

Funds Transfer Pricing

A gateway to enhanced business performance

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Funds Transfer Pricing (FTP) is both a regulatory requirement and an important tool for managing a firm's balance sheet structure and measuring risk-adjusted profitability, taking into account liquidity risk, maturity transformation and interest rate risk. It enables costs to be transferred from central treasury functions to the products and business lines originating these costs and the related risks.



While FTP systems have been designed and in place at many financial institutions for a while, the increased scrutiny of supervisory bodies regarding risk, liquidity and performance management in banks that followed the 2007-2008 financial turmoil have shed further light on these mechanisms and their weaknesses.

To address identified loopholes and ensure the implementation of appropriate risk transfer mechanisms, the European authorities issued a set of guidelines¹ that was later transposed into local circulars (e.g. CSSF Circular 12/552, as amended, in Luxembourg). The notion of risk transfer pricing emerged in this context, and goes beyond the traditional FTP concept, which used to be largely focused on transferring the liquidity cost and ALM risks

to fund users. Risk transfer pricing is a mechanism that, in its most mature state, is established to price all risks to which the various departments of the organisation are exposed, influencing the volumes and terms upon which business lines trade in the market, and promotes more resilient, sustainable business models. In this article and for the sake of simplicity, we will refer to the notion of FTP² as a general mechanism established to price all the risk taken on by a financial institution.

In this article, we review the fundamental principles encompassing an FTP mechanism, the various forms it can take, and how it interacts with recent regulatory changes.

¹ In 2010, the CEBS issued Guidelines on Liquidity Cost Benefit Allocation

² The move from FTP to risk transfer pricing is done through the inclusion of a risk premium that relates to a number of risk parameters, e.g. client creditworthiness, the nature of the business (leverage buyout, mortgage loan, consumer loan, etc.), the nature of the operations, etc.

The origin of the Funds Transfer Pricing

Over the past 40 years, the organisational structure of large financial institutions and the way they are managed has evolved from a geographic organisation (branch manager in charge of a single, undifferentiated line of business) to a business line structure (creation of distinct and 'autonomous' business lines across geographical areas). This organisational transformation created the need for new management tools to overcome the two main issues that materialised with this change (risk management and performance management).

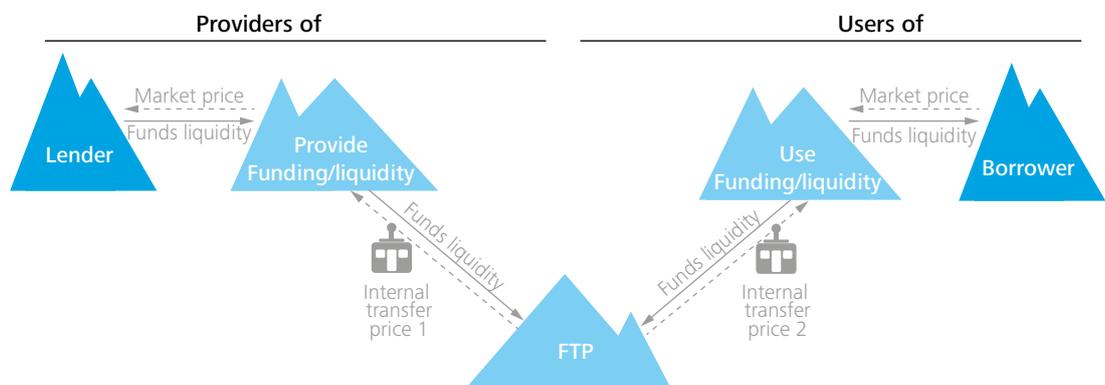
The way financial institutions manage and assess risk and performance internally is closely intertwined with choices made in terms of operational structures. Banks organised according to the geographical principle consist of separate subsidiaries in charge of both the origination and placement of funds. Their risks and performance are therefore determined locally, and are

heavily influenced by the local financial environment. From another perspective, financial institutions organised around supra-geographical business lines have to assess their risks and returns, taking into consideration, on the one hand, the activity of the business lines, and remuneration for the centrally-raised funds on the other. This structural transformation thus created the need for a transfer price mechanism between the entities, allowing for risk and performance management at individual level.

From a management accounting concept to strategic management tool

Over time, the FTP systems implemented by financial institutions have gained in complexity as the industry started to produce more detailed revenue breakdowns, to understand where and how they were making money, as well as the potential risks involved. This section illustrates this trend and introduces some widespread approaches developed in the industry.

Figure 1:



As a result, most banks began to develop and implement FTP systems. Conceptually, funds-generating businesses were seen as originators of funds to be sold in an internal capital market to fund-using businesses.

With the implementation of such system, a transfer rate is used to divide the bank's overall Net Interest Margin into two sub-margins (one for asset origination and the other one for liability origination) corresponding to the economic value obtained from each activity taken separately.

- **Single rate FTP systems**

Most banks started their FTP journey using a single transfer rate representing a weighted blend of external market prices for the available funds. With this simple approach, the FTP mechanism failed to take into account the existence of a sloped yield curve, potentially incentivising the development of sub-optimal deals from a bank-wide viewpoint. Assuming a positive slope yield curve, the single-rate FTP mechanism could encourage the bank to enter into longer maturity loans to maximise the spread between the interest rate applied to these loans and the single transfer rate. Conversely, the funding business unit could be encouraged to collect short-term deposits to increase the spread between the actual cost of funds and the single transfer rate. Overall, this means that the bank ends up with a large maturity mismatch that needs to be handled centrally to reduce the liquidity risk created by the FTP mechanism³.

As the use of a single transfer price does not account for maturity mismatches between sources and uses of funds, it is easy to see that this approach would only be effective in a situation of relatively homogenous products across business units, and would fail to satisfy the needs of more complex financial organisations.

- **Multi-rate, Matched Maturity FTP systems**

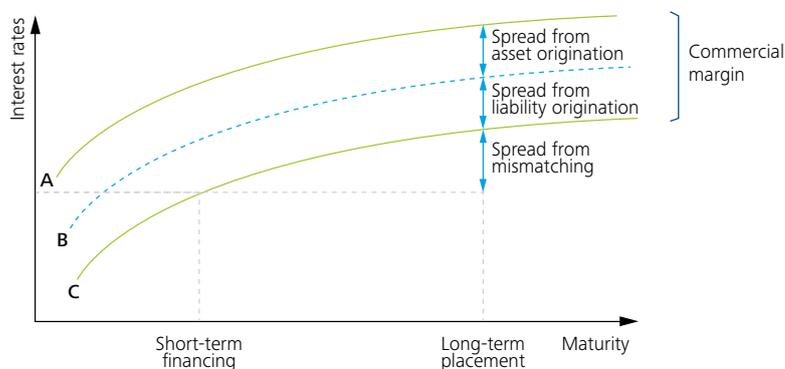
Multi-rate, matched maturity FTP systems represent a clear improvement on single-rate pricing systems, as they are based on a more comprehensive approach, creating multiple pools of funds with different characteristics (e.g. maturity, credit risk, etc.) matching the characteristics of the invested funds or even of individual transactions. In these systems, a business generating six-month certificates of deposit would be assigned a six-month transfer rate existing at the moment of the origination, and would carry this rate until maturity.

The same principle is applied to the asset origination business, with the FTP mechanism providing an incentive to manage assets and liabilities irrespective of their maturity, insulating individual business units from most interest rate risks, as these are transferred to the central treasury function⁴ administering the FTP system.

The matching of funding and lending characteristics can be used by organisations to not only allocate funding costs, but to identify risk exposures arising from mismatches in their characteristics as well. For instance, by matching liability maturities (i.e. sources of funds) with asset maturities (i.e. use of funds), the funding centre will accumulate the information on mismatches at pool level, which it will then be able to hedge on an aggregated basis. This possibility to obtain information and manage maturity mismatches makes FTP systems valuable tools for asset-liability management. Moreover, these mechanisms mean that individual business lines can operate on a fully hedged basis and concentrate on their key source(s) of risk(s), e.g. credit risk for the asset origination business. This structural approach involves a disaggregation of the net interest rate margin into three internal spreads corresponding to the specific risk dimension supported by each entity.

Multi-rate, matched maturity FTP systems may be based on different levels of complexity, with the more advanced models using multiple marginal cost of funds curves to improve the pricing accuracy of placed funds.

Figure 2:



3 Automatically updating the single transfer rate would never be enough to mitigate the conceptual weakness inherent in the single-rate FTP mechanism. A single transfer rate might encourage the collection of short-term liabilities, thus increasing the bank's refinancing needs

4 The treasury function is viewed as a central department responsible for the management of asset and liability issues, with the aim of supporting the bank's commercial development



- **FTP and prepayment risk**

In its classic form, a multiple-rate, matched-maturity FTP system does not insulate business units from prepayment risk. As most loans can be prepaid by the borrower at will, this could adversely affect some operations under the classic multiple-rate, matched-maturity FTP system. In the event of early redemption, the assets side of the business is affected while the related liability will remain at the initial cost. Even if the bank invests in a new asset with the same maturity as the redeemed loan, it will not deliver the same remuneration, since the new asset will carry the interest rate associated with the residual maturity. Moreover, the impact for the business unit will get worse in case interest rates fall since the inception of the initial loan.

To overcome this situation, banks have started to price the embedded call option attached to the loan issued by the business unit. With the integration of such characteristics within the FTP system, the bank's treasury encourages the business unit to charge the customer an appropriate premium for the prepayment risk borne by the bank. Moreover, the treasury function is able to handle this risk at an aggregated level.

Today, well-defined FTP systems go beyond the single or multi-rate funding structures. The approach enables the integration of different risk components to the notional interest rate curve. Such components may include characteristics of the financial institution, such as credit spread, bank-wide currency adjustments, contingent liquidity add-ons and the potential impact of any other financial risks, while at the same time reflecting characteristics of specific transactions such as maturity, embedded options and contingent liquidity costs.

Adjusting transfer price systems to organisational complexity and the economic environment

As discussed in the previous section, the performance of an FTP system in addressing the goals of the organisation is directly dependent on its design and ability to take into account the relevant specific features and complexity of the organisation and its products. The desired degree of complexity in establishing FTP systems may be achieved through making choices on the main elements of its design.

- **Model granularity:**
transfer prices may reflect the characteristics and riskiness at the bank-wide level or be more granular to capture the specific risk of products
- **Current rates versus historical rates**
simple transfer pricing methodologies rely solely on prevailing interest rates, whereas more comprehensive approaches may leverage on the historical rates applicable at the time the investment was made
- **Incorporation of the economic cost of specific product features:**
depending on the maturity of the transfer pricing system, it may (or may not) incorporate features of liquidity placements, such as caps, conversion or prepayment options
- **Marginal cost of funds:**
systems may adjust the interest rate curve to the credit capacity of the bank, reflecting its marginal cost of funds, or they may use a single interest rate irrespective of the volume of funds used by the departments

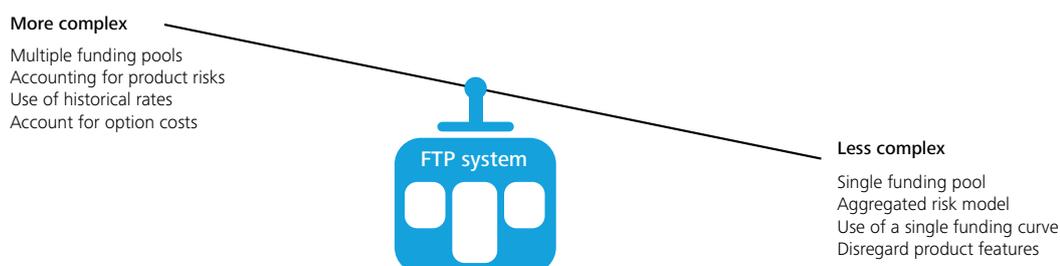
To illustrate the link between the complexity of FTP methodology and its impact on the organisation, we consider the case of a single funding pool. In this context, the lending departments will favour longer-term placements, as they will increase the profitability of their activities when compared to the single average cost of funds, and this will have a direct impact on the composition of the lending portfolio.

The features of other products, such as embedded options, may make them more appealing to lending departments, unless they are more expensive to fund through transfer prices. Not reflecting features such as maturity, options or prepayment risk in transfer prices may thus have a direct impact on the profitability of the organisation, as in this case the funding centre will ultimately carry the cost of the related risks without additional compensation.

It therefore follows that for an FTP system to be successful in fulfilling all its objectives, including the implementation of strategic decisions within the organisation and the safeguarding of its financial stability, it has to reflect the complexity of the organisation and potential changes to its environment. As is often the case with models and methodologies, it is up to organisations to find the right balance between the complexity of the model and the added accuracy.

It is easy to see that the decisions made in establishing transfer prices have a direct impact on the activity of the organisation.

Figure 3:



Through their impact on the definition of the risk-adjusted performance of the various departments, FTP systems are a valuable tool for strategic decision-making. The FTP mechanism can identify the most profitable activities on a risk-adjusted basis and the incentivising activities aligned with the strategic direction of the institution.

Consistent design and application of transfer prices may be used by the management to:

- Influence the overall business mix by identifying (un)profitable departments from risk-adjusted point of view
- Influence the product mix by adding different transfer price spreads, depending on the desirability of the products
- Influence pricing and transaction volume decisions to bring them in line with the organisation’s goals
- Create relevant performance benchmarks by selecting appropriate underlying curves

Linking FTP with regulatory requirements

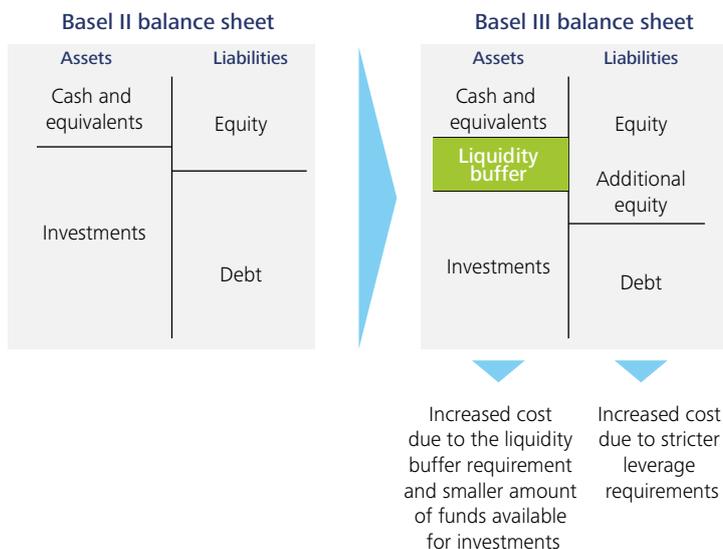
In response to emergence of regulatory requirements such as Basel III/CRD IV, the FTP concept has received increased attention. As financial institutions face pressure to hold more capital to cover their risks, and to hold more liquidity to guard against potential market disruptions, the need to embed regulatory and risk management considerations in the strategic decision-making process of the organisation becomes even more important.

The liquidity requirements introduced by Basel III/CRD IV can be seen as an opportunity cost for financial institutions, forcing them to hold a cushion of very high quality liquidity at the expense of higher yield-generating assets.

On the flipside, this cushion provides resilience against potential internal and external liquidity shocks, when the bank may be unable to fund its activities through its normal funding sources. Holding additional liquidity may therefore be regarded as providing an economic benefit to the organisation, reducing its overall riskiness and facilitating cheaper funding.

The interactions between these factors have to be fully understood and embedded in the FTP mechanism. In this context, FTP comes as a natural tool for achieving those goals, facilitating the allocation of costs and benefits across business lines, and ensuring that these requirements are embedded in all business decisions.

Figure 4:



We can illustrate this concept using a simple example. Consider a lending department that issues a committed credit line to a customer. Given the Liquidity Coverage Ratio (LCR) requirement, this exposure would have to be covered by high-quality liquid assets. As such, assets might have a negative impact on the bank's profitability, the foregone profit may be embedded in the transfer price of funds via a liquidity mark-up reflecting the specific product features.

At the same time, as the bank would now hold a higher amount of high-quality assets, the base interest rate charged may decrease somewhat, reducing the transfer price. By combining those two impacts and by providing the lending department with a transparent transfer price, the bank could facilitate informed decision-making processes that contribute to the best interests of the organisation as a whole.

Following a similar mechanism, banks may also include additional components affecting regulatory capital requirements in transfer prices, for example, compensation for higher credit risk caused by the specific exposures or even specific operational risks associated with a product, activity or client type.

Through its impact on the allocation of profit margins between the bank's departments, the transfer pricing mechanism is a sensitive topic, as it used to evaluate the performance of business units, and given that it has a direct influence on the bank's risk profile. In the aftermath of the financial crisis, regulators turned their attention to the governance of FTP systems, requiring financial institutions to ensure that they create

Well-developed FTP systems may serve as a valuable strategic management tool, supporting commercial development through an appropriate FTP set-up

incentives aligned with the principle of sound and prudent business management. For instance, recent regulations require the establishment of transparent and consistent transfer pricing mechanisms that include the impact of liquidity costs, as well as robust approval and supervision procedures.

In Luxembourg, the CSSF has enlarged the scope of its requirements to cover the establishment of FTP practices pertaining to liquidity, ALM risk, and other types of risk (e.g. credit risk, FX risk, operational risk, etc).

In this context, the governance of FTP systems becomes a highly important component of their design, not only in relation to regulatory compliance, but also to ensure sound management and strategic alignment within the organisation.

Conclusion

FTP has gained importance in modern banks, given the multiple roles it fulfils in terms of product pricing, liquidity management, performance measurement, balance sheet steering and regulatory compliance. FTP frameworks should be commensurate with the bank's activities and size, varying in complexity and methodology, and processes accordingly.

Located at the heart of the relationship between different bank units, the FTP framework should be fully integrated within a bank's overall organisational model. If it captures the specific characteristics of the organisation effectively and is properly aligned with the ever-evolving supervisory expectations, the FTP mechanism can prove to be a valuable strategic management tool for senior managers of financial institutions.