# Discussion of "Strategic Bidding in ECB Refinancing Operations" by Edgar Vogel ECB Workshop, Frankfurt

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- (i) Banks bid **lower** in MROs just before an LTRO, and **higher** in MROs just after an LTRO.
- (ii) LTRO participants bid **lower, for larger amounts, more frequently, and more persistently** than LTRO non-participants.

Change the **title** (e.g., into: "How is MRO bidding affected by the presence of LTROs? – An empirical analysis of the pre-crisis period")

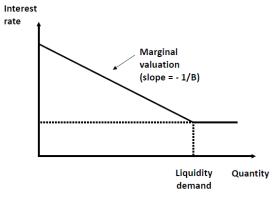
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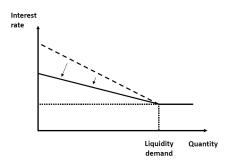
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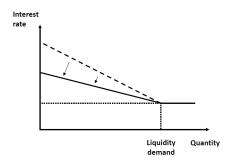


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Since  $Q^0 > \overline{Q}$ , the average weighted bid  $\frac{1}{2}(\overline{v}^d + r_{\min}^d)$  is indeed declining in B.

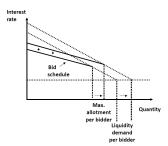
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which holds in any case.

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**Additional reference:** Bruno, Scalia and Ordine (2005) discuss interest rate volatility, collateral/country effects, and bank size as determinants of participation.

Use of MRR imputations could perhaps be better motivated.

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More generally, the **relative merits** of MROs and LTROs need further exploration (e.g., NZZ article of September 25)