

Government Bond Data Report

European market data update

Q1: 2019



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Annual changes in Government Bond average trading volumes

(1Q19 vs 4Q18) Selected European jurisdictions



Source: AFME with information from European DMOs and other agency sources and Trax, a MarketAxess subsidiary. See section 5 for details on aggregation basis and sources. *Europe 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.

Quarterly change in Government Bond average trading volumes

(1Q19 vs 1Q19) Selected European jurisdictions



Source: AFME with information from European DMOs and other agency sources and Trax, a MarketAxess subsidiary. See section 5 for details on aggregation basis and sources. *Europe 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.

Highlights and Market **Environment**

This report provides a comprehensive data source with updated statistics of the Government bond¹ primary and secondary markets in Europe (EU28).

Among the main findings of this report are:

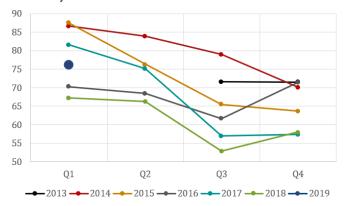
- Average daily trading volumes of European government bonds increased by 15% YoY during 1019, driven by a substantial increase in trading in France (52% YoY), Ireland (39% YoY) and Hungary (24% YoY). Notably, there was a significant reduction in trading in Italy (-27% YoY) and to a lesser extent Germany (-15% YoY) and Sweden (-5% YoY).
- **European Government bond and bills gross** issuance totalled €684 bn in 1Q19, an increase of 2% from the volume issued in 1018 (€668.6) and 44% above the volume issued in 4Q18 (€476.6 bn).
- The bid-cover ratio average (demand/amount allocated)² was 2.16 in 1Q19, showing 2.9 % YoY change from 1Q18 and a small increase from 2.14 in 4Q18. The most significant annual increase in bid-cover ratio was in Germany (27.7% YoY) whilst the greatest reduction was recorded in the Netherlands (-29.2% YoY).
- During 1Q19 there were 4 long-term credit rating upgrades and no downgrades for EU countries.

	2015	2016	2017	2018	1Q 2019
Gross Issuance (€ bn)	2595.3	2553.8	2478.2	2308.1	684.0
Bonds (€bn)	1209.7	1184.7	1228.7	1089.8	361.6
Bills (€bn)	1385.6	1369.1	1249.6	1218.2	322.5
Outstandings (€ tn)	9.73	9.60	9.68	9.87	10.07
Bid-cover ratio	2.22	2.16	2.13	2.15	2.16
Average daily turnover					
(% YoY change)	-8.4%	-7.2%	-0.3%	-9.8%	13.2%

¹ Fixed income securities issued by central governments. The report includes Bonds and Treasury Bills and excludes agencies and Central Bank origination.

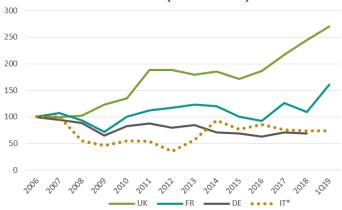
² Weighted average (by issuance volume) of bid-cover ratios in the United Kingdom, Spain, France, Italy, Germany, Belgium, Sweden, Netherlands Denmark and Austria

Seasonality of EU government bond trading (quarterly trading volumes, average daily, EUR bn)

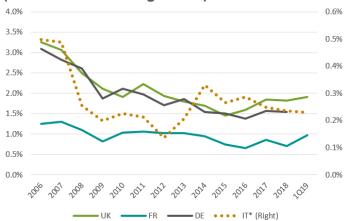


Source: Trax, a MarketAxess subsidiary

Average daily turnover index of selected EU countries 2006-2019Q1 (base=2006)



Turnover ratio of selected EU countries (turnover/outstanding bonds)



Source: UK Debt Management Office, Deutsche Finanzagentur, Italian Dipartimento del Tesoro, Agence France Trésor and ECB. *Note that Turnover ratio for Italy only includes turnover recorded on the electronic interdealer regulated market. Differences across aggregation basis across jurisdictions means that data is not fully comparable between countries. Full aggregation criteria for all countries can be found in the footnotes in Section 5 of the report.

Highlights

2019 Q1 EU Government Bond trading rebounds with turnover at 2-year high

Trading activity picks up in the new year after a dismal 2018. This was largely driven by increased trading in France, Ireland, Hungary and Portugal. (see chart on top left).

The rally was not only in the sovereign space, with turnover of European corporate investment-grade and high yield bonds also experiencing multi-year highs with surges of 13% YoY and 12.8% respectively, according to Trax. CLS reports that global FX trading rose 8.6% YoY. In contrast, turnover dropped 18% YoY in the European equities market, according to CBOE markets.

It remains unclear whether the government bond trading surge represents an upward longer-term trend. However, Q1 2019 certainly provides a more optimistic outlook for EU sovereign trading activity compared to recent quarters.

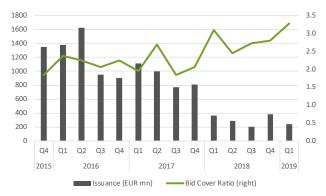
Divergence in secondary market trading in EU countries as UK reaches new high

Since 2006, turnover of UK government bonds has almost tripled with a large sustained increase in trading recorded after the Brexit referendum in 2016. Notably, in Q1 2019, trading of French government bonds increased 47% QoQ with monthly turnover in March being the largest volume since records began (Q1 2006)³ (see chart on middle left).

Conversely, Germany and Italy have experienced a modest decline in average daily turnover since 2006 with the latter facing larger volatility during this period. Growth in outstanding government bonds seems to be driving a large part of the increase in turnover volume for the UK and France as evidenced by the decline in turnover ratio (average daily turnover/outstanding bonds). See chart on bottom left. For individual country-bycountry analysis please refer to section 5 of the report.

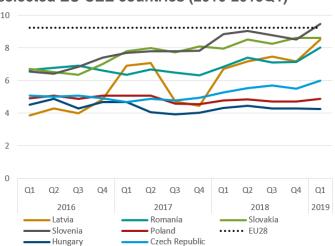
³ Turnover measured by average daily trading derived from monthly trading data

Sweden: Government bonds and bills issuance and bid cover ratio



Source: Thomson Reuters Eikon and Riksgälden

Weighted average years to maturity for selected EU CEE countries (2016-2019Q1)



Source: Thomson Reuters Eikon. EU28 measured as the weighted average years to maturity for all EU countries taken in Q1 2019.

Record bid cover ratio in Sweden as issuance volume shrinks

The bid cover ratio in Sweden reached an 8 year high in Q1 2019 driven by bid-cover ratios of 5X or more in 6 auctions. (see chart on top left).

This included a record-breaking auction with the 500mn SEK (approximately €47mn) sale of Swedish government bonds having a bid cover ratio of 6.03—the most oversubscribed sovereign auction in Sweden for 3 years. Debt issuance, which has fallen to record lows in recent years, may be a contributing factor to the increase in bid cover ratio with a decline in supply of Swedish sovereign securities.⁴

Longer dated maturities in EU CEE Countries

In Q1 2019 weighted average years to maturity increased significantly in Latvia (18.5% QoQ), Romania (12.6% QoQ), Slovenia (11.2% QoQ) and Czech Republic (8.8% QoQ) (see chart on bottom left).

Whilst some of this fluctuation may be due to the seasonal factors in issuance of long-term debt securities and the maturity schedules of the debt securities, it is evident that over the medium term most CEE have increased debt tenors moving closer to the EU28 average. Notable exceptions are Poland and Hungary, which have had relatively little variation in weighted average years to maturity over the same period.

Major upcoming regulatory, legislative and policy initiatives

There are several regulatory initiatives currently being considered at European and national level which may impact on the functioning of government bond markets. Some of the key initiatives recently implemented or soon to be applied include but are not limited to:

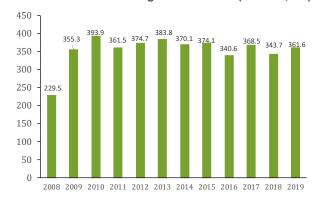
- Basel III
- CSDR
- Fundamental Review of the Trading Book (FRTB)
- Prospectus Regulation

AFME and its members actively contribute to these and other initiatives.

⁴ Correlation for this period was -0.64

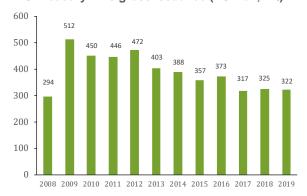
1. Issuance

1.1 EU Government Bond gross issuance (EUR bn, 1Q)



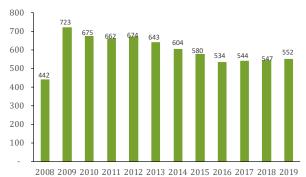
Source: ECB and National Debt Management Offices

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



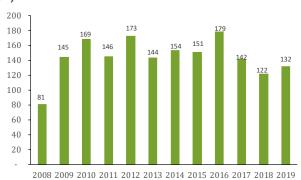
Source: ECB and National Debt Management Offices

1.3 Eurozone bonds and bills gross issuance (EUR bn, 1Q)



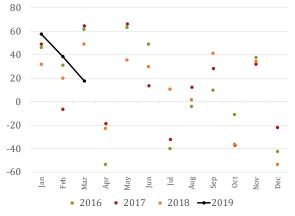
Source: ECB and National Debt Management Offices

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



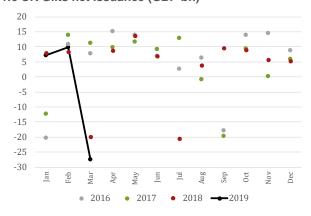
Source: ECB and National Debt Management Offices

1.5 Euro area net sovereign debt issuance (EUR bn)



Source: ECB

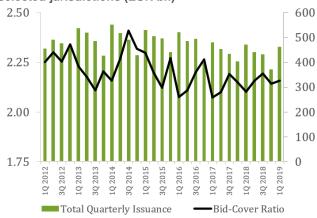
1.6 UK Gilts net issuance (GBP bn)



Source: UK Debt Management Office

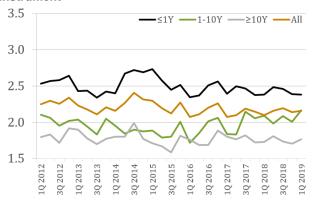
2. Recent auctions and primary dealers

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



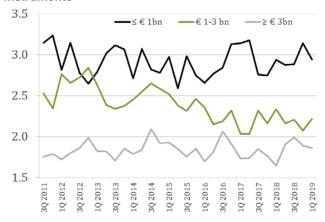
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills

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



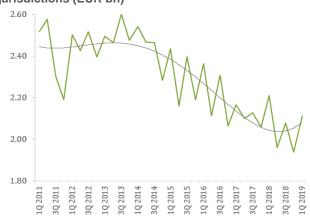
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills

2.3 Average bid-cover ratios by size of issued instruments



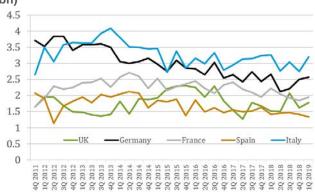
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills

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



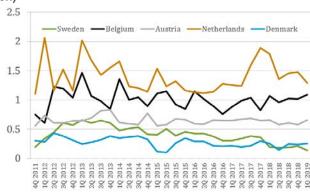
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills. Polynomial trendline in grey.

2.5 Average auction size in selected jurisdictions (EUR bn)

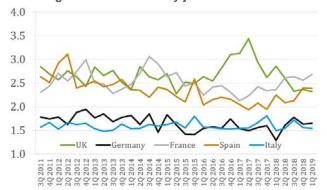


Source: Thomson Reuters Eikon

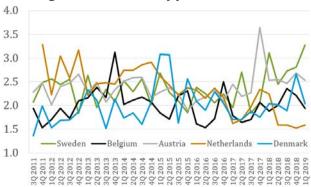
2.6 Average auction size in selected jurisdictions (EUR bn)



2.7 Average bid-cover ratios by jurisdictions



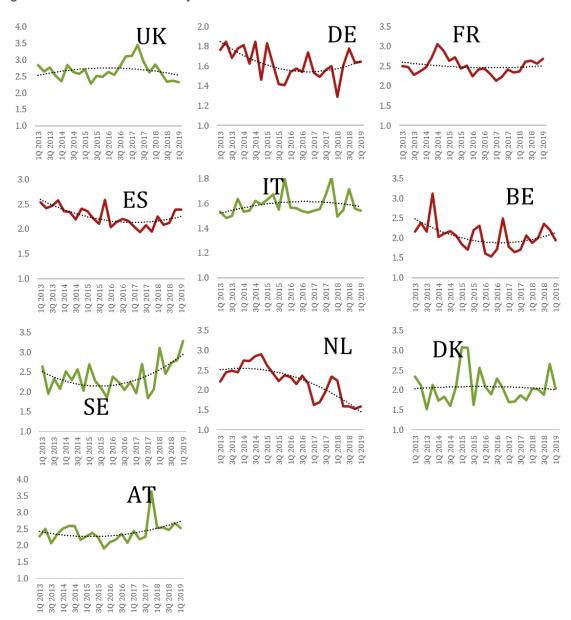
2.8 Average bid-cover ratios by jurisdictions



Source: Thomson Reuters Eikon

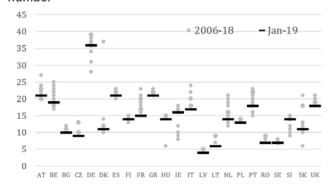
Source: Thomson Reuters Eikon

2.9 Average bid-cover ratios in selected jurisdictions: 2012-185

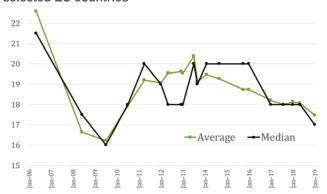


⁵ Chart colour indicates slope of trendline. Green indicates end value of trendline above starting value and red indicates end value of trendline below starting value

2.10 Number of primary dealers relative to historic number



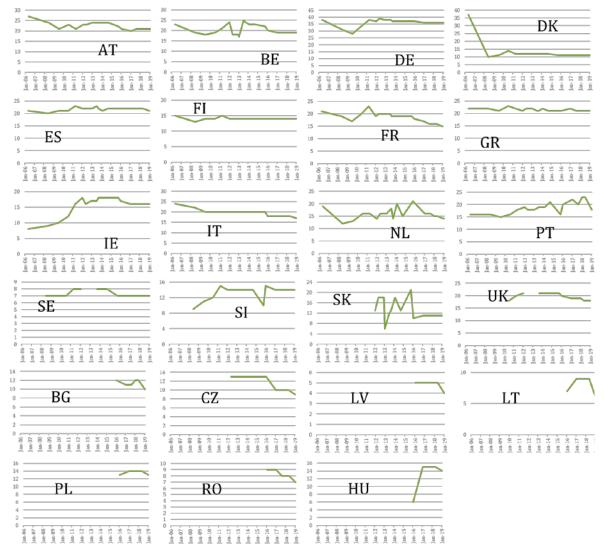
2.11 Average and median number of primary dealers in selected EU countries



Source: AFME Primary Dealers Handbooks and national DMOs

Source: AFME HRF Table and national DMOs. Average and medians of AT, BE, DE, DK, ES, FI, FR, GR, IE, IT, NL, PT, SE, SI and UK

2.12 Number of primary dealers in Europe by country: 2006-196

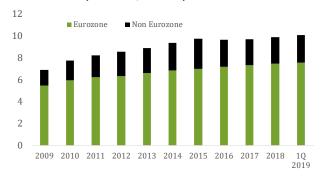


Source: AFME HRF Table and national DMOs

⁶ The gap in the lines for UK and Sweden indicates data not recorded in the relevant period.

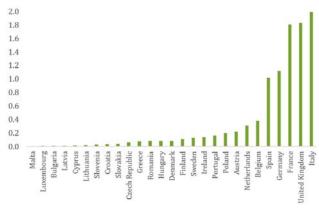
3. Outstanding

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



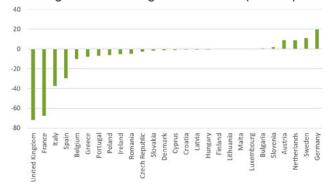
Source: ECB and Thomson Reuters Eikon

3.2 European government bonds outstanding by country (EUR tn)



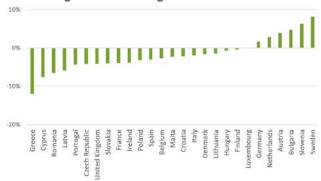
Source: Thomson Reuters Eikon

3.3 Change in outstandings 4Q18 to 1Q19 (EUR bn)



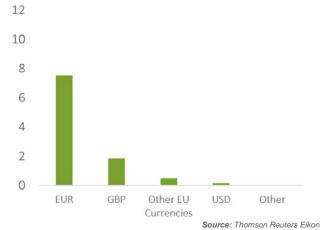
Source: Thomson Reuters Eikon

3.4 % Change in outstandings from 4Q18 to 1Q19



Source: Thomson Reuters Eikon and Standard and Poor's

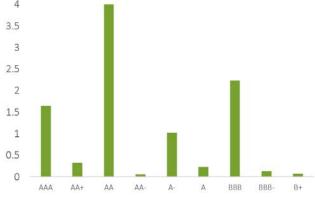
3.5 European government bonds outstanding by currency (EUR tn)



4

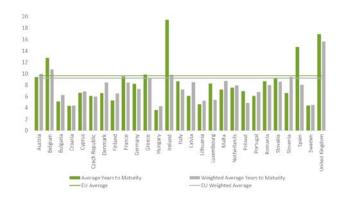
current rating of issuer (EUR tn)

3.6 European government bonds outstanding by

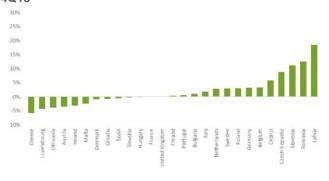


Source: Thomson Reuters Eikon and Standard and Poor's

3.7 Average years to maturity for outstanding government bonds in EU countries⁷



3.8 Quarterly change in weighted average years to maturity for outstanding government bonds 3Q18 to 4Q18 8

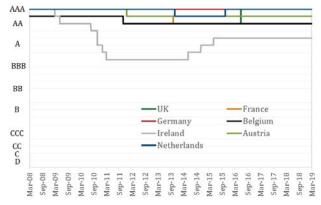


Source: Thomson Reuters Eikon

Weighted average by outstanding amount
 Weighted average by outstanding amount

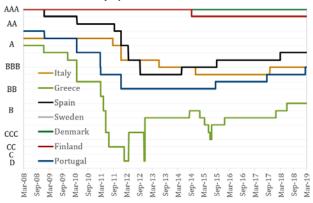
4. Credit quality

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



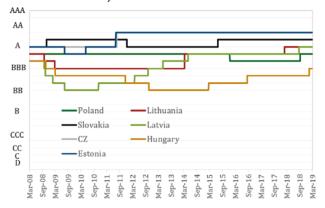
Source: Thomson Reuters Eikon with data of Standard and Poor's

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



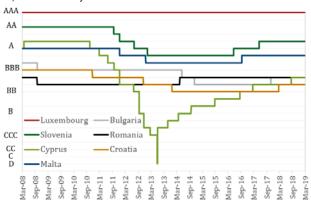
Source: Thomson Reuters Eikon with data of Standard and Poor's

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



Source: Thomson Reuters Eikon with data of Standard and Poor's

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



Source: Thomson Reuters Eikon with data of Standard and Poor's

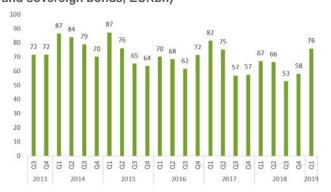
4.5 European rating actions on long-term foreign currency ratings (YtD)

issue	r kaung acuon	Date	Ratea by	Rationale
Hunga	ary Upgrade to BBB (stable) from BBB-	Feb-19	S&P	Sound growth prospects, supported by high private savings and real wage gains, as well as ongoing expansion of export capacity
Hunga	ary Upgrade to BBB (stable) from BBB-	Feb-19	Fitch	Rapid external deleveraging, reduction in external debt, consistent current account surpluses, stable FDI inflows and capital transfers from the EU
Greec	e Upgrade to B1 (stable) from B3	Mar-19	Moody's	Implementation of refroms, strengthening economy and fiscal structural improvement, re-establishment of market based sovereign funding
Portu	gal Upgrade to BBB (stable) from BBB-	Mar-19	S&P	Decling debt and balanced growth, expected budget surpluses for the next three years

Source: Fitch, Moody's, S&P

5. Secondary market trading volumes and turnover ratios9

5.1 EU28: Average daily trading volumes (Government and sovereign bonds, EURbn)¹⁰



Source: Trax, a MarketAxess subsidiary

5.2 United Kingdom: Average daily trading volume (bonds only) and turnover ratio¹¹



Source: UK Debt Management Office

5.3 Italy: Average daily trading volume (bonds and bills) and turnover ratio. Electronic trading¹²

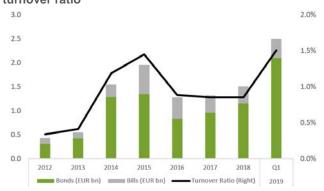


5.4 Germany: Average daily trading volume (aggregated bonds and bills) and turnover ratio¹³



Source: Deutsche Finanzagentur and ECB

5.5. Portugal: Average daily trading volume and turnover ratio 14



Source: Agência de Gestão da Tesouraria e da Dívida Pública – IGCP and ECB

5.6 Spain: Average daily trading volume and turnover ratio 15



⁹ Turnover ratios are calculated as the average daily trading volume relative to total outstandings. Cash trading only (excludes repo and derivatives transactions). Given the differences in the aggregation basis across jurisdictions, the data is not fully comparable between countries.

¹ Turnover data reported to the DMO by the Gilt-edged Market Makers (primary dealers).

¹² Turnover on electronic interdealer regulated market.

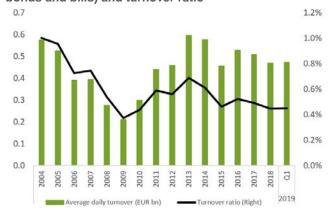
¹⁴ Turnover of electronic and OTC trading reported on MTS-Portugal, BrokerTec and eSpeed.

¹⁰ 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. Government & Sovereign bond volumes for EU28 member states as per the AFME methodology.

¹³ 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. Bubills, Schaetze, Bobls, Bunds and inflation-linked securities. Capital and coupon strips as well as US-dollar bonds are excluded. Data not currently available for 3Q18.

¹⁵ Due to data reconciliation activities of the Bank of Spain, data from April 2018 is from BME Market Data, a subsidiary of Bolsas y Mercados Epañoles. Turnover is derived from settlement data from Iberclear.

5.7 Finland: Average daily trading volume (aggregated bonds and bills) and turnover $\rm ratio^{16}$



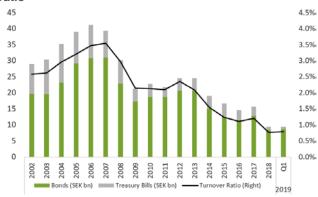
Source: Finland Valtiokonttor and ECB

5.8 Belgium: Average daily trading volume and turnover ratio 17



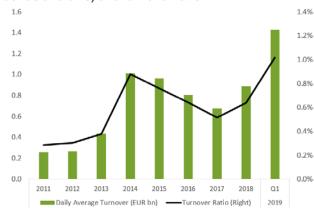
Source: Belgian Debt Agency and ECB

5.9 Sweden: Average daily trading volume and turnover ratio 18



Source: Swedish National Debt Office (Riksgälden) and ECB

5.10 Ireland: Average daily trading volume (aggregated bonds and bills) and turnover ratio 19



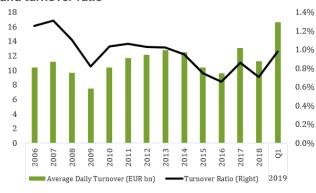
Source: Irish Stock Exchange and ECB

5.11 Netherlands: Average daily trading volume (bonds only) and turnover ratio²⁰



Source: Ministerie van Financiën

5.12 France: Average daily trading volume (bonds only) and turnover ratio²¹



Source: Agence France Trésor and ECB

¹⁶ Turnover of customer trades, MTS Finland and Euro MTS.

¹⁷ Turnover is total outright transactions.

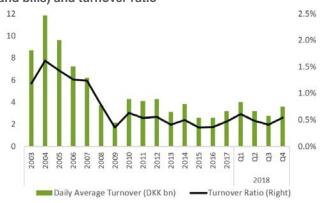
¹⁸ Turnover is total outright transactions.

¹⁹ Turnover on Irish Stock Exchange. Data for 4Q18 not available at time of publish.

²⁰ Turnover is customer and interdealer trading. Total outright transactions, including electronic and OTC trading. Data only available up to 2Q17

²¹ Turnover of voice and electronic trading (not including PSPP transactions or trading without an SVT).

5.13 Denmark: Average daily trading volume (bonds and bills) and turnover ratio²²



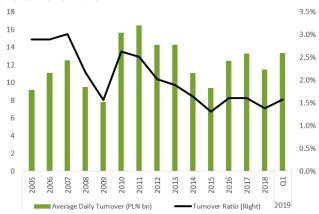
Source: Danmarks Nationalbank

5.14 Greece: Average daily trading volume (bonds only) and turnover ratio²³



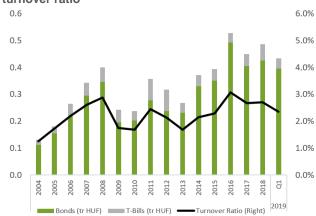
Source: Bank of Greece and ECB

5.15 Poland: Average daily trading volume (bonds only) and turnover ratio²⁴



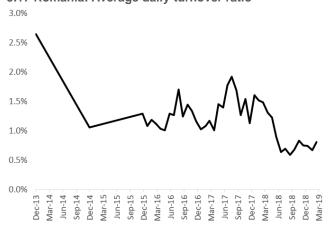
Source: National Depository for Securities (KDPW), WSE

5.16 Hungary: Average daily trading volume and turnover ratio²⁵



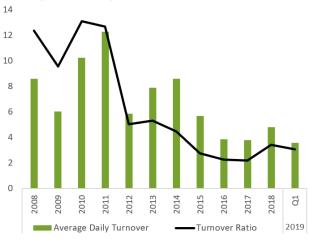
Source: ÁKK

5.17 Romania: Average daily turnover ratio²⁶



Source: Ministerul Finantelor

5.18 Bulgaria: Average daily turnover ratio²⁷



Source: Ministry of Finance of the Republic of Bulgaria

²² Turnover of MTS, TradeWeb, Bondvision and trades reported to Nasdaq OMX (including voice trading). Data only available up to 2018 Q4.

²³ Turnover on Electronic Secondary Securities Market (HDAT).

²⁴ 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.
²⁵ Turnover on MTS Hungary and Keler OTC.

²⁶ 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.

27 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 Quarterly change in average daily turnover volumes of EU government bonds: 4Q18 to 1Q19



Source: AFME with information from European DMOs and other agency sources. See section 5 for details on aggregation basis and sources. *Europe 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.

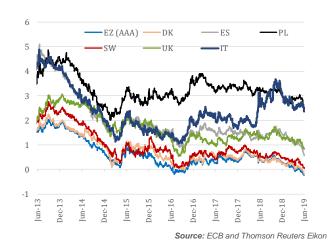
5.20 Annual change in average daily turnover volumes of EU government bonds: 4Q18 to 1Q19



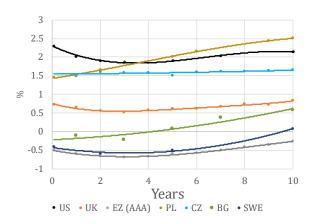
Source: AFME with information from European DMOs and other agency sources. See section 5 for details on aggregation basis and sources. *Europe total and Germany is sourced from Trax Facts as the quarterly variation of average daily volumes of government and sovereign bonds. **Romanian turnover volume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

6. Valuations

6.1 Selected European 10Y spot yields

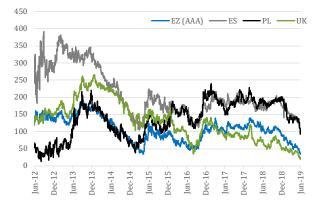


6.2 Sovereign spot yield curve of selected jurisdictions: 11 June 2019



Source: Thomson Reuters Eikon

6.3 Slope: 1Y10Y spread (bps)



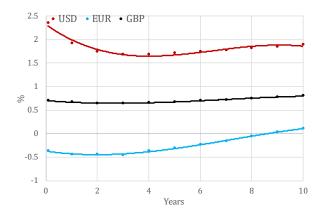
Source: ECB and Thomson Reuters Eikon

6.4 Market-implied inflation expectations (EuroZone)



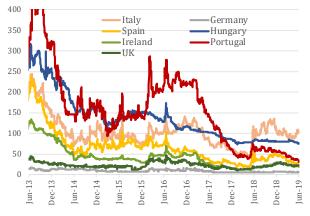
Source: Thomson Reuters Eikon

6.5 Overnight index swap (OIS) yield curve: 11 June 2019



Source: Thomson Reuters Eikon

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



Annex

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Methodologies

A summary of the methodologies adopted for this report is available at https://www.afme.eu/en/reports/Statistics/Methodologies



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