

THE SIZE AND COMPOSITION OF GOVERNMENT BORROWING IN THE EURO AREA

Since the start of the financial crisis, government debt has increased strongly after a period of relatively low financing needs. In 2010 euro area governments' borrowing – to finance government deficits and refinance maturing government debt – is likely to amount to about 26% of euro area GDP. This represents a sharp increase from around 15% of GDP in 2007 and 17% of GDP in 2008.

The size and composition of government borrowing are of concern to central banks for several reasons. First, the effects of a tighter monetary policy on economic activity and prices may be reinforced if a government takes fiscal measures to counteract the effect of rising interest expenditure on the overall budget balance. Second, the size and composition of government borrowing also affect the financing conditions of the private sector, with possible negative effects on overall economic activity. Third, a higher share of short-term government debt and/or floating interest rate instruments reduces government interest expenditure in times of low short-term market rates. However, *ceteris paribus*, it increases the exposure of governments to refinancing risks stemming from changes in monetary policy interest rates, as well as in market sentiment.

Against this background, this box reviews: (a) the instruments of government borrowing in the euro area, (b) the currency denomination and the type of investors, (c) the maturity structure of outstanding government debt securities and how it has changed since the start of the crisis and (d) the link between the slope of the yield curve and the issuance behaviour of governments.

The instruments of general government borrowing

Over the past year governments have been forced to increasingly tap financial markets and to some extent also banks for funding related to the consequences of the financial crisis and economic downturn for their fiscal positions. Government debt ratios were rising rapidly (by more than 10 percentage points) in Ireland, Greece, Spain and Slovenia in 2009 and their levels were particularly high (well above 100%) in Italy and Greece.¹ The two main types of instruments used by euro area governments for borrowing are debt securities and bank loans. At end-2009 about 82% of government debt in the euro area was financed in the form of debt securities. The share of bank loans in government debt was about 15%. Bank loans are mainly used in the financing of local governments and municipalities or in the case of long-term investment projects, while central governments rely more on the issuance of marketable debt securities.

Currency denomination and type of investors

In March 2010 the vast majority of outstanding euro area government debt securities were denominated in euro (97.3% or €5,873 billion), while only about 2.1% (€126 billion) were denominated in US dollars and 0.1% (€6 billion) in pounds sterling. This compares with 97.5% denominated in euro, 1.4% denominated in US dollars and 0.1% denominated in pounds sterling in January 2007. Only a few euro area countries have a notable share of their debt denominated

¹ The sharp increase in government debt-to-GDP ratios in 2009 reflected a combination of high primary deficits (partly due to fiscal stimulus measures), an unfavourable growth/interest rate differential, as well as, in some countries, the cost of capital support to financial institutions. For more details, see A. van Riet (ed.), "Euro area fiscal policies and the crisis", ECB Occasional Paper No 109, April 2010.

in foreign currencies and their exposure to exchange rate risks is usually contained by hedging. Moreover, the small increase in the euro area governments' debt denominated in US dollars between January 2007 and March 2010 was accompanied by the relative reduction of debt denominated in other currencies (e.g. Swiss francs or Japanese yen).

Taking an individual euro area country perspective, domestic (resident) investors hold about 47% of total government debt, while about 53% is held by non-residents (including of other euro area countries). The high share of non-residents holding government debt testifies to the high degree of integration of capital markets. The share of domestically held government debt varies across countries from roughly 20% up to as much as 90%.

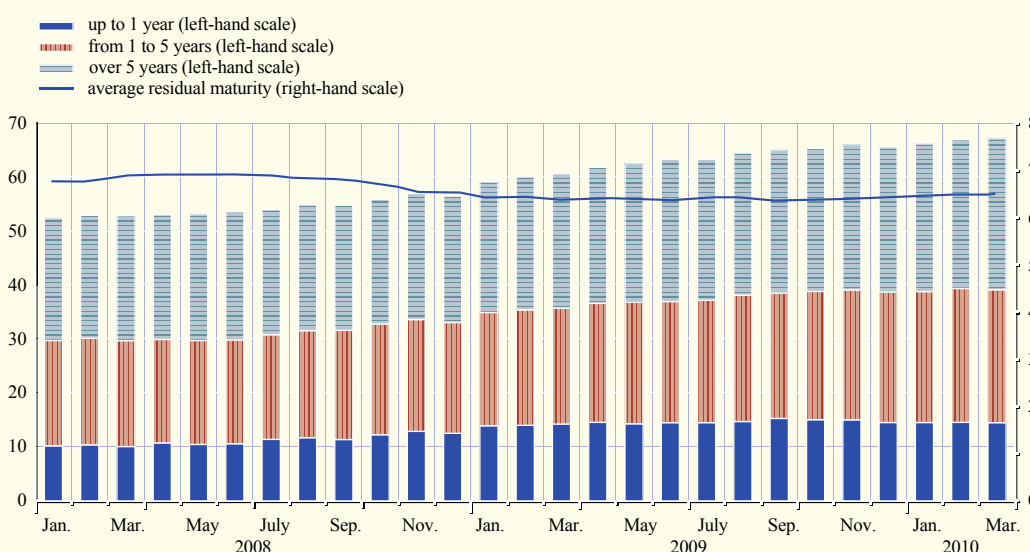
Maturity structure

As regards the maturity structure of government borrowing, this box concentrates on the outstanding amount of marketable debt securities (i.e. government bonds and bills) and does not cover the funding through bank loans or the effects of derivatives, which may modify the maturity structure, although only marginally. The main motivation for the use of derivatives is to separate the issuance strategy from the management of interest rate or currency risk. For example, it may be preferable – with a view to enhancing secondary market liquidity – to concentrate issuance in relatively few benchmark series. Such an issuance strategy can potentially help in maintaining a stable investor base and limiting government interest expenditure via lower government bond yields.

The significant increase in the stock of government debt since the onset of the crisis has been accompanied by a slight decline in the overall residual maturity of government securities in the euro area. For example, over the period from January 2008 to March 2010, the average

Chart A Outstanding amount of euro area government debt securities and residual maturity

(as a percentage of GDP; years)



Source: ECB calculations.

Residual maturity of government debt securities in the euro area at end-March 2010

(as a percentage of total; EUR billions)

Months/years to maturity	% of total debt	% of total debt (cumulative)	EUR billions	EUR billions (cumulative)
0-3 months	7.1	7.1	429.0	429.0
4-6 months	6.5	13.6	389.5	818.5
7-9 months	3.5	17.1	212.0	1,030.5
10-12 months	4.5	21.5	270.5	1,301.0
13-18 months	6.0	27.5	361.2	1,662.2
19-24 months	5.2	32.7	312.9	1,975.2
2-5 years	25.4	58.1	1,535.6	3,510.7
5-10 years	23.4	81.6	1,414.3	4,925.1
10-15 years	6.5	88.1	391.1	5,316.2
Over 15 years	11.9	100.0	721.3	6,037.4

Source: ECB calculations.

residual maturity of outstanding government debt securities declined from 6.7 to 6.5 years (see Chart A). In the same period the share of government debt securities with an initial maturity of up to one year increased from 5.7% to 10.3%, while the share of outstanding government debt securities with an initial maturity of over five years decreased from 79.1% to 73.3% in the euro area. The share of euro area government debt securities with variable interest rates declined to 5.5% in March 2010, compared with 6.6% in January 2008.

Viewed from the perspective of governments' refinancing risk, the amount of debt securities maturing within one or two years is more important than the average residual maturity of the outstanding government debt, because any financing difficulties or market tensions affect directly the debt maturing in the short term. At the end of March 2010 about 21.5% (€1,301 billion, or about 14.5% of GDP) of outstanding euro area government debt securities would mature within one year and about 32.7% (€1,975 billion, or about 22.0% of GDP) cumulatively within two years (see table).

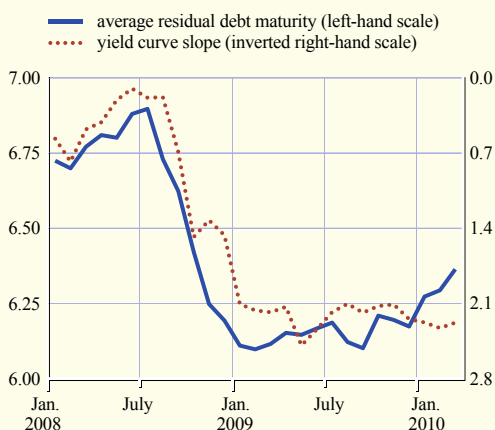
The slope of the yield curve and the issuance behaviour of governments

Government interest expenditure is also affected by the level and shape of the yield curve and the share of outstanding government debt instruments paying a floating or variable interest rate. Variable interest rate debt instruments are typically linked to 6- or 12-month money market rates and are therefore particularly sensitive to changes in monetary policy rates. A variable interest rate instrument links interest payments to short-term interest rates, but avoids the short roll-over frequency of short-term debt and the associated higher refinancing risk.

The recent tendency towards shorter-term borrowing by governments may reflect both the favourable financing conditions at the short end of the yield curve as well as a concentration of investor demand in the short-maturity segment during the crisis. Most of the shortening in the average residual maturity took place in the second half of 2008, i.e. at the height of the financial crisis and coinciding with a sharp steepening of the yield curve (see Chart B). As shown in Chart C, from mid-2008 to mid-2009, the share of new borrowing with an initial maturity of less than one year grew markedly faster than the share of outstanding debt with a residual maturity of less than one year, suggesting that the maturity shortening was not purely mechanical, but resulted from an active choice by sovereign debt managers.

Chart B Government debt maturity and the slope of the yield curve

(years; percentage points)

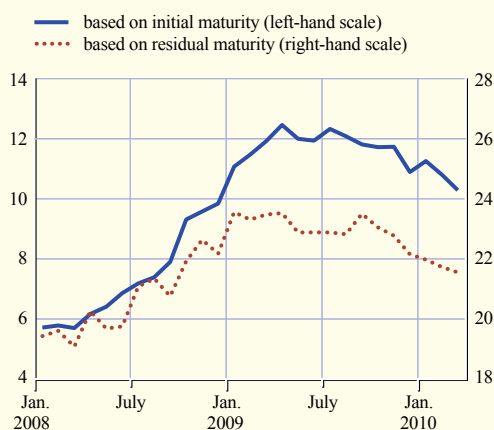


Source: ECB calculations.

Notes: The average debt maturity is calculated as the simple average for the 11 largest euro area countries. The yield curve slope is the ten-year minus two-year euro area term spread.

Chart C Average share of short-term government debt

(percentages)



Source: ECB calculations.

Note: The chart shows, for the euro area, the share of government debt with less than one year to maturity.

While potentially reducing governments' current borrowing costs, increased reliance on short-term borrowing exposes governments to greater refinancing risk, which, if taken beyond a certain level, may not be in the broader interests of macroeconomic and financial stability. From the point of view of monetary policy, the larger the stock of short-term and variable interest rate debt, the higher the sensitivity of government interest expenditure with respect to changes in monetary policy rates. A larger share of short-term and variable interest rate government debt may therefore contribute to tensions in public finances at a time when an exit from an expansionary orientation of monetary policy may become necessary.

Conclusions

All in all, ambitious fiscal consolidation strategies need to be swiftly adopted and implemented in order to reverse the rapid increase in general government debt-to-GDP ratios in the euro area and limit its detrimental long-term impact on private investment and potential economic growth. In the future, government debt management strategies should pay more attention to the macroeconomic and financial stability aspects than in the past.