

PERFORMANCE MEASUREMENT IN BANKING: FUNDS TRANSFER PRICING (FTP)

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ABSTRACT

This paper provides an overview of FTP managerial accounting method applied in the banking industry, creates an understanding of the roles of FTP within overall bank performance management and it shows evidence on how various FTP principles and rules define the contribution of the providers and users of bank funds. Using FTP, banks can accurately allocate margin and better understand where profits come from.

We try to outline that FTP is a method which can be used by any type of bank to measure and analyze its profitability in different ways (along business units, products and customers) and to better manage the specific components of its market risk. Therefore, is a great progress for banks who implemented FTP to understand both where and how they make money, as well as the potential risks involved, a better analysis conducting towards better results for them.

KEYWORDS: *Fund Transfer Pricing, Net Interest Income, Performance, Banking, Funding Centre*

In a complex and dynamic competitive market, banks are facing many challenges: increasing overheads, rising regulatory complexity, competitive other financial institutions, and most recently, a worldwide credit crisis that is leaving a trail of failed banks. In this uncertain banking environment is more difficult to achieve sustainable results and therefore, to meet these challenges, banks are consistently placing more emphasis on managing their profitability by assigning more interest about the managerial accounting concepts and techniques.

A key assumption in literature is that commercial banks are profit maximizers [Bikker and Bos, 2008, p.26] or value maximizers [Hughes, Mester and Moon, 2001, cited by Thakor and Boot, 2008, p.156] if it taking into account the equity capital in addition to debt to reflect risk management concerns. In fact, to maximize either the profit or the shareholder wealth is the same objective expressed by different terminology and the difference arises from the distinction between accounting profit and economic profit [Fabozzi and Peterson, 2003, p.14-15]. The Economic Value-Added (EVA) and Market Value-Added (MVA) are the recently developed techniques to evaluate the economic performance of a company. With the all recognition that profitability is the major force that drives the entire organization, more than ever, banks need to better understand the sources of its profitability.

Banks act as intermediaries of funds and business units and customers participate in the continuous funds intermediation process that creates the net interest margin. The banking units receive funds from their depositing customers and other third parties and these are invested in loans and investments on the capital markets, to borrowing customers and other third parties. In these actions, banks assume financial risk by making loans or

financial investments (assets) at interest rates that differ from rates paid on deposits (liabilities). Deposits often have shorter maturities than loans or investments and adjust to current market rates faster than loans and the result is a balance sheet mismatch between assets and liabilities, generating interest rate risk.

The major component of bank's profitability is the net interest income, which is typically accounting for up to 80 percent of a bank's revenue [Coffey, 2001]. Net interest income can be calculated as the difference between its interest income generated from earning assets like credits and others (*interest earned*) and its interest expense, paid on deposits and other liabilities (*interest paid*). Depending on the banks specific portfolio of assets and liabilities (fixed or floating rate), the banks net interest income can be more or less sensitive to changes in interest rates. If the banks liabilities re-price faster than its assets it is said to be liability sensitive; further, the bank is asset sensitive if the liabilities re-price more slowly than the assets. Historically low interest rates are compressing margins and forcing banks to enhance their performance management capabilities [Convery, 2003].

Transfer pricing is a complex issue of an interdisciplinary nature but in the context of management accounting, it is a tool used within the banking industry to value its sources and uses of funds for performance measurement purposes. For over 25 years it has been a staple at many financial institutions, allowing management to understand the value of their product offerings [Levey, 2008, p.10]. According to Levey [2008], an effective FTP analysis enables banks to increase profitability by:

- making better pricing decisions;
- evaluating alternative investment and funding decisions;
- improving the strategic allocation of resources;
- helping to identify high-performing products, segments, channels;
- enhancing understanding of poor-performing products, segments, channels;
- incorporating information into rewards systems;
- improving the planning budgeting process;
- evaluating the performance of the treasury group.

Funds Transfer Pricing (FTP) can be defined like an internal "*mechanism by which the costs of gathering funds are allocated to the products or areas that use the funds*". It can be used by banks, whatever the size, to help both managers and accountants to measure profitability in different ways: by analyzing earnings for the whole banking institution or for the different profit centers (business units) or activity segmentations and components (business lines, products and customers). This mechanism provides a meaning from two perspectives: as funds-using and as funds-generating. Through FTP, bank can better measure and evaluate its net interest margin because it can be decomposed by this system in a manner that accounting system is unable to do it.

Transfer pricing theory provides guidance to determine "*a fair transfer price*" when one division of a bank provides products or services to another related division of the same organization [Hornigren, Datar, Foster, 2003, p.482]. Within a bank, the FTP rates reflect the cost of funding for the earning assets and the benefit from the collection of funds for the interest-bearing liabilities and its must be assigned to reflect the "true" values of its. In order to analyze the contribution the balance sheet item has made to the net interest income, it must be calculated profitability spread for both earning assets and interest-bearing liabilities, as follows:

- the profitability spread for earning asset, calculated as the amount from interest income less the FTP charge;
- the profitability spread for interest-bearing liabilities is calculated as the FTP credit less the amount from interest expense.

In funds transfer pricing practice, until others sustain the transfer price only for the interest-related sources and uses of funds, there are some opinions about the transfer price for entire balance sheet (including capital, cash, fixed assets and other non-interest bearing balance sheet positions) [Payant, 2008]. An idea of transfer pricing the entire balance sheet seems to be ideal but FTP is many times used as a relative contribution measurement mechanism for allocating the net interest margin between funds providers and users and to create responsibility for this margin. Therefore, Payant believes that capital assignment and the consumption of fixed assets are must be considered outside of FTP, but still within an overall profitability measurement framework.

There are some different methods for transfer pricing, as follows:

⇒ *single-pool method*, based on the concept that there is one "pool" buying and selling funds. It doesn't take into consideration the maturity of bank products (no separation of credit risk and interest rate risk) and it uses only a single rate (the funding rate is the same rate as the earnings rate). For these reasons, it is relative simple and easy to understand and implement especially for the small banks, which had stable sources of funds, with few providers and users of funds.

⇒ *multiple-pool method*, where each portfolio of products is given an FTP rate based on its maturity (two or more rates are utilized). The funding rates for loans and earnings rates for deposits are based on a yield curve. Comparative with the precedent one, it is more indicative of market reality and have a more rate flexibility but is more complex to utilize and requires more resources. Therefore, the multiple pool method is recommended in banks when there are several providers and users, and a volatile funding portfolio.

⇒ *historical method*, which is the most comprehensive available for calculating net-interest income because it is applied at the account level (term loans and deposits) as of the date of origination. Banks that utilize historical FTP have a very powerful tool for pricing their products as well as managing their operations more efficiently and CFOs typically use historical FTP rates to make weekly or monthly product pricing decisions [Coffey, 2001].

⇒ *matched maturity marginal funds transfer pricing method (MMMFTP)*, which is the most effective and the most complex method. It attempts to match the repricing periods of the assets (loans) with similar repricing periods for the liabilities (deposits) that support the development of matched maturity funds transfer rates can become very complex because of the difficulties in determining the appropriate repricing periods.

In general, the transfer rate was based on the average costs of funds and depends on:

- the pooling of funds which is based on arbitrary chosen criteria;
- the changing composition of funds in a pool over time, due to new loans and deposits and the phasing-out of past loans and deposits;
- the historical interest rates of loans and deposits of a pool.

In the single pool method, the average cost of funds is calculated by dividing annual interest expenses by the average balance of deposits and the resulting rate is used as a cost rate for loans. In the multiple pool method, the same approach is followed, but the funds are categorized in pools according to maturity, volatility or other criteria. For each pool a transfer rate is calculated based on the average cost of funds of that pool.

The main principle of the FTP is the application of the opportunity principle, which states that a customer transaction (loan, deposit) should be compared to a market opportunity with the same characteristics (identical future cashflow pattern and equal invested capital and amortizations over maturity as the customer transaction). The interest income of a customer transaction is calculated by multiplying the interest margin that is the

difference between the customer interest rate and interest rate of the market opportunity, with the volume of the transaction. The FTP methodology requires that interest income of each separate loan and deposit should be measured, as following:

Loan interest contribution = (customer interest rate - opportunity rate) X volume

Deposit interest contribution = (opportunity rate - customer interest rate) X volume

Unless a completely matched balance sheet exists, the opportunity rates and volumes of the bank's loans will not match completely with the opportunity rates and volumes of the deposits. It is important to note that the market opportunity is a risk-free opportunity and does not include customer specific risk, like credit risk. As a consequent interest income of a customer transaction should cover customer specific risks and operational costs, and contribute to profits.

Accurate transfer pricing removes interest rate risk from the line operating units, which have no control over the interest rate environment, and centralizes the risk in a funding center that is usually a unit within the bank Treasury. It thereby enables the bank to measure the actual operating performance of its various business elements in more accurate and productive ways. But the role for funds transfer pricing needs to evolve from the 'funding cost' paradigm to a 'risk pricing one', consistent with the way capital allocation has merged financing and investment decisions in banking [Tumasyan, 2009, p. 92].

Conclusions

The objective for the transfer pricing process is to provide an accurate understanding of the net interest margin contribution to profitability for any dimension which bank wants to measure, such as business unit, product or customer. Also, banks clearly understand the need to segregate interest rate risk from the operating results and most of them are instituting transfer pricing systems to accomplish this objective. But instituting a transfer pricing program will not guarantee that a bank will actually succeed in isolating interest rate risk.

Today banks are paying now high attention to profitability management process based on planning and controlling and financial institutions worldwide are more interested to develop and implement some profitability management systems, which have to assist them in the decision-making process. In these conditions, the systems of profitability measurement have become much more common place in the last years especially for the big institutions and funds transfer pricing are common target for its systems.

Transfer pricing concept represents one of the fundamentals of performance measurement in the financial services industry and FTP remains a powerful management accounting tool for profitability analysis and used in conjunction with other information, it offers a vast array of useful information in its decision-making and analysis process of their financial institutions. Among its other uses and objectives, a transfer pricing system motivates profitable pricing actions, allows comparable performance evaluation of funds users and providers, and supports bank asset/liability management.

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