

Secondary Market Practices Committee European Secondary Market Data Report

H2 2024 - Sovereign Edition



Executive Summary

This report provides an overview of European trading activity for sovereign bond markets, comparing our latest findings with past performances since January 2022. Specific changes and trends relative to past reports can be summarised as follows:

- Notional traded in H2 2024 increased 12.8% when compared to H2 2023. Trade count for the same period has increased by 0.4%.
- For the full year 2024, notional traded increased by 13.8% year on year, from €51 tn to €60 tn. Trade count also rose by 5.9% from 10.7 mn trades to 11.3 mn in 2024.
- Average trade size followed a downward trend until the end of 2023. The first three quarters of 2024 saw an increase before contracting again in Q4.
- EUR denominated volumes continue to dominate the overall market, with a 52% share. This is followed by USD (35%) and GBP (12%).
- At a currency breakdown level, trade count follows similar patterns, with EUR being the most common accounting for 52% overall share, USD for 36% and GBP for 10%.
- The currency breakdown is different at individual jurisdictions level where, within the EU, EUR denominated bonds represent 73% of volumes and 65% of trade count. In the UK, EUR trades only represents 34% of volumes and 34% of trades. The most traded currency in the UK is the USD with 46% of volumes and 44% of trades.
- GBP had the highest average trade size at €6.3 mn, followed by the EUR (€5.3 mn) and USD (€5.2 mn).
- For the full year 2024, the big six issuers (US, UK, DE, FR, IT, ES), make up 93% of the overall volume and 89% of all trades.
- Overall US issued debt is the most traded with 35% of volumes and 35% of trades. This is followed by Italian debt with a share of 23% of total traded notional and 26% of trades.
- The country breakdown is different at the individual jurisdictions level too where, within the EU, Italian issued debt is the most traded, with a share of 40% of notional traded and 37% of trades. In the UK this accounts for only 9% of notional and 9% of trades. US issued bonds are the most common in the UK with a 46% share of notional traded and 43% of trades.

- By the end of the last quarter of 2024, notional traded in debt issued in Italy and the UK was 71% higher compared to their levels in the first quarter of 2022. For the same period, US issued debt notional traded grew only 13%.
- French issued debt trades with the highest average trade size at €8.4 mn. This is followed by Germany at €6.5 mn and the UK at €6.3 mn.
- Overall, 45% of trades are executed with a size smaller than €1 mn. These trades only account for 3% of total notional traded. 43% of notional is captured in those trades with a size bigger than €25 mn, despite accounting for only 5% of the overall trade count.
- Historically, notional traded with ticket sizes bigger than €50 mn is increasing, going from €2.5 tn in Q4 2022 to €4.1 tn in Q4 2024. On the other hand, the trade count in these sizes remains stable, but is increasing in those tickets with a size smaller than €1 mn, going from 845 k in Q4 2022 to 1.3 mn in Q4 2024.
- The most traded tenors both from a trade count and notional traded perspective are the five and ten year tenors.
- Over time, SI's share of notional traded for sizes above €2mn has steadily declined, with €2mn–€5mn trades dropping from 62% (H2 2022) to 47% (H2 2024) and €5mn–€10mn from 59% to 41%. Meanwhile, D2C's share for trades >€25mn increased from 26% to 34% in the same period. D2D gained share across €2mn–€25mn trades, particularly in €2mn–€5mn (11% to 27%) and €5mn–€10mn (23% to 38%).
- Overall 64% of notional traded in 2024 was indefinitely aggregated.
- By retrofitting 2024 data to the upcoming post trade deferral regimes we observe that in the EU more than 90.2% of vanilla bond trades (group 1) and 93.5% for inflation linked (group 2) would be disclosed real time. These account for 47.7% and 38.2% of volumes respectively. In the UK the overall real time disclosure would have applied to circa 78% of transactions and 32% of notional.

Table of contents

Executive Summary	2
This report	5
What's new	5
Data coverage and quality	5
Introduction	6
Currency analysis	8
Volumes by currency	8
Total volumes	8
Evolution of currency distribution EU and UK markets	10 11
	12
Trade count by currency Total trade count	12
Evolution of currency distribution	13
EU and UK markets	14
Average sizes by currency	15
Aggregated average sizes	15
Evolution of average sizes EU and UK markets	15 18
LO and OK markets	10
Issuer country analysis	20
Volume by issuer country	20
Total volumes	20
Evolution of issuer distribution EU and UK markets	21
	24
Trade count by issuer country Total trade count	24
Evolution of issuer distribution	26
EU and UK markets	27
Average sizes by issuer country	28
Aggregated average sizes	28
Evolution of average sizes EU and UK markets	31
LO and OK markets	
Trade size analysis	36
Evolution of trade sizes	37
Tenor analysis	39
Distribution channels analysis	41
Evolution of distribution channels	42

Amount outstanding analysis	45
Jurisdictions and indefinite aggregation	46
Jurisdictions distribution	46
Evolution of jurisdiction distribution	46
Indefinite aggregation	47
Upcoming changes to the post-trade deferral regimes	49
UK	52
ICMA retrofitting	52
Annex I	55
About ICMA	56
About the SMPC	56
About Propellant.digital	56
About ICE Fixed Income Data Services	56
Glossary	57

Data processing, analysis, and commentary: Simone Bruno, ICMA – <u>simone.bruno@icmagroup.org</u> With support from: Andy Hill, ICMA – <u>andy.hill@icmagroup.org</u> Nina Suhaib-Wolf, ICMA – <u>nina.suhaib-wolf@icmagroup.org</u> Emma Thomas, ICMA – <u>emma.thomas@icmagroup.org</u> Aman Gill, ICMA – <u>aman.gill@icmagroup.org</u>

This paper is provided for information purposes only and should not be relied upon as legal, financial, or other professional advice. While the information contained herein is taken from sources believed to be reliable, ICMA does not represent or warrant that it is accurate or complete and neither ICMA nor its employees shall have any liability arising from or relating to the use of this publication or its contents. Likewise, data providers who provided information used in this report do not represent or warrant that such data is accurate or complete and no data provider shall have any liability arising from or relating to the use of this publication or its contents. Likewise, data provider shall have any liability arising from or relating to the use of this publication or its contents. Some figures presented in this report may not align with previously published data due to ongoing updates in our data collection and analysis processes.

© International Capital Market Association (ICMA), Zurich, 2025. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without permission from ICMA.

This report

The purpose of this report is to capture and represent aggregated bond market data as reported under the MiFID II / MiFIR obligation. ICMA has leveraged the capabilities of Propellant.digital in undertaking this analysis. The report covers transactions in sovereign bonds (as defined by the regulatory class of financial instrument - or 'CFI' code and the corresponding sub-asset class), as reported under both the EU and UK MiFID II/ MiFIR requirements. It provides traded volumes and trade counts disaggregated by underlying currency, and, in the case of sovereign bonds, by underlying issuer. It further disaggregates by trade sizes, distribution channels, as well as transaction jurisdiction (EU or UK). This report is the sixth in the series, following reports published for H1 2022, H2 2022, H1 2023, H2 2023 and H1 2024. Accordingly, it provides 36 months of bond market data, covering the period January 2022 through to December 2024. This has facilitated the observation of trends and patterns in secondary market trading activity and structure over this time. ICMA believes that this latest data set is also a more accurate reflection than the previous reports, and the expectation is that future reports will see continued improvements in both the depth and quality of the underlying data.

What's new

In the previous versions of this report, we have presented the data aggregating trades executed both within the EU and the UK. We further developed this by presenting the findings and highlighting the differences with respect to bonds issued by EU members only, but the underlying data still combined trades from both UK and EU trading venues (TVs). Given the current legislative scenario, where changes to both the UK and EU's posttrade deferral systems have been proposed by their respective regulatory authorities, we have deemed it more appropriate to present the data differently in this version. i) The aggregated values of both the UK and EU TVs are presented as usual to provide an overall picture of the market for this specific period (H2 2024 and full year 2024). ii) On the aggregated values, we present its evolution by checking patterns on a guarterly or biannual basis from January 2022. iii) For this period, instead of filtering for bonds issued by EU countries only, we then present the data by jurisdiction of trade (EU and UK)

without filtering for any other criteria. This will allow us to identify any differences between the two jurisdictions.

Compared to previous versions, the analysis in this report is also enriched thanks to the use of additional reference data, which has been provided by <u>ICE Fixed Income Data</u> <u>Services</u>.

Previous versions of this report included both sovereign and corporate analysis. Following readers' input and feedback, the report will now be published in two different editions: a sovereign edition and a corporate edition.

Data coverage and quality

Based on the underlying sources of transaction data, it is estimated that the report captures more than 80% of all secondary bond market transactions reported in the EU and UK and is therefore relatively representative of overall bond trading in these jurisdictions. It is important to recognise, however, that there are data quality limitations with the current transaction reporting regime. A common issue is the reporting of incorrect notional amounts by Approved Publication Arrangements (APAs), which can be inflated (usually by a factor of x1,000). Sometimes these reported transactions are corrected at a later date, but often they are not. A more systemic problem lies with the sub-asset class information in the ESMA Financial Instruments Transparency System (FITRS), which are often incorrect, giving underlying bonds the wrong bond type classification. For example, many French and Dutch sovereign bonds, among others, are classified as corporate bonds in FITRS. A further challenge is the nature in which sovereign bond data is reported, with much of the trading activity subject to indefinite aggregation. In some cases the trade count is not published, making it difficult to estimate average and median trade sizes. While both Propellant and ICMA have tried to identify such misreporting or underlying errors in the publicly reported data used in this report, and to correct the data where possible, neither takes responsibility for any misrepresentation, whether in the APA and Trading Venue (TV) reported data or in FITRS or FIRDS (Financial Instruments Reference Data System).

Introduction

The total notional value of sovereign bonds traded in the second half of 2024 is €29,765 bn. This represents a 12.8% increase compared to €26,382 bn in H2 2023.

For the full year of 2024, the total notional traded was €60,486 bn. This is a 13.8% increase compared to €53,134 bn traded in 2023.

In terms of transaction count, H2 2024 recorded 5,554,894 trades, which is a 0.4% increase compared to 5,531,875 trades in H2 2023. For 2024, there were 11,298,154 trades, a 5.9% increase compared to 10,668,675 trades in 2023.

The number of unique ISINs traded in H2 2024 was 2,707, a 2.7% increase compared to 2,635 in H2 2023. For the full year 2024, 3,217 unique ISINs were traded, which is a 6.7% increase compared to 3,016 in 2023.

With respect to the quarterly number of trades and volumes from 2022 (Figure 1), we observe:

- a) The number of trades increases quarter on quarter (QoQ) at a faster rate than volume (a phenomenon already observed in previous reports), with a consequent shrinkage of average trade sizes. From Q4 2023, notional traded grew at a faster rate than trades, leading to an (seemingly temporary) increase of the average trade size (see Figure 1 & Figure 2).
- b) Whilst for 2022 and 2023 we observe predictable cyclical patterns for volumes, this behaved slightly differently in 2024. We usually see a drop in volume in the third quarter, compared to the second quarter. However, in Q3 2024 the notional traded is circa 0.6 percentage points above the level of Q2 2024 (see Figure 1).
- c) We extrapolate the average size and observe that the downward sloping trend in trade sizes observed through 2022 and 2023 has reverted in the first three quarters of 2024, but then continued to fall in the last quarter of 2024 (Figure 2).



Figure 1 - Quarterly volumes and trade count (base 100)

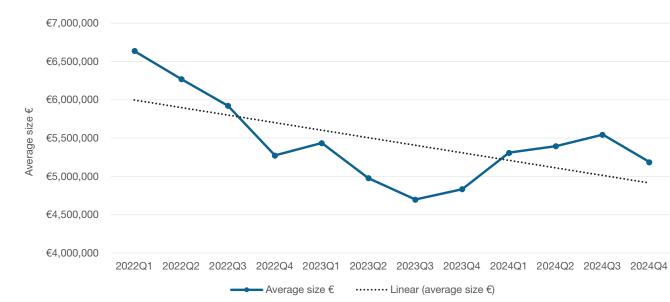


Figure 2 – Average size €

Currency analysis

The below analysis is based on currency of issuance. Please note that circa 0.4% of USD denominated notional value originates from bonds that are not U.S. Treasuries and issued by other DMOs, whilst 1% of GBP notional is not represented by Gilts but bonds from other DMOs.

Volumes by currency

Total volumes

The average weekly volume observed in H2 2024 equates to €1,145 bn, a 12.8% increase when compared to €1,015 bn in H2 2023.

The full year weekly average equates to €1,163 bn, 13.8% higher compared to the 2023 weekly average of €1,022 bn.

The most traded currency in H2 2024 was the EUR, with an equivalent amount of \in 15,024 bn and an overall share of 50.5 %. This represents an 11% increase compared to \in 13,538 bn in H2 2023. The second most traded currency in H2 2024 was the USD, with an equivalent amount of \in 10,929 bn and an overall share of 36.7%. This represents a 14.1% increase compared to \in 9,575 bn in H2 2023. The third most traded currency in H2 2024 was GBP, with an equivalent amount of \in 3,410.7 bn and an overall share of 11.4%. This represents a 17.7% increase compared to \in 2,897.4 bn in H2 2023. The remaining share of less than 2% of total volumes is composed by all other currencies, including, but not limited to, CHF, SEK, DKK, NOK and more.

The yearly total for 2024 adds up to €31,487 bn for EUR (€27,270 bn in 2023), and a share of 52% of total volumes. €21,221 bn for USD (€19,718 bn in 2023), and a share of 35%. €6,931 bn for GBP (€5,425 bn in 2023), and a share of 11.5%. €847 bn for all other currencies (€720.5 bn in 2023), and a share of 1.4%.

When observing the weekly distribution of volumes, as expected during the last few weeks of the year, trading activity slows down. In the week prior to the final week of 2024, we observe a drop in notional traded of approximately 40% across all currencies compared to the previous week, except for USD denominated volumes, which declined by only 10%. In the final week of 2024, notional traded in all other currencies fell by a further 73%, while USD volumes dropped by just 46%. The slower rate at which USD denominated notional dropped led to its percentage share increasing sharply in the last two weeks of the year, as can be observed in the chart overleaf.

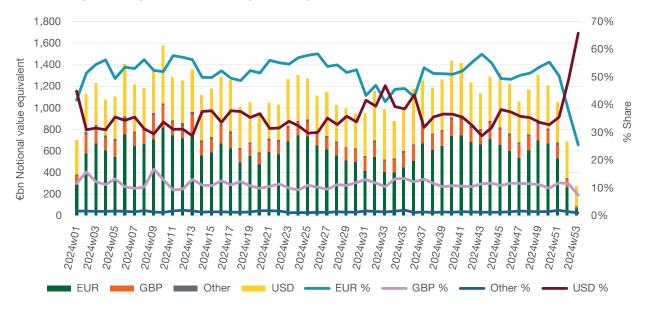
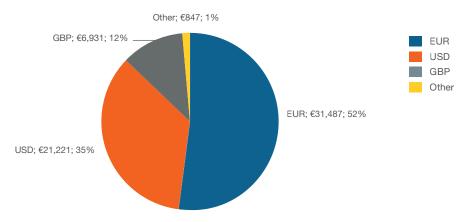


Figure 3 – Weekly sovereign bond volume by currency





Currency	Notional Value (€bn equivalent)	%
EUR	31,487.34	52.1%
USD	21,220.61	35.1%
GBP	6,931.34	11.5%
PLN	387.62	0.6%
HUF	114.10	0.2%
СZК	106.09	0.2%
SEK	77.57	0.1%
RON	69.43	0.1%
DKK	53.65	0.1%
NOK	37.48	0.1%
Other	1.04	0.002%

Table 1 – Total sovereign bond volume by currency (€bn equivalent)

Evolution of currency distribution

When examining the evolution of the distribution of currencies by volume QoQ, we observe a relatively stable trend, with currency shares oscillating by only a few percentage points while maintaining the same overall trend.

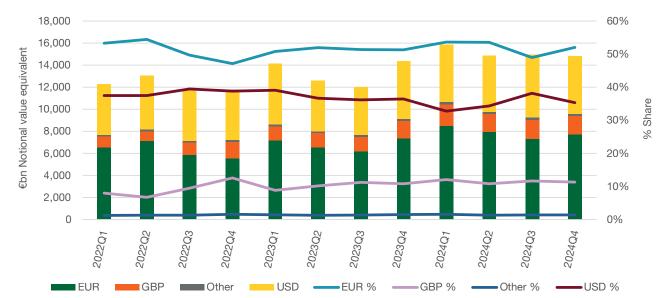


Figure 5 – Evolution of currency distribution

EU and UK markets

When observing volume distribution by currency at an individual jurisdiction level for the full year, we see distinct trends, which are consistent with those highlighted in previous editions of this report.

As we might expect, EUR denominated sovereign bonds dominate the European markets. These account for 73% of EU volumes, and are followed by USD denominated (ie US Treasury) volumes, with a 22% share and GBP (ie Gilts) with a 3% share. The remaining 2% share is distributed among all other currencies.

In the UK, the share of EUR denominated traded notional halves (consistent with previous editions), establishing a share of only 34% of total volumes. USD denominated notional accounts for 46% and GBP 19%, leaving only 1% of total notional traded to all other currencies. It is worth noting that USD denominated trading volumes in the UK are more than twice those of GBP denominated volumes. This is even more pronounced when considering EU based trading, reinforcing the UK's role as a key hub for USD bond markets.

For the full year, we observe €28,294 bn total volume traded in the EU, equating to a weekly average of €544 bn, and €32,183 bn in the UK, for a weekly average of €619.

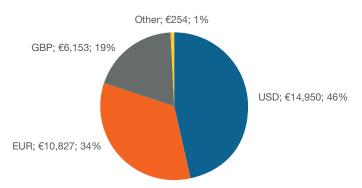
Table 2 – Total sovereign bond volume jurisdiction ar	nd currency (€bn equivalent) ¹
---	---

EU markets					
Currency Notional value (€bn) %					
EUR	20,653	73%			
USD	6,271	22%			
GBP	778	3%			
Other	593	2%			

UK market			
Currency	Notional value (€bn)	%	
USD	14,950	46%	
EUR	10,827	34%	
GBP	6,153	19%	
Other	254	1%	



Notional traded by currency (€bn) - UK



1 Please note that EU volumes summed to UK volumes do not equate to total aggregated volumes. This is due to either jurisdiction data missing from the dataset or rounding errors.

Trade count by currency

Total trade count

The average weekly number of trades observed in H2 2024 equates to 213,650, a 0.4% increase when compared to 212,764 trades in H2 2023. The full year weekly average equates to 217,272 trades, 2.1% higher compared to 2023 weekly average of 212,764.

The most traded currency in the second half of 2024, in terms of trade count, is the EUR, with 2,894,598 trades and a share of the overall total of 52.1%. This represents a 5.9% increase compared to 2,733,978 trades in the second half of 2023.

The second most traded currency is the USD, with a trade count of 1,981,126 trades and an overall share of 35.7%. This represents a -7.6% decrease compared to 2,143,335 trades in H2 2023.

The third most traded currency is GBP, with a trade count of 566,724 and an overall share of 10.2%. This represents a 12.9% increase compared to 501,996 trades in H2 2023. The remaining 2% of trades are made up of all other currencies.

The yearly total trade count for 2024 is made up of: 5,908,978 EUR denominated trades (5,387,890 in 2023), accounting for a 52.3% share of the total trade count; 4,039,950 USD denominated trades (4,070,437 in 2023), with a share of 35.8%; 1,106,547 GBP denominated trades (934,709 in 2023), with a share of 9.8%, with the remaining 242,679 trades being denominated in all other currencies (275,639 in 2023), constituting a share of only 2.1%.

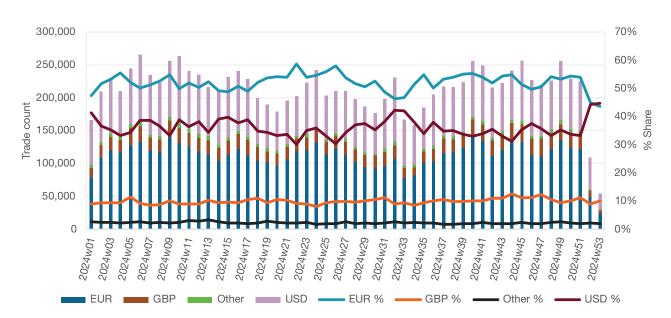


Figure 7 – Weekly sovereign bond trade count by currency

Figure 8 – Total sovereign bond trade count by currency

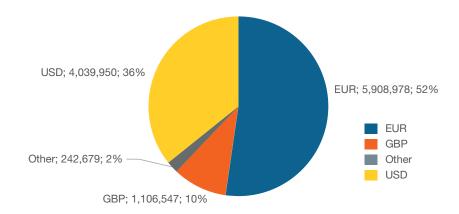


Table 3

Currency	Trade count	%
EUR	5,908,978	52%
USD	4,039,950	36%
GBP	1,106,547	10%
Other	242,679	2%

Evolution of currency distribution

With respect to the evolution of trade count, a few observations can be made.

In terms of percentage share of total trade count, EUR denominated trades continue to rise (although at a slow pace), while USD denominated trades steadily decline, widening the gap between the two (see Figure 9). Meanwhile, all other currencies have maintained a stable share, consistently representing only 2-3% of total trades, in every quarter since Q1 2022. The GBP trade count share gradually increases at a steady pace, averaging a one percentage point rise each year. In fact, the quarterly average share in 2021 was 8%, followed by 9% in 2022 and 10% in 2024.

In parallel with changes in percentage share, we also look at the growth of the actual trade count. GBP denominated trades grew the most: by 98% if we compare Q1 2024 to Q1 2022, or 117% if we compare Q4 2024 to Q1 2022 (see Figure 10). With the exception of some growth towards the end of 2023, the group consisting of all other currencies have ended 2024 with a trade count that is equal to their 2022 levels, indicating no growth over that time horizon. The number of trades of EUR and USD denominated bonds grows at a steady pace, although at a faster rate in the case of EUR.

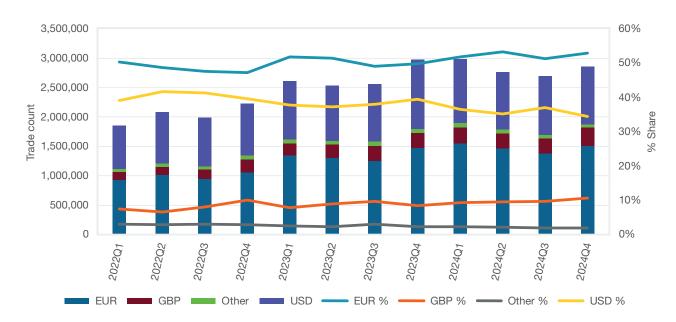
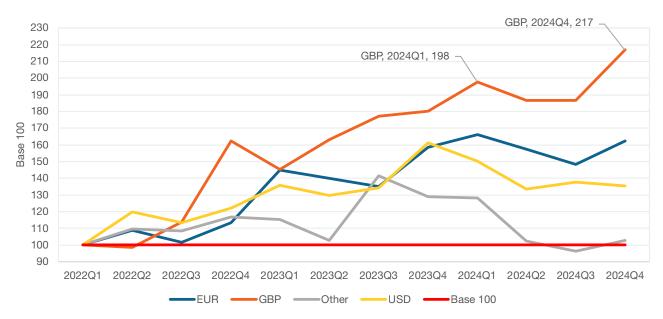


Figure 9 – Evolution of currency distribution





EU and UK markets

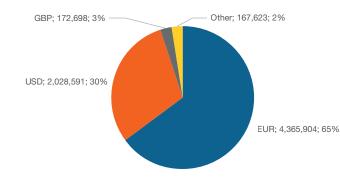
As previously seen, we observe that the dynamics between the EU and the UK are different with respect to trade count. Whereas in the EU 65% (4,365,904 for the full year 2024) of trades are represented by EUR dominated trades, these account for only 44% in the UK (1,542,796). USD denominated trades represent the second largest share of trades in the EU, with a share of 30% and a count of 2,028,591 trades. In the UK, on the other hand, USD trades make up 44% of total trades (2,011,359). GBP issued bonds mainly trade domestically. These account for 933,849 trades in the UK (20% of the UK total), compared with only 172,698 in the EU (3% of EU total). All other currencies represent only 2% of trades both in the EU with 167,623 trades and the UK with 75,050 trades.

Table 4

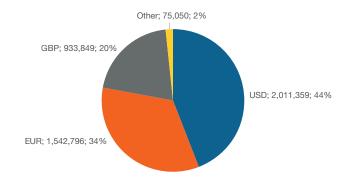
EU markets					
Currency Trade count %					
EUR	4,365,904	65%			
USD	2,028,591	30%			
GBP	172,698	3%			
Other	167,623	2%			

UK market					
Currency Trade count					
USD	2,011,359	44%			
EUR	1,542,796	34%			
GBP	933,849	20%			
Other	75,050	2%			

Figure 11 – Trade count by currency - EU



Trade count by currency - UK



Average sizes by currency

Aggregated average sizes

Despite GBP only representing 11.5% of volumes and 10% of trades (at an aggregated level for 2024), this currency exhibits the highest average size with an equivalent amount of \in 6,263,938 and a median of \in 381,033. The EUR and USD follow with similar average sizes of \in 5,328,729 and \in 5,252,691 and medians of \in 2,000,000 and \in 1,878,429 respectively. All other currencies combined exhibit an average size of \in 3,490,180 and a median of \in 1,340,726.

Table 5²

Currency	Average Trade Size	Median Trade Size	Median Trade Size 25th percentile	
GBP	6,263,938	381,033	46,392	3,461,073
EUR	5,328,729	2,000,000	100,000	5,000,000
USD	5,252,691	1,878,429	914,280	4,767,940
Other	3,490,180	1,340,726	256,583	3,521,158

Evolution of average sizes

On a QoQ basis, as seen in previous editions of this report, despite some fluctuations and occasional recoveries (such as in Q1 2024), the overall trend for GBP, EUR, and USD average sizes is negative. All other currencies together show some volatility in their average sizes, with a seemingly upward trend.

² ICMA identifies a high margin of error in estimating median trade sizes due to the nature of aggregated trades. Aggregated trade data provides the total notional traded and trade count but does not disclose individual trade sizes. Consequently, to calculate median trade sizes, all trades within an aggregated line are assumed to be of equal size, which distorts the true median.

When comparing average trade sizes in Q1 2024 to average trade sizes in Q1 2022, GBP exhibits a 1.3% decrease, EUR a 22% decrease and USD a 25% decrease. All other currencies are 29% higher instead.

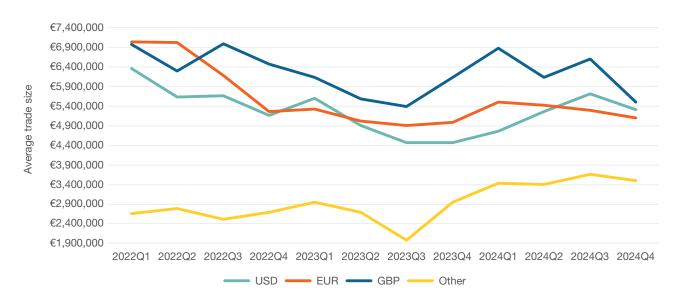
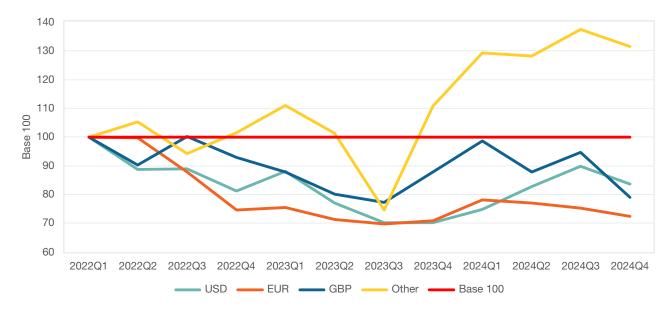




Figure 13 - Evolution of average trade size by currency (base 100 as of Q1 2022)

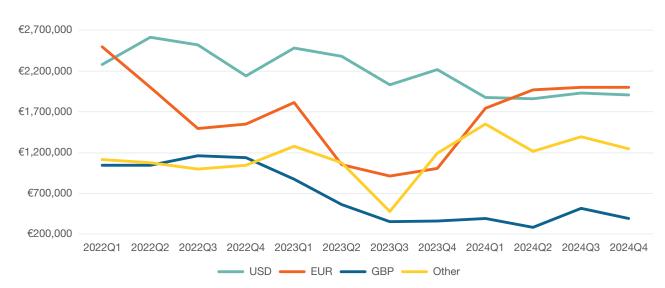


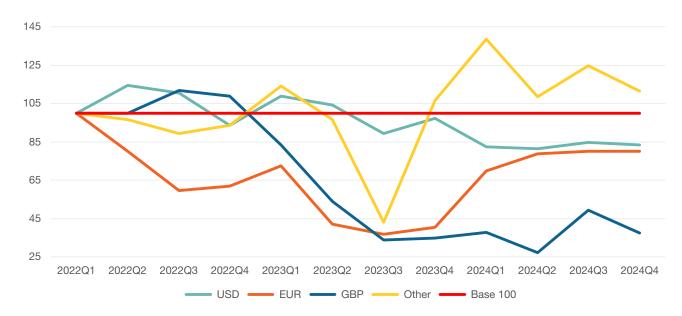
Quarter	USD	EUR	GBP	Other
2022Q2	-11.4%	-0.3%	-9.7%	5.2%
2022Q3	0.3%	-11.8%	9.9%	-10.9%
2022Q4	-7.7%	-13.2%	-7.4%	7.2%
2023Q1	6.9%	0.9%	-5.0%	9.5%
2023Q2	-11.0%	-4.2%	-7.8%	-9.6%
2023Q3	-6.9%	-1.6%	-2.7%	-26.7%
2023Q4	0.1%	1.1%	10.6%	36.1%
2024Q1	4.6%	7.2%	10.7%	18.4%
2024Q2	7.9%	-1.0%	-10.7%	-1.0%
2024Q3	7.0%	-1.9%	6.8%	9.3%
2024Q4	-6.2%	-2.8%	-15.8%	-6.0%
Average	-1.5%	-2.5%	-1.9%	2.9%

Table 6 – QoQ base 100 percentage points changes

Similarly, when analysing the median trade sizes, a comparable downward trend is observed for GBP, EUR, and USD, with intermittent rebounds in certain quarters. The decline is particularly pronounced for GBP, which by the end of 2024 was 62% lower than the median size of Q1 2024. The EUR median size for the same period was down 20% and the USD 16%. All other currencies show a pattern consistent with previous observations, with significant fluctuations but an overall upward trend.









EU and UK markets

As highlighted in previous editions of this report, average and median trade sizes exhibit different dynamics in different jurisdictions. The average trade size in the UK is 48% higher for EUR denominated trades, 46% for GBP and 140% for USD denominated trades, compared to the average sizes in the EU. All other currencies exhibit a smaller average trade size in the UK but of only 4% compared to the EU.

Table 7

Currency	EU Average Trade Size	EU Median Trade Size	EU 25th percentile	EU 75th percentile	UK Average Trade Size	UK Median Trade Size	UK 25th percentile	UK 75th percentile
EUR	4,730,538	1,300,000	59,000	5,000,000	7,016,978	2,504,033	473,388	6,537,093
GBP	4,505,620	291,525	47,753	1,880,731	6,589,106	413,312	45,595	3,802,068
Other	3,537,468	1,211,128	158,731	3,352,486	3,382,876	1,728,187	569,197	4,080,579
USD	3,091,314	930,236	501,158	2,133,676	7,432,584	3,959,401	1,771,403	6,975,867

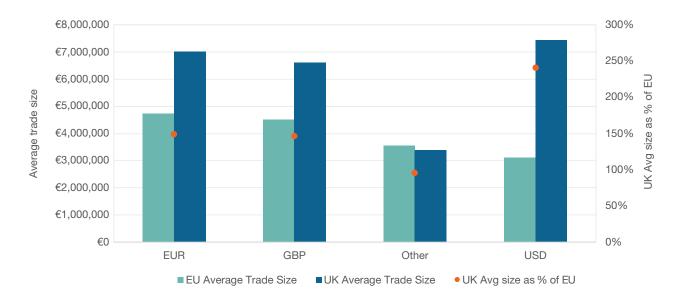


Figure 16³ – EU and UK average sizes by currency

3 A value of 100% in the right-hand size axis, indicates that the UK average size is equal to the EU. A value above 100% indicates that the UK average size is higher than the EU one. A value below 100% indicates that the UK average size is lower in the UK compared to the EU.

Issuer country analysis

Volume by issuer country

Total volumes

Consistent with previous reports, when it comes to issuer country, the same six countries dominate the market. More specifically, bonds issued by the US, Italy, Germany, the UK, France, and Spain alone constitute 93% of the overall volume.

The most traded country in H2 2024 is the US, with an equivalent notional value of €10,893 bn and an overall share of 36.6%. This represents a 14.1% increase compared to €9,545 bn in H2 2023.

The second most traded sovereign bonds in H2 2024 are bonds issued by the Italian government, with an equivalent notional amount of \in 7,074 bn and a share of 23.8%. This represents a 34.6% increase compared to \in 5,255 bn in H2 2023. The third most traded issuer country in H2 2024 is the UK, with an equivalent amount of \in 3,408 bn and a share of 11.5%. This represents a 17.8% increase compared to \in 2,894 bn in H2 2023. German issued bonds are the fourth most traded bonds and the last country with a double-digit percentage share. These account for \in 3,173 bn and a share of 10.7%. German notional traded fell compared to H2 2023 by 4.9%. France follows with a share of 7.9% (\in 2,362 bn). This represents a -1.8% decrease compared to \in 2,406 bn in H2 2023. Lastly, Spanish issued debt is the sixth most traded, with a share of 3.4% (\in 1,002 bn). This represents a -12.2% decrease compared to \in 1,142 bn in H2 2023. All other countries have an individual share smaller than 1%.

The yearly total for 2024 adds up to: €21,140 bn for the US (€19,648 bn in 2023), and an overall market share of 35%; €14,111 bn for Italian issued bonds (€9,636 bn in 2023), and a share of 23.3%; €6,925 bn for the UK (€5,420 bn in 2023), and a share of 11.4%; and €6,769 bn for German issued bonds (€7,200 bn in 2023), and a share of 11.2%.

As seen in the currency chapter, we observe that trading activity declines in the last two weeks of the year. The trade count in US Treasuries, however, declines at a slower pace, leading to an increase in the overall percentage share, as it can be seen in the below graph.

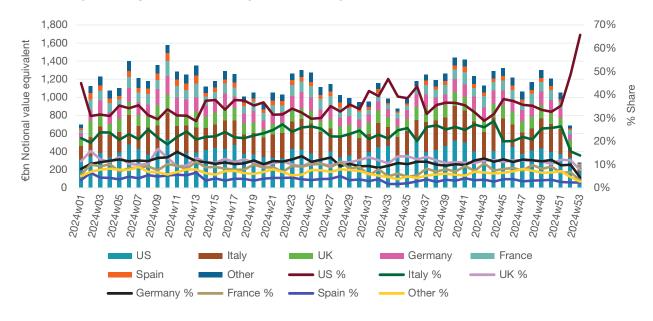


Figure 17 – Weekly sovereign bond volume by issuer country

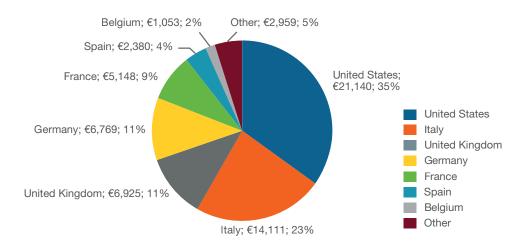


Figure 18 – Total sovereign bond volume by issuer (€bn equivalent)

Table 8

Issuer country	Notional value (€bn)	%
United States	21,140	35.0%
Italy	14,111	23.3%
United Kingdom	6,925	11.4%
Germany	6,769	11.2%
France	5,148	8.5%
Spain	2,380	3.9%
Belgium	1,053	1.7%
Other	2,959	4.9%

Evolution of issuer distribution

In the <u>H1 2024 edition of this report</u>, it was observed that Italian issued debt as a percentage share of the overall EU and UK sovereign secondary market kept increasing, from a low of 13% in 2023 to 24% in Q2 2024. This percentage share growth is linear, with an average increase of circa 1.5 percentage points every quarter. This was to the detriment of the share of French and German issued debt, which in the same period decreased by an average of circa 0.5 percentage points quarterly, and US issued debt, which decreased of circa 0.7 percentage points per quarter.

In the third quarter of 2024, the percentage share of Italian issued debt decreased for the first time since Q3 2022 by 0.8 percentage points, before regaining 1.2 percentage points in Q4 2024, and stabilising around 24% share; so ending the liner growth pattern since 2022 (see Figure 19).

Contemporarily, all other issuers exhibit no major changes in their percentage share, with exception of US issued debt whose percentage share rose by 3.8 points in the third quarter, only to decrease by 2.9 in Q4.

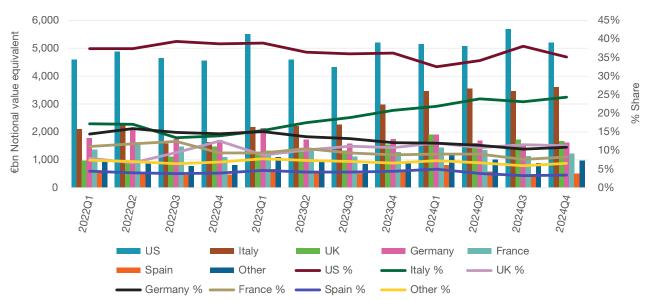


Figure 19 – Evolution of issuer distribution

Table 9 – Percentage share points changes QoQ

Quarter	US	Italy	UK	Germany	France	Spain	Other
2022Q2	0.0%	-0.1%	-1.3%	1.5%	0.7%	-0.4%	-0.4%
2022Q3	2.0%	-3.7%	2.8%	-1.0%	0.6%	-0.2%	-0.5%
2022Q4	-0.7%	0.5%	3.1%	-0.4%	-3.1%	0.2%	0.5%
2023Q1	0.2%	1.4%	-3.7%	0.6%	0.0%	0.7%	0.8%
2023Q2	-2.4%	2.1%	1.3%	-1.4%	1.2%	-0.5%	-0.4%
2023Q3	-0.4%	1.4%	1.0%	-0.5%	-1.2%	0.0%	-0.3%
2023Q4	0.2%	1.9%	-0.4%	-1.1%	-0.5%	0.2%	-0.4%
2024Q1	-3.7%	1.1%	1.2%	-0.1%	0.2%	0.6%	0.7%
2024Q2	1.7%	2.1%	-1.2%	-0.6%	0.0%	-1.2%	-0.6%
2024Q3	3.8%	-0.8%	0.8%	-1.0%	-1.4%	-0.6%	-0.8%
2024Q4	-2.9%	1.2%	-0.3%	0.5%	0.6%	0.2%	0.6%

In parallel to percentage share, we also analyse the growth of the actual notional traded. Germany, France and Spain, notional traded typically rises in the first quarter (aligned with market dynamics, where issuance tends to peak early in the year) before gradually declining. In the last quarter of 2024, the notional traded for these three countries was below their Q1 2022 levels. Growth in US notional traded overall is relatively stable, with no major identifiable patterns. Notional traded for debt issued in Italy and the UK continue to grow, albeit at a slower rate. In the last quarter of this year, their notional traded is 71% higher compared to Q1 2022, for both countries.

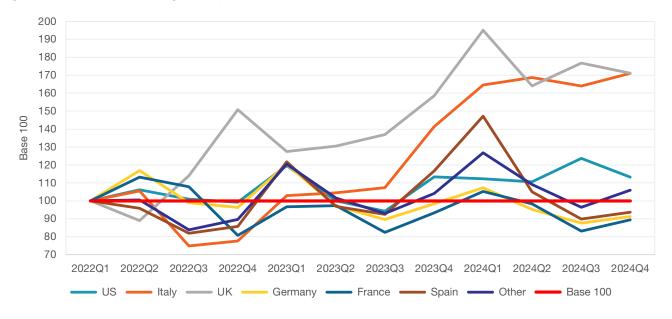
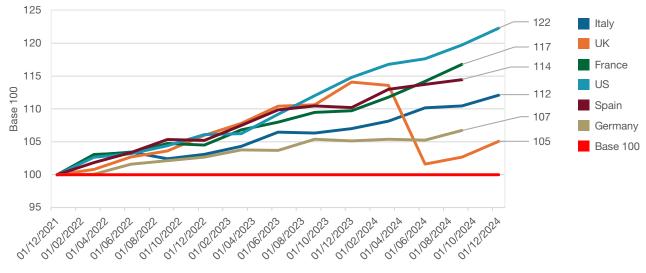


Figure 20 - Notional traded growth (base 100 as of Q1 2022)





ICMA calculated using ONS, Banca D'Italia, US Treasury and Eurostat data

EU and UK markets

The distribution of traded volumes by issuer country varies between the EU and UK. In the EU, Italian issued bonds dominate, representing 40% of the total notional volume (€11,190 bn). In contrast, US issued bonds lead in the UK market, accounting for 46% (€14,890 bn).

US issued bonds also hold a significant share in the EU, making up 22% of the EU total share (\in 6,250 bn) and ranking second, while in the UK, Gilts represent the second largest category at 19% (\in 6,152 bn). Germany accounts for a similar share in both regions: 12% (\in 3,345 bn) in the EU and 11% (\in 3,424 bn) in the UK.

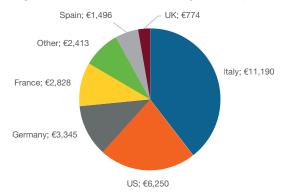
French issued bonds represent 10% (€2,828 bn) of the total notional traded in the EU, while in the UK they hold a slightly smaller share at 7% (€2,321 bn). Italy, which dominates in the EU, contribute only 9% (€2,922 bn) to the UK market total volumes.

Spain and other issuers represent minor shares in both regions. In the EU, Spain accounts for 5% (€1,496 bn) and all other issuers for 9% (€2,413 bn), whereas in the UK, Spain holds a 3% share (€884 bn) and all other issuers make up 5% (€1,591 bn). UK issued bonds play a marginal role in the EU, representing only 3% share (€774 bn).

Table 10

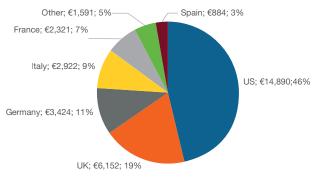
EU markets					
Currency Notional value (€bn) %					
Italy	11,189.80	40%			
US	6,250.20	22%			
Germany	3,345.24	12%			
France	2,827.58	10%			
Other	2,412.89	9%			
Spain	1,495.78	5%			
UK	773.66	3%			

Figure 22 – Notional traded by issuer (€bn) - EU



UK market Currency Notional value (€bn) % US 14,890.21 46% UK 6,151.76 19% Germany 3,423.79 11% 2,921.51 9% Italy 2,320.64 France 7% 1.590.64 Other 5% 883.92 Spain 3%

Notional traded by issuer (€bn) - UK



Trade count by issuer country

Total trade count

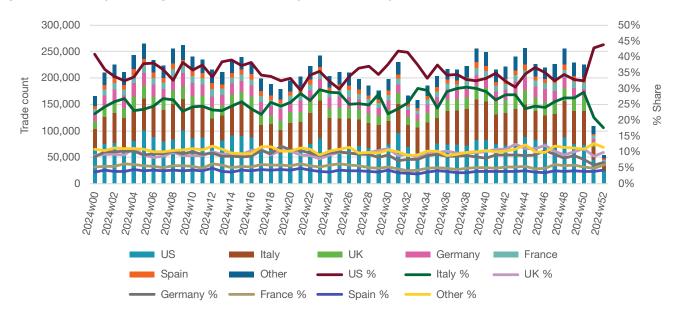
At an aggregated jurisdiction level we observe similar patterns to those seen in the volume distribution above. More specifically, we see once again that trades in US issued debt and Italian issued debt alone account for more than half of total trades in 2024: 35% for the US and 26% for Italy.

Including Germany, France, Spain and the UK brings this figure to 89%.

The most traded issuer in H2 2024 is the US, with 1,947,861 trades and an overall share of 35.1%. This represents a -8.1% decrease compared to 2,118,550 trades in H2 2023. The second most traded issuer in the second half of 2024 was Italy, with 1,479,500 trades and a total share of 26.6%. This represents a 21.5% increase compared to 1,217,945

trades in H2 2023. The third most traded issuer in H2 2024 is the UK, with 566,509 trades and a share of 10.2%. This represents a 12.9% increase compared to 501,561 trades in H2 2023. The fourth most traded issuer is Germany, with 482,814 trades and an overall share of 8.7%. This represents a -13.4% decrease compared to 557,519 trades in H2 2023. France follows in fifth place, with 285,899 trades and a total share of 5.1%. This represents a -5.9% decrease compared to 303,701 trades in H2 2023. The sixth most traded issuer is Spain, with 213,540 trades and an overall share of 3.8%. This represents a 1.4% increase compared to 210,668 trades in H2 2023.

The yearly total for 2024 adds up to: 3,973,134 trades for bonds issued by the US (4,018,054 in 2023), and a total share of 35.2%; 2,926,506 trades for Italy (2,247,523 in 2023), and a share of 25.9%; 1,106,022 trades for the UK (933,926 in 2023), and a share of 9.8%, and 1,037,800 trades for Germany (1,193,817 in 2023), and a share of 9.2%.







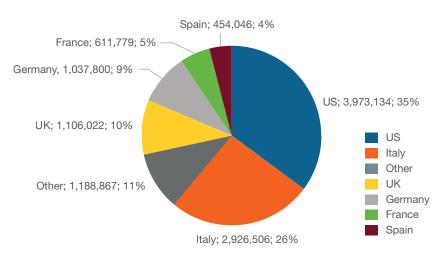


Table 11

Issuer country	Trade count	%
US	3,973,134	35.2%
Italy	2,926,506	25.9%
Other	1,188,867	10.5%
UK	1,106,022	9.8%
Germany	1,037,800	9.2%
France	611,779	5.4%
Spain	454,046	4.0%

Evolution of issuer distribution

Similarly to what we observe in the evolution of volumes distribution by issuer (and similarly, and somewhat linked, the evolution of volumes distribution by currency), the percentage share of total trades for Italian issued bonds is increasing QoQ, to the detriment of US issued bonds. The quarterly average share for Italian issued bonds in 2022 is 19%, whilst the US averages a share of 40%. In Q4 of 2024, the share of Italian trades equates to 27%, whilst the US represents 34% (see Figure 25). Similarly, the percentage share of UK issued bonds trades has been steadily increasing at an average of 1% yearly. We observe, in fact, that the quarterly average share in 2021 was 8%, followed by 9% in 2022 and 10% in 2024. Contemporarily, the percentage share of France and Germany has been decreasing by circa one percentage point annually, going from 11% and 7% respectively in 2021, to 9% and 5% in 2024. The percentage share of Spanish issued bonds remains stable at 4% every quarter, with no change.

In parallel to changes in percentage share of overall trade count, we look at the growth of the actual trade count by issuer. UK issued bond trades have shown the highest growth, increasing by 117% when comparing Q4 2024 to Q1 2022. Italy follows closely, with 112% growth over the same period. US issued bond trades also exhibit strong expansion, though at a more moderate pace (34%).

On the other hand, Germany, France, and Spain show a fluctuating pattern with periods of growth followed by declines. By the end of 2024, German issued bond trade count is only 21% above its Q1 2022 levels, while Spain and France see similar trends with 43% and 24% growth, respectively.

Overall, while UK and Italy experience sustained growth, other markets see more modest or inconsistent upward trends.

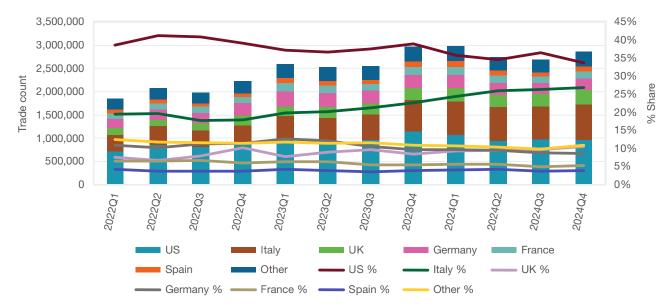
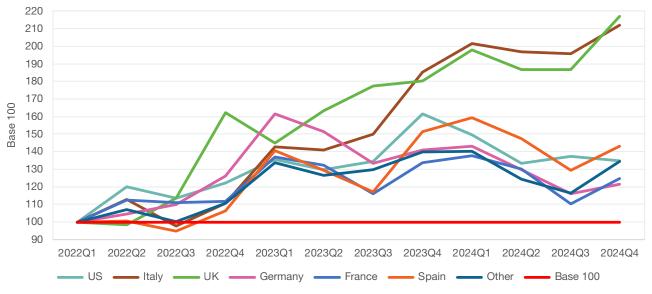


Figure 25 – Evolution of issuer distribution





EU and UK markets

When we disaggregate the data by the jurisdiction of trade, we observe the same pattern described in the volume analysis.

The distribution of trade count by issuer differs between the EU and UK markets. In the EU, Italian issued bonds dominate with 37% of the total sovereign bond trade count (2,513,298 trades), followed by US issued bonds at 30% (2,007,275). Other issuers account for 11% (759,240), while Germany and France contribute 8% (548,720) and 6% (401,711), respectively. Spain makes up 5% (332,105), while UK Gilts constitute a minor 3% (172,467).

In the UK, US issued bonds lead with 43% (1,965,860 trades), followed by UK issuers at 20% (933,555). Germany accounts for 11% (489,080), while other issuers make up 9% (429,343). Italian issued bonds represent 9% (413,208), and French and Spanish issuers hold 5% (210,068) and 3% (121,941), respectively.

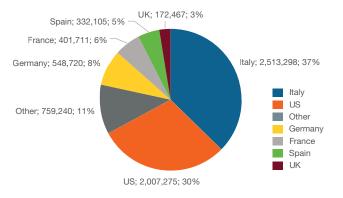
While Italian debt dominates EU trading activity, the UK market is dominated by USTs and Gilts, reflecting distinct regional patterns.

Table 12

EU markets					
Issuer Country Trade count					
Italy	2,513,298	37%			
US	2,007,275	30%			
Other	759,240	11%			
Germany	548,720	8%			
France	401,711	6%			
Spain	332,105	5%			
UK	172,467	3%			

UK market						
Issuer Country	Trade count	%				
US	1,965,860	43%				
UK	933,555	20%				
Germany	489,080	11%				
Other	429,343	9%				
Italy	413,208	9%				
France	210,068	5%				
Spain	121,941	3%				

Figure 27 - Trade count by issuer country - EU

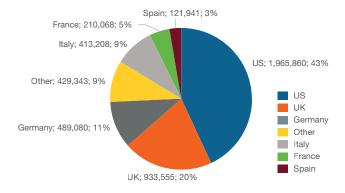


Average sizes by issuer country

Aggregated average sizes

At an aggregate jurisdiction level, when observing average sizes by issuer country France continues to lead with an average trade size of \in 8,415,162 and a median of \in 740,000. Among the top countries by average trade size, Germany follows with \in 6,522,479 and a median of \in 1,100,000, while the United Kingdom ranks third with \in 6,261,559 and a median of \in 381,581. Sweden, Belgium, the US, Netherlands and Spain, all exhibit average trade sizes between \in 5 mn and \in 5.7 mn. Italy follows with an average size of \in 4,821,899.

Trade count by issuer country - UK





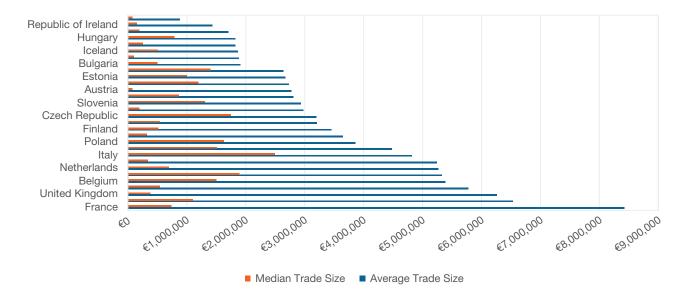


Table 134

Country	Average Trade Size	Median Trade Size	25th percentile	75th percentile
France	€8,415,162	€740,000	€53,599	€6,332,667
Germany	€6,522,479	€1,100,000	€125,000	€5,300,000
United Kingdom	€6,261,559	€381,581	€46,417	€3,466,188
Sweden	€5,772,516	€537,981	€111,765	€4,403,454
Belgium	€5,388,752	€1,500,000	€68,106	€7,880,000
United States	€5,320,840	€1,893,685	€915,708	€4,793,185
Netherlands	€5,266,097	€690,000	€50,000	€5,000,000
Spain	€5,241,109	€338,701	€40,000	€3,695,388
Italy	€4,821,899	€2,500,000⁵	€200,000⁵	€5,000,0005
Slovakia	€4,471,099	€1,514,000	€200,000	€5,000,000
Poland	€3,856,999	€1,628,451	€228,980	€4,547,398
Greece	€3,645,051	€330,000	€12,950	€3,150,000
Finland	€3,457,701	€519,444	€49,000	€3,000,000
Denmark	€3,205,709	€537,629	€86,516	€3,351,237
Czech Republic	€3,196,040	€1,740,818	€240,683	€4,024,576
Portugal	€2,979,333	€200,000	€22,000	€1,875,803
Slovenia	€2,933,763	€1,300,000	€200,000	€3,000,000
Cyprus	€2,810,735	€868,333	€136,571	€3,542,500
Austria	€2,772,693	€85,000	€15,000	€725,000
Latvia	€2,729,097	€1,192,124	€400,000	€2,985,000
Estonia	€2,673,874	€1,005,000	€200,000	€3,100,000
Croatia	€2,635,223	€1,396,666	€475,000	€3,147,428
Bulgaria	€1,910,634	€500,000	€22,514	€2,010,000
Norway	€1,889,983	€96,303	€19,358	€737,430
Iceland	€1,860,579	€506,048	€122,090	€2,073,046
Luxembourg	€1,824,788	€252,250	€60,000	€1,285,428
Hungary	€1,817,895	€792,906	€250,008	€2,212,078
Lithuania	€1,698,022	€200,000	€8,000	€1,500,000
Republic of Ireland	€1,430,545	€150,000	€33,444	€720,300
Romania	€886,828	€80,000	€9,775	€710,519

4 ICMA identifies a high margin of error in estimating median trade sizes due to the nature of aggregated trades. Aggregated trade data provides the total notional traded and trade count but does not disclose individual trade sizes. Consequently, to calculate median trade sizes, all trades within an aggregated line are assumed to be of equal size, which distorts the true median.

5 Due to the aggregation of numerous trades, the percentile distribution of trade size might be biased and not represent the true distribution

Evolution of average sizes

In previous editions of this report, we have observed average trade sizes decreasing. This downward trend has not reverted, but the rate at which trade sizes are falling has slowed. This is visible from the heatmap below (see Table 14) where the values towards 2024 are in green. Values at the beginning of the heatmap (2022 and 2023) are marked in a red tone, due to the QoQ drop in average trade size being more pronounced. Towards 2024, the values become greener, indicating that the decline in trade size has become less sharp and is slowing down.

For the big six issuers⁶ the average trade size decrease in Q4 2024 compared to Q1 2022 ranged between -16% and -35%.

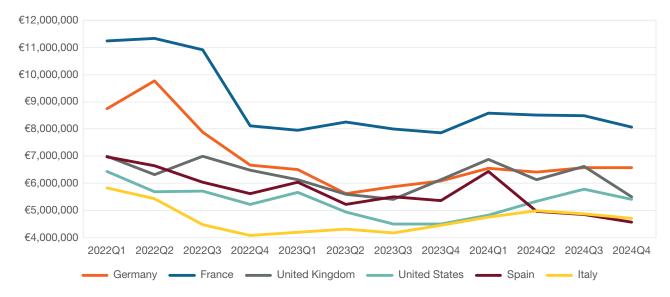
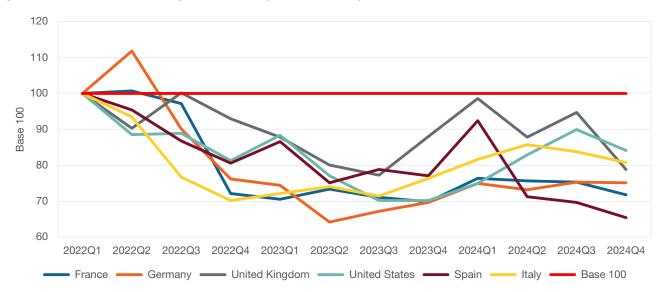


Figure 29 – Evolution of average trade size by issuer country

Figure 30 - Evolution of average trade size by issuer country (base 100 as of Q1 2022)



6 Big 6 refers to the top six countries by volume: US, UK, Italy, France, Germany and Spain.

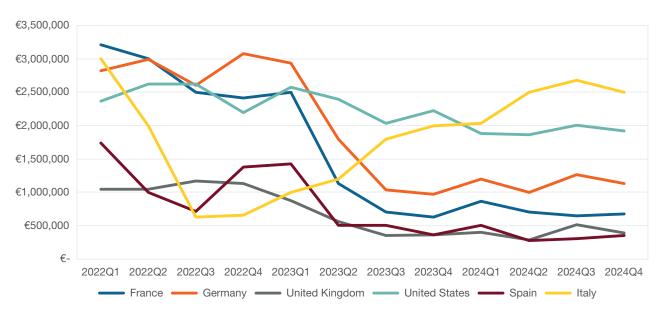
Quarter	France	Germany	United Kingdom	United States	Spain	Italy
2022Q2	1%	12%	-10%	-12%	-5%	-7%
2022Q3	-4%	-22%	10%	0%	-9%	-17%
2022Q4	-25%	-14%	-7%	-8%	-6%	-7%
2023Q1	-2%	-2%	-5%	7%	6%	2%
2023Q2	3%	-10%	-8%	-11%	-12%	2%
2023Q3	-2%	3%	-3%	-7%	4%	-3%
2023Q4	-1%	2%	11%	0%	-2%	5%
2024Q1	7%	5%	11%	5%	15%	5%
2024Q2	-1%	-2%	-11%	8%	-21%	4%
2024Q3	0%	2%	7%	7%	-2%	-2%
2024Q4	-4%	0%	-16%	-6%	-4%	-3%
Average	-2.6%	-2.3%	-1.9%	-1.4%	-3.1%	-1.8%

Table 14 – QoQ base 100 percentage points changes

Similarly, when analysing the median trade sizes by country, a comparable downward trend is observed for the United Kingdom, Germany, and France, with occasional rebounds in certain quarters. By the end of 2024, the median trade size for the UK is 62% lower than its Q1 2022 level, while Germany and France see declines of 60% and 79%, respectively.

The United States also experienced a decline, though less severe, with a 19% drop by Q4 2024 compared to Q1 2022. Spain sees the most significant reduction, with its median trade size 80% lower by the end of 2024. Italy, however, exhibits a different pattern, with some fluctuations but an overall upward trend, ending 2024 at 83% of its Q1 2022 level; the only country in the dataset to show a long-term increase in median trade sizes⁷.





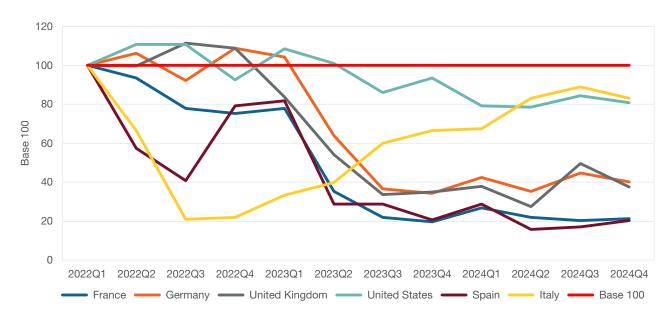


Figure 32 - Evolution of median trade size by issuer country (base 100 as of Q1 2022)

EU and UK markets

A continuous trend picked up in the data is that average ticket sizes are larger for trades transacted in the UK compared to the EU.

As already seen in previous editions of this report, average and median trade sizes vary significantly across issuing countries. The average trade size in the UK is 56% higher than in the EU for French issuers and 14% higher for German issuers. Similarly, issuers from Belgium, the Netherlands, Spain, and Italy also see significantly larger average trade sizes in the UK, with increases of between 34% and 60% compared to their EU counterparts.

US issued bonds average trade size when traded in the UK is 143% bigger than when transacted in the EU. Slovakia, Greece, Denmark, Slovenia, Austria, Latvia, Croatia, Luxembourg, Hungary and Ireland also have higher average sizes when traded in the EU.

Table 15

EU markets				UK market				
Country	EU Average Trade Size	EU Median Trade Size	EU 25th percentile	EU 75th percentile	UK Average Trade Size	UK Median Trade Size	UK 25th percentile	UK 75th percentile
France	€7,038,835	€200,000	€28,012	€2,800,000	€11,047,098	€3,718,526	€800,000	€11,711,587
Germany	€6,096,443	€495,115	€50,000	€3,812,200	€7,000,468	€2,426,000	€482,500	€7,465,172
United Kingdom	€4,485,849	€291,812	€47,848	€1,882,988	€6,589,608	€413,652	€45,610	€3,803,630
Sweden	€7,498,955	€711,850	€83,138	€6,770,457	€4,103,650	€483,130	€149,048	€2,255,038
Belgium	€4,863,078	€560,000	€33,000	€10,000,000	€6,544,676	€2,825,525	€771,366	€7,060,000
United States	€3,113,775	€930,821	€558,133	€2,145,033	€7,574,403	€4,028,467	€1,832,152	€7,101,313
Netherlands	€4,423,718	€140,000	€22,633	€3,500,000	€6,807,667	€3,173,657	€1,019,022	€7,370,000
Spain	€4,503,947	€150,000	€25,000	€1,700,000	€7,248,762	€2,331,555	€479,750	€7,777,473
Italy	€4,452,239	€2,000,000	€150,000	€5,000,000	€7,070,323	€3,356,750	€1,526,000	€6,086,956
Slovakia	€4,899,712	€2,000,000	€300,000	€5,020,000	€3,527,614	€750,000	€116,418	€3,934,625
Poland	€4,380,098	€2,296,713	€293,752	€4,650,202	€2,959,908	€1,118,892	€103,901	€3,963,373
Greece	€2,869,771	€216,500	€8,640	€2,900,000	€5,367,960	€1,067,000	€36,916	€4,729,895
Finland	€3,272,200	€210,000	€27,937	€2,500,000	€3,886,134	€1,431,000	€307,333	€3,515,416
Denmark	€3,775,108	€1,270,255	€84,698	€3,352,083	€1,824,966	€253,593	€89,394	€758,360
Czech Republic	€3,054,426	€1,351,588	€73,707	€3,950,580	€3,480,829	€2,126,446	€872,108	€4,716,700
Portugal	€3,084,899	€100,000	€15,000	€1,500,000	€2,685,518	€807,868	€150,000	€2,127,956
Slovenia	€2,890,963	€2,000,000	€417,000	€3,000,000	€3,078,285	€601,333	€85,000	€2,579,185
Cyprus	€2,780,340	€868,333	€136,571	€3,262,500	€2,867,824	€862,500	€163,500	€4,236,250
Austria	€1,757,561	€60,000	€17,000	€333,999	€5,007,101	€268,875	€3,561	€2,011,500
Latvia	€3,046,424	€1,200,000	€333,333	€3,050,000	€2,372,376	€1,192,124	€417,000	€2,750,000
Estonia	€2,651,788	€1,000,000	€200,000	€3,000,000	€2,707,328	€1,325,833	€250,000	€3,250,000
Croatia	€2,770,202	€1,300,000	€450,000	€3,000,000	€2,407,980	€1,438,666	€480,000	€3,467,857
Bulgaria	€2,194,160	€484,000	€50,000	€2,000,000	€1,712,685	€505,000	€1,502	€2,132,000
Norway	€1,846,568	€41,064	€11,084	€288,510	€1,978,195	€428,409	€135,225	€1,524,091
Iceland	€1,465,979	€377,302	€105,112	€1,888,824	€7,034,222	€7,969,507	€1,328,827	€11,011,699
Luxembourg	€1,908,095	€204,800	€50,000	€1,217,333	€1,682,784	€391,500	€97,500	€1,505,000
Hungary	€1,724,013	€755,662	€220,080	€1,771,611	€1,949,629	€1,147,040	€328,611	€2,694,726
Lithuania	€1,570,140	€100,000	€3,000	€1,207,500	€2,087,227	€600,000	€59,500	€2,325,000
Republic of Ireland	€1,247,415	€95,000	€20,000	€436,230	€1,750,563	€322,250	€100,598	€1,229,750
Romania	€912,144	€86,000	€20,000	€651,477	€864,489	€72,958	€500	€735,919

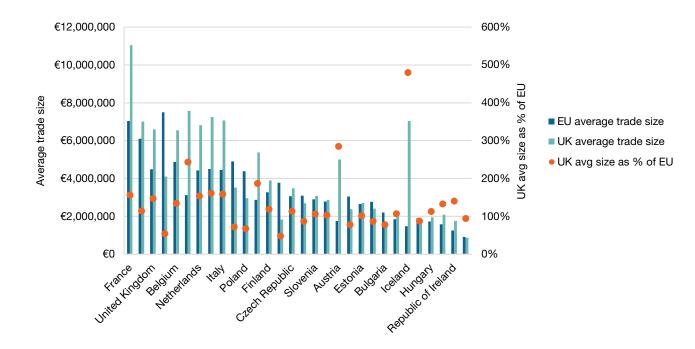


Figure 33 - EU and UK average sizes by issuer country

Trade size analysis

Analysing the trade count and volume distribution by trade size for the full year 2024, we observe patterns consistent with previous reports. Trades with a notional size below €1 mn represent 45% of total transactions but account for just 3% of the total traded notional volume. Similarly, trades with ticket sizes of between €1 mn and €2 mn make up 12% of total trades while contributing 4% to the total notional volume.

Moving up the scale, 21% of trades fall within the \in 2 mn to \in 5 mn ticket size range, representing 14% of the total notional volume. Trades between \in 5 mn and \in 10 mn, while constituting 12% of the total count, contribute a notable 16% to the overall notional volume.

Larger trades continue to dominate in terms of notional volume. Transactions in the €10 mn to €25 mn range account for 7% of total trades but represent 20% of the total traded volume. Trades sized between €25 mn and €50 mn make up just 3% of transactions yet contribute 17% to the total notional volume. Finally, trades exceeding €50 mn, despite representing only 2% of total transactions, account for a significant 26% of the total traded volume.



Figure 34 – Total sovereign bond notional traded & trade count by trade size

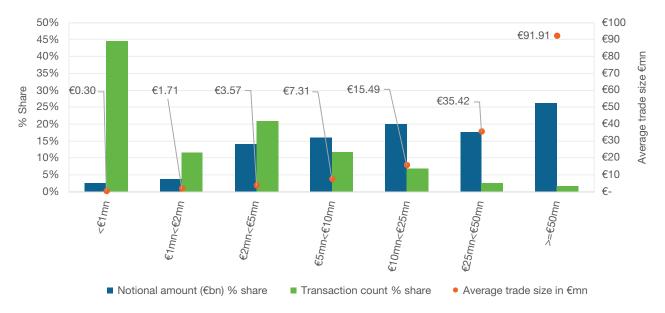


Figure 35 – Total sovereign bond notional traded & trade count % share by trade size (with average sizes)

Evolution of trade sizes

From Q1 2022 to Q4 2024, both trade count and notional volume increase across most trade size buckets at comparable rates, except for trades below €1 mn. In this category, the notional traded grew by 32%, whereas the trade count surged by 82%. For all other trade sizes, the growth rates of trade count and traded notional remains closely aligned, with a general trend of lower growth percentages as trade sizes increase.

For trades between €1 mn and €2 mn, notional volume rises by 66%, while transaction count increases by 58%. In the €2 mn < €5 mn category, total notional expands by 51%, with transactions rising 51% as well. Trades in the €5 mn < €10 mn range see a 19% growth in notional and a 25% increase in trade count.

Larger trade sizes exhibit more moderate growth. The €10 mn < €25 mn category experiences a 7% increase in notional and a 8% rise in transactions. Meanwhile, for trades between €25 mn and €50 mn, notional volume grows by 5%, with transaction count up by 4%. Finally, trades exceeding €50 mn see notional volume climb 22%, while trade count increases by 24%.

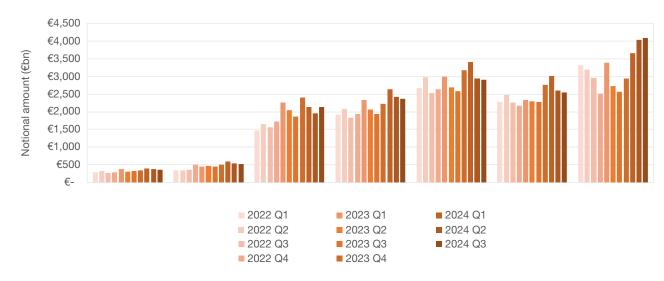
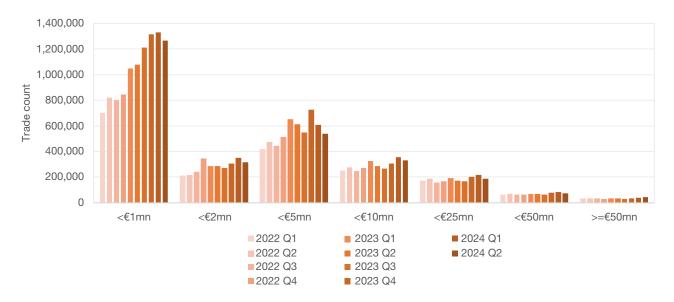


Figure 36 – Evolution of total sovereign traded notional by trade size

Figure 37 - Evolution of total sovereign trade count by trade size



Tenor analysis

Tenor (or years to maturity) continues to be an interesting focus for our analysis, especially given the evolving post-trade transparency landscape, which will be explored further in a later section.

For the full year 2024, bonds with a five-year tenor remain the most actively traded (as already seen in previous editions), accounting for 15% of total notional volume and 13% of all transactions. The ten-year tenor follows closely, representing 12% of notional traded and 11% of transaction count.

Shorter term bonds also hold a significant share, with one year, two years, and three years tenors collectively making up 25% of notional volume and 24% of total trade count. Meanwhile, longer tenors beyond 10 years see progressively lower activity, with individual buckets representing less than 1% of the overall market share in most cases. The 30-year tenor stands out among long dated bonds, contributing 3.4% of total traded notional and 4.6% of transaction count.

Bonds with tenors longer than 30 years, including those with maturities beyond 50 years and perpetuals, remain a niche category, with a market share of less than 1.4% of total notional volume.

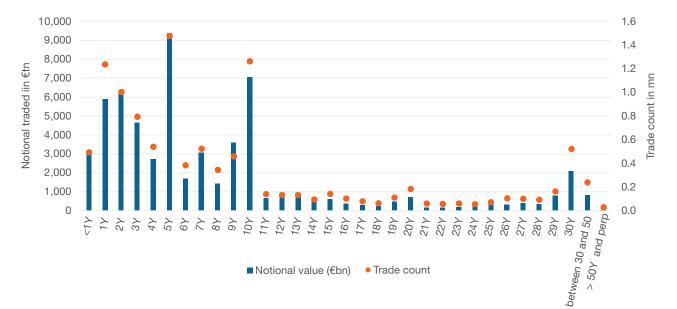


Figure 38 - Notional traded and trade count by tenor

Table 16

Tenor	Notional value (€bn)	Trade count	Notional %	Trade count %
<1Y	3,144.48	495,816	5%	4%
1Y	5,907.25	1,238,409	10%	11%
2Y	6,337.34	1,004,121	10%	9%
3Y	4,663.27	796,027	8%	7%
4Y	2,705.44	540,957	4%	5%
5Y	9,369.54	1,477,755	15%	13%
6Y	1,699.70	385,975	3%	3%
7Y	3,083.48	526,099	5%	5%
8Y	1,445.84	344,600	2%	3%
9Y	3,596.25	460,827	6%	4%
10Y	7,055.53	1,262,564	12%	11%
11Y	645.09	139,685	1.1%	1.2%
12Y	852.20	133,173	1.4%	1.2%
13Y	834.00	134,221	1.4%	1.2%
14Y	549.85	97,455	0.9%	0.9%
15Y	620.96	142,166	1.0%	1.3%
16Y	373.30	104,212	0.6%	0.9%
17Y	299.89	80,907	0.5%	0.7%
18Y	233.90	64,416	0.4%	0.6%
19Y	477.24	112,435	0.8%	1.0%
20Y	717.66	183,956	1.2%	1.6%
21Y	153.82	60,621	0.3%	0.5%
22Y	163.73	59,168	0.3%	0.5%
23Y	172.37	61,504	0.3%	0.5%
24Y	256.72	56,889	0.4%	0.5%
25Y	356.11	74,186	0.6%	0.7%
26Y	319.71	106,358	0.5%	0.9%
27Y	411.43	100,676	0.7%	0.9%
28Y	352.94	93,869	0.6%	0.8%
29Y	788.66	163,320	1.3%	1.4%
30Y	2,079.46	523,442	3.4%	4.6%
between 30 and 50	806.03	240,244	1.3%	2.1%
> 50Y and perp	13.10	32,101	0.0%	0.3%

Distribution channels analysis

The distribution of trades and volumes by distribution channel remains consistent with previous reports. Furthermore, no significant differences are observed between jurisdictions (UK and EU), with similar trends and values across both UK and EU TVs and APAs.

For the full year 2024, 53% of total notional is traded via SIs. This is followed by D2C (dealer-to-client) with a 29% share and D2D (dealer-to-dealer) accounting for 18%. In terms of trade count, SIs also represented the largest share at 44%, followed closely by D2C at 41%, while D2D accounted for 15%.

Figure 39 – Sovereign bond volumes by distribution channel (€mn)

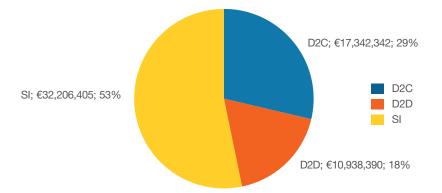
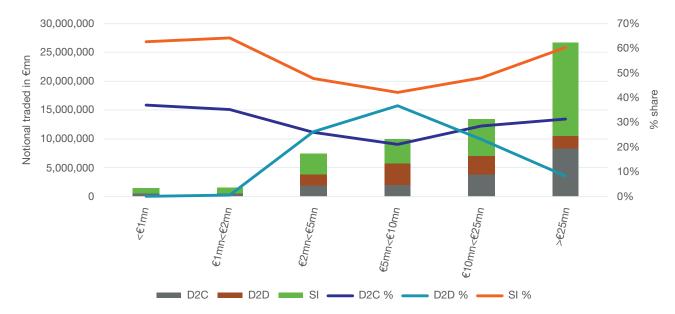
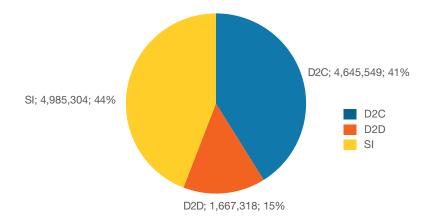


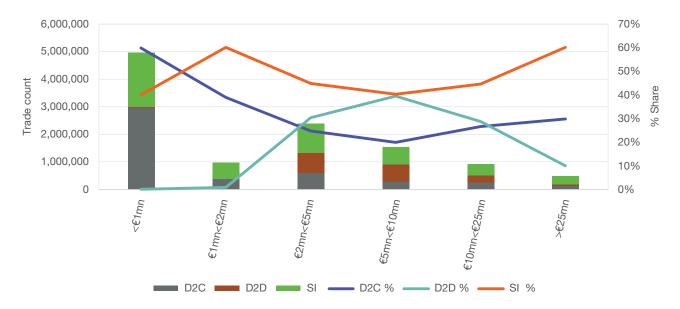
Figure 40 – Distribution channel by trade sizes (notional traded in €mn)











Evolution of distribution channels

When analysing total volumes over an extended time series, we observe that the gradual decline in SI volume's share in those buckets with a trade size bigger than €2 mn continues to fall. In fact ,whilst in H2 2022 62% of traded notional with a size between €2 mn and €5 mn was executed via SI, in H2 2024 this only represents a share of 47%. For the same period, we see a decline in the percentage share of SI also for notional traded with sizes between €5 mn and €10 mn, falling from 59% to 41%. This decline is also constant across time for all other trades with a size bigger than €10 mn (see Figure 43). Notably, for D2C we observe an increase in the percentage share of notional traded for trade sizes bigger than €25 mn. In H1 2022 these account for only 22%, whilst by H2 2024 this increases to 34%. Meanwhile, all other buckets saw a decrease in percentage share of traded notional.

The decreases in SI and D2C in certain trade size bins seem to have shifted to D2D.

This is likely due to the growing volumes of Italian debt, with 58% of it being traded D2D and as a consequence skewing the overall data.

Specifically for notional traded in sizes between €2mn and €25 mn. Notional traded in sizes between €2 mn and €5 mn via D2D is only 11% in H1 2022 but reaches 27% in H2 2024. For notional traded in sizes between €5 mn and €10 mn D2D represents a share of 23% in H1 2022 but rises to 38% by H2 2024.

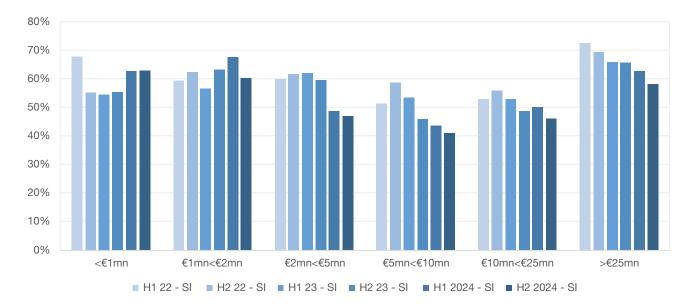
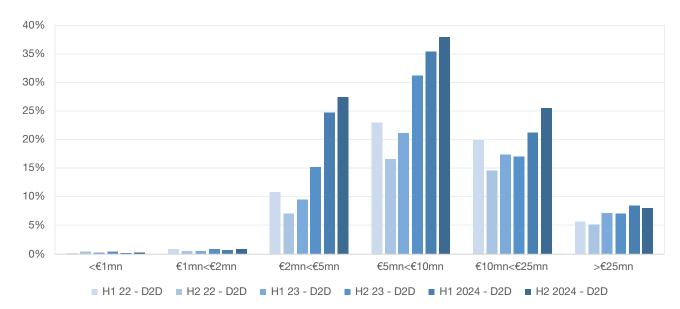




Figure 44 - Evolution of D2D share (notional traded)



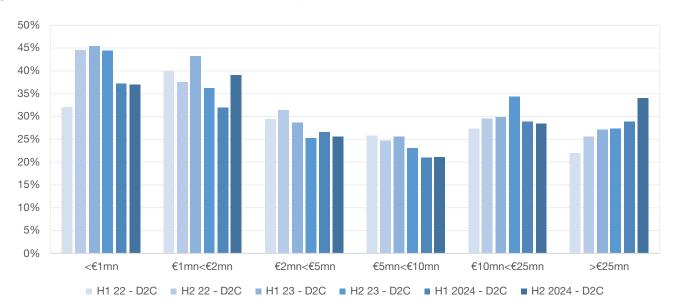


Figure 45 - Evolution of D2C share (notional traded)

Amount outstanding analysis

Amount outstanding is often strongly correlated with secondary market trading volumes. ICMA is unable to determine the amount outstanding for approximately 29% of ISINs in the dataset due to missing or inaccurate reference data. However, for the remaining 71%, we observe that as the outstanding amount increases, bonds tend to be more liquid.

More specifically for the below bins of amount issued we check the average number of trade and total amount traded per ISIN. Both the number of trades and the notional amount traded increase with outstanding size. In 2024, bonds with an outstanding size between ≤ 1 bn and ≤ 5 bn traded on average of 819 times, with a total equivalent notional of ≤ 1.8 bn. These figures rise exponentially with outstanding size, reaching an average yearly traded amount of ≤ 73 bn per ISIN for bonds with an outstanding size between ≤ 50 bn and ≤ 100 bn, and ≤ 86 bn on average for bonds exceeding ≤ 100 bn (see Figure 46).



Figure 46 - Notional traded and trade count divided by ISIN count per issue size bin

Jurisdictions and indefinite aggregation

Jurisdictions distribution

For the year 2024, the total notional traded is almost evenly split between the EU and the UK. We observe €28.3 tn notional traded in the EU (47% of total notional) and €32.2 tn in the UK (a share of 53%). On the other hand, the trade count in the UK is circa a third lower than the trade count of the EU (hence higher average trade sizes in the UK). We count 6.7 mn trades executed in the EU in 2024, against 4.6 in the UK. In percentage terms the total trade count split equates to 60% in the EU and 40% in the UK.

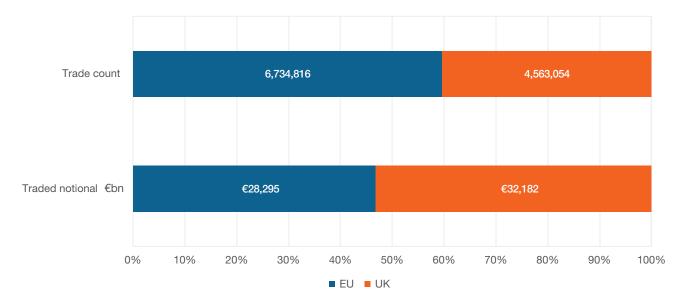


Figure 49 – Distribution of trades and volumes by jurisdictions

Evolution of jurisdiction distribution

When looking at the historical data set, the split of notional traded and trade count between the EU and the UK is constant and stable with no noteworthy trends.

Notional traded QoQ in the UK represents on average 54% of total notional, whilst the trade count percentage equates to 41%.

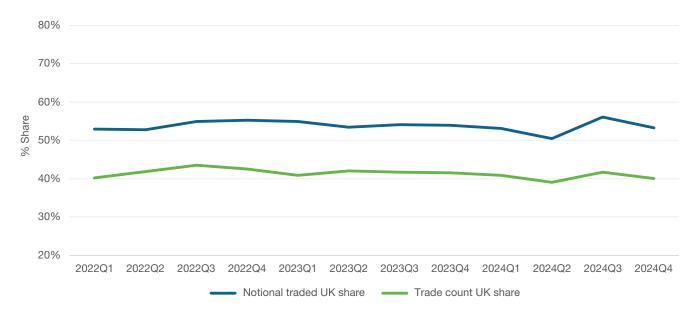


Figure 50 - Evolution of trades and volumes by jurisdictions

Indefinite aggregation

MiFID II/R reporting provides for the weekly aggregation of transactions (intended to mask individual trades). Much of this aggregation is indefinite, meaning that we may never see individual trade prints, even after the standard four-week deferral period for large transactions or those in less liquid bonds. Indefinite aggregation could be problematic as and when a consolidated tape is introduced. Current proposals in the MiFIR/MiFID II Review look to limit aggregation and deferrals for sovereign bonds to 6 months, while the UK currently proposes a maximum deferral of 3 months for sovereign bonds or end-of-day prints with a size cap.

At an aggregate level, for the year 2024, we observe that 64% of notional traded appears to be aggregated indefinitely while only 36% has not. When looking at individual jurisdictions, however, we again note different dynamics. While in the EU, indefinite aggregation applies to roughly half of the volumes (51%), in the UK more than three quarters of volumes are indefinitely aggregated (77%) (similar figures were reported in previous reports indicating a stable trend over time).

In the EU, 70% of deferred volumes consist of EUR denominated bonds, while 24% are US Treasuries (USD denominated). In the UK, however, USD denominated bonds account for 50% of deferred volumes, with EUR denominated bonds making up 34%

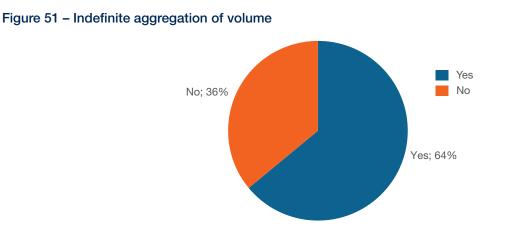
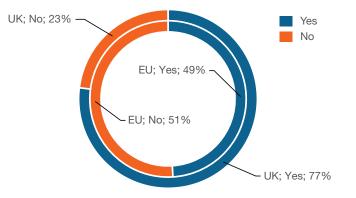


Figure 52 – Indefinite aggregation of volume by jurisdiction



Upcoming changes to the post-trade deferral regimes

In 2024, both the UK and EU proposed new post-trade deferral frameworks for bond markets which are expected to apply from the end of 2025. This will have a significant impact on when sovereign bond trades are reported across the two jurisdictions, taking into consideration a number of factors including the underlying issuer, outstanding issuance sizes, time to maturity, and trade size. In both cases it is expected that there will be notably more real-time, or close-to-real-time reporting. The maximum trade deferral in the UK, for the very largest sovereign bond trades, will be three months. In the EU this will remain as four weeks, while the supplementary deferral regime will allow for aggregation for up to six months.

While the new UK framework is final, the EU framework has yet to be approved by the co-legislators.

In anticipation of these changes, the following analysis uses our 2024 data set to look at how the respective deferral frameworks could impact post-trade transparency compared to the existing regimes

Under current deferral regimes, deferrals may be applied based on specific conditions related to the liquidity of an asset and the size of the trade. The key factors determining whether a trade is eligible for deferral include:

- Absence of a Liquid Market: Annex III of Regulation (EU) No 600/2014 outlines the quantitative criteria used to classify instruments as liquid or non-liquid. The assessment is based the following factors: i) Average daily notional traded in a period, Number of trades in a period and percentage of trading days over a specified period or Issue sizes⁸.
- Large in Scale (LIS) transactions and size specific to the instrument (SSTI) trade that exceed a certain threshold, classified as large in scale, may be eligible for deferrals. ESMA regularly updates the LIS and SSTI thresholds on its website.

If a transaction occurs in a liquid market and falls below both the LIS and SSTI thresholds, the trade must be reported in real-time. However, if the trade exceeds these thresholds or occurs in an illiquid market, deferrals may be granted. Deferrals range from 5 minutes to 4 weeks and indefinite aggregation based on the flag applied to the trade. Description of each flag can be found in annex II of Regulation (EU) No 600/2014.

In addition to the above mentioned deferred volumes, in terms of trade count, in 2024, 79% of trades were disclosed real time in the EU and only 27.9% in the UK.

⁸ See annex 3 under https://ec.europa.eu/finance/securities/docs/isd/mifid/rts/160714-rts-2-annex_en.pdf



The EU, through ESMA, published the **MiFIR review Final Report** - *Review of RTS 2 on transparency for bonds, structured finance products and emission allowances and RTS on reasonable commercial basis* (ESMA74-2134169708-7775), on the 16th of December 2024.

Chapter 132 of the final report defines the bond groupings for sovereign bonds which we quote below:

- 132. Therefore, ESMA is of the view that more granular grouping would allow bonds with similar ADVs to be grouped together and hence allow for a more efficient calibration of the post-trade transparency regime. On that ground, ESMA proposes to split sovereign and other public bonds into the following two groups:
 - Group 1: the most liquid bonds i.e. only sovereign bonds, where (1) the issuer is either an EU member state, the US, the UK, or the European Union itself; and (2) the remaining time to maturity is up to and including 10 years; and (3) the coupon is fixed. This group represents around 70% of the total volumes of sovereign and other public bonds, with an average issuance size of EUR 13Bn. For this group, a high issuance size of EUR 5Bn is used to distinguish between liquid and illiquid bonds.
 - Group 2: the least liquid bonds i.e. all other public bonds, and any sovereign bonds not included in Group 1. This group represents around 30% of the total volumes of sovereign and other public bonds, with an average issuance size of 4.6Bn. For this group, a lower issuance size of EUR 1Bn is used to distinguish between liquid and illiquid bonds

The deferral table are defined in chapter 138 of the final report.

Image 1

Category	Issuanc e Size (EUR Bn)	Liquidit y	Trade Size (EUR mn)	Price Deferra I	Volume Deferral	
1	>=5 Bn	Liquid	[15Mn - 50Mn[1	5Min	
2	<5 Bn	Illiquid	[5Mn - 15Mn[End	of Day	
3	>=5 Bn	Liquid	[50Mn - 100Mn[T+1	One Week	
4	<5 Bn	Illiquid	[15Mn - 50Mn[T+2	Two Weeks	
5	>=5 Bn	Liquid	>=100Mn	Fou	r Weeks	
5	<5 Bn	Illiquid	>=50Mn	Fou	r Weeks	

Group 1 (most liquid sovereign bonds)

Image 2

Group 2 (least liquid sovereign bonds, and all other public bonds)

Category	Issuance Size (EUR Bn)	Liquidity Trade Size (EUR mn)		Price Deferral	Volume Deferral
1	>=1 Bn	Liquid	[10Mn - 20Mn[1	5Min
2	<1 Bn	Illiquid	[1Mn - 2Mn[Enc	l of Day
3	>=1 Bn	Liquid	[20Mn - 50Mn[T+1	One Week
4	<1 Bn	Illiquid	[2Mn - 5Mn[T+2	Two Weeks
5	>=1 Bn	Liquid	>=50Mn	Fou	r Weeks
5	<1 Bn	Illiquid	>=5Mn	Four Weeks	

UK

Likewise, the UK, through the FCA, published its **Policy Statement** – for Improving transparency for bond and derivatives markets (FCA PS24/14).

Table 8 under chapter 5.26 of the policy statement sets out the grouping and thresholds for deferral regimes, which we attach below:

Image 3

Issuer	Issue	Maturity	Real-	Deferral				
	Size		time	1 day	2 weeks	3 months		
Sovereigns from UK, France,	≥£2bn	<5yr	≤£15m	£15m <●≤ £50m	£50m <●≤ £500m	>£500m		
Germany, Italy, USA, Spain (Note 1)		5-15yr	≤£10m	£10m <●≤ £25m	£25m <●≤ £250m	>£250m		
		>15yr	≤£5m	£5m <●≤ £10m	£10m <●≤ £100m	>£100m		
All other instruments	≥£2bn	All	≤£1m	£1m <●≤ £5m	£5m <●≤ £25m	>£25m		
	<£2bn		≤£1m	£1m <●≤ £2.5m	£2.5m <●≤ £10m	>£10m		

Sovereign and Other public bonds

Note 1: This excludes bonds with an inflation linked coupon and STRIPs, both of which are in the "All other instruments" group.

ICMA retrofitting

Given the trades recorded in 2024 used to produce this report, we can retrofit the data to check the distribution on the proposed deferral regimes.

Nota Bene

Both the suggested deferral regimes apply to Sovereign Bonds and Other Public Bonds as defined by RTS⁹. For the purpose of this report, only Sovereign Bonds issued by DMOs were used. As a result, the figures provided below are representative of this dataset and not of the entire Sovereign Bonds and Other Public Bonds universe. Also note that only trades executed in the UK are used for the FCA proposed regime and only trades executed in the EU for ESMA's proposed regime.

Within the EU we observe 90.2% of trades and 43% of notional traded in group 1 and 93% of trades and 38% of notional traded in group 2, not being eligible for deferrals and expected to be reported in real time. An additional 3.6% of trades

9 Table 2.2 - https://ec.europa.eu/finance/securities/docs/isd/mifid/rts/160714-rts-2-annex_en.pdf

and 21% of notional for group 1 and 2.4% of trades and 11% of notional in group 2 would benefit of a 15 minutes deferral only. The percentage of trades benefiting from the maximum deferral of four weeks equates to 0.3% for group 1 and 0.9% for group 2. These account for 11% of volumes in group 1 and 21% in group 2.

The UK regime seems to be slightly less transparent. The number of trades being disclosed in real time is only 78% and notional traded equated to 32%. The maximum deferral of 3 months, given the dataset employed in this report would apply to 0.4% of trades and 5% of notional traded.

Table 17 – ICMA retrofitting for the EU regime¹⁰

	Group 1							
Category	Price deferral	Volume deferral	Transaction Count (%)	Notional Amount Eur (%)				
0	Real	time	90.2%	42.7%				
1	15 Mi	nutes	3.6%	21.5%				
2	End c	of day	4.1%	7.2%				
3	T+1	T+1 1 Week		14.8%				
4	T+2 2 Weeks		0.5%	2.5%				
5	4 We	eeks	0.3%	11.2%				

	Group 2							
Category	Price deferral	Volume deferral	Transaction Count (%)	Notional Amount Eur (%)				
0	Real	time	93.5%	38.2%				
1	15 Mi	inutes	2.4%	11.5%				
2	End c	of day	0.1%	0.1%				
3	T+1	1 Week	2.6%	27.9%				
4	T+2 2 Weeks		0.1%	0.1%				
5	4 We	eeks	0.9%	21.5%				

10 Note that ICMA is unable to retrofit circa 0.3% of trades and 0.5% of notional due to a lack of reference data.

Table 18 – ICMA retrofitting for the UK regime¹¹

			Transactions %			Noti	onal Am	ount Eur	(%)	
					Deferra	I			Deferra	I
lssuer	lssue Size	Maturity	Realtime	1 day	2 weeks	3 months	Realtime	1 day	2 weeks	3 months
Sovereigns		<5yr	21%	2%	0.5%	0.003%	11%	9%	7.4%	0.435%
from UK, France,	≥£2bn	5-15yr	36%	4%	2%	0.02%	18%	11%	19%	1.06%
Germany, Italy, USA, Spain	222011	>15yr	14%	2%	2%	0.04%	3%	2%	7%	1.13%
All other	≥£2bn	ΔIJ	5%	3%	1%	0.2%	0.2%	1%	2%	1.9%
instruments <£2br	<£2bn	All	2%	0.3%	0.3%	0.1%	0.1%	0.1%	0.2%	0.3%
	Sum		78%	12%	6%	0.4%	32%	23%	36%	5%

A few key differences can be observed.

Whilst currently in the EU 49% of volumes are indefinitely aggregated, with the new regime only 11% of notional for vanilla bonds and 21.5% of linkers will have a four weeks deferral (this does not consider the additional 6 month delay that some DMOs might make available). The number of transactions real time remains in line with the current regime.

In the UK 77% of notional is currently indefinitely aggregated. With the new regime, only 5 % of notional and 0.4% of trades will have a maximum deferral of 3 months. The number of trades in real time will go from 28% to 78%.

11 Note that ICMA is unable to retrofit circa 0.3% of trades and notional due to a lack of reference data

Annex I

Venue of Publication	Trading Venue Name	Jurisdiction	Member State	Trading Venue Types
ARIA	Arian Trading Facility (AOTF)	UK	UNITED KINGDOM	OTF
BMTF	Bloomberg Multilateral Trading Facility	UK	UNITED KINGDOM	MTF
BTFE	Bloomberg Trading Facility B.V.	EU	NETHERLANDS	MTF
BAPA	Bloomberg Data Reporting Services Ltd	UK	UNITED KINGDOM	APA
BAPE	Bloomberg Data Reporting Services B.V.	EU	NETHERLANDS	APA
TBSP	BondSpot S.A.	EU	POLAND	MTF
BVUK	BONDVISION UK	UK	UNITED KINGDOM	MTF
SSOB	MTS S.P.A Bond Vision Europe	EU	ITALY	MTF
EBMX	EBM - MTF	EU	ITALY	MTF
FXFM	Financial & Risk Transaction Services Ireland Limited - Forwards Matching	EU	IRELAND	MTF
FXRQ	Financial & Risk Transaction Services Ireland Limited - FXall RFQ	EU	IRELAND	MTF
KBLM	Kyte Broking Limited	UK	UNITED KINGDOM	OTF
MUFP	Mariana UFP OTF	UK	UNITED KINGDOM	OTF
MKTF	MARKET SECURITIES (FRANCE) SA	EU	FRANCE	OTF
MAEL	MarketAxess Europe MTF	UK	UNITED KINGDOM	MTF
MANL	MarketAxess NL B.V.	EU	NETHERLANDS	MTF
BMTS	MTS Belgium	EU	BELGIUM	MTF
FMTS	MTS France SAS	EU	FRANCE	MTF
MCAD	MTS S.p.A MTS Cash Domestic MTF	EU	ITALY	MTF
MTSC	MTS S.P.A MTS Italia	EU	ITALY	RM
MTSD	MTS Denmark	EU	BELGIUM	MTF
MTSF	MTS Finland	EU	BELGIUM	MTF
SQUA	Square Global Markets	UK	UNITED KINGDOM	OTF
TRDX	Trad-X	UK	UNITED KINGDOM	MTF
TRXE	TSAF OTC	EU	FRANCE	MTF
TREU	Tradeweb Europe Limited MTF	UK	UNITED KINGDOM	MTF
TWEM	Tradeweb EU B.V.	EU	NETHERLANDS	MTF
TREO	Tradeweb OTF	UK	UNITED KINGDOM	OTF
TWEO	Tradeweb EU B.V.	EU	NETHERLANDS	OTF
TREA	Tradeweb Europe Limited	UK	UNITED KINGDOM	APA
TWEA	Tradeweb EU B.V.	EU	NETHERLANDS	APA
TSAF	TSAF OTC	EU	FRANCE	OTF
TCDS	Tradition OTF	UK	UNITED KINGDOM	OTF
TEUR	Tradition España OTF	EU	SPAIN	OTF
TRAX	Xtrakter Limited	UK	UNITED KINGDOM	APA
TRNL	MarketAxess Post-Trade B.V.	EU	NETHERLANDS	APA
FXOP	Tradition-NEX OTF	UK	UNITED KINGDOM	OTF

About ICMA

ICMA promotes well-functioning cross-border capital markets, which are essential to fund sustainable economic growth. It is a not-for-profit membership association with offices in Zurich, London, Paris, Brussels, and Hong Kong, serving over 620 members in 70 jurisdictions globally. Its members include private and public sector issuers, banks and securities dealers, asset and fund managers, insurance companies, law firms, capital market infrastructure providers and central banks. ICMA provides industry-driven standards and recommendations, prioritising three core fixed income market areas: primary, secondary and repo and collateral, with cross-cutting themes of sustainable finance and FinTech and Digitalisation. ICMA works with regulatory and governmental authorities, helping to ensure that financial regulation supports stable and efficient capital markets.

About the SMPC

The ICMA Secondary Market Practices Committee is an open forum for sell-side and buy-side ICMA member firms active in the international, cross-border secondary bond markets. Through open dialogue and engagement, as well as through its subsidiary working groups and work-streams, it seeks to be the representative body of the international, cross-border secondary bond markets: addressing practical issues directly relevant to market practitioners; standardising market best practice; disseminating relevant market information; and promoting the best interests of efficient and liquid markets. More information about the SMPC can be found on the <u>ICMA website</u>.

About Propellant.digital

Propellant Digital (Propellant) is a technology company specialising in Fixed Income data analytics. Founded by Vincent Grandjean and Allan Horgan, trusted specialists in transparency and trading data, Propellant strives to make financial markets more transparent and accessible. Over the past three years, Propellant has partnered with more than 40 clients, including global and regional banks, asset managers, quant hedge funds, trading venues, regulators, and industry associations. Propellant's unique cloud analytics platform leverages the most comprehensive Fixed Income dataset, delivering actionable insights that help users enhance trading strategies, streamline workflows, and make informed decisions. For more information please email info@propellant.digital or visit propellant.digital.

About ICE Fixed Income Data Services

ICE's comprehensive data services provide information, analytics and platforms that can help customers capitalise on opportunities and operate more efficiently. ICE provides transparent, comprehensive and trusted market data, adding insights and analytics to help support financial market workflows. ICE invests in building innovative solutions for customers that can help clients develop investment strategies, manage risk and lead operations.

Glossary

Aggregated:

for the purpose of this report "aggregated" indicates data from both jurisdictions: the EU and the UK.

D2C:

Dealer-to-client.

D2D:

Dealer-to-dealer.

DMO:

Debt management office.

Jurisdictions:

for the purpose of this report trading jurisdiction are the EU and the UK.

QoQ:

Quarter-on-quarter.

SI:

Systematic internalisers (including OTC).

ICMA Zurich T: +41 44 363 4222 Dreikönigstrasse 8 8002 Zurich

ICMA London T: +44 20 7213 0310 110 Cannon Street London EC4N 6EU

ICMA Paris T: +33 1 8375 6613 25 rue du Quatre Septembre 75002 Paris

ICMA Brussels T: +32 2 801 13 88 Avenue des Arts 56 1000 Brussels

ICMA Hong Kong T: +852 2531 6592 Unit 3603, Tower 2, Lippo Centre 89 Queensway, Admiralty, Hong Kong



icmagroup.org