

$$\begin{array}{ccccc}
& & A^{n+1}(k) & \xrightarrow{\theta_k} & P^n(k) \\
& \downarrow \varphi & \downarrow A^{n+1}(\varphi) & & \downarrow P^n(\varphi) \\
k & & A^{n+1}(k') & \xrightarrow{\theta_{k'}} & P^n(k') \\
& & & &
\end{array}$$