

2Q 2021

Government Bond Data Report

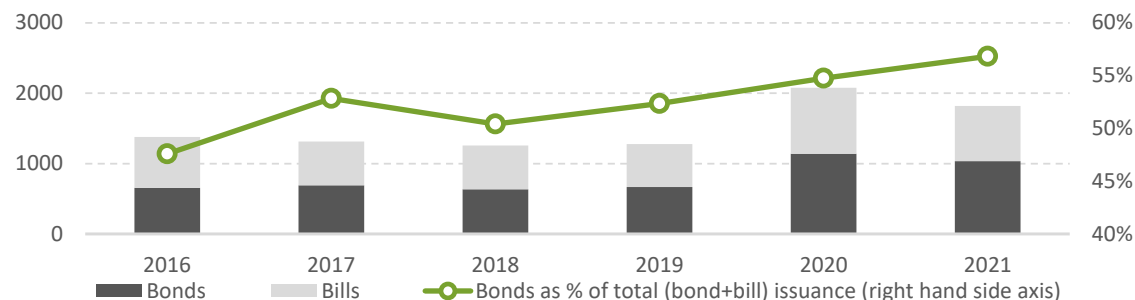
European market data update



Highlights and Market Environment	3
Regulatory update	6
Issuance	7
Recent Auctions and Primary Dealers	10
Outstanding	16
Credit Quality	21
Secondary Market Trading Volumes and Turnover Ratios	24
Valuations	31

Highlights and Market Environment

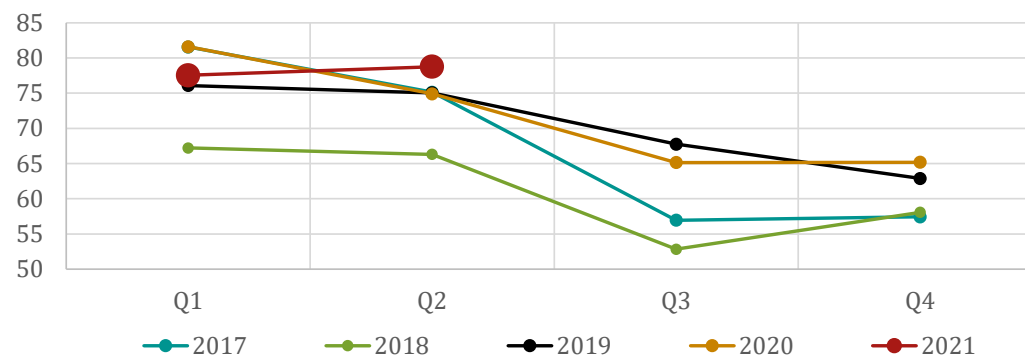
1. H1 European (EU+UK) bond and bill issuance and bonds as a % of total (bond+bill) issuance (EUR bn, 2016-2021)



2. European outstanding ESG sovereign bonds by issuer (H1, % of total)



3. Seasonality of European government bond trading (quarterly trading volumes, average daily, EUR bn)



Source: ECB, National Debt Management Offices and UK Debt Management Office [chart 1]. Thomson Reuters Eikon and European Commission [chart 2]. Trax, a MarketAxess subsidiary [chart 3]

Government bond supply continues above pre-pandemic levels

European governments accumulated EUR 893 bn in bonds and bills issuance during Q2 2021 as funding demands of European governments remain high. Issuance volumes fell 3.7% QoQ, compared to Q1 2021, but remain high by historical standards. Total European bond and bill issuance in H1 2021 of EUR 1820 bn represents the second-highest half-year issuance volume on record and is only outsized by the EUR 2078 bn issued during H1 2020 (see chart 1).

Finalisation of European Commission SURE scheme increases European government ESG outstanding bond volume to EUR 195.0 bn

During Q2 2021, the European Commission issued an additional EUR 27.5 bn in social bonds, bringing the total amount outstanding under the SURE scheme to EUR 90 bn, which are entirely labelled as “social”. This means the European Commission now accounts for 45% of outstanding ESG sovereign bond volumes in Europe (see chart.2). Outstanding amounts of green government bonds increased EUR 9.3 bn during 2Q21, driven by a EUR 6 bn green bund issued by Germany and additional green bond volumes issued by France and Belgium.

The European Commission also commenced the NGEU scheme with the issuance of EUR 35 bn in Q2 2021 alone. Although the bonds issued during the quarter were not ESG, the European Commission is expected to issue EUR 250 bn in green bonds over the next quarters as part of the NGEU programme. The four NGEU bond auctions which have taken place in June-September 2021 have attracted strong investor interest, experiencing oversubscription rates of between seven and thirteen.

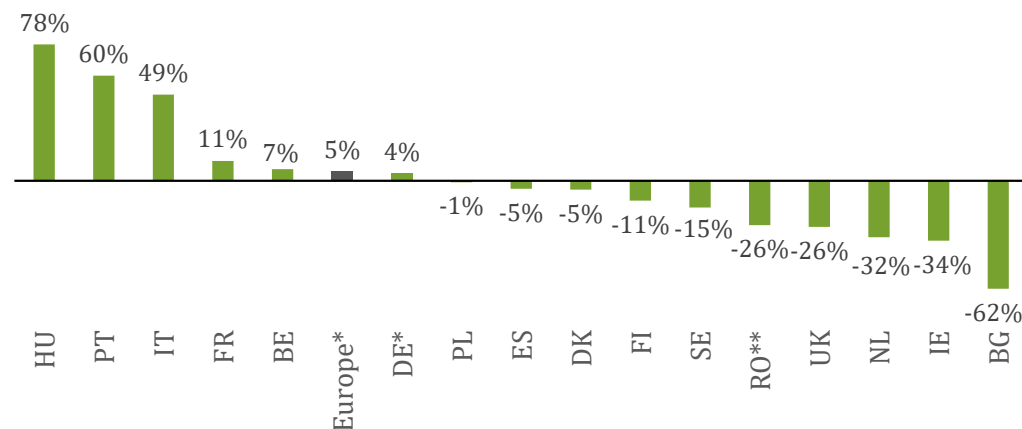
Although not covered in detail in this report, in September 2021 the UK issued its GBP 10bn inaugural green Gilt which received record demand and was 10 times over-subscribed. Over GBP 100 bn of orders were received, the highest ever for a UK government bond sale.

Highest second-quarter European government bond trading since 2014

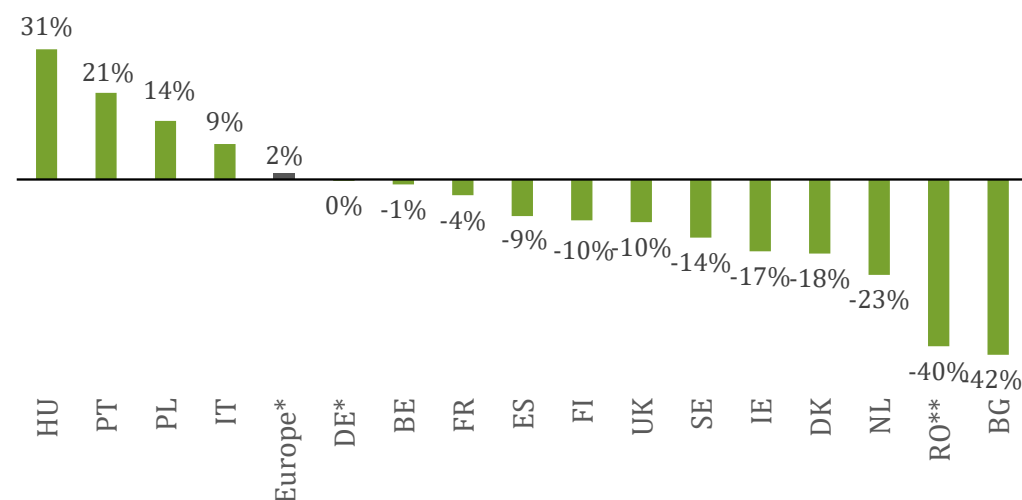
Surge in trading activity during Q2 2021 meant volumes increased 1.6% QoQ, representing a break in the seasonality of European government bond trading and the first-time volumes have risen during the second quarter of the year (see chart.3).

Highlights and Market Environment

4. Annual changes in Government Bond average daily trading volumes (2Q21 vs 2Q20) Selected European jurisdictions



5. Quarterly change in Government Bond average daily trading volumes (2Q21 vs 1Q21) Selected European jurisdictions

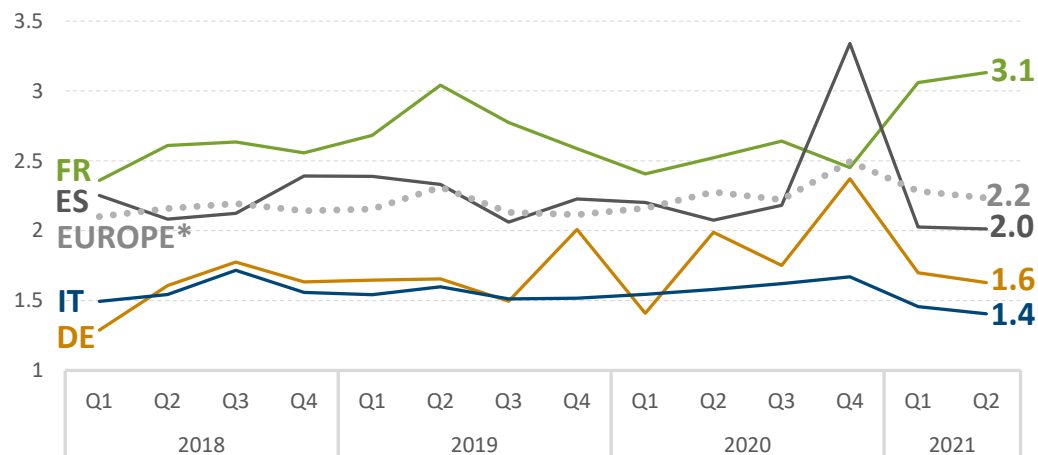


Source: AFME with information from European DMOs and other agency sources and Trax, a MarketAxess subsidiary. *Europe (EU+UK) total and German turnover is sourced from Trax Facts as the quarterly variation of average daily volumes of government and sovereign bonds. **Romanian turnover volume calculated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

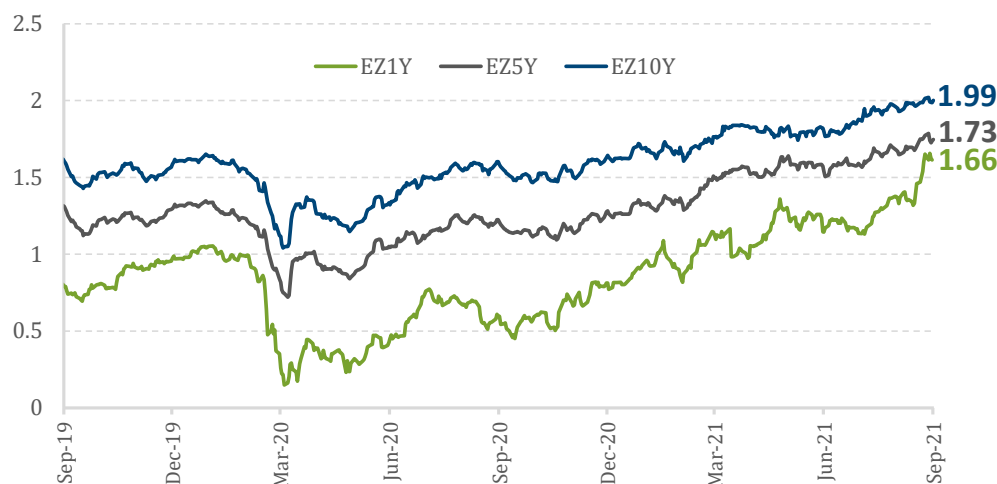
European government bond trading increased 5.1% YoY and increased 1.6% QoQ in 2Q21

Average daily trading volumes of European government bonds increased by 5.1% YoY during 2Q21, driven by a significant increase in trading in Hungary (78.1% YoY), Portugal (60.1% YoY), Italy (49.3% YoY), France (11.3% YoY) and Belgium (6.6% YoY). There was a decrease in trading in Bulgaria (-61.9% YoY), Ireland (-34.4% YoY), the Netherlands (-32.3% YoY) and the UK (-26.4% YoY) (see charts 4 and 5).

6. Average bid-cover ratio: France, Spain, Europe*, Italy and Germany



7. Eurozone 1Y, 5Y and 10Y market-implied inflation expectations



Source: Thomson Reuters Eikon. *Europe is a weighted Average of UK, DE, FR, ES, IT, BE, SE, NL, DK and AT bonds and bills.

Increased volatility in average bid-cover ratios as record-levels of demand observed in European government debt auctions

The average bid-cover ratio of French auctions reached 3.1 during Q2 2021, the highest level in AFME records, which date back to Q1 2010. This follows record-highs observed for Germany and Spain in Q4 2020, with average bid-cover ratios of 2.4 and 3.3 during that period, respectively (see chart.6). The average bid-cover ratio in Italy, however, decreased to 1.4, which is the lowest level in AFME records.

We have observed in recent quarters variations in bid-cover ratios that mirror variations in average auction size within jurisdictions (see chart 2.1 in the report for further insight). We will continue to track this trend carefully.

Eurozone inflation expectations rise on the back of higher energy prices and general economic recovery

Eurozone 1Y market-implied inflation expectations reached 1.7 during September 2021, representing the highest level since 2013 (see chart.7).

During 2Q21 there was 1 upgrade and no downgrades in long-term credit ratings for European countries

This follows 1 upgrade and no downgrades in 1Q21, bringing the year-to-date total to 4 upgrades and no downgrades (there were 2 further upgrades in 3Q21 to date).

Major upcoming regulatory, legislative and policy initiatives

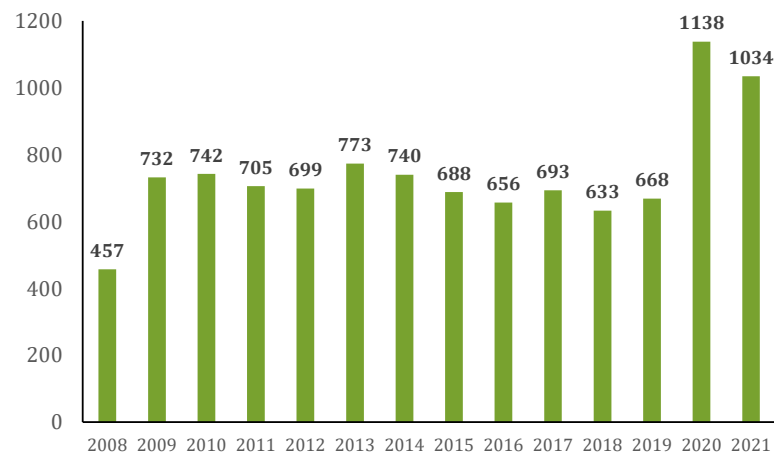
There are several regulatory initiatives currently being considered at the European and national level with expected impact on the government bond markets. Some of the key initiatives recently implemented or soon to be applied include:

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

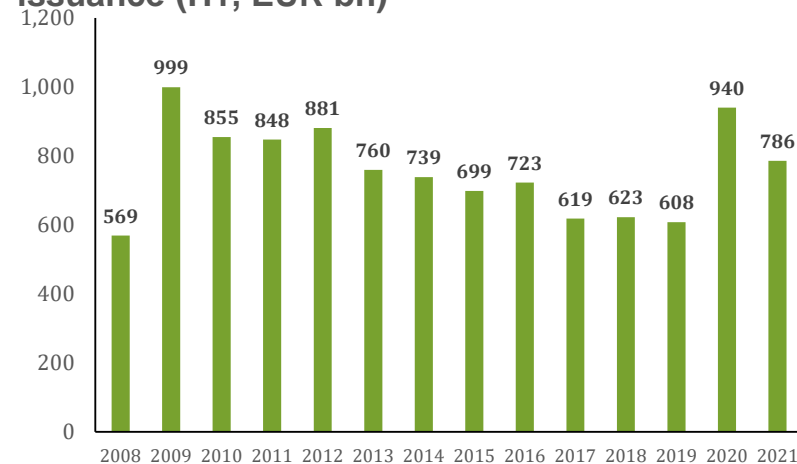
AFME and its members actively contribute on all of these and other initiatives.

Issuance

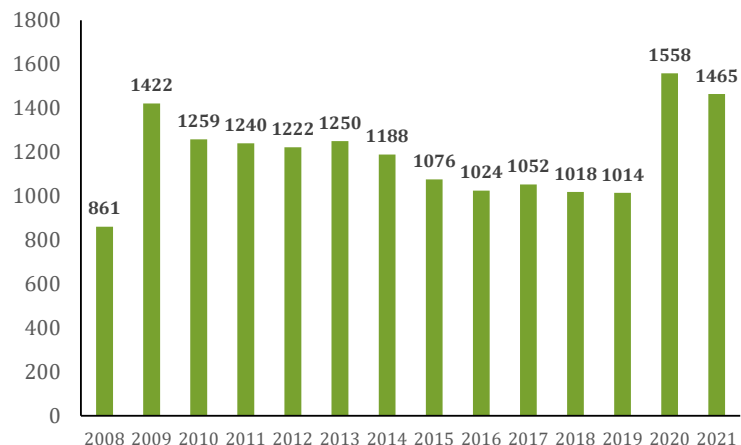
1.1 European (EU+UK) Government Bond gross issuance year-to-date (H1, EUR bn)



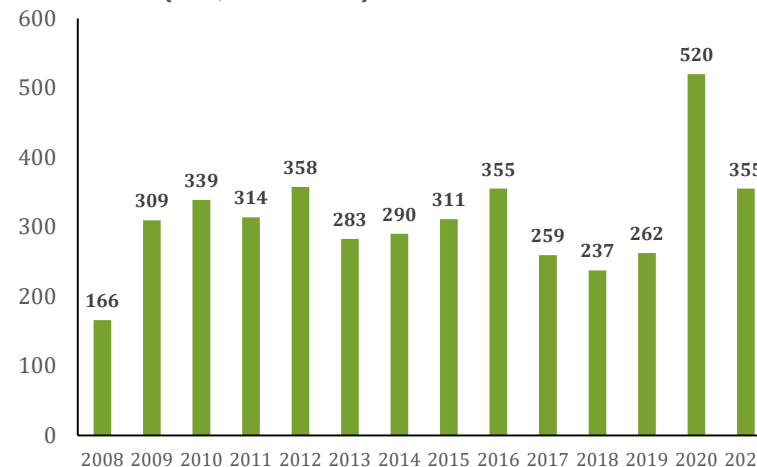
1.2 European (EU+UK) Treasury Bills gross issuance (H1, EUR bn)



1.3 Eurozone bonds and bills gross issuance year-to-date (H1, EUR bn)

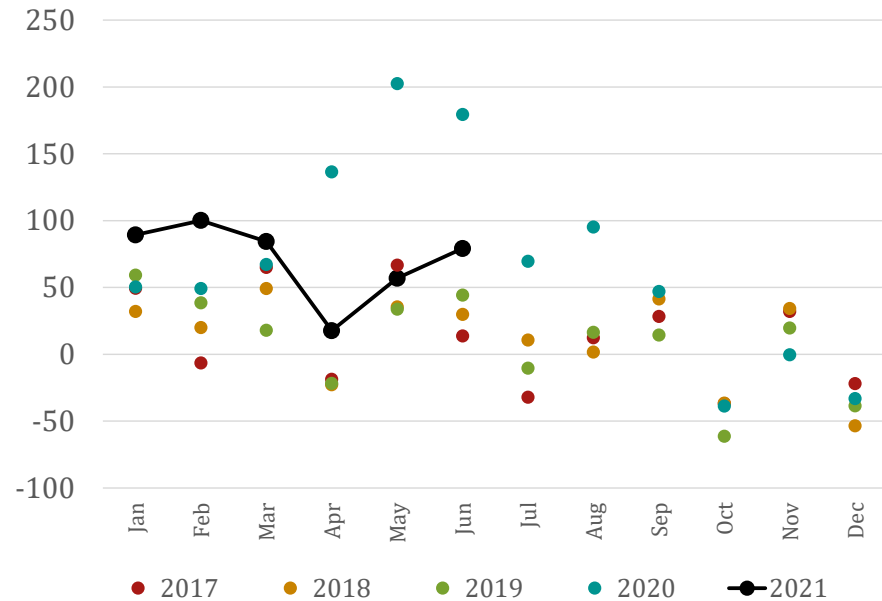


1.4 Non-Eurozone bonds and bills gross issuance (H1, EUR bn)

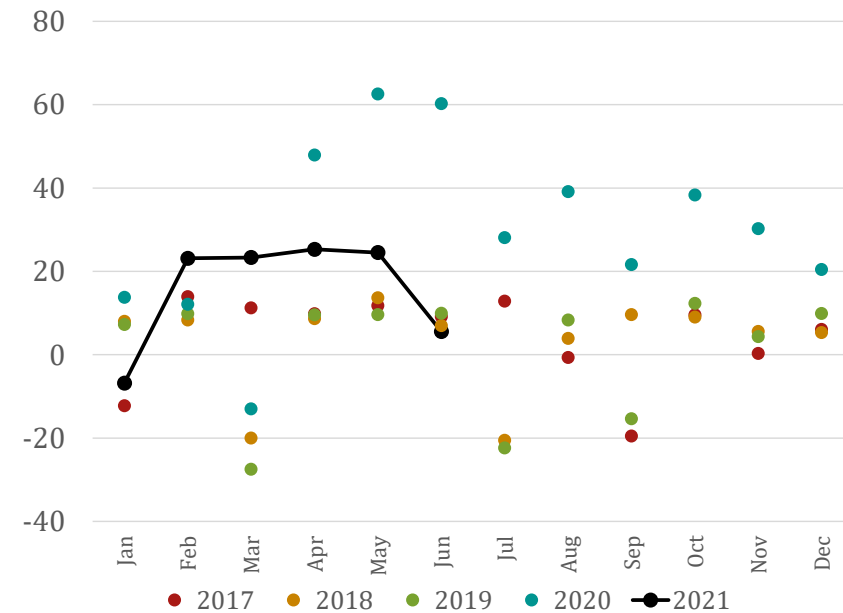


Source: ECB, National Debt Management Offices and UK Debt Management Office.

1.5 Euro area net sovereign debt issuance (EUR bn)



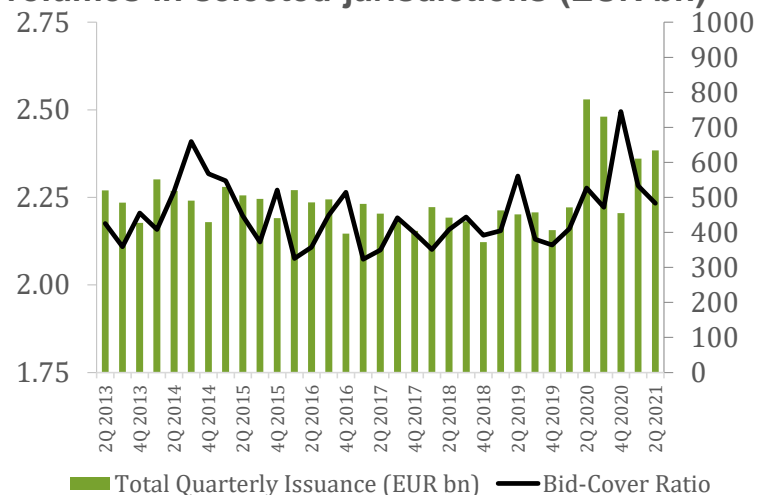
1.6 UK Gilts net issuance (GBP bn)



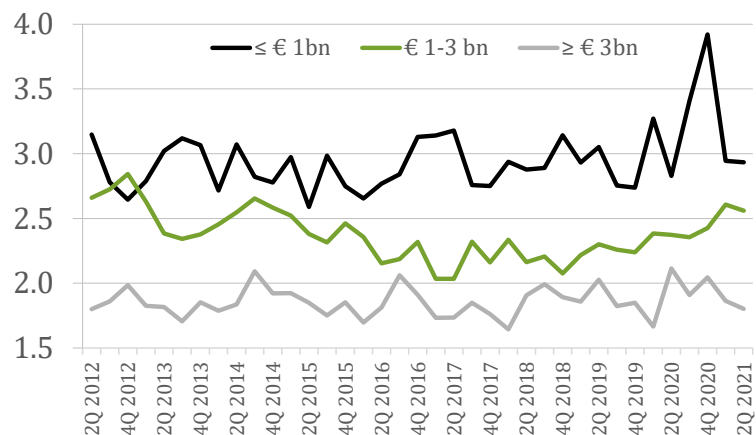
Source: ECB and UK Debt Management Office

Recent Auctions and Primary Dealers

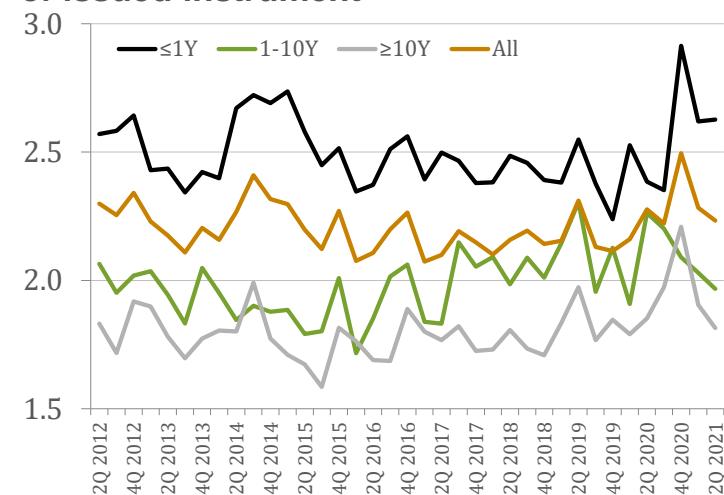
2.1 Average bid-cover ratios and issued volumes in selected jurisdictions (EUR bn)



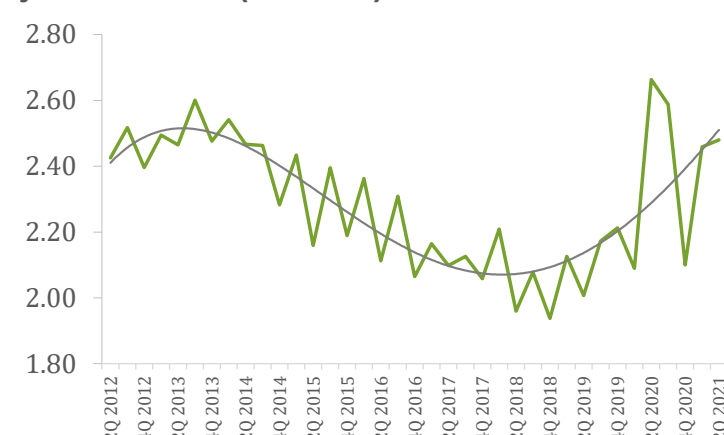
2.3 Average bid-cover ratios by size of issued instruments



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

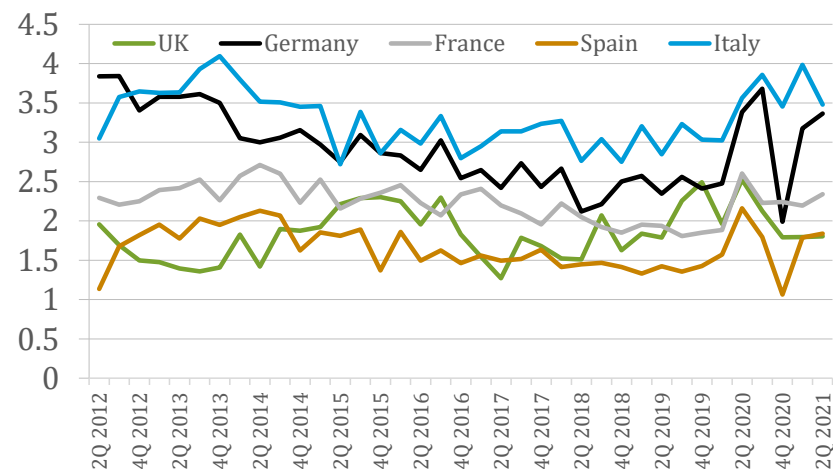


2.4 Average auction size in selected European jurisdictions (EUR bn)

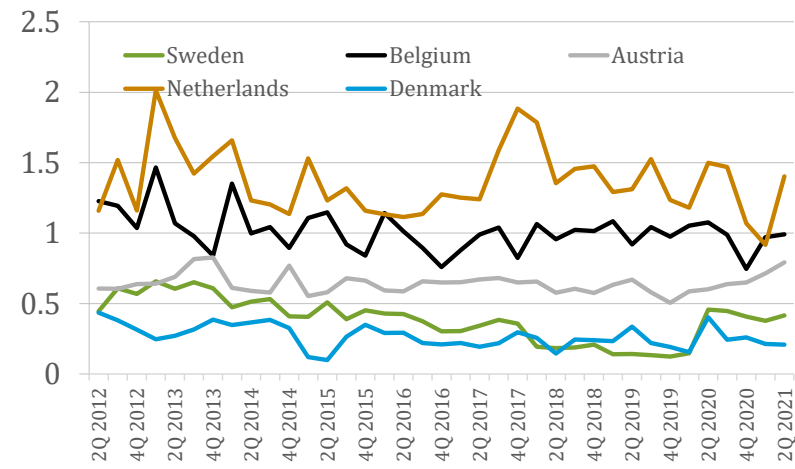


Source: Thomson Reuters Eikon. Weighted Average of UK, DE, FR, ES, IT, BE, SE, NL, DK and AT bonds and bills. In chart 2.4 polynomial trendline shown in grey.

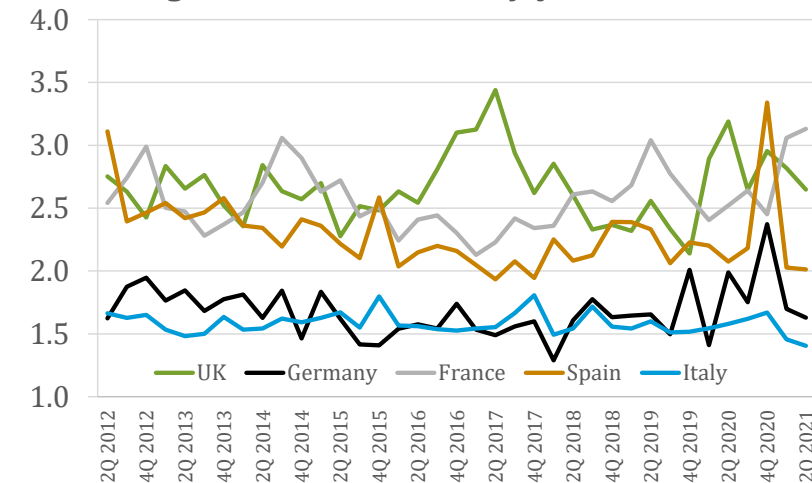
2.5 Average auction size in selected jurisdictions (EUR bn)



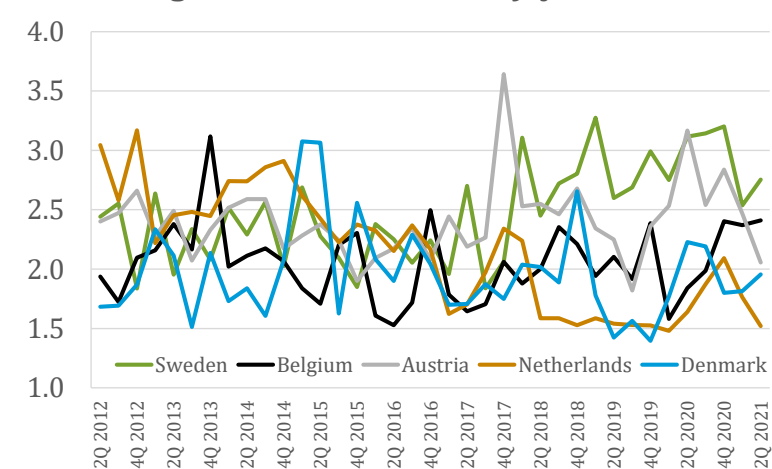
2.6 Average auction size in selected jurisdictions (EUR bn)



2.7 Average bid-cover ratios by jurisdictions

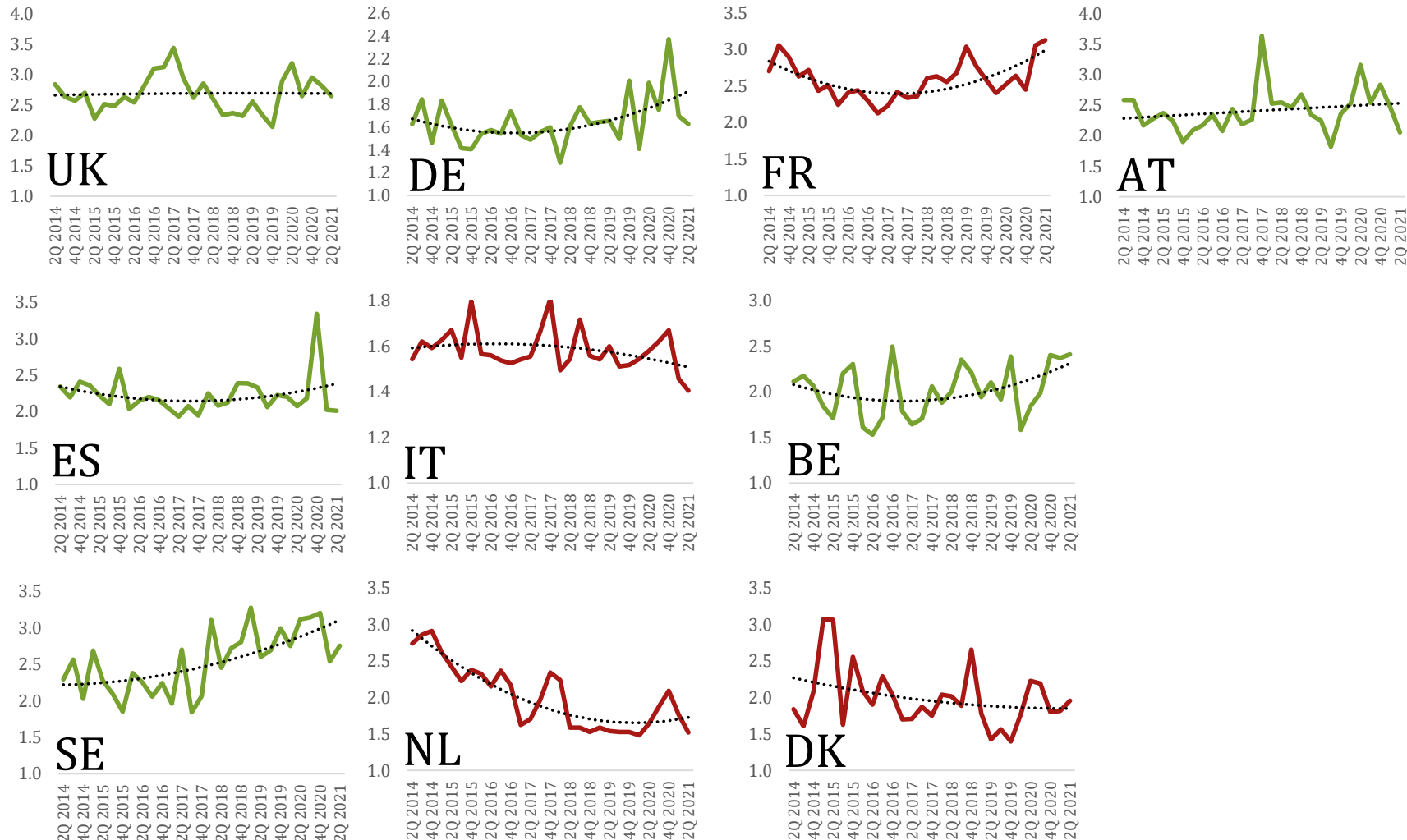


2.8 Average bid-cover ratios by jurisdictions



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

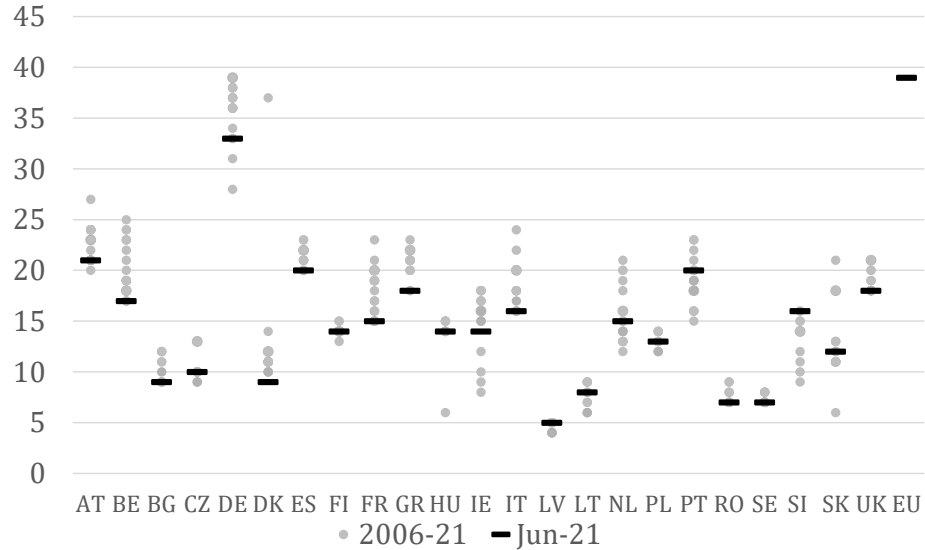
2.9 Average bid-cover ratios in selected jurisdictions: 2013-21



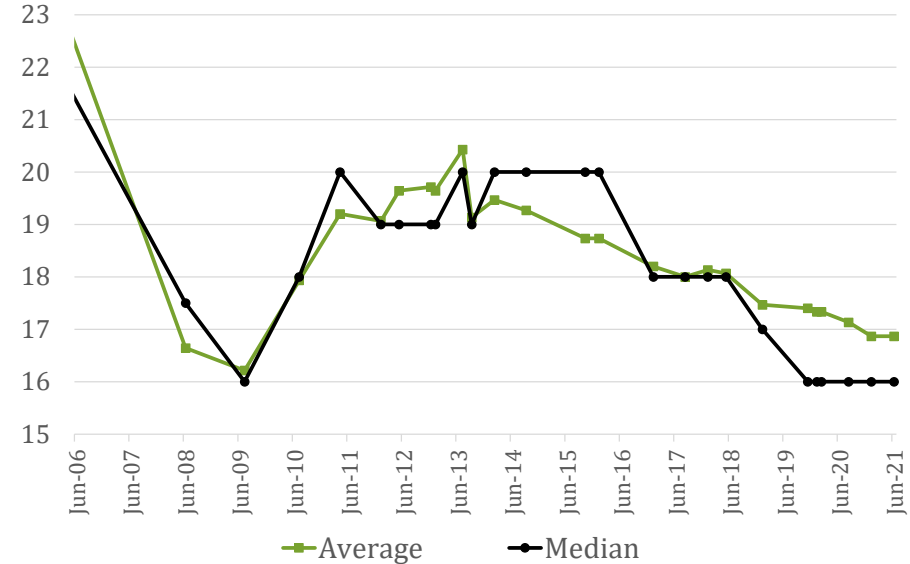
Source: Thomson Reuters Eikon. **Green** indicates end value of trendline above starting value, **red** indicates end value of trendline below starting value

Primary Dealers: European countries and EU

2.10 Number of primary dealers relative to historic number

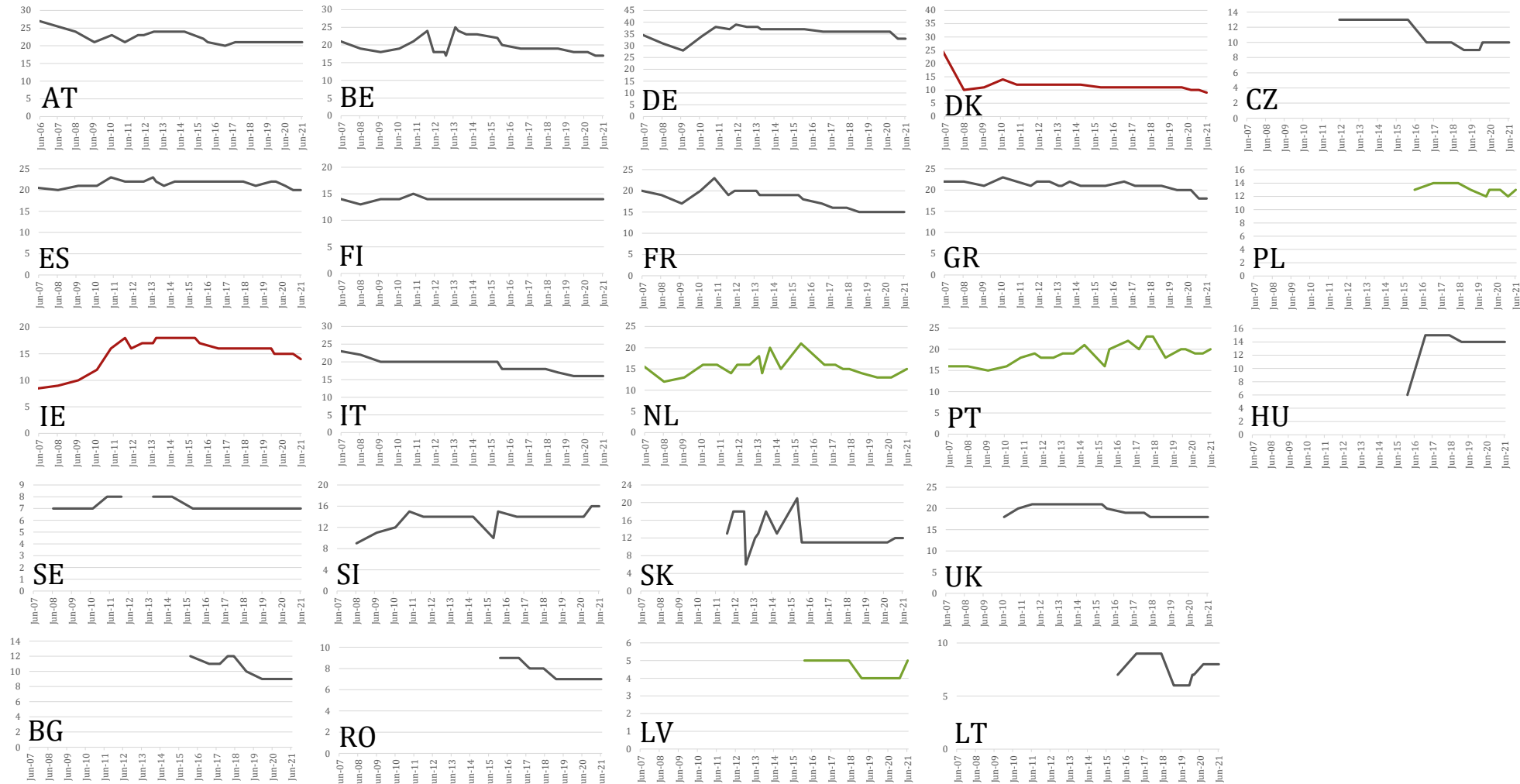


2.11 Average and median number of primary dealers in selected European countries



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 June 2021.

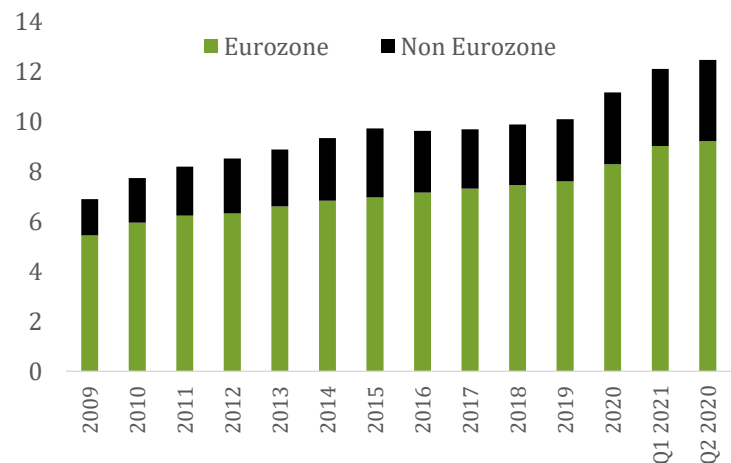
2.12 Number of primary dealers in Europe by country: 2006-21



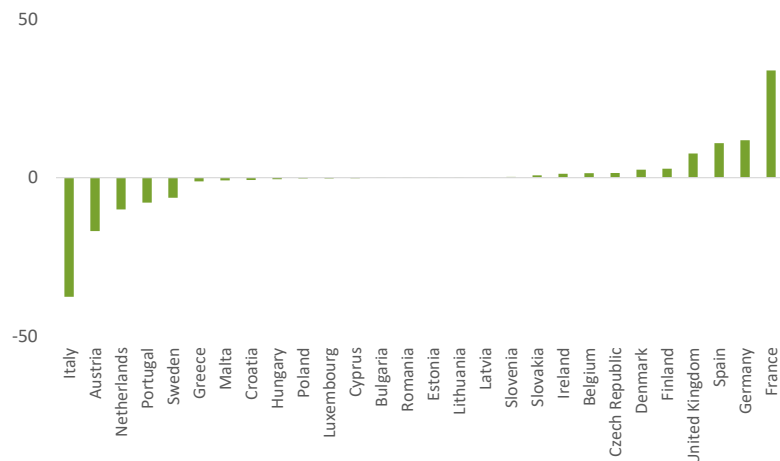
Source: AFME HRF Table and National DMOs. The gap in the line for Sweden indicates data was not recorded in the relevant period. **Chart colour indicates net change in PDs since January 2021.** **Green** indicates an increase: **red** indicates a decrease and **grey** indicates no change. Latest data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

Outstandings

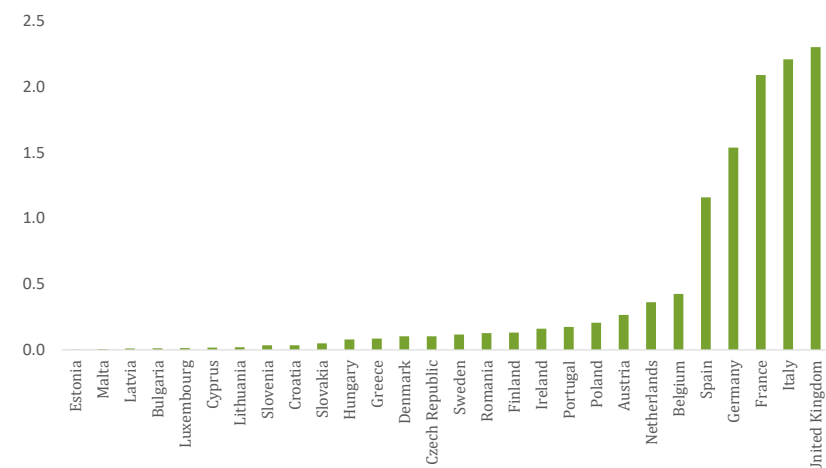
3.1 Outstanding debt securities issued by Central Governments (Nominal, EUR tn)



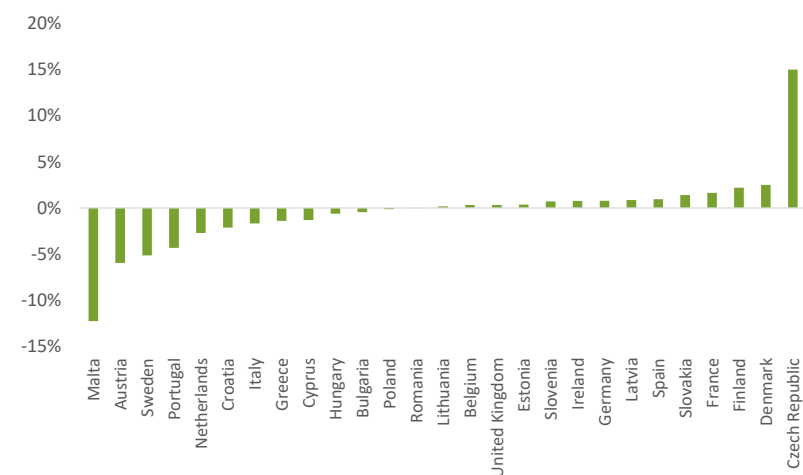
3.3 Change in outstandings 1Q21 to 2Q21 (EUR bn)



3.2 European government bonds outstanding by country (EUR tn)

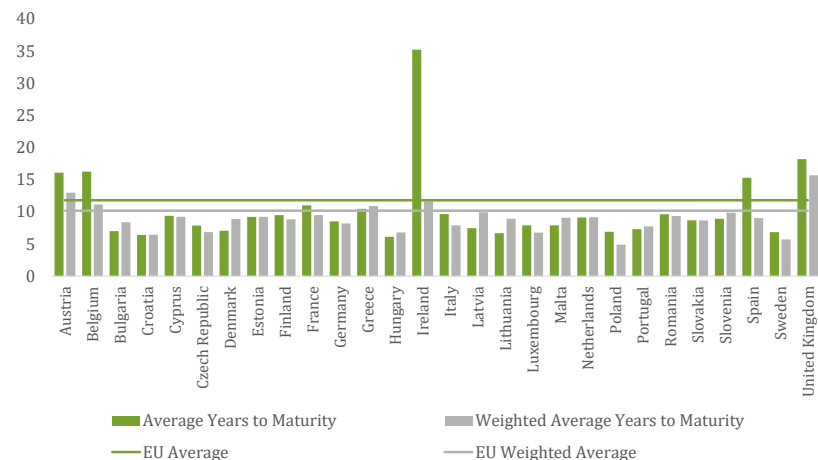


3.4 Change in outstandings from 1Q21 to 2Q21 (%)

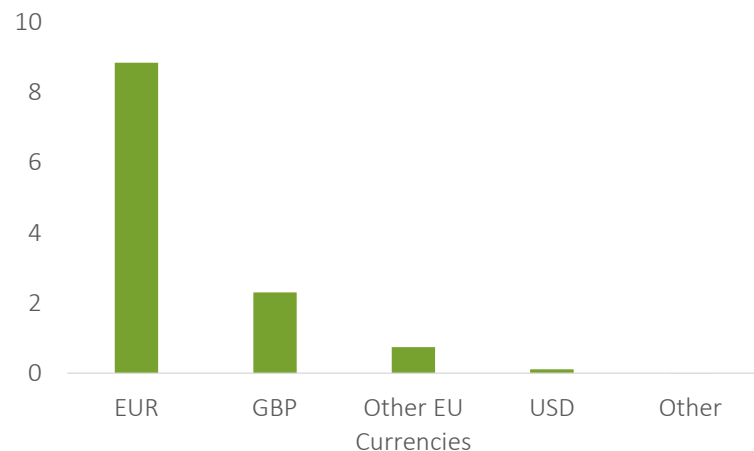


Source: ECB, Thomson Reuters Eikon and UK DMO.

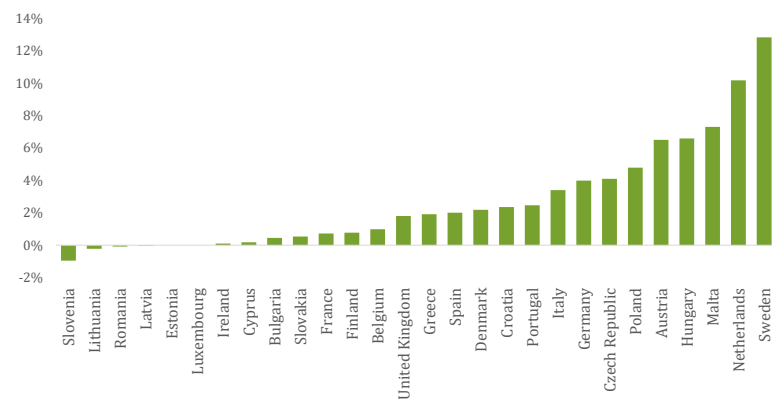
3.5 Average years to maturity for outstanding government bonds in European (EU+UK) countries



3.7 European government bonds outstanding by currency (EUR tn)



3.6 Quarterly change in weighted average years to maturity for outstanding government bonds 1Q21 to 2Q21



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

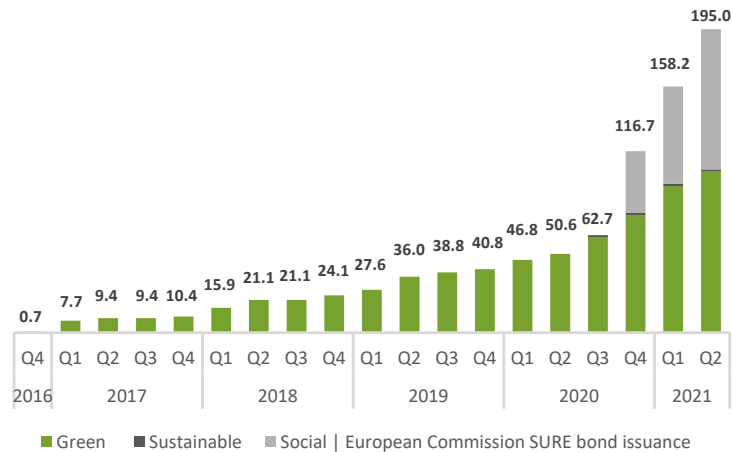
3.9 Outstanding debt securities issued by the European Commission (EUR bn)



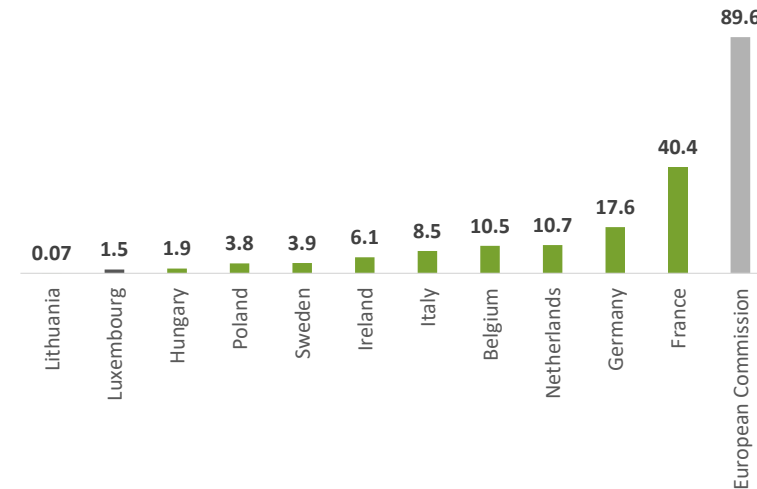
Source: European Commission. **NGEU** refers to bond issuance by the European Commission under the NextGenerationEU scheme.

Outstandings: ESG Bonds

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



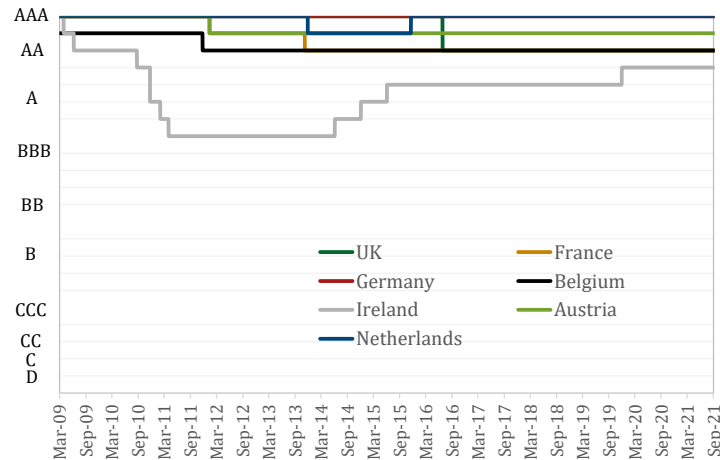
3.10 European outstanding ESG government bonds by country (EUR bn)



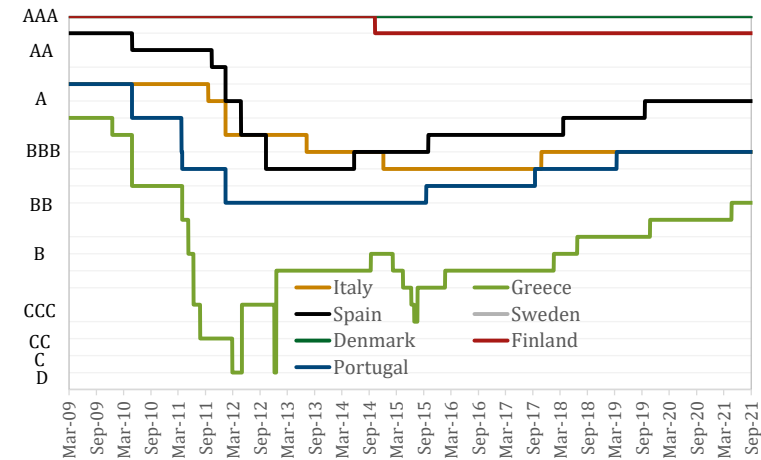
Source: Thomson Reuters Eikon, European Commission. All outstanding social bond volumes in Chart 3.9 are issued by the European Commission.

Credit Quality

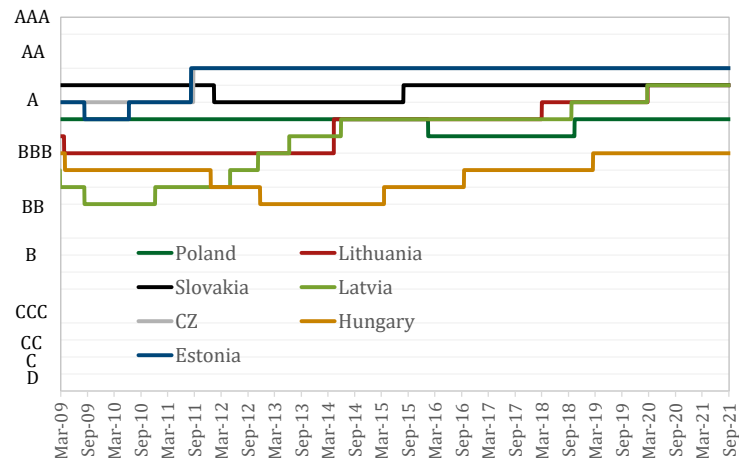
4.1 Long-term sovereign credit rating (Central and Northern Europe)



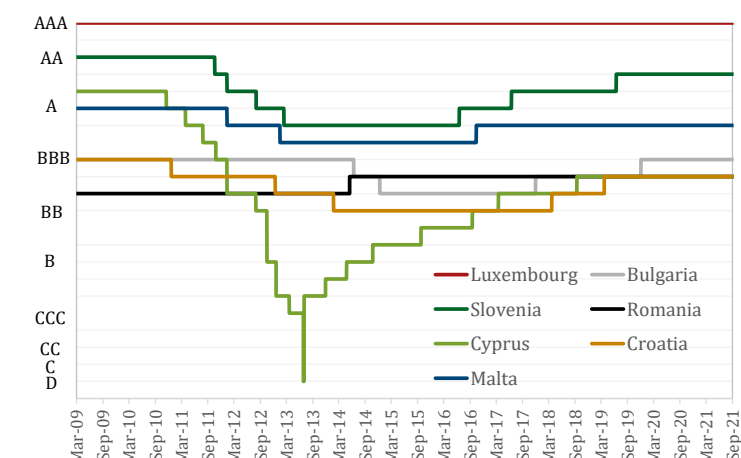
4.2 Long-term sovereign credit rating (Nordics and Southern Europe)



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



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



Source: Thomson Reuters Eikon

4.5 European rating actions on long-term sovereign credit ratings (2021 YtD)

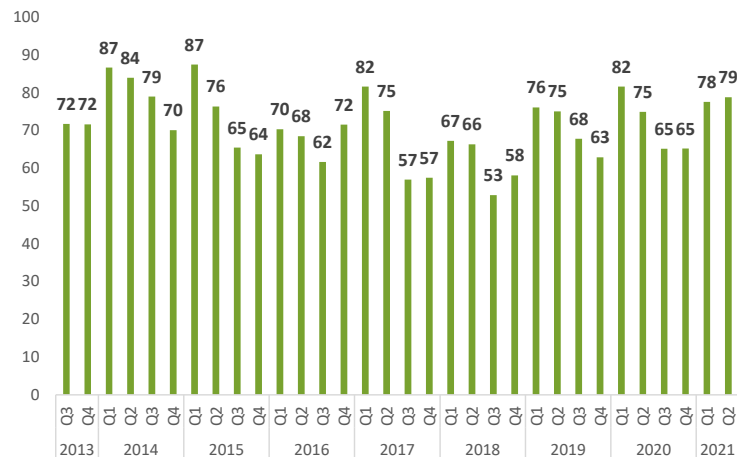
Issuer	Rating Action	Date	Rated by	Rationale
Lithuania	Upgrade to A2 (positive) from A3	Feb-21	Moody's	Strong medium-term growth prospects, supported by increased EU-funded investment and structural reforms to raise productivity growth
Greece	Upgrade to BB (positive) from BB-	Apr-21	S&P	Expectation of rapid improvement in Greece's economic and budgetary performance as the adverse impacts of the COVID-19 pandemic subside
Cyprus	Upgrade to Ba1 (stable) from Ba2	Jul-21	Moody's	Improvement in the underlying credit strength of the domestic banking system and limited impact of the pandemic on supply side due to national support measures and sizeable EU funding limit
Portugal	Upgrade to Baa2(stable) from Baa3	Sep-21	Moody's	Improved expectations in longer-term growth prospects and confidence the debt burden will decline in coming years due to stronger economic growth and fiscal policy making

Source: Fitch, Moody's, S&P

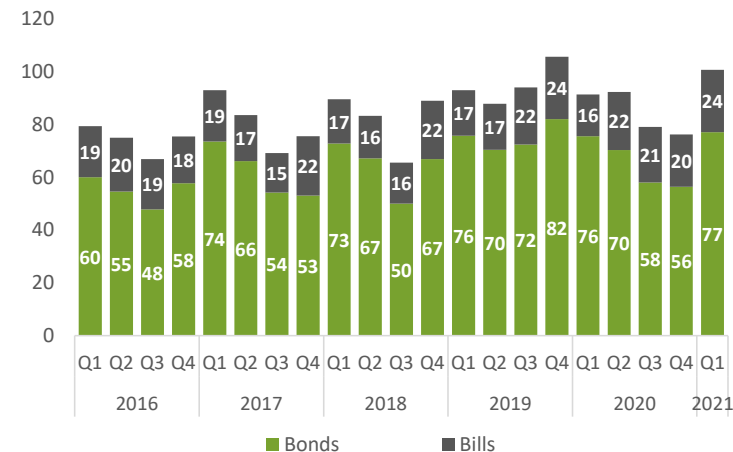
Secondary Market Trading Volumes and Turnover Ratios

Secondary Market Trading Volumes and Turnover Ratios

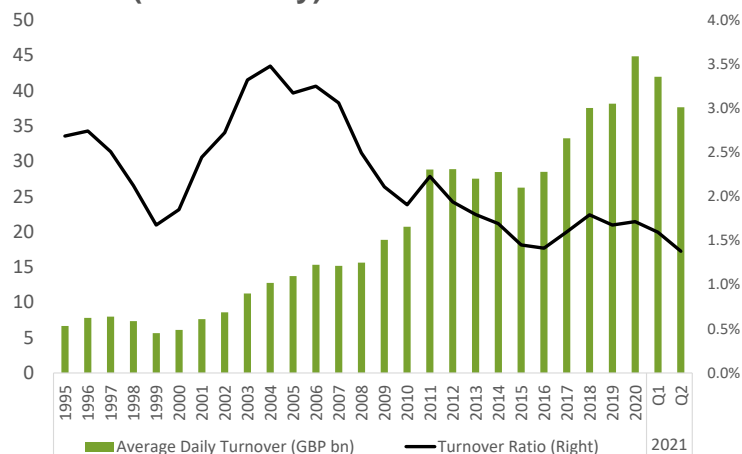
5.1 EU + UK: Average daily trading volumes (Government and sovereign bonds, EURbn)



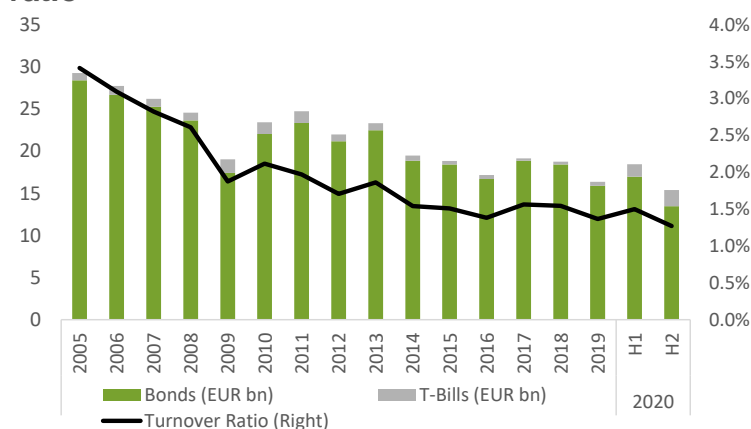
5.2 Eurozone: Average daily trading volume (bonds and bills, EURbn)



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



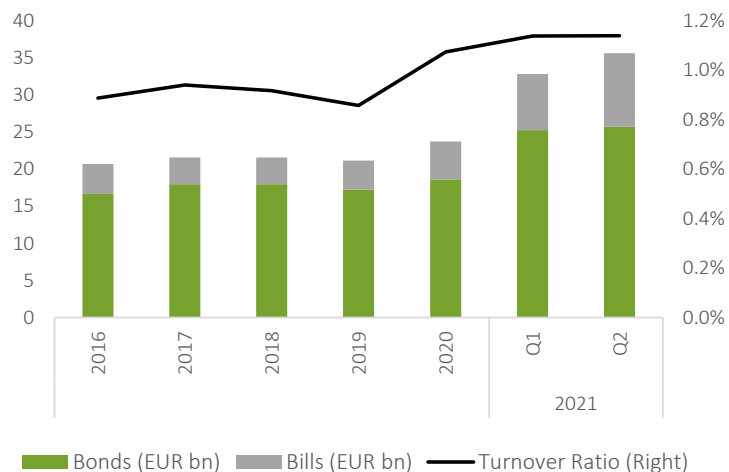
5.4 Germany: Average daily trading volume (aggregated bonds and bills) and turnover ratio



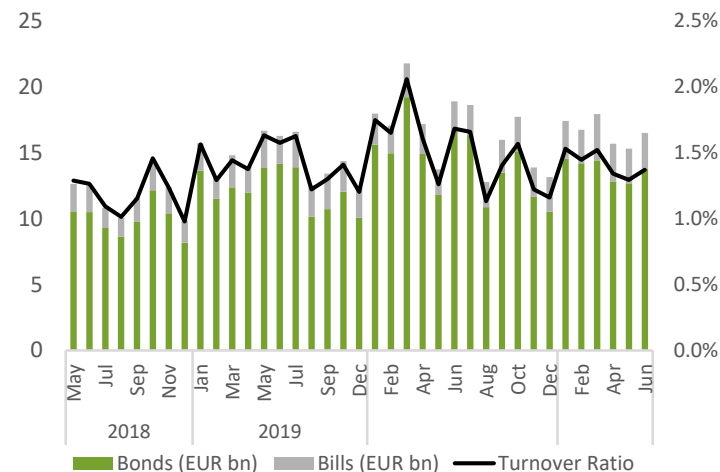
Source: Trax, a MarketAxess subsidiary, EFC Sub-Committee on EDSM, UK Debt Management Office, Deutsche Finanzagentur, ECB. Individual country volumes do not sum to aggregated trading volume in Chart 5.1 EU+UK, given the differences in the aggregation basis across jurisdictions. The data is not fully comparable between countries. Full Methodology available on page 33 of this report.

Secondary Market Trading Volumes and Turnover Ratios

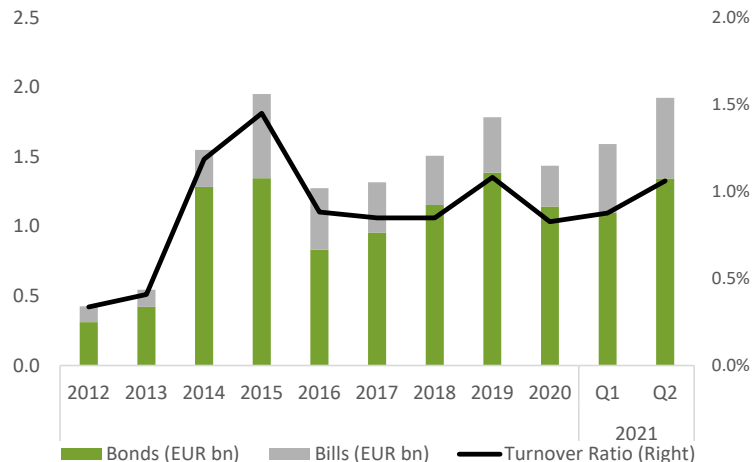
5.5 Italy: Average daily trading volume (bonds and bills) and turnover ratio



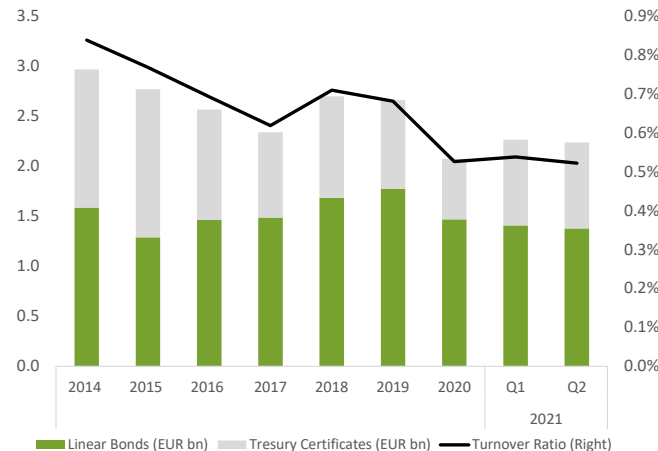
5.6 Spain: Average daily trading volume and turnover ratio



5.7 Portugal: Average daily trading volume and turnover ratio



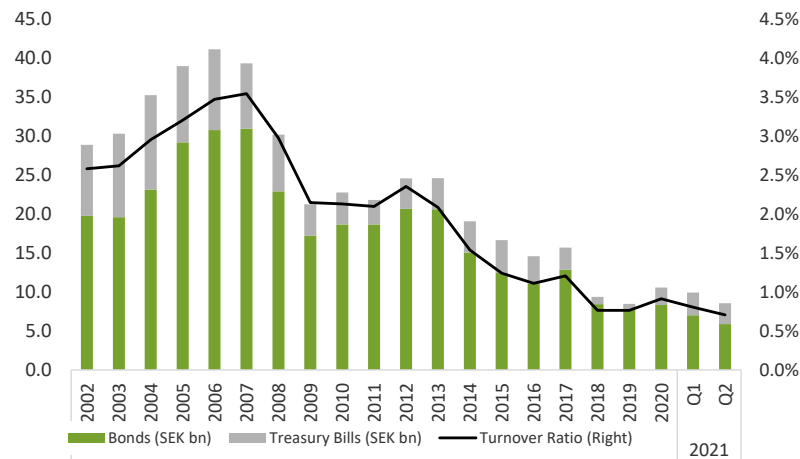
5.8 Belgium: Average daily trading volume and turnover ratio



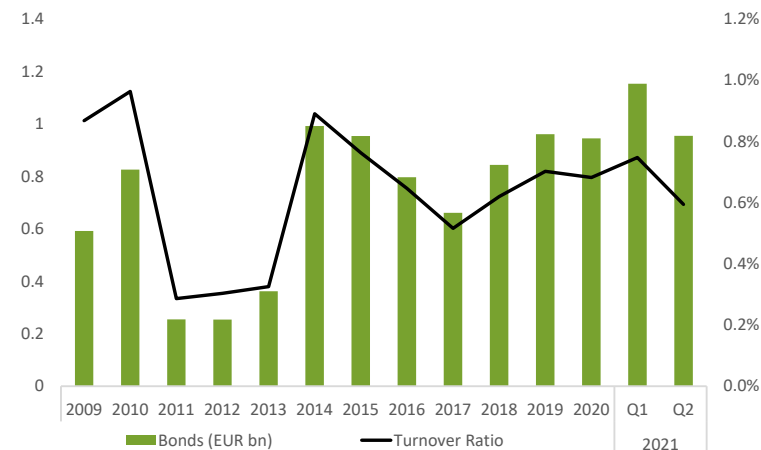
Source: ECB, Italian Dipartimento del Tesoro, BME Market Data and Tesoro Publico de Espana, Agência de Gestão da Tesouraria e da Dívida Pública (IGCP), ECB, Belgian Debt Agency. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 33 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

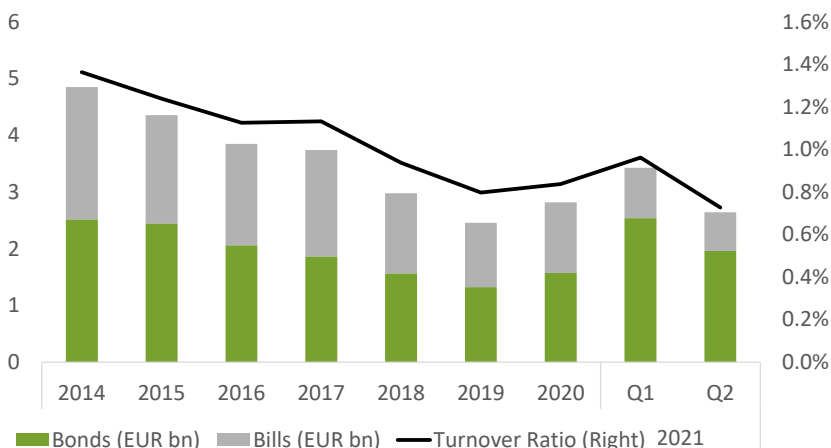
5.9 Sweden: Average daily trading volume and turnover ratio



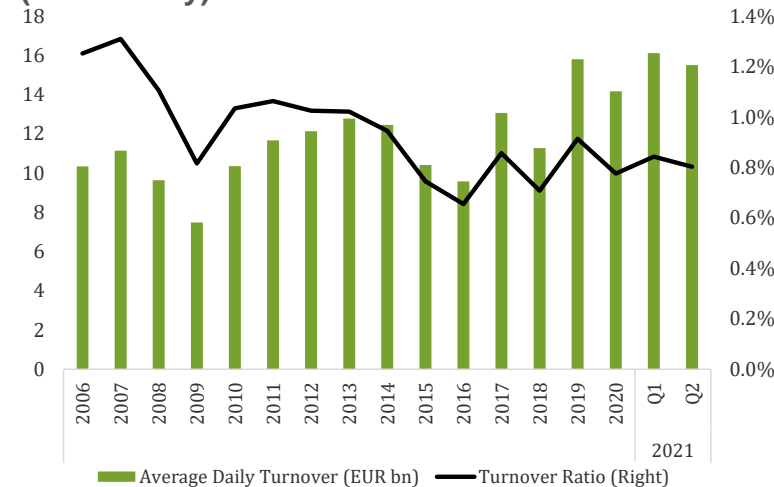
5.10 Ireland: Average daily trading volume (bonds only) and turnover ratio



5.11 Netherlands: Average daily trading volume and turnover ratio



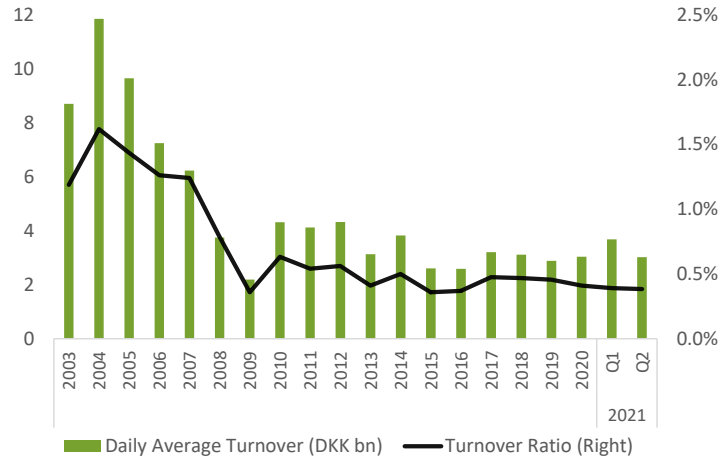
5.12 France: Average daily trading volume (bonds only) and turnover ratio



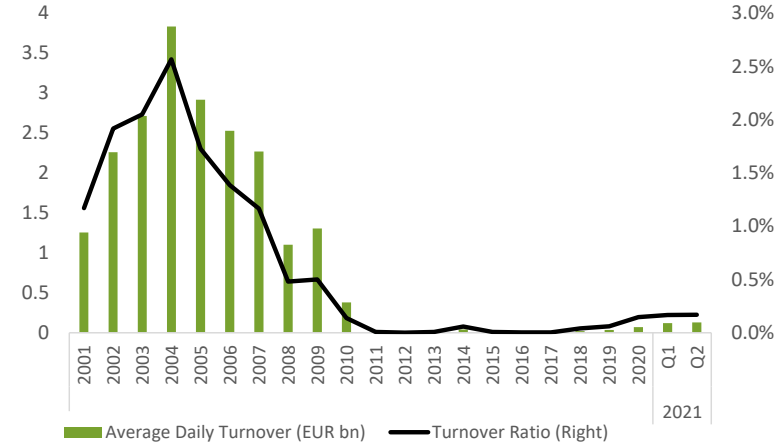
Source: ECB, Swedish National Debt Office (Riksgalden), Irish Stock Exchange, Ministerie van Financiën, Agence France Trésor. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 33 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

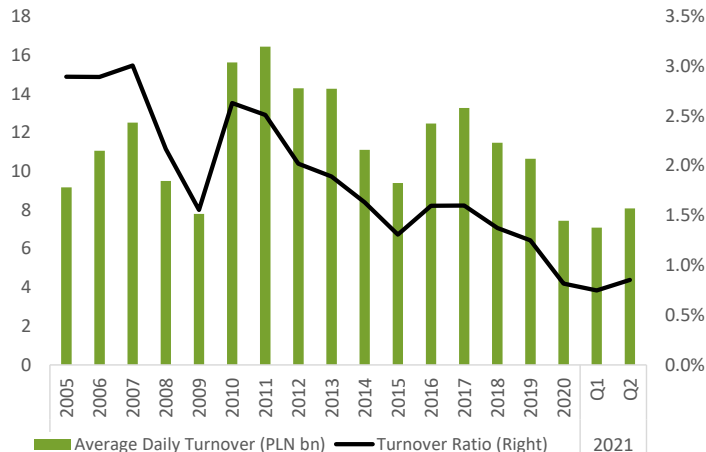
5.13 Denmark: Average daily trading volume (bonds and bills) and turnover ratio



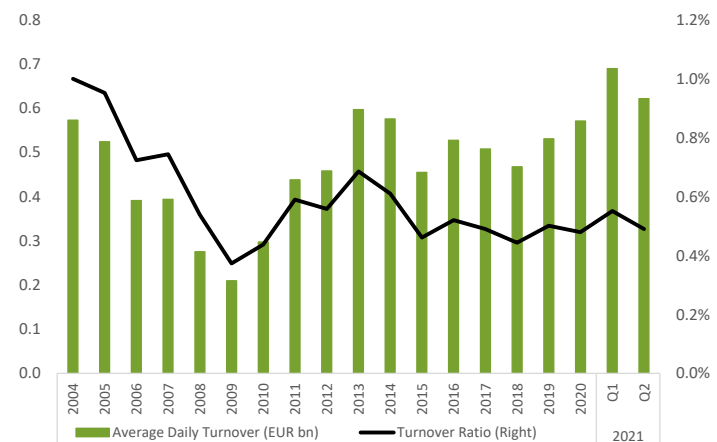
5.14 Greece: Average daily trading volume (bonds only) and turnover ratio



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



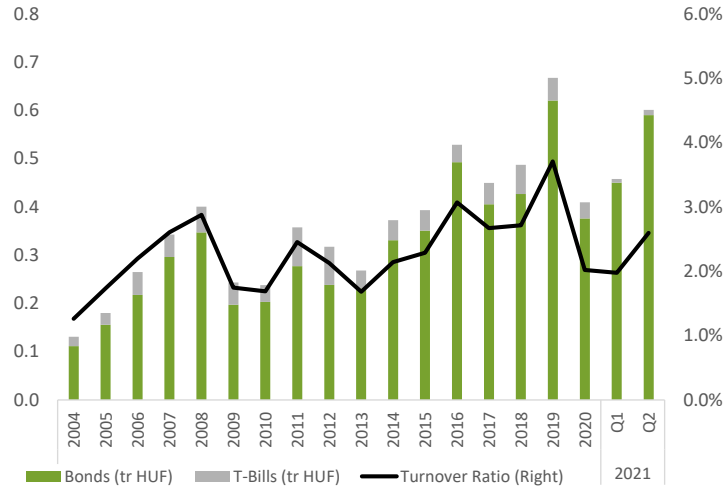
5.16 Finland: Average daily trading volume (aggregated bonds and bills) and turnover ratio



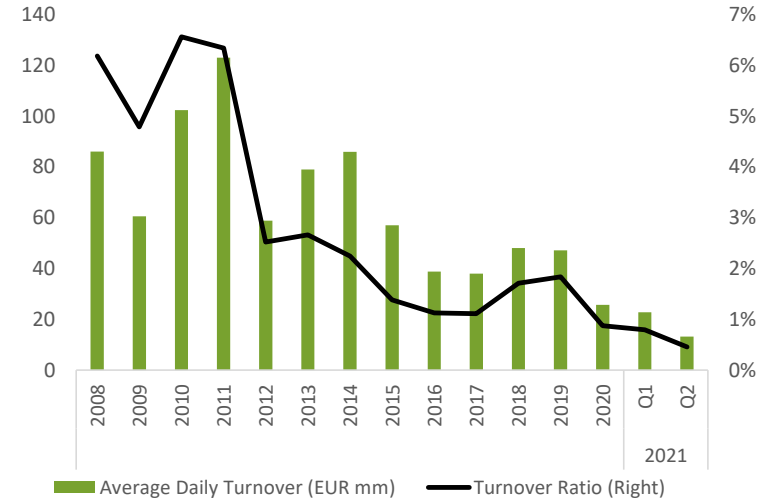
Source: Denmark's Nationalbank, Bank of Greece, ECB, National Depository for Securities (KDPW), WSE, Finland Valtiokonttori. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 33 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

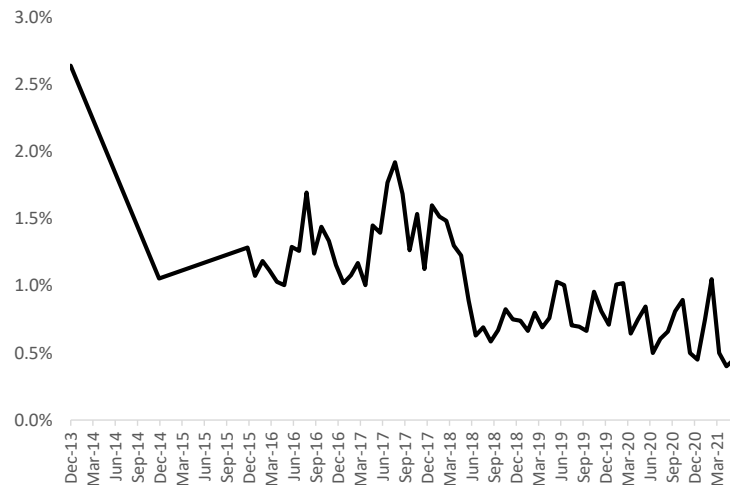
5.17 Hungary: Average daily trading volume and turnover ratio



5.18 Bulgaria: Average daily turnover volume and turnover ratio



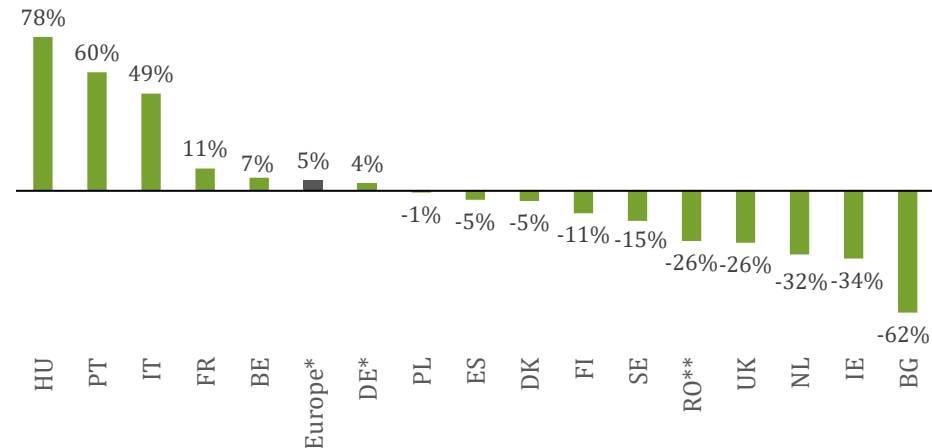
5.19 Romania: Average daily turnover ratio



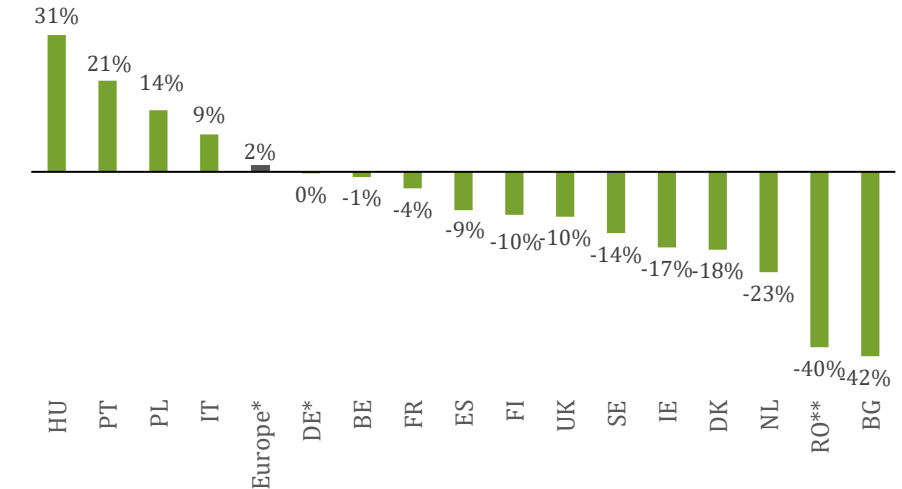
Source: ECB, AKK, Ministry of Finance of the Republic of Bulgaria, Ministerul Finantelor. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 33 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

5.20 Annual change in average daily turnover volumes of European government bonds: 2Q20 to 2Q21



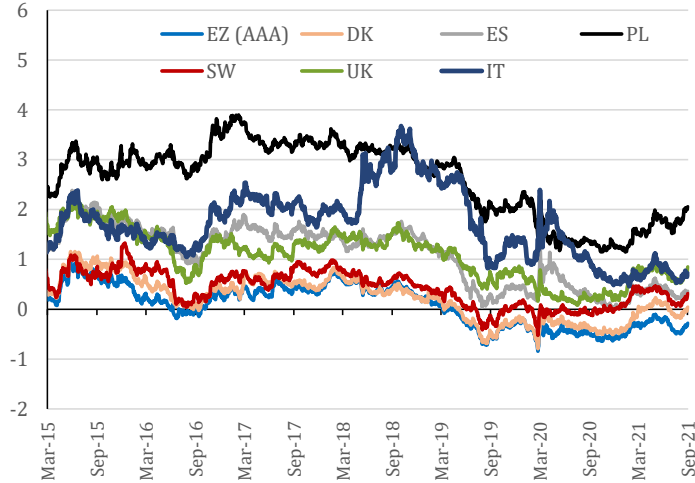
5.21 Quarterly change in average daily turnover volumes of European government bonds: 1Q21 to 2Q21



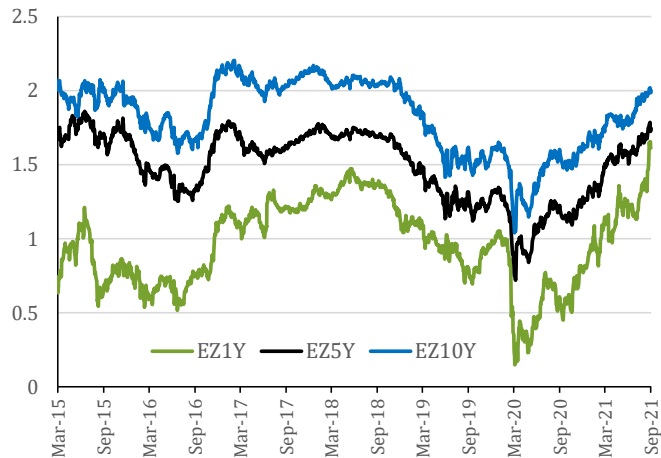
Source: AFME with information from European DMOs and other agency sources. See section 5 for details on aggregation basis and sources. *Europe (EU+UK) total and Germany is sourced from Trax Facts as the quarterly variation of average daily volumes of government and sovereign bonds. **Romanian turnover volume calculated using outstanding volumes in Section 3.

Valuations

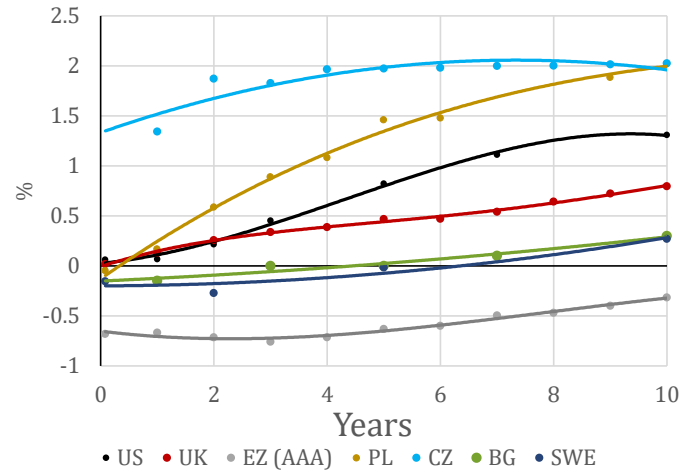
6.1 Selected European 10Y spot yields



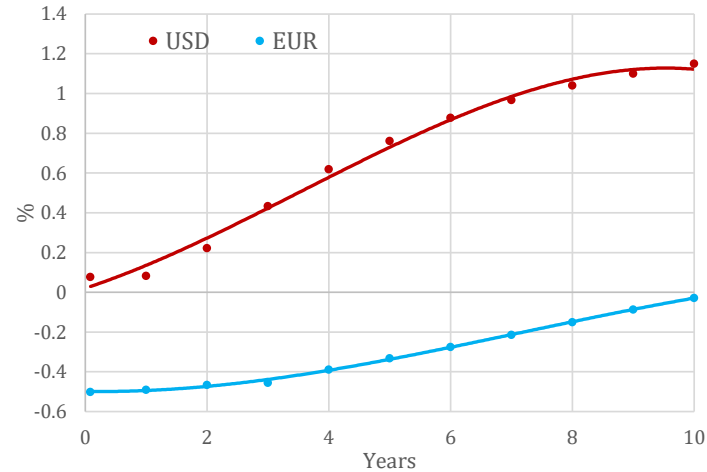
6.4 Market-implied inflation expectations (EuroZone)



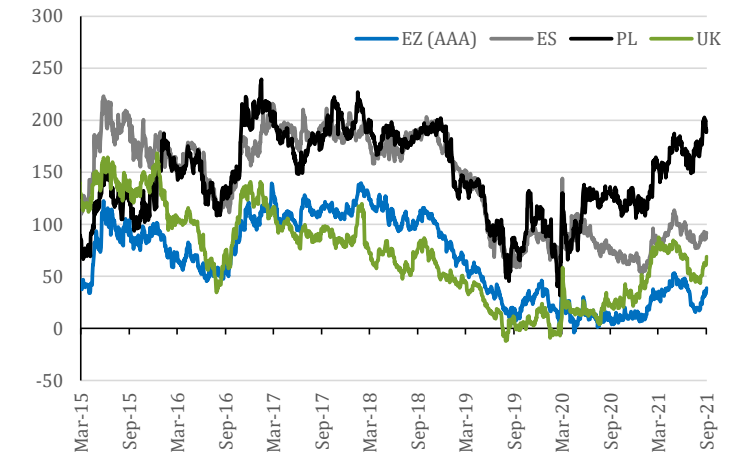
6.2 Sovereign spot yield curve of selected jurisdictions: 20 September 2021



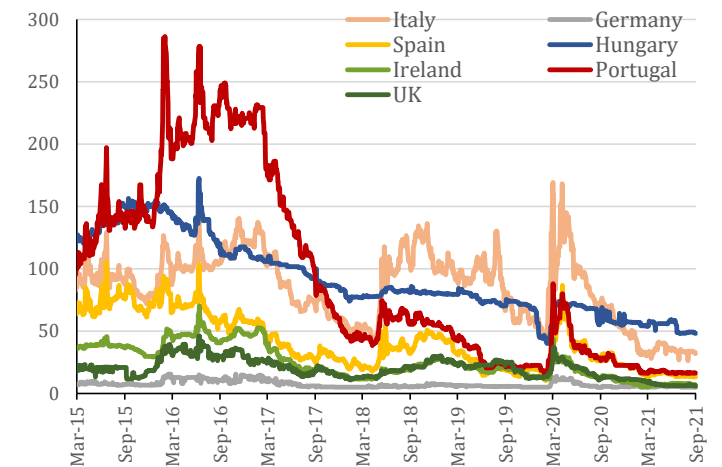
6.5 Overnight index swap (OIS) yield curve: 20 September



6.3 Slope: 1Y10Y spread (bps)



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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