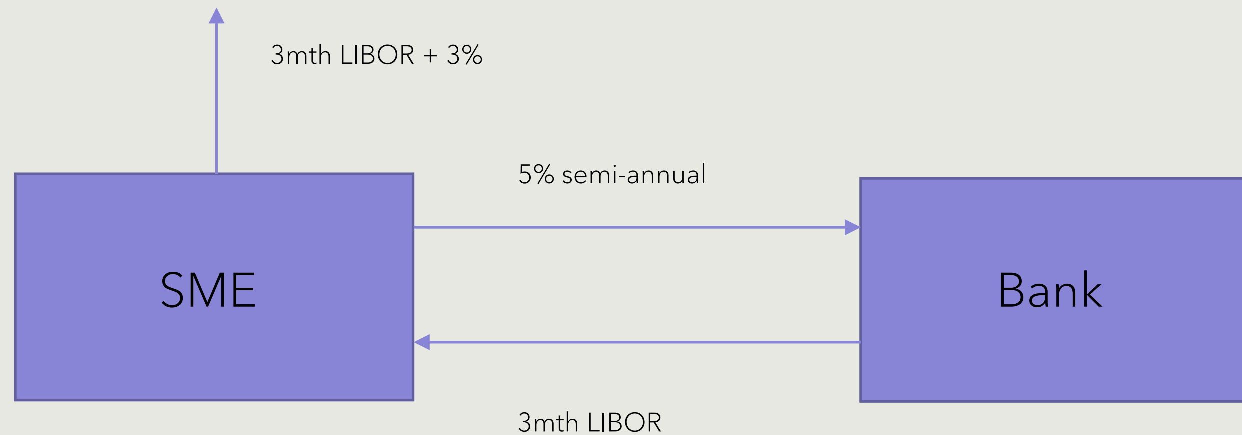
Interest rate swap – key features

Presentation to TTF on 7 June 2023

Customer executes a pay fixed swap

- SME borrows a 5 year loan at 3mth LIBOR + 3% and fixes using a 5 year pay fixed rate interest rate swap



- The result is the customer has locked in an overall fixed rate cost of 8% (0.75%, 3.25%, 0.75%, 3.25%)

- Say the market rate for 5 year swaps was 4.5% at the time of execution the bank has made a hidden up-front profit of 2.22% i.e. the customer is out of the money on day 1. This was the motivation for such sales in the first place and also explains the accounting abuse/fraud used for some cohorts of fixed rate loans

Banks' perspective

- If the customer is out of the money then the bank is in the money. The amount is known as the fair value and this amount goes through the bank's P&L (FVTPL) and thus generates new capital for the bank
- However, the bank has to model its counterparty credit risk. This is known as potential future exposure (defined today in Article 278 of CRR 575/2013 which is still the relevant law as the UK has simply copied it since Brexit). The big banks will all have sophisticated internal models, but smaller banks will use simpler more formulaic methods e.g. multiply the notional of the swap by 0.5% and by the number of residual years then add the current fair value (if in the money from the bank's perspective) and then multiply the total by 1.4!
- There was a similar if slightly simpler and less onerous rule set in place from 1/1/2007 as set out in BIPRU Chapter 13
- Assuming this derivative exposure relies on the same security as the loan then this exposure has the same risk weight as the loan i.e. this is unquestionably a hard credit exposure
- All banks will mark a credit line on their systems that is at least as big as the regulatory calculation for potential future exposure (so it is possible that a small percentage of the credit limit is soft but the PFE is hard)

A Worked Example

- Start with the 5 year swap on slide 1 and the hidden margin of 50bps. Say the notional was £10m and thus we already know that the day 1 fair value is £221,655
- Imagine that 1 year later the 4 year market rate is now just 3%. The fair value is now £748,592 and this is the amount the customer will have to pay if the swap is torn up/cancelled
- But the potential future exposure is now £1,328k (using the simple OEM) i.e. this is the amount used to generate the risk weight and the capital consumed. This is a hard credit exposure
- Interestingly BIPRU 13 in 2008 would have calculated the exposure value as £798,592 so considerably less than for today
- The bank might have had say a credit limit marked on file of say £900k back in 2008 and most banks would use the credit limit in their pro forma LTV calculations rather than the exposure value

Lessons for Ulster Bank & Others

- For UBG it was the hidden margin that was the main motivation for booking the fraudulent liabilities against the customer. The bank wanted to book the profit on day 1
- An identical motive has been identified for some other cohorts of fixed rate loans, whereby the relevant bank has used the 'off-market' internal swap as the hedged rate in the fixed rate loan (this is a clear abuse of IAS 39 hedge accounting rules)
- The potential future exposure (as it is called now) comprises both the current fair value and an amount for future volatility. This is a mandatory regulatory requirement and generates a credit Risk Weighted Asset that requires capital. These rules have certainly been in place since 1/1/2007 (when Basel 2 started in the UK) and so it is utterly incomprehensible that a Court and/or Swift should not consider these assets and contingent assets as hard credit exposures. The prudential regulations certainly do!
- Ulster Bank and some other fixed rate loan providers have marked additional credit lines for what either were or should have been internal swaps. There is no legal basis for such credit lines as the customer is not a counterparty to the contract, so these credit lines are both fraudulent and abusive and yet the FCA has taken no action at all (whether for sophisticated or unsophisticated customers!)