

Government Bond Data Report

European market data update

Q3: 2019



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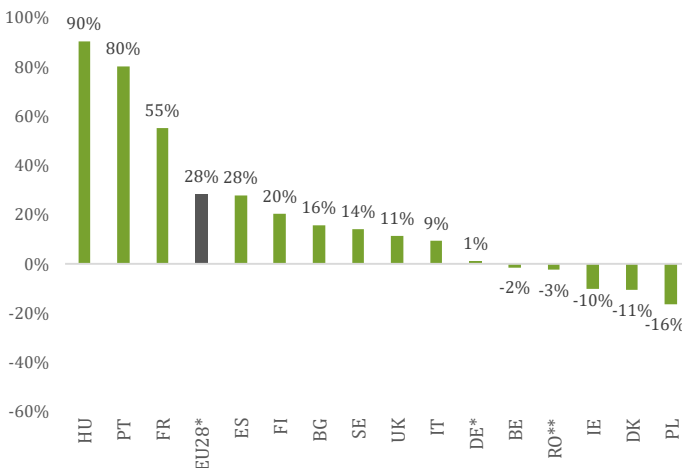
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Highlights and Market Environment

“EU government bond trading volume¹ increased 28.2% year-on-year and decreased -9.7% quarter-on-quarter in 3Q19”

1. Annual changes in Government Bond average daily trading volumes

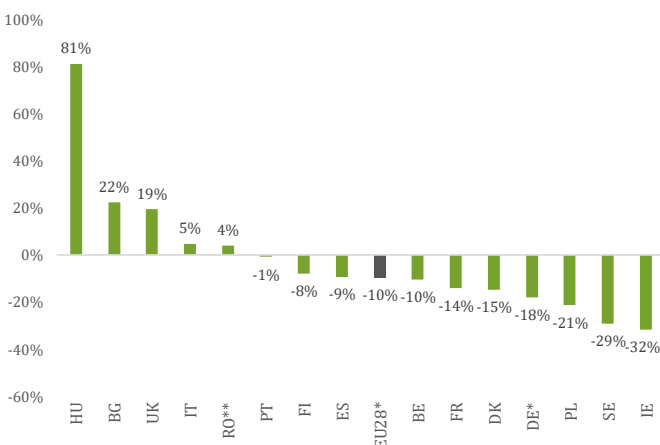
(3Q19 vs 3Q18) Selected European jurisdictions



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.

2. Quarterly change in Government Bond average daily trading volumes

(3Q19 vs 2Q19) 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.

This report provides a comprehensive data source with updated statistics of the Government bond² 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 28% YoY during 3Q19, driven by a significant increase in trading in Hungary (90% YoY), Portugal (80% YoY) and France (55% YoY). There was a reduction in trading in Poland (-16% YoY), Denmark (-11% YoY) and Ireland (-10% YoY) (see charts 1 and 2).
- **European Government bond and bills gross issuance** totalled €575.6 bn in 3Q19, a decrease of -2.6% from the volume issued in 2Q19 (€590.8 bn) and 0.2% greater than the volume issued in 3Q18 (€574.2 bn).
- **The average bid-cover ratio** (demand/amount allocated)³ was 2.14 in 3Q19, a slight increase of 0.81% (YoY) from 3Q18 and a -8.06% decrease QoQ from the multi-year high recorded in 2Q19. The most significant QoQ change was in Germany (-9.62% QoQ) whilst the most substantial YoY change was in Belgium (-18.5% YoY). The only QoQ increase in bid cover ratio was in Sweden which increased 3.45% during 3Q19.
- During 3Q19 there were **3 long-term credit rating upgrades for EU countries** (following 2 in 2Q19 and 5 in 1Q19) and no downgrades, bringing the year to date total to 14 upgrades and no downgrades (there were 4 further upgrades in 4Q19 to date).

3. EU government bonds data summary box

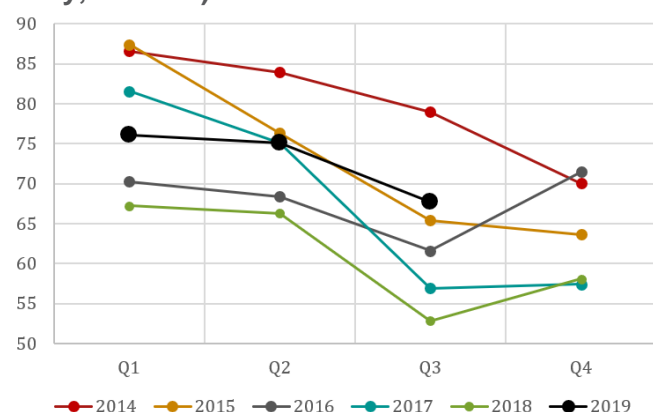
	2015	2016	2017	2018	2Q 2019	3Q 2019
Gross Issuance (€ bn)	2595.3	2553.8	2480.7	2304.0	590.8	575.6
Bonds (€bn)	1209.7	1184.7	1231.2	1085.8	303.1	244.4
Bills (€bn)	1385.6	1369.1	1249.6	1218.1	287.7	331.3
Outstandings (€ tn)	9.73	9.60	9.68	9.88	10.08	10.09
Bid-cover ratio	2.22	2.16	2.13	2.15	2.33	2.14
Average daily turnover (% YoY change)	-8.4%	-7.2%	-0.3%	-9.8%	12.7%	27.8%

¹ Total EU government bond trading volume data is sourced from Trax

² Fixed income securities issued by central governments. The report includes Bonds and Treasury Bills and excludes agencies and Central Bank origination.

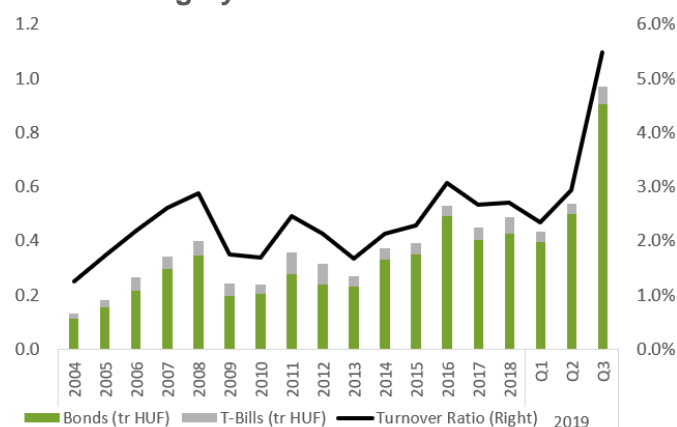
³ Weighted average (by issuance volume) of bid-cover ratios in the United Kingdom, Spain, France, Italy, Germany, Belgium, Sweden, Netherlands, Denmark and Austria.

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



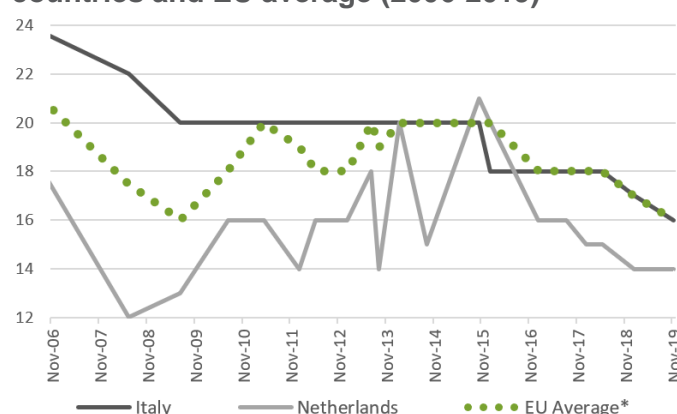
Source: Trax, a MarketAxess subsidiary

5. Average daily trading volume and turnover ratio in Hungary



Source: ÁKK. Turnover on MTS Hungary and Keler OTC.

6. Number of primary dealers in selected EU countries and EU average (2006-2019)



Source: AFME HRF Table and national DMOs. *Average is the median number of PDs in AT, BE, DE, DK, ES, FI, FR, GR, IE, IT, NL, PT, SE, SI and UK

Highlights

2019 Q3 EU Government Bond turnover highest 3Q traded volume in 5 years

Sustained increase in trading activity observed since lowest volume on record in 2018 Q3 (see chart 4).

Unanticipated changes in monetary policy and reversal of policy actions by the ECB and the US FED materialised throughout 2019 which may have driven increased trading activity in the sovereign markets throughout the year.

As a comparison with other trading activities, FX trading rose 7% YoY (CLS) and equities turnover dropped 10% YoY according to CBOE markets.

Record high Q3 turnover volumes recorded in Hungary

Spike in trading activity as volume of 0.97 tr HUF in Hungarian bonds and bills traded across both the MTS and OTC platforms (see chart 5).

Increased trading activity may have been driven by the run up to the Hungarian municipal elections, which took place in early October.

Average number of EU Primary Dealers equal to the lowest number on record

As of November 2019, four banks have exited EU primary dealership since January 2019, including one in Italy.

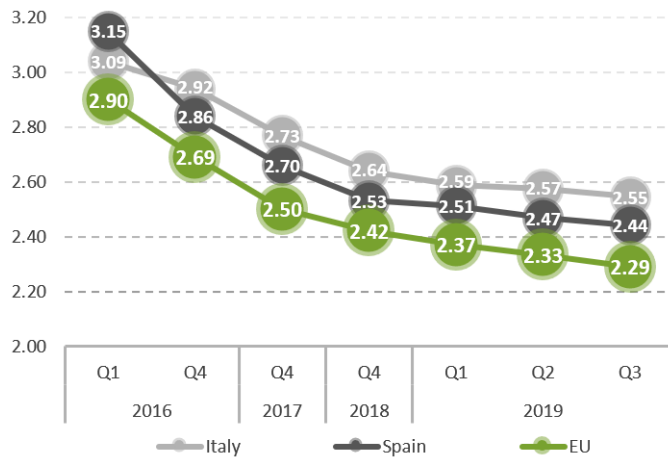
Currently, 16 primary dealers are active in the Italian sovereign market, a decrease of 33% since May 2006, when there were 24 active primary dealers. (see chart 6)

Belgium, Greece and Poland also had one exit each in primary dealership since January 2019. The Netherlands has seen the most significant reduction of any EU Member State over the last 5 years, with 7 PDs exiting the market, leaving the Netherlands with 14 active PDs in November 2019, 33% lower than in November 2015 in which there were 21 PDs.

Downward trends in primary dealership can be observed across almost all EU nations since 2016. The number of PDs in 11 EU countries is now equal to or at the lowest number in AFME records⁴ (for country-specific analysis see pg.10).

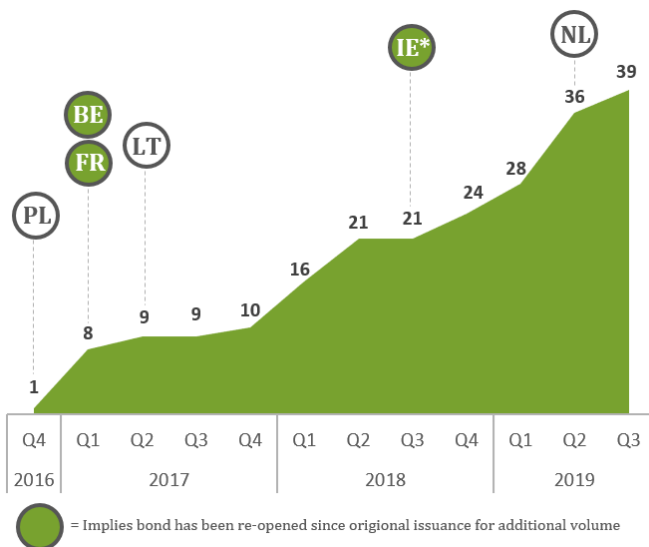
⁴ AFME conducts PD analysis for AT, BE, BG, CZ, DE, DK, ES, FI, FR, GR, HU, IE, IT, LV, LT, NL, PL, PT, RO, SE, SI, SK, UK. Records backdate to 2006-2016 depending on country.

7. Weighted average coupon rates in selected EU countries and EU average (2016-2019, %)



Source: Thomson Reuters Eikon

8. Outstanding EU green government bonds and date of entry to the market by each active sovereign (2016-2019, EUR bn)



Source: Thomson Reuters Eikon. *Irish green bond was re-opened in Q4 2019, and therefore the additional volume does not feature in this chart.

EU weighted average coupon rates of outstanding sovereign debt falls by 61bp since early 2016

13 bp fall in EU weighted average coupon rates in 2019 YtD is greater than the annual drop observed during 2018 of -8bp (see chart 7).

The weighted average coupon rate of sovereign debt issued in Spain has converged towards the EU average, falling by -71bp since Q1 2016, whilst in Italy the fall of -54bp was slightly lower than the EU average over this period.

The decline in the cost of debt coincides with the improved credit quality of EU sovereign debt issuers as shown on section 4 of the report and by the structural decline in credit default swap rates (see pg.18).

Outstanding amount of EU green government bonds reaches EUR 39 bn.

Outstanding volumes increased EUR 2.6 bn during Q3 2019, marking the first time green market activity has taken place in the sovereign space during a third quarter of the year (see chart 8).

The additional volume was driven by the re-opening of the French green bond of EUR 1.7bn and the Belgian green bond of EUR 0.9bn.

Major upcoming regulatory, legislative and policy initiatives

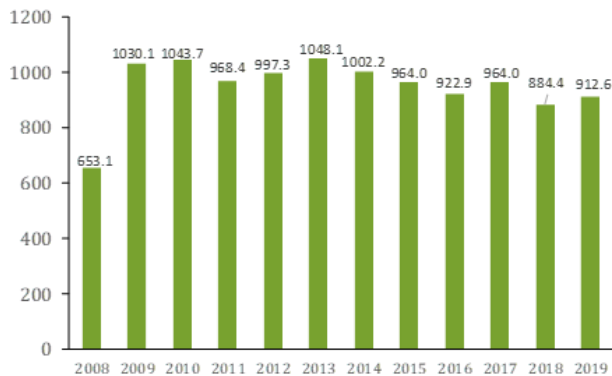
There are several regulatory initiatives currently being considered at the European and national level with expected impact on the government bond markets. Some of the key initiatives recently implemented or soon to be applied:

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

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

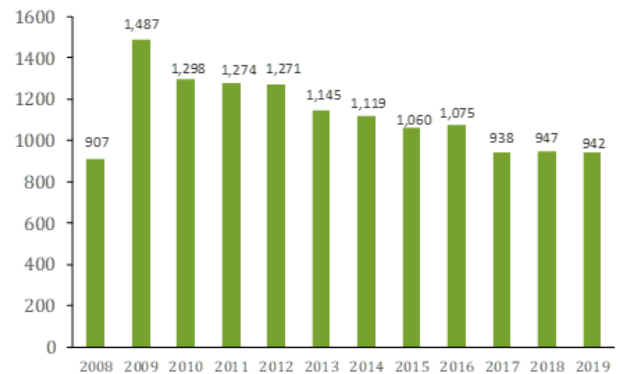
1. Issuance

1.1 EU Government Bond gross issuance (YtD, EUR bn)



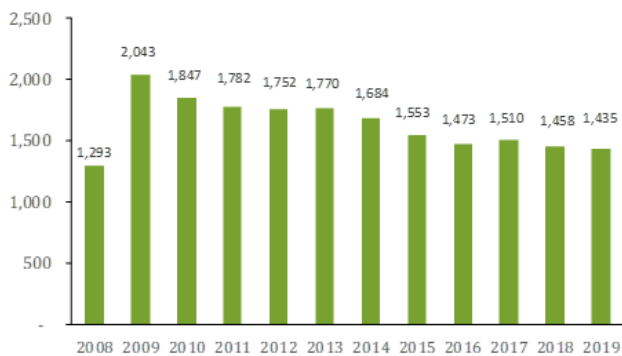
Source: ECB and National Debt Management Offices

1.2 EU Treasury Bills gross issuance (YtD, EUR bn)



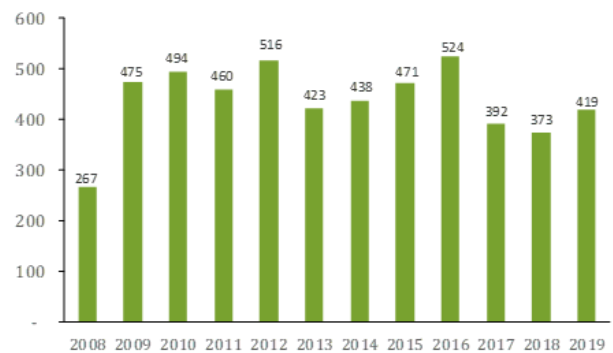
Source: ECB and National Debt Management Offices

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



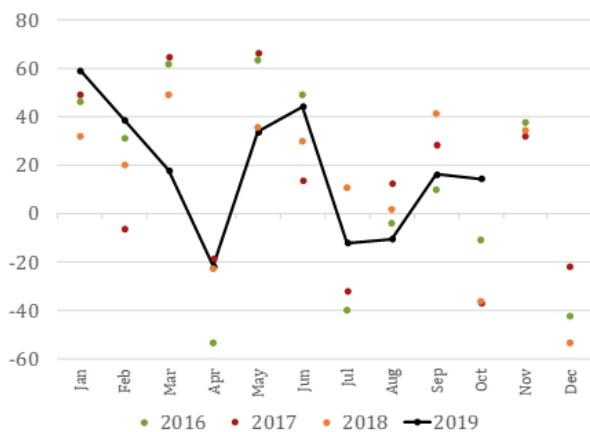
Source: ECB and National Debt Management Offices

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



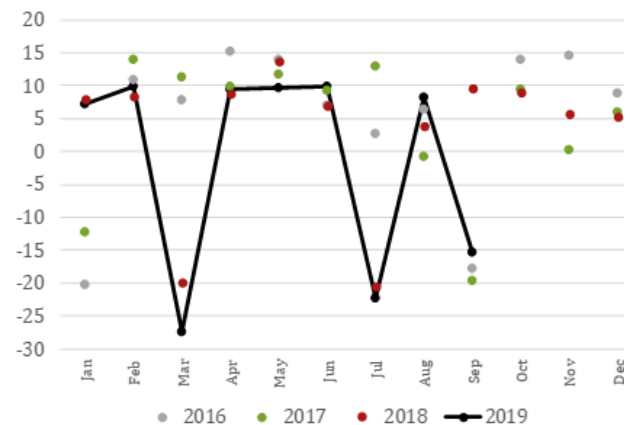
Source: ECB and National Debt Management Offices

1.5 Euro area net sovereign debt issuance (EUR bn)



Source: ECB

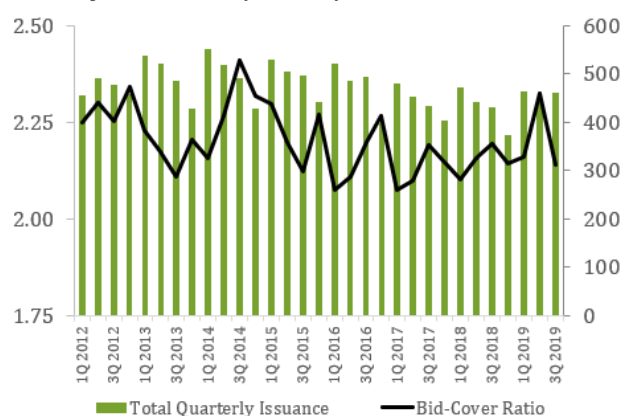
1.6 UK Gilts net issuance (GBP bn)



Source: UK Debt Management Office

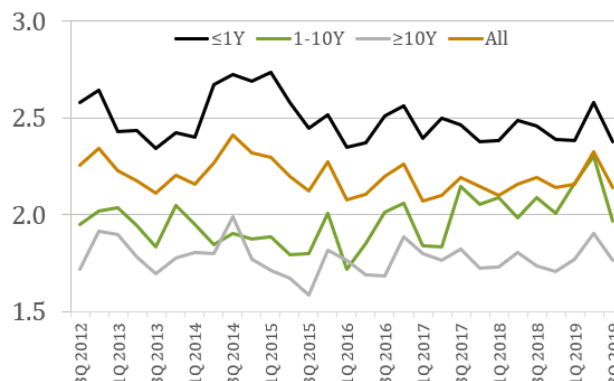
2. Recent auctions and primary dealers

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



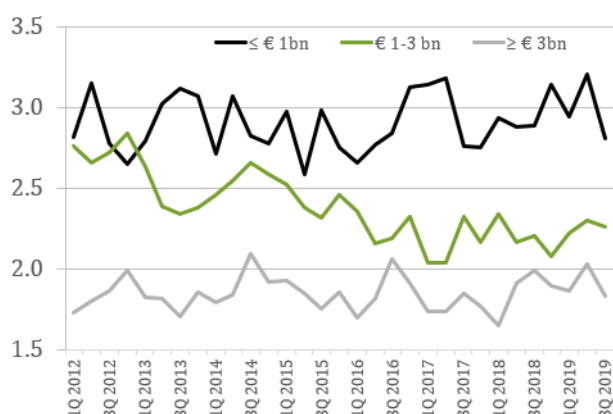
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills

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



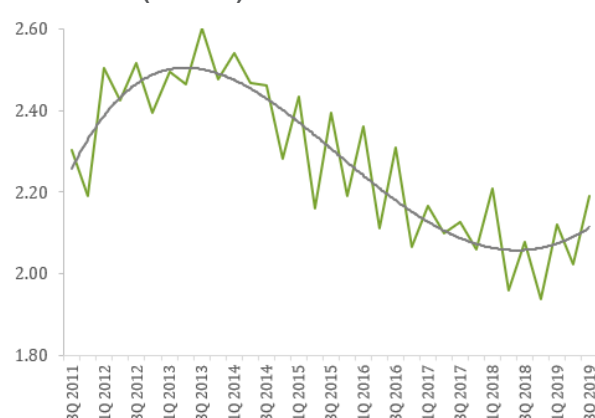
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills

2.3 Average bid-cover ratios by size of issued instruments



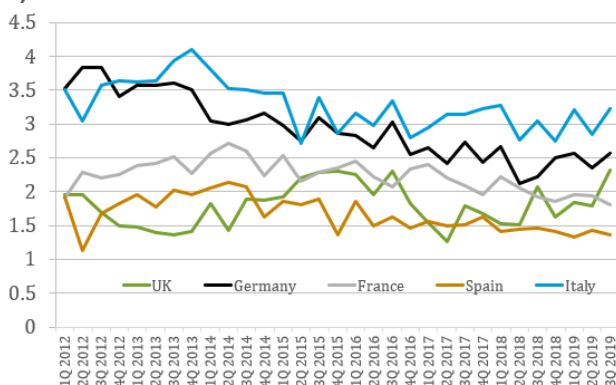
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills

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



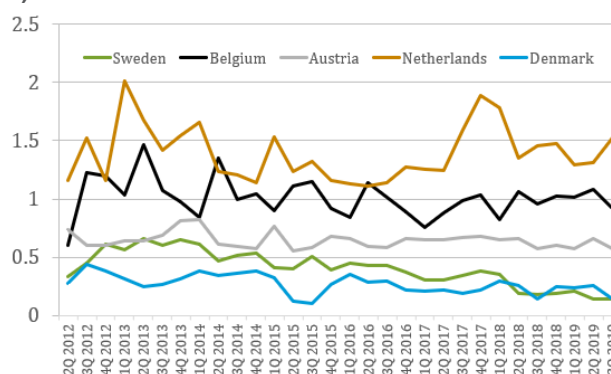
Source: Thomson Reuters Eikon. Weighted average of UK, DE, FR, ES, IT, BE, SE, NL, DK, and AT bonds and bills. Polynomial trendline in grey.

2.5 Average auction size in selected jurisdictions (EUR bn)



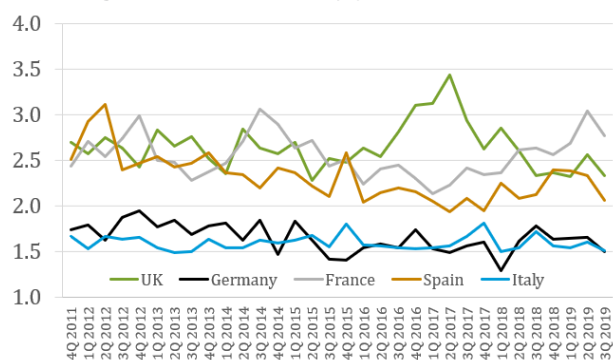
Source: Thomson Reuters Eikon

2.6 Average auction size in selected jurisdictions (EUR bn)



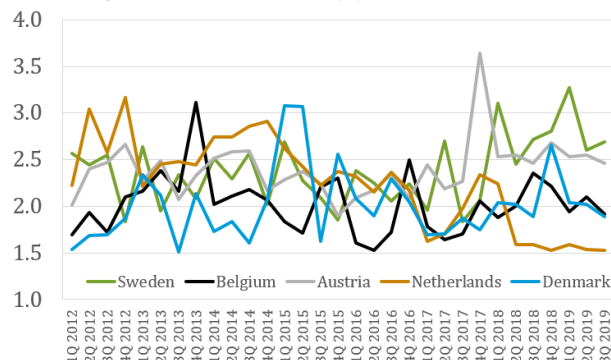
Source: Thomson Reuters Eikon

2.7 Average bid-cover ratios by jurisdictions



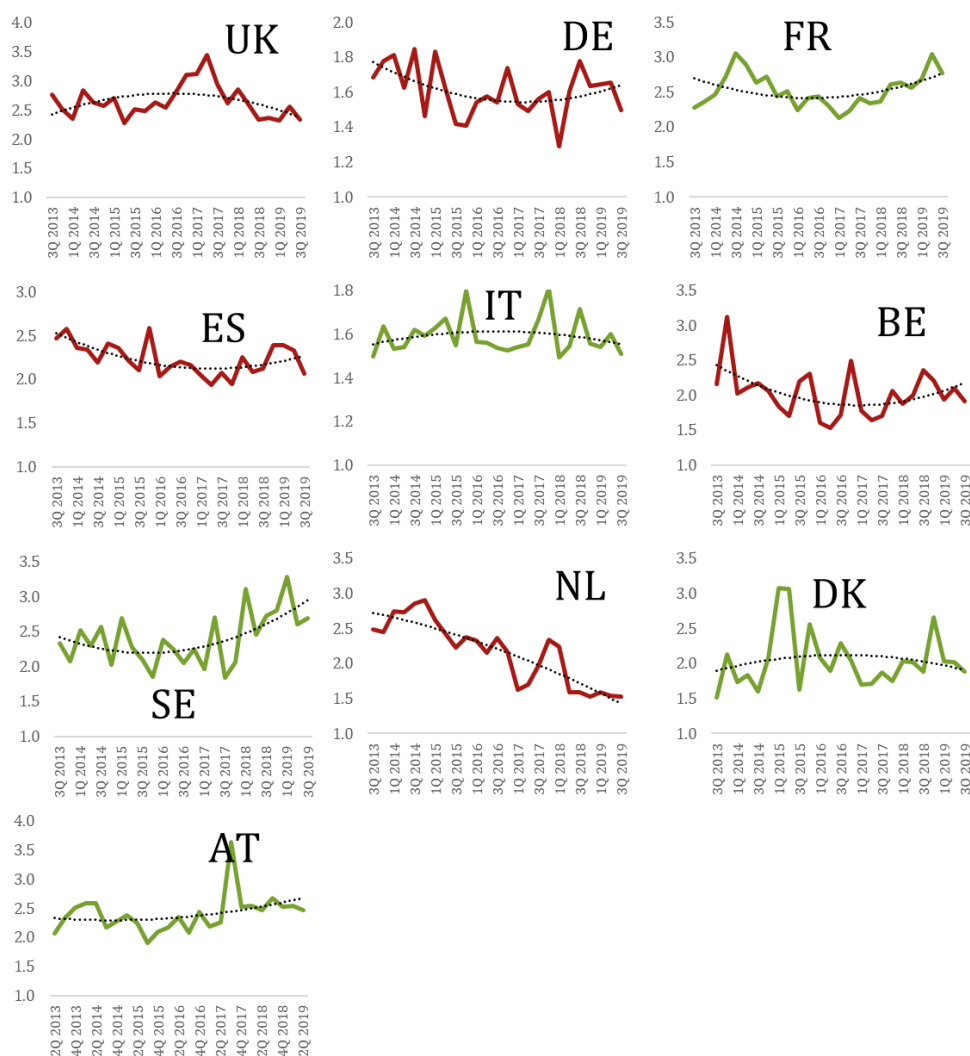
Source: Thomson Reuters Eikon

2.8 Average bid-cover ratios by jurisdictions



Source: Thomson Reuters Eikon

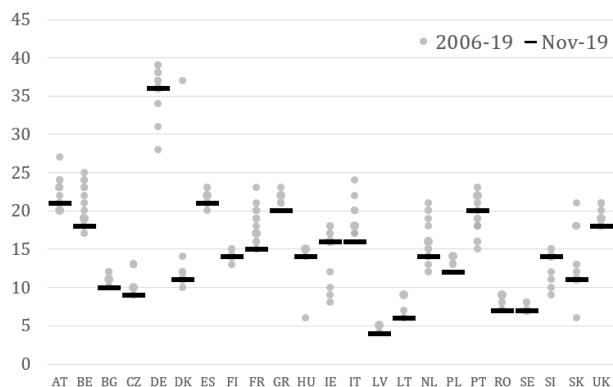
2.9 Average bid-cover ratios in selected jurisdictions: 2013-19⁵



Source: Thomson Reuters Eikon

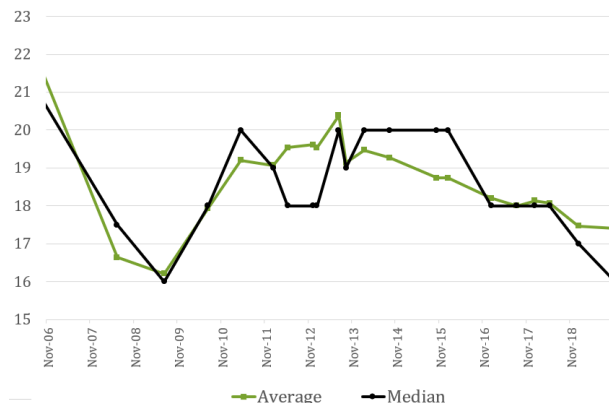
⁵ Chart colour indicates slope of trendline. Green indicates end value of trendline above starting value and red indicates end value of trendline below starting value.

2.10 Number of primary dealers relative to historic number



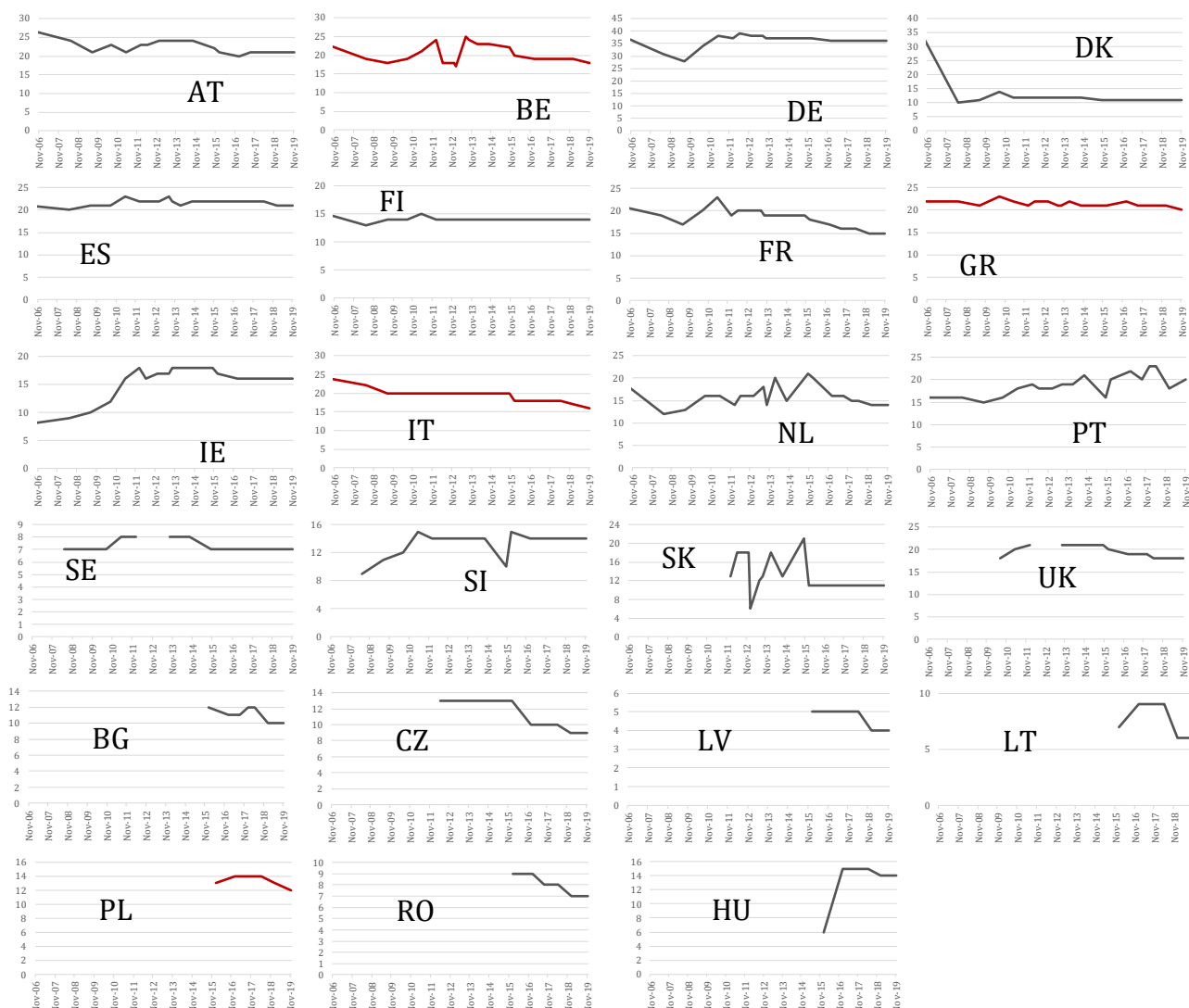
Source: AFME Primary Dealers Handbooks and national DMOs

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



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

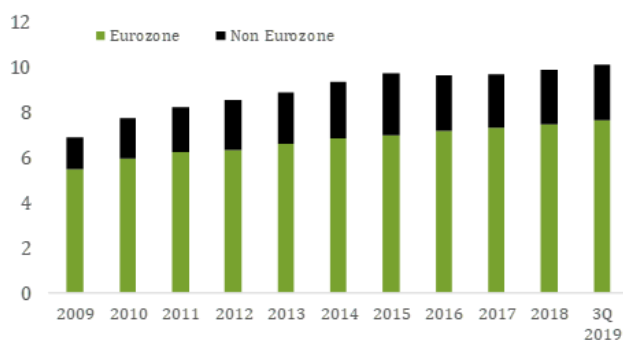


Source: AFME HRF Table and national DMOs

⁶ The gap in the lines for UK and Sweden indicates data not recorded in the relevant period. Chart colour indicates change in PDs since January 2019. Green indicates an increase; red indicates a decrease and grey indicates no change.

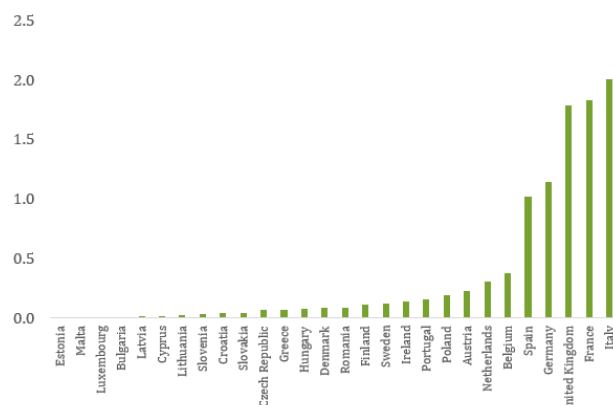
3. Outstanding

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



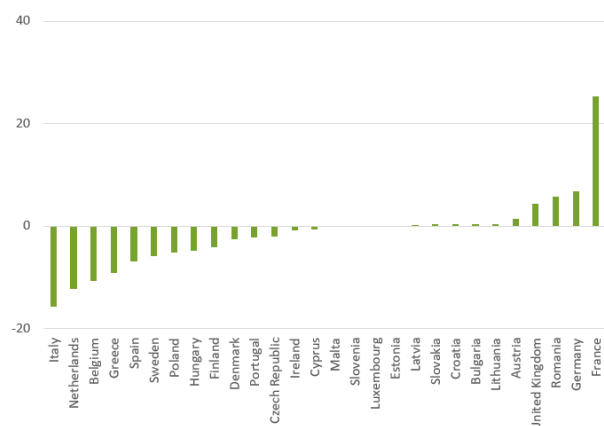
Source: ECB and Thomson Reuters Eikon

3.2 European government bonds outstanding by country (EUR tn)



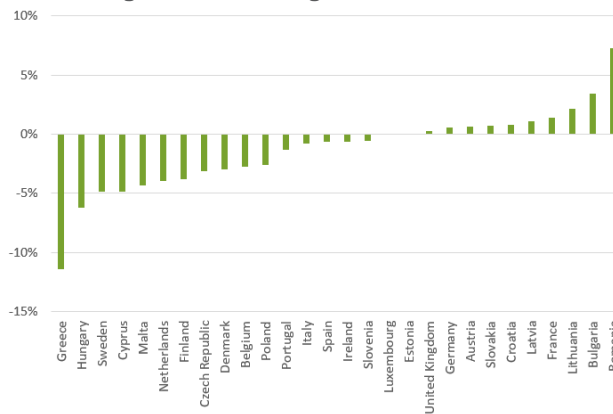
Source: Thomson Reuters Eikon

3.3 Change in outstandings 2Q19 to 3Q19 (EUR bn)



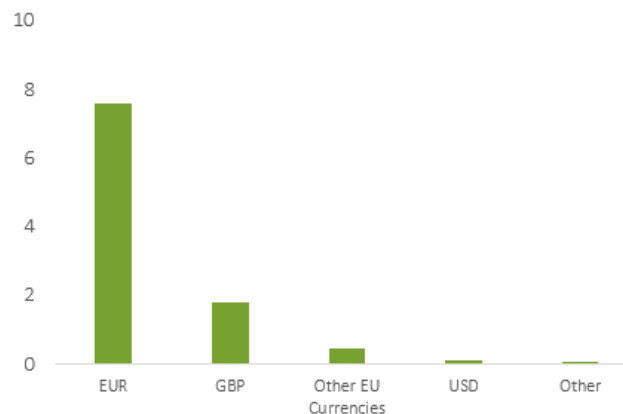
Source: Thomson Reuters Eikon

3.4 % Change in outstandings from 2Q19 to 3Q19



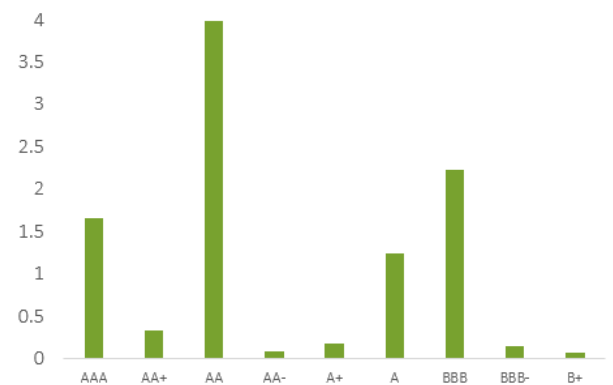
Source: Thomson Reuters Eikon and Standard and Poor's

3.5 European government bonds outstanding by currency (EUR tn)



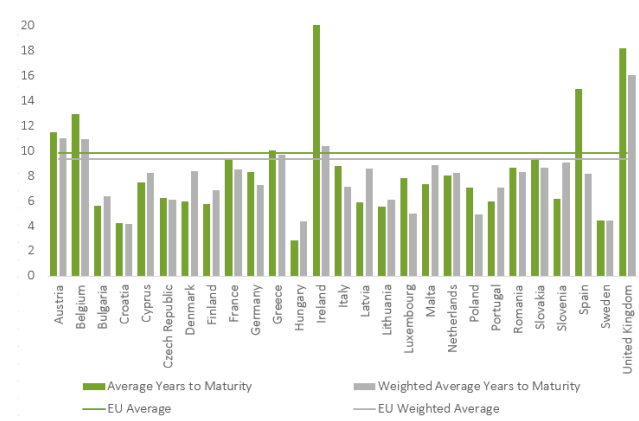
Source: Thomson Reuters Eikon

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



Source: Thomson Reuters Eikon and Standard and Poor's

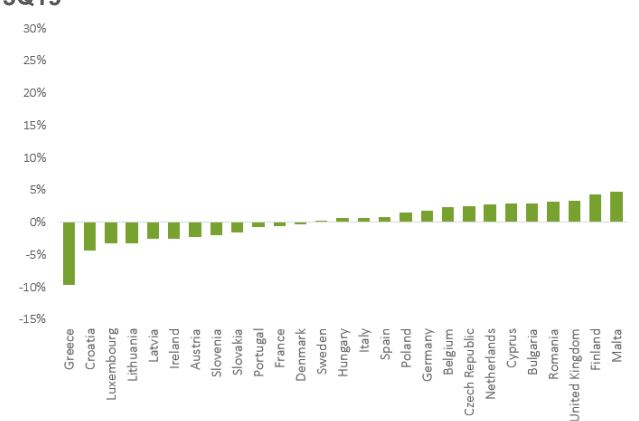
3.7 Average years to maturity for outstanding government bonds in EU countries⁷



Source: Thomson Reuters Eikon

⁷ Weighted average by outstanding amount
⁸ Weighted average by outstanding amount

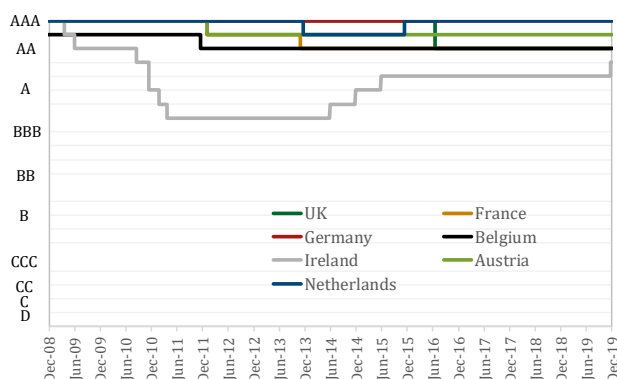
3.8 Quarterly change in weighted average years to maturity for outstanding government bonds 2Q19 to 3Q19 ⁸



Source: Thomson Reuters Eikon

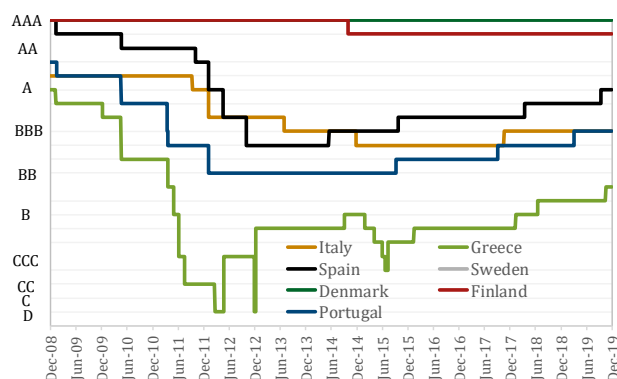
4. Credit quality

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



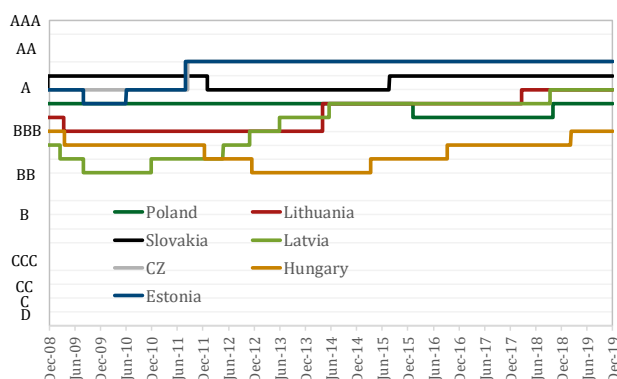
Source: Thomson Reuters Eikon with data of Standard and Poor's

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



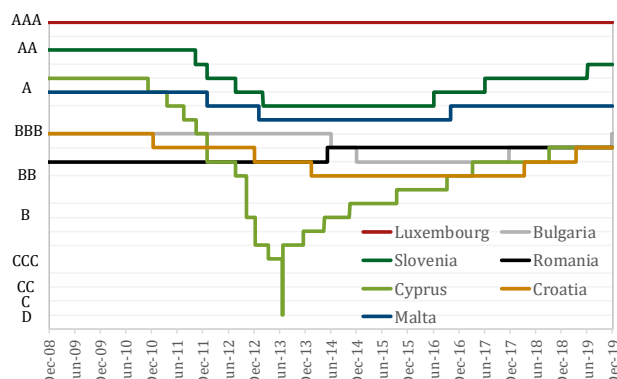
Source: Thomson Reuters Eikon with data of Standard and Poor's

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



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

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



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

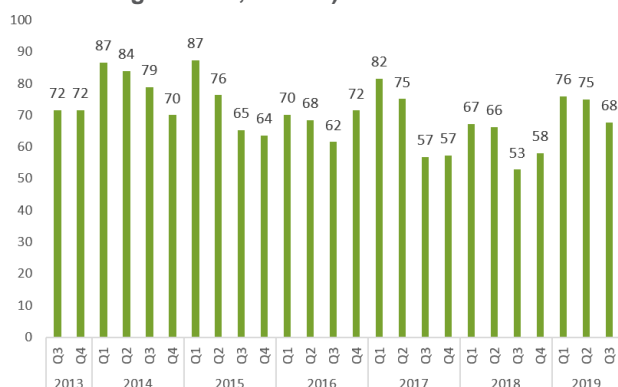
4.5 European rating actions on long-term sovereign credit ratings (Ytd)

Issuer	Rating action	Date	Rated by	Rationale
Hungary	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
Hungary	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
Greece	Upgrade to B1 (stable) from B3	Mar-19	Moody's	Implementation of reforms, strengthening economy and fiscal structural improvement, re-establishment of market based sovereign funding
Portugal	Upgrade to BBB (stable) from BBB-	Mar-19	S&P	Declining debt and balanced growth, expected budget surpluses for the next three years
Croatia	Upgrade to BBB- (positive) from BB+	Mar-19	S&P	Strengthening fiscal metrics and declining government debt
Croatia	Upgrade to BBB- (positive) from BB+	Jun-19	Fitch	Positive fiscal developments underpinned by expenditure restraint, increased revenue, lower interest costs and favourable macro-economic conditions
Slovenia	Upgrade to AA- (stable) from A+	Jun-19	S&P	Expected solid economic and fiscal results, whilst running substantial net external surpluses with the rest of the world
Malta	Upgrade to A2 (positive) from A3	Jul-19	Moody's	Continued improvement of fiscal strength, driven by fiscal prudence and Malta's strong medium-term growth prospects
Slovenia	Upgrade to A (stable) from A-	Jul-19	Fitch	Improvement in public debt sustainability stemming from a combination of primary surpluses, strong growth dynamics and asset sales
Spain	Upgrade to A (positive) from A-	Sep-19	S&P	Balanced economic growth, improved budgetary position and increased prospects for continued consolidation
Greece	Upgrade to BB- (positive) from B+	Oct-19	S&P	Continued implementation of economic reforms, reduction of risks and lifting restrictions on bank deposits and capital flows
Czech Republic	Upgrade to Aa3 (stable) from A1	Oct-19	Moody's	Strong budgetary performance and low debt debt, in addition to government reforms fostering innovation across countries
Ireland	Upgrade to AA- (stable) from A+	Nov-19	S&P	Strong fiscal outcomes and vigorous economic growth in addition to very long dated average maturity of Ireland's debt
Bulgaria	Upgrade to BBB (positive) from BBB-	Nov-19	S&P	Resilient economic growth, strong fiscal and external balance sheets and steadfast progress on entering the Exchange Rate Mechanism II (ERM2)

Source: Fitch, Moody's, S&P

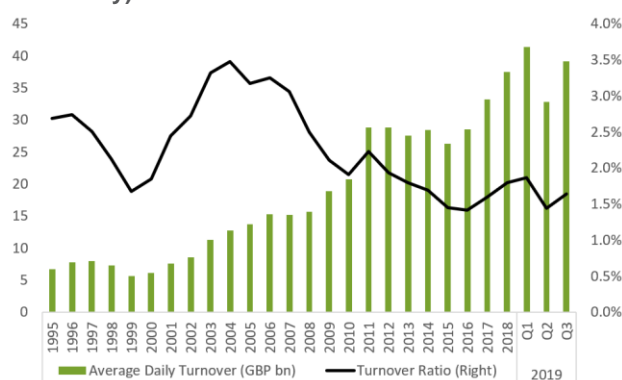
5. Secondary market trading volumes and turnover ratios⁹

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



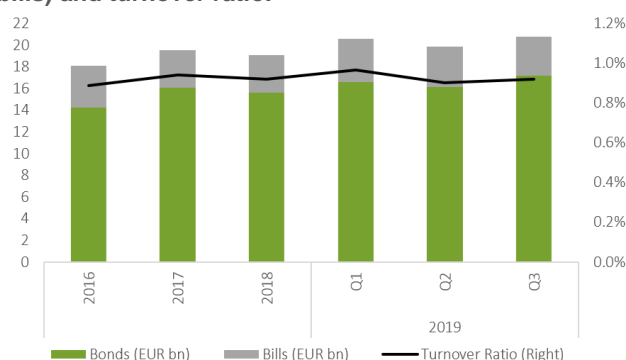
Source: Trax, a MarketAxess subsidiary

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.¹²



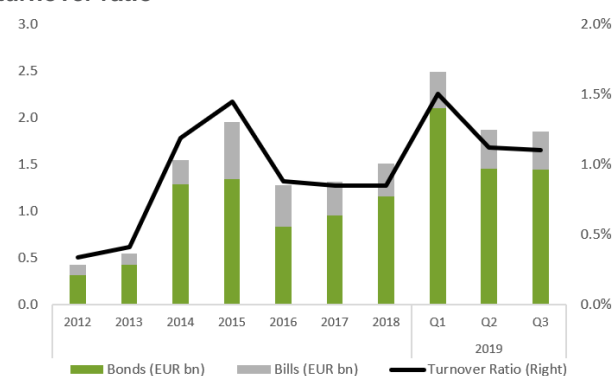
Source: Italian Dipartimento del Tesoro

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



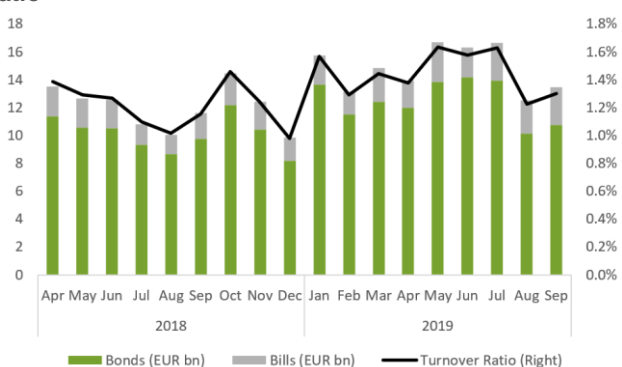
Source: Deutsche Finanzagentur und ECB

5.5. Portugal: Average daily trading volume and turnover ratio¹⁴



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

5.6 Spain: Average daily trading volume and turnover ratio¹⁵



Source: BME Market Data and Tesoro Público de España

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.

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.

¹¹ Turnover data reported to the DMO by the Gilt-edged Market Makers (primary dealers).

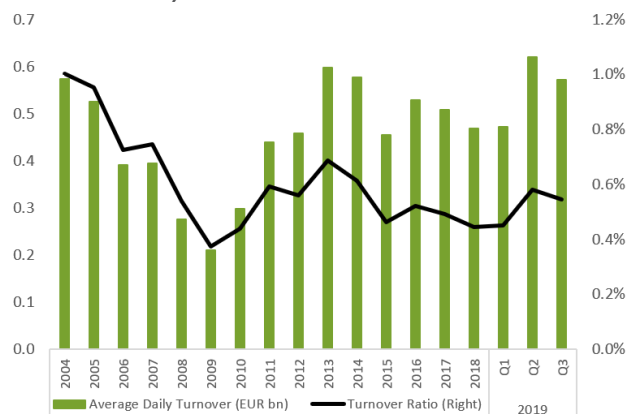
¹² Turnover on all trading venues and OTC as per data provided to the Italian Dipartimento Del Tesoro by Primary Dealers through HRF ('single counted' volumes).

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.

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

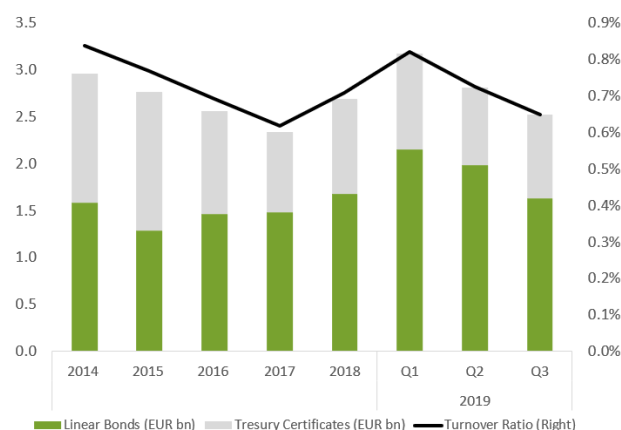
¹⁵ Due to data reconciliation activities of the Bank of Spain, data from April 2018 is from BME Market Data, a subsidiary of Bolsas y Mercados Españoles. Turnover is derived from settlement data from Iberclear.

5.7 Finland: Average daily trading volume (aggregated bonds and bills) and turnover ratio¹⁶



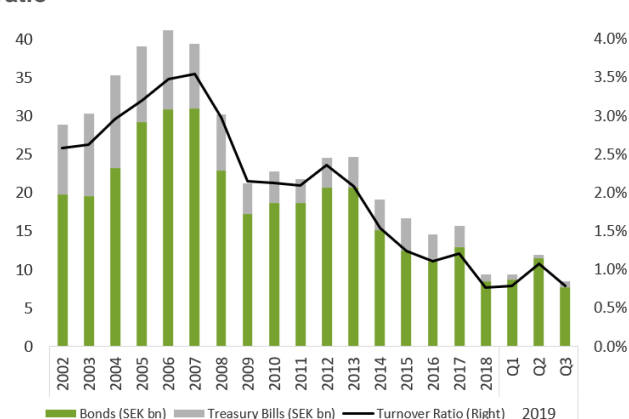
Source: Finland Valtiokonttor and ECB

5.8 Belgium: Average daily trading volume and turnover ratio¹⁷



Source: Belgian Debt Agency and ECB

5.9 Sweden: Average daily trading volume and turnover ratio¹⁸



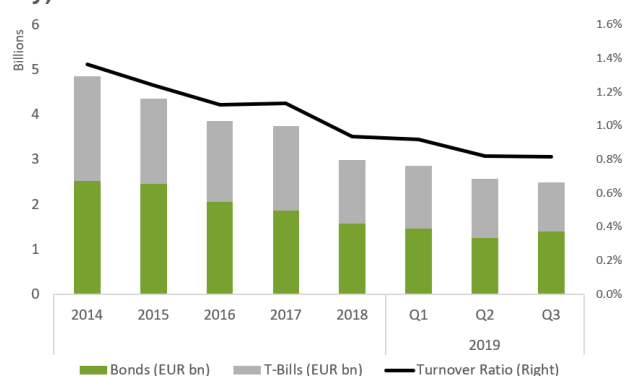
Source: Swedish National Debt Office (Riksgälden) and ECB

5.10 Ireland: Average daily trading volume (aggregated bonds and bills) and turnover ratio¹⁹



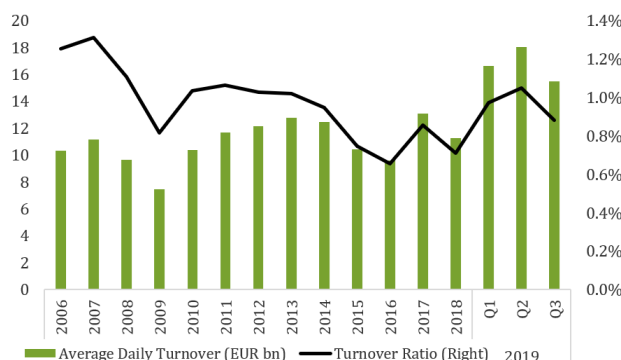
Source: Irish Stock Exchange and ECB

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.

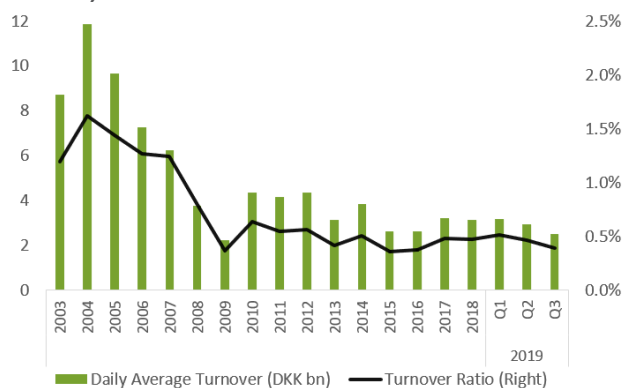
¹⁸ Turnover is total outright transactions.

¹⁹ Turnover on Irish Stock Exchange.

²⁰ Turnover is customer and interdealer trading. Total outright transactions, including electronic and OTC trading.

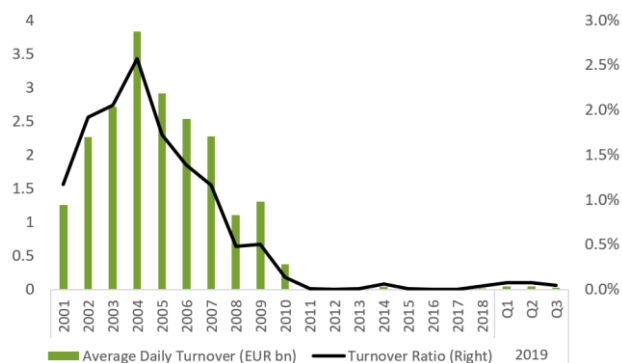
²¹ Turnover of voice and electronic trading (not including PSPP transactions or trading without an SVT).

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



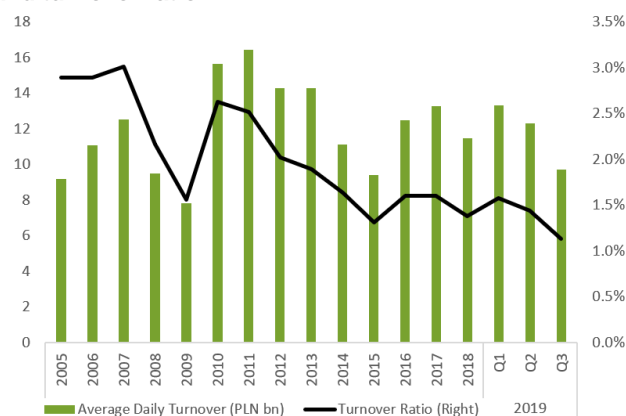
Source: Danmarks Nationalbank

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



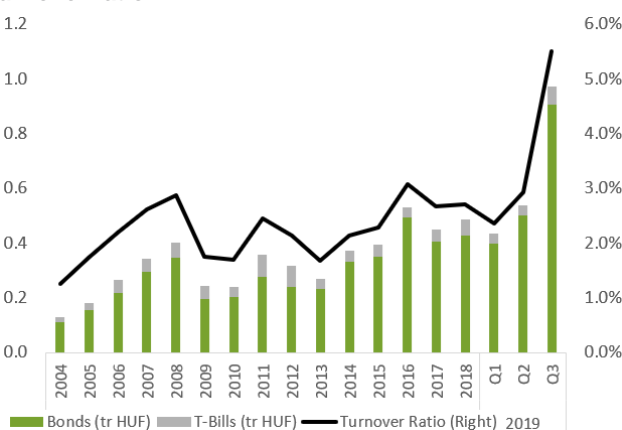
Source: Bank of Greece and ECB

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



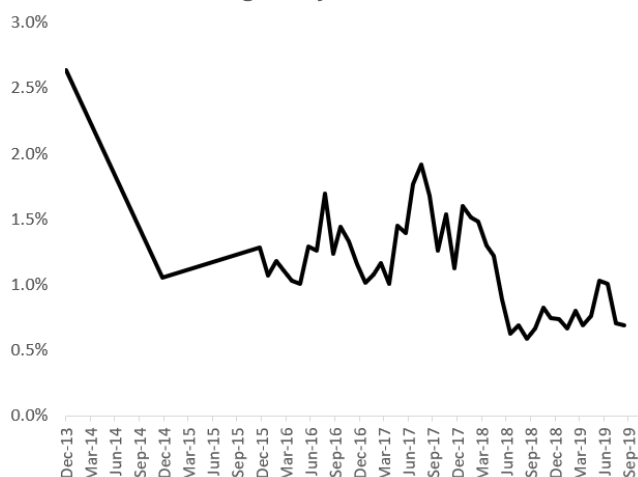
Source: National Depository for Securities (KDPW), WSE

5.16 Hungary: Average daily trading volume and turnover ratio²⁵



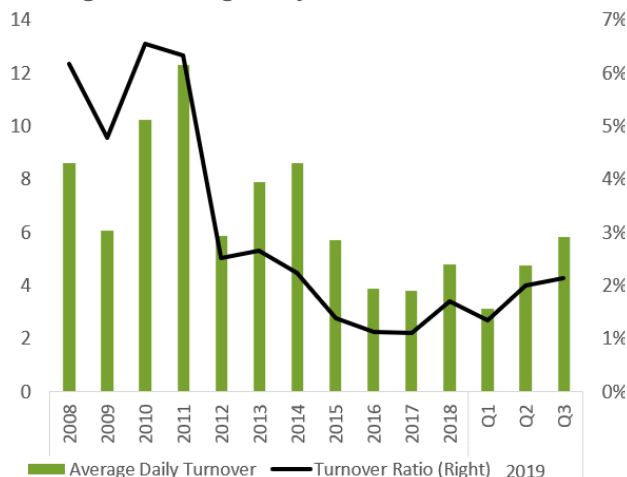
Source: ÁKK

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).

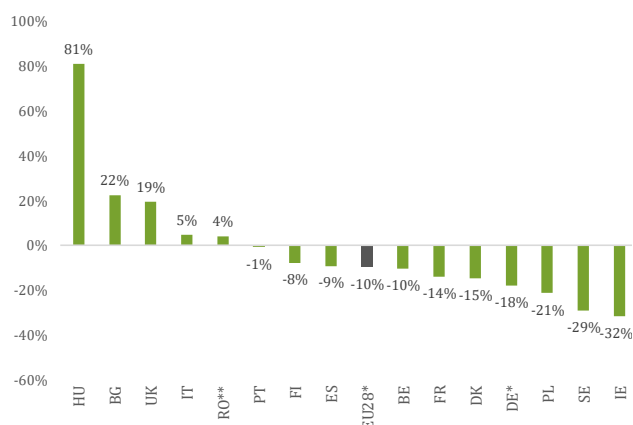
²⁴ Turnover is total outright transactions. Data from KDPW are presented according to the date of the settlement, while data from WSE are presented according to the date of conclusion of a transaction.

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.

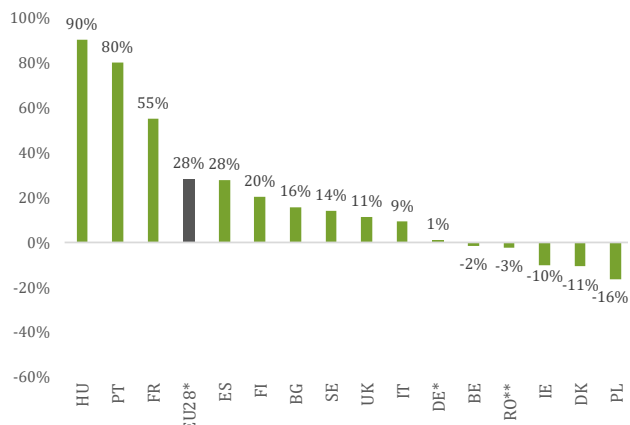
²⁷ Turnover ratio of the government securities issued on domestic market. Official values reported as average monthly turnover ratios, which have been converted assuming 20 business days per month.

5.19 Quarterly change in average daily turnover volumes of EU government bonds: 3Q19 to 2Q19



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.

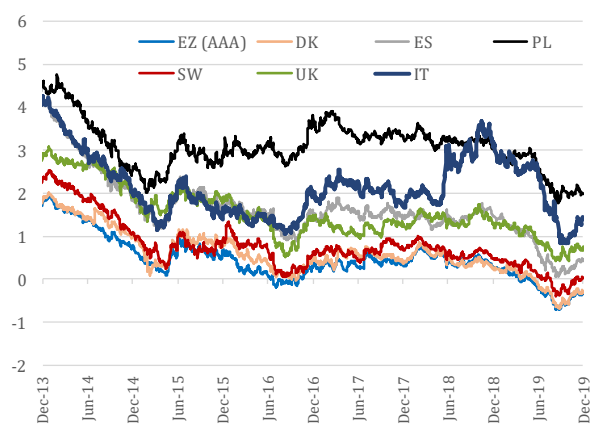
5.20 Annual change in average daily turnover volumes of EU government bonds: 3Q18 to 3Q19



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.

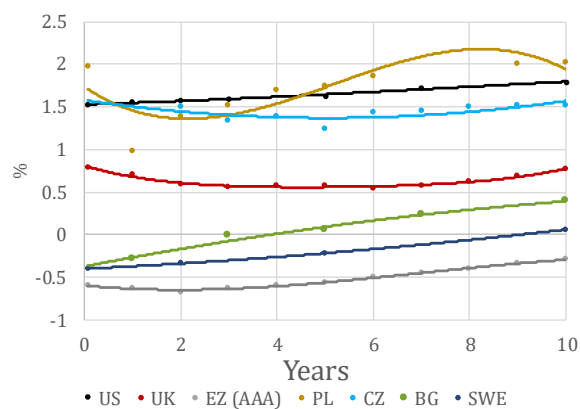
6. Valuations

6.1 Selected European 10Y spot yields



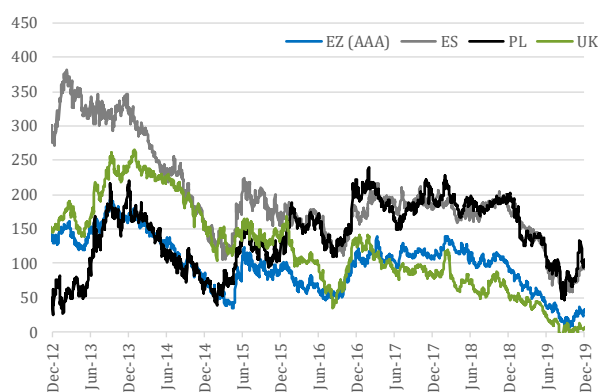
Source: ECB and Thomson Reuters Eikon

6.2 Sovereign spot yield curve of selected jurisdictions: 6 December 2019



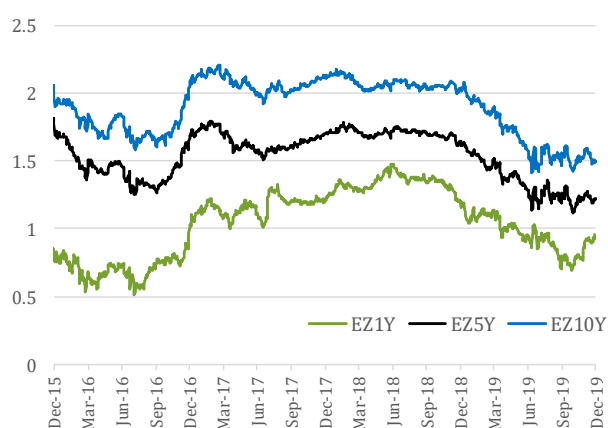
Source: Thomson Reuters Eikon

6.3 Slope: 1Y10Y spread (bps)



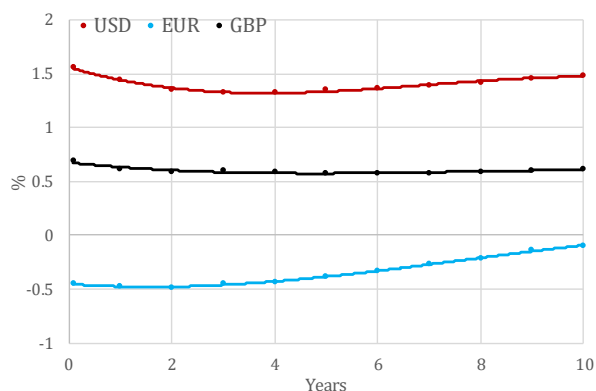
Source: ECB and Thomson Reuters Eikon

6.4 Market-implied inflation expectations (EuroZone)



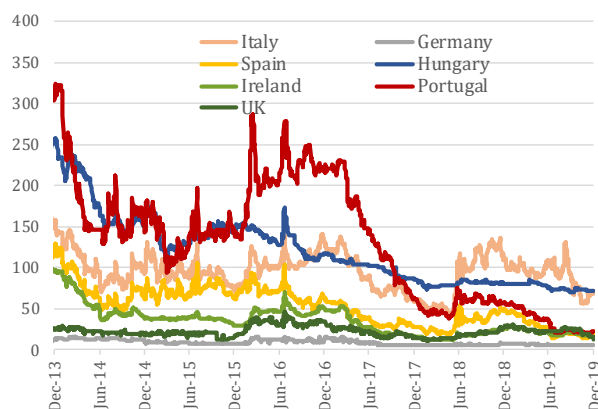
Source: Thomson Reuters Eikon

6.5 Overnight index swap (OIS) yield curve: 6 December 2019



Source: Thomson Reuters Eikon

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



Source: Thomson Reuters Eikon

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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