Background

• Sustainability of government debt and credibility of fiscal commitments increasingly preoccupy scholars and policy makers.

• Disappointment from ‘Democratic Advantage’, hard fiscal rules (unilateral, multilateral), market discipline.

• Attention increasingly given to signaling mechanisms in which words are matched by deeds (costly talk).
Our argument

• When default is not a serious risk, long-sighted DMOs can send signals to the public about their government's future fiscal performance.

• DMOs can do this by issuing longer debt when they expect good news or shorter debt when they expect bad news.
Our argument

• By doing so DMOs assume higher costs of debt, but build their credibility with market makers.

• Such signals are likelier in large issues and in times of fiscal stress (when DMOs are especially anxious to maintain credibility with market makers).
Our model

- DMO loss function grows with debt cost, but falls with maturity of debt stock, and coverage ratio:

\[
L_{DMO}(x) = qi_{eff}(x) - \lambda \varphi \frac{\Delta X(x)}{X} - \lambda \frac{q_m(x)}{q}
\]

- \(X\) = maturity at issuance;
- \(\lambda\) = importance of long debt stock and coverage ratio (benchmarking);
- \(\varphi\) = DMO long-sightedness;
- \(q\) = amount issued ($).
Our model

• Optimal maturity at issuance is:

\[ x^* = x_m + \frac{\varphi q^2}{2\theta X(Q + q)} - \frac{q^2\left\{\alpha + \mu \pi^e + \psi \varepsilon^e - \varphi(i_f - S_G)\right\}}{2\lambda \theta} \]

\( x_m = \text{market preferred maturity} \)

\( S_G = \text{privileged expectation for rise in } i \text{ (bad news)} \)

\( i_f = \text{market expectation for rise in } i \)
Our model

- Complex relationship between $x^*$ and $\varphi$:

\[
\frac{\partial x^*}{\partial \varphi} = \frac{q^2}{2\theta\lambda} \cdot \left\{ \frac{\lambda}{X(Q+q)} + (i_f - S_G) \right\}
\]

- Long-sighted DMOs increase maturity ($x^*$) when:
  - DMO expects good news (low $S_G$)
  - Market is pessimistic (high $i_f$)
  - Small and short debt stock (low $X(Q+q)$)
Our dataset

• We test our hypotheses on 26 democratic and credible (A- or more) countries in 2004-12.

• Our unique dataset includes:
  – Almost 25,000 issues of government debt, aggregated to monthly frequency;
  – Yield curve data;
  – credit ratings (S&P, Fitch and Moody’s).
Our dataset

- Compilation of legal texts defining the autonomy of DMOs (proxy for DMO long-sightedness).
- Fundamental sources of government turnover (proxy for DMO long-sightedness);
- A total of 2,383 country-month observations.
Issuance Data

- Data was complied from DMOs, Ministries of Finance and Bloomberg.
- Includes all types of national sovereign debt, issued or legally backed by the central government (such as provincial or municipal debt, if similarly rated).
Issuance Data

• **Excludes:**
  - Non-tradable debt;
  - Monetary policy instruments;
  - Retail debt with limited transferability and early redemption options (savings bonds);
  - Issues shorter than 3 months (cash management).
Issuance Data

- **Maturity at issuance:**
  - Value-weighted average time to maturity of all issues during the month (using current X-rates);

- **Further issuance parameters:**
  - amount, yield, price, currency, indexation, interest rate variability, coverage ratio.
Defining more autonomous DMO

- Delegated some authority in deciding issuance parameters (amount issued, maturity, interest rate, and timing of issuance);

Or at least:

- Elected policy makers cannot disregard the advice of non-elected professionals.

- Austria, Denmark, Slovakia, Korea, Sweden, US.
Defining non autonomous DMO

• A single elected policy maker can dictate the parameters of debt issuance (11 countries).

An alternative (expansive) definition of autonomous DMOs:

• Any DMO that does not qualify as non-autonomous: Australia, France, Germany, Hungary, Ireland, Israel, Italy, Norway, Portugal + 6 more autonomous DMOs.
Regression

• Fixed Effects linear regression with clustered standard errors (3×4 versions).
• Non-stationary variables (yield curve slope and debt stock) were differenced
• Change in credit rating in 1-3 month lead as proxy for privileged DMO information.
Regression

• Time-varying variables lagged to reduce likelihood of endogeneity (except issuance parameters: quantity, indexation, foreign).

• Dummy for the fiscal stress period since Sep 2008

• Year dummies

• Month dummies

• Lagged dependent variable
Results

• All DMOs lock-in low rates if the market expects them to rise, and the issue is extremely large.

• Since September 2008 DMOs have paid closer attention to the costs of debt (yield curve slope).

• Issues in August, November and December are 0.7-1.6 years shorter than otherwise.
Results

• Short-sighted DMOs act opportunistically on privileged news; Long-sighted DMOs do not.

• DMOs with greater autonomy from elected policy makers issue 2.3-3.3 years shorter, 1-3 months ahead of a deterioration in credit rating.

• This is evidence of signaling by autonomous DMOs.