Covered Interest Parity Example

CIP: \[ R = R^* + \frac{F-E}{E} \]

Suppose: \[ R = .08 \] (8\% per year)
\[ R^* = .05 \] (5\% per year)
\[ E = 1.3 \] ($/euro)
\[ F = 1.365 \] ($/euro)

What would you do?

Covered euro return:
\[ .05 + \frac{1.365-1.3}{1.3} = .05 + .05 = .10 > .08 \]

Arbitrage: Borrow low, lend high
1.) Borrow $100 [must pay back $108]
2.) Convert to 76.923 euro
3.) Invest in euro deposit [get 80.769 euro]
4.) Sell the euro forward [get $110.25]

$2.25 pure arbitrage profit!
Synthetic Forwards

Suppose you want pesos 2 years from now at a known price, but there is no 2-year forward market in pesos.

Key Point: Buying a currency forward is equivalent to borrowing domestically and lending abroad. Both require you to pay domestic currency in the future and receive foreign currency.

1. Convert pesos to $ \(\frac{S-E}{1+R_0} \frac{1}{E}\)
2. Invest in pesos to get \(\frac{1+R^*}{1+R} \cdot \frac{1}{E}\) future pesos
3. Borrow \(\frac{1}{1+R}\) $