For each $\boldsymbol{c : X \nrightarrow \overline{F}X}$, $\mathsf{tr}^{\boldsymbol{\infty}}\boldsymbol{(c) : X \nrightarrow \Sigma^{\infty}}$ is given by:

$$\mathsf{tr}^{\infty}(c)(x)(\{\epsilon\}) = c(x)(\{\checkmark\}), \tag{1}$$

$$\mathsf{tr}^{\infty}(c)(x)(\{au\}) = \int_{y \in X} \mathsf{tr}^{\infty}(c)(y)(\{u\}) dc_a(x), \tag{2}$$

$$\mathsf{tr}^{\infty}(c)(x)(\Sigma^{\infty}) = \gamma_x, \text{ and} \tag{3}$$

$$\mathsf{tr}^{\infty}(c)(x)(au\Sigma^{\infty}) = \int_{y \in X} \mathsf{tr}^{\infty}(c)(y)(u\Sigma^{\infty}) dc_a(x), \tag{4}$$

where $\boldsymbol{c_a(x)(A) = c(x)(\{a\} \times A)}$ and $\boldsymbol{\gamma \in [0,1]^X}$ is the largest function that satisfies the following equation

$$\gamma_x = c(x)(\{\checkmark\}) + \int_{y \in X} \gamma_y dc_{\Sigma}(x)\,. \tag{5}$$