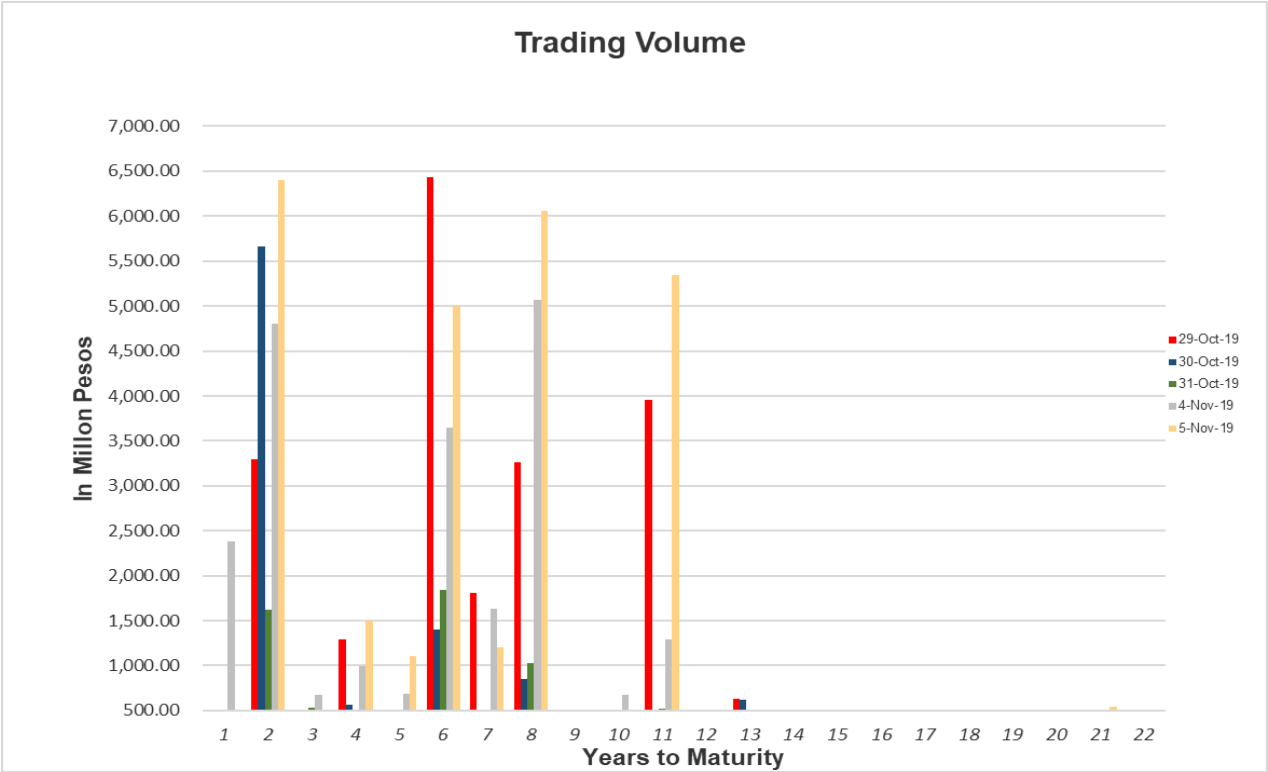
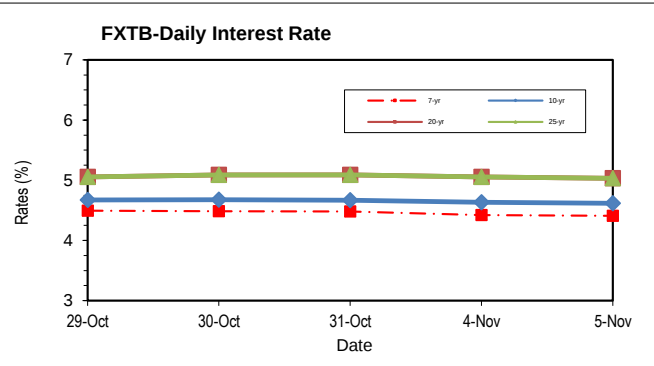
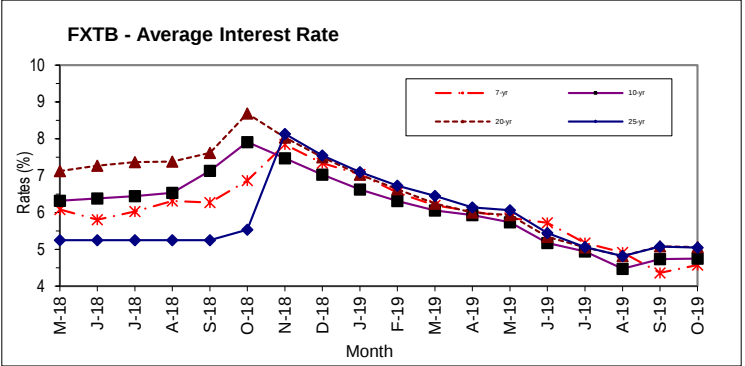
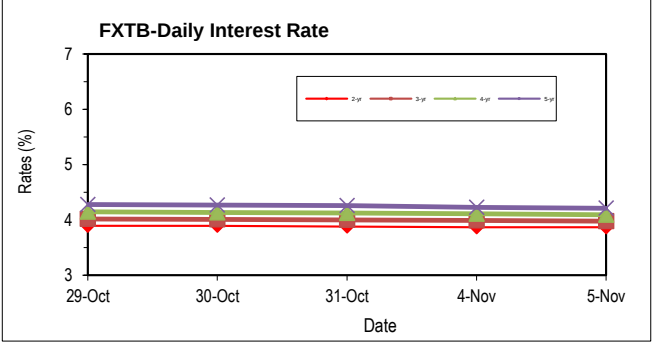
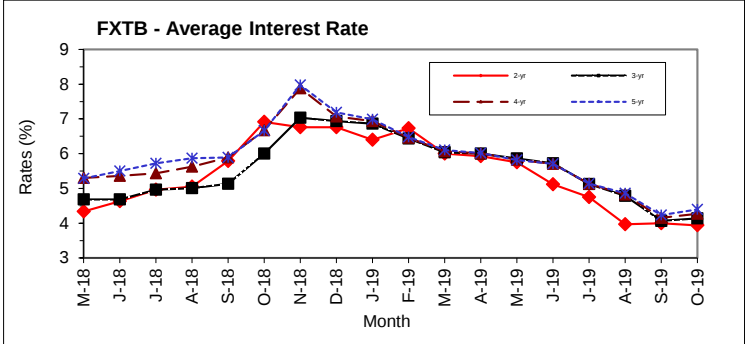
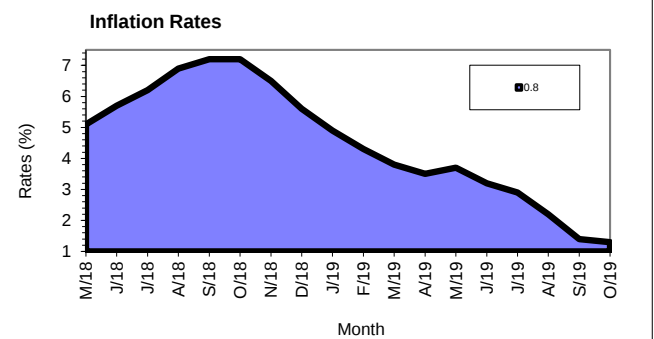
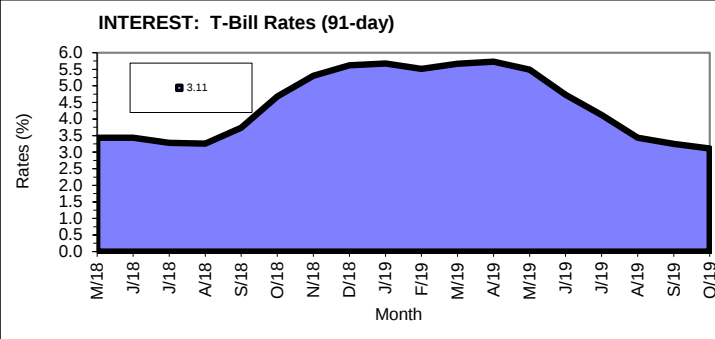
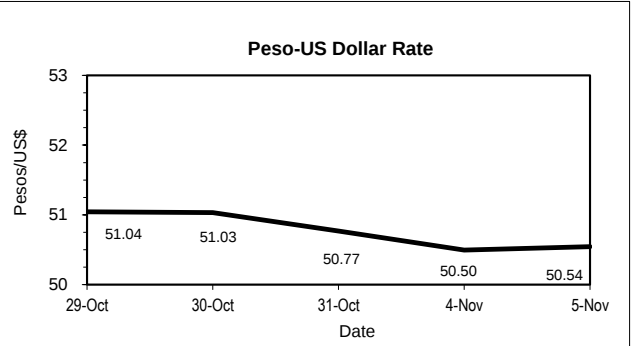
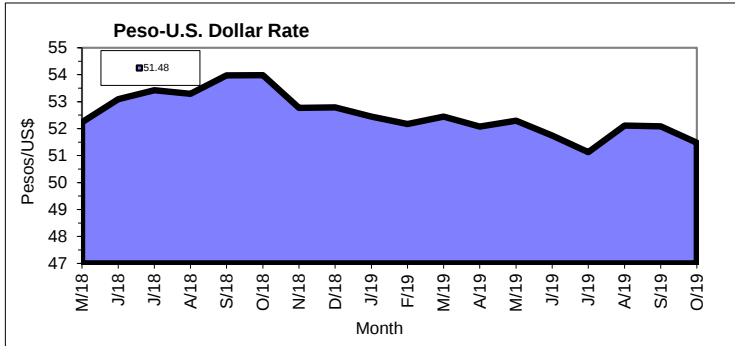
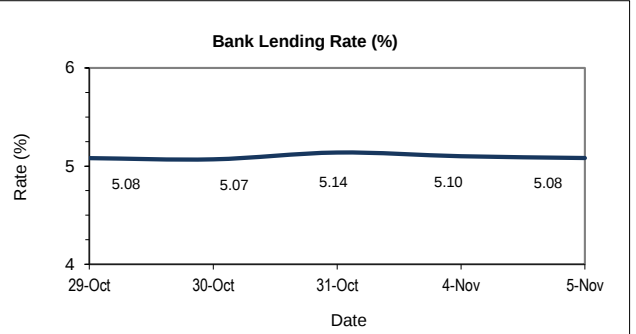
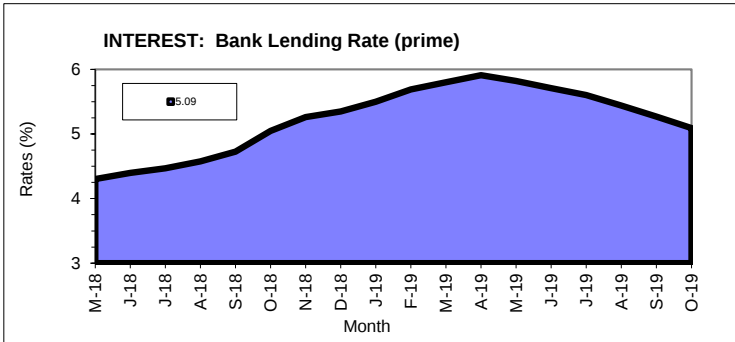
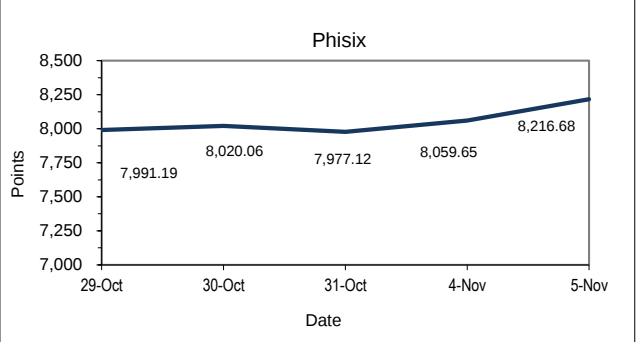
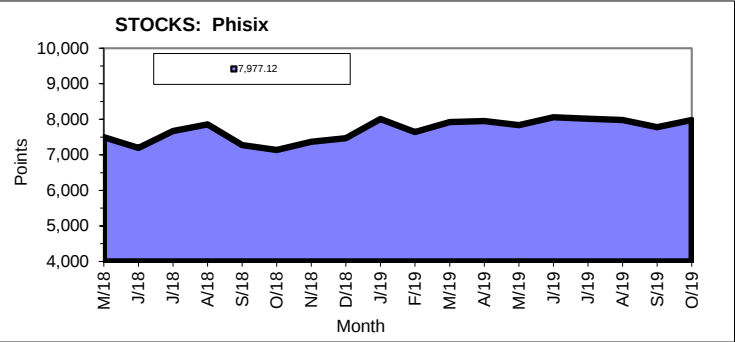
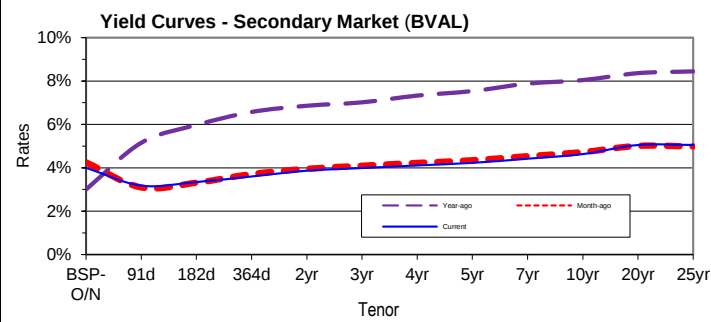


D. MARKET TRENDS note: Data points beginning October 29, 2018 are based on Bloomberg Valuation (BVAL) methodology, following the phasing out of R2 reference rates.





Prepared by:
Financial Market Monitoring and Analysis Division
Research Service, Planning and Policy SubSector
Date: 11/6/2019 0:00

ORIGINAL SIGNED
DC, FMMAD