

$$M + Y \rightleftharpoons MY$$

$$V = v_f \Rightarrow C_{-}^{*}(MY) = \frac{C_M^T V_M}{V_M + v_f} = \frac{C_Y v_f^{ef}}{V_M + v_f}$$

$$MY \rightleftharpoons M + Y$$

$$C_{-x}^{*} \quad x \quad x$$

$$\beta' = \frac{C^d}{x^2} \approx \frac{C^d}{x^2} \Rightarrow$$

$$\Rightarrow C_M' = \frac{C_M^{Tot}}{(V_M + v_f) \beta'}$$

$$[MY] = \frac{C_m v_m}{v_m + v_y}$$

$$C'_y = [Y^{h-}] = \frac{C_y v_y - C_m v_m}{v_m + v_y}$$

$$\beta = \frac{[MY]}{C_m C'_y} \Rightarrow C'_m = \frac{C_m v_m}{(v_m + v_y)} \frac{v_m + v_y}{(C_y v_y - C_m v_m) \beta}$$

$$C'_m = \frac{[MY]}{C'_y \beta v_y}$$

$$\beta' = \frac{\beta}{B_4^{4-1}} \Rightarrow \log \beta' = \log \beta - \log B_4^{4-1}$$

$$\log \beta' = 8 = \log \beta - \log B_4 \Rightarrow$$

$$\log \beta = \log B_4 + 8$$

