

BHARAT SCHOOL OF BANKING

Interest Rate Swap (IRS)

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An **Interest Rate Swap (IRS)** is a **financial instrument** that works in a **derivative market**, where **two parties** exchange **interest rate payments** between them.

IRS is useful when one **party** wants to receive **payment** with a **variable interest rate**, while the other **party** wants to limit **future risk** with a **fixed interest rate**.

Clear the **concept** with an example -

Example

Suppose, two companies **X** and **Y** has come up with an **agreement** of **Interest Rate Swap (IRS)** with a **nominal value** of **Rs. 1,00,000**.

Company **X** offers a **fixed rate** of **5 %** per annum to **Y** on the **nominal amount**, whereas **Y** agrees to pay a **variable rate**, like **Mibor rate + 2 %** per annum to **X** in return. Note that **Mibor rate** changes on **daily basis**, making the **rate** a **variable** one.

(Don't take the following figures of Mibor rate as actual!)

Here, both **X** and **Y** know that **Mibor rate (variable)** will remain roughly around **3 %** (just a figure), making it **almost equal** to the **fixed rate**, i.e., **3 + 2 = 5 %**. Note that **X** will make a **profit** if the **Mibor rate is greater than 3 %**, because in that case, **Y** will pay **X** more than **3 + 2 = 5 %**.

Conversely, if the **Mibor rate** is lower than **3 %**, then **X** will make a **loss**, because **Y** will pay less than **3 + 2 = 5 %**.

Clear it with figures -

CASE 1 - Mibor rate is greater than 3 %, say 3.5 %

- **Y** will pay **3.5 + 2 = 5.5 % interest rate** on the **nominal amount** (i.e., **Rs. 1 lakh**) to **X** at the end of that year, making total interest = **Rs. 1,00,000 x 5.5 % = Rs. 5,500 interest**
- Also, **X** will pay the **fixed 5 % interest rate** on the same nominal amount of **Rs. 1 lakh**, making total interest = **Rs. 1,00,000 x 5 % = Rs. 5,000 interest**.

Note that **only** the **net difference** is **settled** in case of **Interest Rate Swap**, meaning only **Rs. 5,500 - 5,000 = Rs. 500** will be paid to **X by Y**.

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In this case **X** made a **profit**, while **Y** faced a **loss** of **Rs. 500**.

CASE 2 - Mibor rate is less than 3 %, say 2.5 %

- **Y** will pay $2.5 + 2 = 4.5$ % **interest rate** on the **nominal amount** (i.e., **Rs. 1 lakh**) to **X** at the end of that year, making total interest = **Rs. 1,00,000 x 4.5 % = Rs. 4,500 interest**
- Also, **X** will pay the **fixed 5 % interest rate** on the same nominal amount of **Rs. 1 lakh**, making total **interest = Rs. 1,00,000 x 5 % = Rs. 5,000 interest**.

Note that **only** the **net difference** is **settled** in case of this **Interest Rate Swap**, meaning only **Rs. 5,000 - 4,500 = Rs. 500** will be paid to **Y by X**.

In this case **Y** made a **profit**, while **X** faced a **loss** of **Rs. 500**

Why IRS agreement?

- To **hedge** (reduce **risk**) an investment
- To earn some extra money, with a **little risk** (in the above example, **Y** agreed in **IRS** with **X**, because, he hoped that if **Mibor rate** gets increased, making the **total interest rate** (Y paying to X) greater than the **fixed interest rate** (X paying to Y), then he will make a **profit** (refer **Case 2**). Albeit he **risked** a **little** (refer **Case 1**)

Note that the **risk** is **less**, because they both know that **Mibor rate** will remain roughly around **3 %** (not making huge difference from 3 %. Mibor rate will never become, say, 6 % or 1 %, etc.) (just a figure). Selecting a good **variable rate** (like **Libor, Mibor**, etc.) is very much important for **IRS**.