

$$\begin{array}{ccccc}
V^* & \xrightarrow{\phi_{T,\varepsilon'}} & V^* & \xlongequal{\quad} & V^* \\
\uparrow \phi_{M,\varepsilon} & & \uparrow \phi_{M,\varepsilon} & & \uparrow \ell_\varepsilon \\
V^* & & V^* & & \\
\uparrow \ell_\varepsilon & & \uparrow \ell_\varepsilon & & \\
K^{n+1} & \xrightarrow{a \mapsto Ta} & K^{n+1} & \xrightarrow{a \mapsto Ma} & K^{n+1}
\end{array}$$

$\ell_{\varepsilon'}$ (curved arrow from K^{n+1} to V^*)