



# The Recovery Theorem

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We can only estimate the distribution of stock returns but from option prices we observe the distribution of state prices. State prices are the product of risk aversion — the pricing kernel — and the natural probability distribution. The Recovery Theorem enables us to separate these so as to determine the market's forecast of returns and the market's risk aversion from state prices alone. Among other things, this allows us to recover the pricing kernel, the market risk premium, the probability of a catastrophe, and to construct model free tests of the efficient market hypothesis.

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