

$$\begin{array}{ccccc}
& & \phi_{T,\mathcal{E}} & & \\
V & \xrightarrow{\hspace{3cm}} & V & \xlongequal{\hspace{3cm}} & V \\
\uparrow \phi_{M,\mathcal{E}_0} & & \uparrow \phi_{M,\mathcal{E}_0} & & \uparrow \ell_{\mathcal{E}_0} \\
V & & V & & \\
\uparrow \ell_{\mathcal{E}_0} & & \uparrow \ell_{\mathcal{E}_0} & & \\
K^{n+1} & \xrightarrow[a \mapsto Ta]{\hspace{3cm}} & K^{n+1} & \xrightarrow[a \mapsto Ma]{\hspace{3cm}} & K^{n+1}
\end{array}$$