Box 5

NEW STATISTICAL INDICATORS ON GOVERNMENT DEBT SECURITIES AND THEIR USE IN FISCAL ANALYSIS AND SURVEILLANCE

This box provides a short overview of the potential uses of new statistical indicators on government debt securities developed on the basis of the information contained in the ECB's Centralised Securities Database (CSDB). These indicators include securities outstanding, issuance, redemptions, debt service together with associated interest rate (nominal yield), broken down by original and residual maturity, currency and type of coupon rate for the euro area and individual countries. The indicators were published for the first time in the "Euro area statistics" section of the Monthly Bulletin (Tables 6.4 and 6.5) in November 2014 and are available in the ECB's Statistical Data Warehouse in dedicated data reports.[1]

The Centralised Securities Database

The CSDB was created in 2009 as a multi-purpose system; it was developed by the ECB and is jointly operated by the members of the European System of Central Banks (ESCB). The system obtains data from commercial data providers and other sources (via ESCB members) and is accessible to users in the ESCB. It makes use of expertise within the ESCB to enhance data quality.[2]

1 See "Debt securities issuance and service by EU governments" in the "Reports" section of the Statistical Data Warehouse (http://sdw.ecb.europa.eu).
2 In accordance with the Guideline of the European Central Bank of 26 September 2012 on the data quality management framework for the Centralised Securities Database (ECB/2012/21).

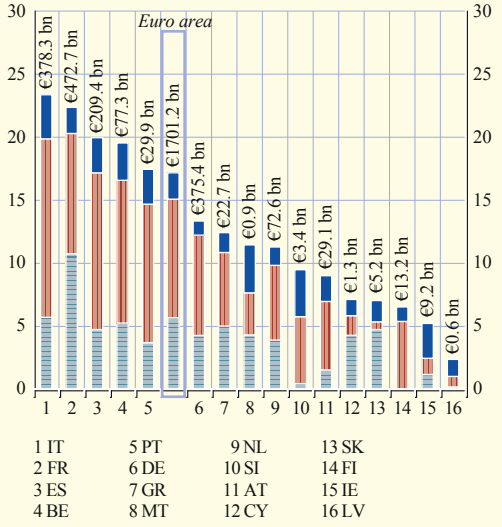
The CSDB currently contains information on over 6 million non-matured debt securities, equities and mutual fund shares/units. The information stored on a security-by-security basis includes reference data on securities (e.g. outstanding amounts, issue and maturity dates, coupon and dividend information, and statistical classifications), as well as information on related issuers and prices (market, estimated or default). Work is progressing on also providing information on ratings (of the security, issuer, guarantor or issuance programme) via the CSDB platform.

Examples of statistical indicators: debt service and average nominal yield

The CSDB allows the construction of new indicators on government debt securities that provide information on the expected level of debt service (comprising principal and interest payments) and the associated interest rate that the debtor promises to pay debt holders per unit of time (average nominal yield), broken down by original and remaining maturity, currency and type of coupon rate. At the end of October 2014 five countries in the euro area (Belgium, Spain, France, Italy and Portugal) expected their debt service due between November 2014 and October 2015 to be larger, as a percentage of GDP, than the euro area average (17.2% of GDP) (see Chart A). Between November 2013 and October 2014 all euro area countries except Cyprus and Slovakia succeeded in issuing new government debt securities with lower average nominal yields than for their total debt securities

Chart A Debt service on euro area government debt securities due between November 2014 and October 2015

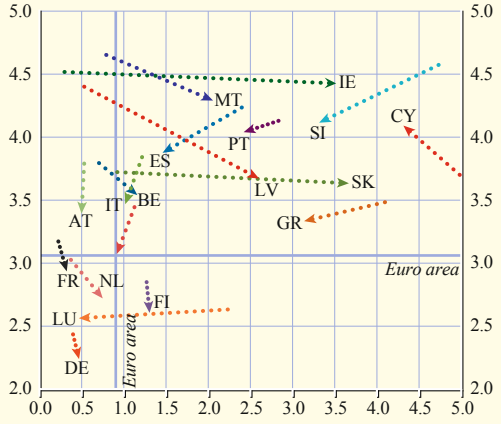
(as a percentage of GDP; EUR billions)



Sources: CSDB and ECB calculations.

Chart B Average nominal yields on euro area government debt securities

(percentages per annum)



Sources: CSDB and ECB calculations.
Note: The dotted lines show the change versus a year earlier by country and the arrows indicate the direction of the change towards the latest data point.

outstanding. This has contributed to bringing average nominal yields for total debt securities outstanding below their level a year ago for all euro area governments except Cyprus (see Chart B).[3]

Analytical use

The CSDB has been used extensively by the ECB during the crises as a source of detailed information on financing needs for the countries under the EU/IMF Economic Adjustment Programme. Moreover, the database is an indispensable source of information for the ECB's Financial Stability Review[4], as well as for the fiscal forecast in the context of ECB staff macroeconomic projections for the euro area. Apart from the availability of very detailed data, the timeliness of the CSDB information enables the rapid analysis of developments and trends in the financial markets.[5]

Given that debt securities account for around 80% of government debt in the euro area, the CSDB can help to refine the prediction of sovereign financing needs, both in the short run (to signal sovereign liquidity risks) and the medium run (to identify potential peaks in sovereign bond redemptions). Liquidity and sovereign debt sustainability risks are important not only in fiscal surveillance but also in the monitoring of financial stability. Large financing needs of the sovereign can crowd out agents in other sectors, both financial institutions and corporations. At the same time, large-scale exposures of financial institutions to sovereigns with significant sustainability risks can point to vulnerabilities of these institutions. Therefore, detailed information on the risks associated with sovereigns could feed into vulnerability matrices for other sectors, in particular the financial sector.

3 The nominal yield (expressed as a percentage per annum) comprises the coupon rate (i.e. the interest rate stated on a bond when issued) and any difference between the stated redemption price at maturity and the issue price (i.e. a discount or premium). The average nominal yield weighted by the outstanding amounts of each individual debt security can be calculated for the debt securities issued during the previous 12 months, which is useful to compare with the average nominal yield for total debt securities outstanding to determine whether new issuance has become more or less expensive. The average nominal yield for total debt securities is affected by a) the average nominal yield on new government debt securities, b) the foregoing average nominal yields on maturing government debt securities, and c) changes to interest rates on current government debt securities outstanding (e.g. variable coupon rates). The average nominal yield on new government debt securities issued during the previous 12 months may be affected not only by various market forces (e.g. issuance demand, issuer risk of default, and current and expected market interest rates) but also by choices made by the issuer, such as maturity selection (typically longer maturities have higher nominal yields) and issuance volumes.

4 See the most recent issue of the *Financial Stability Review*, ECB, Frankfurt am Main, November 2014. (All vintages are available on the ECB's website at http://www.ecb.europa.eu/pub/fsr/html/index.en.html.)

5 The system processes information on a daily basis and provides end-of-month data with a delay of approximately one to two weeks, which means that users have access to the data far more quickly than to other aggregated statistics.