Enhancements to ECB statistics for financial stability analysis[1]

Agresti, Anna Maria
European Central Bank, Directorate General Statistics
Kaiserstrasse 29
60598 Frankfurt, Germany
E-mail: anna_maria.agresti@ecb.int

Borgioli, Stefano
European Central Bank, Directorate General Statistics
Kaiserstrasse 29
60598 Frankfurt, Germany
E-mail: stefano.borgioli@ecb.int

Poloni, Paolo
European Central Bank, Directorate General Statistics
Kaiserstrasse 29
60598 Frankfurt, Germany
E-mail: paolo.poloni@ecb.int

Abstract

The European System of Central Banks (ESCB) and the Eurosystem[2] have already been carrying out macro-prudential analysis, in particular concerning the stability of the EU and euro area banks, for many years. This paper presents the work in progress to enhance ECB statistics required to undertake this analysis and future challenges, also in light of the forthcoming establishment of the European Systemic Risk Board (ESRB). The focus is in particular on the enhancement of the Consolidated Banking Data (CBD), which are provided by the member organisations of the ESCB Banking Supervision Committee (BSC) and compiled by the ECB, and on the development of statistics on Large Banking and Insurance Groups (LBIGs), where, as a first step, the statistical definition of these groups, is discussed. Whereas these two work streams are crucial in order to define the backbone for a regular collection of statistical information for financial stability analysis, challenges go considerably beyond them.

Section 1. Motivation[3]

The strengthening of the framework for macro-prudential supervision within Europe has been a key priority in response to the ongoing financial crisis. Taking up the recommendations of

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the De Larosière report[4], one of the main initiatives is the creation of the ESRB which will have responsibility for identifying, monitoring, assessing and responding to potential threats and risks to financial stability in the EU. Subject to the endorsement of the underlying legal acts, this new body will receive analytical, statistical, administrative and logistical support from the ECB. The establishment of the ESRB consequently has relevant implications for the statistical work of the ECB and the ESCB. The aim of this paper is to describe two key work streams that are being undertaken in order to prepare for the ESRB. These workstreams concern the enhancement of the Consolidated Banking Data (CBD),[5] and the development of a statistical definition of Large Banking and Insurance Groups (LBIGs).

The statistical requirements for macro-prudential analysis to be potentially carried out by ESRB entail the following demanding aspects: i) an EU wide geographical scope (moving beyond the euro area focus applied to the ECB's own financial stability analysis), ii) including country developments in the risk monitoring; iii) focusing on risks of systemic nature arising not only from banks but also from other financial institutions, markets or infrastructures, such as common or correlated exposures of financial intermediaries and bilateral positions (which in turn requires harmonised and granular *from-whom-to-whom* statistics).

The banking sector has always been in the focus of the risk analysis of the ECB, and will remain an important component also for ESRB purposes. Detailed, frequent and timely information on the EU banking system is therefore necessary. In this respect, work has started to enhance the current data, in particular from supervisory sources (used in the CBD), as described in Section 2. At the same time, a considerably more detailed and granular analysis is needed for LBIGs, as they might be a possible endogenous source of system risk. This requires, in a first step, to identify such groups and agree on a common statistical definition for the reference population. Work in this area is described in Section 3. Finally, Section 4 describes the challenges ahead in order to further develop consolidated statistics for the banking sector and for large financial institutions.

Section 2. Consolidated Banking Data - short-term approach

The macro-prudential analysis conducted by the Banking Supervision Committee[6] (BSC), is based on aggregated information on the banking systems of all EU Member States. The key set of data for this analysis is the CBD, which is provided by the member organizations of the BSC.

These data include detailed information on bank profitability, balance sheets, asset quality and solvency broken down by size classes of banks.

The current CBD framework was implemented in 2009 by all the EU-27 countries for their provision of banking data to the ECB. The main data sources are the supervisory information collected according to Financial Reporting (FINREP)[7] and Common Reporting (COREP) [8] templates and guidelines, as developed by the Committee of European Banking Supervisors (CEBS).

The data cover nearly 100% of the EU banking sector and are fully consolidated on a cross-

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[4] See http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf

[5] For the publication of CBD, see www.ecb.de/pub/pdf/other/eubankingsectorstability2009en.pdf

[6] The Banking Supervision Committee assists in the fulfilment of the ESCB's statutory tasks in the field of prudential supervision of credit institutions and the stability of the financial system, as laid down in the Treaty (Article 105 (5)) and the ESCB Statute.

[7] See http://www.c-ebs.org/documents/Publications/Standards---Guidelines/2009/FINREPrev2/FINREPrev2-instructions.aspx

[8] See http://www.c-ebs.org/Publications/Consultation-Papers/All-consultations/CP01-CP10/CP04-Revised-2.aspx

border and cross-sector basis; cross-border means that data on branches and subsidiaries located outside the domestic market are included in the data reported by the parent institution and cross-sector means that branches and subsidiaries of banks that can be classified as financial institutions other than banks are also included; however, insurance corporations are not included.

Foreign banks are defined as subsidiaries and branches that are controlled by either an EU or a non-EU parent that is "foreign" from the reporting country's point of view. The data for these institutions are excluded from the definition of the domestic banking sector, and are aggregated under the heading "foreign banks". A separate analysis of the data on foreign banks is justified by their large share of the domestic banking sector in some EU countries.

The data on EU banks are divided into three size classes (small, medium-sized and large banks), which are determined by their size, as a percentage of the total assets of the whole EU banking system. This breakdown by size allows the analysis of different national banking systems, as concentration in these markets varies substantially among countries, and to assess the potential implication for the systemic risks.[9]

The CBD dataset is the backbone of the analysis of the stability of the banking sector in the EU, carried out at the ECB/ESCB. It forms the basis for the annual BSC report on EU Banking Stability and is used for other analytical purposes as well. The CBD allows the calculation of different banking system strength indicators on a consolidated level for domestic banking sectors as well as for foreign-controlled banks.[10]

Some short-term developments are now planned in order to expand the possible scope of CBD, also in the light of the establishment of the ESRB. These enhancements of CBD will be likely facilitated by the implementation of new versions of the FINREP and COREP which are now being introduced by CEBS.

Indeed, a revised version of the FINREP framework (so called, rev. 2) will enter into force on 1 January 2012, while a revised COREP (so called, rev. 2) will be applicable by 31 December 2010. FINREP rev. 2 provides a common standard reporting framework for banks, with the goal of increasing the comparability of the financial information reported by banks to their national supervisory authorities. COREP rev. 2 provides for an updated version of the information requirements arising from the CRD (directives 2009/27/EC and 2009/83/EC) as well as CRD II amendments (directive 2009/111/EC).

Specifically, two main short-term enhancements to current CBD framework are under consideration. The first one aims at increasing the data collection frequency to a semi-annual basis, for a specific and limited subset of CBD series currently published in the annual ECB report on Banking Sector Stability. The second one concerns the possible inclusion of further breakdowns in the annual CBD collection. Efforts are also ongoing to improve the data timeliness of CBD series.

Increased frequency/timeliness and additional breakdowns would also provide an improved benchmark against which ad-hoc data collection exercises when initiated by the decision making bodies of the ECB (or possibly the ESRB in the future), can be evaluated, or could even reduce the need for such resource intensive ad-hoc exercises.

The semi-annual CBD sub dataset will encompass profitability and efficiency indicators, balance sheet indicators relating to banks' funding sources, loan portfolio and non-performing loan developments as well as solvency indicators. The first semi-annual CBD data collection is scheduled to take place in the second half of 2010.

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[9] For a complete list of the indicators, see www.ecb.de/pub/pdf/other/eubankingsectorstability2009en.pdf

[10] For a comparison between the ECB and IMF indicators for the macro-prudential analysis of the banking sector, see http://www.ecb.europa.eu/pub/pdf/scpops/ecbocp99.pdf

Referring to the second short-term enhancement, a fact finding exercise took place with National Central Banks and National Supervisory Authorities on the feasibility to incorporate additional breakdowns within the annual CBD dataset. The envisaged more granular breakdowns included counterparty sector breakdowns for balance sheet items and non performing loans, counterparty geographical breakdowns, maturity breakdowns and derivative exposures. The results of the stock-taking exercise were not homogeneous, as some envisaged areas of improvements appear to be more promising than others. It also emerged that several of the additional breakdowns will become available as of 1 January 2012, subject to national adoption of the revised FINREP (such as counterparty sector breakdowns of loans and receivables). Also taking this into consideration, no firm timeline has been yet established for the final implementation of this enhancement. In order to satisfy user needs, this and further enhancements to the CBD are necessary (see section 4).

In particular, as explained in the section below, the enhancement of the frequency and granularity of CBD should be accompanied by further statistical work on large banking and insurance groups[11].

Moreover, the CBD may need to be amended soon again, as COREP rev. 2. will be likely replaced by an enhanced version (rev. 3) which is currently subject to a public consultation. COREP rev.3 will be mandatory in all EU countries from end-2012.

On the contrary, the application of FINREP framework may remain not mandatory. However, CEBS highly recommends its use, in order to achieve its twin goals of harmonisation and reduction of the reporting burden. The FINREP framework is made up of a set of tables or "templates", divided into two sections which contain "core" and "non-core" quantitative financial information respectively. National authorities that decide to apply the FINREP framework must, at the minimum, require institutions to report all the core information, which comprises the consolidated balance sheet and the consolidated income statement. Non-core information includes additional data such as the geographical distribution of assets and liabilities and the sectoral breakdown of assets.

Section 3. Definition of Large Banking and Insurance Groups

Whereas the provision within the CBD of core data on the overall banking sector broken down by size is an important backbone of macro-prudential analysis, a considerably more granular dataset is needed to analyse systemically relevant institutions and their interlinkages. In particular, data on large financial institutions on a (consolidated) group basis are a key input to financial stability analysis, not least to assess the transmission of systemic risks within the financial system, including possibly via stress tests.

Systemic risk analysis for the large banking and insurance groups entails the use of detailed data to develop measures of leverage, portfolio liquidity and risk concentrations among financial institutions, correlation among asset holdings, interconnectedness of institutions among each other, large exposures to other financial institutions and sectors (including via off-balance sheet vehicles, credit lines and other contingent liabilities) as well as relevant positions in derivatives markets, large FX transactions and open FX positions.

Information on the portfolio holdings of institutions in the financial sector is key[12]. Focusing on the banking sector, detailed credit exposure data (e.g. exposures to non-financial

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[11] See also Box 2.2 in the IMF Global Financial Stability Review (April 2010)
www.imf.org/external/pubs/ft/gfsr/2010/01/pdf

[12] Detailed securities holding statistics (as envisaged by the ECB) would contribute to assess correlations in financial intermediaries' portfolios, common exposures to specific asset classes, as well as liquidity-related aspects.

corporations broken down by country and sector) are needed to assess, how negative developments in a specific sector or country can spread to financial institutions. Information on interconnectedness is another challenge due to confidentiality issues and a borderline with micro-prudential supervision.

Also regarding common exposures among financial institutions, there is a growing consensus on the need of institution-specific granular data, in order to conduct systemic risk analysis. Only in this way is it possible to identify dislocations and growing imbalances that are the key sources of risks and vulnerabilities at the systemic level and arrive at meaningful policy conclusions, as for example the definition of groups of connected clients for refinancing-related risks.

Quantitative evidence for large financial institutions is potentially already available from their public data disclosure, and from the derived commercial data sources. Public data disclosure in recent years (in particular in response to the current financial crisis) has improved and the harmonisation of accounting standards has enhanced the comparability of data across institutions. Nevertheless, data from public disclosures are not straight-forward to collect and are often not fully comparable across institutions. In addition, public disclosures lack sufficient details about, for example, liquidity and solvency positions, and they do not contain sufficient information about institutions' different exposures to form a complete assessment.

All in all, in order to overcome the current data drawbacks, reliance on public disclosure is no longer sufficient and, thus, accurate and timely information may need to be reported by large financial institutions.

Hence, given the users' needs and the drawbacks of the available data sources, there is a need for a more formal approach in order to develop and compile harmonised datasets for large financial institutions. Such datasets will be required, among others, to analyse financial interlinkages and potential risk spillovers at the EU level and beyond.

An important prerequisite for the development of such statistics is a definition of the reporting population of large financial groups. This definition of LBIGs is needed in order to work towards a detailed register of banking and insurance groups in the euro area, which would form the basis for developing for example detailed securities holdings and securities issuance statistics.

Systemically important financial institutions are important for financial stability not simply because they are large, but because the nature of their business is such that their failure and inability to operate would most likely have adverse implications for financial intermediation, the smooth functioning of financial markets or other financial institutions operating within the system, and indirectly on the real economy

Various definitions of systemically relevant institutions are actually possible.[13] Size, interconnectedness and substitutability are usually the three main dimensions according to which systemic relevance is measured[14].

As a matter of priority, the ECB is currently focusing on Large Banking and Insurance Groups (LBIGs), while statistical definitions of other types of financial institutions (such as pension funds) would only be developed if and when users express a need for corresponding data.

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[13] See for example www.financialstabilityboard.org/publications/r_091107d.pdf

[14] On the specific issue of moral hazard posed by systemically relevant institutions see the following: http://www.financialstabilityboard.org/publications/r_100627b.pdf

For defining "banking groups" and "insurance groups" in the euro area, the following criteria might be followed:

- The definition of a "banking group" for statistical purposes should be based on the Capital Requirements Directive, in particular Directive 2006/48 on the taking up and pursuit of the business of credit institutions. In broad terms, a "banking group" *shall mean a [euro area] resident parent credit institution and all its subsidiaries and branches or a [euro area] resident parent financial holding company and all its subsidiaries and branches provided that in both cases the parent is a head of the banking group.*

- The definition of an "insurance group" for statistical purposes should be based on the regulatory legislation for insurance undertakings, namely on Directive 98/78/EC (as amended), which is in force until 1 November 2012, and subsequently, on Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance ("Solvency II") which shall be implemented by the Members States by 31 October 2012. The structure of the definition based on these Directives resembles the definition of the banking group to the extent possible. In broad terms, an "insurance group" *would mean a [euro area] resident parent insurance (or reinsurance, or holding, or captive (re)insurance undertaking) and all its subsidiaries and branches, provided that the parent is not a subsidiary undertaking of another [euro area] resident parent insurance (or reinsurance/holding/captive) undertaking.*

- For the purposes of the above statistical definitions of banking groups and insurance groups, an entity without any subsidiary would be deemed by convention to constitute a group in its own right, provided that the entity is not a subsidiary itself.

- Moreover, so-called "*truncated groups*" (i.e. groups whose parent is resident outside the EU) are excluded from the scope of the above definitions. The amended EU Council Regulation 2533/98 allows the ECB to impose reporting obligations on heads of the banking/insurance groups resident in the euro area, where the head could be either a credit institution or an insurance company or a financial holding company (as defined in Capital Requirements Directive). However, reporting requirements cannot be addressed on banking and insurance groups headquartered outside the euro area. The ESRB legal acts should allow the collection of data from groups headquartered in the EU. However, groups headquartered outside the EU, but with significant business in the EU are excluded from the scope of the above definitions. Relevant data for such groups would need to be collected from other sources.
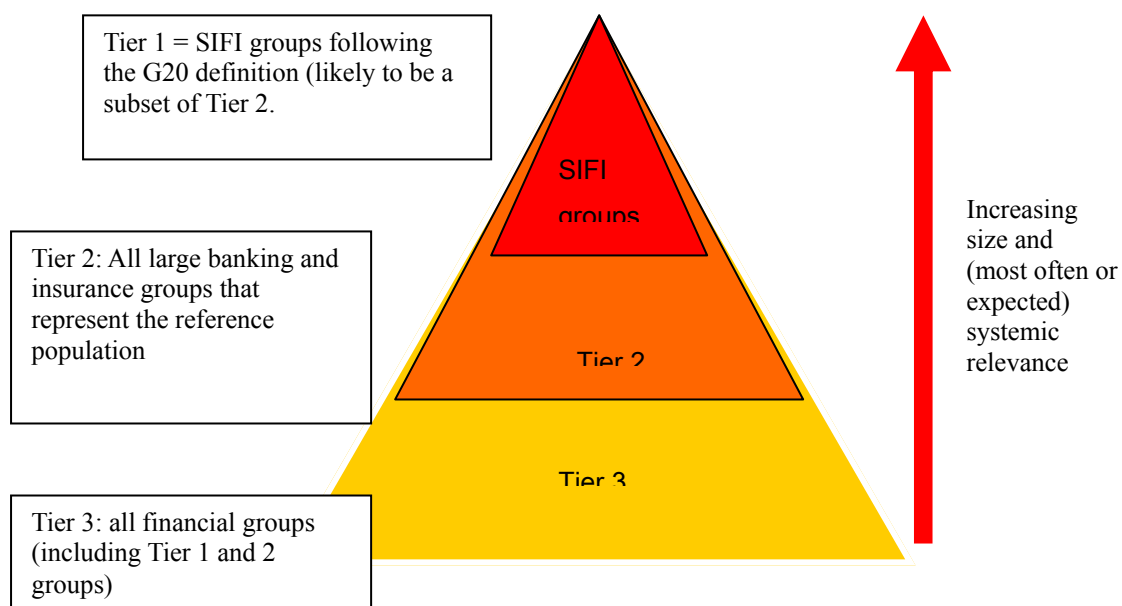
Once having defined banking and insurance groups, a total asset threshold value might be tentatively used for defining "large" banking groups and "large" insurance groups. The thresholds should aim to provide a good balance between minimising the reporting burden and at the same time limiting the risk of excluding relevant groups from the sample. A smaller sample of insurers than banks can be selected due to the overall smaller size, different business nature and higher concentration in the insurance sector. Tentatively, the objective might be identifying a reference population of around 100 banks and 50 insurers headquartered in the euro area. Such a reference population would cover around 71% of the total euro area banking sector consolidated assets and around 90% of the total euro area insurance sector consolidated assets. A full impact assessment and cost/benefit analysis need to be undertaken in order to fine-tune these thresholds.

Indicators of complexity and interconnectedness are tentatively excluded from the above definitions. This is mainly because creating a list of large and complex banking and insurance groups that would be made public raises the risk that the institutions on such lists would be interpreted as the institutions that the ECB consider to be "systemically important" and "too-big-to-fail". This, in turn, could give rise to moral hazard issues as the institutions themselves or investors might assume that these institutions would receive support from governments and/or the ECB and national central banks if they were to face difficulties. Moreover, since size is anyway a good proxy for complexity, setting the thresholds at a relatively low level ensures that most "complex" groups are also covered. Identifying large banks and insurers based on a simple threshold value is also more transparent since it makes it easier for institutions to identify themselves as "large" and the data are readily available.

The different sets of banking and insurance groups might then be split into a three-tier ranking of importance (see Figure 1 below).

Tier 3 covers all banking and insurance groups, including tiers 1 and 2. Tier 2 represents the population of large banking groups and insurance groups that would represent the reference reporting population for financial stability analysis. Tier 1, comprising "systemically important global financial institutions" (SIFIs) which adopt the terminology used by the G20[15], is likely to be a subset of Tier 2. SIFI groups would be identified internally by users. While the list of around 100 large banking groups and 50 large insurance groups (Tier 2) would obviously be known for reporting purposes, the list of SIFI groups would not, due to moral hazard issues.

Figure 1. Three Tiers approach for data on banking and insurance groups

Tier 1 = SIFI groups following the G20 definition (likely to be a subset of Tier 2.

SIFI groups

Tier 2: All large banking and insurance groups that represent the reference population

Tier 2

Tier 3: all financial groups (including Tier 1 and 2 groups)

Tier 3

Increasing size and (most often or expected) systemic relevance

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[15] http://www.financialstabilityboard.org/publications/r_091107c.pdf

Section 4. Current and future challenges

Ideally a satisfactory statistical basis for macro-prudential policy should comprise the evolution of both the aggregate risk of the consolidated financial system over time and the network risk operating across and between institutions at any point in time.

The focus of this paper has been on improving, in the short-term, the consolidated data for the banking sector and on how to adequately define large banking and insurance groups in order to construct granular statistics for those institutions.

In the longer-term, a number of further aspects will need to be taken into account. This concerns first the need to develop a more detailed and harmonised reporting scheme to serve financial stability analysis.

As already mentioned, an important step in this direction will be the introduction of the new common supervisory information framework in the EU as foreseen to be available in late 2012. The revised FINREP and COREP (and for the latter its mandatory application in the EU) already represents a good opportunity to expand and enhance these datasets and the possibly additional data from FINREP and COREP items might be useful to increase the coverage of information for the list of the indicators in CBD and also for additional information for the large banking and insurance groups. For instance the more granular geographical and sectoral breakdowns of exposures presented in the non-core tables of FINREP could provide the statistical basis for a more detailed and in-depth analysis of the challenges posed to stability by different kinds of risks[16].

Another challenge is the collection of data under a harmonised consolidation approach. While data collected under the FINREP/COREP framework will follow the CRD consolidation approach, which excludes insurance companies, it will be important to collect additional information under the broader IFRS scope of consolidation (which includes insurance companies). Reconciliation between the CRD and IFRS scope of consolidation would be useful, in particular when banking groups hold significant participation in insurance companies or, vice versa, when insurance groups hold significant participation in banking groups.

A further challenge concerning in particular FINREP data is that many of the envisaged granular breakdowns of assets may not be available (since the application of FINREP at national level is not mandatory and the CEBS reporting schemes are designed to serve mainly micro supervisory requirements). The missing data might be proxied at least in the short-run by using alternative sources, keeping in mind methodological differences. Country and currency breakdowns of assets may me be derived from ESCB MFI Balance Sheet Statistics (as set-up for monetary policy purposes)[17] or from the BIS International Banking Statistics (both on a locational and consolidated basis)[18]. The latter allows a breakdown of banks' exposures (both on the assets and liability side) by original and residual maturity to monitor bank liquidity situation and potential maturity mismatches. In the longer-run, however, and

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[16] The ECB and the CEBS, via the so called Joint Expert Group on Reconciliation of credit institutions' statistical and supervisory reporting requirements (JEGR), are working to harmonise the definitions in statistical and supervisory data requirements for banks. This work aims at reducing the reporting burden, improving data consistency and identifying additional uses of the data. See http://www.ecb.europa.eu/press/pr/date/2010/html/pr100217.en.html

[17] See www.ecb.europa.eu/stats/money/aggregates/aggr/html/index.en.html

[18] See www.bis.org/statistics/consstats.htm

depending on the quality of these proxies, data for large financial groups might need to be collected directly.

Finally, in view of further needs for systemic risk analysis and for a complete coverage of the financial system, financial intermediation (on- and off-balance sheet) taking place outside the traditional banking system (so called, shadow banking system), need to be covered as well. It could become pressing to have information on the non-bank financial sector including insurance corporations, hedge funds, investment funds, SIVs, securitisation vehicles, private equity funds and securities dealers. In this respect, however, existing statistical and supervisory data in the euro area might give already a relatively good and reliable picture of non-bank financial intermediaries' activity, both at euro area and EU level. For instance, forthcoming ECB statistics on Financial Vehicle Corporations as well as COREP securitisation data may shed some light on the shadow banking system. Before considering the creation of a new data collection, a detailed stock taking to identify which data sets are available and which aspects of systemic risks they might cover might be necessary.

In addition, in a global world, financial intermediation is taking place worldwide and non-bank financial intermediaries are often placed outside the euro area, increasing the need for a global harmonised approach.

In conclusion, the two frameworks FINREP and COREP developed by CEBS would represent a key framework to structure the requested information for macro prudential analysis regarding the banking sector. In particular, the uniform and mandatory application of COREP (hopefully to be extended to FINREP) in the European Union will contribute to improve the assessment of profitability, capital requirements for the risks faced by the European banking system. Moreover, the definition of LBIGs will serve as reference to formulate further data requirements for institutions which are potentially systemically relevant. Still, several challenges need to be addressed in order to develop a robust and harmonised data collection system capable of satisfying the information needs of users.

REFERENCES

➢ Agresti A., Baudino P., and Poloni P. (2008) "The ECB and IMF indicators of financial stability for the financial sector: a comparison of the two approaches", ECB Occasional Paper n. 99 http://www.ecb.europa.eu/pub/pdf/scpops/ecbocp99.pdf

➢ Bier W. (2009), "Data Requirement and Improvements necessary for assessing the health of systemically important financial institutions", IMF-FSB Users conference, held in Washington DC on 8 and 9 July 2009.
http://www.imf.org/external/np/seminars/eng/2009/usersconf/pdf/Bier.pdf

➢ Committee of European Banking Supervisors (2009), "Guidelines for implementation of the consolidated Financial Reporting framework (FINREP or "the framework") for supervisory purposes" http://www.c-ebs.org/documents/Publications/Standards---Guidelines/2009/FINREPrev2/FINREPrev2-instructions.aspx

➢ Committee of European Banking Supervisors (2010), "CEBS consultation on its proposed amendments to the Guidelines on Common Reporting (COREP)", June 2010
http://www.c-ebs.org/Publications/Consultation-Papers/All-consultations/CP01-CP10/CP04-Revised-2.aspx

- De Larosière Group (2009), "The High Level Group on Financial Supervision in the EU – Report", http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf
- European Central Bank (2005a) "Measuring challenges in assessing financial stability", *Financial Stability Review*, December
- European Central Bank (2005b*) Large EU banks' exposure to hedge funds*, November
- European Central Bank (2005c) "Assessing financial stability: conceptual boundaries and challenges", *Financial Stability Review*, June
- European Central Bank (2006) "Identifying large and complex banking groups for financial system stability assessment", *Financial Stability Review*, December
- European Central Bank (2009): EU banking sector stability report, August 2009 www.ecb.de/pub/pdf/other/eubankingsectorstability2009en.pdf
- European Central Bank (2010), "New classification system between the reporting frameworks of the ECB and CEBS", February 2010 http://www.ecb.int/press/pr/date/2010/html/pr100217.en.html
- Financial Stability Board (2009) "The Financial Crisis and Information Gap", Report to the G-20 Finance Ministers and Central Banks Governors. http://www.financialstabilityboard.org/publications/r_091107e.pdf
- Financial Stability Board (2010a) "Reducing the moral hazard posed by systemically important financial institutions" http://www.financialstabilityboard.org/publications/r_100627b.pdf
- Financial Stability Board (2010b) "The Financial Crisis and Information Gap – Progress report – Action plan and timetables", Report to the G-20 Finance Ministers and Central Banks Governors. http://www.financialstabilityboard.org/publications/r_100510.pdf
- International Monetary Fund (2006): *Financial soundness indicators. Compilation Guide*
- International Monetary Fund (2010): Global Financial Stability Review (April 2010) www.imf.org/external/pubs/ft/gfsr/2010/01/pdf
- Mörttinen L., Poloni P., Sandars P. and Vesala J. (2005) "Analysing banking sector conditions. How to use Macro-prudential indicators", ECB Occasional Paper no. 26
- Poloni, P. and Sandars, P. (2005) "A comparison of the main features of accounting and statistical standards and review of the latest developments in the field of accounting standards", Irving Fischer Committee Bulletin no. 22, September