PUBLIC DEBT MANAGEMENT IN THE MACRO SPOTLIGHT*


1. Extraordinary macroeconomic environment
   (i) High public debt/GDP ratios for year … fiscal dominance?

Countries that went into the crisis with a long maturity debt structure (UK?) were glad of the insurance they had bought against macroeconomic shocks to the government budget.

For other countries, the crisis has called into question the notion of the risk-free rate.

(ii) The long-term interest rate in key markets
   (a) Real 10-year yields: Graph 1
       • Declining since 2000
       • Now zero
   (b) Historic volatility of interest rates no longer declines along the maturity spectrum: Table 1
       • Volatility of long-term rate has increased
       • Term premium – simply computed – higher than in past … therefore, persistent savings from issuing short? (More sophisticated measures would compute path of expected future short-term interest rates)

Qu 1 How should the extraordinary macroeconomic environment influence debt management strategies?

2. Many policy influences on the long-term rate … hard to analyse and to quantify
   (i) Monetary and exchange rate policies
       • Low policy rates at the centre … and forward guidance about future rates
       • Accumulation of forex reserves in EMEs invested in AAA-rated paper: Graph 2
   (ii) Fiscal policies
       • Discussion on broadening the measure of borrowing costs by including borrowing to finance primary budget deficits

* This is based on BIS Working Paper no 367 "Is the long-term interest rate a policy victim, a policy variable or a policy lodestar?", December 2011. www.bis.org/publ/work367.htm.
(iii) Accounting and regulatory factors

- Accounting conventions: marking-to-market of financial assets and use of a market long-term rate to calculate the PDV of future financial liabilities
- Regulatory demands to hold more government bonds
  - Zero risk weight in EU’s Solvency II
  - Zero risk weight for capital charges on banks? But Internal-Ratings Based approach of Basel II required major international banks to rely on their own assessment of country credit risk
  - Liquid asset ratios of banks

No single representative investor … but heterogeneous investors who have different preferences for different maturities. Arbitrage operations across both domestic and international markets are time variant. Market intelligence about such elements vital for debt managers.

| Qu 2 | How should debt managers respond to “distortions” influencing the yield curve? |

3. Central bank (CB) operations in bond markets versus government debt issuance strategies

(a) CBs have always worked by disturbing private sector portfolios – Keynes, Tobin, Friedman all regarded CB purchase or sales of long-term government bonds as a conventional monetary policy weapon.

(b) At first, central bank asset purchases regarded as exceptional (talk of “exit” strategy in late 2009, early 2010). But now greater persistence: large stocks of government bonds on CB balance sheets not likely to fall quickly. How this is managed will affect the bond market.

(c) Debt managers choose the maturity structure of government bonds and so influence the yield curve.

| Qu 3 | How to reconcile (b) and (c)? |
Graph 1
REAL LONG-TERM TREASURY YIELDS
In per cent

US Fed Funds rate (left-hand scale)

10-year inflation-linked yield US (right-hand scale)¹

--- 10-year inflation-linked yield UK (right-hand scale)

¹ Ten-year Treasury Inflation Indexed zero coupon yields (TIPS); prior to 1999, return on ten-year zero coupon bond deflated by centered three-year moving average of core PCE inflation. The horizontal dotted line indicates the 1986–2000 average of the 10-year US real (4.26%). The average of the Fed funds rate over that period was 5.82%, shown on the left-hand scale.

Sources: National data; BIS calculations.
Table 1

Standard deviations of interest rate changes\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>Fed funds</th>
<th>3-month T-bill</th>
<th>10-year nominal yield</th>
<th>10-year real yield</th>
<th>Term premium(^2)</th>
<th>Term premium average</th>
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</thead>
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<tr>
<td>1965.1 to 1978.9</td>
<td>0.45</td>
<td>0.37</td>
<td>0.19</td>
<td>na</td>
<td>0.33</td>
<td>0.85</td>
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<td>1986.1 to 1998.12</td>
<td>0.24</td>
<td>0.20</td>
<td>0.25</td>
<td>0.25</td>
<td>0.23</td>
<td>1.94</td>
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<tr>
<td>1999.1 to 2011.11</td>
<td>0.20</td>
<td>0.21</td>
<td>0.24</td>
<td>0.20</td>
<td>0.29</td>
<td>2.08</td>
</tr>
</tbody>
</table>

\(^1\) Standard deviation of the first differences (ie \(R_t - R_{t-1}\)) of the monthly averages of daily observations of interest rates measured in percentage points.  
\(^2\) 10-year nominal yield less 3-month Treasury bill rate.

Sources: DataStream, National data; BIS calculations.
Graph 2

ISSUANCE OF AAA-rated SECURITIES

In billions of US dollars

Note: For 2011, full-year estimate based on January to October data.

1 ABS, MBS and covered bonds.

Sources: Dealogic; BIS calculations.