focus is not only a question of banks exposed to proper asset quality review.



The results give rise to a fundamental consideration: the focus on credit risk could create a disregard of other fundamental risk drivers with reference to both managerial practises and recovery presides. The analysis of risk and vulnerabilities of banks should include other relevant index. The topic here addressed needs to be re-evaluated as long as the KRI database “grows” and, in progress, separate analysis for different countries or banks sizes could give rise to interesting results. The sustainability in the long run of a credit risk control by allowances and impairments could really be extremely difficult especially when profits are not high. As a consequence, prospective risk management could be not really sustainable risk management. At the same time a new questions arise: is de-risking proper risk management?

## References

- Caselli S., Gatti S., and Querci F. (2014), *Deleveraging and Derisking Strategies of European Banks: Business as Usual?*, Carefin Working Papers, 1/2014.
- Cohen B. H. (2013), *How have banks adjusted to higher capital requirements?*, BIS Quarterly Review, September 2013.
- Cohen B. H., and Scatigna M. (2014), *Banks and capital requirements: channels of adjustment*, BIS Working Papers, 443.
- European Banking Authority (2014a), *Risk assessment of the European banking system*, EBA.
- European Banking Authority (2014b), *Risk Dashboard Q1 2014 (data as of Q4 2013)*, EBA.
- Feyen E., Kibuuka K., and Ötoker-Robe İ. (2012), *Bank Deleveraging*, Policy Research Working Paper 6086, The World Bank, June.
- Kapan T., and Minoiu C. (2013), *Balance sheet strength and bank lending during the global financial crisis*, IMF Working Paper , WP/13/102.
- Ötoker-Robe İ., and Pazarbasioglu C. (2010), *Impact of Regulatory Reforms on Large and Complex Financial Institutions*, International Monetary Fund, Monetary and Capital Markets Department, IMF Staff Position Note, November, SPN/10/16.
- Sinn W., D’Acunto R., and Oldrini A. (2013), *European Banking: Striking the right balance between risk and return*, Bain Report.