

## **WS#03: Interest Rate Swaps: Basics of Valuation and Accounting**

**Saturday, August 5, 2023**

**1:00 pm – 4:00 pm**

**Presenter: A. Rashad Abdel-khalik**

An interest rate swap (*IRS*) is a bilateral contract to exchange two streams of future cash flows: one stream is calculated based on a fixed interest rate while the other stream is based on a variable rate. The variable rate is usually tied to an interest rate index such as LIBOR, the Fed Rate, Treasury Bills rates, etc. A common feature of these indexes is that are not subject to the influence or control of the parties to the contract.

The accounting definition of financial derivatives requires that a contract does not have an initial investment. To have a fair value of zero at inception, the present values of the two streams of future cash flows must be equal. The first step is to use forward rates to derive the fixed rate that would satisfy this condition. As the interest rate index of the variable rate changes, the fair value of the contract deviates from zero and one of the counterparties would owe money to the other. This change impacts cash flow, earnings and the balance sheet assets and liabilities.

*IRS* acts as a means for risk substitution by hedging exposure to cash flow risk (cash flow hedging) or to fair value risk (fair value hedges).

The objective of this course is offering an introduction to the basics of the valuation of *IRS* and the accounting for both cash flow hedge and fair value hedge.