In 1963, Kakutani and Parry constructed, for each positive integer $k$, infinite measure-preserving countable state Markov shifts $T$ such that the $k$-fold product of $T$ with itself is ergodic but the $k + 11$-fold product is not conservative, hence not ergodic. We construct infinite measure-preserving rank-one transformations $T$ such that the $k$-fold product of $T$ with itself is ergodic but the $k + 1$ product is conservative but not ergodic. Our examples are also rigid and of a different nature than Markov shifts. (Received September 16, 2014)