

1Q 2022

Government Bond Data Report

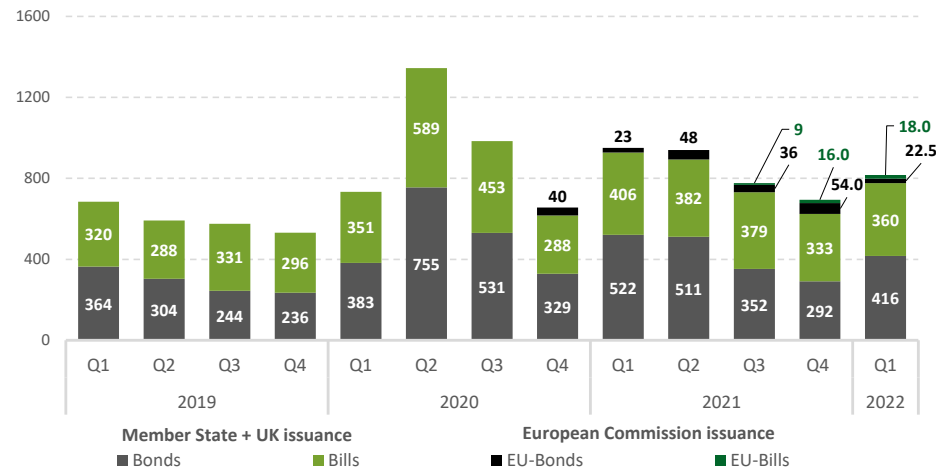
European market data update



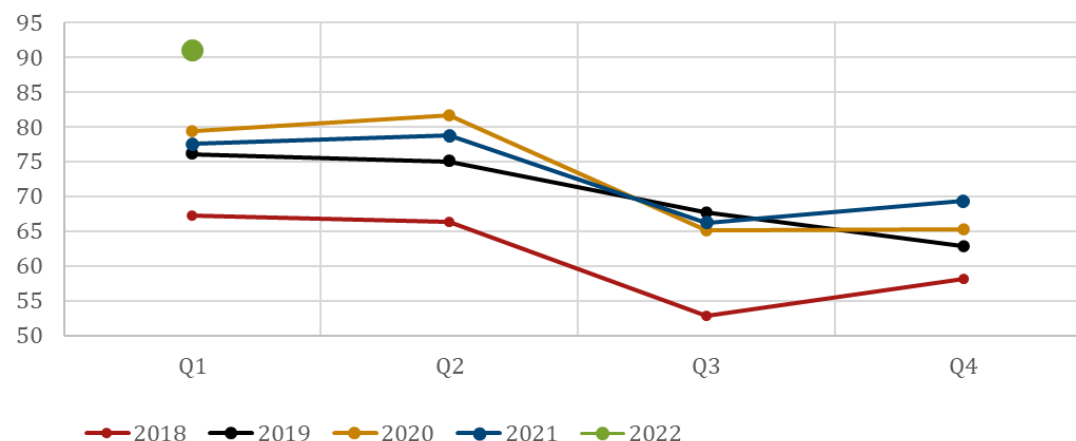
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Highlights and Market Environment

1. European (EU+UK) government bond and bill issuance (EUR bn, 2019-2022 Q1)



2. European Government bond average daily trading volumes



Source: ECB, National Debt Management Offices and UK Debt Management Office [chart 1].
Trax, a MarketAxess subsidiary [chart 2].

EUR 817 bn bonds and bills issued in Q1 2022 as issuance volumes continue to normalise since pandemic peak

Total (MS+UK+EU COM) quarterly issuance in Europe was EUR 816.7 bn during Q1 2022, which is 14.1% lower than Q1 2021 (YoY), but 14.1% higher than Q1 2020. While the funding demands of the economic recovery to Covid-19 remain high, issuance volumes continue to trend downwards.

EU Member States and the UK issued EUR 776.2 bn in bonds and bills during 1Q22, representing an increase of EUR 24.3% (QoQ) and a decrease of 16.3% (YoY) (see chart 1).

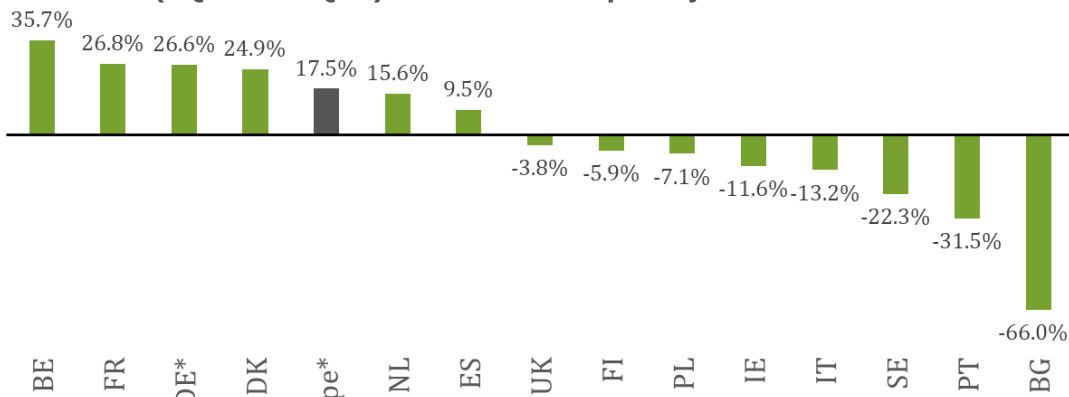
The EU Commission issued an additional EUR 22.5 bn in EU-bonds and EUR 18.0 bn in EU bills bringing the total annual EU Commission issuance (bonds+bills) to EUR 40.5 bn in Q1 2022, which accounted for 5.0% of total (MS+UK+EU COM) quarterly issuance, compared to 10.4% of the total in Q4 2021 (QoQ).

European (EU+UK) government bond trading increased 31.4% (QoQ) and 17.5% (YoY) during 1Q22

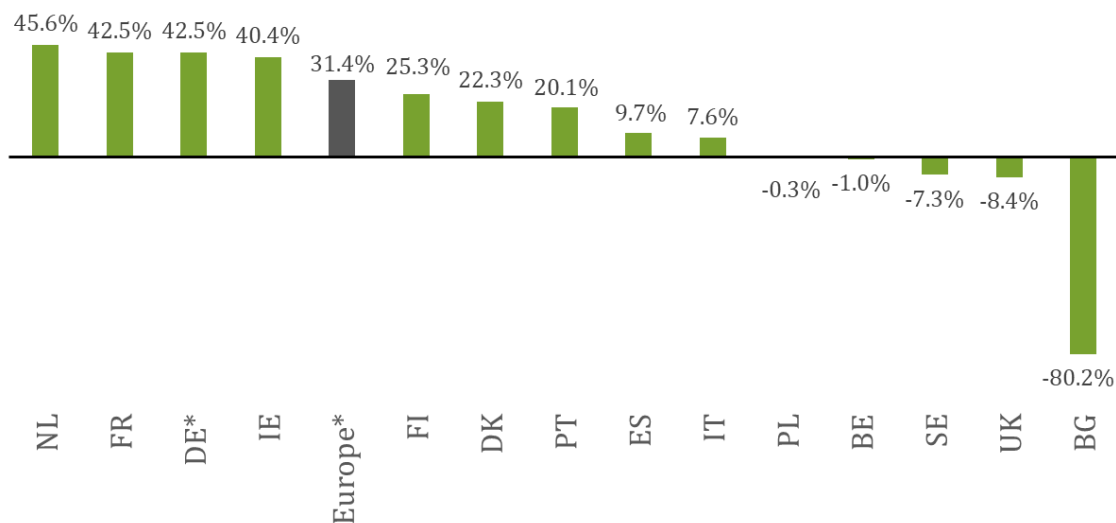
According to Trax, European government bond trading exhibited record quarterly average daily trading volumes in Q1 2022, coinciding with heightened market volatility, the start of the Russian invasion of Ukraine, and the rising inflation outcomes across Europe.

Highlights and Market Environment

3. Annual changes in Government Bond average daily trading volumes (1Q22 vs 1Q21) Selected European jurisdictions



4. Quarterly change in Government Bond average daily trading volumes (1Q22 vs 4Q21) Selected European jurisdictions



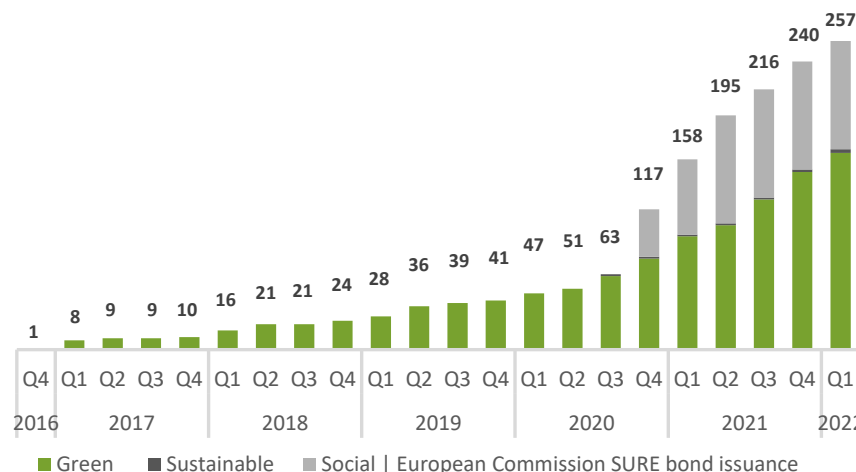
Source: AFME with information from European DMOs and other agency sources and Trax, a MarketAxess subsidiary. *Europe (EU+UK) total and German turnover is sourced from Trax Facts as the quarterly variation of average daily volumes of government and sovereign bonds. **Romanian turnover volume calculated using outstanding volumes in Section 3.

European government bond trading increased 17.5% YoY and increased 31.4% QoQ in 1Q22

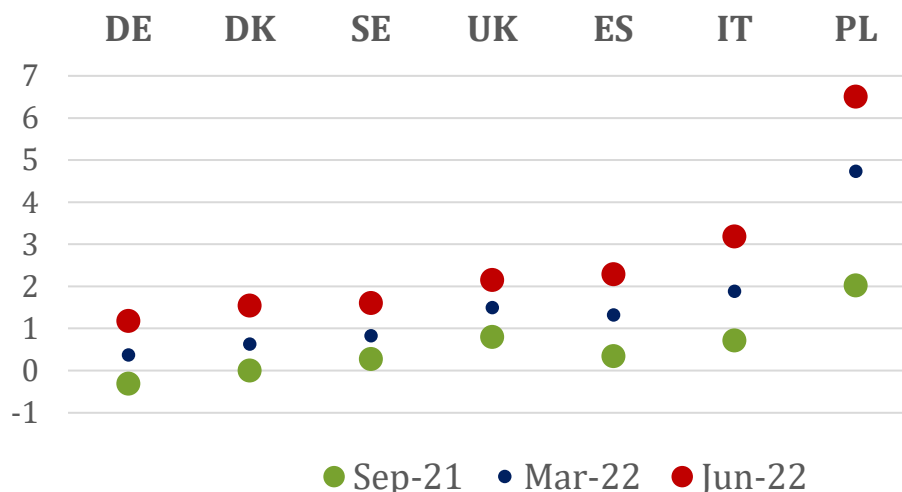
Average daily trading volumes of European government bonds increased by 17.5% YoY during 1Q22, driven by a significant increase in trading in Belgium (35.7% YoY), France (26.8% YoY), Germany (26.6%), and Denmark (24.9% YoY). There was a decrease in trading in Bulgaria (-66.0% YoY), Portugal (-31.5% YoY), Sweden (-22.3% YoY) and Italy (-13.2% YoY) (see chart 3).

In Bulgaria, government bond trading has fallen 80.2% QoQ and 66.0% YoY in Q1 2022, following an increase in trading in previous quarters that coincided with parliamentary elections taking place in April, July and November 2021.

5. European outstanding ESG sovereign bonds (EUR bn, 2016-2022)



6. Selected European 10Y spot yields (Sep-21, Mar-22 and Jun-22)



Source: Thomson Reuters Eikon and European Commission [chart 5]. Thomson Reuters Eikon [chart 6].

European sovereign ESG market maintains momentum in Q1 2022 as outstanding amount reach EUR 257 bn

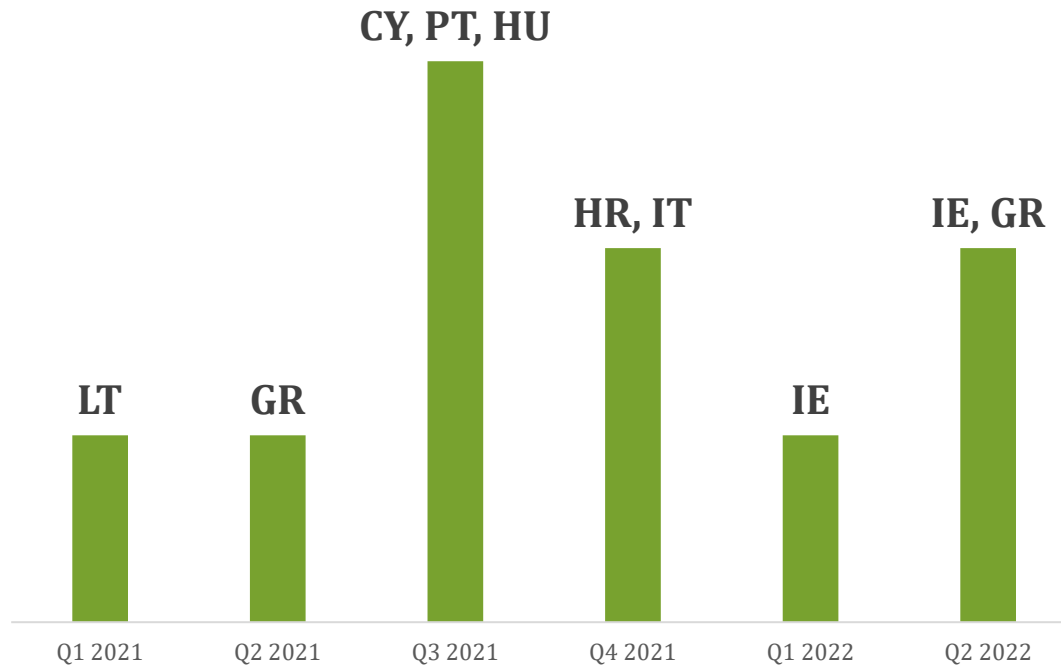
Outstanding amount of green government bonds reached EUR 163.6 bn during 1Q22 (see chart 5) with new green volumes added via tap issuance by France (EUR 5.0bn) and Germany (EUR 3.9bn). Denmark issued an inaugural EUR 0.8 bn green bond during Q1 2022 bringing the total amount of sovereign issuers in European ESG markets to 17 with active participation in primary issuance by over half (55.6%) of EU Member States. Hungary issued 4 new green bonds throughout Q1 2022 with a combined total volume of EUR 0.65 bn.

The European Commission also tapped the green EU-bond for an additional EUR 2.5 bn in Q1 2022, further expanding the ESG sovereign bond market in Europe.

10Y spot yields rise during 2022 YtD amid the ongoing conflict in Ukraine and rates volatility

10Y spot yields have risen across European countries as the ongoing conflict in Ukraine provokes higher levels of economic uncertainty. There is homogeneity across European countries, with Poland, which has arguably greater exposure to the conflict, recording a 6.5% 10Y spot yield rate on 1 June 2022, more than triple that of September 2021. (see chart 6).

7. European rating actions on long-term sovereign credit ratings (2022 YtD)



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

During 1Q22 there was 1 upgrade and no downgrades in long-term credit rating changes for European nations

This brings the full-year total to 3 upgrades and no downgrades (there were 2 further upgrades in Q2 2022 to date) (*see chart.7*).

The resilience of European credit quality in the face of pandemic-related pressures on sovereign credit dynamics has continued to be demonstrated during 2022 year-to-date with the rating of Greece increasing by one notch to BB+ in April 2022. This is the highest rating given to Greece by S&P since March 2011 when Greece was downgraded by the agency to BBB+.

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:

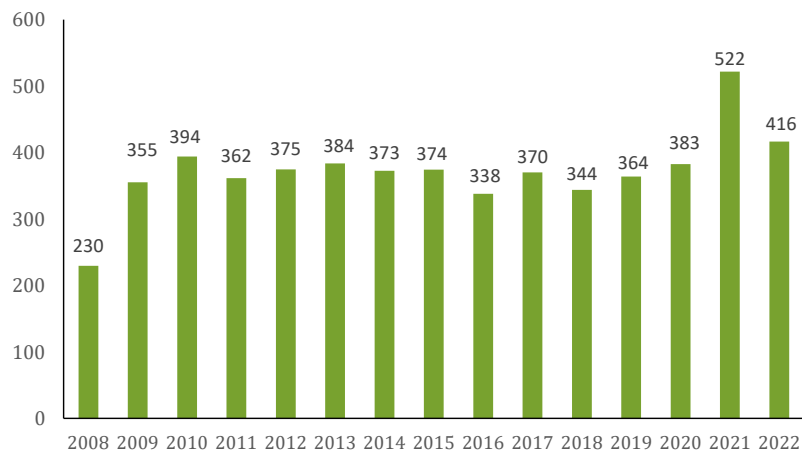
- Basel III
- CSDR
- Fundamental Review of the Trading Book (FRTB)
- Prospectus Regulation
- MIFID II Review

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

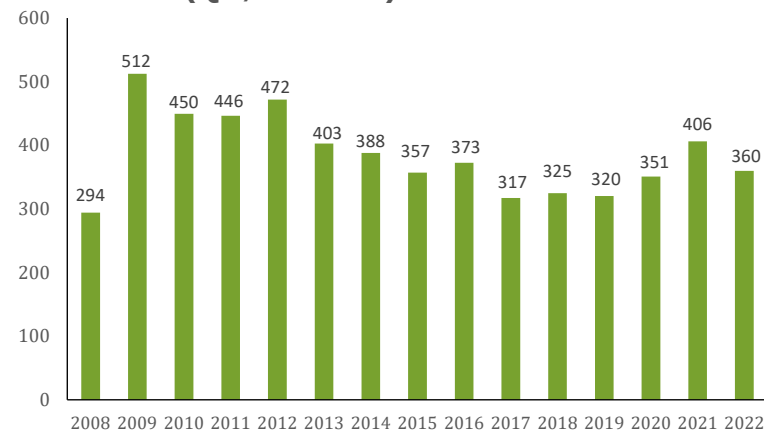
Issuance

Gross Issuance

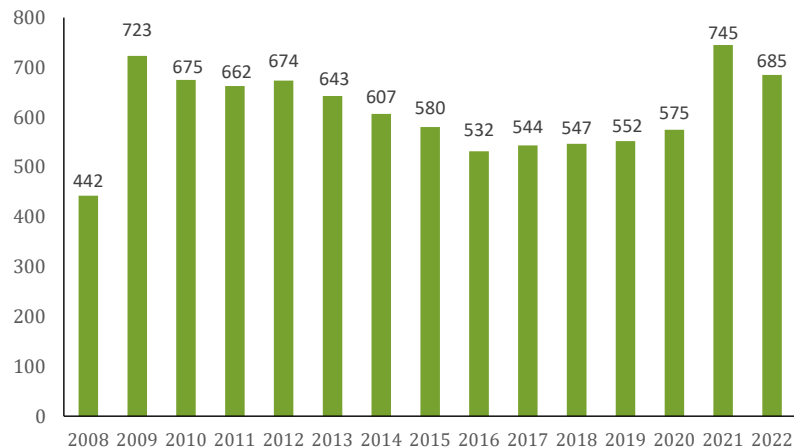
1.1 European (EU+UK) Government Bond gross issuance (Q1, EUR bn)



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



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

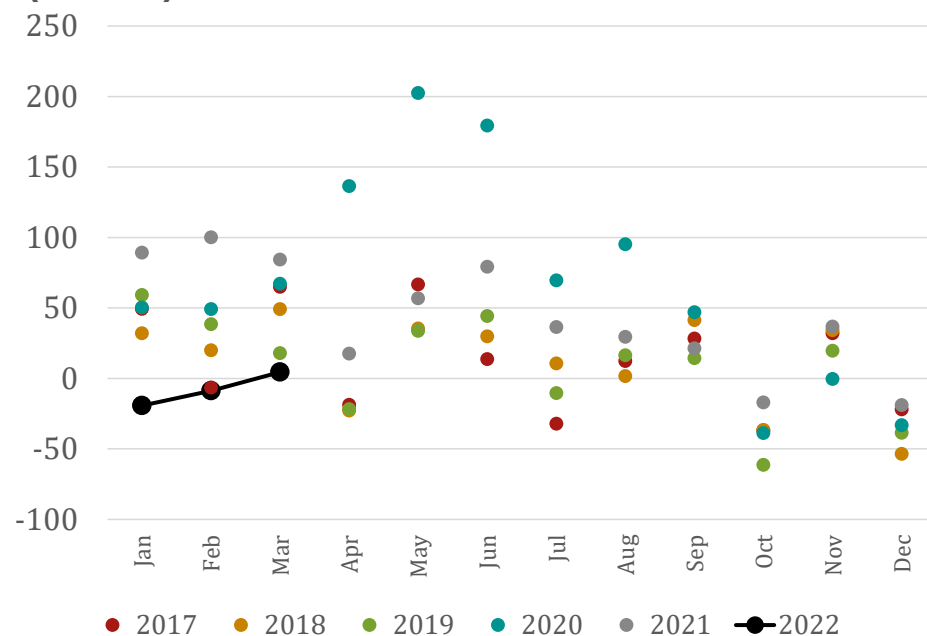


1.4 Non-Eurozone bonds and bills gross issuance (Q1, EUR bn)

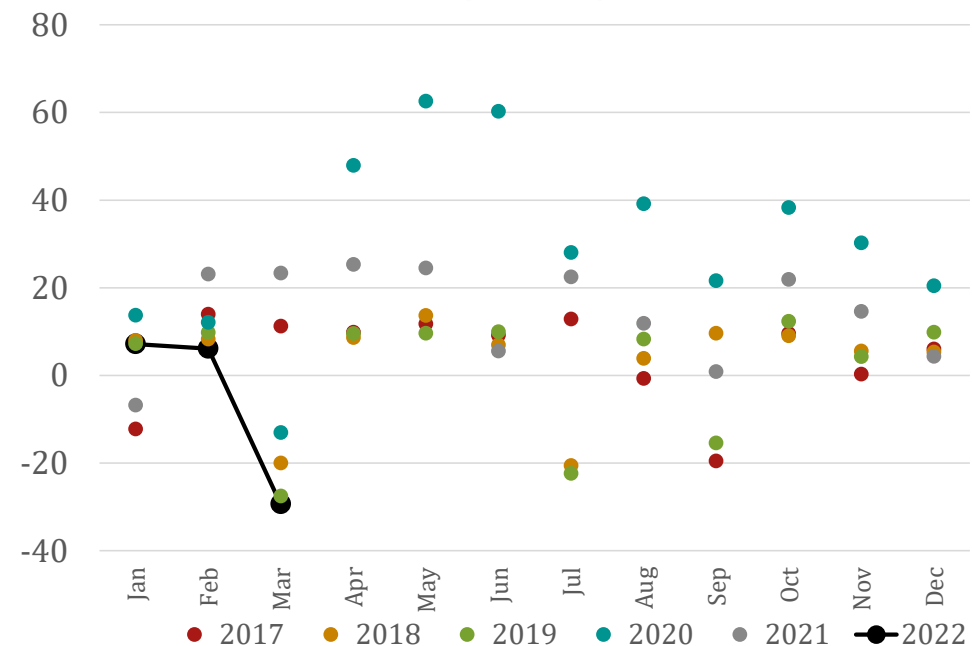


Source: ECB, National Debt Management Offices and UK Debt Management Office. Data on this page excludes EU Commission issuance (ie. NGEU, SURE) and includes debt issued from EU Member States and the UK only.

1.5 Euro area net sovereign debt issuance (EUR bn)



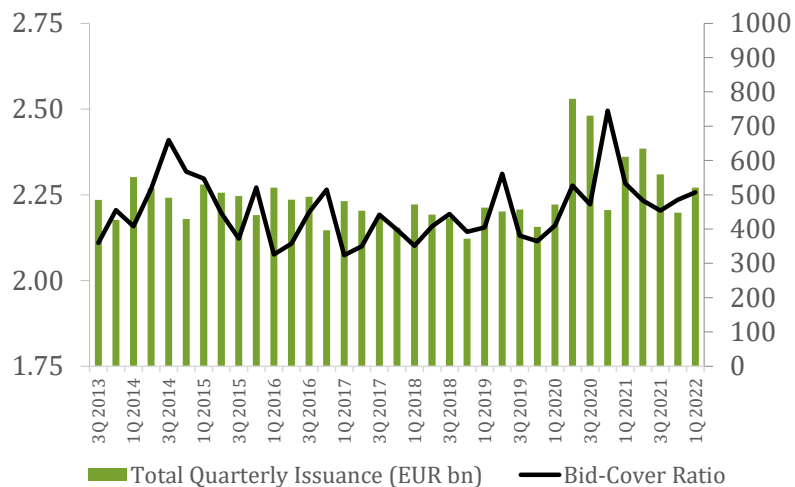
1.6 UK Gilts net issuance (GBP bn)



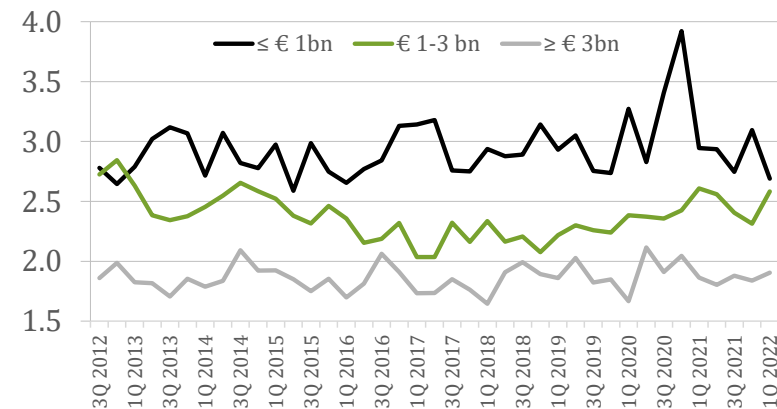
Source: ECB and UK Debt Management Office

Recent Auctions and Primary Dealers

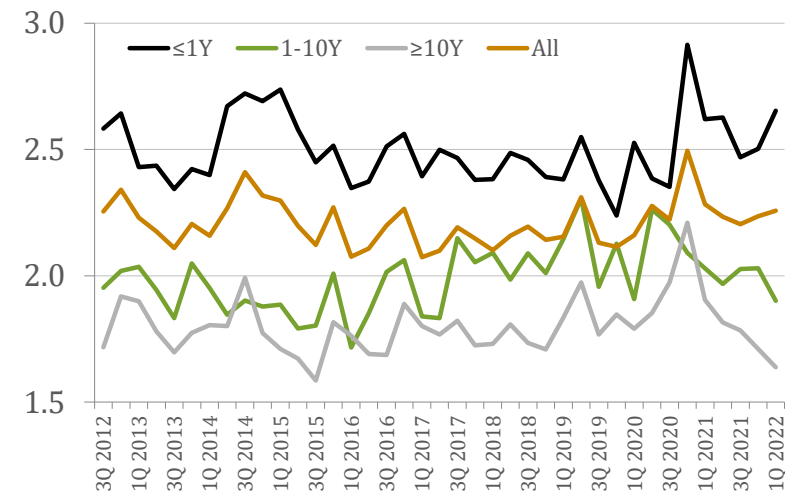
2.1 Average bid-cover ratios and issued volumes in selected jurisdictions (EUR bn)



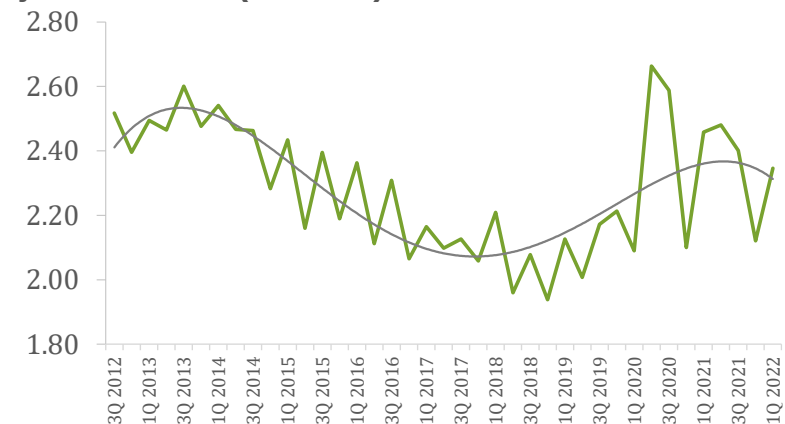
2.3 Average bid-cover ratios by size of issued instruments



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

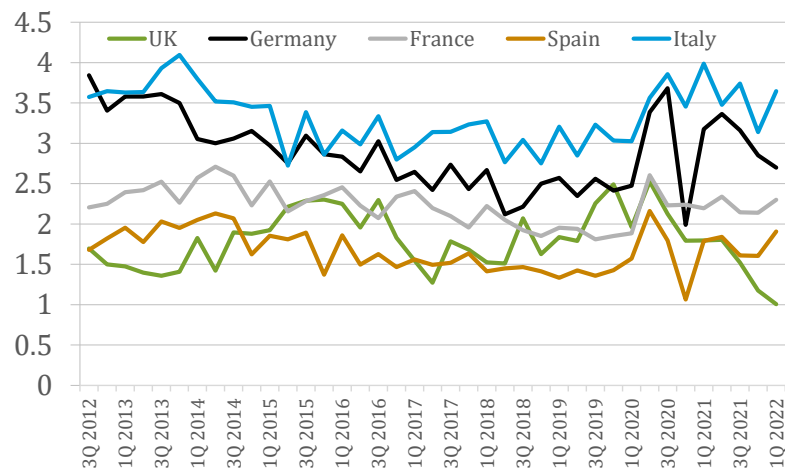


2.4 Average auction size in selected European jurisdictions (EUR bn)

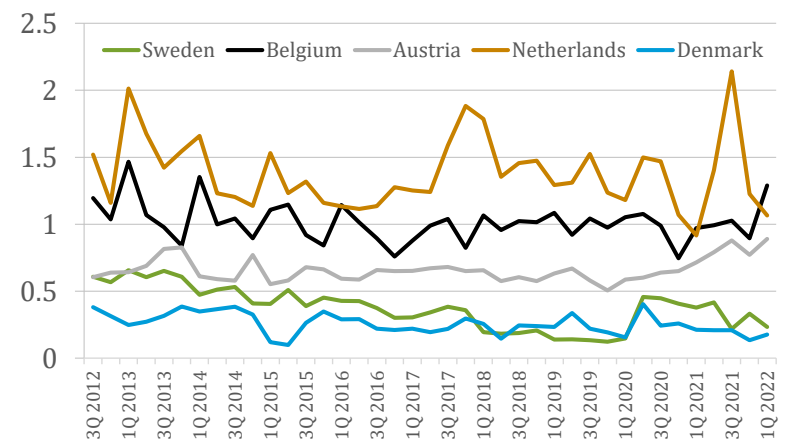


Source: Thomson Reuters Eikon. Weighted Average of UK, DE, FR, ES, IT, BE, SE, NL, DK and AT bonds and bills. In chart 2.4 polynomial trendline shown in grey.

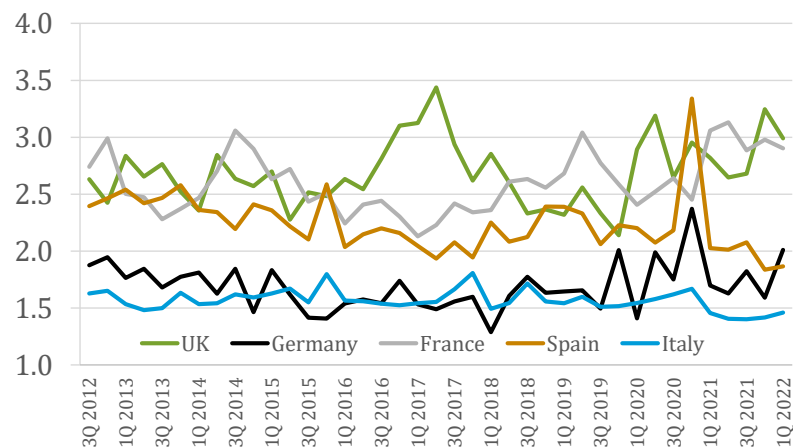
2.5 Average auction size in selected jurisdictions (EUR bn)



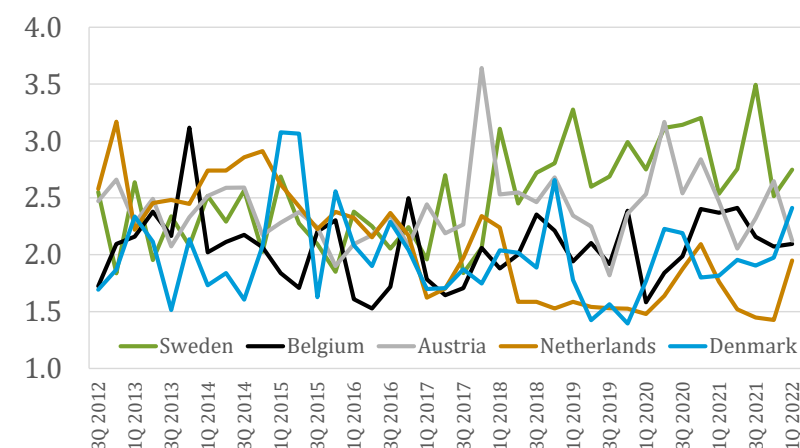
2.6 Average auction size in selected jurisdictions (EUR bn)



2.7 Average bid-cover ratios by jurisdictions

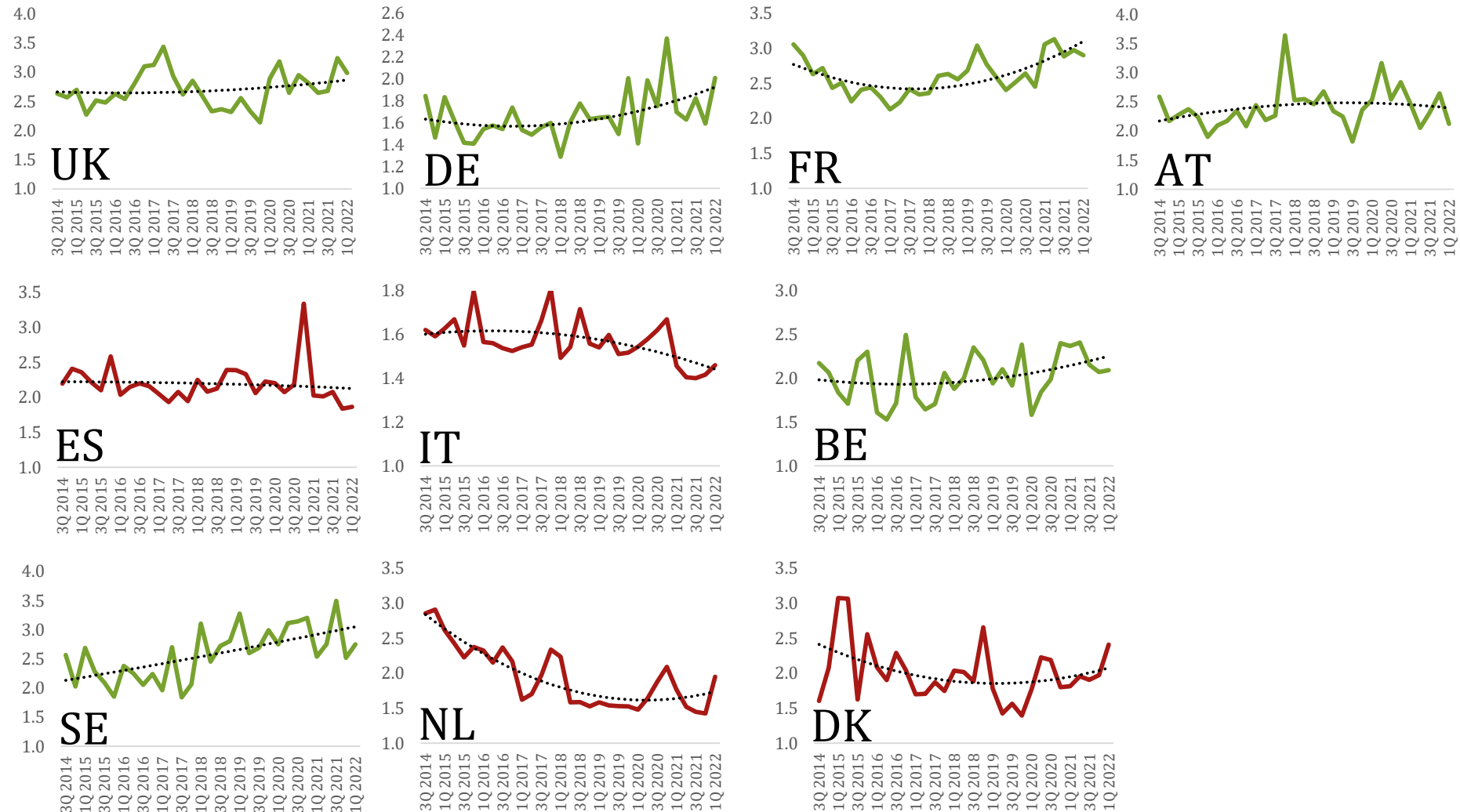


2.8 Average bid-cover ratios by jurisdictions



Source: Thomson Reuters Eikon. Weighted Average of UK, DE, FR, ES, IT, BE, SE, NL, DK and AT bonds and bills.

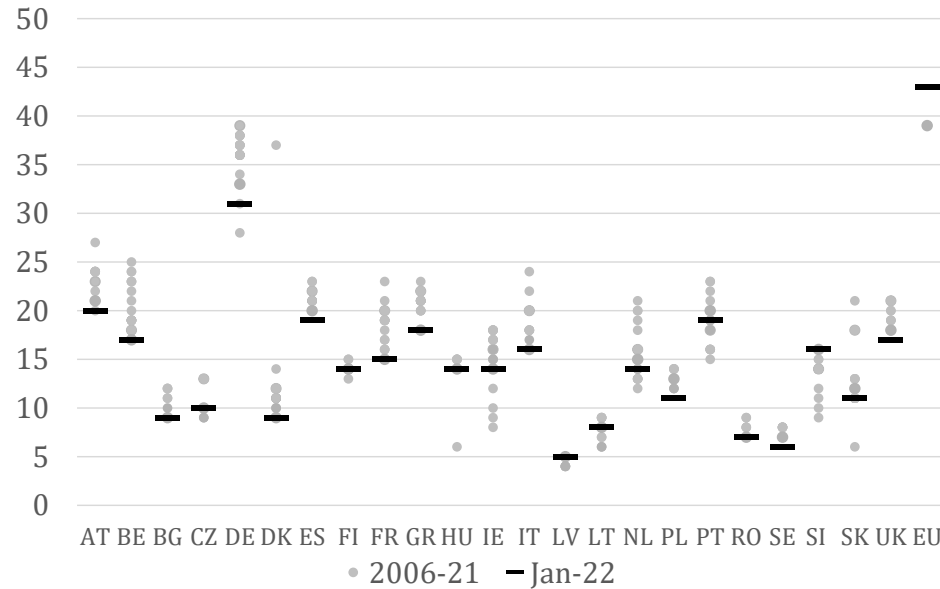
2.9 Average bid-cover ratios in selected jurisdictions: 2013-22



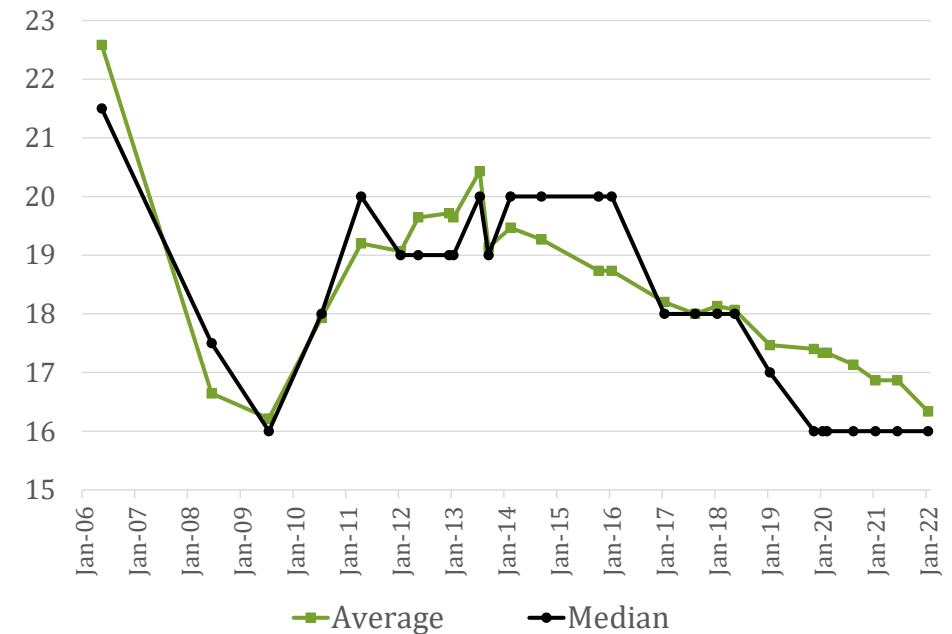
Source: Thomson Reuters Eikon. **Green** indicates end value of trendline above starting value, **red** indicates end value of trendline below starting value

Primary Dealers: European countries and EU

2.10 Number of primary dealers relative to historic number

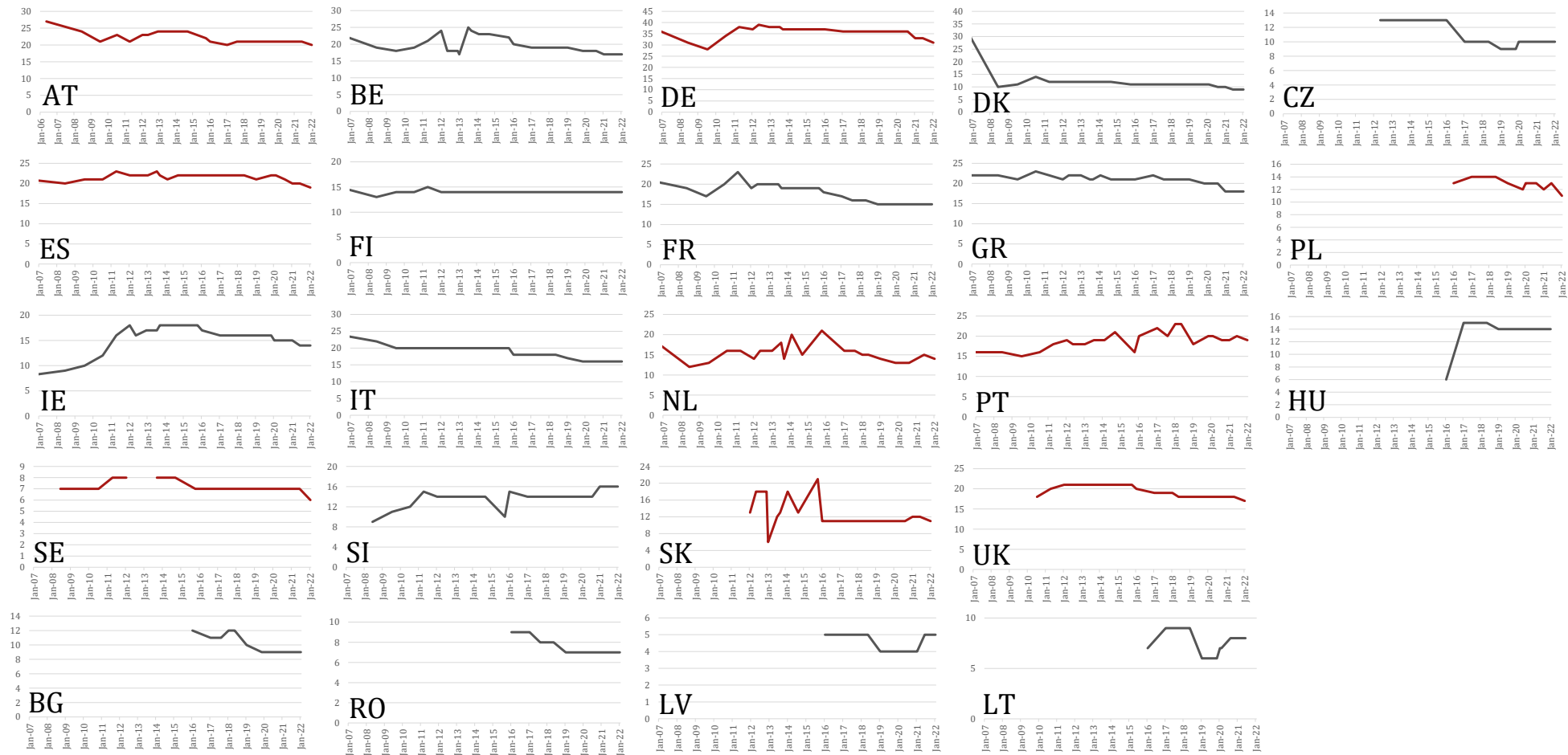


2.11 Average and median number of primary dealers in selected European countries



Source: AFME Primary Dealers Handbooks AFME HRF Table, national DMOs. Average and medians of AT, BE, DE, DK, ES, FI, FR, GR, IE, IT, NL, PT, SE, SI and UK. EU in Chart 2.10 refers to the EU Primary Dealer Network. Latest data as of January 2022.

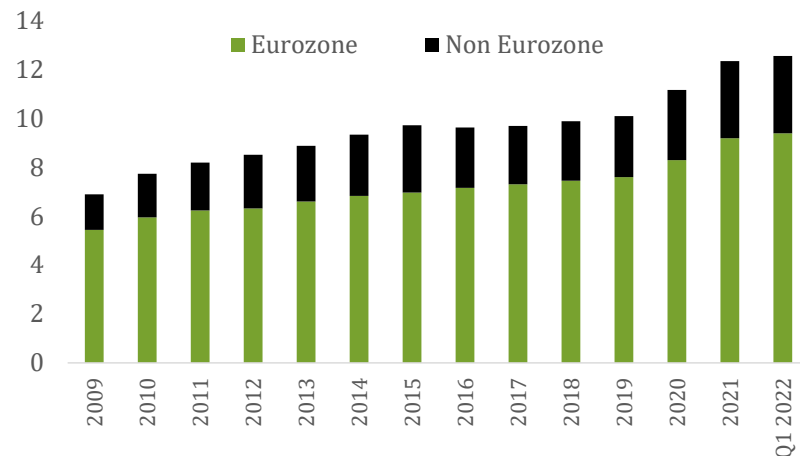
2.12 Number of primary dealers in Europe by country: 2006-22



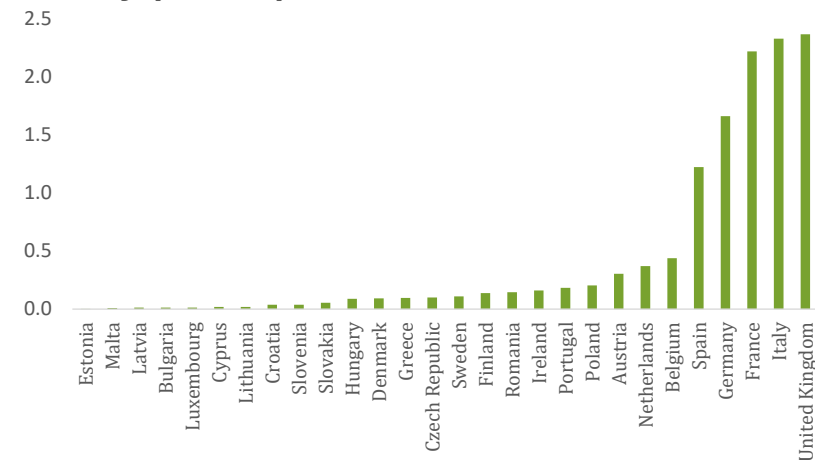
Source: AFME HRF Table and National DMOs. The gap in the line for Sweden indicates data was not recorded in the relevant period. **Chart colour indicates net change in PDs since June 2021.** **Green** indicates an increase; **red** indicates a decrease and **grey** indicates no change. Latest data as of January 2022.

Outstandings

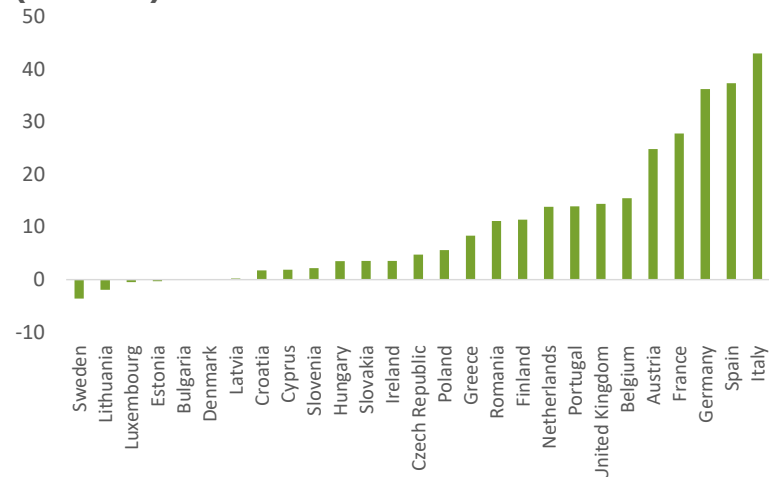
3.1 Outstanding debt securities issued by Central Governments (Nominal, EUR tn)



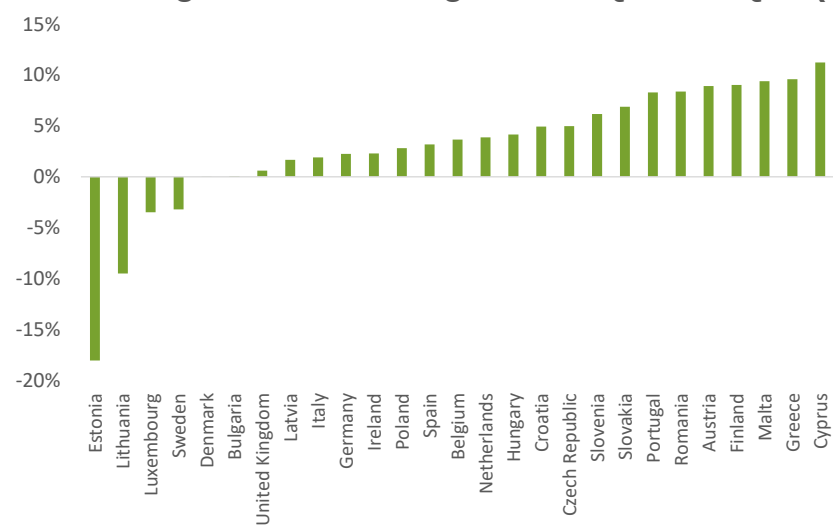
3.2 European government bonds outstanding by country (EUR tn)



3.3 Change in outstandings 4Q21 to 1Q22 (EUR bn)

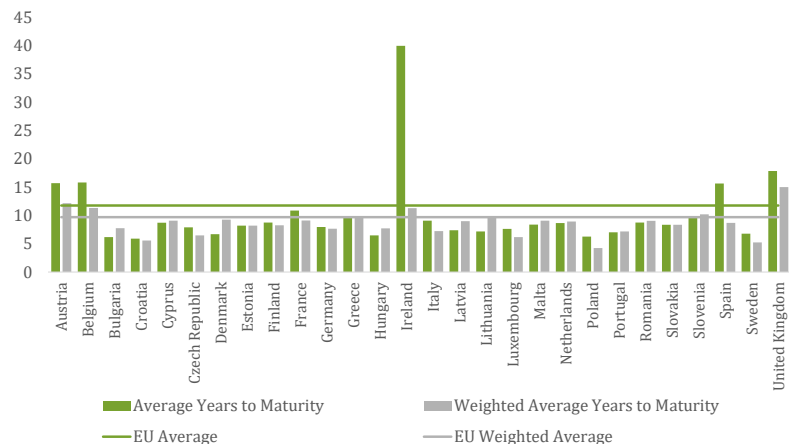


3.4 Change in outstandings from 4Q21 to 1Q22 (%)

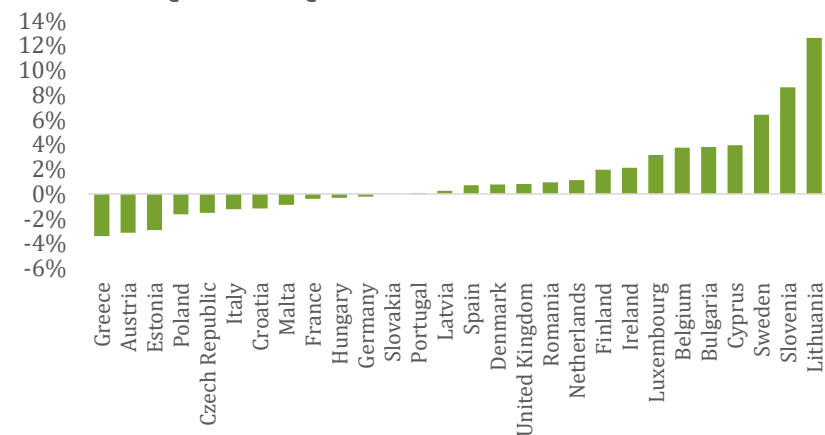


Source: ECB, Thomson Reuters Eikon and UK DMO.

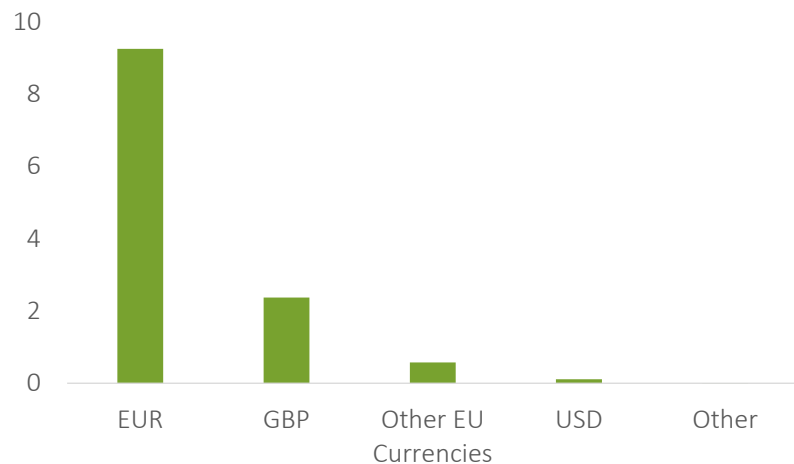
3.5 Average years to maturity for outstanding government bonds in European (EU+UK) countries



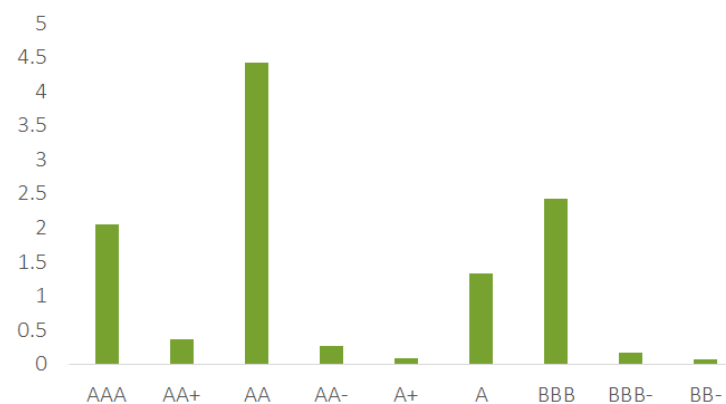
3.6 Quarterly change in weighted average years to maturity for outstanding government bonds 4Q21 to 1Q22



3.7 European government bonds outstanding by currency (EUR tn)



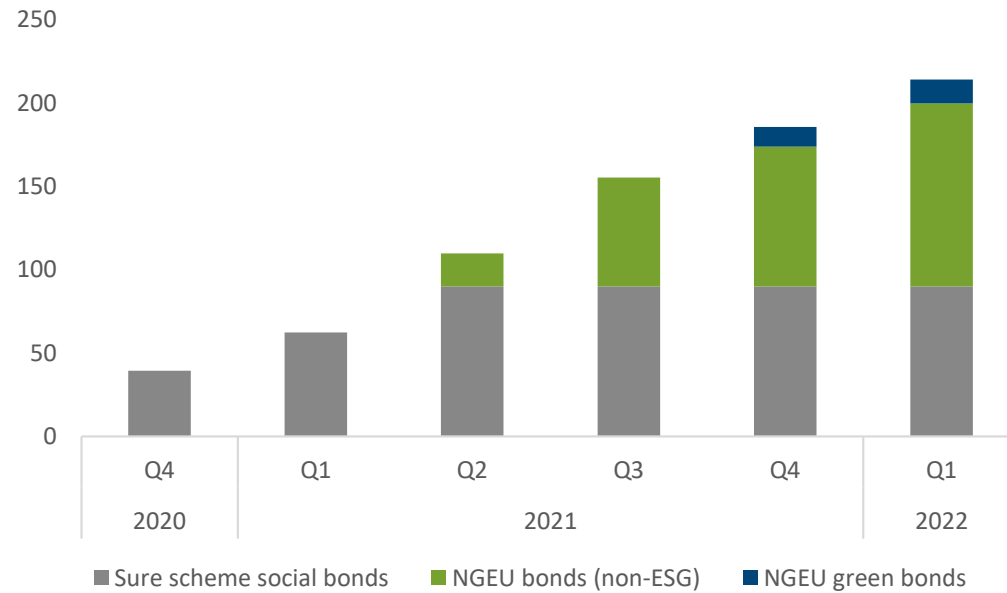
3.8 European government bonds outstanding by current rating of issuer (EUR tn)



Source: Thomson Reuters Eikon. For Charts 3.5 and 3.6 weighted average in by outstanding amount.

Outstandings: European Commission bonds

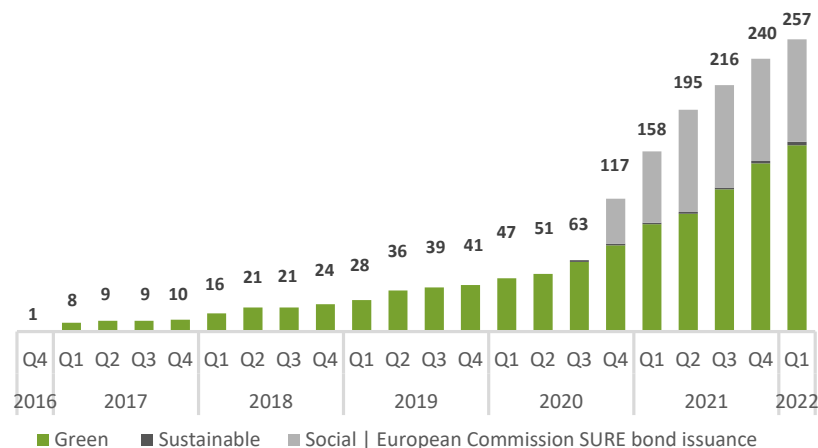
3.9 Outstanding bonds issued by the European Commission (EUR bn)



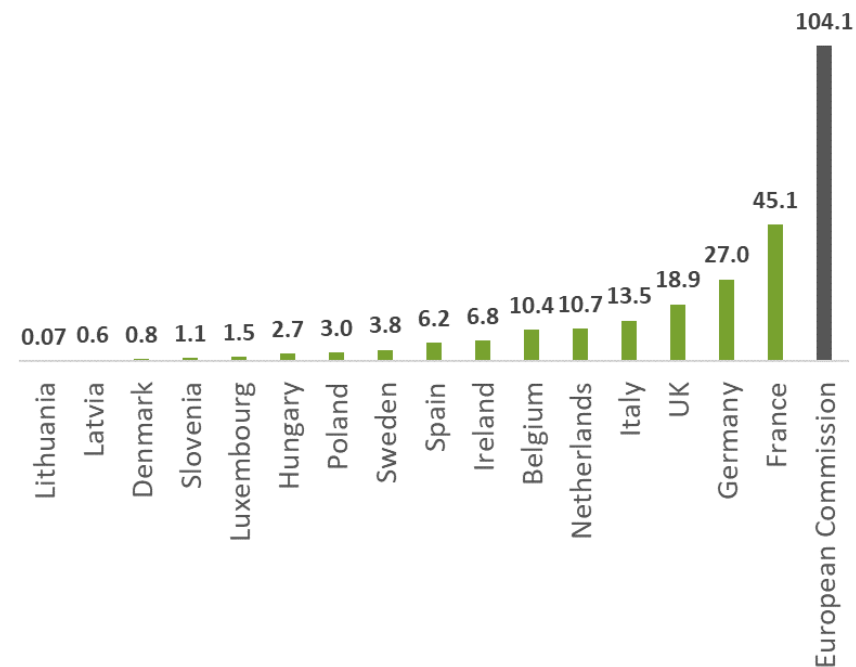
Source: European Commission. **NGEU** refers to bond issuance by the European Commission under the NextGenerationEU scheme.

Outstandings: ESG Bonds

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



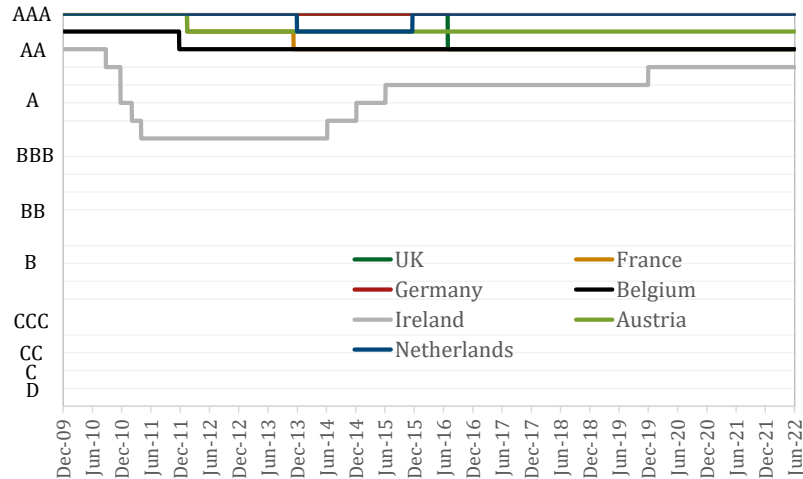
3.10 European outstanding ESG government bonds by country (EUR bn)



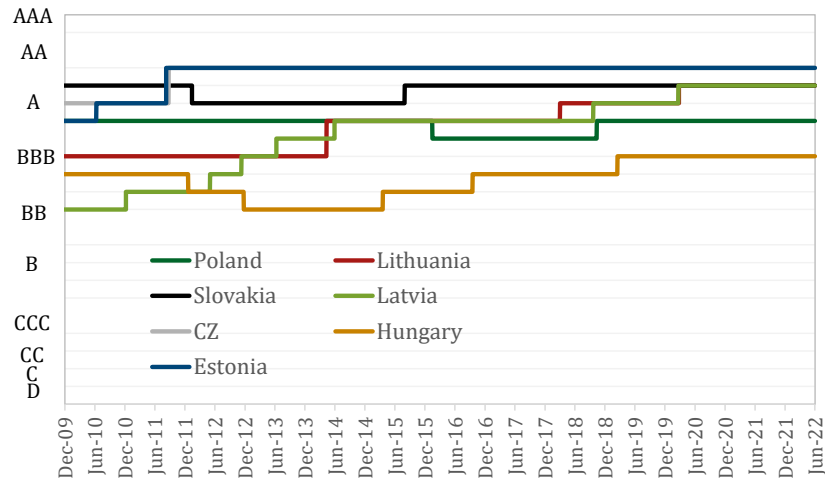
Source: Thomson Reuters Eikon, European Commission. All outstanding social bond volumes in Chart 3.9 are issued by the European Commission.

Credit Quality

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

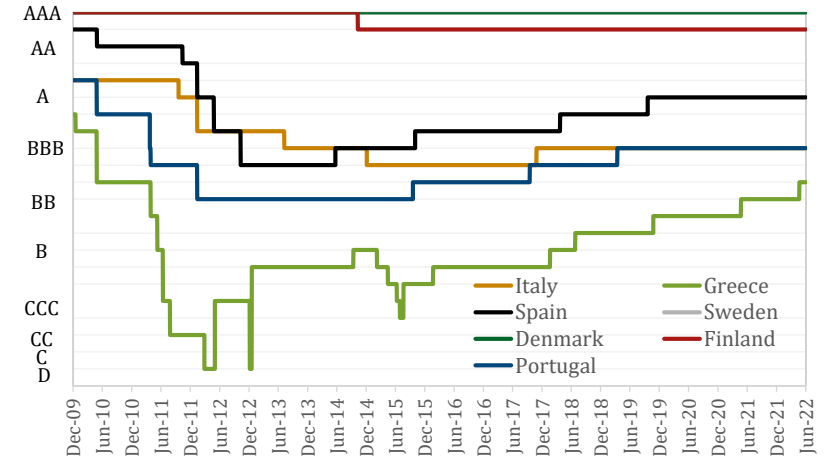


4.3 Long-term sovereign credit rating (Visegrad 4 and Baltic states)

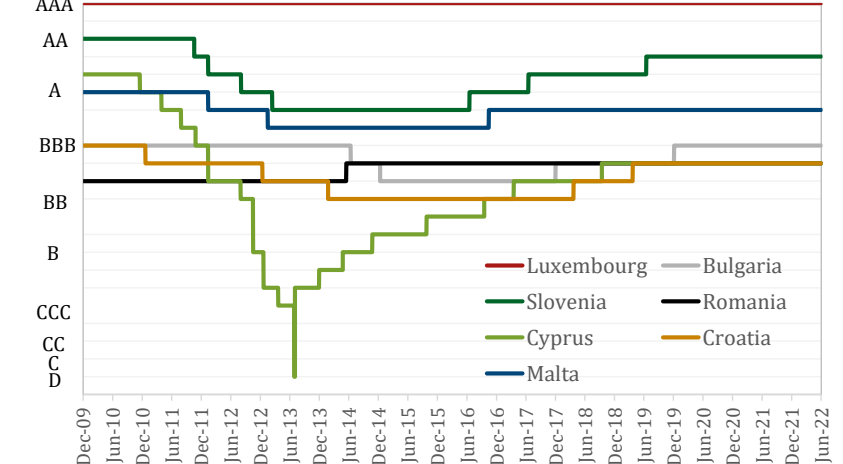


Source: Thomson Reuters Eikon

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



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



4.5 European rating actions on long-term sovereign credit ratings (2022 YtD)

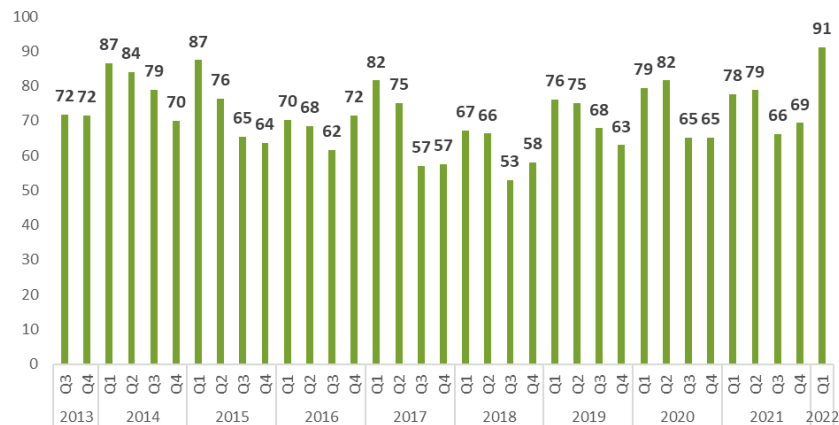
Ireland	Upgrade to AA- (stable) from A+	Jan-22	Fitch	Expected continued improved in Ireland's fiscal metrics, supported by strong revenue performance, driven by an expansion of the tax base, leading to a strong upward revision of Ireland's revenue forecast.	1Q22
Greece	Upgrade to BB+ (stable) from BB	Apr-22	S&P	Expected continuous improvement in Greece's policy effectiveness and presence of fiscal buffers that will allow the country to absorb the indirect impact of the war in Ukraine on its economy and public finances.	
Ireland	Upgrade to A1 (positive) from A2	May-22	Moody's	Increased economic resilience of Ireland: strong GDP growth, track record of growth and growth potential and a decline in Ireland's government debt.	2Q22

Source: Fitch, Moody's, S&P

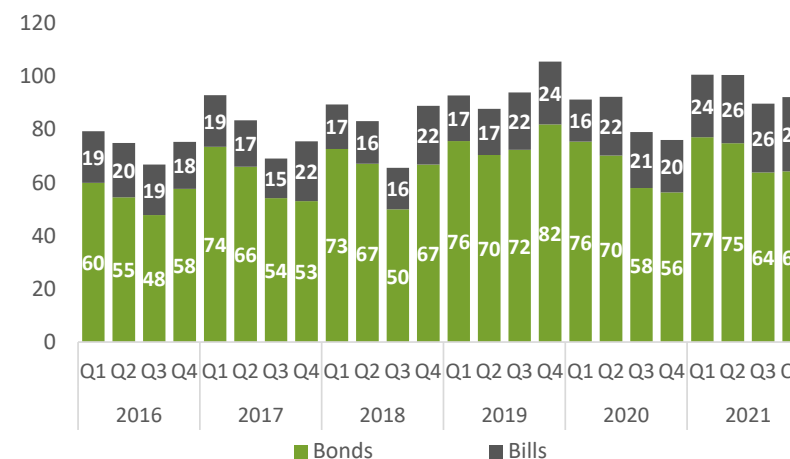
Secondary Market Trading Volumes and Turnover Ratios

Secondary Market Trading Volumes and Turnover Ratios

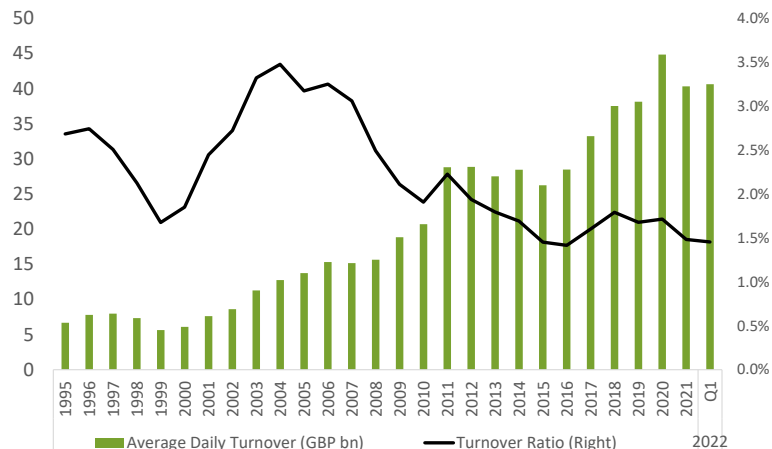
5.1 EU + UK: Average daily trading volumes (Government and sovereign bonds, EURbn)



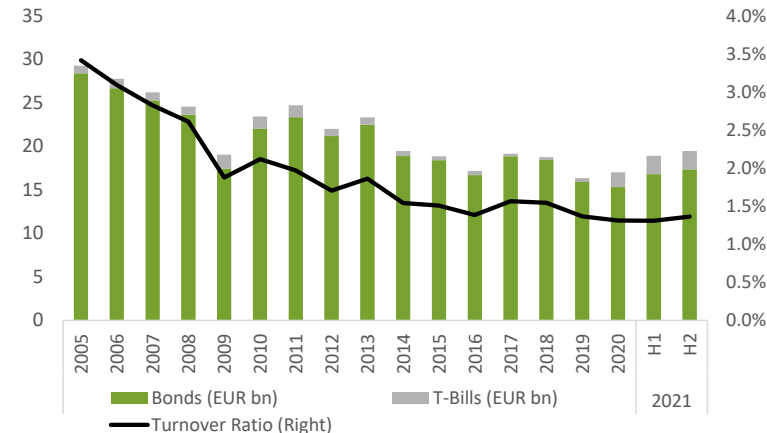
5.2 Eurozone: Average daily trading volume (bonds and bills, EURbn)



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



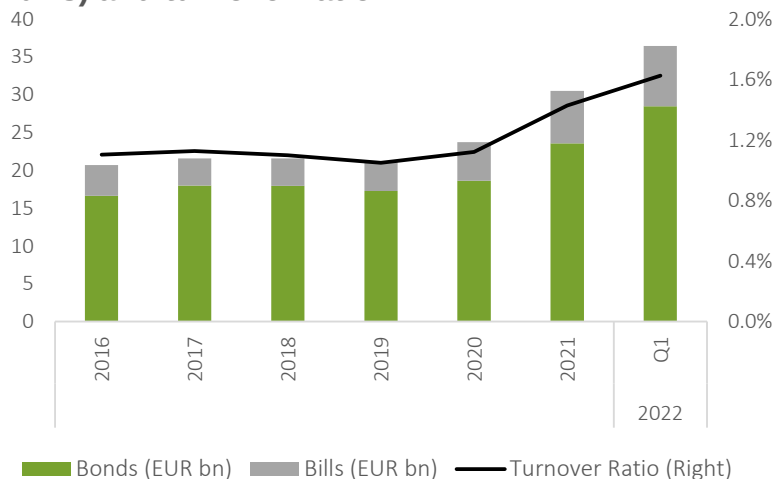
5.4 Germany: Average daily trading volume (aggregated bonds and bills) and turnover ratio



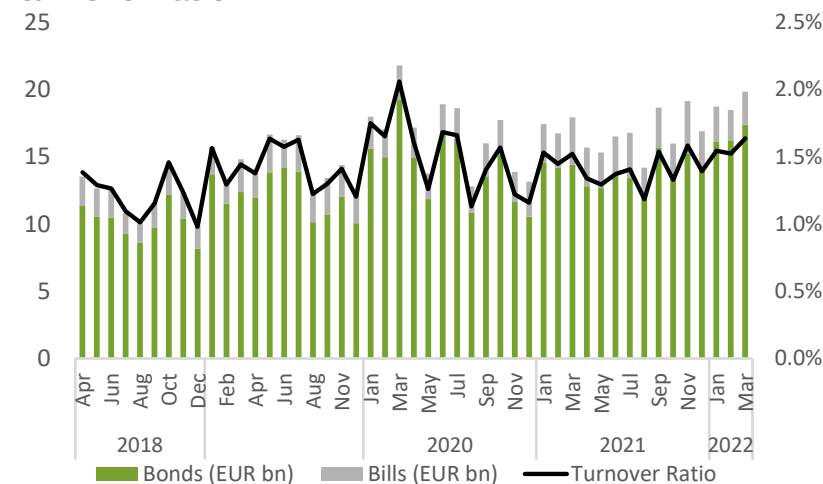
Source: Trax, a MarketAxess subsidiary, EFC Sub-Committee on EDSM, UK Debt Management Office, Deutsche Finanzagentur, ECB. Individual country volumes do not sum to aggregated trading volume in Chart 5.1 EU+UK, given the differences in the aggregation basis across jurisdictions. The data is not fully comparable between countries. Full Methodology available on page 34 of this report.

Secondary Market Trading Volumes and Turnover Ratios

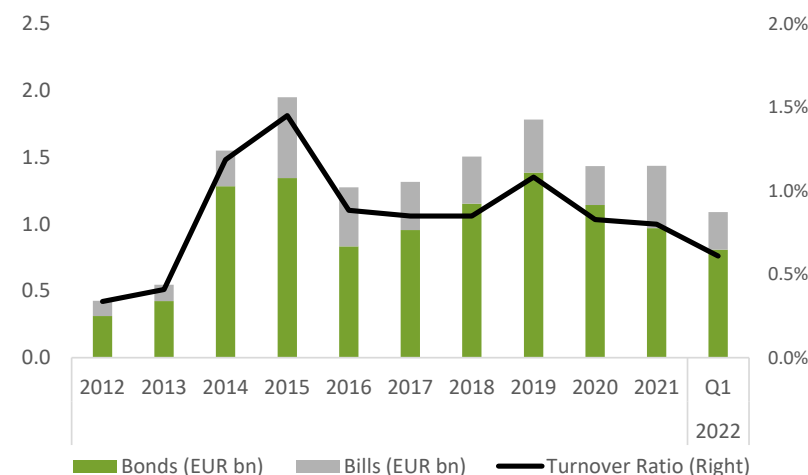
5.5 Italy: Average daily trading volume (bonds and bills) and turnover ratio



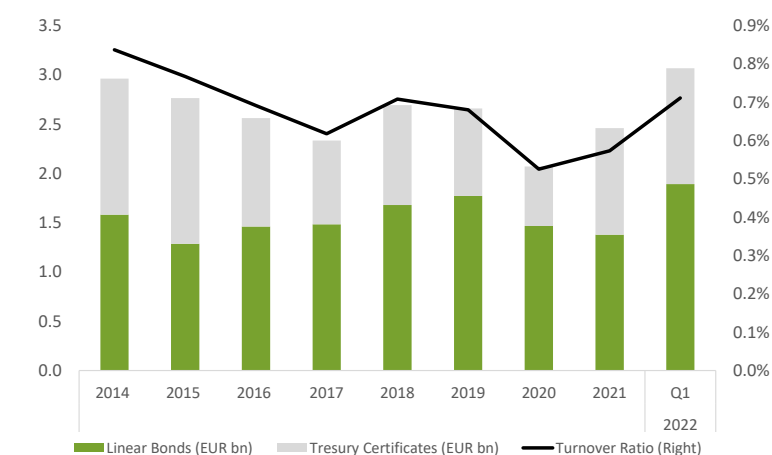
5.6 Spain: Average daily trading volume and turnover ratio



5.7 Portugal: Average daily trading volume and turnover ratio



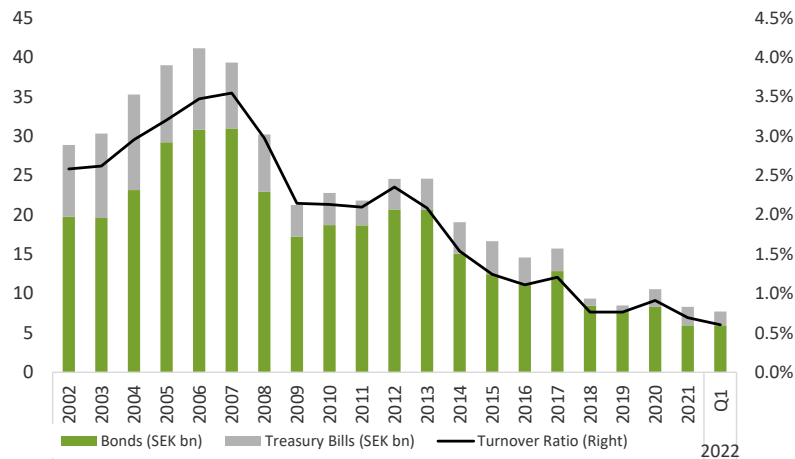
5.8 Belgium: Average daily trading volume and turnover ratio



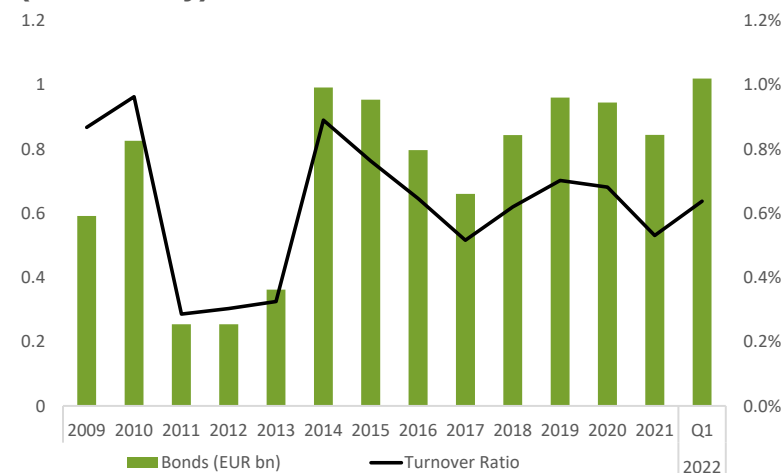
Source: ECB, Italian Dipartimento del Tesoro, BME Market Data and Tesoro Publico de Espana, Agência de Gestão da Tesouraria e da Dívida Pública (IGCP), ECB, Belgian Debt Agency. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 34 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

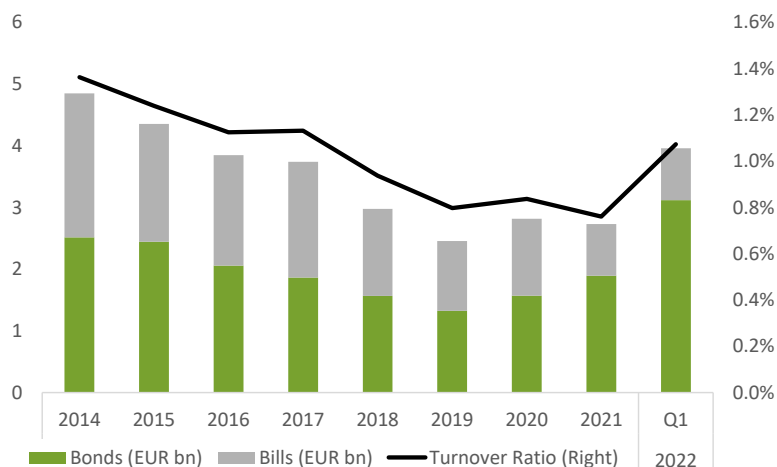
5.9 Sweden: Average daily trading volume and turnover ratio



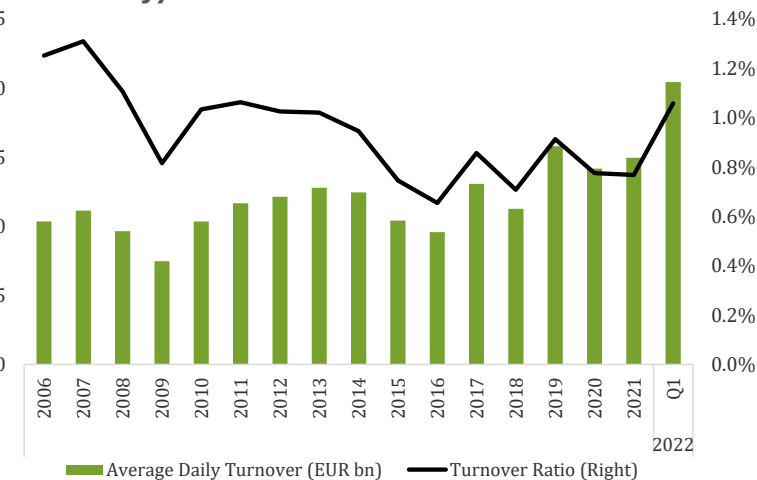
5.10 Ireland: Average daily trading volume (bonds only) and turnover ratio



5.11 Netherlands: Average daily trading volume and turnover ratio



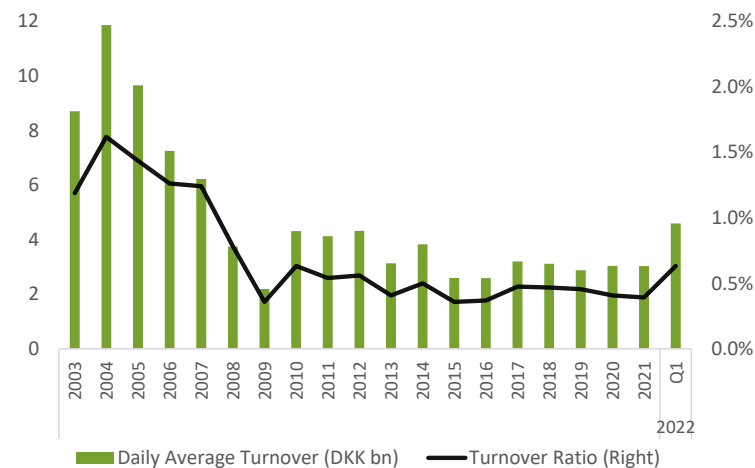
5.12 France: Average daily trading volume (bonds only) and turnover ratio



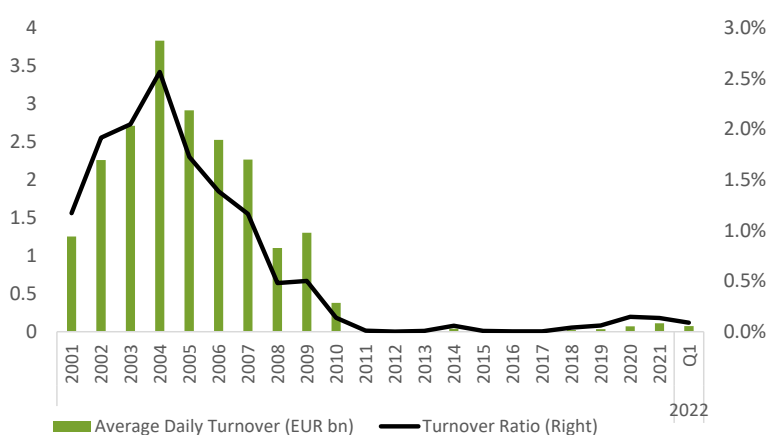
Source: ECB, Swedish National Debt Office (Riksgalden), Irish Stock Exchange, Ministerie van Financien, Agence France Tresor. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 34 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

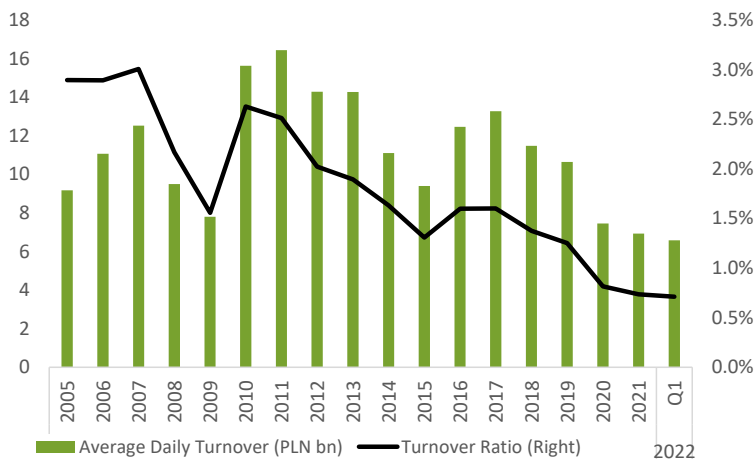
5.13 Denmark: Average daily trading volume (bonds and bills) and turnover ratio



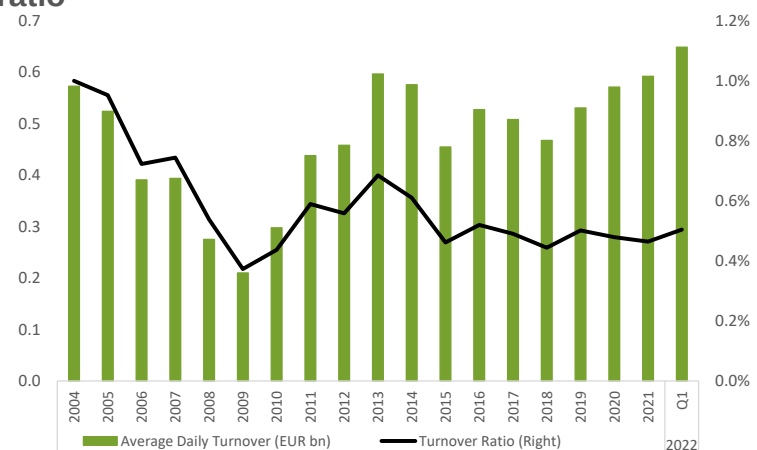
5.14 Greece: Average daily trading volume (bonds only) and turnover ratio



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



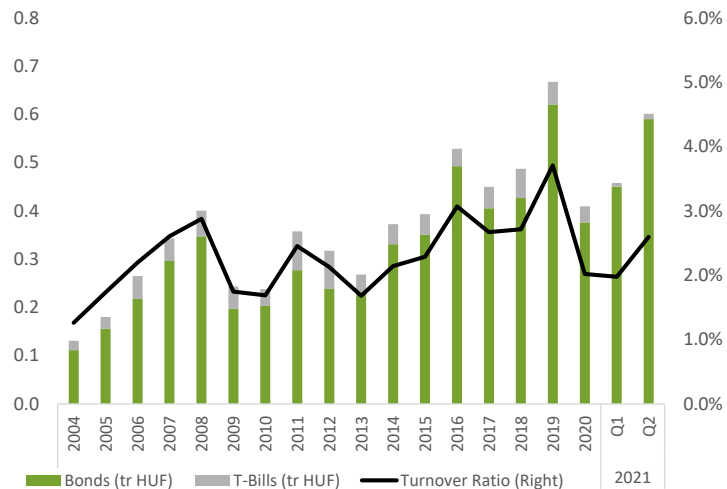
5.16 Finland: Average daily trading volume (aggregated bonds and bills) and turnover ratio



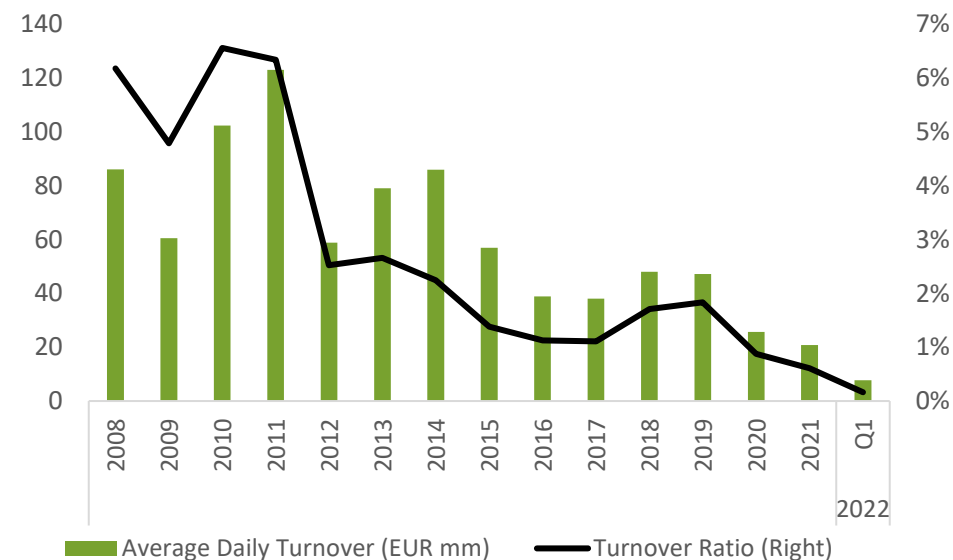
Source: Denmark's Nationalbank, Bank of Greece, ECB, National Depository for Securities (KDPW), WSE, Finland Valtiokonttori. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 34 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

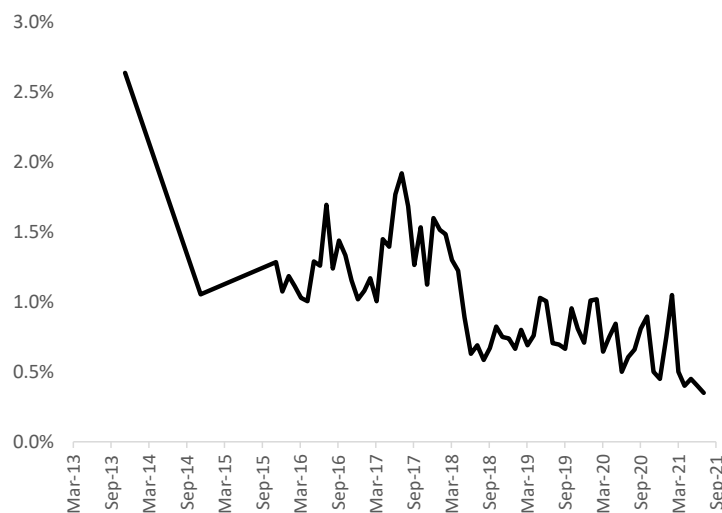
5.17 Hungary: Average daily trading volume and turnover ratio



5.18 Bulgaria: Average daily turnover volume and turnover ratio



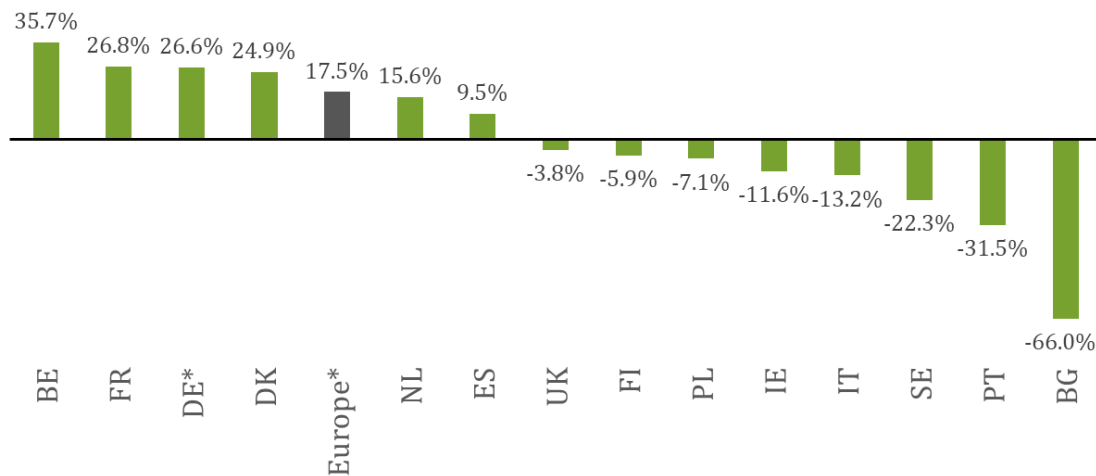
5.19 Romania: Average daily turnover ratio



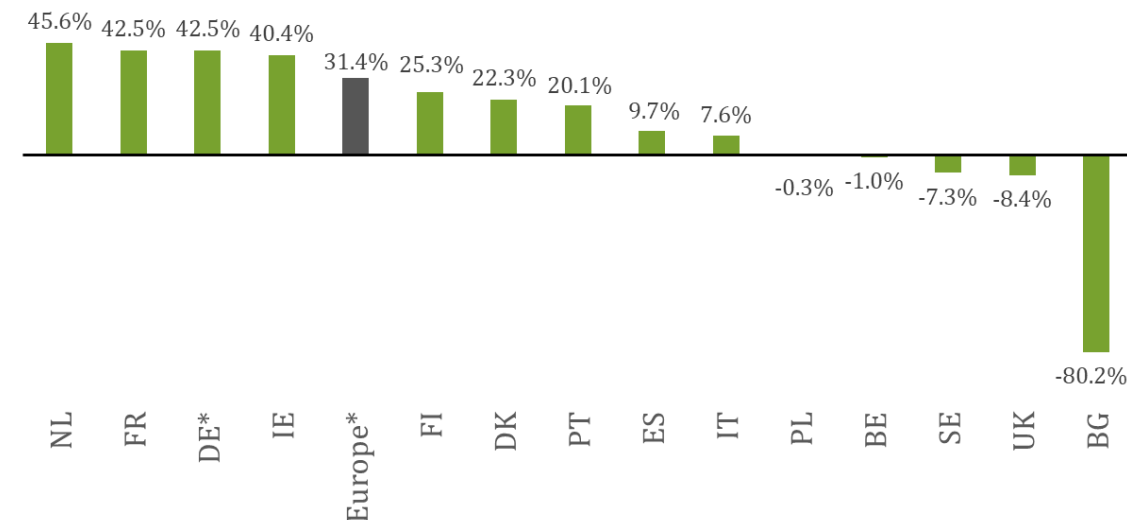
Source: ECB, AKK, Ministry of Finance of the Republic of Bulgaria, Ministerul Finantelor. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 34 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

5.20 Annual change in average daily turnover volumes of European government bonds: 1Q21 to 1Q22



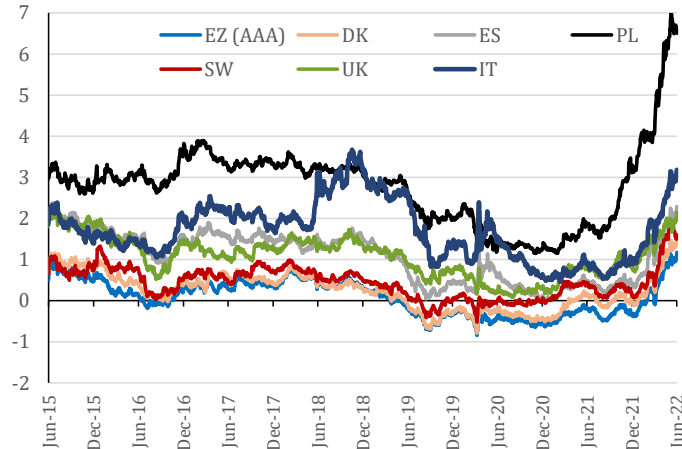
5.21 Quarterly change in average daily turnover volumes of European government bonds: 4Q21 to 1Q22



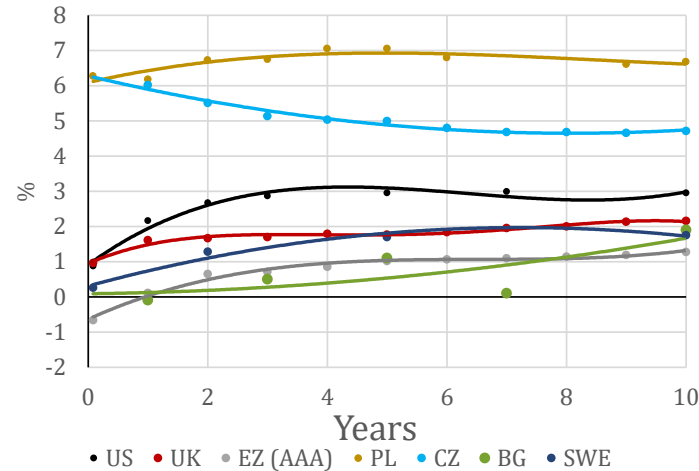
Source: AFME with information from European DMOs and other agency sources. See section 5 for details on aggregation basis and sources. *Europe (EU+UK) total and Germany is sourced from Trax Facts as the quarterly variation of average daily volumes of government and sovereign bonds.

Valuations

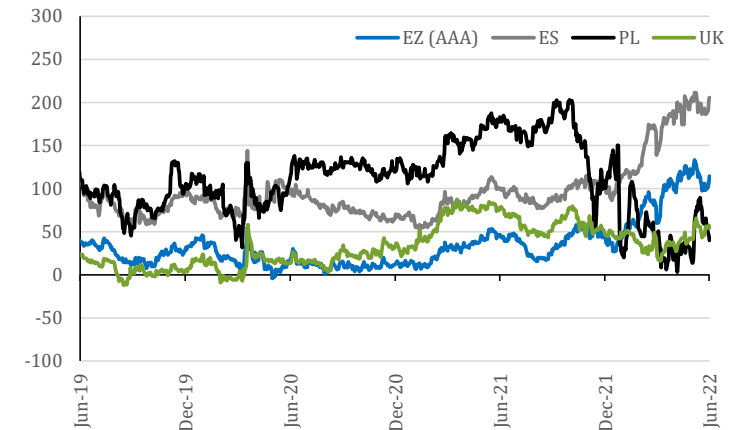
6.1 Selected European 10Y spot yields



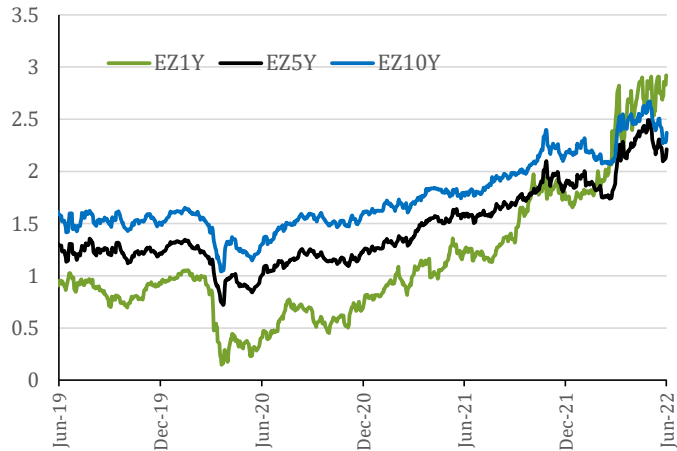
6.2 Sovereign spot yield curve of selected jurisdictions: 1 June 2022



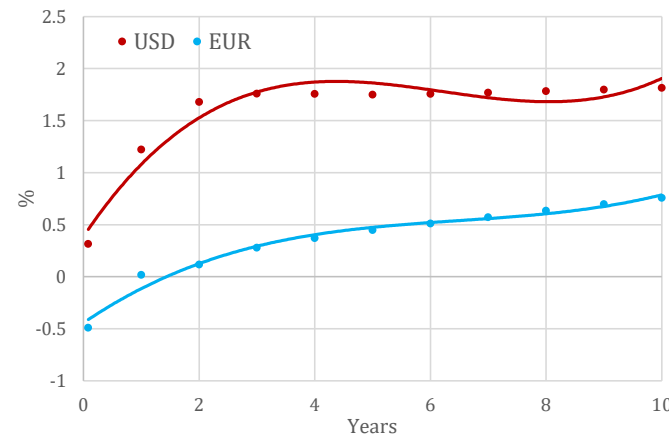
6.3 Slope: 1Y10Y spread (bps)



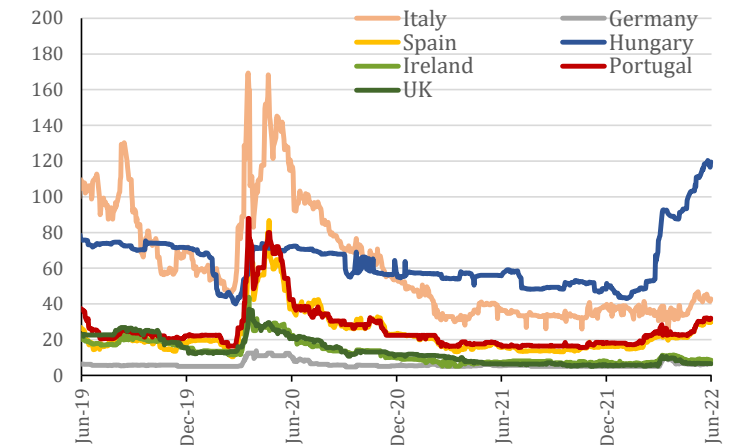
6.4 Market-implied inflation expectations (EuroZone)



6.5 Overnight index swap (OIS) yield curve: 1 June 2022



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



Source: ECB and Thomson Reuters 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 include s 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 Españoles. 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 Hungary: Turnover on MTS Hungary and Keler OTC.

5.18 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 per month.

5.19 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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