EC 313, Fall 2019 **Name:** _____
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Midterm 2 - Equation Sheet **UO ID:** _____

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Expectation Theory: $i_{nt} = \frac{i_t + i^e_{t+1} + i^e_{t+2} + \cdots + i^e_{t+(n-1)}}{n}$

Liquidity Premium Theory: $i_{nt} = \frac{i_t + i^e_{t+1} + i^e_{t+2} + \cdots + i^e_{t+(n-1)}}{n} + l_{nt}$

i_{nt}: interest rate on a n-year bond at year t (in %);

i_t: interest rate on a 1-year bond at year t (in %);

i^e_{t+1}: interest rate on a 1-year bond expected for year t+1 at year t (in %);

l_{nt}: liquidity premium for the n-year bond at year t (in %)

Monetary base: MB=C+R

Monetary base: MB=BR + MB_n

M1: M1=C+D

currency-to-deposit ratio: $c = \frac{C}{D}$

excess reserves-deposit ratio: $er = \frac{ER}{D}$

required reserves ratio: $rr = \frac{RR}{D}$

reserves: $R = ER + RR$

Checkable deposits: $D = \frac{1}{rr} \times R$

Change in checkable deposits: $\Delta D = \frac{1}{rr} \times \Delta R$

money multiplier: $m = \frac{1+c}{c+rr+er}$

Money supply: $M = m \times MB$

Change in money supply: $\Delta M = m \times \Delta MB$

MB: monetary base; C: currency in circulation;

R: reserves; BR: borrowed reserves;

MB_n: non-borrowed monetary base; D: checkable deposits;

RR: requires reserves; ER: excess reserves;

ΔM: change in M; ΔMB: change in MB;

ΔD: change in D; ΔR: change in R

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