$$\begin{array}{cccc}
C & \stackrel{s}{\longleftarrow} & M & \stackrel{t}{\longrightarrow} & C \\
F_C \downarrow & \circlearrowright & \downarrow F_M & \circlearrowleft & \downarrow F_C \\
C & \stackrel{t'}{\longleftarrow} & M' & \stackrel{s'}{\longrightarrow} & C
\end{array}$$