From EONIA to €STR: next steps

The new €STR rate will be published by the ECB starting from 2 October and, from that moment, the EONIA rate will also be calculated as €STR plus a 8.5 bps spread.

Other numerous and important changes will have to be defined and implemented, as the publication of EONIA will cease on 4 January 2022. Many decisions have already been taken on the creation of a new risk-free euro rate curve, that will act not only as a fallback for the Euribor, but also as a replacement of the EONIA curve in cash and derivatives contracts, as well as in accounting operations, risk management, and the discounting of financial instruments.

In the meantime, EMMI has received authorisation from the FSMA to fill the role of administrator of a so called "critical benchmark" to start calculating the EURIBOR using a hybrid methodology, and the current transition phase will be completed on 2 October.

23 July 2019
9:23 AM CET
Date and time of production

22 July 2019
2:00 PM CET
Date and time of first circulation

Ad hoc

Intesa Sanpaolo
Research Department

Macroeconomic and
Fixed Income Research

Chiara Manenti
Fixed Income Strategist

The transition from EONIA to €STR

Starting on 2 October 2019, the ECB will publish the new unsecured overnight rate €STR[1], at 8:00 am CET of every Target2 workday. The €STR rate will be based on the previous day's transactions, as recorded by the Money Market Statistical Reporting (MMSR).

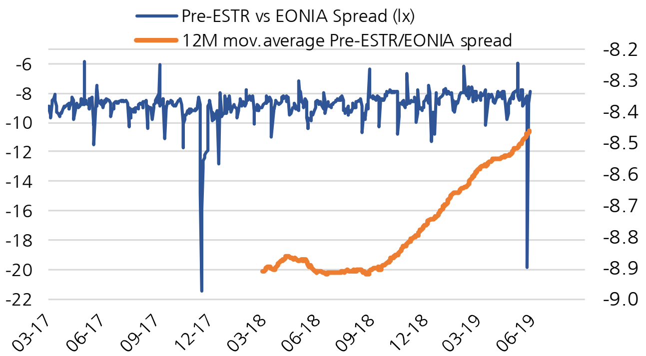
On the other hand, the EMMI (European Money Markets Institute), which manages EONIA, has announced that starting on 2 October the EONIA rate will be calculated based on a new methodology as €STR plus a fixed spread of 8.5 bps[2]. The table below summarises initial publication pattern of the two €STR and EONIA rates based on the new methodology. As the EONIA rate does not meet BMR requirements, it will be published based on the new methodology until 3 January 2022, after which it will no longer be published. The transition phase on the market from the EONIA to the €STR rate will be complex, and in order to smooth the process the ECB working group on risk-free rates (WG RFR), within which the ECB carries out the functions of the Secretariat, after holding a public consultation, has published its recommendations on the main legal aspects of the transition from EONIA to €STR.

Timeline: introduction of €STR and recalibration of EONIA

	30-Sep-19	01-Oct-19	02-Oct-19
€STR			ECB publishes €STR at 8:00 am CET ECB corrects €STR by 11:00 am CET
EONIA	EONIA calculated using the current method / published around 7:00 pm CET	EONIA No longer published	EONIA calculated as €STR + spread and published at 9:15 am CET or just after
Reference date	30-Sep-19	-	01-Oct-19

NOTE: Only in the presence of particular cases of detection with errors that can lead to significant variations in the fixing. Source: ECB, EMMI, Intesa Sanpaolo

Pre-€STR spread vs. EONIA (bps)



Note: the Pre-€STR moving average is trimmed at 15%. Source: ECB, Bloomberg, Intesa Sanpaolo

[1] Official acronym of the euro short-term rate. The ECB currently publishes the pre-ESTER rate, the same as €STR, available at a lag of around two months.
[2] The ECB has calculated the spread between €STR and Eonia using the methodology proposed by the Working Group RFR based on daily data on EONIA and pre-€STR from 17/04/2018 to 16/04/2019.
See: https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190531~a3788de8f8.en.html

The recommendations are grouped in:

1. General recommendations. Starting on 2 October, where possible it is suggested to avoid opening new contracts anchored to the EONIA, especially with maturities beyond 31 December 2021. Also, the WG RFR encourages, albeit strictly on voluntary terms, the use of standard documentation by market operators, and to this avail encourages the efforts made by market associations to update the standard documentation and other protocols, including fallback rules.

2. Recommendations on the EONIA fallback rate. The WG RFR recommends that €STR plus the spread published by the ECB[2] be adopted as the fallback rate[3] for EONIA in all contracts and financial instruments.

3. Recommendations on new contracts based on EONIA. The WG RFR recommends that the new contracts anchored to EONIA include strict fallback rules to specify that when the EONIA rate will no longer be published, the primary rate will become €STR plus spread. In order to improve transparency, it is also suggested to make explicit reference in the new contracts opened before 2 October 2019, to the fact that the EONIA calculation methodology will change, and that the EONIA rate used will be the one calculated as €STR plus spread.

   For what concerns the new OTC derivative contracts which use 2006 ISDA, it is recommended to include €STR plus spread as the EONIA fallback in the ISDA Benchmark Supplement, whereas for contracts that do not include the ISDA Supplement, the suggestion is for ISDA to update the definition of EONIA so as to include a specific "index cessation event" trigger which would result in a fallback to the €STR plus the Spread upon the cessation of EONIA. Similarly, for contracts executed under European master agreements, the WG RFR recommends including in the standard documentation robust fallback or trigger event provisions dealing specifically with the permanent cessation of EONIA. For OTC contracts, the working group encourages the clearing houses and exchanges to clarify their position on the transition from EONIA to €STR as early as possible,

   As regards new collateral contracts anchored to EONIA, in addition to the general introduction of strict fallback rules, the working group recommends that market associations such as ISDA, ICMA and ISLA, work to include in their standard documentation (ISDA collateral documentation and Credit Support Annex, GMRA and GMSLA) definite rules for the change in parameter.

   For what concerns new cash contracts which mature beyond December 2021, or fall into the realm regulated by BMR, the WG recommends that fallback clauses be included based on the model drawn up in Appendix 1 (page 46 and following) of the document published within the framework of the "*Public consultation by the working group on euro risk-free rates on the EONIA to €STR legal action plan*", available on the ECB website at the address:
   https://www.ecb.europa.eu/paym/pdf/cons/euro_risk-free_rates/ecb.consultation_details_201905.en.pdf

   With respect to new loans, the recommendation is that market operators refer to the documentation being prepared by the Loan Market Association (LMA)[4].

4. Recommendations on existing contracts referencing EONIA. Although the publication of the EONIA rate, albeit calculated using the new methodology, guarantees continuity to existing contracts maturing before 31 December 2021, the WG's efforts are concentrated on managing existing contracts with maturities beyond the end of 2021, when the EONIA rate will no longer be published. The WG lays out two paths that the parties engaged in an existing

[3] The BMR requests, as an emergency measure to prevent market instability instances, that the European bodies subjected to supervision adopt efficient written operational plans to manage situations in which a benchmark ceases to exist, including the indication of a potential fallback rate. See Article 28.2 of the EU BMR. https://ec.europa.eu/info/law/benchmarks-regulation-eu-2016-1011_en

[4] https://www.lma.eu.com/documents-guidelines/documents/category/issues-and-guidance

contract may follow: to amend or close the existing contract before the end of 2021, entering into a new contract referencing the €STR instead of the EONIA. In the case of an amendment of the existing contract, the recommendation is to replace EONIA as the reference rate as early as possible, to include a fallback rule on €STR plus spread once the EONIA will no longer be published, and an explicit declaration acknowledging that starting on 2 October 2019 the EONIA to which the contract is references will be calculated with the new methodology.

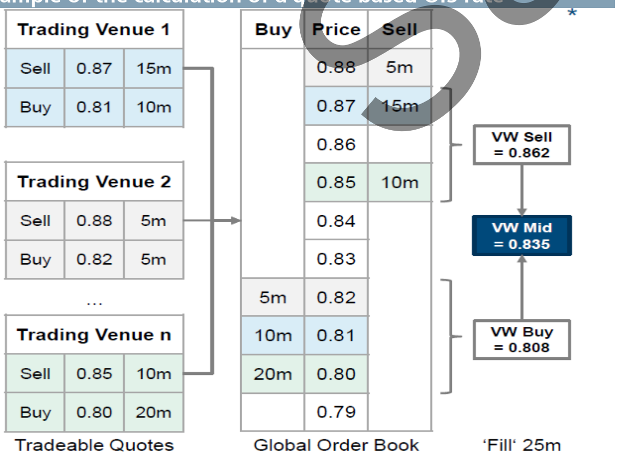
In the case of existing di contracts both OTC, with or without incorporation of the ISDA Benchmark Supplement, and executed under a European master agreement, the same rules laid out for new contracts apply. In order to facilitate the amendment of existing contracts, the WG encourages the European Commission and/or the ESMA to provide market operators with official confirmation that the amendment of existing contracts will not imply new costs (margins/clearing obligation under EMIR[5] or individual notification of new documentation to holders of investment fund shares).

As regards existing collateralisation contracts referencing EONIA, these are largely acknowledged neither to include fallback rules nor to have a set duration. A further issue is how to regulate the introduction of a new flow discounting curve that will replace the EONIA curve currently in use. Therefore, the WG recommends that, in addition to the general introduction of strict fallback rules, market associations such as ISDA, ICMA and ISLA work to incorporate in standard documentation (ISDA collateral documentation and Credit Support Annex, GMRA and GMSLA) rules defined for the change in parameter.

For what concerns existing cash contracts maturing beyond December 2021, the WG recommends that bilateral amendment agreements be closed on the model drawn up in Appendix 2 (page 51 and following) of the document published within the framework of the "*Public consultation by the working group on euro risk-free rates on the EONIA to €STR legal action plan*" available on the ECB website at the following address: https://www.ecb.europa.eu/paym/pdf/cons/euro_risk-free_rates/ecb.consultation_details_201905.en.pdf

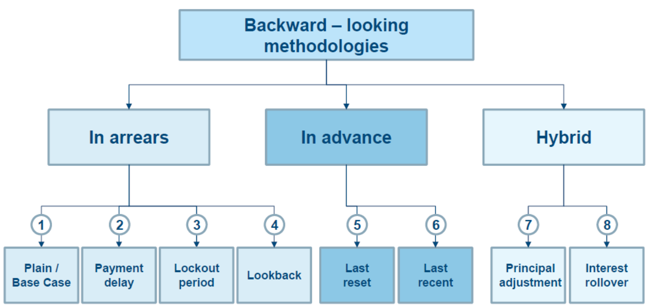
The ECB WG, by the beginning of October, will also have to identify a fallback rate for the new €STR, in order to make it compliant with BMR rules.

Example of the calculation of a quote based OIS rate



Source: ECB,"Agenda Item 5 Update by subgroup 2 on the identification and recommendation of a term structure on RFRs", September 2018, Intesa Sanpaolo

Types of backward looking methodology



Source: BCE, Sub group 2 on term rates methodologies 4July 2019, Intesa Sanpaolo

[5] See Steven van Rijswijk, Chair of the WG RFR, "Letter to European authorities on EMIR margin requirements", 02/07/19 https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk-free_rates/shared/pdf/20190704/2019_07-04_Item_2_Letter_to_European_authorities_on_EMIR_margin_requirements.pdf

Term-structure of euro risk-free rates (RFR)

Last March, the WG RFR recommended that the term structure of euro risk-free rates currently being defined be the fallback for the Euribor curve. However, the new risk-free rate curve will not only be used as the Euribor fallback but will also be necessary to replace the EONIA curve in all transactions in derivatives and discounting transactions when EONIA ceases to exist. The EONIA and EONIA OIS rates are also used to calculate margins and collateral on derivatives, for risk management valuations, as well as in accounting, both financial and concerning hedging transactions.

After a public consultation, the ECB WG recommended that the methodology used to calculate the risk-free term structure be based on the quote-based OIS market on the €STR[6] rate. In practical terms, the WG has recommended that for the calculation of the new curve a forward-looking methodology be used, based on the registering of mid quoted OIS prices on €STR on a limited and specific time window in the day, yet to be defined (see pattern above). Individual dealers would be called to provide operational (tradable) money and letter prices for each relevant maturity, specifying volumes. The administrator will then be tasked with combining the Central Limit Order Book (CLOB) across different Multilateral Trading Facilities (MTF) so as to capture the maximum liquidity possible and to create a theoretical order book, weighting quotations by volumes: the fixings of the new risk-free term structure would be represented by the mid quotations thus obtained.

At the present stage, an ECB working group is in any case analysing the feasibility of building a backward looking risk-free curve as well (see table above), along the course of action pursued for the construction of rates in other currencies and the one also considered by ISDA[7] in the public consultation on determining a fallback curve for derivative instruments referencing Euribor. The two forward-looking and backward-looking RFR curves may coexist, with both representing a fallback for the Euribor.

In order to have a curve that can actually be used as a fallback, a fixing will be necessary and for this reason, while further works are in progress, the WG RFR has made a call for candidatures for the role of administrator of the euro RFR curve: aspiring administrators will present their detailed proposals at the WG meeting of 16 October 2019, after which the documentation will be made public[8].

Other important aspects of the transition, on which work is being done, are:

- Managing the differential between the Euribor curve and the new OIS €STR curve;
- Analysing legal implications (recent publication of the Legal Action Plan).

Other important aspects for the transition are still the object of work and indications are expected in this regard in a short time, in particular to mention some of the most relevant topics we highlight:

- Managing the new benchmarks in derivative contracts (new discounting structure, clearing methodology for the transition from EONIA to €STR);
- The implications in terms of risk management and accounting (managing the accounting of hedging transactions to avoid the unwinding of existing structures, which historical data to use for valuations, managing P&L on transition date from EONIA to €STR or from

---

[6] https://www.ecb.europa.eu/pub/pdf/annex/ecb.sp190314_annex_recommendation.en.pdf

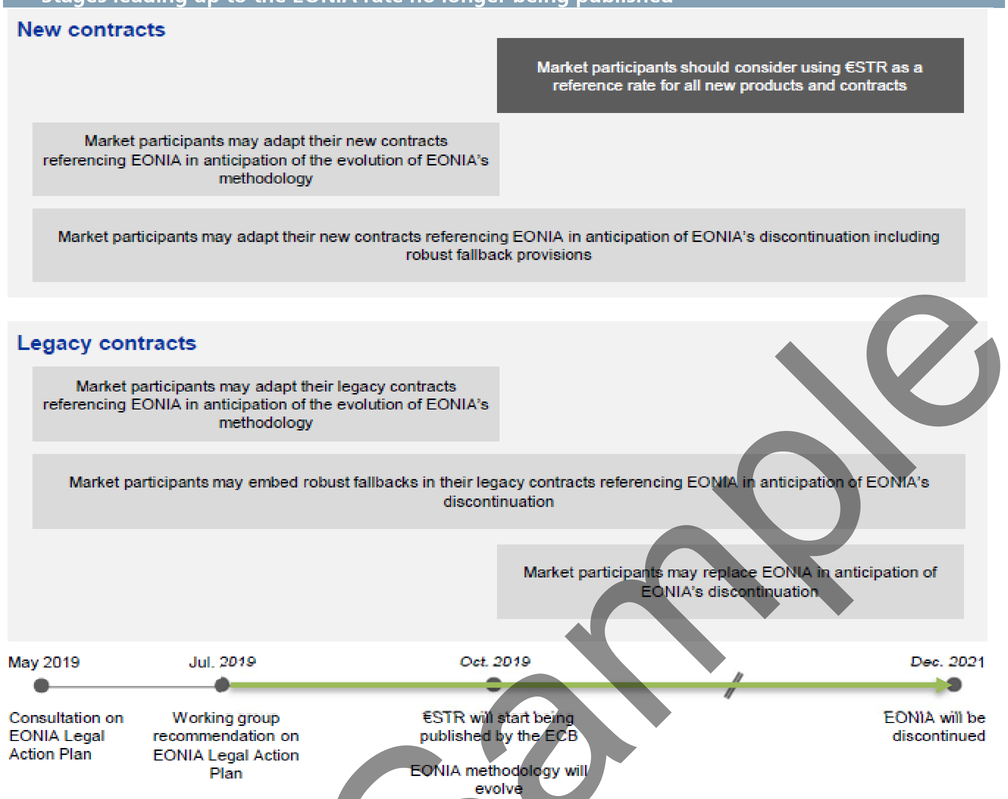
[7] https://www.isda.org/a/w0tME/ISDA-Publishes-Two-Consultations-on-Benchmark-Fallbacks.pdf

[8] https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk-free_rates/shared/pdf/20190704/2019_07_04_WG_on_euro_RFR_meeting_Item_6_Presentation_Subgroup_2_on_term_rates_methodologies.pdf

EURIBOR to the €STR curve). On this aspect, the ECB WG has requested clarifications on specific issues from the IASB[9], to support the transition from EONIA to €STR.

- Managing communication, to make the financial community aware of the changes under way and of the impact these changes will have on market activity.

Stages leading up to the EONIA rate no longer being published



Source: ECB, "Third public consultation by the working group on euro risk-free rates on the EONIA to €STR Legal Action Plan", May 2019, Intesa Sanpaolo

The WG RFR, in accordance with its mission, will in any case limit itself to expressing recommendations, without prejudice to the fact that each person involved must then make the transition operational by acting independently. The importance of the transition is such that at the beginning of July, in carrying out its banking supervisory role within the Single Supervisory Mechanism, the ECB sent precise requests to the CEOs of the European supervised entities to detect the state of preparation for the now imminent transition.

[9] https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk-free_rates/shared/pdf/20190704/2019_07_04_WG_on_euro_RFR_meeting_Item_5_Letter_to_the_International_Accounting_Standards_Board.pdf

Intesa Sanpaolo Direzione Studi e Ricerche – Head of Research Gregorio De Felice		
Tel. +39 02 879+(6) – 02 8021 + (3)		
Macroeconomic Analysis		
Macro & Fixed Income Research		
Luca Mezzomo	62170	luca.mezzomo@intesasanpaolo.com
Fixed Income		
Sergio Capaldi	62036	sergio.capaldi@intesasanpaolo.com
Chiara Manenti	62107	chiara.manenti@intesasanpaolo.com
Federica Migliardi	62102	federica.migliardi@intesasanpaolo.com
Macroeconomics		
Andrej Arady	62513	andrej.arady@intesasanpaolo.com
Guido Valerio Ceoloni	62055	guido.ceoloni@intesasanpaolo.com
Paolo Mameli	62128	paolo.mameli@intesasanpaolo.com
Giovanna Mossetti	62110	giovanna.mossetti@intesasanpaolo.com
Alessio Tiberi	32834	alessio.tiberi@intesasanpaolo.com
Forex Markets		
Asmara Jamaleh	62111	asmara.jamaleh@intesasanpaolo.com
Commodities		
Daniela Corsini	62149	daniela.corsini@intesasanpaolo.com

Appendix

Analyst Certification

The financial analysts who prepared this report, and whose names and roles appear on the first page, certify that:

(1) The views expressed on companies mentioned herein accurately reflect independent, fair and balanced personal views;

(2) No direct or indirect compensation has been or will be received in exchange for any views expressed.

Specific disclosures

The analysts who prepared this report do not receive bonuses, salaries, or any other form of compensation that is based upon specific investment banking transactions.

Important Disclosures

This research has been prepared by Intesa Sanpaolo S.p.A. and distributed by Banca IMI S.p.A. Milan, Banca IMI SpA-London Branch (a member of the London Stock Exchange) and Banca IMI Securities Corp (a member of the NYSE and FINRA). Intesa Sanpaolo S.p.A. accepts full responsibility for the contents of this report. Please also note that Intesa Sanpaolo S.p.A. reserves the right to issue this document to its own clients. Banca IMI S.p.A. and Intesa Sanpaolo S.p.A. are both part of the Gruppo Intesa Sanpaolo. Intesa Sanpaolo S.p.A. and Banca IMI S.p.A. are both authorised by the Banca d'Italia, are both regulated by the FCA in the conduct of designated investment business in the UK and by the SEC for the conduct of US business.

Opinions and estimates in this research are as at the date of this material and are subject to change without notice to the recipient. Information and opinions have been obtained from sources believed to be reliable, but no representation or warranty is made as to their accuracy or correctness.

Past performance is not a guarantee of future results.

The investments and strategies discussed in this research may not be suitable for all investors. If you are in any doubt you should consult your investment advisor.

This report has been prepared solely for information purposes and is not intended as an offer or solicitation with respect to the purchase or sale of any financial products. It should not be regarded as a substitute for the exercise of the recipient's own judgement.

No Intesa Sanpaolo S.p.A. or Banca IMI S.p.A. entities accept any liability whatsoever for any direct, consequential or indirect loss arising from any use of material contained in this report.

This document may only be reproduced or published together with the name of Intesa Sanpaolo S.p.A. and Banca IMI S.p.A..

Intesa Sanpaolo SpA and Banca IMI SpA have in place the Conflicts of Interest Management Rules for managing effectively the conflicts of interest which might affect the impartiality of all investment research which is held out, or where it is reasonable for the user to rely on the research, as being an impartial assessment of the value or prospects of its subject matter. A copy of these Rules is available to the recipient of this research upon making a written request to the Compliance Officer, Intesa Sanpaolo SpA, C.so Matteotti n° 1, 20121 Milan (MI) Italy.

Intesa Sanpaolo SpA has formalised a set of principles and procedures for dealing with conflicts of interest ("Rules for Research"). The Rules for Research is clearly explained in the relevant section of Intesa Sanpaolo's web site (www.intesasanpaolo.com).

Member companies of the Intesa Sanpaolo Group, or their directors and/or representatives and/or employees and/or persons closely associated with them, may have a long or short position in any securities mentioned at any time, and may make a purchase and/or sale, or offer to make a purchase and/or sale, of any of the securities from time to time in the open market or otherwise.

Intesa Sanpaolo S.p.A. issues and circulates research to Major Institutional Investors in the USA only through Banca IMI Securities Corp., 1 William Street, New York, NY 10004, USA, Tel: (1) 212 326 1199.

Residents in Italy: This document is intended for distribution only to professional clients and qualified counterparties as defined in Consob Regulation no. 16190 of 29.10.2007, as subsequently amended and supplemented, either as a printed document and/or in electronic form.

Person and residents in the UK: This document is not for distribution in the United Kingdom to persons who would be defined as private customers under rules of the FCA.

US persons: This document is intended for distribution in the United States only to Major US Institutional Investors as defined in SEC Rule 15a-6. US Customers wishing to effect a transaction should do so only by contacting a representative at Banca IMI Securities Corp. in the US (see contact details above).

This document is for the exclusive use of the person to whom it is delivered by Banca IMI and Intesa Sanpaolo and may not be reproduced, redistributed, directly or indirectly, to third parties or published, in whole or in part, for any reason, without prior consent expressed by Banca IMI and/or Intesa Sanpaolo.

Persons who receive this document are obliged to comply with the above indications.

Valuation Methodology

Trading Ideas are based on the market's expectations, investors' positioning and technical, quantitative or qualitative aspects. They take into account the key macro and market events and to what extent they have already been discounted in yields and/or market spreads. They are also based on events which are expected to affect the market trend in terms of yields and/or spreads in the short-medium term. The Trading Ideas may refer to both cash and derivative instruments and indicate a precise target or yield range or a yield spread between different market curves or different maturities on the same curve. The relative valuations may be in terms of yield, asset swap spreads or benchmark spreads.

Coverage Policy And Frequency Of Research Reports

Intesa Sanpaolo S.p.A. trading ideas are made in both a very short time horizon (the current day or subsequent days) or in a horizon ranging from one week to three months, in conjunction with any exceptional event that affects the issuer's operations.

Disclosure of potential conflicts of interest

Intesa Sanpaolo S.p.A. and the other companies belonging to the Intesa Sanpaolo Banking Group (jointly also the "Intesa Sanpaolo Banking Group") have adopted written guidelines "Modello di Organizzazione, Gestione e Controllo" pursuant to Legislative Decree 8 June, 2001 no. 231 (available at the Intesa Sanpaolo website, webpage http://www.group.intesasanpaolo.com/scriptIsir0/si09/governance/eng_wp_governance.jsp, along with a summary sheet, webpage) setting forth practices and procedures, in accordance with applicable regulations by the competent Italian authorities and best international practice, including those known as Information Barriers, to restrict the flow of information, namely inside and/or confidential information, to prevent the misuse of such information and to prevent any conflicts of interest arising from the many activities of the Intesa Sanpaolo Banking Group which may adversely affect the interests of the customer in accordance with current regulations.

In particular, the description of the measures taken to manage interest and conflicts of interest – related to Articles 5 and 6 of the Commission Delegated Regulation (EU) 2016/958 of 9 March 2016 supplementing Regulation (EU) No 596/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the technical arrangements for objective presentation of investment recommendations or other information recommending or suggesting an investment strategy and for disclosure of particular interests or indications of conflicts of interest as subsequently amended and supplemented, Article 24 of Regulation on the Organisation and Procedures of Intermediaries providing investment services or collective portfolio management jointly adopted by the Bank of Italy and Consob, FINRA Rule 2241 and NYSE Rule 472, as well as the FCA Conduct of Business Sourcebook rules COBS 12.4 - between the Intesa Sanpaolo Banking Group and issuers of financial instruments, and their group companies, and referred to in research products produced by analysts at Intesa Sanpaolo S.p.A. is available in the "Rules for Research " and in the extract of the "Corporate model on the management of inside information and conflicts of interest" published on the website of Intesa Sanpaolo S.p.A.

At the Intesa Sanpaolo website, webpage http://www.group.intesasanpaolo.com/scriptIsir0/si09/studi/eng_archivio_conflitti_mad.jsp you can find the archive of disclosure of interests or conflicts of interest of the Intesa Sanpaolo Banking Group in compliance with the applicable laws and regulations.

Furthermore, in accordance with the aforesaid regulations, the disclosures of the Intesa Sanpaolo Banking Group's interests and conflicts of interest are available through the above mentioned webpage. The conflicts of interest published on the internet site are updated to at least the day before the publishing date of this report.

We highlight that disclosures are also available to the recipient of this report upon making a written request to Intesa Sanpaolo S.p.A. – Macroeconomic and Fixed Income Research, Via Romagnosi, 5 - 20121 Milan - Italy.

Banca IMI S.p.A., one of the companies belonging to the Intesa Sanpaolo Banking Group, acts as market maker in the wholesale markets for the government securities of the main European countries and also acts as Government Bond Specialist, or in comparable roles, for the government securities issued by the Republic of Italy, by the Federal Republic of Germany, by the Hellenic Republic, by the European Stability Mechanism and by the European Financial Stability Facility.