

Homework 1
(Due: Nov. 8, 2018)

Construct the USD LIBOR curve using the USD LIBOR rates at 10/29/2018 given below. Use the piecewise constant forward rate interpolation to bootstrap the implied LIBOR curve. To find LIBOR curve, you need to calculate the LIBOR discount factors $Z(t, T)$.

Note that futures are 1 month USD LIBOR futures delivered at the term specified. Use the volatility of 0.3% to convert futures price to forward rate. Futures expires the third Wednesday of delivery month. Coupons of interest swap rates are paid semi-annually on the fixed leg.

At 10/29/2018

Instrument	Term	Rate/Price
MMD	O/N	2.17888
MMD	T/N	2.17888
MMD	1W	2.22625
MMD	1M	2.302
MMD	2M	2.39106
MMD	3M	2.52663
Futures	19-Jan	97.445
Futures	19-Feb	97.455
Futures	19-Mar	97.354
Swap	1Y	3.06375
Swap	2Y	3.02
Swap	5Y	3.06
Swap	10	3.14