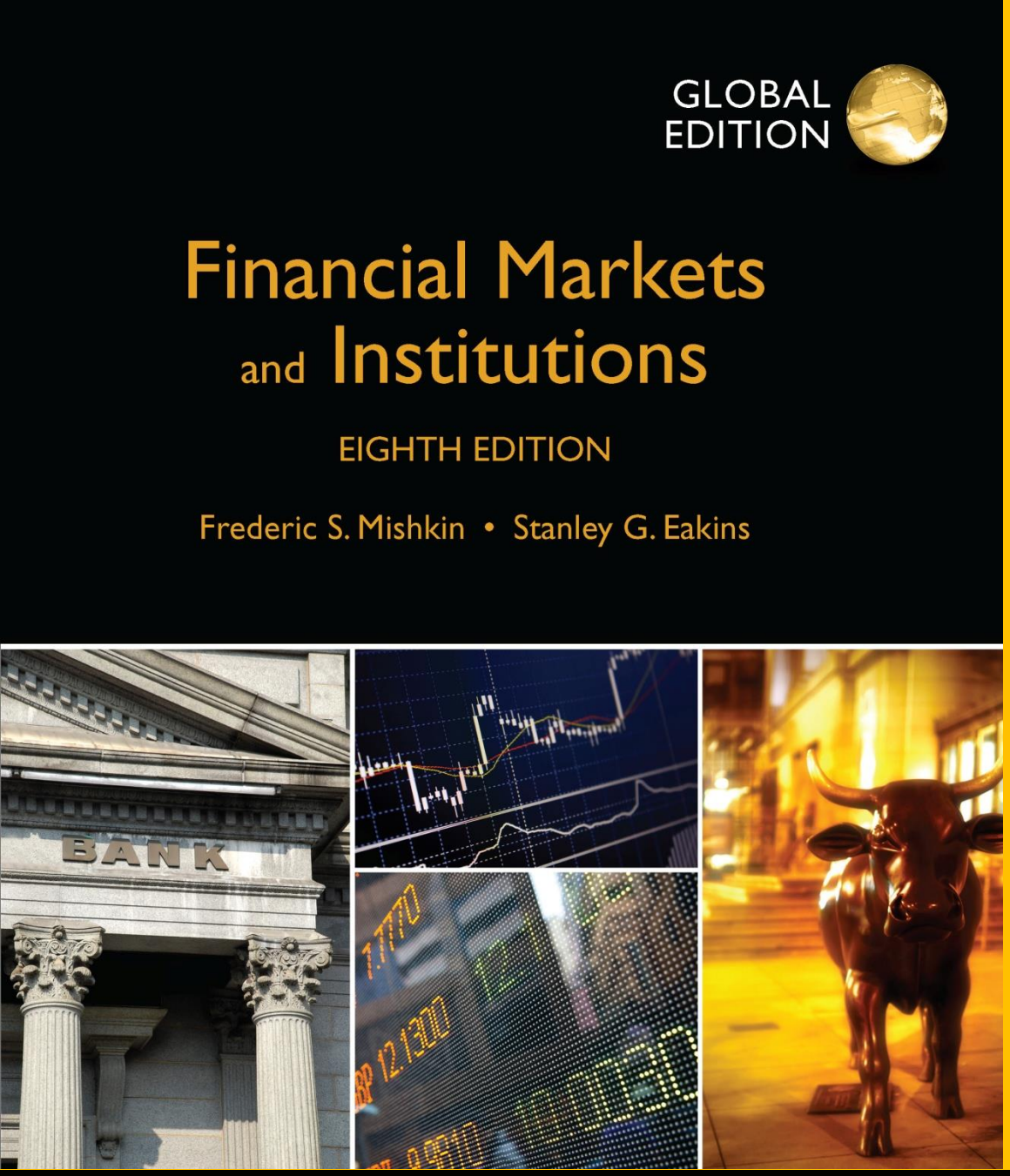

Appendix Chapter 15

The Interest Parity Condition

Interest Parity Condition

- The **interest parity condition** relates foreign/domestic interest rates with FX rates.
- Derived from expected returns.

Comparing Expected Returns on Domestic and Foreign Assets

- Can earn an interest rate of i^D on US dollars
- Can earn i^F on euros.
- E_t is the current exchange rate, and E^e_{t+1} is the expected exchange rate in one period.

Comparing Expected Returns on Domestic and Foreign Assets

- For an investor to be indifferent between investing in euros or dollars, the following must hold:

$$R^D \text{ in terms of euros} = i^D + \frac{E^e_{t+1} - E_t}{E_t}$$

where R^D is the dollar expected return

Comparing Expected Returns on Domestic and Foreign Assets

- The expected return on dollar assets, R^D, is the rate on the dollar plus the expected appreciation of the dollar:

$$R^D \text{ in terms of euros} = i^D + \frac{E^e_{t+1} - E_t}{E_t}$$

Comparing Expected Returns on Domestic and Foreign Assets

- The expected return on euro assets, R^F, is the rate on the euro minus the expected appreciation of the dollar:

$$R^F \text{ in terms of dollars} = i^F - \frac{E^e_{t+1} - E_t}{E_t}$$

Interest Rate Parity

- For an investor to be indifferent, the two must offer the same expected returns:

$$i^D = i^F - \frac{E^e_{t+1} - E_t}{E_t}$$

Interest Rate Parity: Example

- US and Japanese rates are 6% and 3%, respectively. What is the expected appreciation of the yen?

$$i^D = i^F - \frac{E^e_{t+1} - E_t}{E_t}$$

$$6\% = 3\% - \frac{E^e_{t+1} - E_t}{E_t}, \text{ or } -\frac{E^e_{t+1} - E_t}{E_t} = 3\%$$