Teleconference of the working group on euro risk-free rates

Wednesday, March 2\textsuperscript{nd} 14:00-16:00 CET

Summary

1. Introductory remarks, approval of the agenda and obligations of the working group members under competition law

Mr James von Moltke (Chair) opened the call. He welcomed all the members of the Working Group (WG) to the first meeting of 2022 and expressed his sadness and dismay in light of the recent attack on Ukraine, recalling the role to be played by the banking industry behind the European Union with regards to the imposition of sanctions towards Russia.

In spite of this sombre news, Mr von Moltke recalled the remarkable achievements facilitated by the efforts and work of the WG and the successful and smooth transition from non-USD LIBORs and EONIA to Risk-Free Rates at the end of last year, thanking members again for their focus and dedication. Mr von Moltke flagged how crucial for financial stability this development has been and explained that focus needs to be maintained in order to successfully deliver on the 2022/2023 mandate of the WG, flagging especially the preparation required for the critical transition away from USD LIBOR at the end of June 2023.

Mr von Moltke informed WG members that the minutes of the previous WG meeting (December 3\textsuperscript{rd}) had been approved, and reminded WG members of the agenda scheduled for today’s meeting:

1. Introductory remarks, approval of the agenda and obligations of the working group members under competition law – Farewell speech by Mrs Annemie Rombouts

2. Open discussion on observations from end 2021 transition events, lessons learnt for future cessation

3. Update and discussion on the next steps of the final 2022/2023 book of work:
   - Draft call for interest for administrators;
   - Update on the €STR Task-Force

4. Draft amended WG Terms of Reference

5. Update on the PWC – DG COMPETITION - IBOR Fallbacks Survey

6. Update by the European Commission on the possible GBP LIBOR + JPY LIBOR designation.

7. Presentation by ISDA on the market transition to RFR/€STR

8. AOB:
   - Exchange of view on ARRC recommendation on transitioning CSA to SOFR;
   - Next WG meeting on 10 June 2022 (now rescheduled to 17\textsuperscript{th} June 2022)
Finally, Mr von Moltke reminded the members of the WG of their obligations under EU competition law, as described in the guidelines on compliance with EU competition law published on the ESMA’s website.

Mr von Moltke handed over to Mrs Annemie Rombouts (FSMA’s vice-chair) for her to provide a farewell speech to the WG, as the FSMA – being no longer the competent authority of EMMI now that ESMA has taken over this supervisory mandate – will no longer participate in future meetings of the Working Group.

Mrs Rombouts thanked Mr von Moltke for the introduction and expressed her pride with regards to the FSMA’s achievements in the last years, emphasizing that EURIBOR had now proven to be a more solid benchmark than it was some years ago, when the FSMA started its supervisory journey. Mrs Rombouts recalled the key milestones of EURIBOR supervision by the FSMA and the main deliverables achieved by FSMA within its supervisory mandate. Mrs Rombouts also recalled WG members about the various challenges faced by the FSMA during its supervision of EURIBOR and its relevance for the protection of European consumers and investors. She expressed her gratitude towards the FSMA teams that ensured EURIBOR supervision through the years, also expressing her happiness to handover the supervision to ESMA as part of its new supervisory mandate and explaining that FSMA will therefore no longer attend the WG meetings.

2. Open discussion on observations from end 2021 transitions events: lessons learnt for future cessation

Mr von Moltke initiated a discussion with members on observations from the end of 2021 transition and cessation events, explaining that the expected outcome of this discussion would be to document any lessons learnt for broader publication in order to help with the transition from USD LIBOR.

Mrs Kam Hessling (LMA) shared her thoughts and experience from the point of view of the loan market. She explained that the clear milestones and frequent communications set by the Working Group on Sterling Risk-Free Reference Rates proved very helpful as they kept market participants focused on active transition, providing them with accurate considerations on robust contractual arrangements, possibility of fallbacks and put a strong emphasis on the preparedness without waiting for dedicated legislation to address tough legacy issues. Mrs Hessling also emphasized the important role of having such milestones ready and published as early as possible to actively reduce the share of tough legacy contracts. She flagged the important role of education and information towards market participants, highlighting the value of public institutions’ support. Other members of the WG echoed the considerations by Mrs Hessling, highlighting the important role played by the UK FCA and the Bank of England in providing consistent messages to market participants. One member explained that the work conducted by working groups in different jurisdictions proved very useful, flagging however that agreeing on rate conventions and market standards proved to be a very long and burdensome process that should be accelerated.

Mr von Moltke agreed with the arguments put forward, and further expressed the need for dedicated project teams dealing with the benchmarks transition within banks to keep their focus and momentum. This is needed because the transition away from USD LIBOR will prove to be a very important market event and require significant effort by every involved stakeholder in order to ensure a smooth and successful transition.

3. Update and discussion on the next steps of the final 2022/2023 Book of Work

Mr von Moltke recalled that the 2022/2023 Book of Work was circulated amongst members in the previous weeks for fatal flaw review and received no opposition.

Mr von Moltke handed over to Mrs Iliana Lani (ESMA) for her to update members on the renewed call for expressions of interest toward administrators developing ESTR-based forward-looking term structure as a fallback in EURIBOR-linked contracts. EMMI staff and Dominique Le Masson (BNP Paribas – member of EMMI’s Steering Committee) recused themselves for this item.
Mrs Lani recalled the background, and the publication in July 2019 of a previous Call for expressions of interest that culminated with presentations by two administrators to the WG members in February 2021. Mrs Lani further explained that – in line with the Recommendation on EURIBOR fallback trigger events and €STR-based EURIBOR fallback rates published in May 2021 and with the 2022 Book of Work, which includes an assessment of the availability of EURIBOR fallback rates to be published by one or more administrators – the WG will now launch a new call for expressions of interest to administrator in order to fulfil the above-mentioned deliverable of the Book of Work. This will allow the WG to take stock of any development related to EURIBOR fallback rates that might have arisen since February 2021.

Mrs Lani explained that the call for expressions of interest would be published on ESMA’s website and that each interested administrator will be invited – separately – to present its project, including the process made over recent months, at the next WG meeting to be held on June 17th 2022. For transparency reasons, all of the presentations given by interested administrators will be published and therefore should not contain any commercially sensitive information.

One member asked whether the ultimate goal of the call for interest would be for the WG to identify and recommend a preferred fallback rate amongst those available. Mrs Lani clarified that the intention is not to identify and recommend a specific fallback rate, which is a decision to be taken by market participants; the purpose of the call for interest is instead to monitor market developments and progress on availability €STR-based EURIBOR fallback rates.

Mr von Moltke then handed over to Mr Alex Wilson for him to update members on the newly created €STR Task Force.

Mr Wilson explained that – in line with the mandate of the WG and in accordance with the objectives of the recently approved Book of Work – the WG should aim to foster the use of €STR in a diverse range of financial products. Mr Wilson further explained that building on feedback received from members and on discussions held during previous meetings, it had been agreed to set-up a dedicated sub-group to identify which financial products should be prioritised and propose actions that could be taken by the WG, with seven members having expressed interest to join the Task Force so far. Mr Wilson asked members whether they had views on how to order the topics, and on the format of deliverables i.e. formal recommendations, practical tips or others, to present back to the EUR RFR WG.

A member flagged that the Task-Force’s name should be appropriate to avoid misunderstanding on the purpose of the Task-Force, noting that the previous proposal of “€STR prioritisation Task-Force” would be misleading, to which Mr Wilson answered that this would be put up for discussion during the kick-off meeting of the Task-Force, which took place on March 15th, flagging that members interested to join that had not yet shared their interest can still do so and engage with ESMA Secretariat or with the Chair’s Office.

4. Update on the Working Group Terms of Reference

Mr von Moltke handed over to Iliana Lani to present the amendments made to the Working Group’s Terms of Reference.

Mrs Lani recalled that a carved-out version – taking off the previous proposed changes under the governance section – was approved at the last WG meeting, and that the new draft version – circulated to members before the meeting and presented today for adoption – would account for the departure of both Generali as a member and FSMA as an observer, also proposing changes to the Governance Section in order to clarify and facilitate the decision-making process.

Two members voiced concerns and asked for confirmation that votes during plenary meeting sessions would remain the norm, also asking whether it would be possible to clarify within the Terms of Reference under which circumstances written procedures could be launched. Mr von Moltke and Mrs Lani explained that it would not be feasible to anticipate every development that could require a written procedure, also flagging that important and urgent matters could arise between meetings. One member shared his concerns about
the abstentions being counted as votes in favour. Mr von Moltke answered that the proposed amendment would not prevent any member to share views by means of written procedure. He clarified that, should a written procedure be launched, the Secretariat and Chair’s Office will give due consideration to the related deadline so as to ensure that every member would not be prevented from voting.

Mr von Moltke then asked whether any member objected to the adoption of the new Terms of Reference. Since no objection was voiced, the Terms of Reference were adopted.

5. Update on the PwC – DG Competition IBOR Fallbacks survey

Mr von Moltke handed over to Mrs Iliana Lani to recall the context of the survey and steps taken by ESMA Secretariat and Chair’s Office to handle the request.

Mrs Lani explained to members that the consulting firm PwC, acting on behalf of the European Commission’s DG Competition, engaged with Chair’s Office and Secretariat to gather input from the WG in response to a survey aiming at understanding how the WG had considered EU competition law in the process of designing and implementing fallbacks. Mrs Lani recalled that the WG has developed recommendations under its previous mandate for both EURIBOR and EONIA, and that ESMA Secretariat and Chair’s Office were liaising with previous Secretariat & Chair’s Office to ensure completeness and consistency in the context of the survey.

Mrs Lani explained that the final response made on behalf of the WG will be shared with members for transparency but not published.

6. Update by the European Commission on the possible GBP & JPY LIBORs designation

Mr von Moltke handed over to Mr Rik Hansen (European Commission, EC) for him to provide the latest update on the EC’s proposed way forward with regards to a possible designation of a statutory replacement rate for both GBP & JPY LIBORs. Mr von Moltke recalled the previous steps taken by the WG in order to support the EC’s decision-making process, including specific consultations and data collection exercises.

Mr Hansen explained that, in spite of the various data collection exercises arranged within the WG or the Expert Group of the European Securities Committee (EGESC), developing a clear and comprehensive picture of the market’s exposures to GBP & JPY LIBORs proved difficult. He also flagged the need for the EC to assess compatibility between the synthetic rate established by the FCA in the United Kingdom and any solution that could be established by the EC. Mr Hansen told members that the EC was still working on developing a complete and exhaustive picture on the usages of these rates and still considering the pros & cons of a potential statutory replacement rate designation, considering also the need for legal certainty. Therefore, Mr Hansen explained that the EC would not go ahead with an urgent designation but will keep monitoring the market developments and considering possible options forward.

Mr von Moltke thanked Mr Hansen for the details he provided, acknowledging that this was a clear and understandable decision, and thanked members that have provided their views and contributed to the data collection exercises. One member asked whether a public consultation would still be held, to which Mr Hansen answered that since the designation process would for now remain on hold, there will be no immediate public consultation foreseen. Another member asked if the EC had considered the technical challenges around a potential designation (i.e. designation of a “screen rate” or by means of formulaic approach), to which Mr Hansen answered that the EC had so far rather focused on the need for intervention rather than on the technical issues.

7. Presentation by ISDA on the market transition to RFR/€STR

Mr von Moltke handed over to ISDA staff to present a variety of datasets aiming at providing members with the latest trends regarding the use and adoption of €STR, also with reference to the dynamics related to the other currency RFRs. Mr Rick Sandilands briefly introduced the work of ISDA and handed over to Mrs Olga...
Roman, Head of Research at ISDA, who walked members through the presentation and provided an analysis of euro-denominated interest rate derivatives (IRD) by underlying reference rates. Mrs Roman explained that ISDA had analysed three data sets of euro denominated IRD: transactions reported in the EU, transactions reported in the UK, and transactions reported in the US. All data sets include both cleared and non-cleared transactions. She explained that in the EU, the percentage of trading activity in €STR had reached 34.5% of total euro-denominated IRD traded notional in December 2021 compared to 7.3% in May 2021. In the UK, €STR-linked traded notional increased to 9.8% in December 2021 from 0.4% in May 2021. In the US, the percentage of trading activity in €STR increased to 27.5% of total euro-denominated IRD traded notional in December 2021, compared to 0.4% in January 2021.

Mr von Moltke thanked ISDA staff for the presentation, highlighting the encouraging signals of €STR adoption. One member asked whether ISDA would be able to provide more granular data, including the maturities of the IRD. Mrs Roman explained that these data were not included in the dataset in the context of this presentation, but that there had been a trend towards longer maturities in the US market, also mentioning that ISDA will consider including related metrics in next datasets, should the need be confirmed (ISDA presentation is provided in the Annex, updated to include the additional information requested by members during the meeting).

8. AOB: Exchange of view on ARRC recommendation on transitioning Credit Support Annexes (CSAs) to SOFR

Mr von Moltke handed over to Stephanie Broks (ING) to introduce the topic. Mrs Broks explained that the Alternative Reference Rates Committee (ARRC) had made a suggestion to transition CSAs from FedFunds to SOFR – in spite of the fact that FedFunds will not cease – so as to ensure alignment between cleared and bilateral derivatives that will move from USD LIBOR to SOFR. Mrs Broks further explained that ING would see a case for such a transition and asked members if they would share this view.

One member agreed that he had witnessed more and more funding channelled towards SOFR, acknowledging a pick-up in this activity but flagged that on the other hand, its institution would still be keeping FedFunds as its main cash valuation floating rate for various reasons, such as the early behaviour of SOFR markets and because the unsecured money market is not the repo market, making the case that he would not see it that obvious that all the funding should be channelled towards SOFR already.

9. AOB

Mr von Moltke handed over to Mr Rick Sandilands (ISDA) who recalled that from 25th of March onwards, ISDA will not be amending anymore the 2006 IRD definitions, therefore encouraging all market participants to ensure a smooth and successful transition towards the new 2021 definitions adopted last year, which are already used on a widespread basis.
# List of participants

**Participant’s organisation** | **Name of participant**
---|---
**Chairperson**
Deutsche Bank | Mr James von Moltke
**Chair’s office**
Deutsche Bank | Mr Simon Goodwin
Deutsche Bank | Ms Queenie Choong
Deutsche Bank | Mr Alex Wilson
Deutsche Bank | Mr Dominik Neundoerfer
**Voting members**
Banco Sabadell | Ms Marta Riveira Cazorla
Bank of Ireland | Mr Barry Moran
Bank of Ireland | Mr David Tilson
Barclays | Mr Joseph McQuade
Barclays | Mr Michael Taylor
BBVA | Ms Ana Rubio
BBVA | Mr Ignacio Ollero
BME Clearing | Mr Emilio Gamarra Mompeán
BME Clearing | Ms Monica Blanco Vieito
BNP Paribas | Ms Dominique Le Masson
BNP Paribas | Mr David Gorans
BNP Paribas | Mr Xavier Aublin
BPCE/Natixis | Mr Olivier Hubert
BPCE/Natixis | Mr Grégoire de Clarens
CaixaBank, S.A. | Mr Francesc Xavier Combis
Citi | Mr Dan Gottlander
Crédit Agricole | Ms Florence Mariotti
Crédit Agricole | Mr Yann Marhic
Crédit Suisse | Mr Zsolt Szollosi
Deutsche Bank | Mr Christian Gau
DZ Bank | Mr Michael Schneider
DZ Bank | Mr Philipp Nordloh
Erste Group | Mr Rene Brunner
Erste Group | Mr Neil Mcleod
Eurobank SA | Mr Dimitris Psychogios
Eurobank SA | Mr Theodors Stamatiou
European Investment Bank | Mr Nikolaos Tzoldos
ICE Futures Europe | Mr Steven Hamilton
ICE Futures Europe
ING Bank
Intesa Sanpaolo
KfW Bankengruppe
LBBW
LCH Group
Santander
Santander
Société Générale
Société Générale
UniCredit Bank

Non-voting members
European Money Markets Institute
European Money Markets Institute
International Capital Market Association
International Swaps and Derivatives Association
International Swaps and Derivatives Association
Loan Market Association
Loan Market Association

Observers
European Central Bank
European Central Bank
European Central Bank
European Commission
European Commission
European Commission
European Commission
European Securities and Markets Authority
Financial Services and Markets Authority

Secretariat
European Securities and Markets Authority
European Securities and Markets Authority
European Securities and Markets Authority
European Securities and Markets Authority

Mr Matthew Horton
Ms Stephanie Broks
Ms Maria Cristina Lege
Mr Markus Schmidtchen
Mr Jan Misch
Mr Davide Tortora
Mr Santiago Lobato Piñana
Mr Javier Pareja Marta
Mr Stephane Cuny
Mrs Maryam Aazane
Mr Umberto Crespi
Mr Jakobus Feldkamp
Mr. Petra de Deyne
Ms Katie Kelly
Mr Rick Sandilands
Ms Olga Roman
Mr Keith Taylor
Ms Kam Hessling
Mr Helmut Wacket
Mr Pascal Nicoloso
Ms Anne-Lise Nguyen
Mr Rik Hansen
Mr Antoine Picot
Ms Mehtap Oelger
Ms Illiana Lani
Ms Annemie Rombouts
Mr Lelio Lapresa
Mr Michele Mazzoni
Mr Cristian Weststeijn
Mr Louis-Edouard Genty
Analysis of Euro-Denominated IRD by Underlying Reference Rates and Tenors

Executive Summary

- ISDA has conducted the analysis of euro-denominated IRD by underlying reference rates to show the adoption of €STR in different regions.
- ISDA has analyzed three data sets of euro-denominated IRD: transactions reported in the EU, transactions reported in the UK, and transactions reported in the US. All data sets include both cleared and non-cleared transactions.
- In the EU, the percentage of trading activity in €STR reached 34.5% of total euro-denominated IRD traded notional in December 2021 compared to 7.3% in May 2021.
- In the UK, €STR-linked traded notional increased to 9.8% in December 2021 from 0.4% in May 2021.
- In the US, the percentage of trading activity in €STR increased to 27.5% of total euro-denominated IRD traded notional in December 2021 compared to 0.4% in January 2021.
- The percentage of €STR-linked transactions with longer tenors increased.
€STR Traded Notional as % of EUR-denominated IRD Traded Notional by Region

Source: DTCC SDR, European APVs and TVs
EU and UK data is available only starting in May 2021

€STR and EONIA Traded Notional as % of EUR-denominated IRD Traded Notional

<table>
<thead>
<tr>
<th></th>
<th>EU</th>
<th></th>
<th>UK</th>
<th></th>
<th>US</th>
<th></th>
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<tr>
<td></td>
<td>€STR</td>
<td>EONIA</td>
<td>€STR</td>
<td>EONIA</td>
<td>€STR</td>
<td>EONIA</td>
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<tr>
<td>Jan-21</td>
<td>7.3%</td>
<td>14.1%</td>
<td>0.4%</td>
<td>17.6%</td>
<td>0.7%</td>
<td>14.5%</td>
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<tr>
<td>Feb-21</td>
<td>7.6%</td>
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<td>0.6%</td>
<td>17.2%</td>
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<td>Mar-21</td>
<td>10.6%</td>
<td>13.6%</td>
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<td>11.9%</td>
<td>1.0%</td>
<td>11.3%</td>
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<td>Apr-21</td>
<td>12.0%</td>
<td>11.7%</td>
<td>2.3%</td>
<td>13.1%</td>
<td>2.2%</td>
<td>14.2%</td>
</tr>
<tr>
<td>May-21</td>
<td>8.4%</td>
<td>12.4%</td>
<td>0.6%</td>
<td>17.6%</td>
<td>1.9%</td>
<td>14.9%</td>
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<tr>
<td>Jun-21</td>
<td>20.2%</td>
<td>6.0%</td>
<td>4.6%</td>
<td>11.8%</td>
<td>14.5%</td>
<td>12.6%</td>
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<tr>
<td>Jul-21</td>
<td>27.4%</td>
<td>1.3%</td>
<td>9.8%</td>
<td>0.4%</td>
<td>23.0%</td>
<td>0.0%</td>
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<tr>
<td>Aug-21</td>
<td>34.5%</td>
<td>3.0%</td>
<td>9.8%</td>
<td>0.5%</td>
<td>27.5%</td>
<td>0.0%</td>
</tr>
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</table>

Source: DTCC SDR, European APVs and TVs
EU and UK data is available only starting in May 2021
Euro-denominated IRD Transactions Reported in the EU
Traded Notional (US$ trillions)

*Other includes EURIBOR/SONIA and other underlying reference rates
Source: European APAs and TVs

Euro-denominated IRD Transactions Reported in the UK
Traded Notional (US$ trillions)

*Other includes EURIBOR/SONIA and other underlying reference rates
Source: European APAs and TVs
Euro-denominated IRD Transactions Reported in the US Traded Notional (US$ trillions)

*Other includes EURIBOR:ESTR, EURIBOR:ONIA, EURIBOR:ESTR-CP1 and other underlying reference rates

Source: DTCC SOR

EONIA and ESTR Traded Notional Reported in the EU by Tenors

*Other includes transactions that don’t have terms specified in the database

Source: European APAs and TVAs
### Percentage of EONIA and €STR Traded Notional Reported in the EU by Tenors

<table>
<thead>
<tr>
<th></th>
<th>€STR</th>
<th></th>
<th>EONIA</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Tenor ≤ 1 Year</td>
<td>1 Year &lt; Tenor ≤ 5 Years</td>
<td>Tenor &gt; 5 Years</td>
<td>Tenor ≤ 1 Year</td>
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<tr>
<td>May-21</td>
<td>85.5%</td>
<td>5.3%</td>
<td>9.1%</td>
<td>60.0%</td>
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<tr>
<td>Jun-21</td>
<td>82.8%</td>
<td>8.7%</td>
<td>8.4%</td>
<td>74.9%</td>
</tr>
<tr>
<td>Jul-21</td>
<td>89.5%</td>
<td>4.2%</td>
<td>6.2%</td>
<td>72.4%</td>
</tr>
<tr>
<td>Aug-21</td>
<td>91.4%</td>
<td>5.0%</td>
<td>3.6%</td>
<td>72.9%</td>
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<tr>
<td>Sep-21</td>
<td>80.7%</td>
<td>12.4%</td>
<td>6.9%</td>
<td>75.0%</td>
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<td>Oct-21</td>
<td>82.9%</td>
<td>12.0%</td>
<td>5.1%</td>
<td>64.1%</td>
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<tr>
<td>Nov-21</td>
<td>83.2%</td>
<td>10.8%</td>
<td>6.0%</td>
<td>94.4%</td>
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<tr>
<td>Dec-21</td>
<td>66.1%</td>
<td>12.4%</td>
<td>21.5%</td>
<td>95.1%</td>
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*Other includes transactions that don’t have terms specified in the database

Source: European APAs and TVIs

Tenor is calculated based on ISIN Term of Contract data

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### EONIA and €STR Traded Notional Reported in the UK by Tenors

#### EONIA Traded Notional (US$ billions)

<table>
<thead>
<tr>
<th>Month</th>
<th>May-21</th>
<th>Jun-21</th>
<th>Jul-21</th>
<th>Aug-21</th>
<th>Sep-21</th>
<th>Oct-21</th>
<th>Nov-21</th>
<th>Dec-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>307.4</td>
<td>401.9</td>
<td>242.8</td>
<td>351.1</td>
<td>310.1</td>
<td>15.2</td>
<td>2.3</td>
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#### €STR Traded Notional (US$ billions)

<table>
<thead>
<tr>
<th>Month</th>
<th>May-21</th>
<th>Jun-21</th>
<th>Jul-21</th>
<th>Aug-21</th>
<th>Sep-21</th>
<th>Oct-21</th>
<th>Nov-21</th>
<th>Dec-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>12.9</td>
<td>14.1</td>
<td>18.0</td>
<td>24.4</td>
<td>23.1</td>
<td>12.1</td>
<td>2.7</td>
<td>0.0</td>
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</table>

*Other includes transactions that don’t have terms specified in the database

Source: European APAs and TVIs
### Percentage of EONIA and €STR Traded Notional Reported in the UK by Tenors

<table>
<thead>
<tr>
<th></th>
<th><strong>€STR</strong></th>
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<th><strong>EONIA</strong></th>
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<td>Tenor ≤ 1 Year</td>
</tr>
<tr>
<td>May-21</td>
<td>91.0%</td>
<td>2.8%</td>
<td>6.2%</td>
<td>82.7%</td>
</tr>
<tr>
<td>Jun-21</td>
<td>70.7%</td>
<td>24.7%</td>
<td>4.6%</td>
<td>85.8%</td>
</tr>
<tr>
<td>Jul-21</td>
<td>72.7%</td>
<td>16.6%</td>
<td>10.7%</td>
<td>73.6%</td>
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<tr>
<td>Aug-21</td>
<td>94.0%</td>
<td>2.4%</td>
<td>3.6%</td>
<td>59.9%</td>
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<tr>
<td>Sep-21</td>
<td>69.5%</td>
<td>18.7%</td>
<td>11.8%</td>
<td>78.4%</td>
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<tr>
<td>Oct-21</td>
<td>50.9%</td>
<td>36.7%</td>
<td>12.4%</td>
<td>79.7%</td>
</tr>
<tr>
<td>Nov-21</td>
<td>63.7%</td>
<td>27.8%</td>
<td>8.5%</td>
<td>20.1%</td>
</tr>
<tr>
<td>Dec-21</td>
<td>50.0%</td>
<td>28.5%</td>
<td>21.5%</td>
<td>79.2%</td>
</tr>
</tbody>
</table>

*Other includes transactions that don’t have terms specified in the database

Source: European APs and TVs
Tenor is calculated based on ISIN Term of Contract data

### EONIA and €STR Traded Notional Reported in the US by Tenors

#### EONIA Traded Notional (US$ billions)

<table>
<thead>
<tr>
<th></th>
<th>Up to 1 year</th>
<th>Over 1 year and up to 3 years</th>
<th>Over 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-21</td>
<td>540.3</td>
<td>287.3</td>
<td>620.9</td>
</tr>
<tr>
<td>Aug-21</td>
<td>511.4</td>
<td>276.2</td>
<td>689.4</td>
</tr>
<tr>
<td>Sep-21</td>
<td>364.3</td>
<td>207.1</td>
<td>530.9</td>
</tr>
<tr>
<td>Oct-21</td>
<td>277.7</td>
<td>174.3</td>
<td>450.1</td>
</tr>
<tr>
<td>Nov-21</td>
<td>352.0</td>
<td>222.9</td>
<td>435.3</td>
</tr>
<tr>
<td>Dec-21</td>
<td>31.6</td>
<td>1.6</td>
<td>17.6</td>
</tr>
</tbody>
</table>

#### €STR Traded Notional (US$ billions)

<table>
<thead>
<tr>
<th></th>
<th>Up to 1 year</th>
<th>Over 1 year and up to 3 years</th>
<th>Over 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-21</td>
<td>20.9</td>
<td>6.4</td>
<td>15.7</td>
</tr>
<tr>
<td>Aug-21</td>
<td>15.9</td>
<td>47.0</td>
<td>23.3</td>
</tr>
<tr>
<td>Sep-21</td>
<td>23.3</td>
<td>54.0</td>
<td>34.3</td>
</tr>
<tr>
<td>Oct-21</td>
<td>54.0</td>
<td>50.4</td>
<td>34.2</td>
</tr>
<tr>
<td>Nov-21</td>
<td>59.6</td>
<td>67.7</td>
<td>33.3</td>
</tr>
<tr>
<td>Dec-21</td>
<td>51.3</td>
<td>56.4</td>
<td>41.6</td>
</tr>
</tbody>
</table>

Source: DTCC SDR
### Percentage of EONIA and €STR Traded Notional Reported in the US by Tenors

<table>
<thead>
<tr>
<th></th>
<th>€STR</th>
<th></th>
<th></th>
<th>EONIA</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tenor ≤ 1 Year</td>
<td>1 Year &lt; Tenor ≤ 5 Years</td>
<td>Tenor &gt; 5 Years</td>
<td>Tenor ≤ 1 Year</td>
<td>1 Year &lt; Tenor ≤ 5 Years</td>
</tr>
<tr>
<td>Jan-21</td>
<td>78.6%</td>
<td>10.6%</td>
<td>10.8%</td>
<td>73.2%</td>
<td>16.7%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Feb-21</td>
<td>5.7%</td>
<td>57.5%</td>
<td>36.8%</td>
<td>71.5%</td>
<td>17.8%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Mar-21</td>
<td>61.2%</td>
<td>26.6%</td>
<td>12.1%</td>
<td>75.3%</td>
<td>15.5%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Apr-21</td>
<td>90.9%</td>
<td>6.9%</td>
<td>2.1%</td>
<td>62.0%</td>
<td>24.5%</td>
<td>13.6%</td>
</tr>
<tr>
<td>May-21</td>
<td>81.5%</td>
<td>8.5%</td>
<td>10.0%</td>
<td>74.5%</td>
<td>16.4%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Jun-21</td>
<td>62.6%</td>
<td>23.2%</td>
<td>14.2%</td>
<td>56.2%</td>
<td>28.1%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Jul-21</td>
<td>71.2%</td>
<td>18.8%</td>
<td>10.0%</td>
<td>64.7%</td>
<td>25.2%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Aug-21</td>
<td>83.4%</td>
<td>9.9%</td>
<td>6.7%</td>
<td>65.7%</td>
<td>22.4%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Sep-21</td>
<td>80.3%</td>
<td>14.2%</td>
<td>5.6%</td>
<td>70.2%</td>
<td>17.9%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Oct-21</td>
<td>67.0%</td>
<td>25.6%</td>
<td>7.3%</td>
<td>86.8%</td>
<td>8.1%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Nov-21</td>
<td>71.2%</td>
<td>21.8%</td>
<td>6.9%</td>
<td>0.0%</td>
<td>51.8%</td>
<td>48.2%</td>
</tr>
<tr>
<td>Dec-21</td>
<td>67.8%</td>
<td>22.0%</td>
<td>10.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: DTCC SDR

Tenor is calculated as the difference between the effective date and the maturity date.

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### European Data

- EU and UK IRD trading data is based on transactions publicly reported by 30 European approved publication arrangements (APAs) and trading venues (TVs).

- EU IRD trading activity is measured by IRD traded notional reported by APAs and TVs located in the EU, while UK IRD trading activity is measured by IRD traded notional reported by APAs and TVs located in the UK.

- Data set includes only new transactions. All cancelled transactions are removed and amended trades are updated using the dissemination ID field. Transactions reported with a four-week aggregation flag and volume omission flag are also removed from the data set.

- Reported notional is converted to US dollars based on daily FX rates.

- All reported transactions are aggregated on a daily basis. Monthly traded notional referenced in this report represents the sum of converted traded notional of all transactions executed during the month.
US Data

- Analysis of US IRD is based on data from the Depository Trust & Clearing Corporation (DTCC) swap data repository (SDR) that only covers transactions required to be disclosed under US regulations.

- Data set includes only new transactions. All cancelled transactions are removed and amended trades are updated using the dissemination ID field.

- Reported notional is converted to US dollars based on daily FX rates.

- All reported transactions are aggregated on a daily basis. Monthly traded notional referenced in this report represents the sum of converted traded notional of all transactions executed during the month.

Data Limitations

- While ISDA believes this data covers the majority of OTC IRD transactions in Europe, it doesn’t capture 100% of the market.

- When European counterparties face US entities on a swap execution facility (SEF), ESMA does not require EU firms to systematically republish information in the EU about transactions executed on TVls outside the EU that are subject to transparency provisions similar to those applicable to EU TVls. Under US rules, SEFs are required to send relevant trade details to an SDR for real-time public dissemination. Therefore, these trades will be captured in US trading activity only, resulting in a potential underestimation of European traded notional.

- Trades executed on MTFs and OTFs between EU and US counterparties may be disseminated to the public twice. Since EU and US reporting rules have not been determined equivalent, trades executed on MTFs and OTFs are viewed as off-facility transactions for US real-time reporting purposes and are subject to the CFTC reporting rules. At the same time, MTFs and OTFs have an obligation to send trade details for public dissemination. Therefore, these trades may be double counted in European and US combined trading activity analysis.
For questions on this analysis, please contact:

Olga Roman
Head of Research
International Swaps and Derivatives Association, Inc. (ISDA)
Office: 212-901-6017
orum@isda.org

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