Economics 314 Spring 2020
Daily Problem #31 April 8

The table below describes the dynamic price-setting framework in the Fischer predetermined-price model:

t	1	2	3	4	5	6
Group A	p_1^1	p_2^2	p_3^1	p_4^2	p_5^1	p_6^2
Group B	p_1^2	p_2^1	p_3^2	p_4^1	p_5^2	p_6^1
p_t	$\frac{p_1^1 + p_1^2}{2}$	$\frac{p_2^1 + p_2^2}{2}$	$\frac{p_3^1 + p_3^2}{2}$	$\frac{p_4^1 + p_4^2}{2}$	$\frac{p_5^1 + p_5^2}{2}$	$\frac{p_6^1 + p_6^2}{2}$

The double lines are times at which prices are set by each group for the following two periods. It is possible, indeed likely, that $p_1^1 \neq p_2^2$, in other words, firms may set different prices for the two periods of the contract.

The optimal price if firms had perfect information is $p_t^* = \phi m_t + (1-\phi) p_t$. They base the prices they set for each period of the contract on the best information they have as of the time the price is set. Firms do not know m_t when they make decisions at the beginning of period t, so they must use $E_{t-1}(m_t)$.

1. If they had perfect foresight, what price would Group A firms set at time 0 for p_1^1? Which parts of this expression are known quantities and which are expectations?

2. With perfect foresight, what price would Group A firms set at time 0 for p_2^2? Which parts are known and which are expectations?