

FOREIGN HOLDINGS OF US TREASURIES AND TREASURY YIELDS

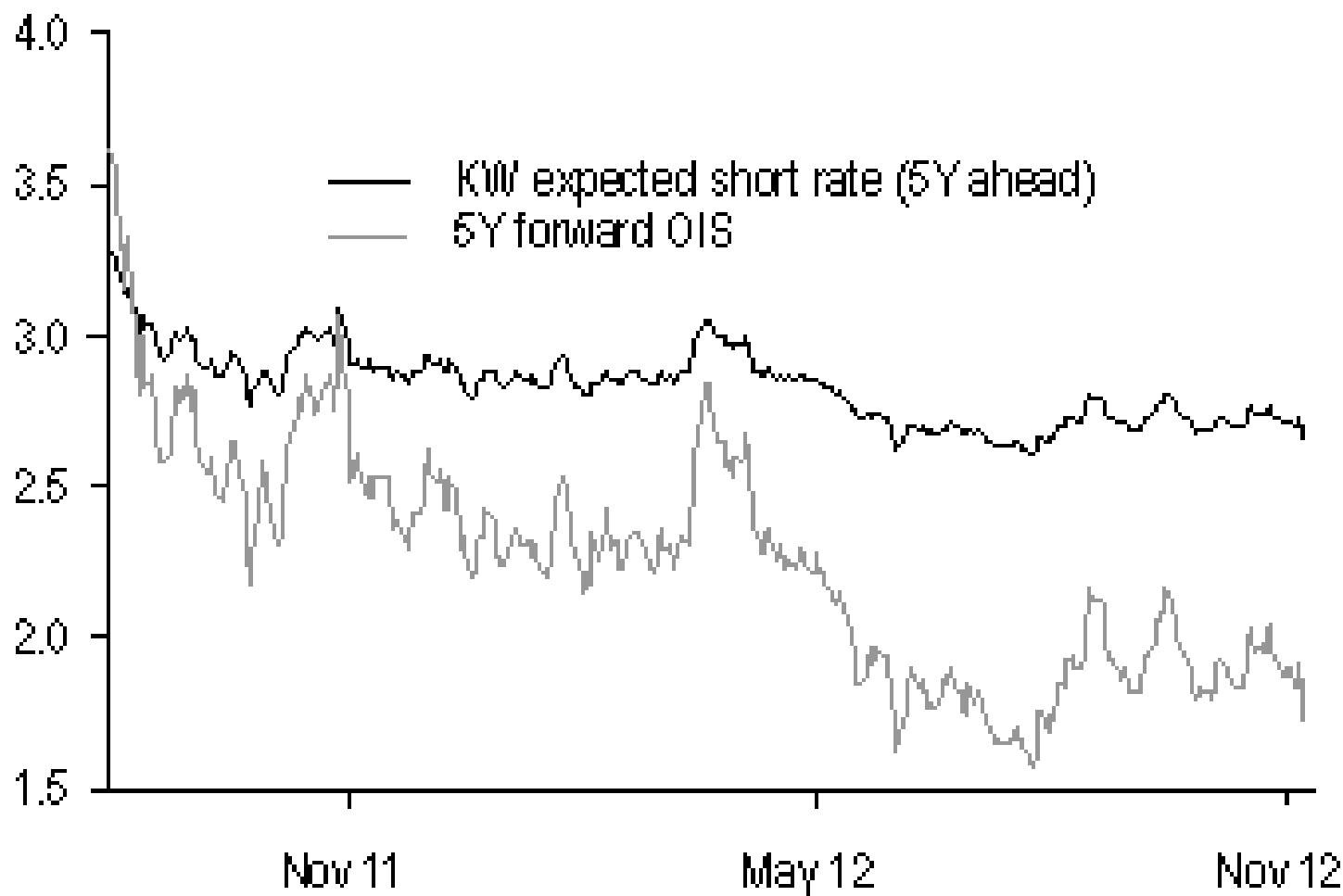
November 2012

Terry Belton ^{AC}

^{AC} Indicates certifying analyst. See last page for analyst certification and important disclosures.

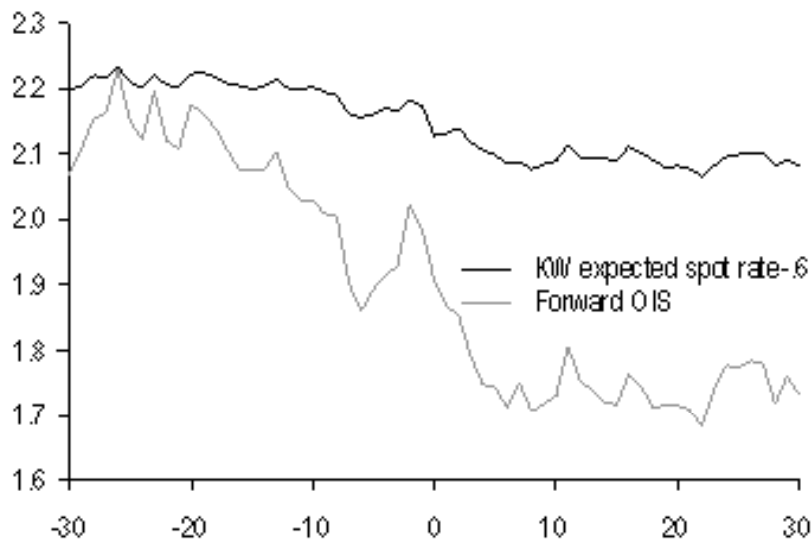
Term premium estimates from arbitrage-free pricing models have significant measurement errors; they tend to attribute most of the variability in interest rates to changes in term premium

5Y forward OIS vs. Kim-Wright expected 5Y forward spot; %



FOMC rate guidance has had a large impact on forwards but little impact on short rate expectations derived from arbitrage-free pricing models

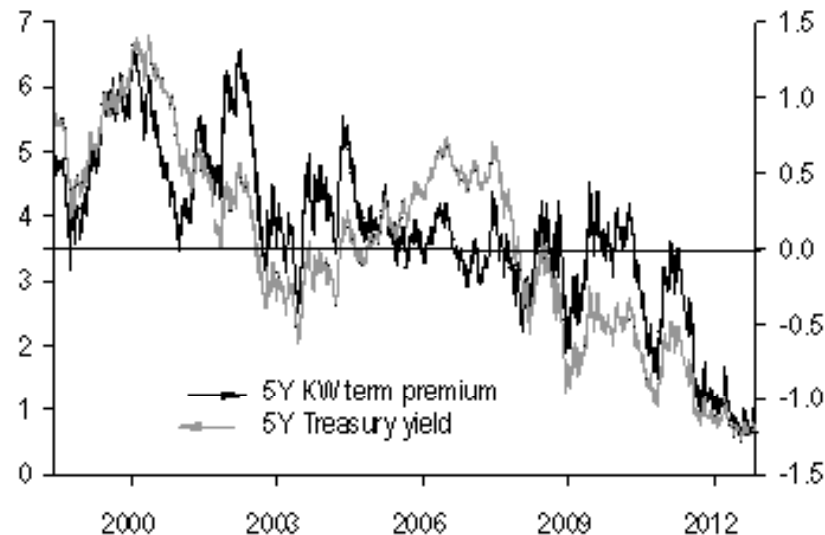
Kim-Wright expected short rate vs. forward OIS around FOMC rate guidance



Business days around FOM C meetings where rate guidance was extended*

* includes 8/9/11, 1/25/12, 9/13/12

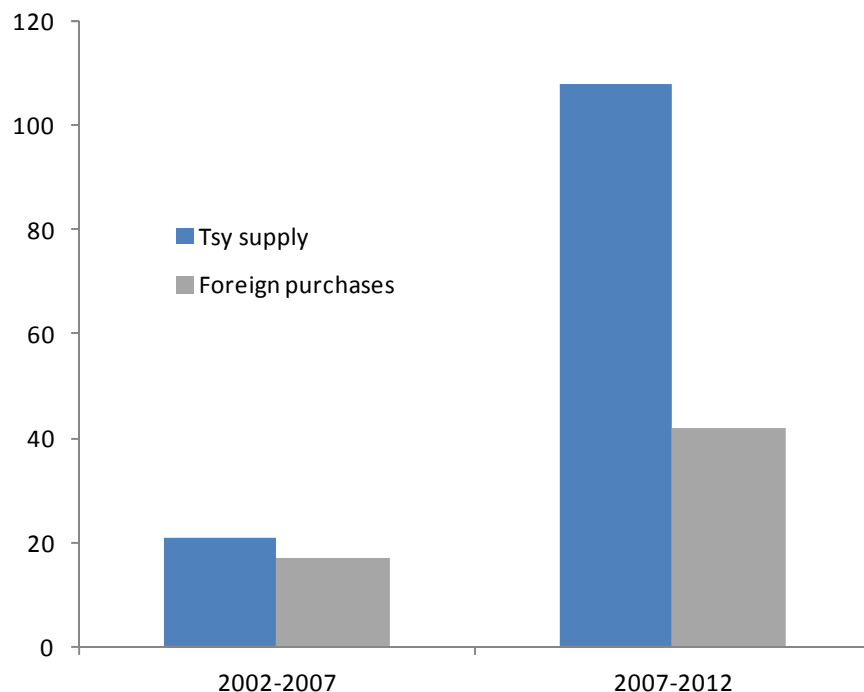
5-year Treasury yields vs. Kim-Wright estimate of 5-year term premium; %



- Would advise caution in interpreting term premium estimates too literally
- Econometric models of term premium may need to control for growth/inflation expectations and other factors that predominantly influence short rate expectations
- Failure to properly account for declining short rate expectations since 2009 has pushed model based term premium estimates significantly negative

Estimates of yield impact of foreign buying are smaller than they appear

Average monthly foreign purchases of UST versus monthly Treasury supply



Estimated impact of Fed LSAP

Study	Date	yield impact
Hamilton and Wu	2011	20
Krishnamurthy and Vissing-Jorgensen	2011	20
D'Amico and King (QE1)	2011	35

- \$100 bn in monthly purchases is more than 5 times monthly supply of Treasuries during period studied
- Estimates imply an increase of foreign purchases during 2002-2007 equal to total supply would have lowered yields only 9 bp
- These estimates are well under one half the estimated impact from QE; Fed buying has ranged from 50% of monthly supply in QE1 to almost 100% of monthly supply in QE2

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