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## A Model of the Convenience Yields in On-the-Run Treasuries

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### Abstract

The convenience yield differential between on- and off-the-run Treasury securities with identical maturities has two components. A non-cyclical component may arise due to the higher illiquidity of off-the-run bonds. Also, trading in the market for the next issue often causes cyclical shortages of the on-the-runs. When this occurs, owners of the on-the-run bond can earn riskless profits by borrowing at a special repo rate while lending at the prevailing risk free market rate. This second component of the convenience yield, induced by the auction, is

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arbitrage continuous-time model, with both interest and special repo rates stochastic, that prices the on-the-run bonds that command this convenience yield. A simple implementation of the model can generate yields consistent with the evidence.

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