

## Problem Set #1. Overlapping generations

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### Exercise 5.2

In this exercise we analyse the economic impact of changes in household preferences. In particular, we consider a scenario where all households in the economy become more patient. This is captured by an increase in the discount rate  $\beta$ , which governs households preference between current and future consumption. Results in Table 1 show that, for a higher value of  $\beta$ , the economy moves to a new steady-state that features higher level of savings in both periods. The increase of savings in the economy favors capital accumulation and shifts the economy to a higher steady state level of capital stock and lower return on capital. With exogenous labour supply, labour productivity increases which in turn lifts wages. Finally, as consumption depends on wages and wealth, household consumption rises in all three periods. To conclude, the larger is  $\beta$ , the more resources are spent in subsequent periods and more savings is available in the economy for capital accumulation with a positive impact on the economy.

**Table 1: Steady-state results**

Beta	b2	b3	K	r	w	c1	c2	c3
0.44	0.019	0.059	0.078	2.433	0.202	0.182	0.210	0.241
0.55	0.028	0.077	0.105	1.89	0.224	0.196	0.229	0.267