

$$R = \frac{188,405 - 100}{100}$$

= rate of return over 75 years on \$100

Q: What is compound annual rate of return over these 75 yrs?

$$FV = V_0 (1 + R_A)^T$$

$$188,405 = 100 (1 + R_A)^{75}$$

$$\left( \frac{188,405}{100} \right)^{1/75} - 1 = R_A$$

$$= 10.6\% \text{ for } \$100$$

Compound  
annual  
growth  
rate  
= CAGR

For small stocks

"CAGR"

$$R_A = \left( \frac{7,302,340}{100} \right)^{1/75} - 1 = 16.1\%$$

Für small  
Stück

Corporate Bonds

$$R_A = \left( \frac{16,520 - 100}{100} \right)^{1/75} - 1 = 7\%$$

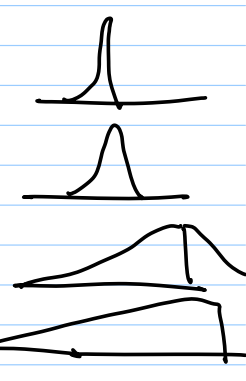
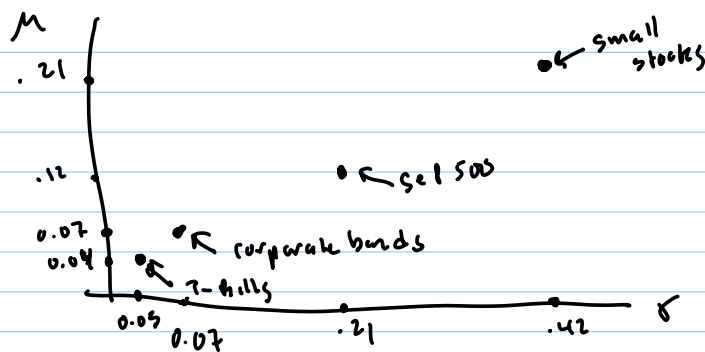
$$\text{inflation} = \left( \frac{1174 - 100}{100} \right)^{1/75} - 1$$

$= 0.032$  or  $3.2\%$  per year.

If we assume annual returns are normally distributed

$$R \sim N(\mu, \sigma^2)$$

	$\mu$	$\sigma$
T-bills	4%	3%
Corp Bonds	7%	7%
S&P 500	12%	21%
Small stocks	21%	42%

Note linear relationship b/w  $\mu$  &  $\sigma$  for these asset classes!