$$\begin{aligned} \operatorname{dyn}_{f \circ g} &: \left[\mathbf{U}_f \; ; \; \mathbf{X}_f \; ; \; \mathbf{X}_g \right] &\longrightarrow \left[\mathbf{X}_f \; ; \; \mathbf{X}_g \right], \\ & \left[u \; ; \; x_f \; ; \; x_g \right] &\longmapsto \left[\operatorname{dyn}_f(u, x_f) \; ; \; \operatorname{dyn}_g(\operatorname{ro}_f(x_f), x_g) \right]. \end{aligned}$$