

Climate Risk and Asset Pricing

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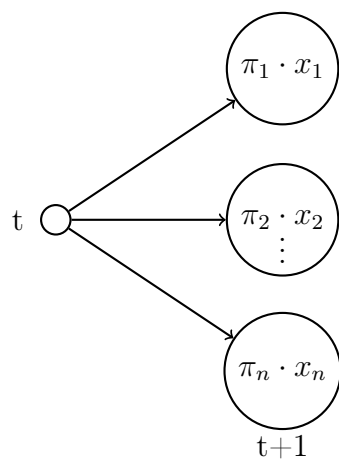
Chapter 1

States of the World and Asset Pricing

Assets give a *payoff* x_{t+1} . In our focus on stocks, $x_{t+1} = p_{t+1} + d_{t+1}$, where p_{t+1} is the price of the stock at time $t + 1$ and d_{t+1} is the dividend paid at time $t + 1$. x_{t+1} is a random variable, like a coin-flip - we don't know at t what it will be at $t + 1$. But we can assign probabilities to the possible outcomes of x_{t+1} . We can think of the *randomness* of x_{t+1} as being due to the randomness of the *state of the world* at $t + 1$. x_{t+1} takes on different values in different *states of the world*. We have:

$$E(x_{t+1}) = \sum_s \pi(s)x(s) \tag{1.1}$$

where $E(x_{t+1})$ is the expected value of x_{t+1} , $\pi(s)$ is the probability of state s , and $x(s)$ is the value of x_{t+1} in state s .



Chapter 2

Climate Scenarios as States of the World

Chapter 3

Risk Factors: Empirical Methods

Chapter 4

The Green Factor

