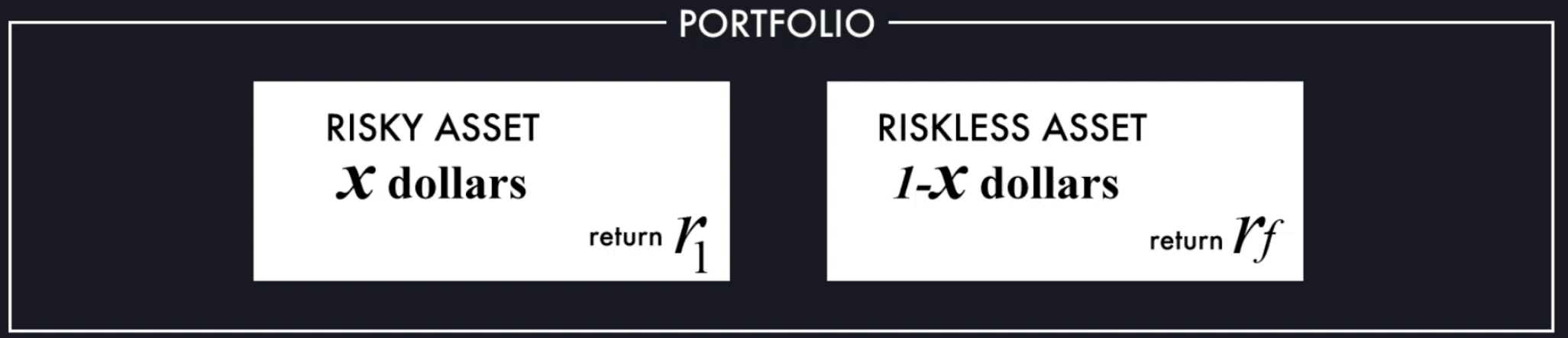
A Portfolio of a Risky and Riskless Asset

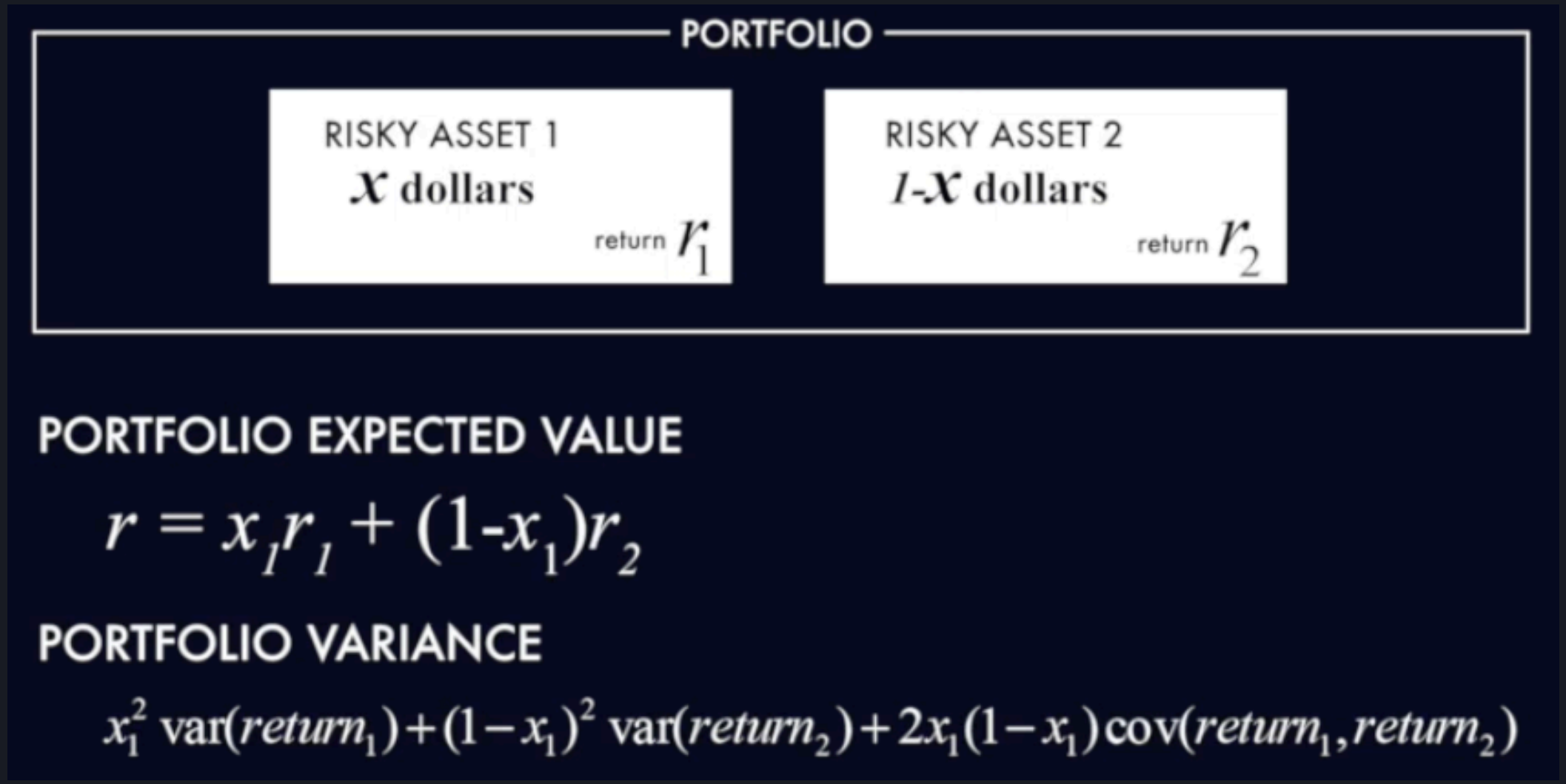


PORTFOLIO EXPECTED VALUE $r = xr_1 + (1-x)r_f$

PORTFOLIO VARIANCE $x^2 \operatorname{var}(return_1)$

PORTFOLIO STANDARD DEVIATION $\sigma = \left|\frac{r - r_f}{r_1 - r_f}\right| \sigma(return_1)$

A Portfolio of 2 Risky Assets



PORTFOLIO EXPECTED VALUE

$$r = x_1 r_1 + (1\text{-}x_1) r_2$$

PORTFOLIO VARIANCE

$$x_1^2 \operatorname{var}(return_1) + (1-x_1)^2 \operatorname{var}(return_2) + 2x_1(1-x_1)\operatorname{cov}(return_1, return_2)$$