

1Q 2021

Government Bond Data Report

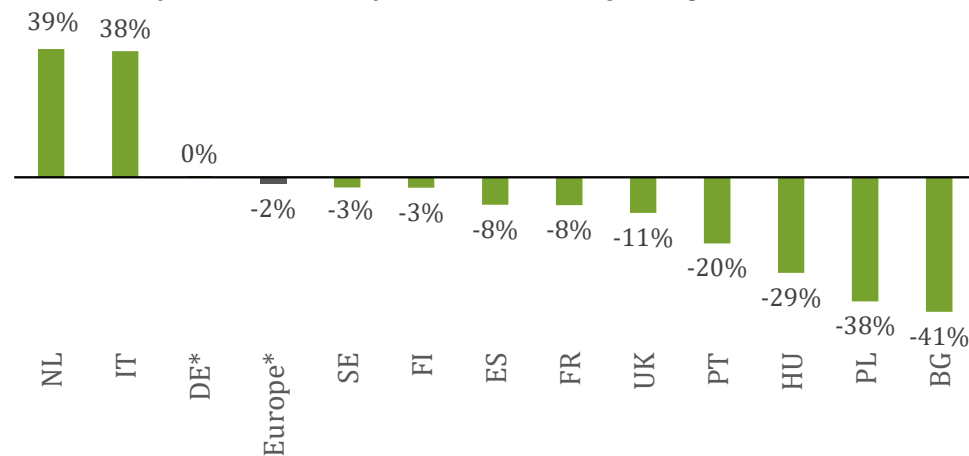
European market data update



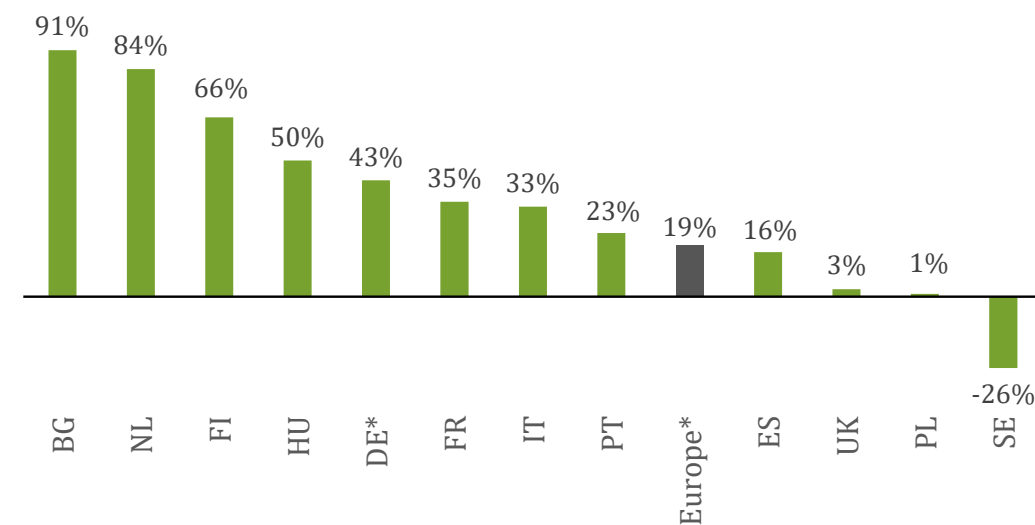
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Highlights and Market Environment

1. Annual changes in Government Bond average daily trading volumes (1Q21 vs 1Q20) Selected European jurisdictions



2. Quarterly change in Government Bond average daily trading volumes (1Q21 vs 4Q20) Selected European jurisdictions



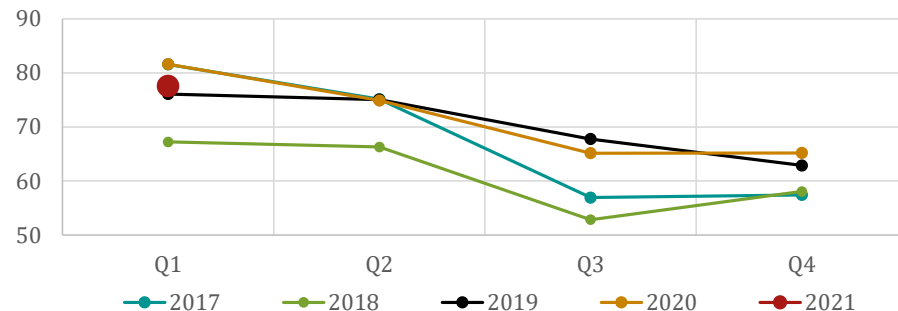
Source: AFME with information from European DMOs and other agency sources and Trax, a MarketAxess subsidiary. *Europe (EU+UK) total and German turnover is sourced from Trax Facts as the quarterly variation of average daily volumes of government and sovereign bonds. **Romanian turnover volume calculated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

European government bond trading decreased 1.9% YoY and increased 18.9% QoQ in 1Q21

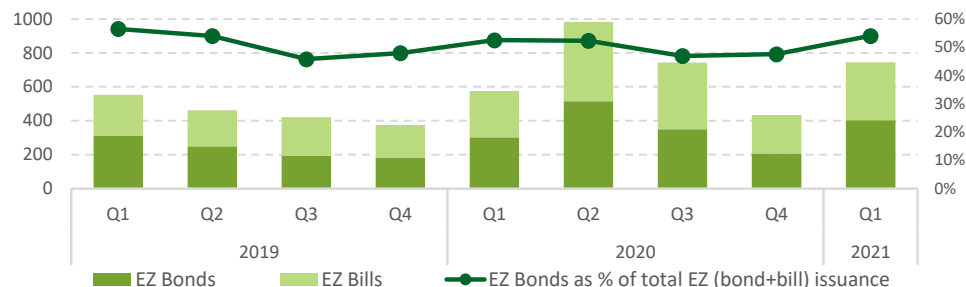
Average daily trading volumes of European government bonds decreased by 1.9% YoY during 1Q21, driven by a significant decrease in trading in Poland (-37.7% YoY), Portugal (-20.1% YoY), the UK (-10.8% YoY), France (-8.5% YoY) and Spain (-8.3% YoY). There was an increase in trading in the Netherlands (38.9% YoY) and Italy (38.2%), (see charts 1 and 2).

Highlights and Market Environment

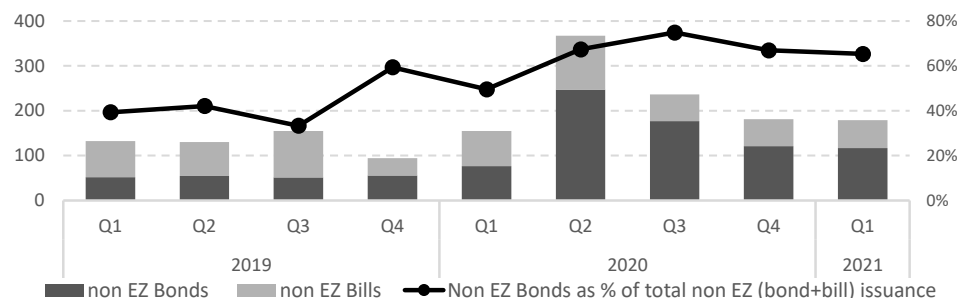
3. Seasonality of European government bond trading (quarterly trading volumes, average daily, EUR bn)



4. Eurozone bond and bill issuance (2019-2021, EUR bn)



5. Non-Eurozone (incl. UK) bond and bill issuance (2019-2021, EUR bn)



Source: Trax, a MarketAxess subsidiary [chart 3], ECB, National Debt Management Offices and UK Debt Management Office. [charts 4 & 5].

European government bond trading robust in Q1 2021 as volumes represent the second-highest quarterly traded volume since Q1 2017.

EUR 924 bn bonds and bills issued in Q1 2021 as European governments continue to face large funding demands.

Issuance volumes have normalised since their peak in 2Q20 (EUR 1350.7 bn), but volumes are greater than pre-pandemic levels, with total European issuance in 1Q21 (EUR 923.9 bn) up 26.6% (YoY) from 1Q20, and up 35.0% compared to 1Q19

Of the EUR 923.9 bn issued during 1Q21, EUR 745.0 bn (80.6%) was issued in Eurozone countries whilst EUR 178.9 bn was issued in non-Eurozone countries.

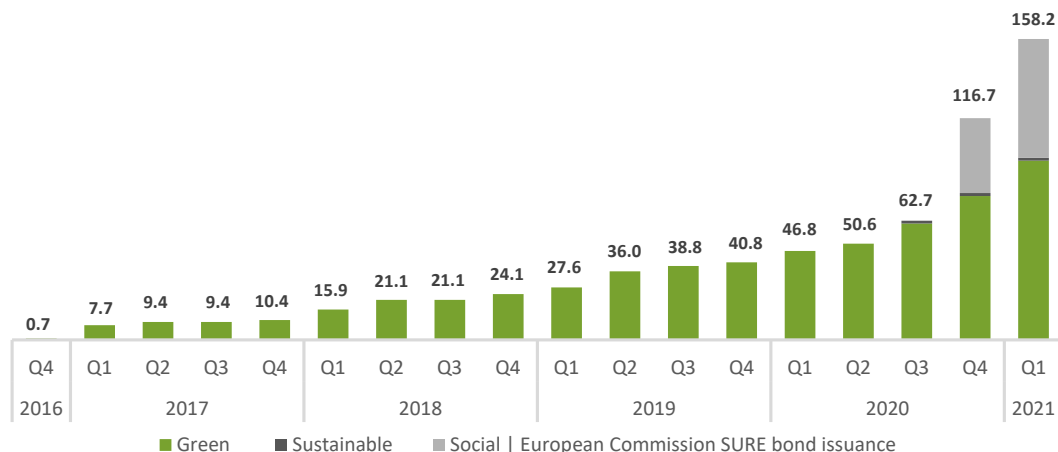
The funding mix between bonds and bills has diverged between Eurozone and non-Eurozone countries. The percentage bond issuance relative to total debt issuance increased to 65.3% during 1Q21 in non-Eurozone countries from 49.5% in 1Q20. In Eurozone countries, 54.0% of total funding was derived from bonds in 1Q21, up from 52.5% in 1Q20.

Inaugural issuance of NextGenerationEU bonds

Although not covered in detail in this report, the EUR 20 bn issued in June 2021 represents the first block of EUR 800 bn of bonds to be issued by the European Commission (on behalf of the EU) between 2021-2026, of which EUR 60 bn is expected to be issued before end-2021.

The inaugural NGEU bond experienced high levels of demand with over EUR 142 bn of orders-(or seven times oversubscribed). It was the largest-ever institutional bond issuance in Europe, the largest-ever institutional single tranche transaction and the largest amount the EU has ever raised in a single transaction.

6. European outstanding green, social and sustainable (ESG) government bonds (2016-2021, EUR bn)



7. Active sovereign participants of ESG government bond market (as of Mar-21)



Source: Thomson Reuters Eikon.

Outstanding volumes of European sovereign ESG bonds reach EUR 158.2 as volumes driven by highest-ever quarterly green bond issuance of EUR 18.6 bn and additional EUR 23.0 bn in EU SURE social bonds issued during Q1 2021.

EUR 18.6 bn issued in green bonds during Q1 2021 represents the highest quarterly issuance of green government bonds in Europe to date.

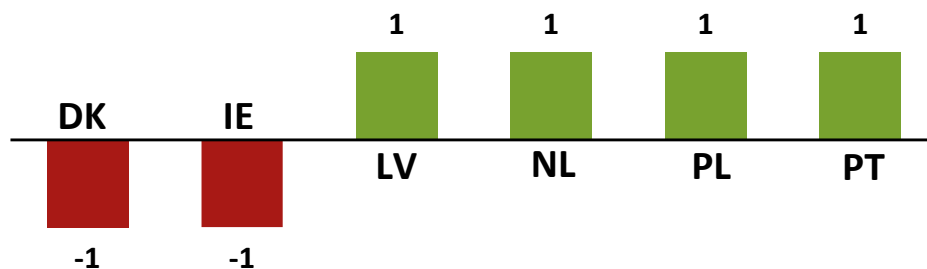
Green volumes were driven by the inaugural Italian green bond (EUR 8.5 bn), a new French green issue (EUR 7bn) and additional volumes added to the market via tap issuance in the Belgian and Dutch green bonds.

EUR 23.0 bn in EU SURE social bonds were issued during Q1 2021, receiving very high demand with issuance seven-times oversubscribed.

15 European sovereign issuers set to be active in ESG markets by end-2021

As Italy joins 10 other European government issuers and the European Commission as active participants in European sovereign ESG markets, another 4 sovereigns have indicated they will bring inaugural ESG issuance to the market before the end of 2021, meaning 15 (or 54%) of European sovereign issuers are expected to be active in ESG markets by the end of this year.

8. Net number of Changes (Exits+Entries) in European Primary Dealership (Jan 2021-Jun 2021)



Source: AFME HRF Table. 1H21 data for DE, IE and SK have been revised after original publication to correct number of PDs.

Net gain of 2 primary dealers in Europe from Jan 2021 to June 2021

From January 2021 to June 2021, there were 3 exits and 5 entries of banks to the European Primary Dealer system, affecting sovereign debt markets in 7 countries. Spain, which had a net change of 0, experienced both one exit and one entry.

The EU primary dealer network was announced in May 2021, with 39 member banks, to ensure efficient placement and supporting liquidity for the NextGenerationEU bond scheme.

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

This brings the year-to-date total to 2 upgrades and no downgrades (there was 1 further upgrade in 2Q21 to date).

Greece, which was upgraded by one notch to BB from BB- in April 2021, is now only two notches below investment grade.

Major upcoming regulatory, legislative and policy initiatives

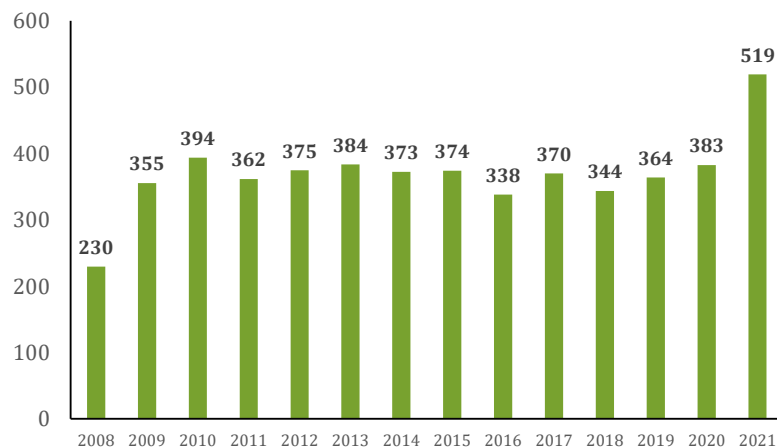
There are several regulatory initiatives currently being considered at the European and national level with expected impact on the government bond markets. Some of the key initiatives recently implemented or soon to be applied include:

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

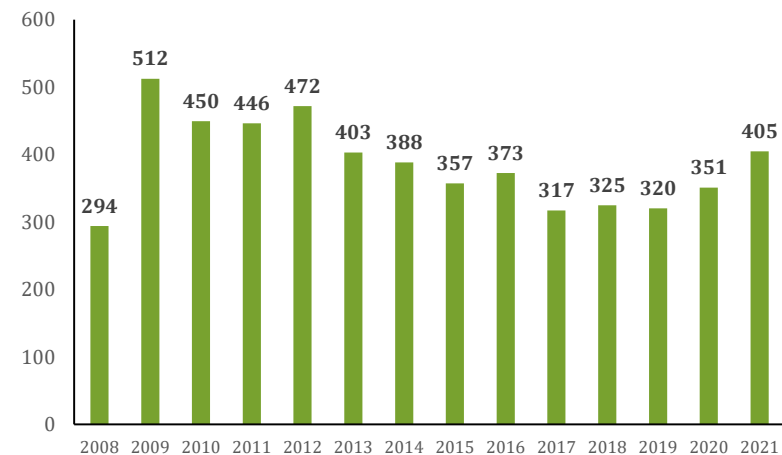
AFME and its members actively contribute on all of these and other initiatives.

Issuance

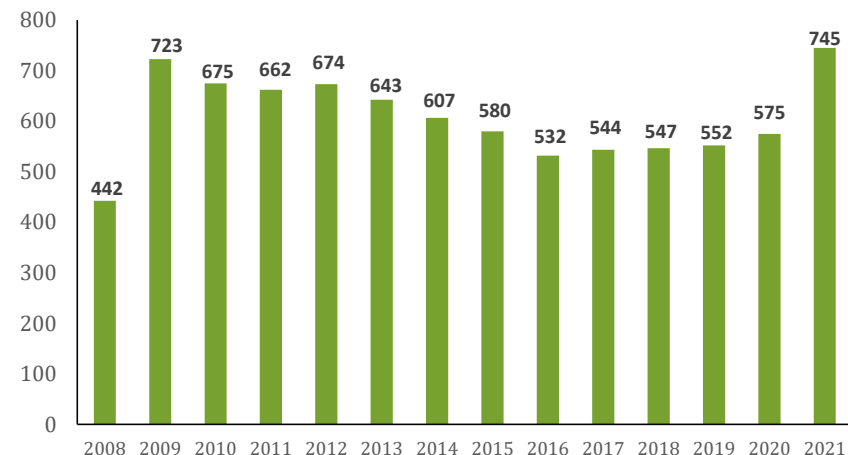
1.1 European (EU+UK) Government Bond gross issuance year-to-date (1Q, EUR bn)



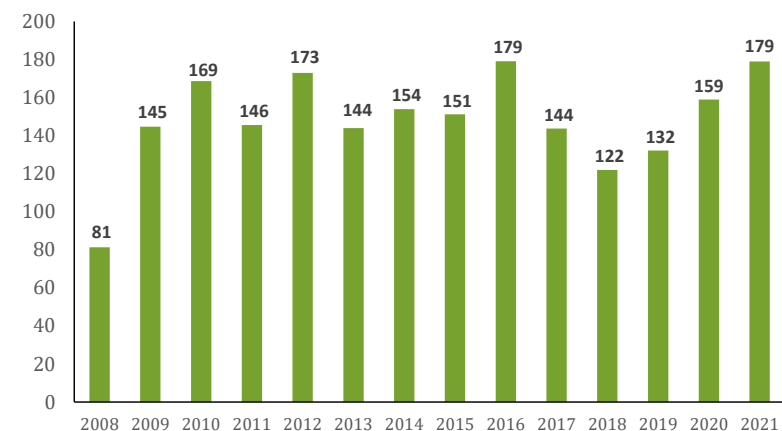
1.2 European (EU+UK) Treasury Bills gross issuance (1Q, EUR bn)



1.3 Eurozone bonds and bills gross issuance year-to-date (1Q, EUR bn)

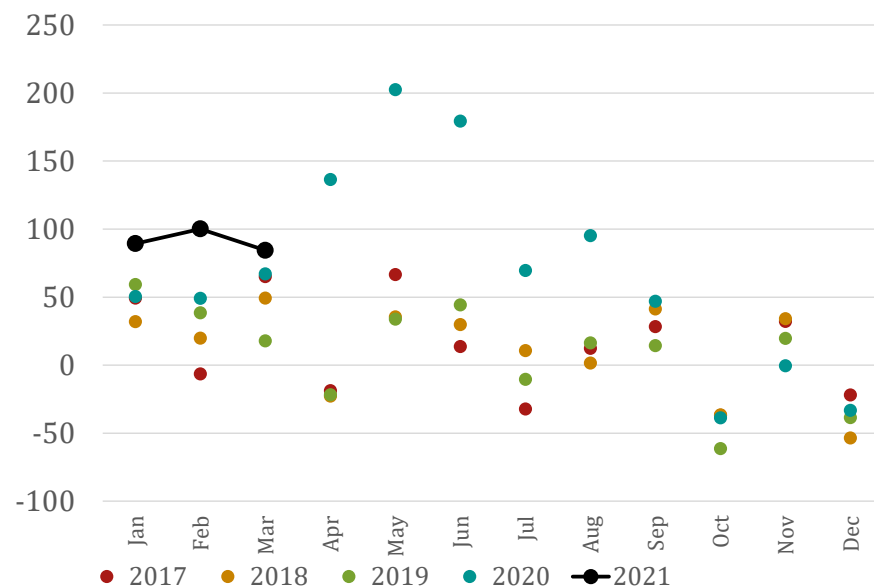


1.4 Non-Eurozone bonds and bills gross issuance (1Q, EUR bn)

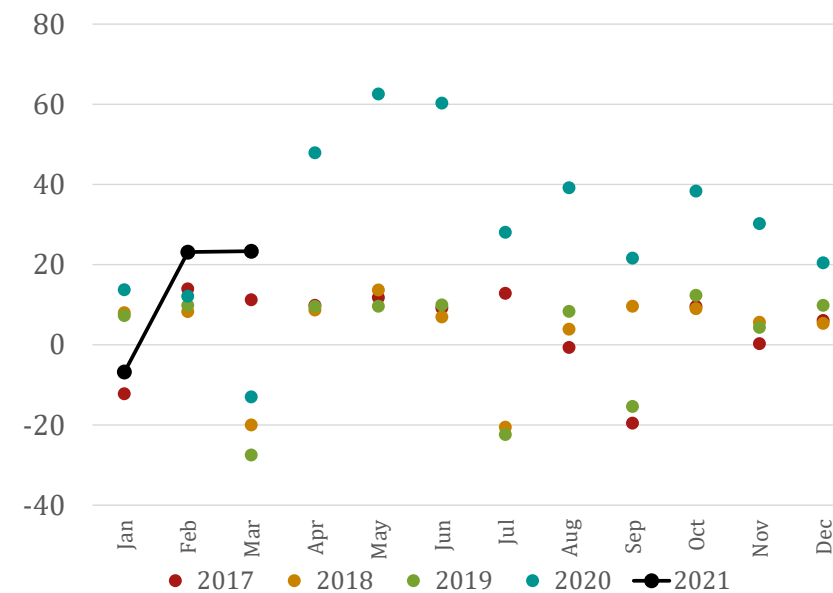


Source: ECB, National Debt Management Offices and UK Debt Management Office.

1.5 Euro area net sovereign debt issuance (EUR bn)



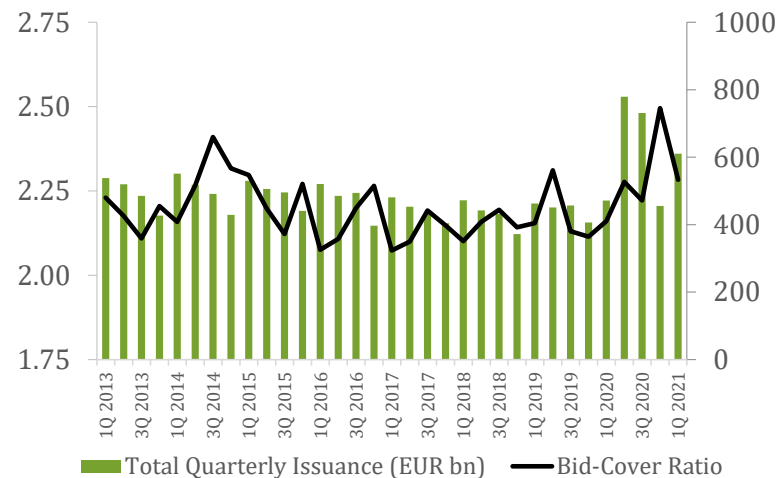
1.6 UK Gilts net issuance (GBP bn)



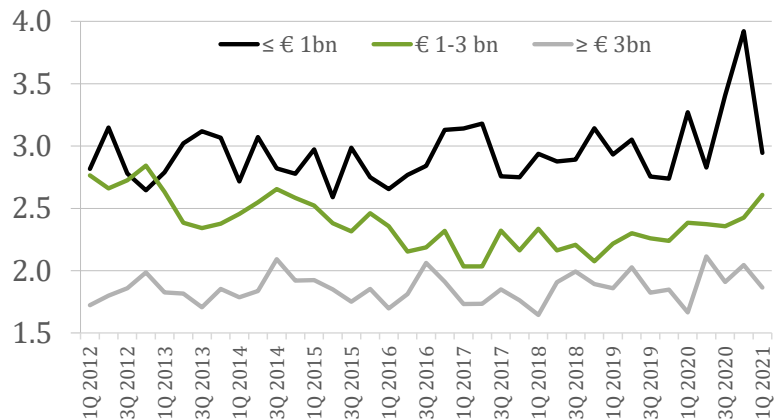
Source: ECB and UK Debt Management Office

Recent Auctions and Primary Dealers

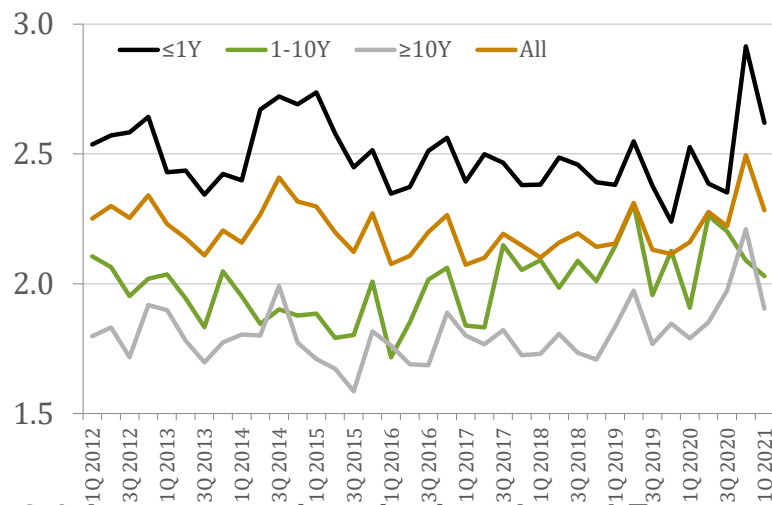
2.1 Average bid-cover ratios and issued volumes in selected jurisdictions (EUR bn)



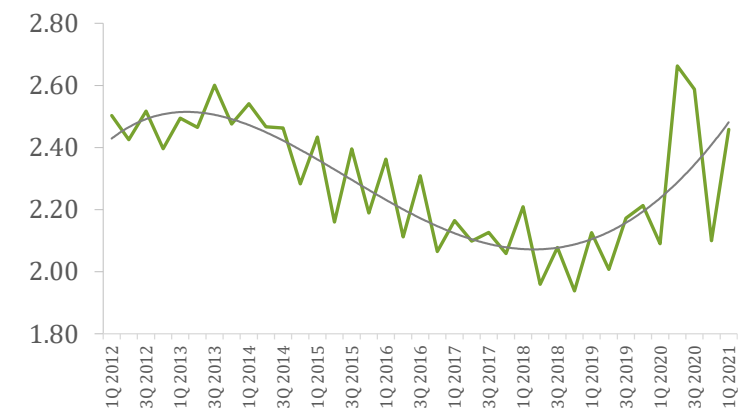
2.3 Average bid-cover ratios by size of issued instruments



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

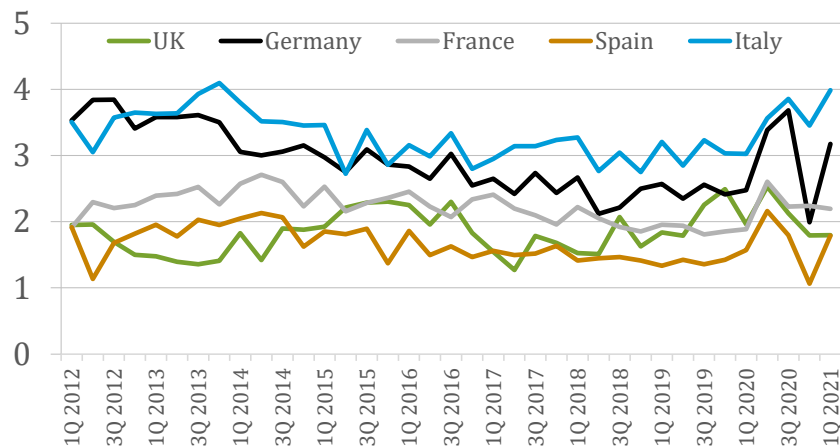


2.4 Average auction size in selected European jurisdictions (EUR bn)

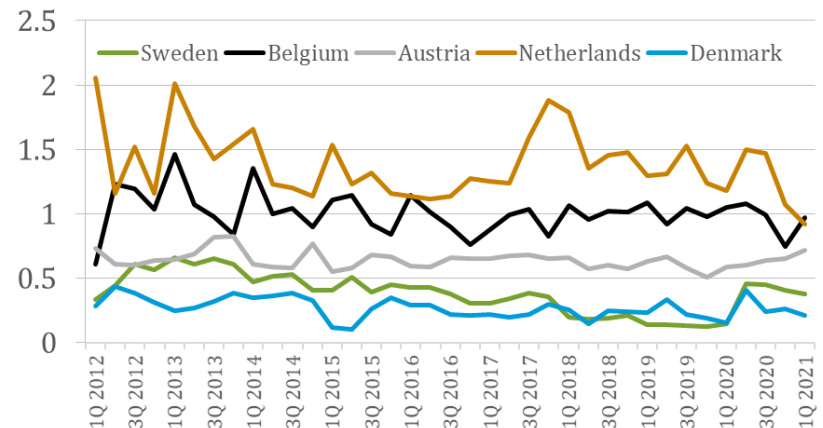


Source: Thomson Reuters Eikon. Weighted Average of UK, DE, FR, ES, IT, BE, SE, NL, DK and AT bonds and bills. In chart 2.4 polynomial trendline shown in grey.

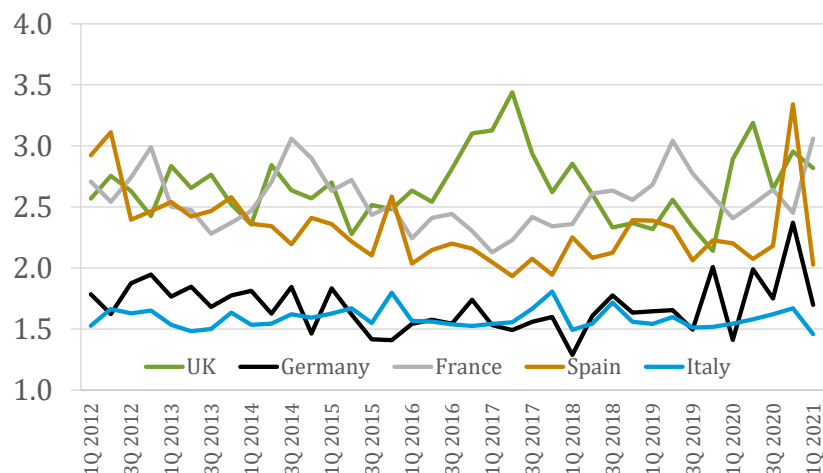
2.5 Average auction size in selected jurisdictions (EUR bn)



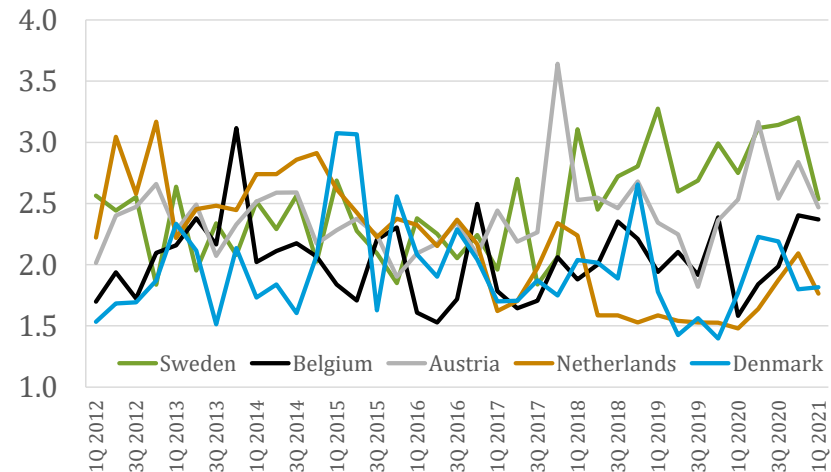
2.6 Average auction size in selected jurisdictions (EUR bn)



2.7 Average bid-cover ratios by jurisdictions

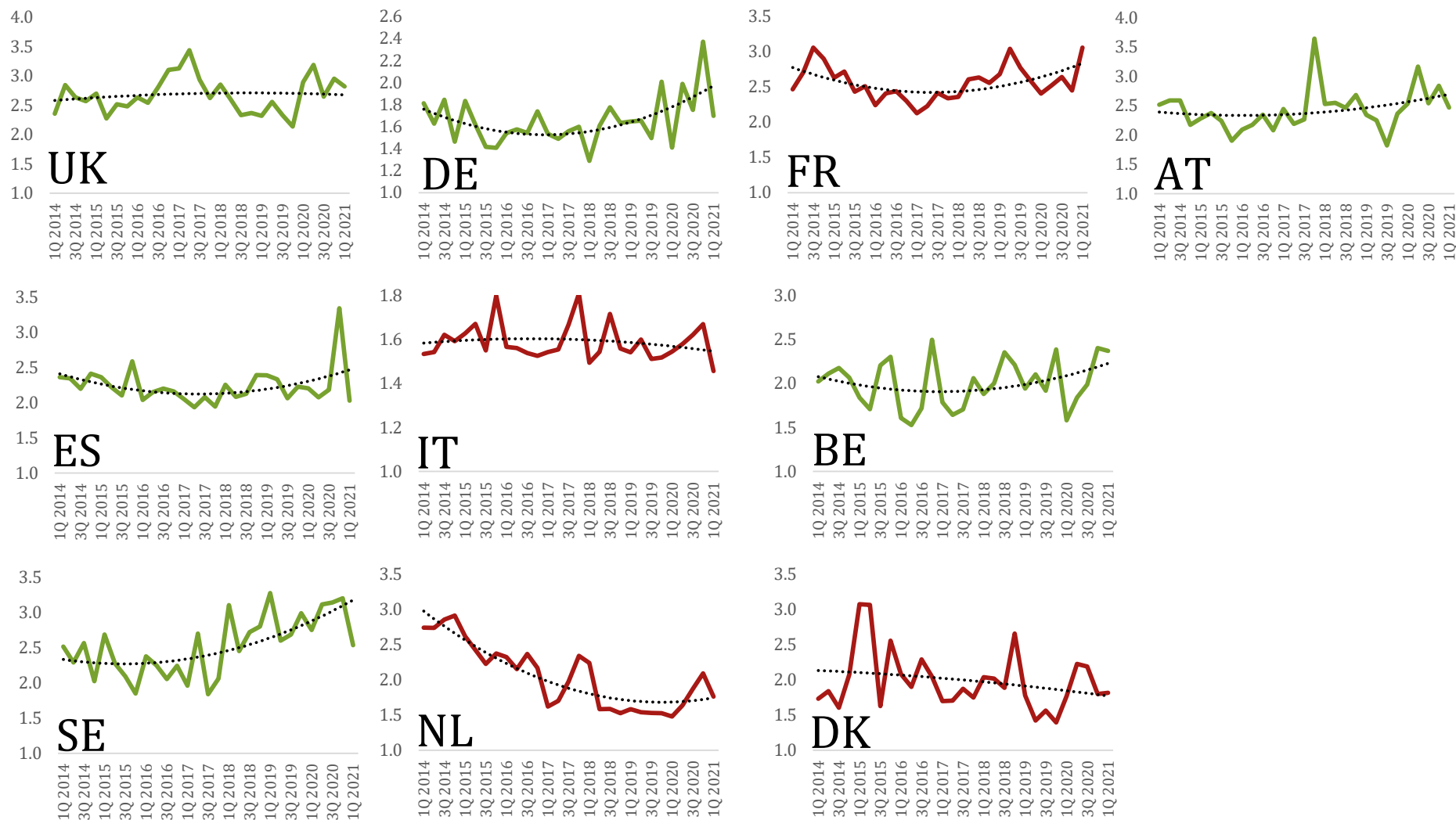


2.8 Average bid-cover ratios by jurisdictions



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

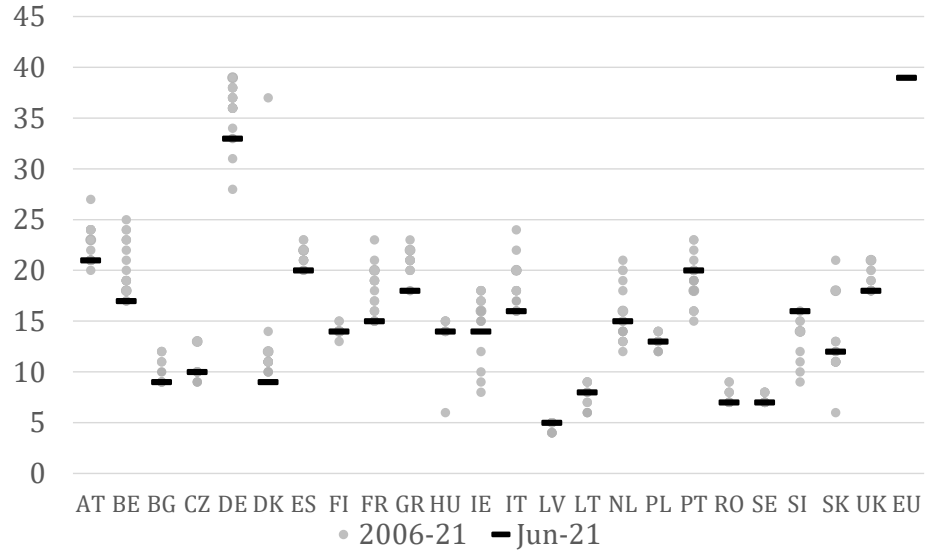
2.9 Average bid-cover ratios in selected jurisdictions: 2013-21



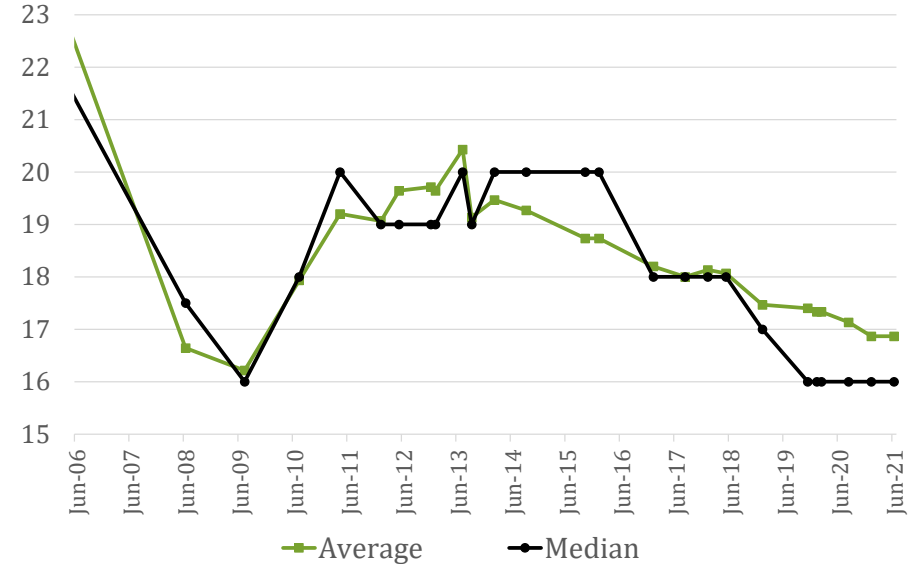
Source: Thomson Reuters Eikon. **Green** indicates end value of trendline above starting value, **red** indicates end value of trendline below starting value

Primary Dealers: European countries and EU

2.10 Number of primary dealers relative to historic number

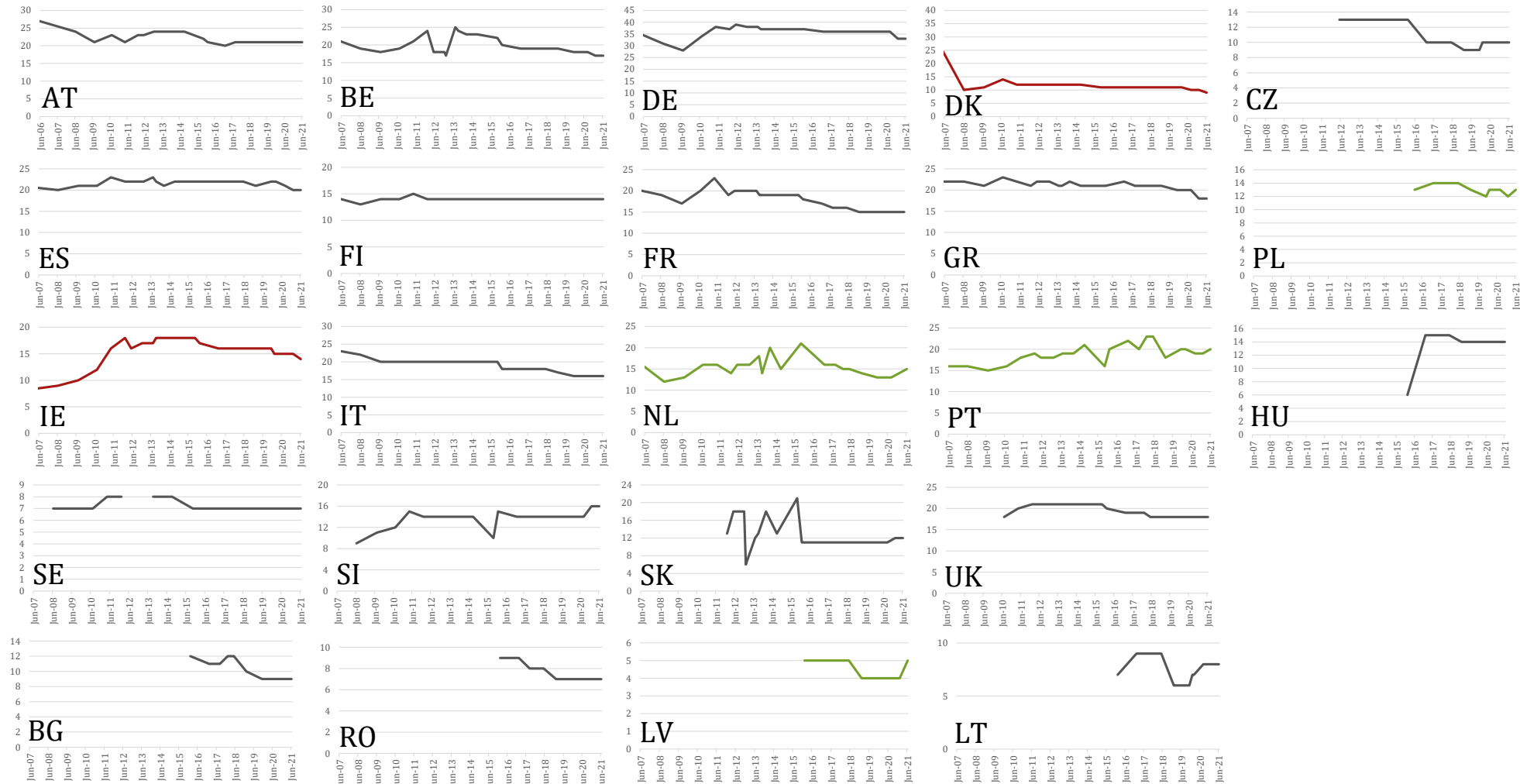


2.11 Average and median number of primary dealers in selected European countries



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. 1H21 data for DE, IE and SK have been revised after original publication to correct number of PDs

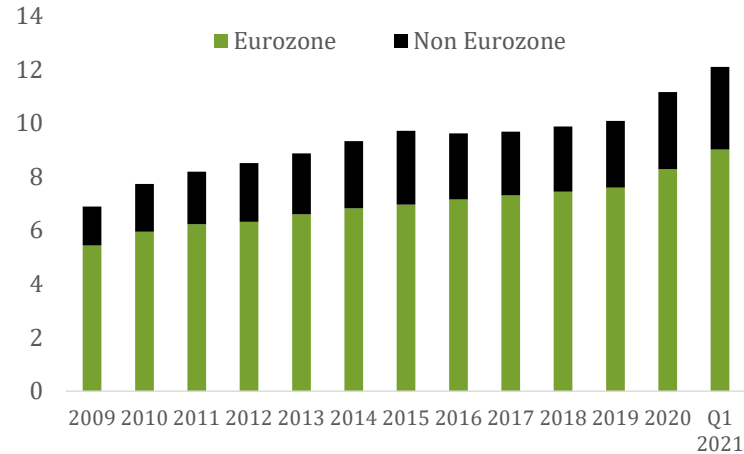
2.12 Number of primary dealers in Europe by country: 2006-21



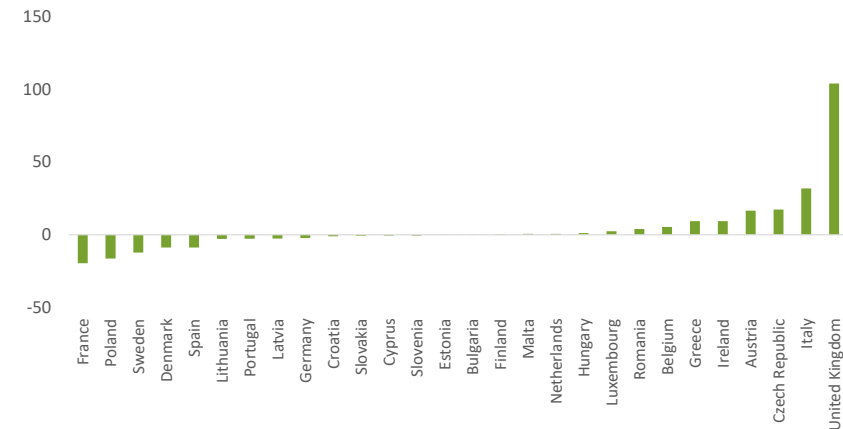
Source: AFME HRF Table and National DMOs. The gap in the line for Sweden indicates data was not recorded in the relevant period. Chart colour indicates net change in PDs since January 2021. Green indicates an increase; red indicates a decrease and grey indicates no change. 1H21 data for DE and IE have been revised after original publication to correct number of PDs

Outstandings

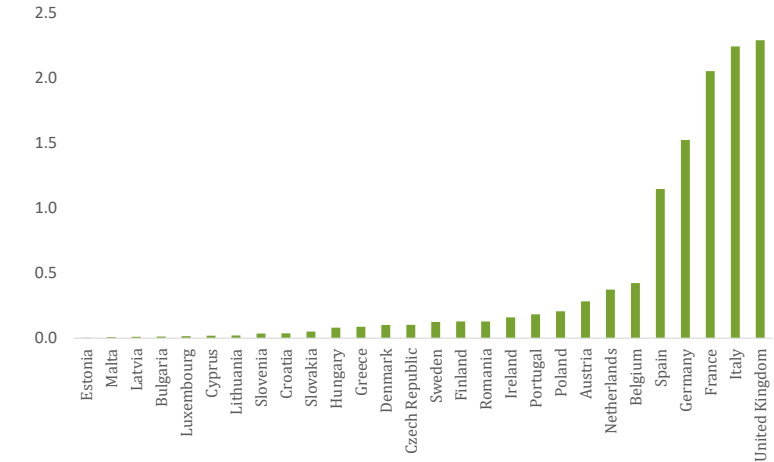
3.1 Outstanding debt securities issued by Central Governments (Nominal, EUR tn)



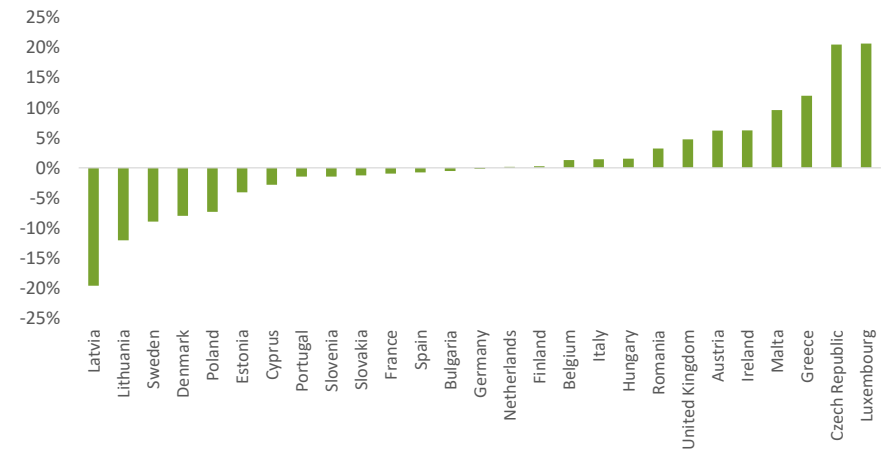
3.3 Change in outstandings 4Q20 to 1Q21 (EUR bn)



3.2 European government bonds outstanding by country (EUR tn)



3.4 Change in outstandings from 4Q20 to 1Q21 (%)

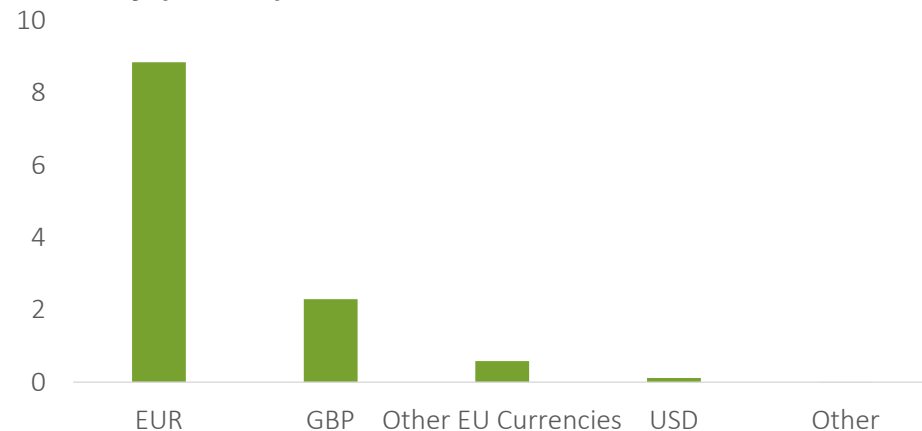


Source: ECB, Thomson Reuters Eikon and UK DMO.

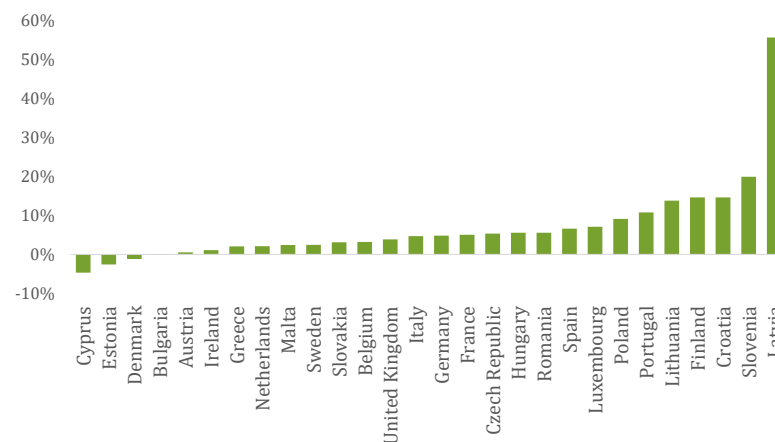
3.5 Average years to maturity for outstanding government bonds in European (EU+UK) countries



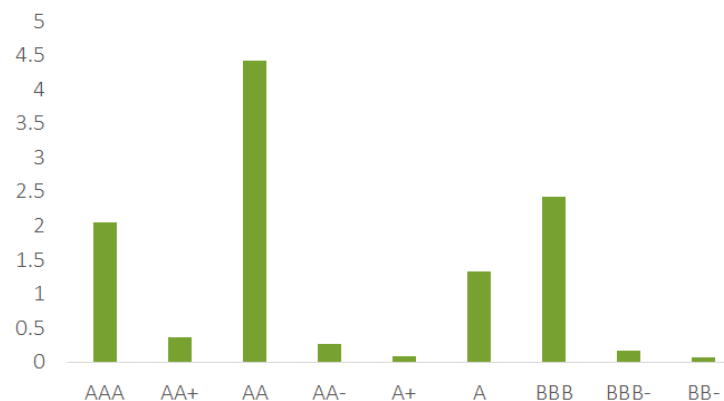
3.7 European government bonds outstanding by currency (EUR tn)



3.6 Quarterly change in weighted average years to maturity for outstanding government bonds 4Q20 to 1Q21



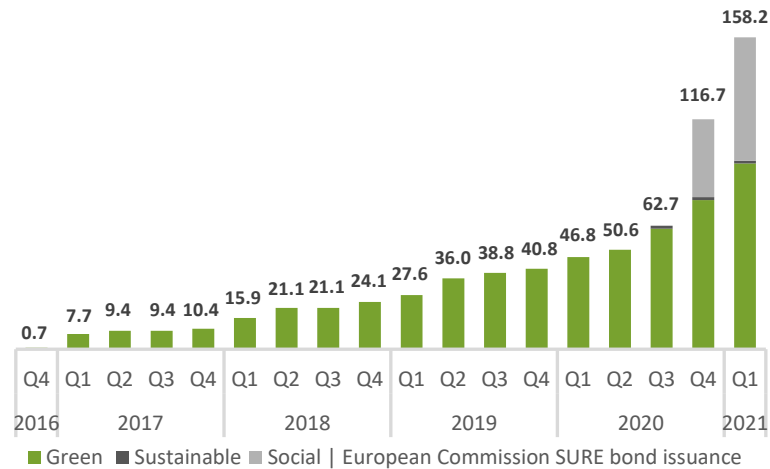
3.8 European government bonds outstanding by current rating of issuer (EUR tn)



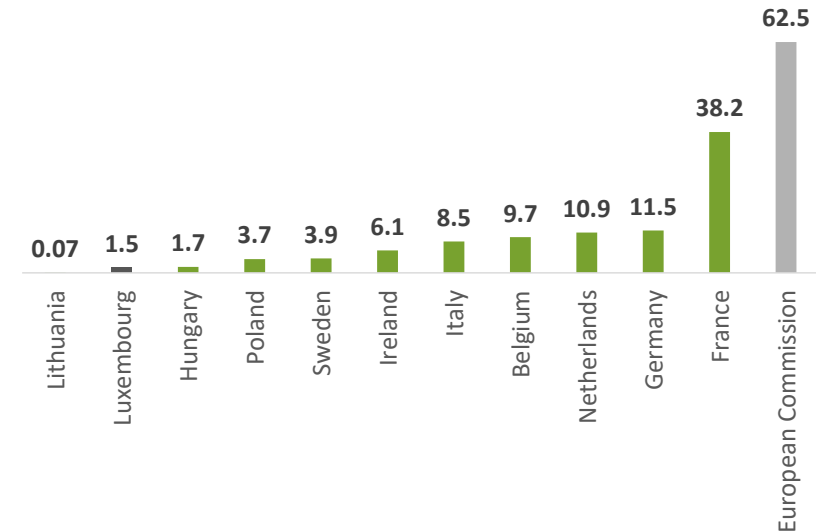
Source: Thomson Reuters Eikon. For Charts 3.5 and 3.6 weighted average in by outstanding amount.

Outstandings: ESG Bonds

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

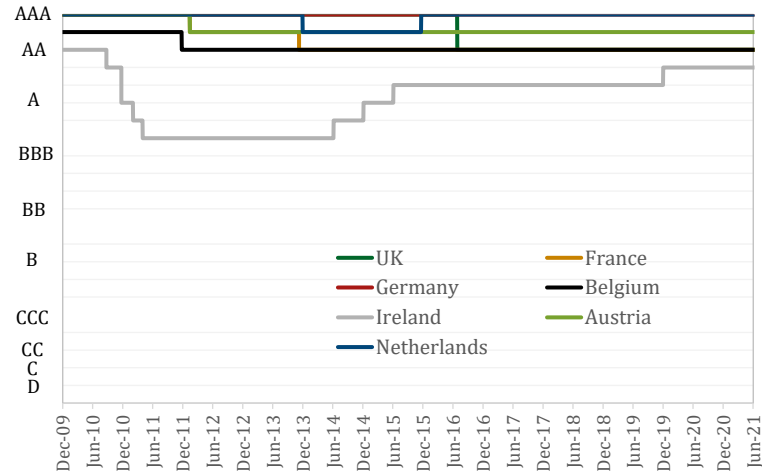


3.10 European outstanding ESG government bonds by country (EUR bn)

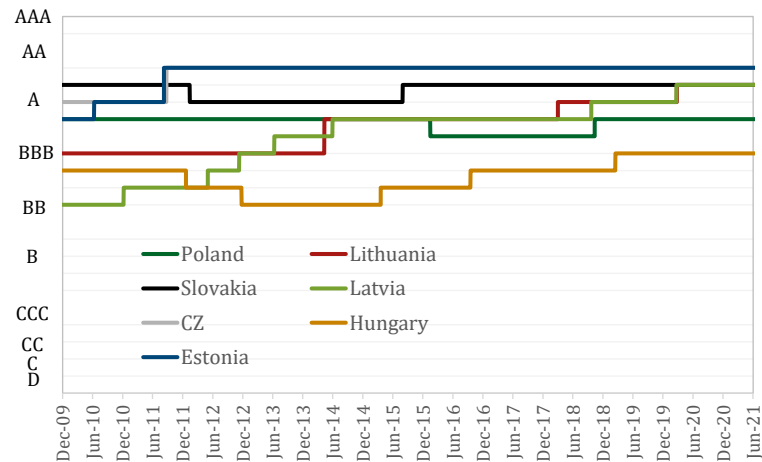


Credit Quality

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

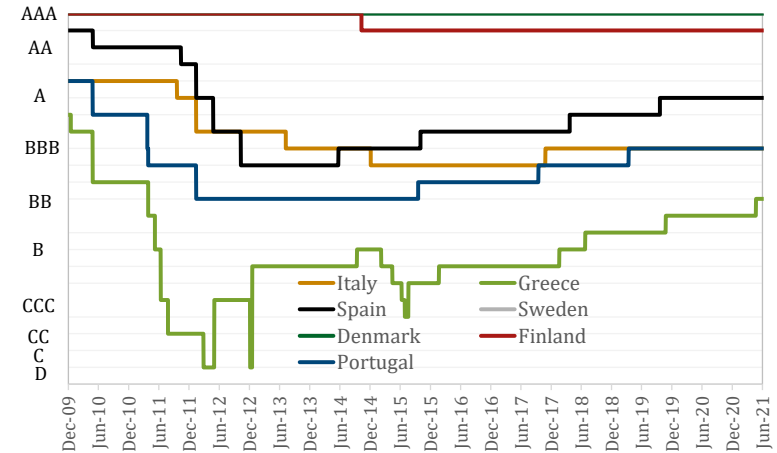


4.3 Long-term sovereign credit rating (Visegrad 4 and Baltic states)

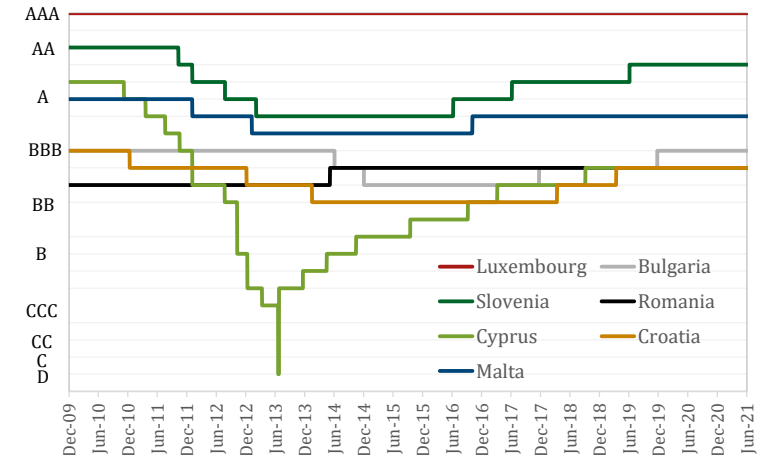


Source: Thomson Reuters Eikon

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 (2021)

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

Source: Fitch, Moody's, S&P

Secondary Market Trading Volumes and Turnover Ratios

Year	Q1	Q2	Q3	Q4
2020	72	87	79	70
2021	76	87	65	64
2022	70	68	62	72
2023	82	75	57	57
2024	67	66	53	58
2025	76	75	68	63
2026	82	75	65	65
2027	78			

The chart displays two metrics over time from 1995 to 2021. The left Y-axis represents Average Daily Turnover in GBP bn (0 to 50), and the right Y-axis represents the Turnover Ratio as a percentage (0.0% to 4.0%).

Year	Average Daily Turnover (GBP bn)	Turnover Ratio (Right)
1995	6.5	2.5%
1996	8.0	2.6%
1997	8.0	2.2%
1998	7.5	1.8%
1999	5.5	1.2%
2000	6.0	1.3%
2001	7.5	2.0%
2002	8.5	2.4%
2003	11.5	3.2%
2004	13.0	3.6%
2005	14.0	3.2%
2006	15.5	3.3%
2007	15.5	3.1%
2008	15.5	2.4%
2009	19.0	1.8%
2010	20.5	1.6%
2011	28.0	2.1%
2012	28.5	1.9%
2013	27.5	1.7%
2014	27.5	1.6%
2015	26.0	1.4%
2016	28.5	1.4%
2017	33.0	1.7%
2018	37.5	1.9%
2019	38.0	1.7%
2020	45.0	1.7%
2021 Q1	42.0	1.5%

The chart displays the quarterly evolution of French public debt from Q1 2016 to Q4 2020. The total debt is represented by the height of the stacked bars, with green indicating Bonds and dark grey indicating Bills. The values are in billions of EUR.

Year	Quarter	Bonds (EUR bn)	Bills (EUR bn)	Total (EUR bn)
2016	Q1	60	19	79
	Q2	55	20	75
	Q3	48	19	67
	Q4	58	18	76
2017	Q1	74	19	93
	Q2	66	17	83
	Q3	54	15	69
	Q4	53	22	75
2018	Q1	73	17	90
	Q2	67	16	83
	Q3	50	16	66
	Q4	67	22	89
2019	Q1	76	17	93
	Q2	70	17	87
	Q3	72	22	94
	Q4	82	24	106
2020	Q1	76	16	92
	Q2	70	22	92
	Q3	58	21	79
	Q4	55	21	76

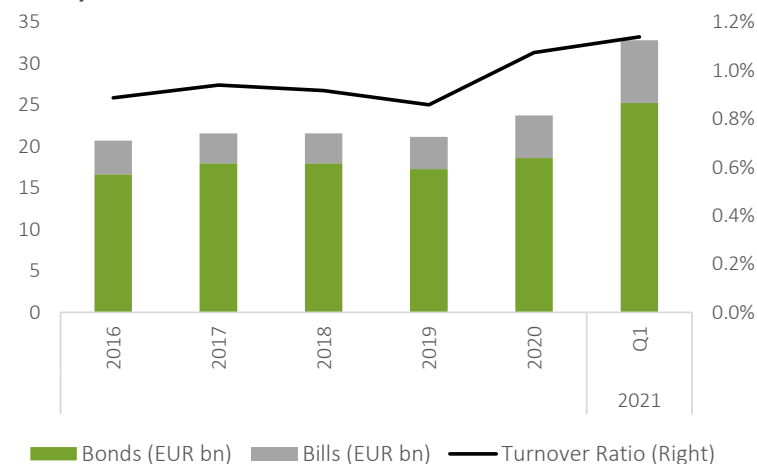
The chart displays the composition of the investment portfolio in terms of Bonds and T-Bills (in EUR bn) and the Turnover Ratio (on the right axis) from 2005 to 2020. The left Y-axis represents the value in EUR bn (0 to 35), and the right Y-axis represents the Turnover Ratio (0.0% to 4.0%). The X-axis shows years from 2005 to 2019, followed by H1 and H2 for 2020. Bonds are represented by green bars, T-Bills by grey bars, and the Turnover Ratio by a black line.

Year	Bonds (EUR bn)	T-Bills (EUR bn)	Turnover Ratio (Right)
2005	28.5	0.5	3.5%
2006	27.0	0.5	3.2%
2007	26.0	0.5	2.8%
2008	24.0	0.5	2.5%
2009	17.0	0.5	1.8%
2010	18.5	0.5	2.2%
2011	23.5	0.5	2.0%
2012	21.5	0.5	1.5%
2013	23.0	0.5	1.7%
2014	19.0	0.5	1.4%
2015	18.5	0.5	1.4%
2016	17.0	0.5	1.3%
2017	19.0	0.5	1.5%
2018	18.5	0.5	1.4%
2019	16.5	0.5	1.3%
2020 H1	17.5	0.5	1.5%
2020 H2	15.5	0.5	1.2%

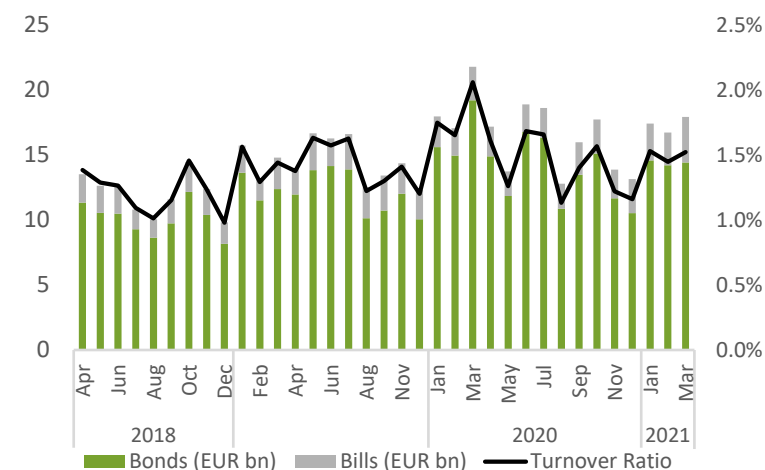
Government Bond Data Report – Q1 2021

Secondary Market Trading Volumes and Turnover Ratios

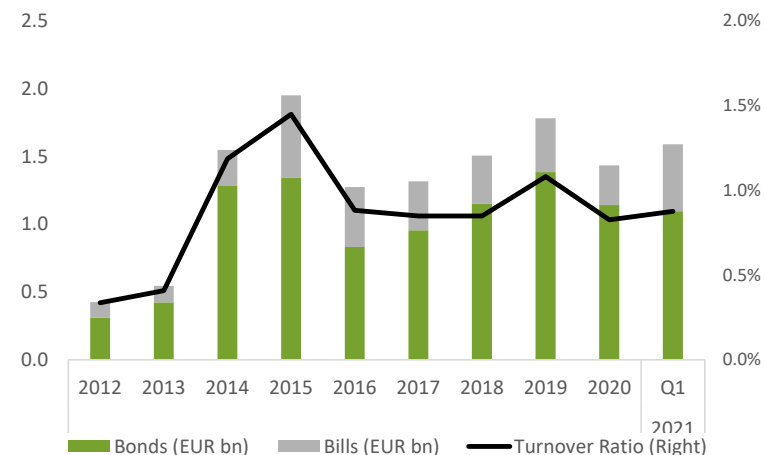
5.5 Italy: Average daily trading volume (bonds and bills) and turnover ratio



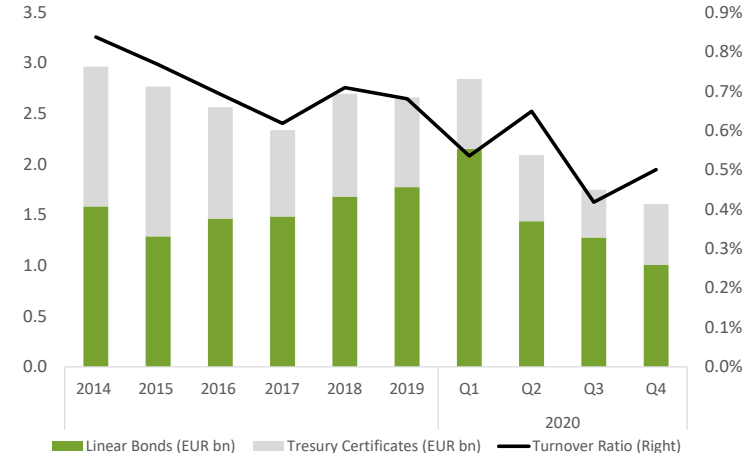
5.6 Spain: Average daily trading volume and turnover ratio



5.7 Portugal: Average daily trading volume and turnover ratio



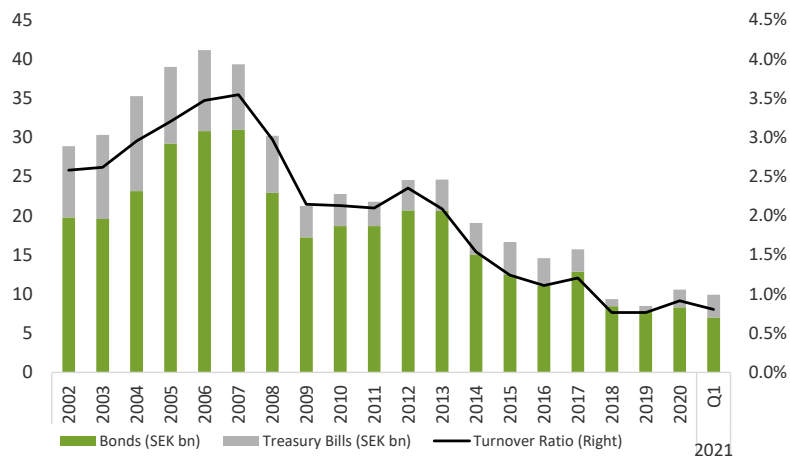
5.8 Belgium: Average daily trading volume and turnover ratio



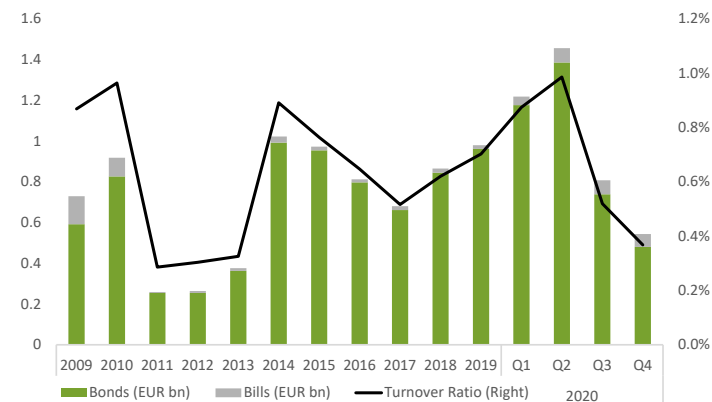
Source: ECB, Italian Dipartimento del Tesoro, BME Market Data and Tesoro Publico de Espana, Agência de Gestão da Tesouraria e da Dívida Pública (IGCP), ECB, Belgian Debt Agency. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries.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

Secondary Market Trading Volumes and Turnover Ratios

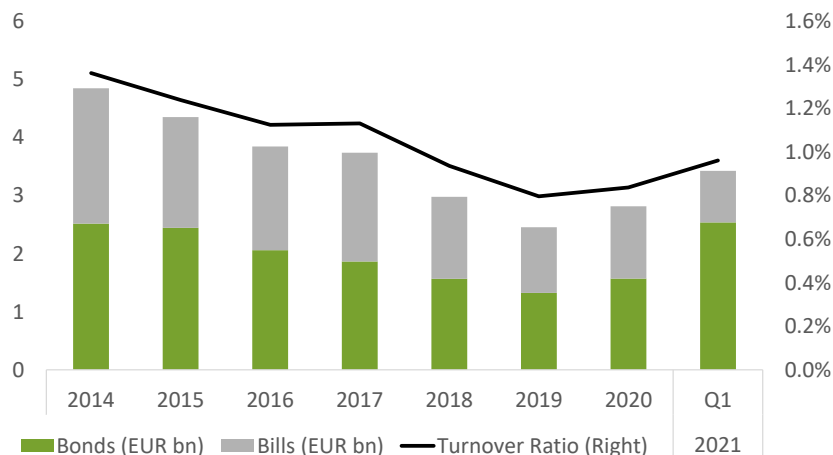
5.9 Sweden: Average daily trading volume and turnover ratio



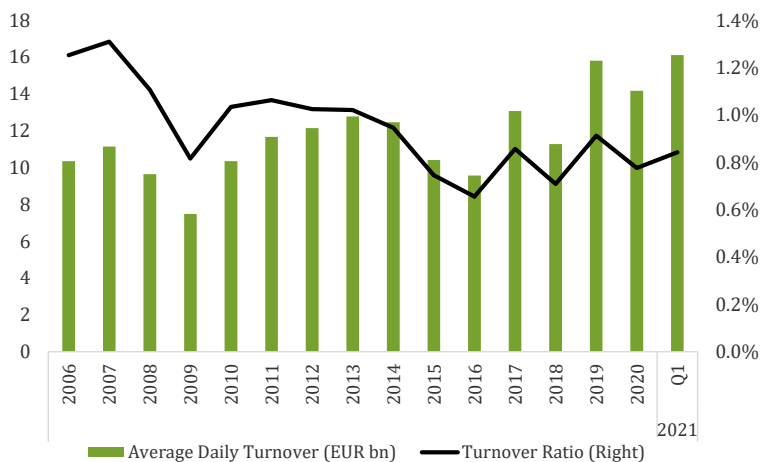
5.10 Ireland: Average daily trading volume (aggregated bonds and bills) and turnover ratio



5.11 Netherlands: Average daily trading volume and turnover ratio



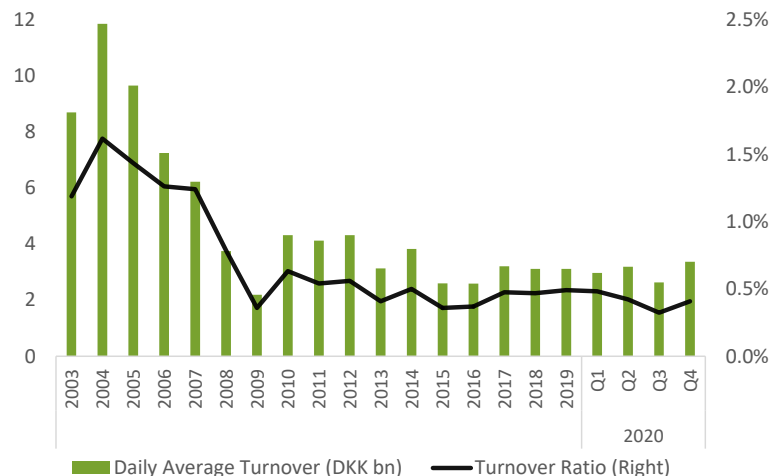
5.12 France: Average daily trading volume (bonds only) and turnover ratio



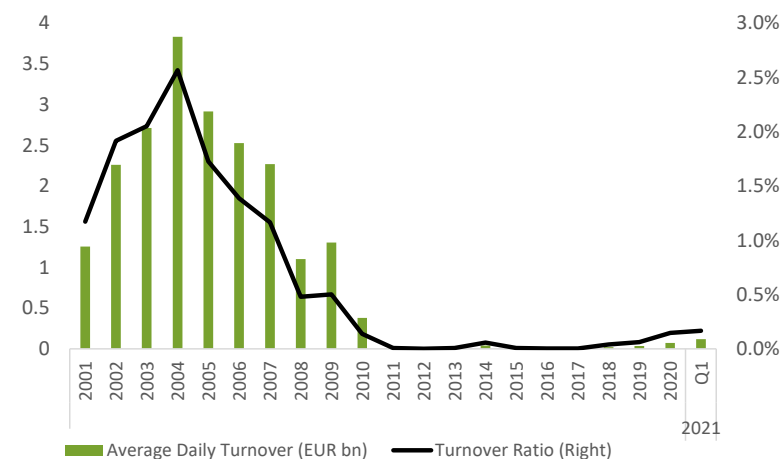
ECB, Swedish National Debt Office (Riksgalden), Irish Stock Exchange, Ministerie van Financien, Agence France Tresor. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 33 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

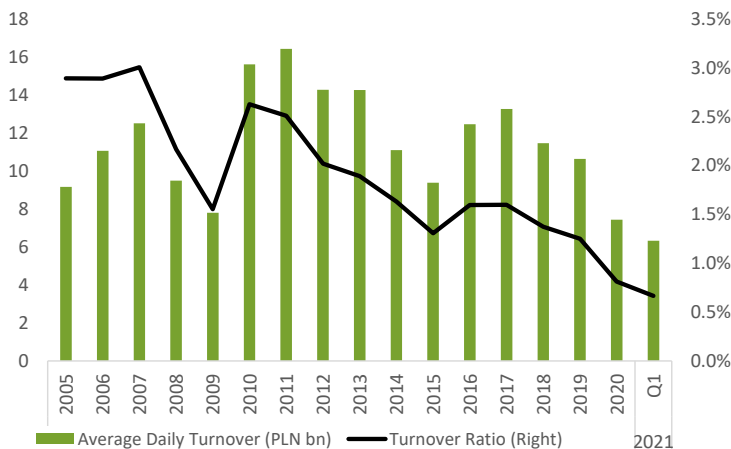
5.13 Denmark: Average daily trading volume (bonds and bills) and turnover ratio



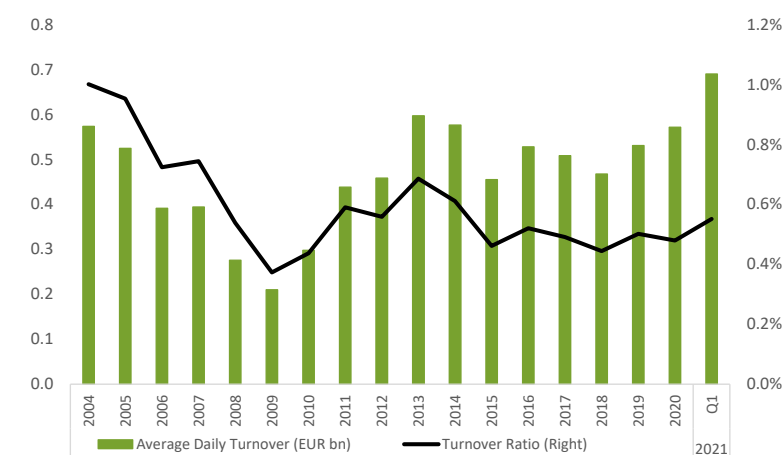
5.14 Greece: Average daily trading volume (bonds only) and turnover ratio



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



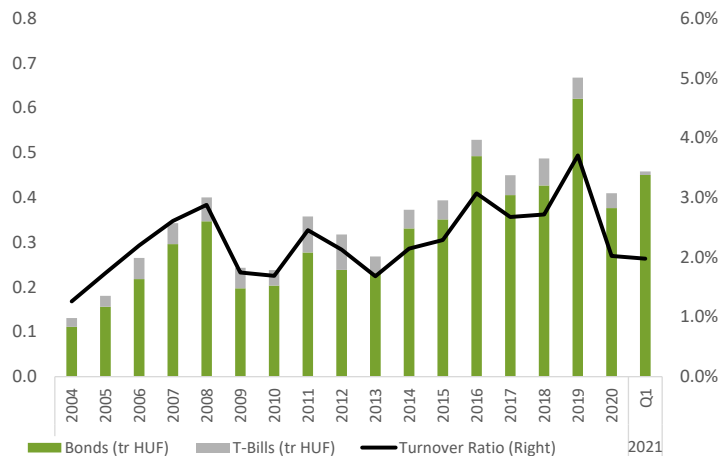
5.16 Finland: Average daily trading volume (aggregated bonds and bills) and turnover ratio



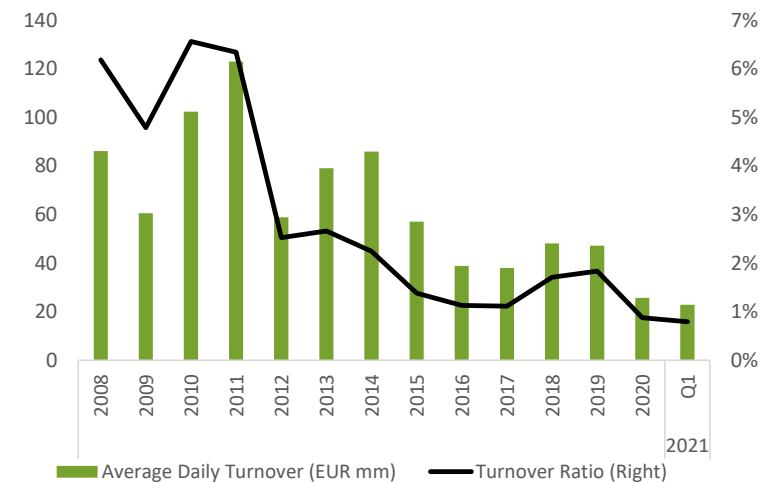
Source: Denmark's Nationalbank, Bank of Greece, ECB, National Depository for Securities (KDPW), WSE, Finland Valtiokonttori. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 33 of this report.**

Secondary Market Trading Volumes and Turnover Ratios

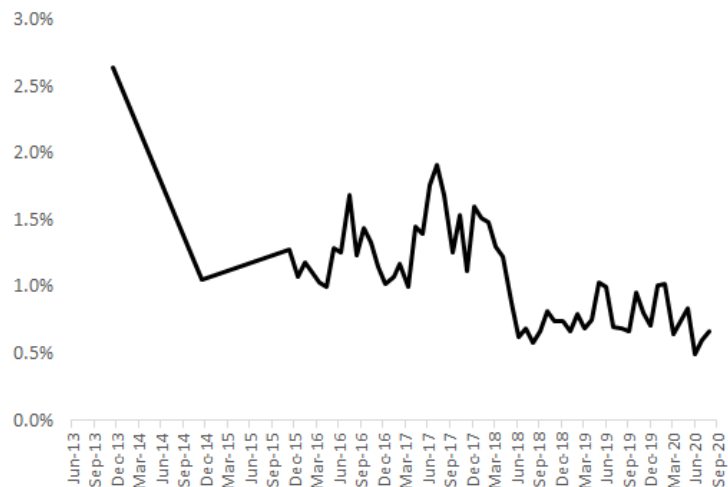
5.17 Hungary: Average daily trading volume and turnover ratio



5.18 Bulgaria: Average daily turnover volume and turnover ratio

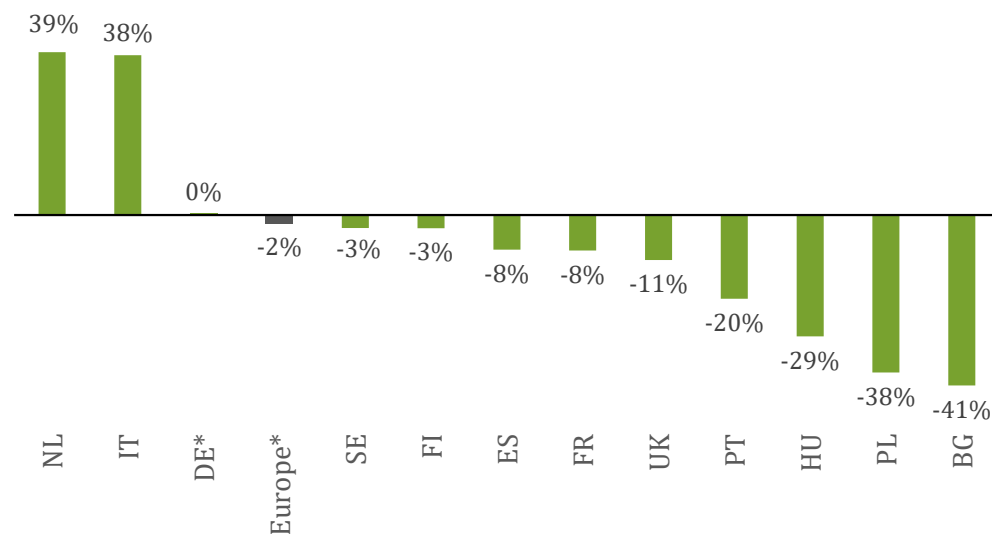


5.19 Romania: Average daily turnover ratio

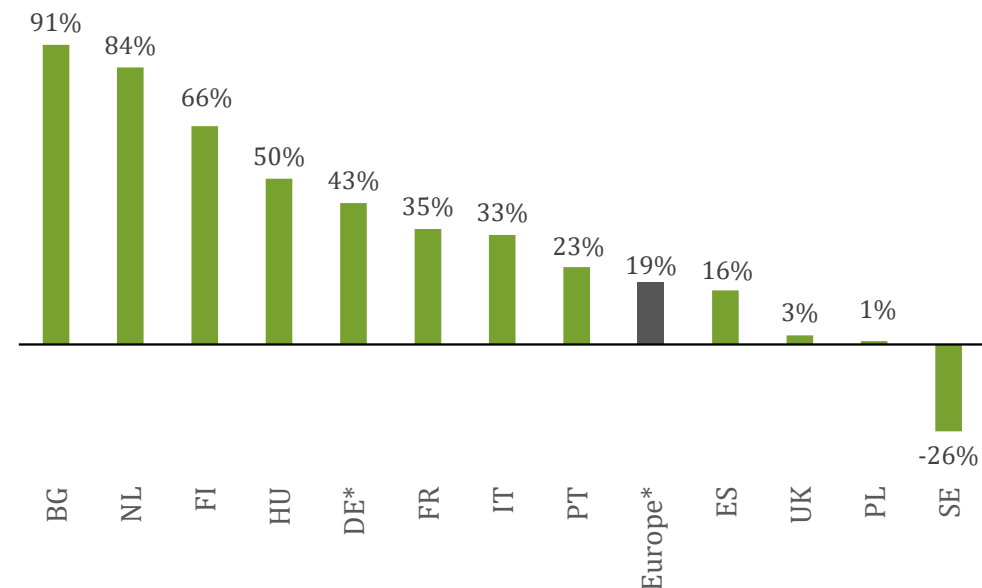


Source: ECB, AKK, Ministry of Finance of the Republic of Bulgaria, Ministerul Finantelor. **Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries. Full Methodology available on page 33 of this report.**

5.20 Annual change in average daily turnover volumes of European government bonds: 1Q20 to 1Q21



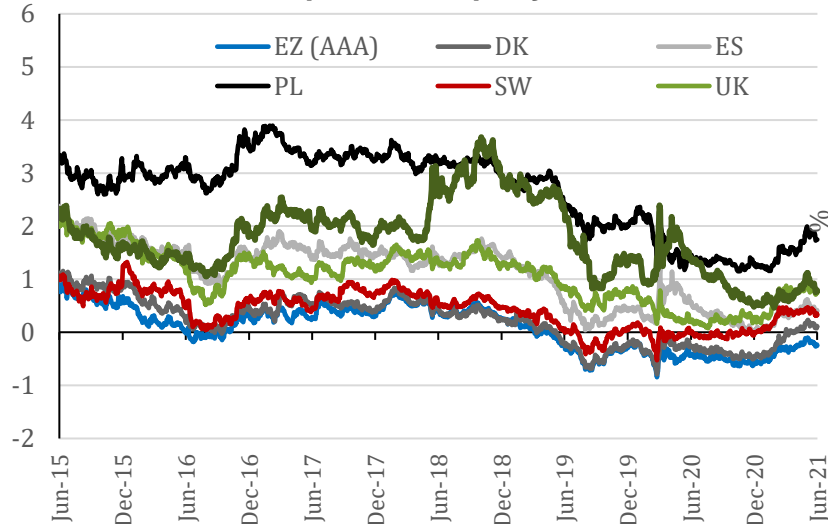
5.21 Quarterly change in average daily turnover volumes of European government bonds: 4Q20 to 1Q21



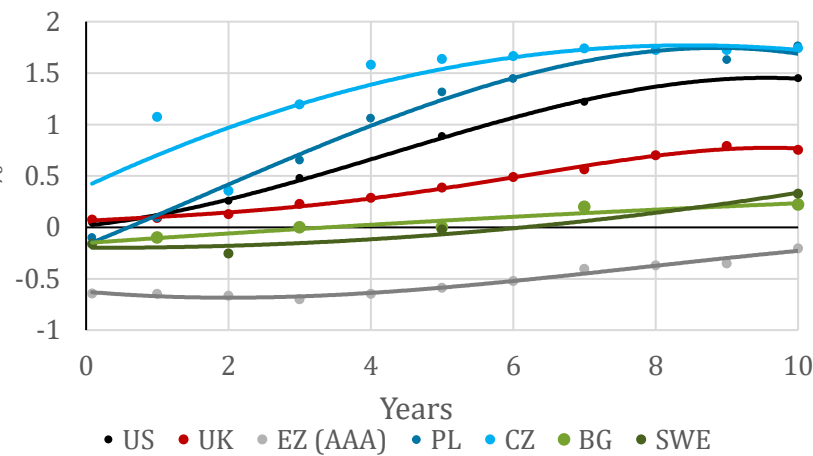
Source: AFME with information from European DMOs and other agency sources. See section 5 for details on aggregation basis and sources. *Europe (EU+UK) total and Germany is sourced from Trax Facts as the quarterly variation of average daily volumes of government and sovereign bonds. **Romanian turnover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

Valuations

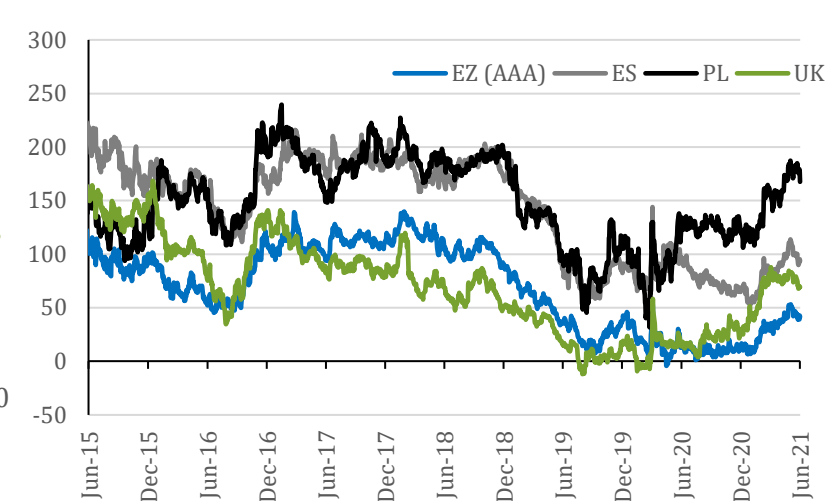
6.1 Selected European 10Y spot yields



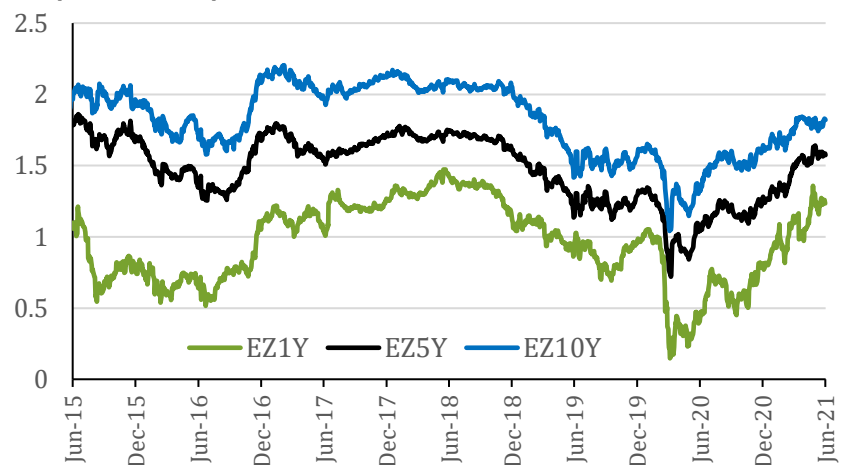
6.2 Sovereign spot yield curve of selected jurisdictions: 16 June 2021



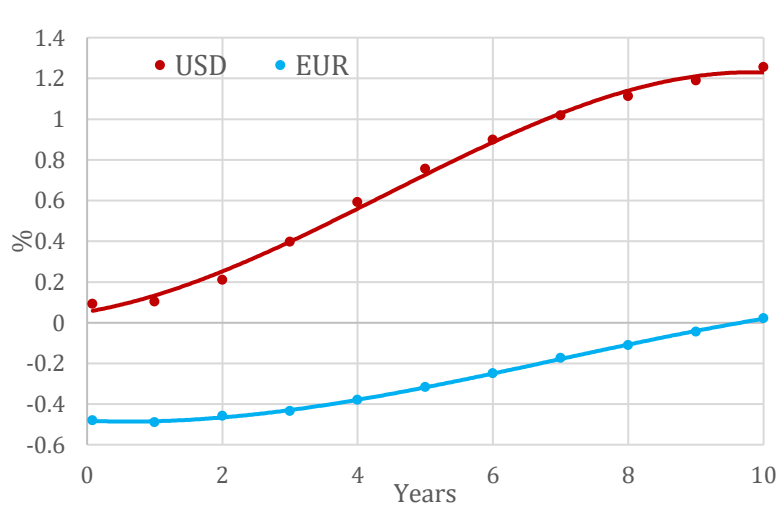
6.3 Slope: 1Y10Y spread (bps)



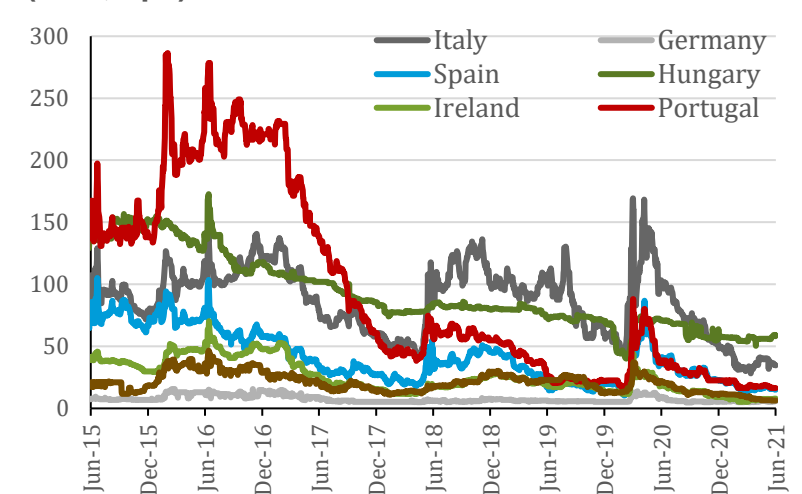
6.4 Market-implied inflation expectations (EuroZone)



6.5 Overnight index swap (OIS) yield curve: 16 June 2021



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 EU28: 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 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>

Contacts

Research

Matt Johnston

Analyst, Capital Markets
Matt.Johnston@afme.eu
+44 (0)20 3828 2702

Julio Suarez

Director, Research
Julio.Suarez@afme.eu
+44 (0)20 3828 2726

Sara Scognamiglio

Intern, Capital Markets
Sara.Scognamiglio@afme.eu

Fixed Income

Victoria Webster

Director, Fixed Income
Victoria.Webster@afme.eu
+44 (0)20 3828 2689

Francesca Bluck

Senior Associate, Fixed Income
Francesca.Bluck@afme.eu
+44 (0)20 3828 2728

London Office

39th Floor
25 Canada Square
London E14 5LQ
United Kingdom
+44 (0)20 3828 2700

Brussels Office

Rue de la Loi, 82
1040 Brussels
Belgium
+32 (0)2 788 3971

Frankfurt Office

Neue Mainzer Straße 75,
60311 Frankfurt am Main,
Germany
+49 69 153 258 963



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