

Swap invoices frequently cause confusion as they are billed separately from the loan.

Interest Rate Assumptions

LIBOR	2.00%
Loan Spread	2.00%
<u>Floating Rate Today</u>	<u>4.00%</u>

Swap Rate	2.50%
Loan Spread	2.00%
<u>Fixed Rate</u>	<u>4.50%</u>

Swap Invoices Explained – CPA's

Borrower Pays

Borrower pays on loan	4.00%
Borrower pays on swap	4.50%
<u>Total</u>	<u>8.50%</u>

Borrower Receives

Borrower receives on swap	4.00%
<u>Total</u>	<u>4.00%</u>

The borrower's effective fixed rate is therefore $8.50\% - 4.00\% = 4.50\%$. This matches the swap rate quoted above.

Now, let's assume LIBOR is at 6.00%.

Borrower Pays

Borrower pays on loan	8.00%
Borrower pays on swap	4.50%
<u>Total</u>	<u>12.50%</u>

Borrower Receives

Borrower receives on swap	8.00%
<u>Total</u>	<u>8.00%</u>

The borrower's effective fixed rate is therefore $12.50\% - 8.00\% = 4.50\%$. This matches the swap rate quoted above.

Swap Invoices Explained – Borrowers

Loan Payment

Borrower pays $2.00\% + 2.00\% = 4.00\%$

Swap Payment

Borrower pays $2.50\% + 2.00\% = 4.50\%$

Borrower receives $2.00\% + 2.00\% = 4.00\%$

Borrower Net Pays 0.50%

Add the two invoices together to determine the effective interest rate.

The effective rate is therefore $4.00\% + 0.50\% = 4.50\%$. This matches the swap rate above.

Now, let's assume LIBOR is at 6.00%.

Loan Payment

Borrower pays $6.00\% + 2.00\% = 8.00\%$

Swap Payment

Borrower pays $2.50\% + 2.00\% = 4.50\%$

Borrower receives $6.00\% + 2.00\% = 8.00\%$

Borrower Net Receives 3.50%

The effective rate is $8.00\% - 3.50\% = 4.50\%$

Sample Payment Invoices with Principal – Mechanics

Assume a \$25mm loan with monthly principal of \$33,000 in a month with 30 days.

Interest Rate Assumptions

Floating Rate 4.00%

Floating interest payment will be $\$25,000,000 * 4.00\% * 30/360 = \$83,333.33$.

Swap rate locked was 4.50%

Fixed interest payment will be $\$25,000,000 * 4.50\% * 30/360 = \$93,750$.

Principal of \$33,000 per the Note.

With a traditional fixed rate loan of 4.50%, the monthly P&I payment should be \$126,671.33 as follows:

Principal	\$ 32,921.33
Interest	\$ 93,750.00
Total	\$126,671.33

How the actual mechanics will work:

Loan Invoice

Principal	\$ 32,921.33
Interest	\$ 83,333.33
Borrower Pays	\$116,254.66

Swap Invoice

Borrower pays	\$ 93,750.00
Borrower receives	\$ 83,333.33
Borrower Net Pays	\$ 10,416.67

Add the two invoices together to determine the total payment.

The total payment is $\$116,254.66 + \$10,416.67 = \$126,671.33$. This matches the payment from above in the traditional fixed rate loan scenario.

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