EMIR Review Report no.1

Review on the use of OTC derivatives by non-financial counterparties

13 August 2015 | ESMA/2015/1251
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### Acronyms used

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AIF</td>
<td>Alternative Investment Fund</td>
</tr>
<tr>
<td>AIFM</td>
<td>Alternative Investment Fund Manager</td>
</tr>
<tr>
<td>CT</td>
<td>Clearing Threshold</td>
</tr>
<tr>
<td>EBA</td>
<td>European Banking Authority</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>EIOPA</td>
<td>European Insurance and Occupational Pensions Authority</td>
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<tr>
<td>EMIR</td>
<td>European Market Infrastructures Regulation (Regulation (EU) 648/2012)</td>
</tr>
<tr>
<td>ESA</td>
<td>European Supervisory Authorities</td>
</tr>
<tr>
<td>ESMA</td>
<td>European Securities and Markets Authority</td>
</tr>
<tr>
<td>ESRB</td>
<td>European Systemic Risk Board</td>
</tr>
<tr>
<td>ETD</td>
<td>Exchange Traded Derivatives</td>
</tr>
<tr>
<td>FC</td>
<td>Financial Counterparty</td>
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<tr>
<td>FX</td>
<td>Foreign Exchange</td>
</tr>
<tr>
<td>ID</td>
<td>Identifier</td>
</tr>
<tr>
<td>LEI</td>
<td>Legal Entity Identifier</td>
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<tr>
<td>NFC</td>
<td>Non-Financial Counterparty</td>
</tr>
<tr>
<td>NFC+</td>
<td>Non-Financial Counterparty above the clearing threshold</td>
</tr>
<tr>
<td>NFC-</td>
<td>Non-Financial Counterparty below the clearing threshold</td>
</tr>
<tr>
<td>OTC</td>
<td>Over-the-counter</td>
</tr>
<tr>
<td>RTS</td>
<td>Regulatory Technical Standards</td>
</tr>
<tr>
<td>RTS on OTC</td>
<td>Commission Delegated Regulation (EU) No 149/2013</td>
</tr>
<tr>
<td>TR</td>
<td>Trade Repository</td>
</tr>
<tr>
<td>UCITS</td>
<td>Undertakings for Collective Investment in Transferable Securities</td>
</tr>
</tbody>
</table>
1 Executive Summary

Reasons for publication

The European Market Infrastructures Regulation (“EMIR”) entered into force in August 2012. EMIR constituted the main part of the European response to the commitment by G-20 leaders in September 2009 that: “All standardised OTC derivatives contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at latest. OTC derivatives contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements”.

In accordance with Article 85(1) of EMIR, the Commission is required to prepare a general report on EMIR which shall be submitted to the European Parliament and the Council, together with any appropriate proposals. The Commission must in particular assess, in coordination with ESMA and the relevant sectorial authorities, the systemic importance of the transactions of non-financial firms in OTC derivatives and in particular, the impact of EMIR on the use of OTC derivatives by non-financial firms. The present report constitutes ESMA’s contribution to this assessment.

Contents

The report on non-financial counterparties (“NFC”) provides in Section 3 an overview of NFC and issues related to their classification, and in Section 4 an analysis of the systemic importance of transactions done by NFCs in OTC derivatives markets. The conclusions and proposals are summarised at the beginning of each section. The report shows that overall, when compared to financial counterparties, the systemic relevance of NFCs appears limited. However, when the positions of NFCs are disaggregated (per asset class, per counterparty) the data show that NFCs are active and significant players mainly in the Commodity OTC derivatives market and, to a lesser extent, in the FX OTC derivatives market. It is shown that those active market players are not necessarily NFC above the clearing threshold (NFC+), due to the current feature that hedging transactions are not counted towards the clearing thresholds. Based on those findings, the main proposals relate to (1) a better and simpler identification of NFC and (2) a simplification of the framework applicable to NFCs, e.g. by assessing the systemic importance of NFCs irrespective of the hedging/non-hedging nature of their trades, to ensure that the entities that qualify as NFC+ are in effect the ones that pose the most significant risks to the system.

Next Steps

This report is being submitted to the European Commission and is expected to feed into the general report on EMIR that the European Commission shall prepare and submit to the European Parliament and the Council.
2 Introduction

1. The European Commission is mandated to produce a general report on Regulation (EU) No 648/2012 (EMIR) in accordance with Article 85(1) of that Regulation.

2. Certain topics that the European Commission is mandated to cover are to be assessed in cooperation with ESMA including, under Article 85(1)(b) of EMIR, the systemic importance of the transactions of nonfinancial firms in OTC derivatives and, in particular, the impact of EMIR on the use of OTC derivatives by non-financial firms.

3. EMIR provides that where appropriate, rules applicable to financial counterparties should also apply to non-financial counterparties (NFCs). The legislator recognises that NFCs use OTC derivative contracts, inter alia, to cover themselves against risks directly linked to their commercial or treasury financing activities.

4. Therefore, EMIR was drafted with requirements applicable to NFCs that differ depending on the level of non-hedging activity of the NFC in OTC derivatives. When this activity exceeds certain thresholds\(^1\), the NFC becomes subject to similar requirements to those applicable to financial counterparties, and is referred to as an NFC above the threshold or an “NFC+”. In particular, NFC+ are subject to the clearing obligation (Article 4 of EMIR) and to bilateral margining (Article 11(3) of EMIR) while NFC- are exempted from those two requirements.

5. Given that two of the key requirements applicable to non-financial counterparties (NFCs), namely the clearing obligation and the exchange of collateral for uncleared trades, have not yet entered into force, it is too early to analyse the consequences of those requirements on NFCs. As a result, the report focuses on the first part of the mandate, i.e. the assessment of the systemic importance of the transactions of NFCs in OTC derivatives.

6. However, it should be noted that the expiration, in March 2016, of the temporary provision allowing counterparties to use bank guarantees that are not fully backed by collateral may impact NFCs active in the power and gas markets, which are clearing members of a CCP\(^2\).

7. In terms of the dataset used for this report, most of the statistics and analysis derive from European trade repositories (TRs). More specifically, ESMA used trade state reports as of 20 February 2015, from four of the six\(^3\) registered European TRs. Trade state reports are reports which represent, at a certain date, the latest version of the outstanding trades, i.e. including all modifications to the trade. The view ensures that each combination of trade ID, counterparty 1 and counterparty 2 is counted only once. Trade state reports provide information on the stock of outstanding trades, rather than on the flow of transactions.

8. Section 3 below provides explanations on the identification of non-financial counterparties, as well as the identification of the subset of non-financial counterparties above the clearing threshold. Section 4 provides an analysis of the activity of NFC, both above and below the clearing threshold, based on the classification of counterparties developed in Section 3.

\(^1\) The thresholds are defined per asset class in Article 11 of Commission Delegated Regulation (EU) No 149/2013, OJ L52 23.02.2013, p.11.

\(^2\) To ensure the safety of CCPs, which is a crucial objective of EMIR, the RTS on CCP (Annex I, Section 2) define the conditions under which bank guarantees can be accepted as collateral under Article 46(1) of EMIR. The conditions were defined to ensure consistency with the standards set at international level in the CPSS-IOSCO “Principles for Financial Market Infrastructures”. One of the conditions is that the bank guarantees shall be fully backed by collateral. This condition does not apply until 15 March 2016 to electricity and natural gas derivatives.

\(^3\) From the 2 other registered TRs, only a subset of trade state reports could be obtained and included in the dataset. The missing data was estimated to represent a relatively small share of the total number of reports, hence it is not expected that the results presented in this report would have been materially different with the addition of the missing data.
3 Identification and overview of non-financial firms

9. To evaluate the activity of non-financial counterparties, one should first be able to identify those counterparties, and, within the set of non-financial counterparties, to identify the ones that are above and below the clearing threshold (NFC+ and NFC-).

10. The main sources of information which were used for this identification are:

- European trade repositories data;
- Notifications made from NFC+ to ESMA in accordance with Article 10(1)(a) of EMIR;
- Public Register of certain financial counterparties published by the ESAs; and
- Information made publicly available by counterparties, such as annual reports.

3.1 Identification of financial and non-financial counterparties

3.1.1 Challenges of counterparty classification

11. When reporting to TRs, counterparties indicate whether they are a financial or a non-financial counterparty in the TR field “Financial or non-financial nature of the counterparty”. The investigation of TR data has shown that the reliance from regulators on the counterparty classification as reported in the TR field “Financial or non-financial nature of the counterparty” would introduce an important bias in the analysis for at least two reasons:

a) A non-negligible number of counterparties report their trades inconsistently i.e. the same counterparty alternatively reports its trade as a financial and as a non-financial;

b) Some vehicles whose primary purpose is to invest in the financial markets (such as certain hedge funds) actually meet the NFC definition of Article 2(9) of EMIR.

12. To address those two elements, which are not mutually exclusive, ESMA performed a counterparty reclassification following the methodology described in the following paragraphs.

3.1.2 Addressing the issue of inconsistent counterparty classification

13. TR data shows that a number of counterparties report their trades sometimes as a financial and sometimes as a non-financial counterparty. As a consequence, the activity of some counterparties could artificially be broken down in two portfolios, one classified as NFC and one classified as FC.

14. A bank reporting all or part of its trades as an NFC would introduce a severe bias in the overall analysis of NFC, as banks are typically more active in the OTC derivative markets and they are active in different segments of the market (see further detail in the analysis per asset class in Section 4.1).

15. To avoid introducing such bias, the following treatments were applied:

\[\text{Where a non-financial counterparty takes position in excess of any of the clearing thresholds defined in the RTS on OTC derivatives, that counterparty shall immediately notify ESMA and its competent authority.}\]

\[\text{the Credit Institution Register published by EBA, the Register of Insurance Undertakings published by EIOPA, the Registers of MiFID firms, AIFM and UCITS published by ESMA}\]
a) Reclassification based on public registers of financial counterparties: counterparties which appear in certain public registers were classified as financial counterparties. This includes: the Credit Institution Register published by EBA, the Register of Insurance Undertakings published by EIOPA, the Registers of MiFID firms, AIFM and UCITS published by ESMA;

b) Reclassification based on key words: some counterparties were reclassified as FC based on a list of key words such as “trading fund”, “long short strategy”, “investment management”;

c) Reclassification based on statistics: when counterparties did not report consistently the same status (i.e. they reported under both financial and non-financial status) and could not be reclassified based on key words or public registers of FCs, the status “Financial” or “Non-Financial” was assumed to be the one most frequently reported.

16. The retreatment of counterparty classification was carefully considered and made under reasonable assumptions, motivated by the important bias introduced by the incorrect self-classification of certain FCs as NFCs. Nevertheless it is acknowledged that the outcome may still encompass some degree of inaccuracy in the counterparty classification.

3.1.3 Addressing the issue of quasi-financials

17. EMIR defines a non-financial counterparty by opposition to a financial counterparty, i.e. a non-financial counterparty is an undertaking established in the EU which is not captured by the definition of financial counterparty (Article 2(8) of EMIR).

18. The definition of financial counterparties introduces some cross-references to various European regulations (e.g. MiFID, UCITS, and AIFMD). As a result, some entities, which would generally be considered as financial counterparties in light of their activity (e.g. hedge funds meeting certain criteria, pension funds operating on a national basis, securitisation vehicles), may actually be classified as non-financial counterparties.

19. ESMA had already identified that certain AIFs would not meet the FC definition in EMIR because this definition only captures AIFs that are “managed by AIFMs authorised or registered in accordance with Directive 2011/61/EC”, leaving aside a number of AIFs not meeting this definition.

20. As a consequence, the activity of certain groups of counterparties (typically hedge funds) would artificially be spread between the groups of FC and NFC, depending on whether they meet the definition of Article 2(8) or 2(9) of EMIR, even though, in practice, those counterparties undertake similar types of activity irrespective of their EMIR classification.

21. In addition to AIFs, the analysis of TR data indicates that other types of vehicles (e.g. securitisation instruments), which are generally understood to be financial counterparties although not as per the EMIR definition, do not meet the definition of FC and are therefore subject to the same requirement as NFCs.

22. Leaving those “quasi financial” counterparties under the NFC category introduces a severe bias in the overall analysis of NFC, as their activity in OTC derivative is expected to be completely different than that of a corporate such as utility or airline companies.

23. Besides, it is ESMA’s understanding that the purpose of this report is to focus on the “genuine” non-financial counterparties, i.e. corporates whose core activities are not directly linked to financial markets, but which use derivative instruments in relation to their main activities (e.g. to hedge some risks related to their commercial activities), i.e. those NFC which are understood to be the ones that the definition of EMIR originally intended to capture.

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6 See General Question 4 of the Q&A on the implementation of EMIR.
24. Therefore, to avoid commingling the OTC derivatives positions of those NFC with those of NFC which are, in practice, financial counterparties (such as alternative investment funds), ESMA has sought to separate them, to the extent possible, in different categories, for the purpose of the analysis in this report. As a result, in this report, the counterparties which are quasi-financials are grouped together with financial counterparties.

3.1.4 Outcome of the counterparty classification

25. Table 1 below presents the outcome of this counterparty classification between financial and non-financial counterparties.

Table 1: Reclassification of financial and non-financial counterparties

<table>
<thead>
<tr>
<th>Nb</th>
<th>Counterparty status</th>
<th>Number of counterparties</th>
<th>Number of counterparties (%)</th>
<th>Counterparties with consistent classification</th>
<th>Counterparties reclassified based on FC Registers or Key Words</th>
<th>Counterparties reclassified based on statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Financial</td>
<td>27,989</td>
<td>20.5%</td>
<td>25,087</td>
<td>1,448</td>
<td>1,126</td>
</tr>
<tr>
<td>2</td>
<td>Non Financial</td>
<td>105,171</td>
<td>77.1%</td>
<td>103,825</td>
<td>100</td>
<td>1,588</td>
</tr>
<tr>
<td>3</td>
<td>Undetermined</td>
<td>3,238</td>
<td>2.4%</td>
<td>3,224</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Total</td>
<td>136,398</td>
<td>100.0%</td>
<td>132,136</td>
<td>1,548</td>
<td>2,714</td>
</tr>
</tbody>
</table>

Source: TR data, ESMA calculations. Counterparties reporting without LEI are included.

Row 3: Those counterparties did not provide information on their financial or non-financial nature to TRs, and they could not be reclassified based on key words or public registers. To minimise the number of unclassified counterparties, when counterparties reported with an LEI, when they were established in Europe and when they had more than 10 outstanding trades, they were classified manually based on information publicly available. The remaining counterparties in line 3 “Unknown” could not be classified.

26. As shown in cell D1 of Table 1, around 1,500 counterparties were reclassified from non-financial to financial counterparties based on a set of key words, public registers of FC and publicly available information. This reclassification represented around 3% of the total number of transactions.

27. As shown in row 2 of Table 1, the counterparty reclassification for NFC was mostly the result of the methodology based on statistics: around 1,600 NFC (cell E2) reported over 50% of their trades as NFC and for the remaining part, either they did not fill the corresponding field or they used the FC flag. Close to 100 NFC (cell D2) reported less than 50% of their trades as NFC but were re-classified as NFC based on key words.

28. From that point on, the analysis focuses on the counterparties reporting with LEIs and for which the status “Financial” or “Non-Financial” was determined, as further explained in Annex 1, Section 5.1.4. The reason for this assumption is that it is not possible to verify the uniqueness of counterparties reporting without LEIs, as the same counterparty could be present in the TR data set under different client codes, which leads to overestimation of the number of counterparties.

29. The final counterparty classification between FC and NFCs (excluding counterparties without LEI and counterparties that could not be classified as FCs or NFCs) is presented in Table 2.
Table 2: Financial and Non-Financial counterparties

<table>
<thead>
<tr>
<th>Counterparty zone / status</th>
<th>Number of counterparties</th>
<th>Number of counterparties (%)</th>
<th>Number of trades</th>
<th>Number of trades (%)</th>
<th>Notional Amount (EUR mn)</th>
<th>Notional Amount (%)</th>
<th>Average number of trades per counterparty</th>
<th>Average notional per counterparty (EUR mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Financial</td>
<td>23,613</td>
<td>27%</td>
<td>24,301,464</td>
<td>93%</td>
<td>598,562,507</td>
<td>98%</td>
<td>1,029.2</td>
<td>25,349</td>
</tr>
<tr>
<td>2 Europe</td>
<td>22,540</td>
<td>25%</td>
<td>23,648,593</td>
<td>90%</td>
<td>592,645,910</td>
<td>97%</td>
<td>1,049.2</td>
<td>26,293</td>
</tr>
<tr>
<td>3 Third country</td>
<td>1,073</td>
<td>1%</td>
<td>652,871</td>
<td>2%</td>
<td>5,916,598</td>
<td>1%</td>
<td>608.5</td>
<td>5,514</td>
</tr>
<tr>
<td>4 Non Financial</td>
<td>65,325</td>
<td>73%</td>
<td>1,924,052</td>
<td>7%</td>
<td>9,649,908</td>
<td>2%</td>
<td>29.5</td>
<td>148</td>
</tr>
<tr>
<td>5 Europe</td>
<td>64,295</td>
<td>72%</td>
<td>1,870,319</td>
<td>7%</td>
<td>9,497,337</td>
<td>2%</td>
<td>29.1</td>
<td>148</td>
</tr>
<tr>
<td>6 Third country</td>
<td>1,030</td>
<td>1%</td>
<td>53,733</td>
<td>0%</td>
<td>152,570</td>
<td>0%</td>
<td>52.2</td>
<td>148</td>
</tr>
<tr>
<td>7 Grand Total</td>
<td>88,938</td>
<td>100%</td>
<td>26,225,516</td>
<td>100%</td>
<td>608,212,415</td>
<td>100%</td>
<td>294.9</td>
<td>6,839</td>
</tr>
</tbody>
</table>

Source: TR data, ESMA calculations. Counterparties reporting without LEI are excluded. Counterparties with unknown status (FC or NFC) are excluded.

30. From this table it can be concluded that NFCs represent 72% of the total number of counterparties, 7% of the outstanding volumes as measured by trade count and 2% of the outstanding volumes as measured by notional amount.

31. On average, NFCs have portfolios of around 30 trades, representing EUR 150mn Euros of notional. This compares to portfolios of 1,000 trades representing EUR 25,000mn of notional for FC.

32. As a preliminary result, when looking at aggregate level, the positions of NFCs in the OTC derivatives market appear to be very limited when compared to the group of FCs. However, a more detailed analysis of the positions of NFCs at counterparty or group level, which is performed in Section 4, provides a more nuanced picture of this finding.

3.1.5 Conclusions and recommendations related to counterparty classification

—— Quasi-financial

33. The current EMIR framework does not establish any difference between quasi-financials which meet the definition of NFCs, and corporate NFCs, and the reasons for such identical treatment between such different types of entities should be reconsidered.

34. Looking from the other side of the coin, there are no obvious reasons to justify different treatments between e.g. an AIF meeting the definition of an FC and an AIF not meeting this definition.

35. In particular, it is unclear whether the classification of trades between “Hedging” and “Non-Hedging”, is appropriate for quasi-FC, given that the notion of “hedging” would cover different types of activities for quasi FCs than for NFCs.

36. In view of the above, ESMA sees merit in analysing further whether the current framework applicable to quasi-financials is appropriate and aligned with the original objectives of EMIR.

37. In a first step, the Commission may wish to look to ensure that quasi FCs are unambiguously identified and not mingled with corporates (e.g. in the TRs and/or in the notification under Article 10(1)(a) of EMIR).

7 The TR field “Corporate sector of the counterparty”, which is currently required to be filled only by financial counterparties, would be a natural candidate to serve the purpose of separating corporates from quasi FCs.
38. We note however that this issue may be resolved in the medium term by the work undertaken at international level (by the LEI Regulatory Oversight Committee) to collect information on direct and ultimate parents of legal entities. In the future, it should become possible to identify, via the LEI, the NFCs which belong to financial groups.

39. Once those quasi-financial counterparties are clearly identified, it would be easier to assess and draw some conclusions on the systemic relevance of their positions in OTC derivatives. Such analysis would help responding to questions such as: should some be classified as FGs, should quasi FCs systematically be classified as NFC above the clearing threshold, or, should quasi FCs qualify all their transactions as non-hedging. ESMA stands ready to further assist the Commission in the development of the relevant definitions to address the issue described above.

--- Accessibility of information on counterparty classification

40. In addition, the analysis of the TR data set reveals that the self-classification of counterparties (as FC or NFC) and its reporting bear some challenges. For example, this is evidenced by the fact that many counterparties report their trades under both the FC and NFC categories, and also by the fact that certain counterparties report part of or all their trades as NFC, even when they are e.g. an authorised credit institution listed in the EBA register.

41. The inconsistencies in the counterparty classification could be explained by various factors, such as delegated reporting, or the fact that counterparties have to report their status on each and every trade.

42. Having in mind that EMIR requires counterparties to classify not only themselves but also their counterparties (this is the case for example of the clearing obligation, where different phase-in periods apply depending on the status of both counterparties to the transaction), a clear, unique and easily accessible source of counterparty classification would certainly be beneficial to the counterparties, as well as to the regulators, when assessing the risks of specific segment of the market.

43. In the responses to public consultations, stakeholders have often reported the difficulties and costs associated to counterparty classification, and called for a regulatory initiative in this respect, which could complement the industry initiatives already undertaken in this respect.

44. In light of the above, building on the different registers of financial counterparties that already exist, as well as the increasing use of LEIs, there could be room for further reflection on the creation of a central and unique register of financial counterparties, which would alleviate the burden of reporting counterparties while increasing the transparency to both regulators and participants in the financial markets and, as a result, fostering supervisory convergence.

3.2 Identification of NFCs above and below the clearing threshold

45. EMIR establishes a two-step mechanism for non-financial counterparties to determine whether they are NFC+ or NFC-.

46. First, counterparties need to assess, on a trade by trade basis, whether their transactions are concluded for hedging purposes. This assessment is reflected in the TR field “Directly linked to commercial activity or treasury financing”.

47. Second, counterparties need to sum the gross notional amounts of their outstanding OTC derivative contracts not concluded for hedging purposes, across all the non-financial

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9 The criteria for establishing which OTC derivative contracts are “objectively reducing risks” are defined in Article 10 of the RTS on OTC derivatives and further clarified in several ESMA Q&A.
counterparties of their group. This aggregation should be done per asset-class and the resulting figures should be compared to the so-called clearing threshold defined in Article 11 of the RTS on OTC derivatives: EUR 1 billion for the credit and equity asset classes, EUR 3 billion for the commodity, interest rate and foreign exchange asset classes.

48. When the aggregate of non-hedging positions of a group exceeds any of those thresholds, all the non-financial counterparties of that group should be classified as NFC+ and as a result:

   a) Notify its competent authority and ESMA that it exceeds the clearing threshold; and
   b) Report to TR the value “Y” in the dedicated TR field “Clearing Threshold”.

3.2.1 Identification of NFC+

49. The identification of non-financial counterparties above and below the clearing threshold can be performed on the basis of (1) the TR field “Clearing Threshold”, (2) the re-calculation at group level of the transactions reported as “Non-hedging” per asset class, which should then be compared to the clearing thresholds; and (3) the notifications sent by NFC+ to ESMA in accordance with Article 10(1)(a) of EMIR.

50. Those three sources of information evidenced discrepancies, which required ESMA to make certain assumptions regarding the classification between NFC+ and NFC-, as detailed in Annex 1, section 5.1.5.

51. As a result, ESMA assumed for this analysis that counterparties should be classified as NFC+ when they meet either of the two following conditions:

   a) Based on source (2): they belong to a group whose aggregate non-hedging positions per asset class exceed any of the clearing thresholds; or
   b) Based on source (3): they belong to a group which has made a notification to ESMA under Article 10(1)(a) of EMIR.

52. The NFC+ which only met the criteria of source (1) (i.e. TR Field “Clearing Threshold”) were not classified as NFC+ for the purpose of this analysis, as the level of activity that they reported to TRs did not support their classification as NFC+.

53. In some sections of this paper, the group of NFC+ is further divided between the three following categories:

   a) “Notified + exceeds CT”: those groups have notified ESMA that they are NFC+ and their aggregate notional (per group, per asset class, non-hedge only) is above the clearing threshold;
   b) “Not notified + exceeds CT”: those groups have not notified ESMA that they are NFC+ but their aggregate notional (per group, per asset class, non-hedge only) is above the clearing threshold;
   c) “Notified + does not exceed CT”: those groups have notified ESMA that they are NFC+ but their aggregate notional (per group, per asset class, non-hedge only) is not above the clearing threshold.

54. The outcome of the classification of NFCs is presented in Table 3.

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10 In accordance with Article 10(1)(a) of EMIR, where a non-financial counterparty takes position in excess of any of the clearing thresholds defined in the RTS on OTC derivatives, that counterparty shall immediately notify ESMA and its competent authority.
Table 3: Classification of NFC+

<table>
<thead>
<tr>
<th>Counterparty zone / status</th>
<th>Number of counterparties</th>
<th>Number of trades</th>
<th>Number of trades (%)</th>
<th>Notional Amount (EUR mn)</th>
<th>Notional Amount (%)</th>
<th>Number of groups</th>
<th>Average number of trades per group</th>
<th>Average notional per group (EUR mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Non Financial Above (NFC+)</td>
<td>424</td>
<td>221,005</td>
<td>100%</td>
<td>1,568,375</td>
<td>100%</td>
<td>43</td>
<td>5,140</td>
<td>36,474</td>
</tr>
<tr>
<td>2  Not notified + exceeds CT</td>
<td>206</td>
<td>112,430</td>
<td>51%</td>
<td>913,906</td>
<td>58%</td>
<td>24</td>
<td>4,685</td>
<td>38,079</td>
</tr>
<tr>
<td>3  Notified + does not exceed CT*</td>
<td>138</td>
<td>39,643</td>
<td>18%</td>
<td>362,830</td>
<td>23%</td>
<td>14</td>
<td>2,832</td>
<td>25,916</td>
</tr>
<tr>
<td>4  Notified + exceeds CT*</td>
<td>80</td>
<td>68,932</td>
<td>31%</td>
<td>291,639</td>
<td>19%</td>
<td>5</td>
<td>13,786</td>
<td>58,328</td>
</tr>
<tr>
<td>5  Grand Total</td>
<td>424</td>
<td>221,005</td>
<td>100%</td>
<td>1,568,375</td>
<td>100%</td>
<td>43</td>
<td>5,140</td>
<td>36,474</td>
</tr>
</tbody>
</table>

(*) the counterparties belonging to a group which notified ESMA are included in the “Notified” group, even if the counterparty itself did not make the notification

55. Table 3 shows that the number of groups of NFC+ is fairly limited, with 43 groups representing 424 counterparties. Those groups held on average 5,000 trades each, with average notional above EUR 36,000mn at group level. As an order of magnitude, the typical portfolio size of a group of NFC+ is about five times bigger than the average portfolio of FCs in terms of trade count and 1.5 times bigger in terms of notional amount.

56. As evidenced in column F of Table 3, there are approximately as many groups of NFCs which notified ESMA as groups of NFCs which did not make this notification (but nevertheless exceed the clearing threshold as measured by their aggregate non-hedge positions per asset class). In fact, only 5 groups representing 80 counterparties have both reported non-hedging positions in excess of the clearing threshold and have notified ESMA of this fact (row 4 of Table 3).

57. The above elements evidence clear difficulties in the identification of NFC+, by the counterparties themselves but also by the regulators.

58. Those difficulties are mainly visible in:

   — the large number of counterparties which classify themselves as NFC+ using the field “Clearing threshold”, but whose positions as reported to TRs are way below the clearing threshold. As shown in more detail in the annex (Section 5.1.5, Table 8), there are thousands of counterparties which reported their trades with value “Yes” in the field “Clearing threshold”, but whose volume of activity (at least as reported to TRs) is very limited and would not make them exceed any of the thresholds;

   — the number of groups (24) and related counterparties (206) whose positions as reported to TRs indicate an exceedance of the clearing threshold, but who did not notify ESMA of this fact.

59. The aggregation of the non-hedging positions at group level is complicated by the combination of at least three elements:

   — The international dimension: those groups were found to be present in up to 15 countries (5 on average), notwithstanding the transactions between two non-EU entities of the groups which are unlikely to be reported to TRs;

   — The number of entities in the group: those groups were found to be composed of up to 40 separate legal entities (10 on average), which numbers are likely to be under estimated in view of the scarcity of information on group composition; and

   — The number of transactions at group level, which amounted to up to 37,000 for a single group (5,000 on average), with the requirement for each transaction to be classified as hedging or non-hedging.
60. In view of the above, it appears that the complex mechanism introduced by EMIR for the NFC+ classification has so far led to significant difficulties in the identification, monitoring and, as a consequence, possible supervision of these entities by their competent authorities.

61. As a result, in the context of the revision of EMIR, ESMA would see some merit in the simplification of the current framework for the determination of NFC+.

62. One route that the Commission may wish to explore is to move from the current two-step process (Hedging/Non Hedging and clearing threshold) to a one-step process, where counterparties would qualify as NFC+ when their outstanding positions exceeds certain thresholds per asset class, irrespective of the qualification of the trades as hedging or non-hedging. This idea is further developed in Section 4.2 which addresses the way in which NFCs qualify their transactions as hedging and non-hedging.

3.2.2 Further classification of NFC-

63. The analysis of TR data revealed a substantial heterogeneity among the group of NFC-, which provided grounds to separate NFC- in two distinct groups depending on their volumes of activity.

64. This segregation was performed in the following manner: within each asset class, we calculate the 99% percentile in terms of notional amounts. This means that the sum of outstanding notional amounts of all the counterparties with positions above that threshold account for 99% of the market in each asset class.

65. This group of counterparties above the 99% percentile includes FCs, NFC+ and NFC-. Subsequently, all the NFC- in this group are categorised as “Large NFC-” while the others are categorised as “Small NFC-“.

66. The outcome of this separation is that within the NFC category, Large NFCs represent less than 1% of the number of counterparties but 20% of the volumes measured by trade count and 35% as measured by notional amounts (Table 4).

67. Therefore, this classification allows the aggregation of positions among homogeneous sets of counterparties.

68. As evidenced in Figure 1, not taking into account the qualification of the transactions as “hedging” or “non-hedging”, it appears that the level of activity of the Large NFC- is typically higher than or similar to that of counterparties classified as NFC+.

69. Figure 1 shows that the population of Small NFC-, which represent more than 98% of the counterparties, exhibit average levels of activity at counterparty level that are significantly lower than that of the other NFC- and the NFC+.

70. As a result, the analysis of the hedging/non-hedging positions of NFC which is developed in Section 4.2 will focus on the groups of NFC+ and Large NFC- only.
Figure 1: Average volumes of NFCs (trade count and notional)

Source: TR data, ESMA calculation.

3.2.3 Outcome of the counterparty classification

71. Based on the assumptions detailed in 3.2.1 and 3.2.2, the final classification of NFCs is presented in Table 4 below. This classification will be used throughout the paper.

Table 4: Overview of Financial counterparties, NFC+ and NFC-

<table>
<thead>
<tr>
<th>Counterparty status</th>
<th>Number of counterparties</th>
<th>Number of trades</th>
<th>Notional Amount (EUR mn)</th>
<th>Average number of trades per counterparty</th>
<th>Average notional per counterparty (EUR mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Non Financial Above (NFC+)</td>
<td>424</td>
<td>221,005</td>
<td>1,568,375</td>
<td>521</td>
<td>3,699</td>
</tr>
<tr>
<td>2 Notified + does not exceed CT*</td>
<td>138</td>
<td>39,643</td>
<td>362,830</td>
<td>287</td>
<td>2,629</td>
</tr>
<tr>
<td>3 Notified + exceeds CT*</td>
<td>80</td>
<td>68,932</td>
<td>291,639</td>
<td>862</td>
<td>3,645</td>
</tr>
<tr>
<td>4 Non Financial Below (NFC-)</td>
<td>64,901</td>
<td>1,703,047</td>
<td>8,081,533</td>
<td>26</td>
<td>125</td>
</tr>
<tr>
<td>5 Not notified + exceeds CT</td>
<td>206</td>
<td>112,430</td>
<td>913,906</td>
<td>546</td>
<td>4,436</td>
</tr>
<tr>
<td>6 Notified + does not exceed CT</td>
<td>138</td>
<td>39,643</td>
<td>362,830</td>
<td>287</td>
<td>2,629</td>
</tr>
<tr>
<td>7 Notified + exceeds CT*</td>
<td>80</td>
<td>68,932</td>
<td>291,639</td>
<td>862</td>
<td>3,645</td>
</tr>
<tr>
<td>8 Grand Total</td>
<td>65,325</td>
<td>1,924,052</td>
<td>9,649,908</td>
<td>29</td>
<td>148</td>
</tr>
</tbody>
</table>

Source: TR data, ESMA calculation.
3.3 Summary of findings and proposals in relation to the identification of non-financial counterparties

72. As developed above, the main findings of Section 3 on the identification of NFCs are the following:

— **Systemic relevance**: NFCs represent a large share of total number of counterparties in OTC derivative markets (72%), but a very small proportion of the volumes (7% of the outstanding volumes as measured by trade count and 2% of the outstanding volumes as measured by notional amount). The potential relevance of NFCs only appears when the volumes are disaggregated per asset class, as done in the second section of the paper.

— **Quasi-financial**: Some counterparties whose primary purpose is to invest in financial markets in one way or the other (referred to as “quasi-financial” counterparties) sometimes meet the definition of non-financial counterparties, which is counter-intuitive and may not have been the original intention of the legislator.

— **Counterparty classification**: The information on counterparty classification (FC versus NFC as well as, at more granular level, NFC+ versus NFC-) is not easily accessible. For NFCs in particular, there are approximately as many groups of NFCs which notified ESMA of being NFC+, as groups of NFCs which did not make this notification but nevertheless exceed the clearing threshold as measured by their aggregate non-hedge positions per asset class.

73. Based on those findings, ESMA identified certain proposals that the European Commission may wish to consider in the context of the review of EMIR:

— For quasi-financial: (1) establish a process to ensure that quasi-financial counterparties are unambiguously identified and not commingled with corporates; and (2) based on this clear identification, assess the systemic relevance of quasi-financials and consider whether their classification as NFC is justified;

— To improve the system of counterparty classification:

  a. **FC/NFC**: leverage on the existing registers of financial counterparties, as well as the increasing use of LEIs, reflecting on the creation of a central and unique register of financial counterparties, to increase transparency and foster supervisory convergence.

  b. **NFC+/NFC-**: simplify the determination of the status NFC+/NFC-, on the basis that the share of hedging versus non-hedging positions may not be the most relevant criteria to assess the systemic relevance of NFCs (as certain Large NFC- deal with portfolios of OTC derivatives which are substantially larger than those of certain NFC+).

74. The next section provides an analysis of the activity of NFC in OTC derivatives, including breakdowns per asset class, the analysis of the hedging versus non-hedging positions, and the way in which the clearing thresholds are exceeded.
4 Systemic importance of the OTC derivatives transactions of non-financial counterparties

75. Leveraging on the definition provided by the IMF, the BIS and the FSB, it is generally considered that an institution, market or instrument is systemic if its failure or malfunction causes widespread distress, either as a direct impact or as a trigger for broader contagion.\(^\text{11}\)

76. As enunciated in the ESRB Regulation, the key criteria helping to identify the systemic importance of markets and institutions are size (the volume of financial services provided by the individual component of the financial system), substitutability (the extent to which other components of the system can provide the same services in the event of failure) and interconnectedness (linkages with other components of the system).

77. This report provides an assessment of the systemic importance of the positions of NFCs with metrics related to the first criteria (size, in Sections 4.1.1, 0 and 4.3), and the last criteria (interconnectedness, in Section 4.1.2), as metrics related to substitutability have proved difficult to develop.

4.1 Analysis per asset class

78. For the analysis of activity of non-financial counterparties, it is essential to present this activity per asset class, under which counterparties are reporting their transactions. This presentation is relevant because as per Article 10 of EMIR, counterparties shall measure the gross total notional values of all outstanding transactions per each asset class separately, and compare them to the respective thresholds defined in Article 11 of the RTS on OTC derivatives and, on this basis, decide whether they classify as NFC+.

79. It is worth mentioning that, as per Article 10 of EMIR, the obligations imposed on counterparties classified as NFC+ are imposed at the level of the NFC, i.e. for all their activity in OTC derivatives, and not only on the activity in the asset class in respect of which the threshold was exceeded.

80. It should be born in mind that the different transpositions of MiFID across Member States mean that there is no single, commonly adopted definition of derivative or derivative contract in the European Union, and this is particularly true in the case of foreign exchange (FX) forwards and physically settled commodity forwards (as explained in an exchange of letters between ESMA and the European Commission).\(^\text{13}\)

81. As a result, the same contract may be considered a derivative contract in one Member State and a spot contract in another Member State, with the consequence that the latter would not be reported to TRs.

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\(^\text{11}\) Report of the IMF, the BIS and the FSB, of 28 October 2009, presented to the G-20 Finance Ministers and Central Bank Governors, entitled ‘Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations’


82. Therefore, it is acknowledged that the volumes per asset class, especially for FX, could probably be fine-tuned due to the absence of reporting of contracts that certain Member States consider not being derivatives.

4.1.1 Systemic importance of NFC: Metrics related to criteria 1 (size)

83. Firstly it is important to monitor whether counterparties are active in multiple asset classes, or instead in a limited number of classes, as presented in Figure 2.

Figure 2: Presence of NFCs across asset classes (based on number of counterparties)

Source: TR data, ESMA calculations. Counterparties reporting without an LEI not included. Counterparties which could not be classified as NFC+ or NFC- not included.

A counterparty is deemed “active” is an asset class when it reported at least one trade in this asset class.

84. Figure 2 shows that the vast majority of NFCs have reported transactions in one asset class only, this being even more acute for the group of Small NFC-, of which 93% are only active in one asset class (56% are only active in Interest rate, 33% only in FX, 2% only in Commodity, 1% only in Equity).

85. This supports the view that the systemic importance of the positions of NFCs is best assessed at the level of each individual asset class. Indeed, given that NFCs are generally active in only one asset class, it is likely that the failure of one of them would mainly have an impact within the specific asset class in which that NFC is active.

86. Figure 3 follows this element and presents various breakdowns of volumes (as measured by trade count and notional amounts) per counterparty type and asset class using two different views:

- The first set of graphs takes each counterparty type (FCs, NFC+ and NFC-) as a basis and within each counterparty type, provides a breakdown per asset class;
- The second set of graphs takes each asset class as a basis and within each asset class, provides the breakdown per counterparty types;

<table>
<thead>
<tr>
<th>NFCs active in</th>
<th>Number of counterparties (%)</th>
<th># of asset class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity Only</td>
<td>2%</td>
<td>1</td>
</tr>
<tr>
<td>Credit only</td>
<td>0%</td>
<td>1</td>
</tr>
<tr>
<td>Equity only</td>
<td>1%</td>
<td>1</td>
</tr>
<tr>
<td>FX only</td>
<td>33%</td>
<td>1</td>
</tr>
<tr>
<td>Interest Rate only</td>
<td>56%</td>
<td>1</td>
</tr>
<tr>
<td>FX and Interest Rate</td>
<td>4%</td>
<td>2</td>
</tr>
<tr>
<td>FX and Commodity</td>
<td>0%</td>
<td>2</td>
</tr>
<tr>
<td>Interest Rate and Commodity</td>
<td>0%</td>
<td>2</td>
</tr>
<tr>
<td>Interest Rate, FX and Commodity</td>
<td>1%</td>
<td>3</td>
</tr>
<tr>
<td>Other Combination</td>
<td>2%</td>
<td>3 to 5</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Figure 3: Breakdown of volumes per counterparty type and asset class (part 1)

<table>
<thead>
<tr>
<th></th>
<th>Commodity and Other</th>
<th>Credit</th>
<th>Equity</th>
<th>Foreign Exchange</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on trade count</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>29%</td>
<td>6%</td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC+</td>
<td>34%</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC-</td>
<td>16%</td>
<td>0%</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Based on notional amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>12%</td>
<td>2%</td>
<td>81%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC+</td>
<td>17%</td>
<td>0%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC-</td>
<td>14%</td>
<td>0%</td>
<td>43%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4: Breakdown of volumes per counterparty type and asset class (part 2)

<table>
<thead>
<tr>
<th></th>
<th>Commodity and Other</th>
<th>Credit</th>
<th>Equity</th>
<th>Foreign Exchange</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on number of counterparties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>62%</td>
<td>35%</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Financial Above (NFC+)</td>
<td>40%</td>
<td>96%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Financial Below (NFC-)</td>
<td>2%</td>
<td>0%</td>
<td>83%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Based on trade count</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4%</td>
<td>18%</td>
<td>80%</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
87. The set of graphs in Figure 3 evidence that:

- NFCs can only be considered as active in three asset classes: Foreign exchange, by far the most relevant for NFCs with 60-70% of the trade count and 40-50% of the notional amount; followed by Commodity and Interest Rate;
- The activity of NFC in the Credit OTC derivatives market is almost inexistent, and it is very limited in the Equity OTC derivative markets.

88. The set of graphs in Figure 4 evidence that:

- The Commodity, Foreign Exchange and Interest rates asset classes involve mainly non-financial counterparties but the volumes are mainly in the hands of financial counterparties;
- Within those three asset classes, the Interest rate asset class exhibits the most unbalanced pattern, with NFCs representing 85% of the number of counterparties but only 1-2% of the volumes.
- The Commodity and Foreign Exchange asset classes are the two only asset classes in which the volumes reported by NFCs can be considered as important when compared to the volumes of FCs, in particular Commodity with 16% and 17% of the volumes in terms of trade count and notional amount respectively.

89. The differences between the systemic importance of NFC per asset class are further developed below.
4.1.2 Systemic importance of NFC: Metrics related to criteria 2 (interconnectedness)

90. Figure 5 below presents the breakdown of volumes where trades are aggregated depending on the classification of the two counterparties to the transaction. Therefore the volumes are grouped for trades concluded: (1) between two financial counterparties, (2) between one financial counterparty and one non-financial counterparty and (3) between two non-financial counterparties.\(^4\)

91. The breakdowns are provided aggregated across the five asset classes in the first diagram, as well as for each of the three asset classes which are the most relevant for NFCs (Commodities, FX and Interest rate), as measured by outstanding notional amounts in the following three diagrams.

**Figure 5: Interconnectedness between counterparties, per asset class**

<table>
<thead>
<tr>
<th>Based on notional</th>
<th>Across asset classes</th>
<th>Commodity</th>
<th>Foreign Exchange</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Graph" /></td>
<td><img src="image2" alt="Graph" /></td>
<td><img src="image3" alt="Graph" /></td>
<td><img src="image4" alt="Graph" /></td>
<td><img src="image5" alt="Graph" /></td>
</tr>
</tbody>
</table>

\(^4\) Due to the fact that missing LEIs are more frequent in the field “other counterparty ID” than in the field “Counterparty ID”, the results shown in Figure 5 are based on fewer transactions than the other graphs and tables of this report, as it is not possible to derive the financial or non-financial nature of the “other counterparty” when this counterparty (1) is reported without an LEI, and (2) is not also a reporting counterparty. Around 25% of the volumes are not accounted for in the numbers presented in Figure 5 for this reason.
92. Figure 5 illustrates that, when the OTC derivative market is considered altogether, the majority of the volume is executed between financial counterparties.

93. This dominance of intra-FC market is pronounced in the interest rate and to a lesser extent in the FX OTC derivatives markets, with 96% and 88% of the volumes done between two financial counterparties. This means that the default of non-financial counterparties would less likely have a disruptive effect to those markets than that of financial counterparties.

94. However, the OTC Commodity derivatives market exhibits a different pattern, since a majority of the volume (65%) includes at least one NFC.

95. Those numbers support the view that the OTC Commodity derivatives market is less driven by financial counterparties and that NFCs tend to play a larger role in this market, including a market-making role therein for some of them. Thus, the consequences of the default of an NFC would probably be more critical to the OTC Commodity derivatives market than to the other OTC derivatives markets.

96. The above characterises the trading activity in the OTC derivatives market at the level of the type of counterparty, i.e. dividing the activity between financial counterparties and non-financial counterparties, and thus highlights the level of interconnectedness within each of these two segments of the market and across them. However, drilling down one level, interconnectedness can also be analysed at the level of the individual counterparties, by looking at how many different entities a given counterparty can face, and thus how many different entities are exposed to the credit risk of this counterparty.

97. Should this number be limited, everything else being equal, it would mean that a default of a counterparty would not be distributed across a large number of counterparties, but that instead it would be concentrated on a limited number of counterparties, thus potentially having a bigger weight and impact on each of these counterparties. In turn, this impact on a few counterparties, and as described above, likely to be FCs, would also contain a spill-over effect to the rest of the market.

Table 5: Level of interconnectedness and level of exposure

<table>
<thead>
<tr>
<th>Nb</th>
<th>Type of counterparty / measure</th>
<th>Number of distinct counterparties</th>
<th>Average number of firms that a counterparty trades with</th>
<th>Average number of trades</th>
<th>Average notional value of trades (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Financial counterparties</td>
<td>27,985</td>
<td>31.45</td>
<td>872.40</td>
<td>21,412,708,769</td>
</tr>
<tr>
<td>2</td>
<td>Non-financial counterparties, including:</td>
<td>105,172</td>
<td>1.32</td>
<td>489.79</td>
<td>95,174,616</td>
</tr>
<tr>
<td>3</td>
<td>- NFC+</td>
<td>453</td>
<td>4.77</td>
<td>609.01</td>
<td>3,525,677,677</td>
</tr>
<tr>
<td>4</td>
<td>- Large NFC-</td>
<td>631</td>
<td>5.85</td>
<td>609.01</td>
<td>5,383,529,994</td>
</tr>
<tr>
<td>5</td>
<td>- Small NFC-</td>
<td>104,088</td>
<td>1.28</td>
<td>48.18</td>
<td>48,185,817</td>
</tr>
</tbody>
</table>

Source: TR data, ESMA calculations. Counterparties reporting without an LEI not included. Counterparties which could not be classified as NFC+ or NFC- not included.

98. Table 5 shows the number of counterparties which FC and NFC trade with on average, broken down by type of counterparty (financial counterparties and non-financial counterparties, including for the latter: NFC+, large NFC- and small NFC-). It can be observed that, on average, financial counterparties trade with many more counterparties than non–financial counterparties do.

99. However, in line with the rest of this report, the distinction is made between NFC+, large NFC- and small NFC-, to analyse their respective level of interconnectedness and the relative exposures associated to each, as it varies across them. On average, it is shown that FCs trade with 31 counterparties while NFCs trade with 1 or 2 counterparties, and NFC+ and large NFC- trade with 4 to 6 counterparties in general (i.e. about 5 or 6 times more connections for FCs than NFC+ and Large NFC-). This could imply that, everything else being equal, the financial
difficulties of non-financial counterparties could be distributed across a more limited number of counterparties and thus expose these counterparties to a greater risk.

100. Table 5 extends this analysis of the level of interconnectedness between counterparties; from the number of counterparties a given counterparty may have exposure to, to the actual level of this exposure in terms of trade count and notional value of the trades. Table 5 indicates that in terms of exposure, FCs have a larger number of trades with their counterparties and that the average notional value of these trades is also larger in comparison to NFCs in general.

101. However, Table 5 also indicates that for NFC+ and large NFC-, although being also smaller than for FCs in general, the level of exposure to their counterparties is significant and much closer to those of FCs than to those of small NFC-. With regard to the level of exposure, NFC+ and large NFC- have around 500 to 600 trades on average versus 872 for FCs and 20 for small NFC-; and the average notional value of trades for NFC+ and large NFC- is around 4 to 5 billion EUR on average versus 21 for FCs and 0.1 for NFCs.

102. Some of the differences between NFCs and FCs may be explained by their different profiles and potentially the less diversified activity of NFCs, but this also indicates that the level of exposure of NFC+ and large NFC- is on the one hand considered to be important in absolute and relative terms but as well on the other hand to be concentrated against fewer counterparties than in the case of FCs, with the corresponding impacts, spill over effects and eventually systemic implications in the case of a default.

4.2 Hedging versus non-hedging

103. To determine whether they are above or below the clearing threshold, NFCs shall only count transactions which are not entered into for hedging purposes as specified in Article 10 of the RTS on OTC derivatives.

104. As a result, NFCs are required to classify all their OTC transactions as “hedging” or “non-hedging” and to report the outcome of this classification in the TR field “Directly linked to commercial activity or treasury financing”.

4.2.1 Hedging versus non-hedging at counterparty type level

105. Figure 6 provides the percentage of volumes qualified as hedging with breakdowns per counterparty types and asset classes.
Across asset classes, the proportion of the volumes concluded for hedging purposes is around 67%-73% for NFC+ (as measured by trade count and notional amounts respectively).

For NFC-, the proportion of the volumes concluded for hedging purposes is higher than for NFC+, with 88% as measured by trade count, and a higher percentage as measured by notional amounts (99% for Large NFC- and 93% for Small NFC-).

The fact that Large NFC- qualify more trades as hedging than Small NFC- was observed consistently in each asset class, with the biggest difference found in the Commodity asset class (98% for Large NFC- compared to 87% for Small NFC-).

To get a better understanding of the way in which counterparties qualify their trades as hedging or non-hedging, the following paragraphs examine similar statistics but this time at the individual level of the counterparties.

### 4.2.2 Hedging versus non-hedging at counterparty level

The analysis of TR data provides information on the way in which individual counterparties classify their transactions as hedging or non-hedging. For each counterparty, we measure the percentage of outstanding volume (measured by notional amounts) tagged as non-hedging and then determine the resulting distribution of this ratio (Figure 7) for NFCs, with a breakdown between small NFC-, large NFC- and NFC+.

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15 For the purpose of this calculation, NFCs with less than ten outstanding trades were not included, to improve the significance of the breakdown between “hedging” and “non-hedging”.

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Source: TR data, ESMA calculations
As highlighted in Figure 7, more than 80% of the NFC- qualify all their transactions as hedging. Adding to these numbers the percentage of counterparties which, on the other side, qualify all their transactions as non-hedging, it appears that a very large majority of NFC- (94% of the Small NFC- and 89% of the Large NFC-) systematically qualify all their trades under the same banner, either all as hedging, or, in fewer cases, all as non-hedging.

### Small NFC-

112. It should be noted that the group of Small NFC- is composed of thousands of counterparties, among which a large majority have positions (hedging + non-hedging) in OTC derivatives which are far below the clearing threshold. This means that those counterparties would likely be below the clearing threshold even if all their trades were made for non-hedging purposes (unless the aggregation at group level proves otherwise).

113. As confirmed by the percentage of Small NFC- which qualify all their trades in the same manner (either 100% hedging or 100% non-hedging), it seems that in practice a vast majority of small NFC- are not monitoring whether their trades are concluded for hedging or non-hedging.
purpose, under the legitimate reason that such monitoring comes with costs\textsuperscript{16} that are not justified since, either way, they would fall below the clearing threshold (with the caveat of the aggregation at group level).

114. As a result, the requirement to classify the transactions as hedging or non-hedging may be overly costly and disproportionate to a number of Small NFC-, typically those whose total positions (hedging + non-hedging) at group level are below all the clearing thresholds.

115. This issue could be tackled without changing the regulation, by potentially advising those Small NFC- to proceed as follows: counterparties with total positions below the thresholds and who prefer not to monitor whether their transactions qualify as hedging or non-hedging (which monitoring implies being able to demonstrate the classification to their regulators) have the possibility to report all their trades as non-hedging.

\textit{Large NFC-}

116. Figure 7 shows that 85% of the Large NFC- qualify all their trades as hedging. As a result, those counterparties do not exceed any of the clearing threshold, even when their portfolios of OTC derivatives (hedging + non-hedging) are in some cases substantial, and can actually be much higher than the portfolios of NFC+.

117. The individual positions of Large NFC- are further compared to those of NFC+ in Figure 8 below.

\textbf{Figure 8: Outstanding volumes (notional) of NFC+ and Large NFC-}

118. As illustrated in Figure 8, dozens of large NFC- groups have outstanding OTC derivative portfolios in excess of EUR 1 billion, with the biggest having OTC derivative portfolios in the region of 500 to 800 billion euros.

119. It follows from Figure 8 that the non-financial counterparties with the biggest OTC derivatives portfolios are not necessarily NFC+. Of the groups which qualify either as NFC+ or as large NFC-, 75% are NFC-.

\textsuperscript{16} In the impact assessment accompanying the draft RTS on EMIR submitted by ESMA to the European Commission on 27 September 2012 (ESMA/2012/600 Annex VIII), those costs were estimated at EUR 50,000 on-off plus EUR 40,000 on-going per year and per counterparty.
120. In addition, the portfolio sizes of Large NFC- and NFC+ appear to be comparable: when counterparties are ranked by portfolio sizes as in Figure 8, the graph shows an alternation of NFC+ and NFC- with no specific pattern, hence it cannot be concluded that the largest NFC+ are larger than the largest NFC-, nor the other way around.

121. We also note that certain Large NFC- and NFC+ (having notified or not) have portfolios of OTC derivative of comparable sizes even when they belong to the same industry groups. Therefore, the fact that some of them exceed the thresholds while others don’t is the result of different proportions of trades being classified as hedging or non-hedging.

122. It should be born in mind that the hedging definition provided in Article 10 of the RTS on OTC derivatives was drafted in a very broad manner, which has led ESMA to issue a number of Q&As17 to clarify the intention and ensure a consistent application thereof.

123. The effort of consistency in the implementation, and supervisory convergence, should continue with further assessment of the reasons that explain the different qualifications, as NFC+ or as NFC-, of companies which appear to undertake similar activities and which hold OTC derivative portfolios of comparable sizes, to ensure there is no unfair treatment between them.

124. However, as mentioned in paragraph 59, this represents a challenging tasks for supervisors because of (1) the international dimension of groups, (2) the identification of the entities in the same groups and the resulting number of entities therein; and (3) probably the most complex issue from a supervisory point of view, the number of transactions (up to 37,000 for a single group and 5,000 on average) in respect of which the classification as hedging or non-hedging should be assessed.

125. In practise, this means that the classification of transactions as hedging or non-hedging would in most cases be left to non-financial counterparties with important limitations for their supervisors to verify compliance with the hedging definition, which is itself broad enough to raise interpretation issues.

126. In relation to point (2), it should be noted that national competent authorities cannot easily gather information on the identity and the activity of the subsidiaries of the NFC they supervise, if those subsidiaries are established in third-countries or in different European member states, meaning they may face difficulties in reaching a comprehensive view of the activity of the NFCs at group level.

127. To get a better idea of whether Large NFC- bear some systemic relevance, their positions are broken down per asset class and compared to the positions of financial counterparties and NFC+, for the three asset classes in which NFCs are mostly active, i.e. Commodity, FX and Interest rate (Figure 9).

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17 See in particular OTC Question 3 and 10 of the ESMA Q&A on the implementation of EMIR
Figure 9: Positions of individual NFCs compared to FC

(1) Commodities

Outstanding volumes (notional) of NFC compared to FC

Groups with outstanding portfolios of more than EUR 1,000 mn

(2) Foreign Exchange

Outstanding volumes (notional) of NFC compared to FC

Groups with outstanding portfolios of more than EUR 10,000 mn

(3) Interest Rates

Outstanding volumes (notional) of NFC compared to FC

Groups with outstanding portfolios of more than EUR 50,000 mn

128. Figure 9 shows important differences between those three asset classes: in the Commodity asset class, there are many groups of Large NFC- and NFC+ among the biggest market
participants, and they appear relatively high when counterparties are ranked by portfolio sizes. For example, the second biggest participant in the OTC commodity market as measured by outstanding notional amount was found to be a group of NFC-.

129. On the other side of the spectrum, in the Interest rate asset class, there are few groups of Large NFC- and NFC+ among the biggest market participants, and they appear relatively low when counterparties are ranked by portfolio sizes, with the first one appearing at rank 66.

130. The picture of the OTC FX market appears to be somewhere in the middle, with a still important number of Large NFC- and NFC+ groups among the biggest market participants, arriving at lower ranks than for the commodity asset class (the first NFC- appears at ranks 45 while the first NFC+ appears at rank 126).

131. As a result, it could reasonably be concluded that the only asset classes in respect of which a relatively important number of NFCs bear systemic relevance are the Commodity asset class and, to a lesser extent, the FX asset class.

132. Even if most of the transactions of those large NFC- groups appear to qualify as hedging, the absolute size of their FX and commodity portfolios compared to that of NFC+ and FC is significant and raises the question as to whether the current framework applicable to those counterparties addresses appropriately the systemic risk that they appear to represent.

133. More specifically, it is unclear that the mere fact that those Large NFC- qualify significant volumes of their trades as hedging (hence fall below the clearing threshold) is sufficient to conclude that they are not systemically relevant.

134. The above analysis provides support for a closer monitoring of the small number of NFCs which are particularly active in the FX and Commodity OTC derivatives markets, and which tend to qualify close to 100% of their trades as hedging.

4.2.3 Conclusions on the classification as hedging/non-hedging

135. Taking into account the elements developed in 4.2.1 and 4.2.2, as well as the complexity of the framework applicable to NFCs, ESMA would like to suggest to the European Commission a modification of the way in which NFC+ are identified, to ensure that the entities that qualify as NFC+ are in effect the ones that pose the most significant risks to the system.

136. This could be achieved, for example, by looking at the positions in OTC derivatives per asset class irrespective of their hedging or non-hedging nature, and setting the clearing thresholds (through revised RTS) accordingly.

137. This proposal is supported by the following elements:

   — the outcome of the current system for identification of NFCs, which results in large groups of NFC being below the clearing thresholds because of a systematic classification of their trades as hedging, even when their aggregate positions is well above that of certain FC and NFC+.

   — the very important number of counterparties which classify 100% of their trades either as hedging or as non-hedging, which tends to suggest that those counterparties, to begin with, have not developed systems to monitor the hedging or non-hedging nature of their transactions;

   — the practical challenges faced by competent authorities in assessing the compliance of the trade classification as hedging or non-hedging. In practice, compliance with the hedging/non-hedging classification appears to be very difficult to verify.
138. In addition to capturing the most systemically important NFCs, this would greatly simplify the process and lower the burden and compliance costs incurred by most NFCs, given that even the smallest ones are currently required to classify all their transactions as hedging or non-hedging.

4.3 Threshold exceedance per asset class

139. In order to assess the relevance of the current clearing thresholds, it is interesting to identify the asset class in respect of which NFCs exceed the clearing threshold, as well as to get some quantitative insight of how the thresholds are exceeded.

140. This analysis is performed at group level, on NFC+ which have reported non-hedging transactions in excess of a clearing threshold, irrespective of the fact that they have notified ESMA under Article 10(1) of EMIR or not.

141. Table 6 and Figure 10 provide, for each asset class, the number of counterparties and groups which exceed each threshold, as well as the average, minimum and maximum exceedance (i.e. the outstanding notional amount divided by the threshold, which is above 1 when the counterparty exceeds the threshold). It also shows the share of NFC+ volumes as a percentage of the total NFC volumes per asset class.

142. All figures are provided:

— Under the current 2-step framework, i.e. NFC+ are identified as those with non-hedging transactions above the clearing threshold; and

— For comparison purpose, under a 1-step framework, where NFC+ would be identified as those with hedging + non-hedging transactions above the same clearing threshold.

Table 6: Threshold exceedance per asset class

*Current 2-step framework: only non-hedge trades counted towards clearing threshold*

<table>
<thead>
<tr>
<th>(numbers)</th>
<th>Commodity and Other</th>
<th>Credit</th>
<th>Equity</th>
<th>Foreign Exchange</th>
<th>Interest rate</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of groups exceeding threshold</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>of which have notified</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>of which have not notified</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Number of counterparties exceeding threshold</td>
<td>112</td>
<td>11</td>
<td>0</td>
<td>169</td>
<td>44</td>
</tr>
</tbody>
</table>

(*) Total number of groups and counterparties without duplicates. Groups/counterparties which exceed several thresholds are counted only once in the total.

<table>
<thead>
<tr>
<th>(ratios)</th>
<th>Commodity and Other</th>
<th>Credit</th>
<th>Equity</th>
<th>Foreign Exchange</th>
<th>Interest rate</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Average exceedance</td>
<td>3.9</td>
<td>2.1</td>
<td>0.0</td>
<td>5.9</td>
<td>2.3</td>
</tr>
<tr>
<td>6</td>
<td>Max exceedance</td>
<td>15.3</td>
<td>2.1</td>
<td>0.0</td>
<td>17.4</td>
<td>4.7</td>
</tr>
<tr>
<td>7</td>
<td>Min exceedance</td>
<td>1.2</td>
<td>2.1</td>
<td>0.0</td>
<td>1.1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

(*) Total number of groups and counterparties without duplicates. Groups/counterparties which exceed several thresholds are counted only once in the total.
For comparison: 1-step framework, all trades counted towards clearing threshold

<table>
<thead>
<tr>
<th>(numbers)</th>
<th>Commodity and Other</th>
<th>Credit</th>
<th>Equity</th>
<th>Foreign Exchange</th>
<th>Interest rate</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of groups exceeding threshold</td>
<td>34</td>
<td>1</td>
<td>1</td>
<td>49</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>Number of counterparties exceeding threshold</td>
<td>314</td>
<td>11</td>
<td>1</td>
<td>788</td>
<td>544</td>
</tr>
</tbody>
</table>

(*) Total number of groups and counterparties without duplicates. Groups/counterparties which exceed several thresholds are counted only once in the total.

<table>
<thead>
<tr>
<th>(ratios)</th>
<th>Commodity and Other</th>
<th>Credit</th>
<th>Equity</th>
<th>Foreign Exchange</th>
<th>Interest rate</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Average exceedance</td>
<td>12.9</td>
<td>2.1</td>
<td>4.0</td>
<td>12.2</td>
<td>12.8</td>
</tr>
<tr>
<td>4</td>
<td>Max exceedance</td>
<td>263.9</td>
<td>2.1</td>
<td>4.0</td>
<td>84.4</td>
<td>97.0</td>
</tr>
<tr>
<td>5</td>
<td>Min exceedance</td>
<td>1.0</td>
<td>2.1</td>
<td>4.0</td>
<td>1.1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

(*) Total number of groups and counterparties without duplicates. Groups/counterparties which exceed several thresholds are counted only once in the total.

**Figure 10: Threshold exceedance per asset class**

**Current 2-step framework: only non-hedge trades counted towards clearing threshold**

**For comparison: 1-step framework, all trades counted towards clearing threshold**

**Source: European TR data, ESMA calculation.**
**Equity and Credit**

143. At the current threshold levels, TR data indicates that no counterparty exceeds the Equity threshold, and only one group exceeds the Credit threshold. In fact, the overall activity of NFCs in the Credit asset class (hedging + non-hedging) was found to be non-existent with the exception of three NFC groups. The situation is similar with respect to Equity OTC markets, with only a dozen of NFC groups active in the asset class.

144. Even if all trades were counted towards the clearing threshold, there would be just 1 group of NFC exceeding the Equity threshold, and 1 group of NFC exceeding the Credit threshold.

**Commodity, Foreign exchange and interest rate**

— Number of groups above the clearing threshold

145. The number of groups exceeding the Commodity, Foreign exchange or Interest rate threshold is currently around ten for each asset class, with a few groups exceeding more than one threshold (the total number of groups which exceed at least one threshold is 29). This represents a number of counterparties which varies from 44 for the Interest rate asset class to 169 for the Foreign exchange asset class, and 290 counterparties in total (without duplicates).

146. Those numbers are valid under the classification used in this report, i.e. when counterparties are classified as NFC+ when their non-hedging positions at group level is above the clearing threshold, even when they have not made a notification under Article 10.

147. It should be noted that within the 29 groups that were found to exceed at least one threshold, only 5 have provided a notification under Article 10 (Row 2 of Table 6)

148. Under the hypothetical 1-step framework (all trades counted towards the clearing threshold and same threshold levels) the number of NFC+ groups would still be relatively limited, with less than 50 groups exceeding each threshold (34, 49 and 44 for the Commodity, Foreign exchange and Interest rate threshold respectively).

149. There is more overlap in this case, i.e. more groups would exceed several thresholds than under the current framework. As a result, the number of groups captured by at least one threshold under the hypothetical 1-step framework would grow from the current 29 (representing 290 counterparties) to 84 (representing 873 counterparties).

— Threshold exceedance

150. In the Foreign exchange asset class, groups have on average outstanding volumes of non-hedging activity which are close to 6 times the threshold (18 billion per group). These numbers go down to 4 times the threshold (12 billion) for Commodity and 2.3 times the threshold (6.9 billion) for Interest rate. This means that on average, when the thresholds are exceeded, they are exceeded by far (with the caveat that the number of groups analysed here are pretty small).

— Share of NFC+ volumes within NFC

151. As shown in Figure 10, the current framework for NFC+ captures a very limited fraction of the total NFC volumes (as measured by outstanding notional amounts): 10% for Commodities, 5% for FX and 2% for Interest rate.

152. Those numbers would grow to 91%, 42% and 44% under the hypothetical 1-step framework

153. Since only NFC+ will be subject to the clearing obligation or to the bilateral exchange of margins, the percentages of paragraph 151 indicate that only a small portion of the NFC risks will eventually be addressed, either by the requirement to clear or by the requirement to exchange margins.
154. The fact that the current number of groups which exceed the clearing thresholds is comparable in each asset class could be interpreted as meaning that the current calibration of the thresholds fails to capture the diversity of systemic relevance of NFCs depending on the asset class, as described in Figure 9 and paragraphs 128 to 131.

155. In particular, if the clearing thresholds were designed to address systemic risk consistently at asset class level, then one could expect that the Commodity threshold captures more groups/counterparties than the FX threshold which itself should capture more groups/counterparties than the Interest rate threshold.

156. The fact that close to zero counterparties were found to exceed the equity and credit threshold should not be read as meaning that those thresholds are “too high” (relative to the others), but is a mere consequence of the very low activity of NFCs in those two asset classes.

157. In terms of the current levels of the thresholds, those preliminary findings could serve as a basis for the review of the thresholds which shall be undertaken periodically by ESMA after consulting the ESRB and other relevant authorities, as per Article 10(4) of EMIR.

**4.4 Summary of findings and proposals in relation to the systemic importance of the OTC derivatives transactions of non-financial counterparties**

158. As developed in the above paragraphs, the main findings of the second section on the systemic importance of the positions of NFCs in OTC derivative markets are the following:

- A very large majority of NFCs are active in only one asset class of OTC derivatives (in most cases interest rates and, to a lesser extent, FX), supporting the view that the systemic relevance of NFC is best assessed at asset class level;

- In terms of volumes, NFCs appear to be active in only three asset classes: Interest rates, FX and Commodities. Based on TR data, their reported activity in Equity and Credit OTC derivatives is almost inexistent;

- The Commodity and the FX OTC derivatives markets are the only two asset classes in which a relatively important number of NFCs bear some systemic relevance as compared to FCs. This is demonstrated by numbers related to size and, in the case of the Commodity market, also by numbers related to interconnectedness;

- A very large majority of Small NFC- (94%) systematically qualify all their trades under the same banner, either 100% hedging, or, in fewer cases, 100% non-hedging;

- A majority of Large NFC- (85%) qualify 100% of their trades as hedging. As a result, those counterparties do not exceed any of the clearing threshold even when their portfolios of OTC derivatives are substantial and higher than the portfolios of NFC+;

- In particular in the Commodity asset class, there are many groups of Large NFC- among the biggest market participants. As an illustration, the second biggest market participant in the OTC commodity market as measured by outstanding notional amount was found to be a group of NFC-;

- The current Commodity, FX and Interest rate thresholds are exceeded by a small and consistent number of NFC groups (around 10 groups per asset class representing a few hundreds of counterparties). In addition, NFC+ represent only a small portion of the total NFC volumes (between 2% and 10% depending on the asset class).
159. Based on those findings, the European Commission may wish to revisit the way in which NFC+ are identified, to ensure that the entities that qualify as NFC+ are in effect the ones that pose the most significant risks to the system, which does not appear to be the case under the current framework.

160. For example, ESMA suggests that this could be achieved by aggregating the positions on NFC in OTC derivatives per asset class irrespective of their hedging or non-hedging nature, and setting the clearing thresholds accordingly. In addition to capturing the most systemically important NFCs, this would greatly simplify the process and lower the burden and compliance costs incurred by most NFCs, given that even the smallest ones are currently required to classify all their transactions as hedging or non-hedging. Finally, it should be noted that the hedging definition provides for certain margin of discretion and interpretation, thus leading to an inconsistent application and the compliance with the hedging definition is a very complex matter to supervise, considering also the calculation of the threshold at group level.
5 Annexes

5.1 Annex 1: Assumptions on the dataset

5.1.1 Assumption on the classification of trade as OTC

161. This report is based on OTC trades only. The selection between OTC and ETD trades was performed on the basis of the TR field “Venue of execution”. Only trades marked with the value “XXXX” or “XOFF” in this field were taken into account.

162. It is to be noted that, under Article 2(7) of EMIR, a derivative contract the execution of which takes place on a third-country market is defined as an OTC derivative contract as no third-country market has yet been considered as equivalent to a regulated market in accordance with Article 19(6) of Directive 2004/39/EC, which has led to some differences in the reporting of the related trades. ESMA is mindful of this distinction and has taken it into consideration while reviewing the results of the analysis.

5.1.2 Assumptions on the asset class

163. The breakdown of trades per asset class was performed on the basis of the TR “Product ID1”. Transactions which asset class could not be recognised were excluded from the dataset. This is the case of transactions which are not populated according to taxonomy E as described in the relevant Technical Standards. This filter led to the elimination of around 1.4% of all OTC records.

5.1.3 Assumption on the notional amounts

164. Transactions where the notional amount was empty/zero, as well as transactions where the notional amount could not be converted into Euros (because the field “Notional currency” was either not filled, or filled with a value that was not recognised as a currency) were excluded from the dataset.

165. A little more than 2% of all OTC records were eliminated for one of those reasons.

166. The analysis of notional amounts also evidenced some obvious outliers (e.g. single transactions with notional amounts of hundreds of trillions of euros).

167. In order to form reasonable assumptions on the notional amount outliers, all the transactions with notional amounts higher than EUR 100mn were extracted to further study how would the aggregate notional be affected when a small proportion of these trades are eliminated in each asset class. Different percentages of elimination were studied and the results of the aggregate notional of each percentage were compared to the aggregate notional amount declared by the TRs in the public data. The conclusion was that removing 0.0005% of the reports enabled to match the figures published by TRs ones.

168. As a result, the treatment of notional outliers was performed on a very limited number of trades (0.0005% of the number of reports), which were removed from the dataset.

5.1.4 Assumption on the counterparties reporting without LEIs

169. When an LEI is used by the reporting counterparties, it provides a guarantee that each counterparty is counted only once. On the opposite, when trades are reported by counterparties...
without an LEI, it is possible that the same counterparty is identified with different codes throughout its reports, which would lead to an overestimation of the total number of counterparties.

170. To take this potential bias into account, Table 7 below shows a breakdown of financial and non-financial counterparties, with a distinction between entities established in Europe and outside Europe (which information was inferred from the LEI), and entities which did not provide an LEI, hence for which it was not straightforward to determine the country of establishment.

Table 7: Financial and Non-Financial counterparties – geographical breakdown

<table>
<thead>
<tr>
<th>Counterparty status</th>
<th>Number of counterparties</th>
<th>Number of counterparties (%)</th>
<th>Number of trades</th>
<th>Number of trades (%)</th>
<th>Notional Amount (EUR mn)</th>
<th>Notional amount (%)</th>
<th>Average trade count per counterparty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Financial</td>
<td>27,989</td>
<td>20.5%</td>
<td>24,413,718</td>
<td>92.2%</td>
<td>599,234,644</td>
<td>98.3%</td>
<td>872.3</td>
</tr>
<tr>
<td>2 Europe</td>
<td>22,540</td>
<td>16.5%</td>
<td>23,648,593</td>
<td>89.3%</td>
<td>592,645,910</td>
<td>97.2%</td>
<td>1,049.2</td>
</tr>
<tr>
<td>3 Third country</td>
<td>1,073</td>
<td>0.8%</td>
<td>652,871</td>
<td>2.5%</td>
<td>5,916,598</td>
<td>1.0%</td>
<td>608.5</td>
</tr>
<tr>
<td>4 Undetermined (no LEI)</td>
<td>4,376</td>
<td>3.2%</td>
<td>112,254</td>
<td>0.4%</td>
<td>672,137</td>
<td>0.1%</td>
<td>25.7</td>
</tr>
<tr>
<td>5 Non Financial</td>
<td>105,171</td>
<td>77.1%</td>
<td>2,065,755</td>
<td>7.8%</td>
<td>10,009,565</td>
<td>1.6%</td>
<td>19.6</td>
</tr>
<tr>
<td>6 Europe</td>
<td>64,295</td>
<td>47.1%</td>
<td>1,870,319</td>
<td>7.1%</td>
<td>9,497,337</td>
<td>1.6%</td>
<td>28.1</td>
</tr>
<tr>
<td>7 Third country</td>
<td>1,030</td>
<td>0.8%</td>
<td>53,733</td>
<td>0.2%</td>
<td>152,570</td>
<td>0.0%</td>
<td>52.2</td>
</tr>
<tr>
<td>8 Undetermined (no LEI)</td>
<td>39,846</td>
<td>28.2%</td>
<td>141,703</td>
<td>0.5%</td>
<td>359,657</td>
<td>0.1%</td>
<td>3.6</td>
</tr>
<tr>
<td>9 Undetermined</td>
<td>3,238</td>
<td>2.4%</td>
<td>8,359</td>
<td>0.3%</td>
<td>160,470</td>
<td>0.0%</td>
<td>2.6</td>
</tr>
<tr>
<td>10 Europe</td>
<td>1,293</td>
<td>0.9%</td>
<td>2,102</td>
<td>0.0%</td>
<td>40,140</td>
<td>0.0%</td>
<td>1.6</td>
</tr>
<tr>
<td>11 Third country</td>
<td>35</td>
<td>0.0%</td>
<td>133</td>
<td>0.0%</td>
<td>3,268</td>
<td>0.0%</td>
<td>3.8</td>
</tr>
<tr>
<td>12 Undetermined (no LEI)</td>
<td>1,920</td>
<td>1.4%</td>
<td>6,124</td>
<td>0.2%</td>
<td>117,061</td>
<td>0.0%</td>
<td>3.2</td>
</tr>
<tr>
<td>Total</td>
<td>136,398</td>
<td>100.0%</td>
<td>26,487,952</td>
<td>100.0%</td>
<td>609,404,679</td>
<td>100.0%</td>
<td>194.2</td>
</tr>
</tbody>
</table>

Source: TR data, ESMA calculations

171. As presented in Table 7, counterparties reporting without an LEI are numerous, but account for 1% of the volume as measured by trade count (D4, D8, D9) and 0.2% of the volume as measured by notional amounts (F4, F8, F9).

172. It can also be noted that the average number of outstanding trades per counterparty (column G) is much lower for counterparties reporting without an LEI than for counterparties reporting with an LEI. For example, European financial counterparties reporting with an LEI have on average over 1,000 of outstanding trades (G2). This compares to only 25 transactions on average per financial counterparty reporting without an LEI (cell E10).

173. Those numbers seem to indicate that the absence of LEI leads to an overestimation and a biased representation of the actual number of counterparties, since the same counterparty is likely to report several times with different codes.

174. As a result, it seems reasonable to exclude from the dataset the trades reported by counterparties without an LEI. This allows a more accurate assessment of the number of counterparties, while eliminating only a marginal portion of the trades.

5.1.5 Assumption on the identification of NFC+

175. The identification of non-financial counterparty above and below the clearing threshold can be performed on the basis of (1) the TR field “Clearing Threshold”, (2) the re-calculation at group level of the transactions reported as “Non-hedging” per asset class, which should then be compared to the clearing thresholds; and (3) the notifications sent by NFC+ to ESMA in accordance with Article 10(1)(a) of EMIR.

176. As presented in Table 8, those three sources of information evidenced significant discrepancies, which required ESMA to make certain assumptions regarding the classification between NFC+ and NFC-.
Table 8: Non-financial counterparties above the clearing threshold based on different sources

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of counterparties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Source 1: TR Field “Clearing Threshold”</td>
<td>2,387</td>
</tr>
<tr>
<td>2. Source 1: TR Field “Clearing Threshold” + Number of trades</td>
<td>230</td>
</tr>
<tr>
<td>3. Source 2: NFC+ based on non-hedging positions reported to TR</td>
<td>316</td>
</tr>
<tr>
<td>4. Source 3: NFC+ based on notifications to ESMA</td>
<td>250</td>
</tr>
<tr>
<td>5. NFC+ based on Source 1 and Source 2, without duplicate</td>
<td>424</td>
</tr>
</tbody>
</table>

Source: TR data, ESMA calculation

177. The classification based on the status NFC+/NFC- reported to TR (Row 1 of Table 8) identified more than 2,300 NFC+, which compares to 250 NFC+ identified in the notifications to ESMA (Row 4 of Table 8).

178. Those numbers could be different because some NFC+ did not notify ESMA that they are above the clearing threshold, and/or because some NFCs incorrectly identified themselves as NFC+ when reporting to TRs.

179. When analysing the reports of counterparties identified as NFC+ only in the TR dataset (i.e. NFC that did not notify ESMA), it appeared that many of them had very limited levels of activity (typically a few trades), which suggested those counterparties were unlikely to qualify as NFC+.

180. Indeed, the number of NFC+ identified based on statistics only (i.e. when an NFC is flagged as NFC+ in more than 50% of its trades) is above 2,300, but this number falls to 230 when adding the condition that this counterparty has at least 10 outstanding trades (Row 2 of Table 8).

181. Therefore, the information contained in the TR field “Clearing Threshold” should be further cross-checked with the actual transactions concluded by those “potential NFC+”, as done with Source (2) below.

182. The qualification as NFC+ requires a calculation of all non-hedging transactions per asset class at group level. Although some work is being undertaken at international level (by the LEI Regulatory Oversight Committee) to collect information on direct and ultimate parents of legal entities, the information on group composition is currently not easily accessible, making the aggregation of positions at group level a complex task.

183. Nonetheless, some information on groups was collected from the following sources:

- Notifications to ESMA under Article 10(1)(a) of EMIR: counterparties generally notified ESMA with a single notification listing all the EU entities of the groups. The non-EU entities of the groups could not be identified with the notifications;
- Intragroup transactions: counterparties entering into intragroup transactions with each other (as reflected by the TR Field “Intragroup”) were assumed to be part of the same group;
- Information publicly available: although it could not be performed for all NFCs, the information on certain groups was retrieved from public documents such as website and annual reports.

184. Therefore the aggregation at group level was performed with a number of caveats, including that non-EU entities are not included in the NFC+ notifications to ESMA (although their positions...
should be included in the calculation), that non-EU entities are not subject to the reporting obligation when entering into transactions with other non-EU entities, and that the information could be not obtained in a comprehensive manner for all groups.

185. Based on the group information, the outstanding positions flagged as “non-hedging” were aggregated per asset class and per group, and then compared to the clearing threshold.

186. All the counterparties in a group that exceeds any of the clearing threshold was then re-classified as NFC+, even though it had not provided a notification to ESMA under Article 10(1)(a) of EMIR.

— Source (3): notifications sent by NFC+ to ESMA in accordance with Article 10(1)(a) of EMIR

187. All the counterparties in a group which had provided a notification to ESMA under Article 10(1)(a) of EMIR were classified as NFC+. This classification was performed even when the re-calculation of the positions at group level did not show an exceedance of the clearing threshold.

188. In addition, the subsidiaries of the notified NFC+ groups were classified as NFC+, even when those subsidiaries were not included in the notification to ESMA.

189. As a result, ESMA assumed for this analysis that counterparties should be classified as NFC+ when they meet either of the following conditions:

a) Based on source (2): they belong to a group whose aggregate non-hedging positions per asset class exceed any of the clearing threshold; and/or
b) Based on source (3): they belong to a group which has made a notification to ESMA under Article 10(1)(a) of EMIR.

190. The NFC+ which only met the criteria of source (1) (i.e. via the TR Field “Clearing Threshold”) were not classified as NFC+ for the purpose of this analysis, as the level of activity that they reported to TRs did not support their classification as NFC+.

191. In some sections of this paper, the group of NFC+ is further divided between the three following categories:

a) “Notified + exceeds CT”: those groups have notified ESMA that they are NFC+ and their aggregate notional (per group, per asset class, non-hedge only) is above the clearing threshold;
b) “Not notified + exceeds CT”: those groups have not notified ESMA that they are NFC+ but their aggregate notional (per group, per asset class, non-hedge only) is above the clearing threshold;
c) “Notified + does not exceed CT”: those groups have notified ESMA that they are NFC+ but their aggregate notional (per group, per asset class, non-hedge only) is not above the clearing threshold.

5.1.6 Assumptions on trades which are netted, cleared, compressed or intragroup transactions

192. The current report does not retreat nor eliminate trades which are cleared, compressed or intragroup transactions. Some consistency tests have confirmed that their retreatment would not materially affect the overall results.

193. As regards netting, NFCs are allowed to net their OTC trades when computing the clearing thresholds, under very strict conditions described in OTC Question 3(e) of the ESMA Q&A on the implementation of EMIR. This possibility of netting was not taken into consideration when the
positions of groups were recalculated and compared to the clearing threshold, for the simple reason that netted transactions were not possible to identify.

5.2 Annex 2: List of Tables

Table 1: Reclassification of financial and non-financial counterparties

Table 2: Financial and Non-Financial counterparties

Table 3: Classification of NFC+

Table 4: Overview of Financial counterparties, NFC+ and NFC-

Table 5: Level of interconnectedness and level of exposure

Table 6: Threshold exceedance per asset class

Table 7: Financial and Non-Financial counterparties – geographical breakdown

Table 8: Non-financial counterparties above the clearing threshold based on different sources

5.3 Annex 3: List of Figures

Figure 1: Average volumes of NFCs (trade count and notional)

Figure 2: Presence of NFCs across asset classes (based on number of counterparties)

Figure 3: Breakdown of volumes per counterparty type and asset class (part 1)

Figure 4: Breakdown of volumes per counterparty type and asset class (part 2)

Figure 5: Interconnectedness between counterparties, per asset class

Figure 6: Share of hedging volumes reported by NFCs

Figure 7: Distribution of “Non-Hedge” trades (notional)

Figure 8: Outstanding volumes (notional) of NFC+ and Large NFC-

Figure 9: Positions of individual NFCs compared to FC

Figure 10: Threshold exceedance per asset class