

A LIMITING DISTRIBUTION IS STATIONARY:

$$v = \lim_{n \rightarrow \infty} v_0 P^n = \lim_{n \rightarrow \infty} v_0 P^{n-1} \cdot P = \left(\lim_{n \rightarrow \infty} v_0 P^{n-1} \right) \cdot P$$

$\equiv v P$

IF THERE IS A LIMITING DISTRIBUTION v
THERE CANNOT BE A DIFFERENT STAT. DIST w

$$wP = w \quad wP^n = w \quad \text{FOR ALL } n$$

$$v = \lim_{n \rightarrow \infty} wP^n = w$$