Simulation result for the Asian option on arithmetic mean of asset prices with parameters $r=0.01, \sigma=0.3, K=100$, $S(0)=110$, $T=1$, $m=12$, utilizing antithetic variables and moment matching for variance reduction:

n_sims	Price	Std Error	Error (±2*SE)
1000	14.4003	0.5516	± 1.1032
10000	13.8935	0.1653	± 0.3307
100000	13.9723	0.0526	± 0.1051
1000000	13.9599	0.0166	± 0.0332
10000000	13.9515	0.0052	± 0.0105

Simulation result for the same Asian option, using antithetic variables, moment matching, and control variates (Asian option price on geometric mean of asset prices):

n_sims	Price_CV	StdError	±2*SE	Corr	VRF
1000	13.9007	0.0165	± 0.0329	0.9995	1002.3470
10000	13.9466	0.0059	± 0.0117	0.9994	773.9619
100000	13.9548	0.0019	± 0.0038	0.9994	778.4845
1000000	13.9509	0.0006	± 0.0012	0.9994	784.1605
10000000	13.9514	0.0002	± 0.0004	0.9994	782.0758

The estimated prices from the two methods converge to about 13.9514 for n=10000000 simulations. Standard error for the estimated price when using control variates (0.0002) is more than one order of magnitude smaller than the standard error without control variates (0.0052). Correlation between Asian option prices on arithmetic mean and geometric mean is very high (0.9994), which results in a very large variance reduction factor/speed-up (>780).