

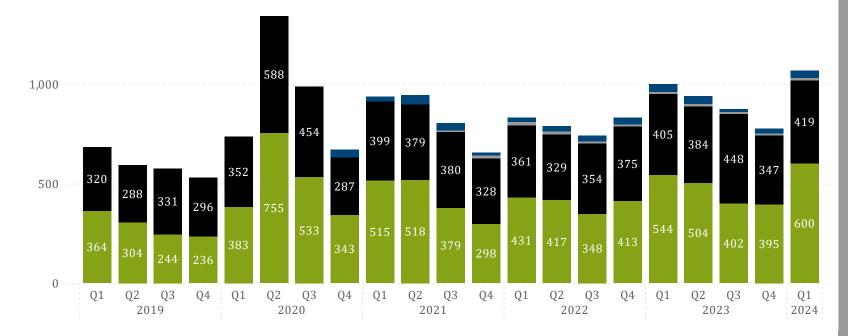
afme/Contents Finance for Europe

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1. European (EU+UK) government bond and bill issuance (EUR bn, 2019-2024)





EUR 1,068.05 bn bonds and bills issued in the EU, UK, and Euro Commission in Q1 2024, up 6.7% from Q1 2023 (YoY) issuance

Total quarterly gross issuance in Europe (EU Member States, UK and EU Commission) was EUR 1,068.05 bn during Q1 2024, up 6.7% compared to Q1 2023 (YoY) and up 37.7% from Q4 2023 (QoQ) (see *Chart 1*).

Excluding institutional issuance from the EU Commission, EU Member States and the UK issued EUR 1,019.32 bn in bonds and bills during 1Q24¹, representing an increase of 7.4% (YoY) and an increase of 37.2% (QoQ).

The EU Commission issued an additional EUR 35.48 bn in EU-bonds and EUR 13.25 bn in EU-bills during Q1 2024, which represented 4.6% of total European sovereign issuance in Q1 2024, up from 4.2% in Q4 2023.

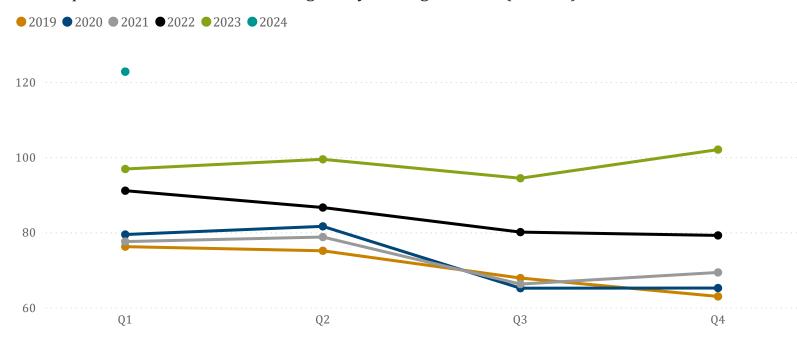
Nominal gross issuance of Eurozone countries remained in line with the amount issued in Q1 2023, with a marginal increase of 0.4% YoY. UK gilts gross issuance saw a larger increase of 24.7% YoY while UK bills declined slightly by 5.3% YoY.

Source: ECB, National Debt Management Offices and UK Debt Management Office.

¹Total EU+UK bond and bill issuance and percentage changes may show minor variations, including to that shown in Chart 1, due to rounding.

afme/ Highlights and Market Environment

3. European Government bond average daily trading volumes (EUR bn)



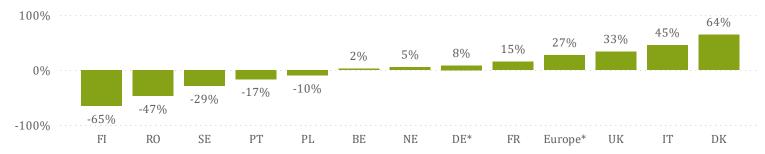
Highest average daily trading volume in European (EU+UK) government bonds during Q1 as TraX records over EUR 120 bn traded daily over Q1 2024

According to TraX data from MarketAxess, trading continues to be strong throughout Q1 2024, increasing a stunning 20.3% QoQ, and 26.7% YoY. This represents the highest average daily traded volume on record for a given quarter.

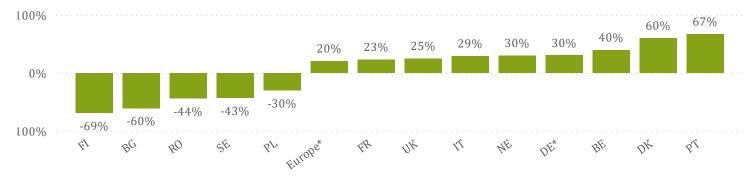
In Q1 2024, average annual trading volumes were up 34.8%, compared to Q1 2022, and up 58.3% compared to Q1 2021. Average daily trading volumes in Q1 2024 are the highest in the past six years following consistently high trading volumes reported in 2023 (see *Chart 3*).



4. Annual changes in Government Bond average daily trading volumes (1Q24 vs 1Q23) Selected European jurisdictions



5. Quarterly changes in Government Bond average daily trading volumes (1Q24 vs 4Q23) Selected European jurisdictions



Source: AFME with information from European DMOs and other agency sources and MarketAxess TraX.
*Europe (EU+UK) total and German turnover is sourced from MarketAxess TraX as the quarterly variation of average daily volumes of government and sovereign bonds.

European government bond trading increased 27% YoY and 20% QoQ in 1Q2024

Average daily trading volumes of European government bonds are supported by a significant increase in trading in Denmark (64% YoY), Italy (45% YoY), and the UK (33%). There was a significant decrease in trading in Finland (-65% YoY), Romania (-47% YoY), and Sweden (-29% YoY). see *Chart 4*

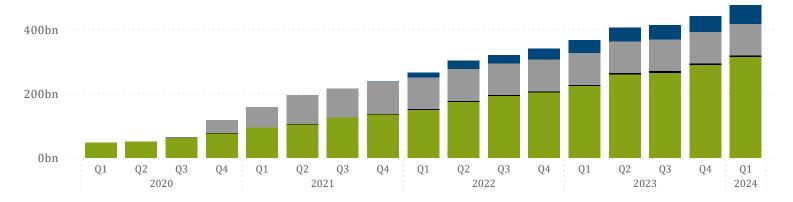
The quarterly changes in government bond average daily trading volume are supported by significant increases in Portugal (67% QoQ) and Denmark (60% QoQ). Finland (-69% QoQ), Bulgaria (-60% QoQ), and Romania (-44% QoQ) show significant decreases in trading volumes quarter on quarter. Additionally, the major European economies of France, Italy, Germany, and the UK saw double digit increases in trading volumes over the quarter.



afme/ Highlights and Market **Environment**

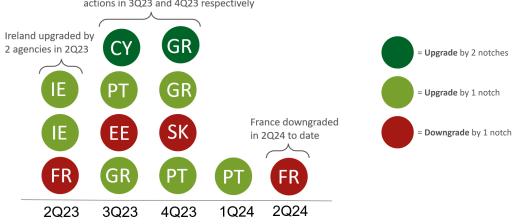
7. European outstanding ESG sovereign bonds (EUR bn, 2017-2024)





8. European rating actions on long-term sovereign credit ratings (20 2023 - 20 2024)

Cyprus and Greece were both upgraded by 2 notches in single rating actions in 3Q23 and 4Q23 respectively



Source: Refinitiv Eikon [Chart 7]. Fitch, Moody's, S&P [Chart 8].

Outstanding amount of European government ESG bonds surpass EUR 475.9 bn as issuance picks up in Q1 2024.

Outstanding amount of ESG government bonds reached EUR 475.9 bn during 1Q2024 (see Chart 7), with volumes driven by new green bonds issued by France (EUR 7 bn), Germany (EUR 6 bn), the UK (EUR 5.5 bn), and Italy (EUR 3.7 bn).

The European Commission issued an extremely high amount, EUR 9.8 bn, in additional EU SURE Scheme bonds, and EUR 5.8 bn in NGEU Green bonds.

The outstanding volume of ESG sovereign bonds grew by 7.8% in 1Q2024 as compared to 4Q2023, and grew 30% compared to 1Q2023.

During 1Q24 there was 1 credit rating upgrade in **Portugal**

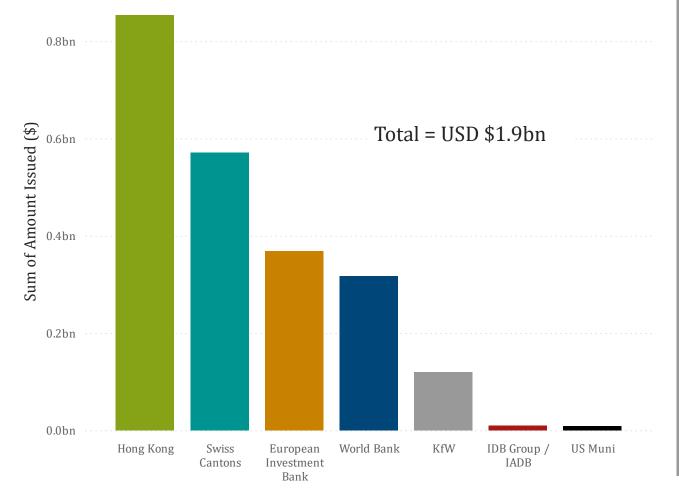
According to the most recent data, Europe saw 1 credit rating downgrade in 2Q2024 in France. This follows 3 upgrades and 1 downgrade in 4Q23. see Chart 8

Portugal continued to increase the quality of its credit profile throughout 2023. The credit rating of the country was upgraded to Ain March 2024, representing the strongest credit rating the country has held since 2010.



Roadmap to DLT Bond Issuance

Global Issuance of DLT-based SSA and Government Bonds by Issuer 2021 - May 2024 (USD bn)



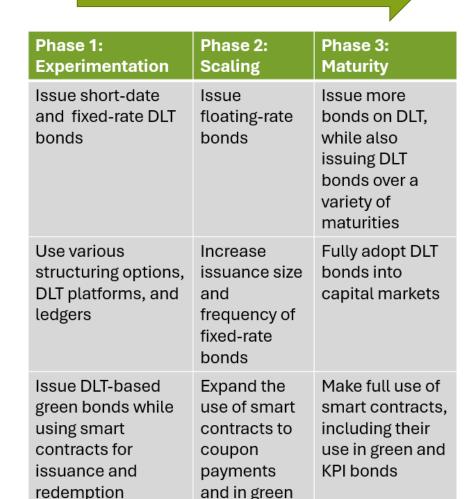
AFME has published a report titled "Scaling Digital Bonds" which sets a roadmap to help Sovereign, Supranational and Agency (SSA) issuers gradually implement issuance of digital bonds with the use of Distributed Ledger Technology (DLT).

Widespread implementation of DLT technology can bring long term benefits which could, over the long term, reduce total issuance cost, whilst reduction of settlement timelines in primary and secondary markets frees up balance sheet thereby potentially reducing trading costs.

Global issuance of DLT-based and SSA bonds up to March 2024 (USD \$980mn) already exceeded the total for the whole of 2023 by 204%. Therefore, AFME would recommend that authorities in the EU and UK begin to consider the issuance of digital bonds.



Roadmap to DLT Bond Issuance (II)



bonds

AFME's roadmap is laid out in three phases: experimentation, scaling, and maturity.

Experimentation (0 - 2 yrs): In this phase, issuers might issue short-date fixed-rate DLT bonds while experimenting with various structuring options, DLT platforms, and ledgers. One of the key parts of phase 1 is issuing DLT-based green bonds while using smart contracts for issuance and redemption.

Scaling (2 - 4 yrs): Issuers in phase 2 should start issuing floating-rate bonds and increase the issuance size and frequency of fixed-rate bonds. Additionally, governments can expand the use of smart contracts to coupon payments and in green bonds.

Maturity (4+ yrs): Fully adopt DLT bonds into their capital markets. Issue a significant and growing percentage of bonds on DLT, while also issuing DLT bonds over a variety of maturities

By following the recommendations laid out in this roadmap, European governments can ensure that they seize the opportunities of leading and shaping capital market transformation towards DLT.

AFME's DLT roadmap report is available on https://www.afme.eu/



Major upcoming regulatory, legislative and policy initiatives

There are several regulatory initiatives currently being considered at the European and national level with expected impact on the government bond markets. Some of the key initiatives recently implemented or soon to be applied include:

- Basel III
- CSDR
- Fundamental Review of the Trading Book (FRTB)
- Prospectus Regulation
- MiFID Regulatory Technical Standards (RTS) Review

AFME and its members actively contribute on all of these and other initiatives.



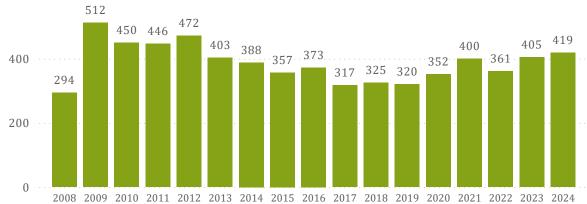
Issuance

afne/ Gross Issuance Finance for Europe

1.1 European (EU+UK) Government Bond gross issuance (Q1, EUR bn)



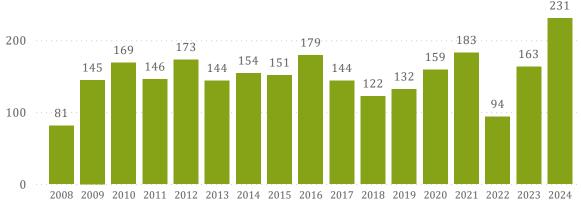
1.2 European (EU+UK) Treasury Bills gross issuance (Q1, EUR bn)



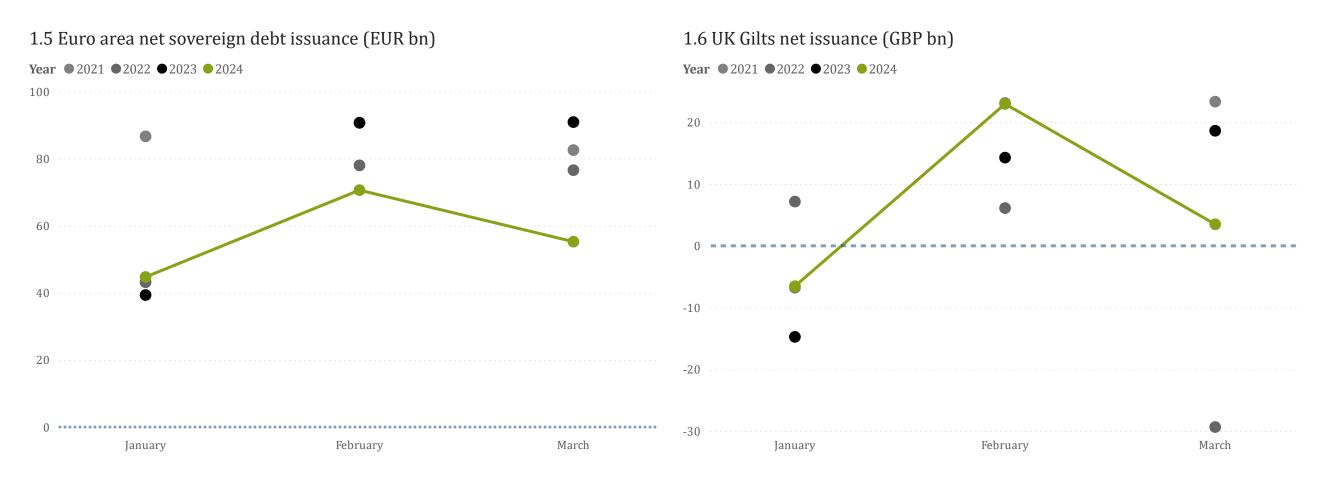
1.3 Eurozone bonds and bills gross issuance (Q1, EUR bn)



1.4 Non-Eurozone bonds and bills gross issuance (Q1, EUR bn)



afme/ Net Issuance Finance for Europe



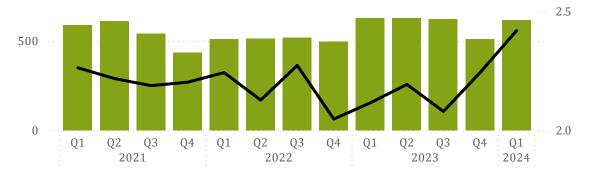


Recent Auctions and Primary Dealers

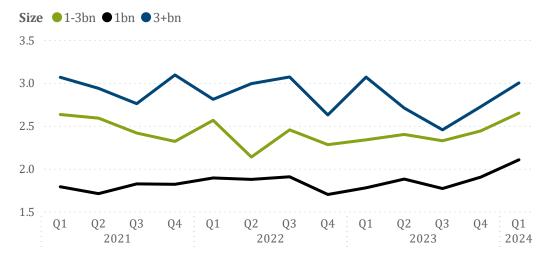
afme/ Recent Auctions Finance for Europe

2.1 Average bid-cover ratios and issued volumes in selected jurisdictions (EUR bn)

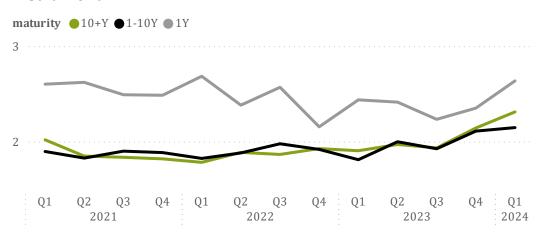
● Total quarterly issuance (EUR bn) ● Bid Cover ratio



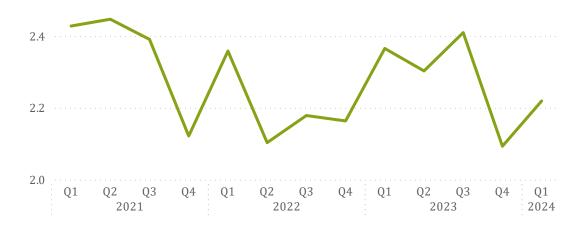
2.3 Average bid-cover ratios by size of issued instruments



2.2 Average bid-cover ratios by tenor (years) of issued instrument

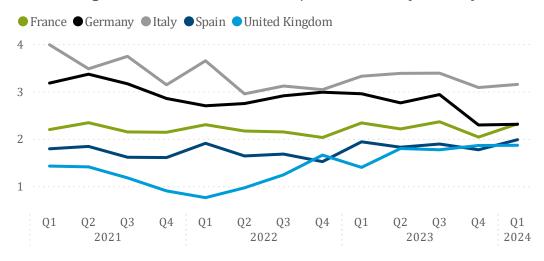


2.4 Average auction size in selected European jurisdictions (EUR bn)

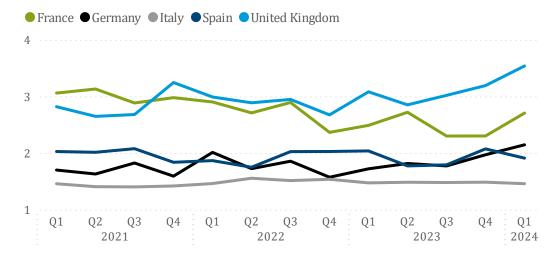


afme/ Recent Auctions

2.5 Average auction size in selected jurisdictions (EUR bn)



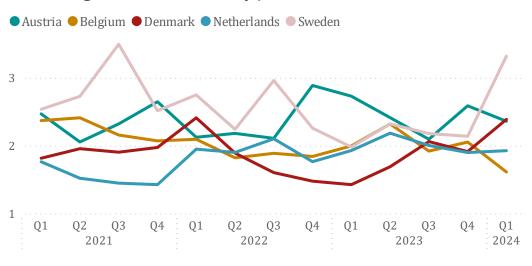
2.7 Average bid-cover ratios by jurisdictions



2.6 Average auction size in selected jurisdictions (EUR bn)

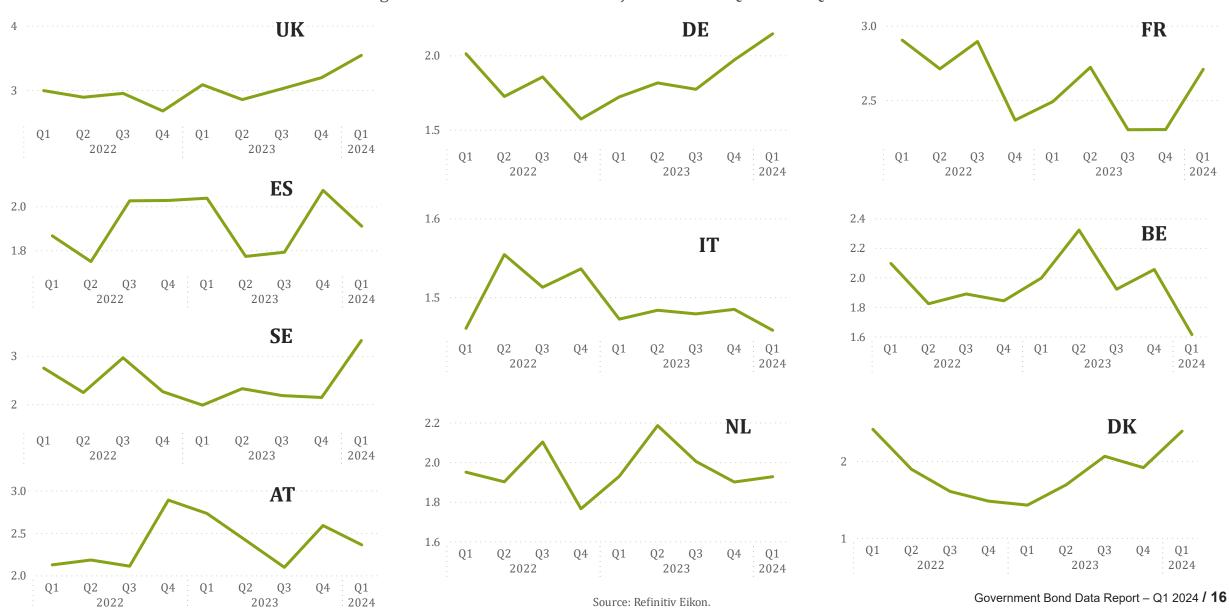


2.8 Average bid-cover ratios by jurisdictions

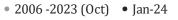


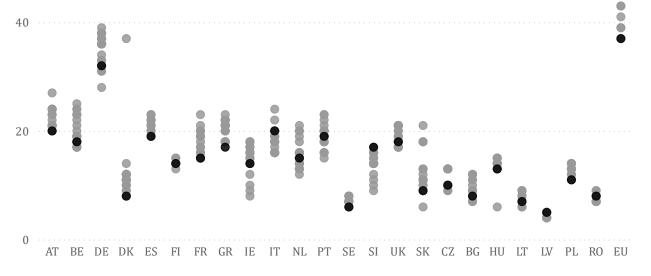
afme/ Recent Auctions

2.9 Average bid-cover ratios in selected jurisdictions: Q1 2022 - Q1 2024

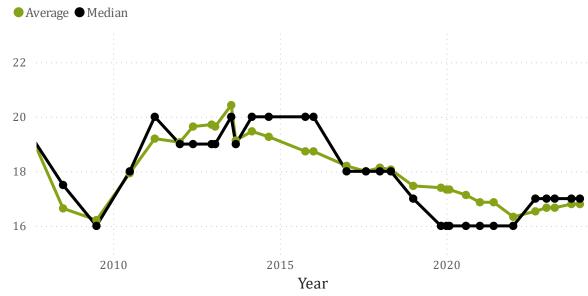


2.10 Number of primary dealers relative to historic number



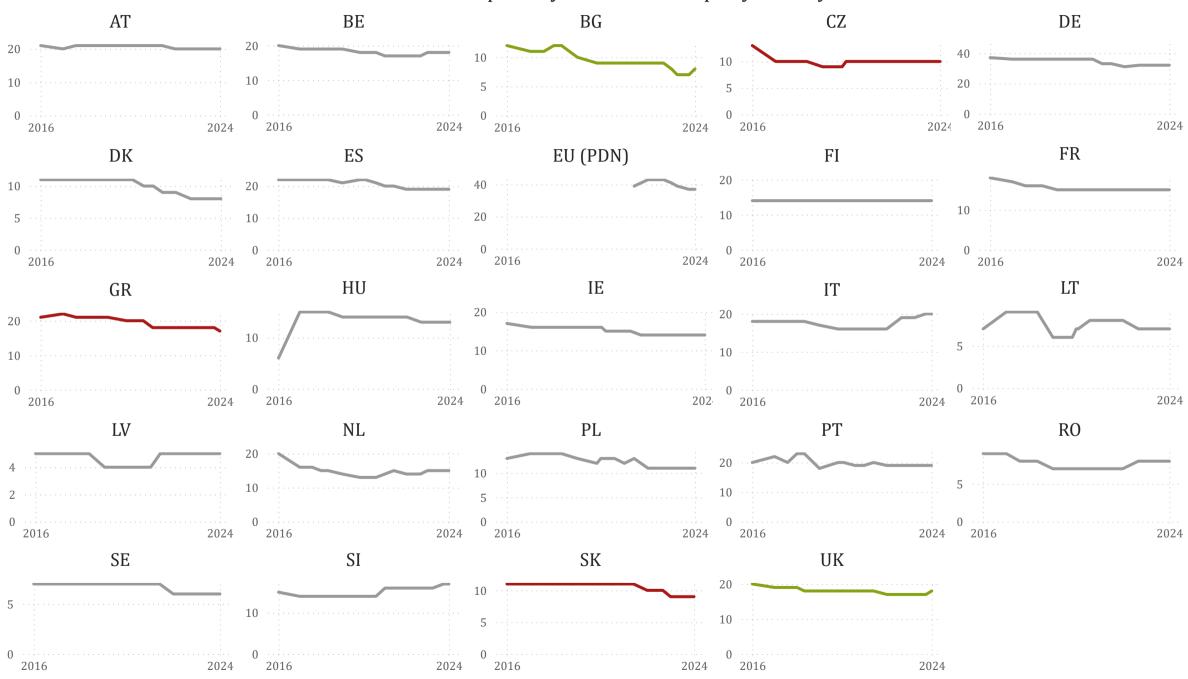


2.11 Average and median number of primary dealers in selected European countries





2.12 Number of primary dealers in Europe by country: 2016-2024

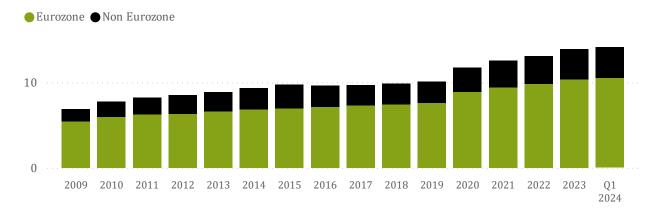




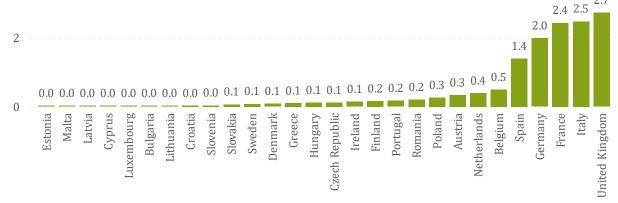
Outstandings

afme / Outstandings

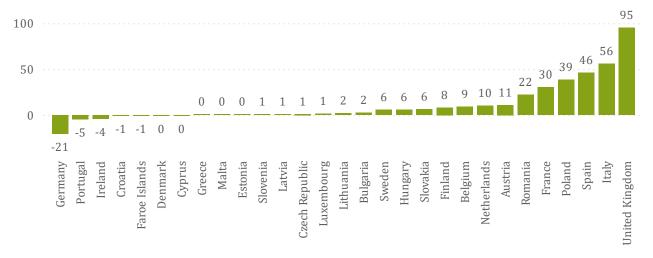
3.1 Outstanding debt securities issued by Central Governments (Nominal, EUR tn)



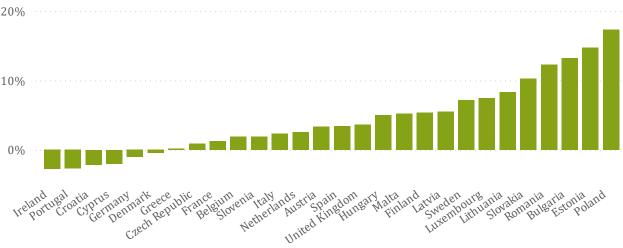
3.2 European government bonds outstanding by country (EUR tn)



3.3 Change in Outstanding from 4Q23 to 1Q24 (EUR bn)



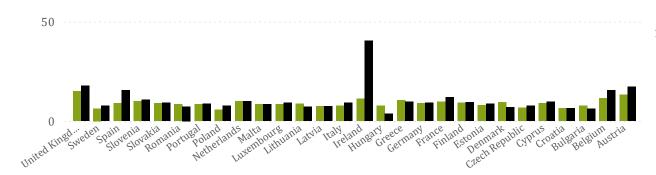
3.4 Change in Outstanding from 4Q23 to 1Q24 (%)



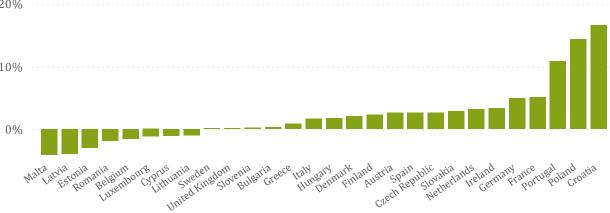
afme / Outstandings

3.5 Average years to maturity for outstanding government bonds in European (EU+UK) countries





3.6 Quarterly change in weighted average years to maturity for outstanding government bonds 4Q23 to 1Q24



3.7 European government bonds outstanding by currency (EUR tn)

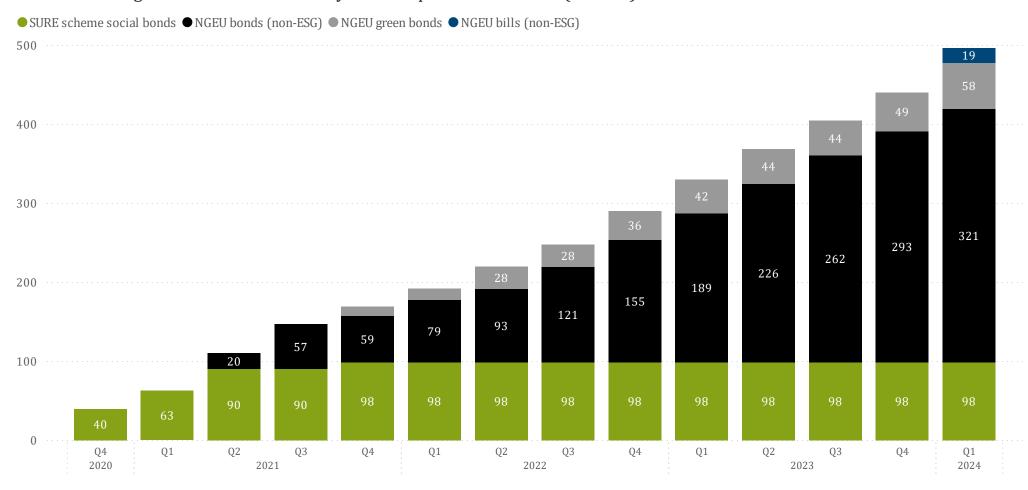


3.8 European government bonds outstanding by current rating of issuer (EUR tn)





3.9 Outstanding bonds and bills issued by the European Commission (EUR bn)



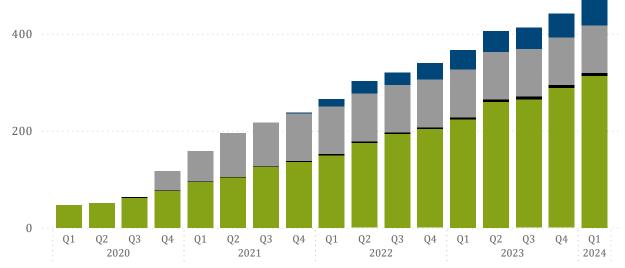
Source: European Commission.

 \mbox{NGEU} refers to bond issuance by the European Commission under the NextGenerationEU scheme.

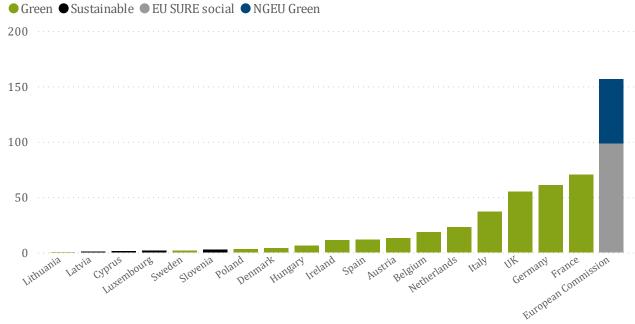
afme/ ESG Outstandings

3.9 European outstanding ESG (green, social and sustainable) government bonds (EUR bn)

● Green ● Sustainable ● EU SURE scheme ● NGEU green



3.10 European outstanding ESG government bonds by country (EUR bn)

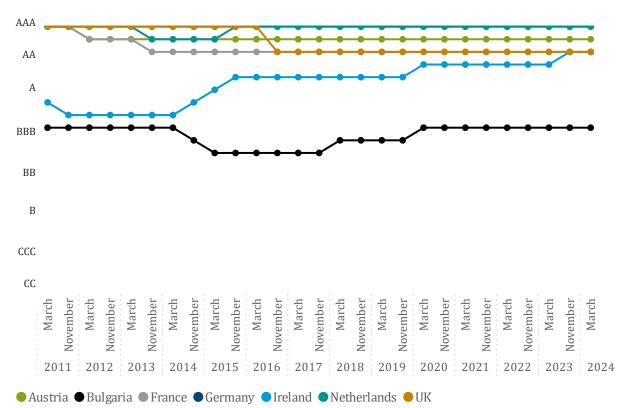




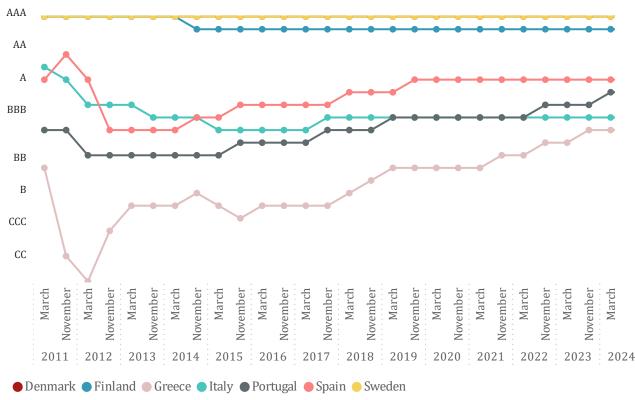
Credit Quality

afme / Credit Quality Finance for Europe

4.1 Long-term sovereign credit rating (Central and Northern Europe)

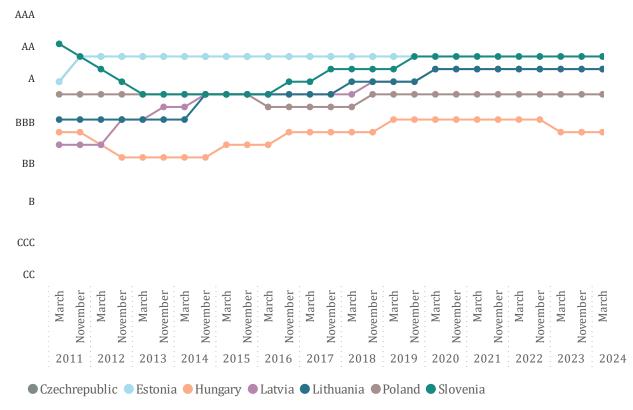


4.2 Long-term sovereign credit rating (Nordics and Southern Europe)

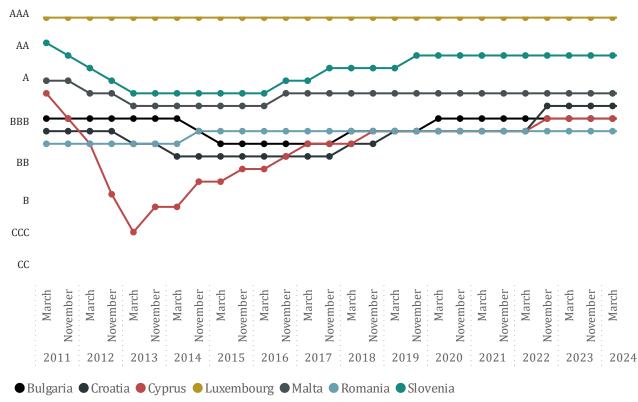


afme/Credit Quality Finance for Europe

4.3 Long-term sovereign credit rating (Visegrad 4 and Baltic states)



4.4 Long-term sovereign credit rating (Balkans, CY, MT and LU)





4.5 European rating actions on long-term sovereign credit ratings (2Q 2023 - 2Q 2024)

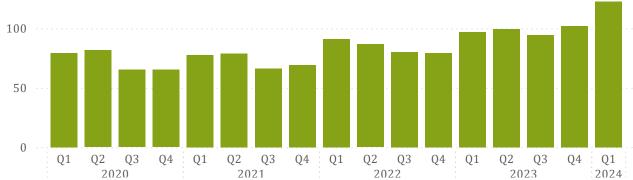
France	Downgrade to AA- (stable) from AA	Apr-23	Fitch	Weak fiscal metrics due to relatively large fiscal deficits and only modest progress with fiscal consolidation. Expenditure pressures will remain high in the short term, due to being indexed to inflation and uncertainty surrounds the revenue trajectory which could be driven by temporary factors, including the economic rebound and high inflation	
Ireland	Upgrade to Aa3 (stable) from A1	Apr-23	Moody's	Significant improvement in key fiscal and debt metric and greater resilience to potential shocks. Expected solid economic growth and continued robust improvements in fiscal metrics. Expectation that risks to Ireland's credit profile from domestic, geopolitical and banking sector sources will be contained over the near to medium term.	2Q23
Ireland	Upgrade to AA (stable) from AA-	May-23	S&P	Solid tax revenue helping Ireland's post budgetary surpluses through 2026 despite spending pressure, continuing to put the government's net debt burden on a steep downward path. Despite being set to decelerate during 2023, the Irish economy is expected to outperform peers while avoiding a technical recession	
Estonia	Downgrade to A+ (stable) from AA-	Jul-23	Fitch	Deterioration in public finances with general government debt forecast to rise to 21.1% of GDP at end-2023 and remain on an upward path in the medium term, despite fiscal consolidation measures introduced in June. This reflects a loosening of the historically tight fiscal stance, aggravated by the war in Ukraine and the pandemic.	3Q23
Greece	Upgrade to Ba1 (stable) from Ba3	Sep-23	Moody's	A significant improvement in GDP growth, driven by investment and consumption, and high degree of political and policy certainty over the coming years, as a result of a large parliamentary majority held by the government, fostering the ongoing implementation of past reforms and the design of further structural reforms.	
Portugal	Upgrade to A- (stable) from BBB+	Sep-23	Fitch	Sustained fall in debt, which is expected to remain on a sharp downward trend with a high degree of commitment to fiscal consolidation from the current Portuguese government. Overperformance in fiscal metrics as a result of faster-than-expected reduction in spending as a proportion of GDP.	
Cyprus	Upgrade to Baa2 (stable) from Ba1	Sep-23	Moody's	Broad-based, sustained improvements in its credit profile because of past and ongoing economic, fiscal, and banking reforms. Significant private and public investments in combination with the implementation of further structural reforms in the context of NextGenerationEU (NGEU) support a solid medium-term growth outlook. Improvement in fiscal strength with an expected decline in debt burden in the next few years.	
Greece	Upgrade to BBB- (stable) from BB+	Oct-23	S&P	Improvement in Greece's public finances as a result of budgetary consolidation efforts and significant progress in addressing economic and fiscal imbalances since the debt crisis in 2009-2015. Expected structural economic and budgetary reforms, coupled with large EU funds, will support robust economic growth underpinning a continued reduction in government debt.	4Q23
Portugal	Upgrade to A3 (stable) from Baa2	Nov-23	Moody's	Sustained positive credit effects over the medium term of a series of economic and fiscal reforms, private sector deleveraging and ongoing strengthening of the banking sector. Portugal's medium-term outlook is supported by significant private and public investments as well as the implementation of further structural reforms, both linked to the country's National Recovery and Resilience Plan (NRRP).	
Greece	Upgrade to BBB- (stable) from BB+	Dec-23	Fitch	General government debt/GDP expected to remain on sharp downward trend, thanks to solid nominal growth, budget over-execution and a favourable debt-servicing structure. Policy risks assessed as relatively low, with a stable political backdrop and well-anchored fiscal prudence with Greece maintaining a high commitment to fiscal consolidation, the increases to the primary surplus expected over upcoming years.	
Slovakia	Downgrade to A- (stable) from A	Dec-23	Fitch	A deterioration in public finances and an unclear consolidation path, with forecasted general government debt by 2025 to exceed the pandemic high of 61.1% of GDP in 2021 and to remain on an upward path over the medium term. The fiscal deficit is expected to widen to 6.0% of GDP, from just 2.0% in 2022 with the significant deterioration in the fiscal position reflecting a looser fiscal stance aggravated by the war in Ukraine and the pandemic.	
Portugal	Upgrade to A- (positive) from BBB+	Mar-24	S&P	Continuous improvement in Portugal's external financial balance sheet and the corresponding reduction in external liquidity risks. A consistent decline in external debt over the past decade, leading to steep deleveraging and a shift in Portugal to current account surpluses. Continuation in this trend despite a temporary deterioration during the pandemic and energy price shocks, with expected current account surpluses, the transfer of Next Generation EU grants to Portugal, and continuing private sector deleveraging further improving the country's external position over 2024-2027.	1Q24
France	Downgrade to AA- (stable) from AA	May-24	S&P	Standard & Poor's downgraded France's credit rating because of the country's deficits rising to levels higher than expected, which, inturn, will push debt higher in one of the Eurozone's largest economies. France is aiming to decrease its budget deficit 5.1% of economic output this year, to the EU ceiling of 3% by 2027. S&P, however, is not optimistic that France will be able to reach its goals, and predicts the country's deficit to stand at 3.5% of GDP by 2027.	2Q24

Source: Fitch, Moody's, S&P

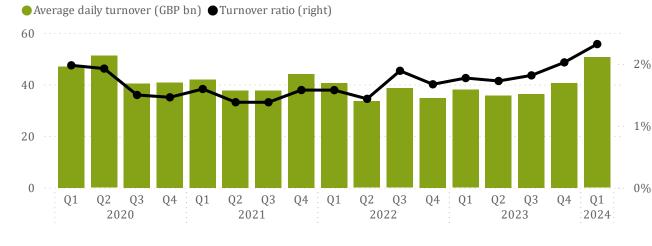


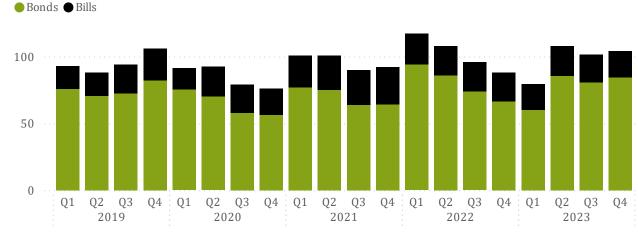
Secondary Market Trading Volumes and Turnover Ratios

5.1 EU + UK: Average daily trading volumes (Government and sovereign bonds, 5.2 Eurozone: Average daily trading volume (bonds and bills, EURbn) EURbn)



5.3 United Kingdom: Average daily trading volume (bonds only) and turnover ratio





5.4 Germany: Average daily trading volume (aggregated bonds and bills) and turnover ratio

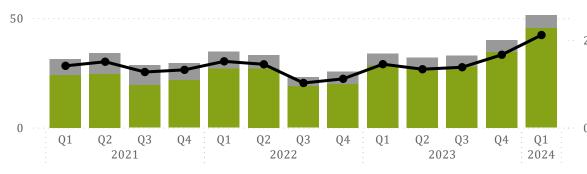


Source: TraX data from MarketAxess, EFC Sub-Committee on ESDM, UK Debt Management Office, Deutsche Finanzagentur, ECB. Latest data for Germany as of H2 2023. Individual country volumes do not sum to aggregated trading volume in Chart 5.1 EU+UK, given the differences in the aggregation basis across jurisdictions. The data is not fully comparable between countries. Full Methodology available on page 37 of this report.

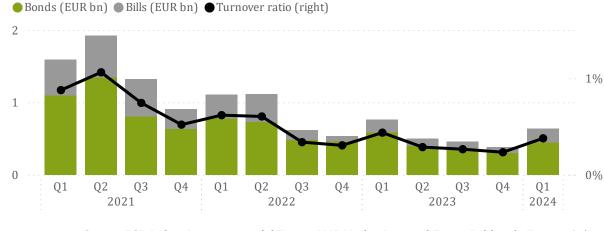
me/ Secondary Market Trading Volumes and Turnover **Ratios**

5.5 Italy: Average daily trading volume (bonds and bills) and turnover ratio

● Bonds (EUR bn) ● Bills (EUR bn) ● Turnover ratio (right)

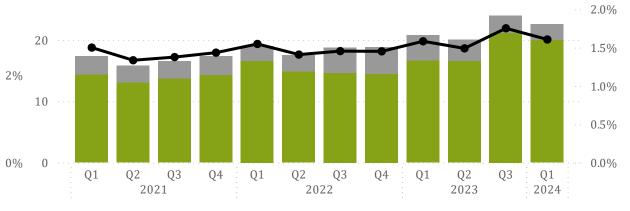


5.7 Portugal: Average daily trading volume and turnover ratio



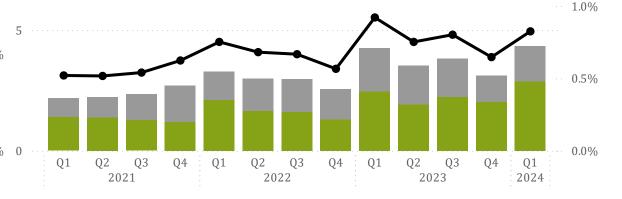
5.6 Spain: Average daily trading volume and turnover ratio





5.8 Belgium: Average daily trading volume and turnover ratio

● Linear Bonds (EUR bn) ● Treasury certificates (EUR bn) ● Turnover ratio (right)

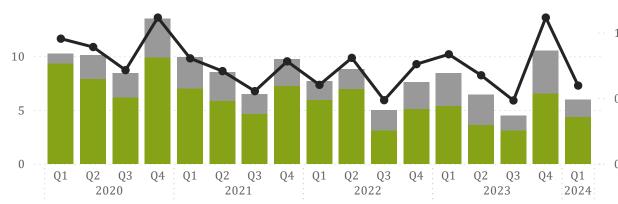


Source: ECB, Italian Dipartimento del Tesoro, BME Market Data and Tesoro Publico de Espana, Agência de Gestão da Tesouraria e da Dívida Pública (IGCP), Belgian Debt Agency. Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 37 of this report.

me/ Secondary Market Trading Volumes and Turnover **Ratios**

5.9 Sweden: Average daily trading volume and turnover ratio

● Bonds (SEK bn) ● Treasury bills (SEK bn) ● Turnover ratio (right)

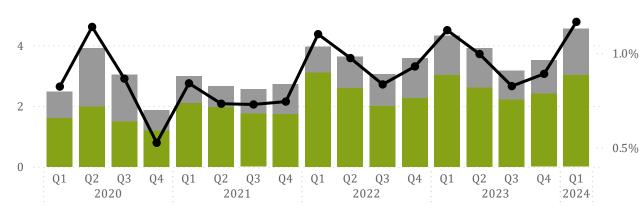


5.10 Ireland: Average daily trading volume (bonds only) and turnover ratio

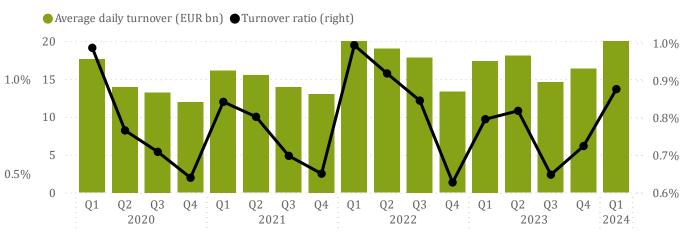


5.11 Netherlands: Average daily trading volume and turnover ratio

● Bonds (EUR bn) ● Bills (EUR bn) ● Turnover ratio (right)



5.12 France: Average daily trading volume (bonds only) and turnover ratio



Source: ECB, Swedish National Debt Office (Riksgalden), Irish Stock Exchange, Ministerie van Financien, Agence France Tresor. Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 37 of this report. Chart 5.10: Ireland turnover data has been unavailable since Q1 2023

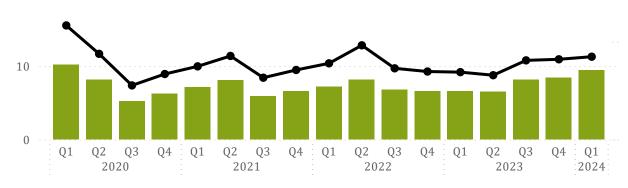
me/ Secondary Market Trading Volumes and Turnover **Ratios**

5.13 Denmark: Average daily trading volume (bonds and bills) and turnover ratio



5.15 Poland: Average daily trading volume (bonds only) and turnover ratio

Average daily Turnover (PLN bn) Turnover ratio (right)



5.14 Greece: Average daily trading volume (bonds only) and turnover ratio



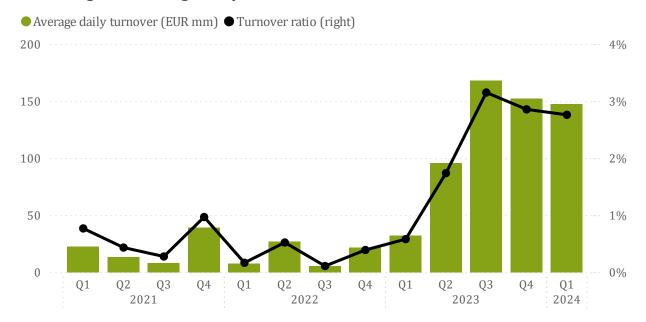
5.16 Finland: Average daily trading volume (aggregated bonds and bills) and turnover ratio



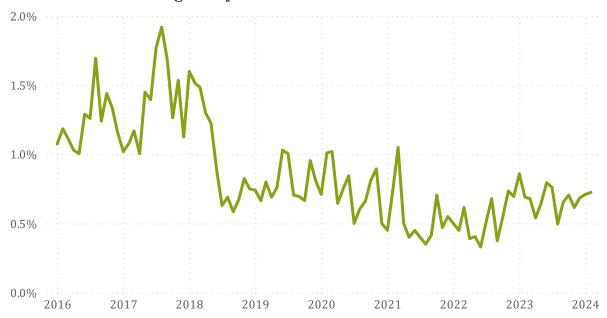
Source: Denmarks Nationalbank, Bank of Greece, ECB, National Depository for Securities (KDPW), WSE, Finland Valtiokonttor. Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 37 of this report



5.17 Bulgaria: Average daily turnover volume and turnover ratio

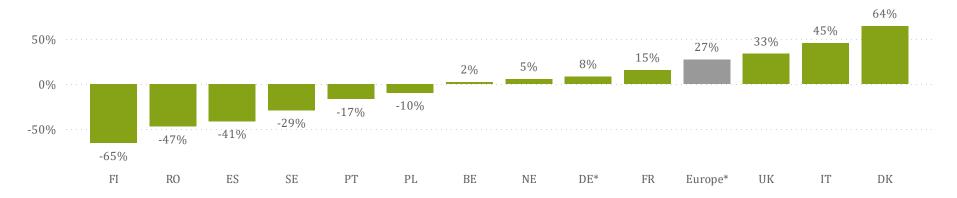


5.18 Romania: Average daily turnover ratio

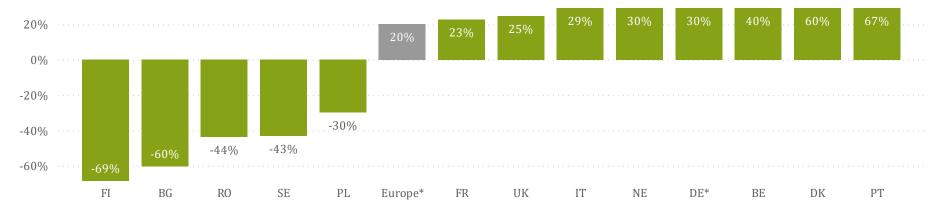


MC/ Secondary Market Trading Volumes and Turnover **Ratios**

5.20 Annual change in average daily turnover volumes of European government bonds: 2024 to 2022



5.21 Quarterly change in average daily turnover volumes of European government bonds: 2024 to 1024

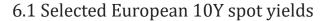


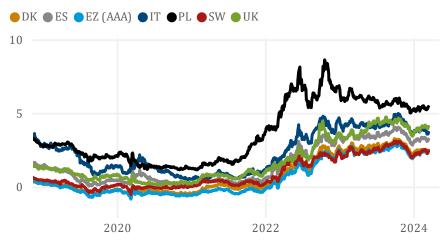
Source: AFME with information from European DMOs and other agency sources. See section 5 for details on aggregation basis and sources. *Europe (EU+UK) total and Germany is sourced from TraX data from MarketAxess, as the quarterly variation of average daily volumes of government and sovereign bonds.



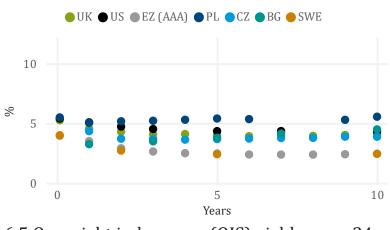
Valuations

afne/ Valuations Finance for Europe

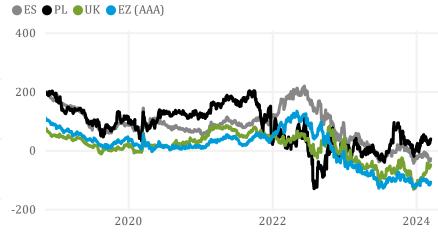




6.2 Sovereign spot yield curve of selected jurisdictions: 24 May 2024



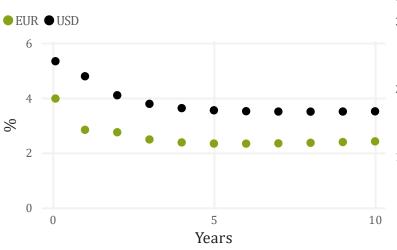
6.3 Slope: 1Y10Y spread (bps)



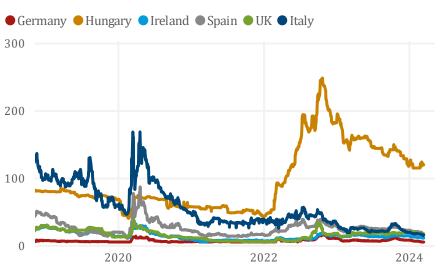
6.4 Market-implied inflation expectations (Eurozone)



6.5 Overnight index swap (OIS) yield curve: 24 May 2024



6.6 5Y Sovereign Credit Default Swap (CDS, bps)



Source: ECB and Refinitiv Eikon



Methodology for secondary Market Trading Volumes and Turnover Ratios in this report

Turnover ratios are calculated as the average daily trading volume relative to total outstandings. Cash trading only (excludes repo and derivatives transactions)

5.1 EU + UK: Secondary Market Volumes (please note this is restricted to 2013-Q3 onwards as split not available prior to this date. Volumes are calculated by converting the individual traded securities to EUR using the prevailing exchange rate on the date of each trade. ADV calculated by dividing the total converted volume by

the number of UK trading days for quarter. Data sourced from Trax. The aggregation of Trax data is agnostic of platform (meaning the trades can be conducted via BBG, TRAX or others) as it is sourced from dealers middle offices, rather than the actual trading venues. The data includes both dealer to dealer activity and dealer to client activity. Data does not consider transaction volume between clients and therefore relies on the degree of dealer intermediation.

- 5.2 Eurozone: Data is published by EFC Sub-Committee on ESDM, and is based on turnover data reported in the Euro Market Activity Report (EMAR), including turnover on a trade by trade basis traded by reporting dealers. A comprehensive list of reporting dealers can be found in the EMAR reports on the website of the Economic and Financial Committee's Sub Committee on EU Sovereign Debt Markets **5.3 United Kingdom:** Turnover data reported to the DMO by the Gilt-edged Market Makers (primary dealers).
- 5.4 Italy: Turnover on all trading venues and OTC as per data provided to the Italian Dipartimento Del Tesoro by Primary Dealers through HRF ('single counted' volumes).
- 5.5 Germany: Turnover of both electronic and OTC trading. The traded volume is aggregated for a representative part of the members of the Bund Issues Auction Group with trades with all counterparties. Includes Bubills, Schaetze, Bobls, Bunds and inflation-linked securities. Capital and coupon strips as well as US-dollar bonds are excluded.
- **5.6 Portugal:** Turnover of electronic and OTC trading reported on MTS-Portugal, BrokerTec and eSpeed.
- 5.7 Spain: Due to data reconciliation activities of the Bank of Spain, data from April 2018 is from BME Market Data, a subsidiary of Bolsas y Mercados Epañoles. Turnover is derived from settlement data from Iberclear.
- **5.8 Finland:** Turnover of customer trades, MTS Finland and Euro MTS.
- **5.9 Belgium:** Turnover is total outright transactions.
- **5.10 Sweden:** Turnover is total outright transactions
- **5.11 Ireland:** Turnover on Irish Stock Exchange.
- **5.12 Netherlands:** Turnover is customer and interdealer trading. Total outright transactions, including electronic and OTC trading.
- **5.13 France:** Turnover of voice and electronic trading (not including PSPP transactions or trading without an SVT).
- **5.14 Denmark:** Turnover of MTS, TradeWeb, Bondvision and trades reported to Nasdaq OMX (including voice trading).
- **5.15 Greece:** Turnover on Electronic Secondary Securities Market (HDAT).
- 5.16 Poland: Turnover is total outright transactions. Data from KDPW are presented according to the date of the settlement, while data from WSE are presented according to the date of conclusion of a transaction.
- 5.17 Bulgaria: Turnover ratio of the government securities issued on domestic market. Official values reported as average monthly turnover ratios, which have been converted assuming 20 business days
- 5.18 Romania: Turnover ratio of the government securities issued on domestic market. Official values reported as average monthly turnover ratios, which have been converted assuming 20 business days per month. Turnover volume not available.

For a description of the methodology of this report please visit https://www.afme.eu/reports/data/details/Summary-of-the-Methodologies

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