

Auctions of Government Securities

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Some terminology

- **Bonds** or **gilts** (UK) are securities with maturity of more than one year that pay a predetermined interest rate (coupon)
- **T-bill**: Maturity less than one year, no coupon
- **Conventional gilt**: Fixed coupon
- **Index-linked gilt**: Coupon depends on (RPI) inflation rate

Background for UK debt issuance

- Government debt originated in 1694
- Gilt auctions introduced in 1987 (post “Big Bang”)
- 1995 Debt Management Review concluded: “Auctions will constitute the primary means of conventional gilt issuance”
- Auctions for index-linked gilts re-introduced in Nov 1998

Pre-auction issuance: Tap

- Ad-hoc “mini-auction”
- Timing at discretion of Bank of England
- Bank issued bonds into rising markets

Increased market uncertainty
and an increased risk premium

Reasons to move to auctions

- Risk premium may outweigh gains from tapping into rising markets
- Big Bang: Change in relationship with banks
- Policy change towards *transparency, predictability, accountability*

Further changes announced in Debt Management Review

- Annual issuance programme, incl. auction timetable and maturity structure of issuance
- Formal consultation meetings with market participants

Openness, predictability and transparency

Auction types for gilts

Conventional gilts

Competitive price auction: pay bid
(Winner's curse)

Index-linked gilts

Uniform price auction: pay lowest
successful bid
(Underpricing)

Auctions for conventionals

- 69% of debt stock are conventionals
- 95% of trades in secondary market
- Hedging instruments available
- Benchmark bonds: 5yr, 10yr, 30yr

Hence, competitive price format

Auctions for index-linked gilts

- 25% of debt stock in index-linked gilts
- Less than 5% of trades are in linkers
- No hedging instruments
- No benchmarks
- Formerly subset of primary dealers

Hence, uniform price format & smaller size

Auction format in other countries

- Discriminatory:
Australia, Austria, France, Sweden
- Uniform price:
Finland, Mexico, USA

Participation

- Competitive bids from primary dealers (GEMMs)
 - 17 GEMMs for conventional gilts
 - 17 GEMMs for index-linked gilts
- Non-competitive bids
 - From GEMMs depending on previous bidding (10% of total stock)
 - From public: “Approved group”

Role of GEMMs

- Bid in auctions (privilege and obligation)
- Expected to take at least 2.5% of stock (3-month rolling window)
- Place bids for others without commission
- Market making
- Discuss market developments with DMO
- Daily end-of-day gilts prices

USA and Germany

- Both moved to electronic auctions
- No technical necessity for primary dealers
- Participation open to any financial institution
- Supervised by financial authority

Pre-emption/Short squeeze

- One bidder takes the entire auction.
Primary dealers with short positions have to buy from this bidder at higher price.
- Salomon Brothers in May 1991 2-year treasury auction. Settled for \$27.8m.

In UK

- Max. allocation in auction
 - 25% in an conventional auction
 - 40% in index-linked auction
 - but WI-position taken into account
- Pre- and post-auction trade reporting
- Repo-facility and tap-issuance if market is short-squeezed

Price floor/quantity restriction

- “The DMO reserves the right not to allot all of the stock on offer.”
- Only in exceptional circumstances, e.g. uncovered auction in Sept 2002.
- Finland: Treasury determines supply only after observing bids. A number of auctions cancelled because bids not deemed sufficiently high.
- Russia: CBR cancelled auction for same reason.

Timing

- Building up of bond in market to ensure liquidity

Coordination

- Bonds are not identical across countries
- No coordination on auction calendar or any other issue

Do auctions distract from trading?

Daily trading volumes for US treasury bonds.

De-mean and de-volatilise with moving average.

Regress $\log(\text{volume})$ on lags and dummies for auction dates.

Auctions of Government Securities

	log(volume)			
	2yr	5yr	10yr	30yr
2yr auction	0.38	0.52	1.09	0.46
5yr auction	0.96	0.75	0.09	0.27
10yr auction	0.33	0.54	0.62	0.11
30yr auction	0.72	0.42	0.71	0.48

Further information

- www.dmo.gov.uk
- S. Bikhchandani and C. Huang (1993)
“The Economics of Treasury Securities Markets” *Journal of Economic Perspectives* 7(3)