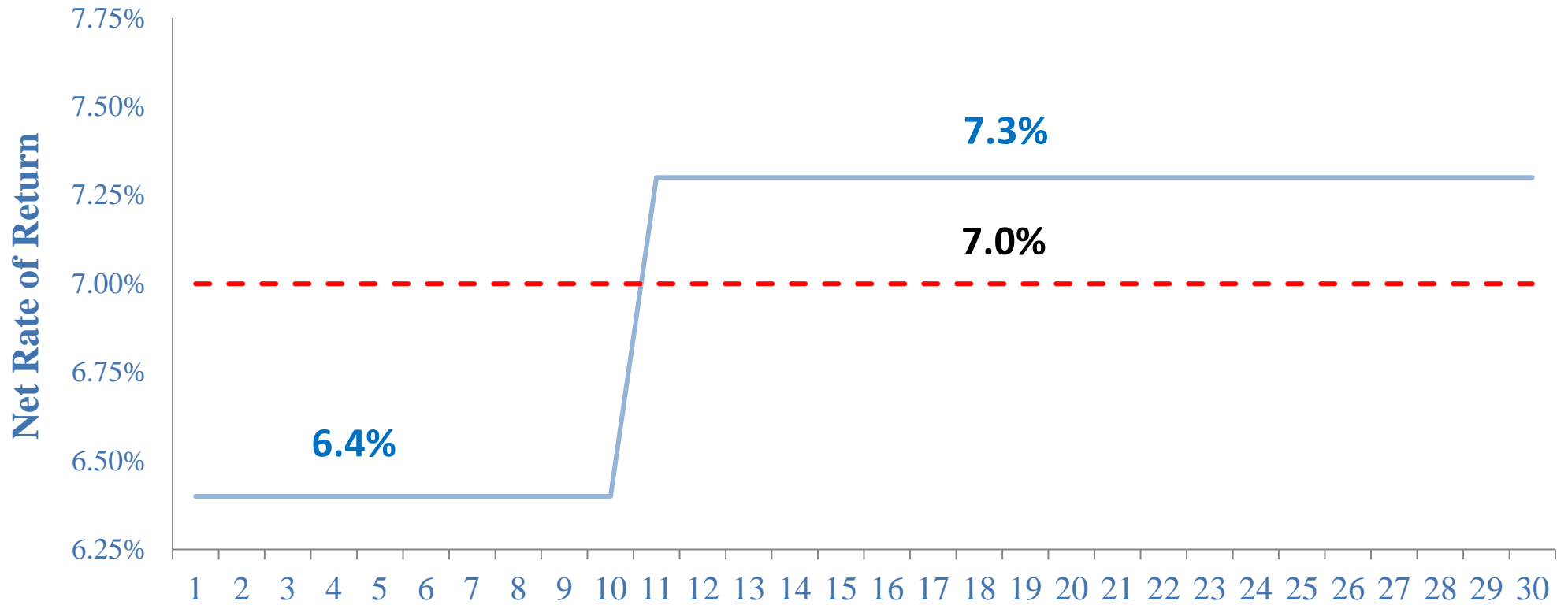


Bartel Associates Market Value Return Assumptions Established in 2018



*6.4% and 7.3% are the median geometric net rate of return assumptions used to project future market value assets based on BA capital market assumptions and the current CalPERS target asset allocation. The resulting median geometric return over the 30-year period is 7.0%.