

Definition 2.2. A blockchain protocol $(\Pi, \text{extract})$ has chain growth rate $T_0(\cdot), g_0(\cdot, \cdot, \cdot, \cdot), g_1(\cdot, \cdot, \cdot, \cdot)$ in Γ -environments if for all Γ -admissible $(n(\cdot), \rho, \Delta(\cdot), A, Z)$, there exists some negligible function ϵ such that for every $\kappa \in \mathbb{N}$, $T \geq T_0(\kappa)$, $t_0 \geq \frac{T}{g_0(\kappa, n(\kappa), \rho, \Delta(\kappa))}$ and $t_1 = \frac{T}{g_1(\kappa, n(\kappa), \rho, \Delta(\kappa))}$ the following holds:

$$\Pr \left[\text{view} \leftarrow \text{EXEC}^{(\Pi, \text{extract})}(A, Z, \kappa) : \text{growth}^{t_0, t_1}(\text{view}, \Delta(\kappa), \kappa) = 1 \right] \geq 1 - \epsilon(\kappa)$$