

## The temptation for *Full Fair Value* is back with a first attempt on Interest Rate Risk in the Banking Book

### *Description of the Interest Rate Risk in the Banking Book:*

The intermediation function of banks consists in gathering numerous deposits to benefit from mutualization effect to derive a stable portion that can then be used to finance loans.

Deposits and loans usually don't have the same characteristics in terms of maturities and customer rates.

Deposit customer rates may be nil (non-interest bearing deposits, such as demand deposit account), low (checking account), or more closely related or contractually linked to market rates (money market accounts, certificate of deposits). In certain jurisdictions, some deposit customer rates are regulated by the government (Livret A, Plan d'Épargne Logement...)

Conversely, loan customer rates are usually either fixed or contractually linked to market rates. Fixed rate loans enable customers to have certainty on the loan installments which is most often desirable since customers' revenues are usually not dependent on market rates. Fixed rate loans enable to mitigate credit risk as customers' installments are insulated from increases in market rates. It should be recalled that several real estate crisis originated from variable customer rate mortgages that borrowers could not pay when market rates increased.

As there are discrepancies between deposit customer rates and loan customer rates, banks have to manage their residual interest rate exposure: this exposure is a by-product of banks' intermediation function, not an exposure that is sought by the bank.

As an illustration, if a bank was to originate only fixed rate loans and collect low or non interest-bearing deposits (typical case of a savings bank), its results would decrease when market rates would decrease (as maturing fixed rate loans would be progressively replaced by new loans with lower rates) and would decrease when market rates would increase.

The residual interest rate exposure is very specific to each jurisdiction as it depends on the products, competition, tax, regulatory environment and customer behaviors. Those factors are not primarily driven by capital markets. For example, when customers have a right to prepay a mortgage, they take numerous factors into account and not only financial incentives: customers are not traders that would modify their product mix and relationship with the bank as soon as there may be a financial incentive to do so.

To manage their residual interest rate risk originating from loans and deposits, banks analyze loans and deposits in terms of customer rates (for the extent to which they are variable or fixed) and in terms of balances (as they could change over time).

Banks manage this risk consistently with their management of their intermediation function: on a going-concern basis, through the cycle, to reduce the sensitivity of their results to changes in market rates. The stabilization of their revenues is all the more important as the costs of the intermediation function are mostly fixed (personnel, branches, IT), with a limited capacity to adapt the cost structures to changes in revenues. The decision process for managing the risk involves the most senior level of the organization, based on committees (ALCo for Asset and Liability Management Committee)

***Some regulators are tempted to consider IRRBB as if it were similar to a trading risk:***

Over the last few months, some regulators have shown that they are tempted to consider interest rate risk in the banking book as if it were the same as interest rate risk from a trading position:

- The International Accounting Standard Board (IASB) has published a paper suggesting accounting for the interest rate risk in the banking book with its fair value measurement through P&L.
- The Basel Committee on Banking Supervision (BCBS) has set up a Task Force on Interest Risk (TFIR) with a mandate to allocate prudential capital to interest rate risk in the banking book based on the economic fair value approach.

In both cases, the intermediation function of the bank, based essentially on retail customers, is considered as similar to a trading book.

Deposits and loans would be marked to market as trading derivatives. And the prudential framework for the trading book would be applicable to the banking book: fair value measurement and value-at-risk to determine prudential capital.

***Fair value is not applicable to the financing intermediation function:***

The temptation for fair value is a concern as:

- the financing intermediation function of the bank is done on a going concern basis with no intent to 'sell' / 'unwind' the transactions;
- there is no market for such 'fair value';
- all fair values would be highly hypothetical since all transactions and relationships in the banking book would have to be represented as capital market instruments; it would further increase the amount of poor quality "level 3" valuations;
- the fair value lenses would lead to a perception of risks that is *opposite* to the reality for the bank which would be dramatically misleading.

As the most important illustration, an *increase* in rates is usually *beneficial* to bank intermediation as non- or low-interest bearing liabilities could be invested in higher earning rate loans, which leads to higher net interest income. However, through fair value lenses, an increase in rates appears as *detrimental* to the "economic fair value" of the bank. This is illustrated in the appendix.

***Consequences of applying the fair value framework:***

Should the fair value framework apply to interest rate risk in the banking book, there would be no basis not to apply it to all the risks in the banking book. This would inevitably lead to full fair valuing the entire balance sheet, through P&L.

This would force banks to:

- manage risks in the banking book as risks in the trading books are managed, with a short term horizon and high pro-cyclicality, magnifying the movements of market interest rates;
- change the products they offered to customers. Hence, fixed rate mortgages that are highly desirable for mitigating credit risk and pro-cyclicality at systemic level, would be disincentivized and substituted with floating rate mortgages that have contributed to the US subprime crisis, and which would dramatically change the transmission channels of the monetary policy.

***Conclusion:***

**We urge authorities to intervene at the preliminary stages of the temptation to adopt a full fair value approach, and to adopt a framework that is consistent with the actual dynamic of the balance sheet and the actual management of the classical commercial banks.**

## Illustration of the inconsistency of fair value approach applied to the banking book

Let’s consider a simple bank that would originate fixed rate loans (60% 15 year amortizing mortgages and 40% 5 year amortizing consumer loans), funded by non-interest bearing deposits and equity:

Assets		Liabilities	
Fixed Rate Mortgage	60	9	Equity
Fixed Rate Consumer Loan	40	91	Non-interest bearing deposits

On an ongoing basis, new fixed rate loans are originated each month and replace previously originated loans that are amortizing. Each month, 2.5 of new fixed rate loans are originated and offset the 2.5 loans that are amortized. Hence, an increase in rates leads to higher income for the bank as new loans are originated with a higher rate.

On the liability side, both deposits and equity are non-interest bearing: expenses are not changing with an increase in market rates.

Globally, **an increase in interest rates is beneficial to the bank as its net interest income is increasing with the repricing of assets, progressively over time.**

If the customer rate were stable at 4%, the net interest income of the bank would be ‘+4’. If rates are assumed to increase to 6%, the net interest income of the bank would progressively increase to ‘+6’ as new loans with higher (6%) rates are replacing previously originated loans with lower (4%) rates.

However, from a *fair value* perspective, the so-called *economic fair value of equity*, which is derived from the *fair value* of assets minus the *fair value* of liabilities, leads to a different conclusion. Indeed, in this perspective, as equity is invested in fixed rate assets, its *fair value* decreases when rates are increasing while most of non interest bearing deposits are demand deposits and hence don’t lose economic value when rates increase. **An economic fair value perspective leads to consider that an increase in rates is detrimental to the bank.**

Hence, economic fair value framework would be completely at odds with the actual interest rate risk of the commercial banks. This perspective applies rightly to trading activities only, where the fixed income assets inventory is for sale and financed by market rate liabilities.