

$$Y_t = X_{dt}$$

33+1

$$\begin{aligned} P_{ii}^n(Y) &= P(Y_n = i | Y_0 = i) \\ &= P(X_{nd} = i | X_0 = i) \\ &= P_{ii}^{nd} \end{aligned}$$

$$\begin{aligned} f_{ii}^n(Y) &= P(Y_n = i, Y_k \neq i, k=1, \dots, n-1 | Y_0 = i) \\ &= P(X_{nd} = i, X_k \neq i, k=1, \dots, nd | X_0 = i) \\ &= f_{ii}^{nd} \end{aligned}$$

$$Z_{ii}(Y) = \sum_{n \rightarrow \infty} P_{ii}^n(Y) = \sum_{n \rightarrow \infty} P_{ii}^{nd}$$

$$= \frac{1}{\sum_{n=0}^{\infty} n f_{ii}^n(Y)} = \frac{1}{\sum_{n=0}^{\infty} n f_{ii}^{nd}}$$

$$= \frac{d}{d \sum_{n=0}^{\infty} n P f_{ii}^{nd}} = \frac{d}{\sum_{n=0}^{\infty} n f_{ii}^{nd}}$$

$$= \frac{d}{m_i}$$

(33) + 2

