APPENDIX TO ISLA/ERC FSB CONSULTATION RESPONSE

ICMA EUROPEAN REPO COUNCIL

16 October 2013

ICMA European Repo Council White Paper

Enhancing the transparency of the European repo market

Introduction:

The purpose of this White Paper is to summarise the current work of the International Capital Market Association's ("ICMA's") European Repo Council ("ERC") to develop its thinking concerning the appropriate way in which to enhance transparency in respect of the European repo market, whether that may be through the establishment of a repo data repository ("DR") or otherwise.

Background to the ERC:

The ERC was established by ICMA in December 1999, to represent the cross-border repo market in Europe. It is composed of the vast majority of practitioners in this market, who meet regularly to discuss market developments in order to ensure that practical day-to-day issues are fully understood and dealt with adequately. To ensure the flow of adequate information twice yearly ICMA ERC General Meetings are organised, which are widely attended. The appendix to this White Paper briefly elaborates on the ICMA ERC's efforts to build and sustain the European repo market; including through the publication of ICMA's bi-annual survey of the European repo market, which for more than 12 years has provided a measure of transparency in respect of the size and evolution of the market.

Overall commentary:

The ERC notes that, notwithstanding the public availability of ICMA's bi-annual survey of the European repo market[1], there is scope to enhance transparency of the market – both in the context of information made available for the benefit of public authorities and, on a more limited basis, in the public arena.

This is a topic of much current discussion, including in the context of official initiatives on repos and securities lending which are being pursued as part of the shadow banking project designed to ensure the completeness of financial regulatory reforms responsive to the financial crisis. The move to a market based upon secured, rather than unsecured, financing has also prompted close attention to this topic on the part of the central banking community.

Repo data repositories – the state of play:

The ERC has taken stock of a number of different published documents pertinent to this topic. Some details differ between these, yet there are also a number of common elements. Drawing upon the ERC's document review, a summary of the state of play is included In Annex A below. The simple comparative table included in Annex A highlights how the European Systemic Risk Board's ("ESRB's") March 2013 proposals are the most granular, moving to a level of detail somewhat beyond that in the most recent Financial Stability Board ("FSB") paper (August 2013) – which itself went a little further than the fairly consistent set of data attributes suggested by earlier Federal Reserve Bank of New York ("FRBNY"), FSB and European Central Bank ("ECB") papers.

Issues about a repo data repository in need of further discussion:

The ERC strongly believes that there needs to be in-depth discussion of a wide range of issues about a potential repo DR. Whilst there are no doubt even more detailed questions which may have to be explored at some stage, a summary of the main issues currently identified by the ERC is presented in Annex B below. There will be significant costs to providing data, but the ERC recognises that there is the potential, in time, for market efficiency benefits related to trade-matching and reconciliation; and more efficient regulatory reporting requirements.

Considering product coverage, the ERC believes that the essence of the market will be captured if repo reporting requirements are taken to also encompass buy-sellback/sell-buyback; borrow vs. cash/loan vs. cash; and fee-based borrow/fee-based loan transactions (some of which may be traded under Global Master Securities Lending Agreement ("GMSLA") – the securities lending market's equivalent of the Global Master Repurchase Agreement ("GMRA") – rather than under GMRA itself). Seeking to also capture other transactions such as secured loans and pledges would not currently add much extra value (other than to avoid incentivising such alternatives, by virtue of their then having lower reporting burdens).

Where possible, data should be taken from electronic systems such as automatic repo trading systems (ATS), central counterparties (CCP), third-party affirmation systems and tri-party repo agents. These institutions may cover as much as two-thirds of the European repo market. Use of these sources will of course require controls to eliminate duplication in reporting. However, it is doubtful that securities settlement systems (including T2S) will be able to add useful data.

There is a concern about the possible temptation to call for the widest conceivable data sets, with the idea that "data mining" may reveal important facts – when such an approach is more likely to lead to data overload and opaqueness. More data will not automatically and linearly translate into a better understanding of the structure and evolution of the market. One of the lessons from the crisis is that some already existing and useful sources of market data were not used. The extent of data requests need to be considered, proportionate and targeted. From experience of the semi-annual repo survey, the ERC is also aware that the interpretation of data is the greatest challenge. It will therefore remain important that there continues to be close consultation between the industry and regulators.

The ERC considers that if there is to be a DR for repo it would be ideal from an oversight perspective to just have one globally, but this would be operationally challenging. Allowing instead for Europe, Middle East and Africa ("EMEA"); Asia-Pacific ("APAC"); and North America DRs would accommodate varying legal, compliance and regulatory issues which exist in each local region, but pragmatically it may prove that it is most practical to consider having repo DRs per currency or currency block, or, in the case of the EU, a regional coverage. Having multiple DRs will require a global aggregator.

Notwithstanding the above, the ERC considers, particularly if the repository data were transaction based, that instances of data having to be provided to multiple repositories would be hard to avoid, owing to cross border and cross currency transactions or collateral movements.

The ERC is concerned that the provision of transaction-level data gives rise to important questions regarding access levels, transaction data capture and confidentiality, but presuming these can be suitably resolved (which links to questions regarding a) the appropriate governance model for a repo DR; b) the method and responsibility for data submission; and c) data security) the collection of transaction data would be possible. If transaction data is appropriately gathered into a DR, either the DR or the supervisory authorities should then be able to combine this data to create necessary position data information; and accordingly the ERC would not support being required to provide both transaction and position level data. Using a DR to aggregate transaction-level data into position data would also reduce a major source of errors; given the difficulties of ensuring contributors interpret categories consistently.

The ERC is very strongly of the opinion that if transaction-level data is collected in a DR this data should then be used to satisfy as many regulatory reporting needs as possible. A very considerable volume of data on repo transactions is already collected in the EU from credit institutions through national supervisory reporting requirements based on the Financial Reporting (FINREP) framework and there is also significant additional reporting. There is no reasonable case for firms having to provide transaction-level data and separately report data that is derivative of this. Moreover, a trade-off between DR and other reporting requirements would help to ensure strong support for a DR across the industry. Hence, the ERC believes that a process should be established to identify and remove pre-existing reporting requirements that can prospectively be met by use of DR data (the ERC notes that this concept is already being recognised in the work of the European Securities and Markets Authority ("ESMA"), which is seeking to allow for the elimination of prior transaction-reporting obligations for derivatives as new, more extensive, reporting to derivatives' trade repositories comes into force).

The more data that is to be monitored, the more work it will be to provide it and the harder it will be for the stakeholders to consume it; and to extract the data elements and trends that they require. Hence, the ERC sees that it would be sensible to firstly capture what is most urgently needed in order to monitor material risks; and then, if experience shows there is still a need to go further, build on this over time. Some data on transactions are not currently centrally compiled by many firms and will take time, and not inconsiderable investment, to mobilise (at a time, when huge demands are being placed on finite IT resources). It will be particularly challenging to provide information regarding life-cycle events (e.g. collateral substitution) and it is not clear that such events are especially significant.

Albeit that it would not provide transparency regarding smaller firms who may be running repo positions which are inappropriate in the context of their other balance sheet positions, the ERC believes there is a good case for starting by focusing reporting on those with regular and significant involvement in the repo market; as this will present a suitable picture of the market's overall health. The ERC notes that its bi-annual repo survey has captured the majority of the major repo-active banking entities, but not all, whereas the regulatory community will be able to ensure full compliance by mandating the participation of all relevant institutions. Furthermore, whilst there will no doubt be an understandable interest in capturing daily data, the initial burdens associated with this will be significant, so the ERC considers that there is a case for starting with a more measured approach, such as the timely reporting of weekly data.

Early guidance would be helpful to the industry on whether data submissions to a DR would need to be matched before submission or whether the DR might offer that functionality. If third-party trade-matching agents will be required, what regulatory requirements will they have to meet?

The ERC's perspective on surveys, position data and transaction data:

Annex A includes a short note of the FSB Workstream 5 ("WS5") August 2013 "Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos", which includes five finalised recommendations related to improvements in transparency; and discusses the quite detailed proposals made in the ESRB's March 2013 paper on market transparency. In light of these papers and considering the issues already highlighted in the section of this paper above, the ERC considers that there is a strong rationale to proceed promptly with official market surveys. Following from this the ERC sees a good case for the development of data repositories to capture position data in respect of securities financing transactions ("SFTs"), but believes that the jury is still out regarding whether there should have to be data repositories capturing transaction data in respect of SFTs.

The ERC perceives that there are solid grounds for arguing that position data is adequate for monitoring systemic risk and providing transparency in the SFT markets. These arguments are set below.

Most importantly, at this stage, using position data probably offers the quickest results. The ERC feels that the FSB should be receptive to this argument as, in November 2012, WS5 recommended a set of (mandatory and comprehensive) market-wide surveys – which means position data – to be run by national/regional authorities but co-ordinated by the FSB, to quickly increase market transparency and inform the design of data repositories (although WS5 did concede that some authorities may decide that a survey would suffice). The ERC is supportive of this recommendation and seeks to help focus thinking on this by offering a questionnaire as a basis for discussion. An initial draft proposal is described below to illustrate the ERC's preliminary line of though, but the ERC wishes to reserve the right to further develop this in order to properly represent an agreed, collective market view.

The ERC considers that the attraction of a questionnaire-based survey is that it is able to yield a comprehensive picture of the market in a very short space of time. In contrast to a data repository, there should not be major legal issues and it is a relatively cheap way in which to progress. The ERC belieives that it would also provide the FSB, national regulators and reporting firms with useful experience and be good range-finding exercise for the work still needed to design a data repository. The ERC observes that there have been difficulties experienced with derivatives trade repositories and the Russian repo repository reporting requirement (which is separately elaborated on further below). The ETC proposes that such a survey should run for a couple of years in order to build up the necessary experience.

The ERC anticipates that the survey should be followed by permanent data repositories collecting position data rather than transaction data.

The ERC feels that position data should satisfy the primary aim of the FSB, which is "more granular data on securities lending and repo exposures amongst large international financial institutions" to detect "concentrations of risk, such as large exposures to particular institutions and heavy dependence on particular collateral asset classes". The ERC believes that this calls for position data, not transaction data.

It appears to the ERC that, in its August 2013 paper, the FSB exaggerates the benefits of transaction data. The ERC asserts that transaction data was not needed to highlight the propensity of lenders in the US tri-party repo market to run. Traditional concentration ratios would have revealed this risk. Similarly, liquidity/maturity transformation and relative amounts of different types of collateral would have been revealed by position data.

Furthermore, the ERC feels that position data should also be able to meet the requirements of the ESRB, which stated, in March 2013, that "the monitoring of individual transactions is not critical for its financial stability objective". The ESRB detailed the main benefits of a repository of position data (as opposed to transaction data) as likely to include lower running costs, being more straightforward to set up and avoiding the need for the repository to have to aggregate data, but allowing adaptable analytical overlays to be constructed that would be similar to those available with transaction data. It also noted that the collection of transaction data might be complicated because some of the commercial terms of certain SFTs (e.g. collateral) are not determined at the point of trade or are subject to change post trade.

In contrast, the ERC does not see that the case for transaction data has yet been convincingly made by the authorities. The ESRB suggests that granularity at transaction level could be useful for micro-prudential supervision, such as detecting market abuse, and for recovery and resolution plans. But transaction data for micro-prudential supervision (and recovery and resolution) is already collected where it is needed, i.e. for SIFIs. Moreover, it is not altogether clear to the ERC that transaction data is required for micro-prudential supervision. The ESRB argued that, "it is critical for micro-prudential supervisors to assess a firm's reliance on SFTs for funding and maturity transformation, as well as an institution's concentration of exposure to counterparties, collateral and fire-sale risks, especially given that these may trigger a firm's failure". The ERC perceives that all of these risks can be adequately measured with position data, which thus appears entirely suitable for firm-level supervision.

The ERC also highlights that, on the other hand, it would be difficult to collect data at transaction level for securities lending. The ESRB notes that, "It is also important to acknowledge that market practices in some SFT market segments could prevent from collecting data on a transaction basis in a meaningful manner. For instance this could be the case when collateral is managed on a pooled basis, as can occur with some securities lending or some repo transaction". Meanwhile, the FSB has stressed the need for the consistent measurement of repo and securities lending in order to avoid reporting-driven switching.

The ERC acknowledges that its inclination to prefer the use of position data does then mean that it is arguing in favour of a lower cost approach. However, since the ERC feels that there are good reasons to promote the use of position data in meeting the authorities' needs, the ERC feels that if there is nevertheless official desire to push towards a requirement based on transaction data there is a justifiable case for the ERC to insist upon a proper cost-analysis of transaction versus position data. Just how much incremental regulatory value would finer granularity yield? It appears to the ERC that the case for transaction data is in large part limited to speculation that such data might be "interesting", but academic research cannot alone justify the extra costs of transaction data collection.

The ERC observes that the ESRB does seem conscious of the high cost of collecting transaction data, inasmuch as it has stated that "implementing a trade repository could involve high costs" and suggested that, in order to justify the cost, a transaction-reporting data repository should probably be designed to provide more than just surveillance (it might, for instance, be fully integrated into the SFT post-trade value chain by supporting trade matching/confirmation or legal certainty if market

participants and authorities were to consider that this would add value). Unfortunately, however, that is for now as far as the ESRB's consideration of cost goes.

The ERC sees that, inevitably, non-trivial reporting costs would have to be passed on to customers, which would affect market liquidity by raising the cost of intermediation. The impact of very granular reporting requirements on market efficiency would also be felt at a time when finite and already stretched IT budgets already face the challenge of meeting many other new and uncoordinated regulatory requirements. It is quite possible that business lines that are subject to the most detailed reporting requirements (such as SFT) might be squeezed out of business models. There is therefore considerable scope for unintended macro-economic and market consequences.

The ERC feels that it is important to bear in mind that there would also be a high cost to regulators in terms of the direct costs of processing high volumes of data, opportunity costs (distraction), the practical difficulty of interpreting highly granular data (with the risk of not seeing the wood for the trees) and the challenges of aggregating atomic data into meaningful information. Demands for more granular data would also mean longer lead times until functioning reporting systems could be put in place and made to operate efficiently.

The ERC recognises that a further argument for position data has been provided by the ESRB, who noted that "most of the key risks to financial stability arising from SFTs tend to build up gradually". In other words, trends are more important than isolated events. But the ERC feels that this means that more highly aggregated data should be quite capable of alerting regulators to emerging issues well in advance. While more aggregated data categories may not allow the immediate identification of the precise source of a significant change in one or more of the categories, there should be adequate time to initiate focused enquiries.

The ERC would also argue that the precision allowed by transaction data is simply not needed given the scale of global or regional flows.

Moreover, more aggregated data has the advantage of minimising problems of classification. The more granular the data, the more difficult it becomes to allocate assets. And the effort to classify is subject to rapidly diminishing returns, easily becoming a distraction rather than an aid. The ERC highlights that, in this respect, the ESRB is on weak ground in suggesting (Table A2 of its Occasional Paper No.2 of March 2013) that "In the long run, data should be granular enough to capture new instruments…" It is an impossible task to predict innovation in detail; and in practice, new instruments can adequately be detected in unusual changes in existing categories (e.g. evergreen repos have swelled the standard category of open repos), even in case such a change is falls within whatever is the residual category.

It seems to that ERC that the sub-text of proposals for very granular data seems to be that very detailed statistical reporting will provide all the answers that a regulator may want. But the ERC believes that this would not be case in practice. Useful interpretation of SFTs requires a good understanding of the market and the many dimensions to these instruments (particularly their operational and legal characteristics). As has been experienced in the case of risk measured using VaR, seemingly precise numbers can give a dangerous illusion of perfect measurement. The ERC would suggest that requiring very granular data risks encouraging a culture of data mining and academic research detached from the realities of the market.

If, notwithstanding the above ERC reasoning, the authorities insist on proceeding directly to transaction-level data repositories, the ERC considers that:

- If transaction data is to be collected, then there is no valid case for also asking for position data. Unfortunately, the FSB is suggesting both transaction and periodic position data reporting.
- There should be a trade-off with current regulatory reporting requirements to eliminate duplicative reporting.
- There needs to be an audit of the regulatory usage of transaction data in case more data is demanded in the future.
- Very firm safeguards would be needed to protect confidentiality.
- Transaction data should not include life-cycle events such as margining, manufactured payments or substitution. Events such as substitution are not material, e.g. in tri-party repo, the rate has been estimated at around 5%.

ERC proposal for a questionnaire:

The first questionnaire illustrated in Annex C of this paper represents the ESRB's implied "ideal". It is based on the work published by the ESRB in its March 2013 Occasional Paper No.2. The table in Annex C summarises the ESRB's analysis of what position data it felt would be needed to monitor the systemic risks of SFTs. The requirements were elaborated in the tables in the appendices to its paper.

In the ERC's view, the ESRB's ideal questionnaire is significantly over-specified in places. So, a second more "proportionate" questionnaire, as illustrated in Annex C of this paper, has been drafted to take account of the problems identified by the ERC with the ESRB's analysis. These perceived problems are discussed below. However, the ERC in fact feels that the questionnaire could perhaps be quite reasonably stripped down further and accordingly the ERC wishes to reserve the right to examine this aspect in order to properly represent an agreed, collective market view.

- Geographical and currency coverage

  The ESRB appears to recognise that micro-granularity is unnecessary when it is discussing the degree of aggregation needed for asset type and credit quality, but not for geographical distribution and currency (ESRB, table 3). Thus, it suggests a breakdown of business by each and every country. The ERC believes that this is impractical given the number of countries and the importance of anonymous trading; pointless given the minute amounts of business done with most countries; and misleading given that many counterparties are parts of global entities. It should be sufficient to give a breakdown by sub-region, e.g. EU, eurozone, non-eurozone EU, etc.

  In terms of currency, the ESRB has identified (ESRB, table 3) the "most-traded" currencies as including USD, EUR, JPY, GBP, AUD, CHF, CAD, HKD, SEK, KRW, NZD, SGD, NOK, MXN and INR. The ERC considers that this is far too wide. The ICMA survey data suggests that just four currencies account for almost 95% of the European market; six account for 98%; and seven probably account for over 99%. In several of the ESRB's identified currencies, there is little or no SFT market (e.g. KRW, NOK, SGD and INR). The ESRB also suggests (ESRB, table A2) limiting initial currency reporting to a group such as USD, EUR, GBP, JPY, CHF, RMB, AUD, CAD and NZD. Existing ICMA survey data suggests that even this would be too wide for purposes of the European zone. The RMB, AUD, CAD and NZD are immaterial in Europe.

- Counterparty analysis

  It is not clear to the ERC how granular the ESRB wants the classification of counterparties to be. In ESRB, table 3, it mentions "banks plus the most important non-banks that are active in SFT

markets". In ESRB, table A2, it lists "investment banks, commercial banks, custodian banks and firms looked at by FSB WS3 such as money market funds, hedge funds, pension funds, asset management firms (including ETF providers), cash collateral reinvestment programmes, insurance companies, securitisation vehicles, large corporates and debt management offices" as well as intra-group counterparties. The ERC observes that some of these will be difficult, at least in a European context, for reporting entities to distinguish, e.g. cash collateral reinvestment programmes and the custodial operations of commercial banks.

The ERC considers that fine counterparty granularity is not justified by the need to adjust for double-counting. This only really needs to be eliminated from the aggregate market size, as it is unlikely that it will systematically distort particular analyses of the data or disguise emerging issues.

The ESRB seeks to demonstrate the need for fine granularity in its appendix B. However, the ESRB perceives that the problems it identifies are created entirely by the assumption that CCP-cleared and tri-party business cannot be attributed. However, such attribution could be provided directly from CCPs and tri-party agents.

- Market structure analysis

  The ESRB proposes that firms distinguish between business they have transacted "bilaterally" (i.e. directly by phone or electronic messaging), whether transactions are cleared across CCPs and whether transactions are managed by a tri-party agent. The ERC sees that one problem here is that these categories are inconsistent. Some "bilateral" transactions are registered post-trade with CCPs; and some transactions (GC financing) are both cleared across CCPs and managed by a tri-party agent, whilst all other tri-party transactions are bilateral.

- Haircuts

  Experience in the ERC of trying to measure haircuts suggests that it is not possible to get meaningful averages for wide categories of collateral and counterparty. The ERC proposes that a more productive approach would be a periodic survey of the haircuts imposed by major firms on individual benchmark securities selected to represent the range of types of widely-traded collateral in transactions with specific named counterparties selected to represent typical institutional types.

Observations on the Russian trade repository experience:

The ERC notes that repos are included amongst the transactions required to be reported in the case of the recently established Russian trade repository. The ERC considers that there are a number of lessons which may already be taken from this Russian experience, particularly since, notwithstanding its smaller scale and probably lesser degree of complexity, the implementation process has not been particularly smooth. Derived from the experience of some of its members the ERC has compiled some more detailed observations on this process, as reflected in Annex D below.

Concluding remarks:

The ERC is actively considering the many and various matters touched upon in this White Paper and will continue to evolve its thinking in light of on-going developments, particularly as the public authorities continue to firm up their views regarding what is necessary. The views expressed in this White Paper therefore remain subject to change over time; but the ERC is nevertheless at your disposal to discuss any of the points made in this White Paper.

Annex A:

Repo data repositories – the state of play

In November 2012, the **FSB** WS5 compared the pros and cons of the alternative methods of providing market transparency: market surveys, regulatory reporting and trade repositories ("TRs"). It came out in favour of TRs and recommended that:

- The FSB **consult** on the appropriate geographical and product scope of TRs.
- Depending on its findings, the FSB should then establish a **working group**, involving market participants, to identify the appropriate scope and undertake a feasibility study for one or more TRs at a global level.
- In the meantime, it should encourage national/regional authorities to undertake **feasibility studies** for the establishment of TRs for individual repo and securities lending markets, which it should coordinate and facilitate.
- In addition, WS5 recommended that the FSB should coordinate a set of (mandatory and comprehensive) market-wide **surveys** by national/regional authorities to increase transparency for financial stability purposes and inform the design of TRs. Such market-wide surveys should make publicly-available aggregate summary information on securities lending and repo markets on a regular basis. WS5 conceded that some authorities may decide that a survey suffices.

WS5 suggested a single global TR or a few regional repositories for securities lending, given the mainly cross-border nature of the market, but that each repo market might be covered by its own TR, reflecting the currency segmentation of repo.

WS5 highlighted the work of the **FSB Data Gaps Group** to provide "a consistent framework to pool and share relevant data on the major bilateral linkages between **large international financial institutions** and their common exposures to and funding dependencies on countries, sectors and financial instruments". It has done work on legal and operational challenges of collecting data globally and on protocols under which regulators may share data.

The FSB's aim is "more granular data on securities lending and repo exposures amongst large international financial institutions" to detect concentrations of risk, such as large exposures to particular institutions and heavy dependence on particular collateral asset classes. In line with this limited objective, it has identified eight transactional attributes for repo (see table).

Meanwhile, the Vice-President of the **ECB** proposed a DR for repo transactions in the euro area. This initiative has been recently supported by a report of the European Parliament, which invited the European Commission to submit a legislative proposal for the creation of such a database by the end of 2013, after undertaking a feasibility study. Formerly, the ECB has a similar market transparency objective to the FSB and has identified eight/nine transactional attributes for repo (see table).

The **ESRB** published a paper on market transparency in March 2013 and has started collecting data, by means of regulatory reporting, on the re-use of non-cash collateral and re-investment of cash collateral. The ESRB noted that the monitoring of individual transactions is not critical for its financial stability objective. It has nevertheless identified 18/20 transactional attributes for repo (see table).

The ESRB set out various TR options. The principle choice is between capturing:

- **transaction data**, with all the relevant details, including time stamp and matching confirmation – in other word, flows reported to the TR within a pre-agreed time lag on a trade-by-trade basis from the confirmation desk in the back office; or
- **trade exposure data** – in other words, positions or stocks at regular points in time, captured by regularly collecting from market participants a log of open transactions at the time of reporting (e.g. on a weekly basis) from risk management systems.

The ESRB suggests that, in order to justify the potentially significant differences in running costs, a transaction-reporting TR should probably be designed to provide more than just surveillance, assuming that the two TR options provide identical data quality for surveillance purposes. It could, for instance, be fully integrated into the SFT post-trade value chain by supporting trade matching/confirmation or legal certainty if market participants and authorities were to consider that this would add value.

For reasons of competition and national interest, the ESRB envisages several TRs established globally. On the basis of the main SFT "market clusters" (e.g. the European Union ("EU"), North America and the APAC region). This means that, if a global solution cannot be implemented, then at least each main geographical zone should attempt to implement its own solution for collecting data to monitor risks in SFT markets.

All banks would have to report and – at the very least – the most important non-banks active in a given SFT market cluster such as the EU.

As most of the key risks to financial stability arising from SFTs tend to build up gradually, the ESRB believes that macro-prudential supervisors do not need daily data. It sees the adequate frequency of data for macro-prudential monitoring purposes falling within a range bounded between once a month and once a quarter. For jurisdictions with particularly dynamic SFT markets (such as the United States, the EU and Japan) a monthly monitoring frequency may perhaps be more appropriate, especially given the short-term nature of a significant proportion of SFTs.

Data should be the most recent, in order to ensure that an up-to-date picture of the distribution of risks in SFT markets is provided. Consequently, the timeliness of data is dependent upon both the dynamics of the SFT markets monitored (in developed SFT markets, for example, data in excess of two weeks old would probably qualify as being stale) and conditions in SFT markets (monitoring in times of market distress potentially requires more up-to-date data).

However, the ESRB sees TRs as also catering for micro-prudential supervisors (and potentially resolution authorities), for whom, the need for frequent and timely data is most likely greater, given that firms can lose access to SFT markets fairly quickly. Consequently, micro-prudential authorities would need weekly to monthly monitoring, based on a daily reporting lag. The EC want a TR to collect data in real time.

In August 2013, the **FSB** WS5 published its paper "Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos". This sets out recommendations for addressing financial stability risks in this area, including enhanced transparency, regulation of securities financing, and improvements to market structure. The FSB has produced eleven finalised recommendations, of which five are related to improvement in transparency:

- Recommendation 1: Authorities should collect more granular data on securities lending and repo exposures amongst large international financial institutions with high urgency. Such efforts should to the maximum possible extent leverage existing international initiatives such as the FSB Data Gaps Initiative, taking into account the enhancements suggested in this document.

- Recommendation 2: Trade-level (flow) data and regular snapshots of outstanding balances (position/stock data) for repo markets should be collected. Regular snapshots of outstanding balances should also be collected for securities lending markets and further work should be carried out on the practicality and meaningfulness of collecting trade-level data. Such data should be collected frequently and with a high level of granularity, and should also capitalise on opportunities to leverage existing data collection infrastructure that resides in clearing agents, central securities depositories (CSDs) and/or central counterparties (CCPs). National/regional authorities should decide the most appropriate way to collect such data, depending on their market structure, and building on existing data collection processes and market infrastructure where appropriate. Trade repositories are likely to be an effective way to collect comprehensive repo and securities lending market data. Regulatory reporting may also be a viable alternative approach.

- Recommendation 3: The total national/regional data for both repos and securities lending on a monthly basis should be aggregated by the FSB which will provide global trends of securities financing markets (e.g. market size, collateral composition, haircuts, tenors). The FSB should set standards and processes for data collection and aggregation at the global level to ensure consistent data collection by national/regional authorities and to minimise double-counting at the global level.

- Recommendation 4: The Enhanced Disclosure Task Force (EDTF) should work to improve public disclosure for financial institutions' securities lending, repo and wider collateral management activities, taking into consideration the items noted above.

- Recommendation 5: Authorities should review reporting requirements for fund managers to end-investors against the FSB's proposal, and consider whether any gaps need to be addressed.

In order to take forward the work to establish standards for data collection and aggregation at the global level, and finalise a vision for the design of a regime for the data collection of repo and securities lending activity, the FSB has established a **technical data experts group**. This group will develop proposed standards and processes by the end of 2014. It will also interact closely with market participants.

The ERC is carefully evaluating all the details of this paper and will prepare a response to the associated consultation on haircuts. In the meantime the ERC, together with ISLA, has offered its continuing support to the on-going efforts of WS5, including with respect to the work to be done by the FSB's technical data experts group.

Table

	CPSS 91 (Sep-10)	MiFID (Oct-11)	FRBNY (Dec-11)	FSB (Nov-12)		ECB (Dec-12)	ESRB (Mar-13)	FSB (Aug-13)
				transaction-level	firm-level			
size	quantity (flow, stock)	quantity	principal	principal	size of book	principal	aggregate value of repos	principal
		price						
currency		currency		(cash) currency	cash currency distribution		cash currency	cash currency
						market value of collateral		
collateral	collateral asset class	instrument ID	collateral type	collateral asset class	collateral asset class	type of collateral	collateral asset class	collateral type
	country of issue of collateral					issuer of collateral		
	collateral credit						collateral credit	collateral quality
	collateral currency						collateral currency	collateral currency
							residual maturity of collateral	
							ability to hold collateral	
					collateral reversed in by asset class			
						re-use of collateral	re-use of collateral	
haircut	average haircut		haircut	haircut	haircut ranges by asset class	haircut	haircut	haircut
term		trading time/date					purchase date	value date
	maturity structure		tenor	maturity (of repo)	repo tenor by asset class	repo maturity	residual term of repo	maturity date
				first callable date			first callable date	
							early redemption option	
	weighted average term							
repo rate			interest rate	repo rate		repo rate	*repo rate*	repo rate
counterparty		counterparty ID	counterparty	counterparty	counterparty	counterparty	counterparty (borrower) type	
	counterparty type	counterparty type					counterparty (lender) type	counterparty type
							counterparty credit quality	
		reporting agent ID						
		firm ID						
		trading capacity						
market		venue ID					bilateral/tri-party/CCP repo	
	CCP/non-CCP	venue type						market segment
margining							MTA	
							frequency of MtM	
transaction		trade reference						
		buy/sell						

Annex B:

Issues about a repo data repository in need of further discussion

1 **Product coverage**.

- Should DRs cover repo only?
- Or should they also include (1) securities lending/borrowing, (2) secured loans/deposits, (3) pledges, (4) margin lending, (5) synthetics and (6) collateral/liquidity swaps (however structured)? If they do not include these items, will the extra cost of reporting undesirably disadvantage repo?

2 **Geographic coverage**.

- How many DRs are needed?
- If there is a DR just for repo, should it be set up per currency or currency bloc? FSB WS5 says global SL TR but currency-based repo TR. For reasons of competition and national interest, the ESRB envisages several TRs established globally on the basis of the main SFT "market clusters" (e.g. the EU, North America and the Asia-Pacific region).

3 **Type of data to be collected**.

- Should the DR capture transaction or position data? What data can be most easily provided by firms?
- The monitoring of systemic risk does not require transaction data. The ESMA Draft Technical Standards on the Regulation on OTCD, CCP and Trade Repositories looks to transaction data and this is assumed in the CPSS/IOSCO report on Authorities' Access to Trade Repository Data. But if transaction data is wanted by micro-prudential supervisors, market regulators and resolution authorities, there should then be a trade-off in terms of a reduction in other reporting requirements, given that these could be satisfied from transaction data. Note that the points emerging from the global conference in Basel, June 2012, included, "Data requirements for macro-prudential and micro-prudential analysis need to be aligned to reduce the reporting burden". Note the ESMA Draft Technical Standards (para 174) about synergies between the OTCD TR and MiFID and EMIR reporting.
- To what breadth and depth should data be collected by the DR? Should the principle of proportionality apply, i.e. regulators should limit requirements to what is clearly needed to monitor material risks? There should not be excess data collection simply for random data mining or for potential academic research.
- If transaction data is required, should data on life-cycle events be collected? Do such events materially change risk?

4 **Who reports**?

- Should the principle of materiality apply, i.e. only those with regular and significant repo business be asked to report? ESRB says "All banks would have to report and – at the very least – the most important non-banks active in a given SFT market cluster such as the EU".

5 **Other data**.

- There is talk of collecting data on risk management (e.g. margining frequency) and interconnectedness (i.e. collateral re-use). Is this a problem?

6 **Frequency and time lags**.

- The ESRB says macro-prudential regulators need monthly or quarterly reporting (monthly for active repo markets) and a lag of no more than two weeks; while micro-prudential regulators need weekly or monthly reporting, with a lag of no more than one day. What frequency and lag can firms accommodate? What implications, if any does this have for reporting requirements, associated with short term transactions – considering that such trades, in particular overnight trades, will have closed out again even before they are reported.

7 **Governance**.

- Who should own a DR? Should DRs be public utilities (to reduce cost to industry), perhaps under central banks (who tend to be more market sensitive)?
- Who should supervise the DR?

8 **Confidentiality**.

- How should this be protected and access controlled?

9 **Infrastructure**.

- Need for standardisation of data fields (note warning from derivatives TR).
- What reporting format and communications protocols should be implemented?
- Should data be trade-matched before being reported to a DR? Is submission required by both parties? If so, and if not matched, who owns the validation and comparison of the data submissions?
- Will multiple DRs need a global aggregator?

10 **Value-added services** from a DR.

- Should DRs offer trade-matching?
- Should reporting to a DR be required for legal certainty of contract (as in Russia)?
- Should a DR produce and publish repo indices?

Annex C:

Table:

Systemic risk factor	**Minimum indicator**	**Rationale**
Facilitation of credit growth	Aggregate value	To monitor SFT with non-banks
Pro-cyclicality	Average haircut	Need is based on variation of haircuts across type and rating of collateral and type of counterparty
Maturity/liquidity transformation	Maturity distribution	Standard risk exposures
Interconnectedness	Aggregate value	To monitor (1) exposures between financial firms, (2) lengths of chains and (3) proportion of collateral issued by financial firms
	Collateral re-usable	
	Collateral re-used	
Fire sales	Collateral by: (1) asset type + rating (2) counterparty type + rating	To assess concentration of collateral held by lenders
Currency mismatch	Cash v collateral currency	Standard risk exposures
Market structure	Direct/CCP-cleared/tri-party	Need is based on perceived differences in response of these market segments to crisis

Survey of OUTSTANDING positions as at [survey date]

Reporting entity = | Country location =

A separate questionnaire should be completed by each entity within the same group which has a repo book.

			Repo	Reverse repo
1 What are the total gross values of cash due to be repaid by you and repaid to you on repo transactions maturing after [survey date]?				
Of the amounts given in response to question (1) above:				
1.1 How much was transacted with counterparties in:	(1.1.1) **Austria**			
	(1.1.2) **Belgium**			
	(1.1.3) **Denmark**			
	(1.1.4) **Finland**			
	(1.1.5) **France**			
	(1.1.6) **Germany**			
	(1.1.7) **Greece**			
	(1.1.8) **Ireland**			
	(1.1.9) **Italy**			
	(1.1.10) **Luxembourg**			
	(1.1.11) **Netherlands**			
	(1.1.12) **Portugal**			
	(1.1.13) **Spain**			
	(1.1.14) **Sweden**			
	(1.1.15) **UK**			
	(1.1.16) **Bulgaria**			
	(1.1.17) **Cyprus**			
	(1.1.18) **Czech Republic**			
	(1.1.19) **Estonia**			
	(1.1.20) **Hungary**			
	(1.1.21) **Latvia**			
	(1.1.22) **Lithuania**			
	(1.1.23) **Malta**			
	(1.1.24) **Poland**			
	(1.1.25) **Romania**			
	(1.1.26) **Slovak Republic**			
	(1.1.27) **Slovenia**			
	(1.1.28) **Norway**			
	(1.1.29) **Serbia**			
	(1.1.30) **Switzerland**			
	(1.1.31) **Turkey**			
	(1.1.32) **Russia**			
	(1.1.33) **Ukraine**			
	(1.1.34) **US**			
	(1.1.35) **Canada**			
	(1.1.36) **Mexico**			
	(1.1.36) **Japan**			
	(1.1.37) **Middle East**			
	(1.1.38) **Africa**			
	(1.1.39) **Asia**			
	(1.1.40) **Australia**			
	(1.1.41) **New Zealand**			
	(1.1.42) **South America**			
	(1.1.43) anonymously through a **central counterparty (CCP)**			
	(1.1.44) **intra-group**			
	(1.1.45) **sub-total** of items 1.1.1 to 1.1.44 (this should equal the grand total in item (1))			
1.2 How much of the total business was settled through a **central counterparty** (CCP)?				

		counterparty credit rating →	AAA to AA-	A+ to BBB-	sub-BBB-	sub-totals	AAA to AA-	A+ to BBB-	sub-BBB-	sub-totals
1.3 How much business was with the following types of **counterparty**?	(1.3.1) **credit institutions**									
	(1.3.2) **investment firms**									
	(1.3.3) **sovereigns, supras, central banks** (not monetary policy), **public agencies**									
	(1.3.4) **pension funds, insurance companies, similar asset managers**									
	(1.3.5) **leveraged investment funds** including AIMs									
	(1.3.6) **UCITs**									
	(1.3.7) **other non-bank financial institutions**									
	(1.3.8) **non-financial institutions**									
	(1.3.9) **intra-group**									
	(1.3.10) **sub-total** of items 1.3.1 to 1.3.9 (this should equal grand total in item (1))									

		remaining term to maturity →	1D	1-7D	1W-1M	1-3M	3-6M	6-12M	over 12M	open	forward	sub-totals	1D	1-7D	1W-1M	1-3M	3-6M	6-12M	over 12M	open	forward	sub-totals
1.4 What is the remaining **term to maturity** of the business with the following **counterparties**?	(1.4.1) **credit institutions**																					
	(1.4.2) **investment firms**																					
	(1.4.3) **sovereigns, supras, central banks** (not monetary policy), **public agencies**																					
	(1.4.4) **pension funds, insurance companies, similar asset managers**																					
	(1.4.5) **leveraged investment funds** including AIMs																					
	(1.4.6) **UCITs**																					
	(1.4.7) **other non-bank financial institutions**																					
	(1.4.8) **non-financial institutions**																					
	(1.4.9) **intra-group**																					
	(1.4.10) **sub-total** of items 1.4.1 to 1.4.9 (this should equal grand total in item (1))																					

1.5 How much of the **cash** is denominated in:	(1.5.1) **USD**																					
	(1.5.2) **EUR**																					
	(1.5.3) **JPY**																					
	(1.5.4) **GBP**																					
	(1.5.5) **CHF**																					
	(1.5.6) **RMB**																					
	(1.5.7) **AUD**																					
	(1.5.8) **CAD**																					
	(1.5.9) **NZD**																					
	(1.5.10) **other currencies**																					
	(1.5.11) **sub-total** of items 1.5.1 to 1.5.10 (this should equal the grand total in item (1))																					

		currency of collateral →	USD	EUR	JPY	GBP	CHF	RMB	AUD	CAD	NZD	other	sub-totals	USD	EUR	JPY	GBP	CHF	RMB	AUD	CAD	NZD	other	sub-totals
1.6 How much is **cross-currency** in terms of:	(1.6.1) **USD**																							
	(1.6.2) **EUR**																							
	(1.6.3) **JPY**																							
	(1.6.4) **GBP**																							
	(1.6.5) **CHF**																							
	(1.6.6) **RMB**																							
	(1.6.7) **AUD**																							
	(1.6.8) **CAD**																							
	(1.6.9) **NZD**																							
	(1.6.10) **other currencies**																							
	(1.6.11) **sub-total** of items 1.6.1 to 1.6.10																							
1.7 How much is **tri-party repos**:																								

		collateral credit rating →	AAA to AA-	A+ to BBB-	sub-BBB-	sub-totals	AAA to AA-	A+ to BBB-	sub-BBB-	sub-totals
1.8 How much is against **collateral** issued in:	(1.8.1) **sovereign, supreanational, agency**									
	(1.8.2) **corporate** bonds									
	(1.8.3) **covered, MBS, ABS** bonds									
	(1.8.4) **equity** and **equity-linked**									
	(1.8.5) **other**									
	(1.8.6) **sub-total** of items 1.8.1 to 1.8.51 (this should equal the grand total in item (1))									

			counterparty credit rating →	AAA to AA-	A+ to BBB-	sub-BBB-	sub-totals
1.9 What are the **average haircuts** given by you on the following repos?	(1.9.1) **sovereign, supreanational, agency**	(1.9.1.1) **AAA to AA-**					
		(1.9.1.2) **A+ to BBB-**					
		(1.9.1.3) **sub-BBB-**					
	(1.9.2) **corporate** bonds	(1.9.2.1) **AAA to AA-**					
		(1.9.2.2) **A+ to BBB-**					
		(1.9.2.3) **sub-BBB-**					
	(1.9.3) **covered, MBS, ABS** bonds	(1.9.3.1) **AAA to AA-**					
		(1.9.3.2) **A+ to BBB-**					
		(1.9.3.3) **sub-BBB-**					
	(1.9.4) **equity** and **equity-linked**	(1.9.4.1) **AAA to AA-**					
		(1.9.4.2) **A+ to BBB-**					
		(1.9.4.3) **sub-BBB-**					
	(1.9.5) **other**	(1.9.5.1) **AAA to AA-**					
		(1.9.5.2) **A+ to BBB-**					
		(1.9.5.3) **sub-BBB-**					
	(1.9.6) **sub-total** of items 1.9.1 to 1.9.5 (this should equal the grand total in item (1))						

Ideal ESRB:

Proportionate ESRB:

Survey of OUTSTANDING positions as at [survey date]

Reporting entity = | Country location =

A separate questionnaire should be completed by each entity within the same group which has a repo book.

			Repo	Reverse repo
1 What are the total gross values of cash due to be repaid by you and repaid to you on repo transactions maturing after [survey date]?				
Of the amounts given in response to question (1) above:				
1.1 How much was transacted:	(1.1.1) **direct** with counterparties	(1.1.1.1) in the **same country** as you		
		(1.1.1.2) cross-border in **eurozone** countries		
		(1.1.1.3) cross-border in **other EU** countries		
		(1.1.1.4) cross-border in **the remainder of the European reporting zone**		
		(1.1.1.5) cross-border with **other OECD** countries		
		(1.1.1.6) cross-border with **other non-OECD** countries		
	(1.1.2) through **voice-brokers**	(1.1.2.1) in the **same country** as you		
		(1.1.2.2) cross-border in **eurozone** countries		
		(1.1.2.3) cross-border in **other EU** countries		
		(1.1.2.4) cross-border in **the remainder of the European reporting zone**		
		(1.1.2.5) cross-border with **other OECD** countries		
		(1.1.2.6) cross-border with **other non-OECD** countries		
	(1.1.3) on **ATSs** with counterparties	(1.1.3.1) in the **same country** as you		
		(1.1.3.2) cross-border in **eurozone** countries		
		(1.1.3.3) cross-border in **other EU** countries		
		(1.1.3.4) cross-border in the remainder of the European reporting zone		
		(1.1.3.5) cross-border with **other OECD** countries		
		(1.1.3.6) cross-border with **other non-OECD** countries		
		(1.1.3.7) anonymously across a **GC financing** system		
		(1.1.3.8) anonymously through a **central counterparty (CCP)** but not GC financing		
	(1.1.4) **intra-group**			
	(1.1.5) **sub-total** of items 1.1.1 to 1.1.4 (this should equal the grand total in item (1))			
1.2 How much of the total business was settled through a **central counterparty** (CCP) whether or not it was transacted across an ATS (ie including the amounts in item 1.1.3)?				

			counterparty credit rating →	AAA to AA-	A+ to BBB-	sub-BBB-	sub-totals	AAA to AA-	A+ to BBB	sub-BBB-	sub-totals
1.3 How much business was with the following types of **counterparty?**		(1.3.1) **credit institutions**									
		(1.3.2) **investment firms**									
		(1.3.3) **sovereigns, supras, central banks** (not monetary policy), **public agencies**									
		(1.3.4) **pension funds, insurance companies, similar asset managers**									
		(1.3.5) **leveraged investment funds** including AIMs									
		(1.3.6) **UCITs**									
		(1.3.7) **other non-bank financial institutions**									
		(1.3.8) **non-financial institutions**									
		(1.3.9) **intra-group**									
		(1.3.10) **sub-total** of items 1.3.1 to 1.3.9 (this should equal grand total in item (1))									

			remaining term to maturity →	1D	1-7D	1W-1M	1-3M	3-6M	over 6M	open	forward	sub-totals	1D	1-7D	1W-1M	1-3M	3-6M	over 6M	open	forward	sub-totals
1.4 What is the remaining **term to maturity** of the business with the following **counterparties?**		(1.4.1) **credit institutions**																			
		(1.4.2) **investment firms**																			
		(1.4.3) **sovereigns, supras, central banks** (not monetary policy), **public agencies**																			
		(1.4.4) **pension funds, insurance companies, similar asset managers**																			
		(1.4.5) **leveraged investment funds** including AIMs																			
		(1.4.6) **UCITs**																			
		(1.4.7) **other non-bank financial institutions**																			
		(1.4.8) **non-financial institutions**																			
		(1.4.9) **intra-group**																			
		(1.4.10) **sub-total** of items 1.4.1 to 1.4.9 (this should equal grand total in item (1))																			

1.5 How much of the **cash** is denominated in:	(1.5.1) **EUR**		
	(1.5.2) **GBP**		
	(1.5.3) **USD**		
	(1.5.4) **SEK, DKK**		
	(1.5.5) **JPY**		
	(1.5.6) **CHF**		
	(1.54.7) **other currencies**		
	(1.5.8) **sub-total** of items 1.5.1 to 1.5.7 (this should equal the grand total in item (1))		

		currency of collateral →	USD	EUR	others	sub-totals	USD	EUR	others	sub-totals
1.6 How much is **cross-currency** in terms of:	(1.6.1) **USD** cash									
	(1.6.2) **EUR** cash									
	(1.6.3) cash in **other currencies**									
	(1.6.4) **sub-total** of items 1.6.1 to 1.6.3									
1.7 How much is **tri-party repos**:	(1.7.1) **directly negotiated**									
	(1.7.2) negotiated on an **ATS**									
	(1.7.3) **sub-total** of items 1.7.1 to 1.7.2									

		collateral credit rating →	AAA to AA-	A+ to BBB-	sub-BBB-	sub-totals	AAA to AA-	A+ to BBB	sub-BBB-	sub-totals
1.8 How much is against **collateral** issued in:	(1.8.1) **sovereign, supreanational, agency**									
	(1.8.3) **corporate** bonds									
	(1.8.3) **covered, MBS, ABS** bonds									
	(1.8.4) **equity** and **equity-linked**									
	(1.8.5) **other**									
	(1.8.6) **sub-total** of items 1.8.1 to 1.8.51 (this should equal the grand total in item (1))									

Annex D:

Observations on the Russian trade repository experience

The Russian TR ("RTR") requirements have been developed by each of the Federal Service for Financial Markets and the Russian Central Bank, but this process was not optimised. The two sets of requirements were not jointly designed but rather just bolted together, with some consequent inefficiency and missed opportunity.

The scope of the RTR requirements covers all Russian entities and individuals and places reporting obligations on both parties to transactions involving such entities or persons. Yet a significant challenge arising from this attempt to create a comprehensive reporting regime is that not all market participants have access to the applicable reporting tools, which creates the need to introduce the concept of delegated reporting.

The RTR is in fact not a single TR, but rather two competing solutions to the imposition of the new reporting requirements, giving rise to differences in the details of the applicable reporting mechanisms. This is inefficient as setting up the reporting is costly and time consuming; and those most active in the market now find that they have to set up both sets of detailed reporting mechanisms in order to comply with the TR preferences determined by their counterparts.

Implementation timelines have not been sufficiently lengthy to accommodate proper set up and testing, so delays are being experienced. This is all increasing the costs associated with the RTR implementation, whilst at the same time not yet allowing for the realisation of ancillary benefits.

The RTR covers not just repos but also derivatives. One benefit that derivatives are proving to have is that data is more standardised, following the Financial products Markup Language ("FpML") protocol. In light of this the RTR is seeking to promote the extension of FpML to encompass repos, in order to better support standardised reporting and data handling.