12.10 The Minimum-Variance Hedge
Minimum Variance Hedge:

Let \( x = \) cash flow at time \( T. \)

We will purchase \( W \) units of a commodity at spot price \( S(T) \), at time \( T. \)

Then: \( x = - W S(T). \) (neg. for expenditure).

To hedge these expenditures, use \( h \) units of a future:

\[
F(0) = \text{price/unit (now)} \quad F(T) = \text{price/unit (at } T) \]

At \( T: \)

\[
y = x + (F(T) - F(0))h \]

gain or loss from \( h \) units of future.