

Creating a statistical framework for the measurement of credit risk transfer – the ECB experience¹

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The financial crisis has highlighted certain gaps in the existing economic and financial statistics available to policymakers. In devising its strategy for filling in these gaps, the European Central Bank (ECB) has developed new or enhanced euro area statistics, which are to the extent possible coherent with the existing ones and in conformity with international standards. At the same time, the ECB has been responsive to the high priority given by users to more detailed datasets, including at the micro level, and to the need to achieve even better timeliness.

A major gap in the statistics available to policymakers has been the measurement of credit risk transfer (CRT) across macroeconomic sectors and geographical regions.⁵ The aim of this paper is to describe the ECB approach to improving the measurement of CRT, which has been developed jointly with other relevant institutions. This approach should be seen as part of a broader, integrated statistical framework.

1. Broad overview of credit risk transfer statistics

In general, new or enhanced CRT statistics for the euro area are developed and implemented under a variety of different arrangements, using legal instruments where appropriate, and working with national central banks and other international agencies and supervisory authorities. Within Europe, CRT and other monetary and financial statistics are a prime competence of the ECB, according to the Memorandum of Understanding signed by the European Commission (DG-Eurostat) and the ECB's Directorate General Statistics. In the last decade, this memorandum has promoted an efficient production and dissemination of statistics at the European level.

The need to measure the sectoral and geographical transfer of credit risk stems from the opaque characteristics of the instruments, which bundle diverse credit risks and allow a CRT to take place between market participants, and from the reduced amount of information

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⁵ The ECB has also addressed other statistical implications of the financial turmoil, eg better measures of market liquidity, better asset price statistics, and statistical accounting consequences for governments in the context of the excessive deficit procedure. An overview of such initiatives is provided by Stephen Keuning, *Statistical needs emanating from the financial crisis and the ECB's initiatives for more comprehensive financial statistics*, International Statistical Institute, Special Topic Contributed Paper Meetings, no 52, 2001[?].

available to end-investors as the ultimate holders of this risk. In addition to the cross-sector and cross-border transfer of risk, users have emphasised the need for a harmonised classification of CRT instruments, an appropriate valuation of instruments that may be traded in illiquid markets, and a sufficient level of data disaggregation (eg to identify the accumulation of credit risk exposures within large banks and other investors) and granularity.

For CRT statistics, the emphasis has been placed, to the extent possible, on the reuse of already available data from either official or commercial sources⁶. However, where existing sources are not adequate, consideration is given to finding an optimal trade-off between the costs of reporting and the data quality necessary to meet user requirements.

In credit risk transfer, two rather distinct developments and related sets of instruments can be identified. First, credit risk is transferred by making the underlying loan negotiable in the form of securities, often issued by securitisation vehicles. Second, credit risk itself may be transferred using credit derivatives. Mixed solutions have also been used, eg securitisation vehicles issuing securities collateralised by credit derivatives.

CRT instruments may also have an impact on the monetary policy transmission mechanism as these instruments allow credit risk and the related tying-up of financial capital to be spread among a much larger pool of economic entities, thus facilitating the expansion of credit. From a financial stability perspective, the usefulness of the data related to CRT can be assessed by their ability to identify and measure the risks and the channels that could pose adverse systemic consequences for the financial system. In this respect, the CRT markets may be a source of risks themselves, such as market-originated risks (liquidity risk, legal risk, etc) or exposure-originated risks (correlation risk, country risk, etc). As the current crisis has shown, the CRT markets may facilitate the propagation of a shock, ie the spillover to other institutions and/or to other markets via several channels, such as the balance sheet channel, the rating channel and the primary credit channel, for example, via capital requirements. Finally, for the oversight of payment and securities settlement systems, the clearing and settlement of derivatives (in particular credit default swaps (CDS), given the size of the market) is an important segment to monitor.

The rest of this paper contains four sections. The next two sections deal with the two categories of CRT instruments, namely securities and credit derivatives. The fourth section discusses the possible reuse of supervisory information for statistical purposes. The last section of the paper briefly concludes.

2. Harmonised statistics on securitisation

The measurement of CRT undertaken via the issuance of securities has been developed through harmonised statistics on banks' securitisation and loan sales, integrated with balance sheet statistics on securitisation vehicles (so-called "financial vehicle corporations" or FVCs). The related statistical requirements have been laid down in two recent ECB regulations;⁷

⁶ In general, statistics cannot be compiled if private information is missing altogether. In that sense, better market transparency is a precondition (and not a consequence) of better statistics.

⁷ Regulation (EC) no 24/2009 of the European Central Bank of 19 December 2008 concerning statistics on the assets and liabilities of financial vehicle corporations engaged in securitisation transactions (ECB/2008/30) (see <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:015:0001:0013:EN:PDF>); Regulation (EC) no 25/2009 of the European Central Bank of 19 December 2008 concerning the balance sheet of the monetary financial institutions sector (recast) (ECB/2008/32) (see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:015:0014:0062:EN:PDF>).

here the focus is on macroeconomic and monetary analysis and the residency criterion is based on the host country of the individual entities surveyed.

Banks, which form the main part of the monetary financial institutions (MFI) sector, will report net flows and, if acting as servicers, also stock data, on traditional loan securitisations through an FVC and on loan sales, with a breakdown by maturity, purpose, residency/sector of debtors, and residency of the FVCs. Moreover, MFIs will report data on holdings of securities issued by FVCs as well as some further details to ensure consistency of the reporting of securitisation in an environment of (still) differing accounting standards. This information will provide users with a measure of the share of euro area bank loans for which credit risk has been transferred, ie net of the FVC securities that have been purchased by the originators of the loans.

In parallel, complete information on the balance sheets and transactions of euro area FVCs will become available in 2010, covering the portfolio of securitised loans broken down by residency/sector of the originator, residency/sector of debtors, as well as a breakdown of their holdings of securities by maturity and sector/residency of issuers. Within the instrument breakdown, gross positions/flows in financial derivatives will be identified, as well as debt securities issued, broken down by maturity, and deposits. Moreover, FVCs involved in true sale and synthetic securitisations will be separately identified.

The two sets of statistics (MFI securitisation data and FVC balance sheet statistics) are integrated. A particular effort has been made to ensure that the same information is not reported twice, ie by the originating bank and by the FVC which securitises the loans. Moreover, a significant degree of flexibility has been given to national central banks (NCBs) regarding the data sources needed to compile FVC balance sheet statistics, such as possibly using available (supervisory or public) data sources, where predefined data quality standards are met.

Some limited information on securitisation originated within the euro area by entities other than banks will also be available. On the holding side, the forthcoming collection of new harmonised statistics on assets and liabilities of investment funds (including hedge funds)⁸ will be based on security-by-security reporting, so that it will be possible to assess their holdings of structured securities issued by banks and FVCs. A complete picture of CRT in the euro area would also require similar data covering eg the insurance corporations and pension funds sector.

Moreover, specific work has also been undertaken to identify the sector and residency of holders of securities arising from securitisation deals. Industry initiatives have been taken, coordinated by the European Securitisation Forum, to provide more detailed information on outstanding amounts and to estimate holdings of structured securities. Given some quality issues with these data, and in order to capture a broader set of user requirements, the ECB's Statistics Committee has established an Advisory Group on Security Holdings Statistics. The Group's aim is to develop strategic guidelines for the collection and compilation of securities holding statistics, for both monetary and financial stability purposes. This may lead to a concrete follow-up from 2010 onwards.

⁸ Regulation (EC) no 958/2007 of the European Central Bank of 27 July 2007 concerning statistics on the assets and liabilities of investment funds (see [ECB/2007/8](http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:211:SOM:EN:HTML)) (see <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:211:SOM:EN:HTML>).

3. Statistics on credit derivatives

As mentioned before, the new MFI securitisation data and FVC balance sheet statistics will provide incomplete coverage of CRT instruments, in particular regarding the provision of information on credit derivative positions.

The collection of enhanced statistics on CDS and other derivatives is considered to be of primary importance from a financial stability perspective and relevant also for financial and structural analysis and the oversight of payment and securities settlement systems. Statistics currently available from the Bank for International Settlements (BIS) are the starting point for statistics on credit derivatives.⁹ The ECB is chairing the Working Group on CRT statistics (WG CRT), an initiative launched by the Committee on the Global Financial System, to: (i) identify potential gaps in and assess the need to improve the current BIS statistics on CRT globally, (ii) propose possible enhancements, and (iii) consider a broader scope for CRT statistics.

Regarding the expansion of the current CDS data, the WG CRT has proposed to expand the current CDS statistics with a limited geographical breakdown and an extended breakdown of counterpart sectors and reference entities (underlying assets or debtors). The proposal also consists in improving the timeliness of the OTC derivatives data¹⁰ (reducing the reporting lags from five months to approximately three months).

The WG CRT has benefited from the US Depository Trust and Clearing Corporation disclosure of weekly data from November 2008, and has ensured a sufficient degree of consistency between these very frequent and timely market data and the biannual BIS statistics that would serve as the benchmark survey. Overall, these two sources would increase the capacity of central banks to monitor market developments, to identify potential market disruptions and, hence, improve monetary policy and financial stability analysis. At the same time, the further breakdowns of the biannual BIS statistics are expected to impose only a limited cost on the 55 reporting dealers.

The new features of the CDS statistics will be aligned with those in the BIS Triennial Survey, and to the extent possible with BIS consolidated banking statistics, in order to enhance their value for analysis. Following these enhancements and a more complete and detailed coverage of ratings and multi-name instruments, a clarification of valuation methods is contemplated. This would make the data comparable across reporting countries and would make it possible to provide an assessment that is closely related to the eventual risk transfer.

4. Reuse of supervisory information

Supervisory information collected at the national level is a key source of information for financial stability monitoring and assessment. The ECB's semi-annual *Financial Stability Review* and other publications include information collected by the ECB, in cooperation with the Banking Supervision Committee,¹¹ on the solvency and profitability of the banking sector,

⁹ See <http://www.bis.org/publ/rpfx07t.htm>.

¹⁰ It is worth noting that the BIS statistics on OTC derivatives are collected on a consolidated basis, hence include foreign offices and non-bank subsidiaries. This is the preferred basis for financial stability and oversight analysis, as it more accurately reflects the on- and off-balance sheet exposures of systemically important entities in often highly concentrated markets.

¹¹ The IMF is promoting the compilation of financial soundness indicators (FSIs) on a worldwide scale. For a comparison between the ECB and IMF approaches, see Agresti et al (2008).

as well as ad hoc information on specific exposures of the banking sector. Yet, *“there is room for enhancing the access to supervisory information for the ECB’s financial stability assessment. A wider access – in terms of the timeliness and frequency of information on banks’ exposures and risk concentrations – would improve the identification of potential risks to the stability of the euro area financial system and the assessment of the potential impact on the system of the possible materialisation of the identified risks.”*¹²

To assess the possible reuse of supervisory information on CRT for statistical purposes, the ECB has been monitoring the possible impact of potentially enhanced Basel II disclosure requirements on statistics, and the harmonisation and reconciliation of reporting formats. Under the Basel II Framework,, banks are required to disclose confidential information to supervisors (Pillars 1 and 2), as well as information for the public (Pillar 3). While Pillar 2 remains a matter of national discretion, Pillar 1 requirements have been harmonised by the EU Committee of European Banking Supervisors (CEBS), which has developed harmonised templates and reporting guidelines for reporting financial information and solvency data. Most EU national supervisory authorities have adopted (or intend to adopt) the financial reporting and solvency data templates for regulatory purposes, but the level of detail (data layers) of the information collected is likely to vary widely across countries. Moreover, the solvency data reporting guidelines allow for unharmonised data definitions. For this reason, for the time being, ECB users consider that exclusive reliance on solvency data information is not sufficient for an EU-wide picture of banks’ exposures to CRT markets.

The frequency of Pillar 3 data is only annual. The relevant quantitative information concerning CRT instruments requested under Pillar 3 can be divided into two main sets: securitisation and (other) credit risk mitigation disclosures. Pillar 3 requirements concerning credit risk mitigation include data on the gross protection bought and sold via credit derivatives in notional value, broken down by type of instrument, and the gross fair value of credit derivatives. Regarding securitisations, the data requirements lag behind the information to be reported under the new ECB statistical framework for securitisation.

Efforts are being made to allow a meaningful reuse of supervisory information on CRT for macroprudential purposes. In the current financial crisis, key supervisory information concerns banks’ direct exposures to the US subprime sector and to structured financial products, as well as the effects of write-downs on banks’ capital position. However, the nature of the next financial stress is likely to differ from the previous ones; this calls for sufficient flexibility and responsiveness of the statistical systems in place. To this end, ad hoc surveys may be considered. Moreover, these systems may be geared towards collecting more granular data, eg security-by-security and loan-by-loan information, the latter possibly based on central credit registers.

In a medium-term perspective, the ECB and CEBS have started joint work on reconciling supervisory (financial reporting, solvency data) and statistical reporting requirements addressed to credit institutions. This work aims at bridging and, where possible, reconciling elements of the two frameworks (eg definitions, concepts, valuation rules, reporting templates) and may therefore help compilers at the national level to develop more integrated information systems. For instance, it may help to collect information on securitisation only once, with the information then serving both statistical and supervisory purposes.

¹² See Bini-Smaghi (2008).

5. Conclusion

ECB statistical initiatives to measure CRT began in response to a changing environment of financial innovation, globalisation, deregulation and technological changes, which have been going on for a long time (see Annex). The serious lack of transparency in a number of financial innovations, which was acknowledged because of the 2007 financial crisis, motivated the ECB to intensify its endeavours in this area of statistics.

Although the scope of the CRT statistics developed by the ECB needs to be widened, they largely respond to the increasing calls from academics¹³ for greater transparency in the (exposures to the) CRT market and for enhanced cooperation among central banks and supervisory authorities. As a next step, additional coordinated efforts should be made among supervisory authorities, policymakers and statisticians to further define the data requirements and expand the scope of the CRT statistical exercise to the global scale in a cost-effective manner.¹⁴

¹³ See G Franke and J P Krahen (2008), among others.

¹⁴ For instance, the following calls for international cooperation could be leveraged:

- The Financial Stability Forum (FSF) (2008) submitted to G7 finance ministers and central bank governors a comprehensive set of recommendations for addressing the weaknesses that have produced the present crisis and for strengthening the financial system going forward. The FSF report called for concrete actions in five areas, including enhancing transparency about risk exposures, valuations, off-balance sheet entities and related policies.
- More recently, the Issing Committee (2009), an expert committee advising the German Government on issues relating to financial crisis prevention, has advocated the establishment of a reliable data foundation for systemic risk assessment.
- In addition, the High-Level Group on Financial Supervision in the EU, chaired by Mr de Larosière, has set out a number of key principles and recommendations as a means to strengthen European supervisory arrangements covering all financial sectors, with the objective of establishing a more efficient, integrated and sustainable European system of supervision. In particular, the recommendations address issues such as (i) how to organise the supervision of financial institutions and markets in the EU, (ii) how to strengthen European cooperation on financial stability oversight, early warning and crisis mechanisms, and (iii) how EU supervisors can cooperate on a global basis. The Group has also analysed and brought forward recommendations on regulation of financial markets.

Annex

Table 1

**Non-exhaustive list of the ECB's new CRT statistics
and related initiatives**

Enforced via regulations

- New balance sheet statistics on FVCs and IFs (including legal definition of hedge funds)
- New statistics on MFI securitisation, integrated to MFI balance sheet statistics

Developed via international cooperation and voluntary data transmissions

- Improving data on credit derivatives, in cooperation with the BIS and international clearing houses
 - Collection of securities holdings statistics
 - Alignment of supervisory and statistical concepts and data, in cooperation with the CEBS (and the banking industry); also, possible reuse of Pillar 3 data, or ad hoc surveys
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