



Funds transfer pricing in banking

Transferul intern al fondurilor în mediul bancar

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Abstract

Every bank needs to better understand the sources of its profitability. Whatever the size of the bank, funds transfer pricing (FTP) can be used to help managing the bank's profitability by analyzing earnings for the whole institution or for different profit centers. In today's banking environment, it is essential to look at the earnings both as a whole and broken down into various components. Funds Transfer Pricing is an analysis tool that can be used to help a bank measure its profitability in a variety of different ways. It allows management to compare the profitability of different product lines within the company, and it can be drilled down even further to allow comparison between individual employees. It is also very useful for comparison between branches. This study will reveal the role of Fund Transfer Pricing (FTP) in banks.

Keywords: *funds transfer pricing, profit, bank, business units*

Rezumat

Fiecare bancă trebuie să înțeleagă foarte bine sursele profitabilității sale. Indiferent de dimensiunea băncii, transferul intern al fondurilor (FTP) poate fi utilizat pentru a ajuta la administrarea profitabilității băncii prin analizarea câștigurilor pentru întreaga instituție sau pentru centre de profit diferite. În mediul bancar actual, este esențial să privim câștigurile atât ca un întreg cât și structurate pe componente diferite. Transferul intern al fondurilor este un instrument de analiză ce poate fi folosit pentru a ajuta banca să își măsoare profitabilitatea într-o varietate de moduri diferite. Acesta permite managementului să compare rentabilitatea diferitelor linii de produse în cadrul companiei, și poate fi dus chiar mai departe, permițând chiar comparația dintre diferiții angajați. Este de asemenea foarte util în comparația dintre ramurile băncii. În cadrul acestui studiu am relevat rolul pe care îl are transferul intern al fondurilor (FTP) în mediul bancar.

Cuvinte-cheie: *transferul intern al fondurilor, profit, banca, unități de business*

JEL Classification: G21, G32

Introduction to fund transfer pricing

Funds transfer pricing (FTP) has been, along years, a staple at many financial institutions, allowing management to understand the value of their product offerings. Many institutions with FTP systems use the results and introduce them in other systems that will then analyze the customers, the organization, and the product profitability (Levey, 2008).

The typical FTP system is a process used in banking to measure a funding source's contribution to overall profitability. An intermediary is created within the organization (usually Treasury).

FTP has been defined as a method used to individually measure how much each source of funding is contributing to overall profitability. The funds transfer pricing (FTP) process is most often used in the banking industry as a means of outlining the areas of strength and weakness within the funding of the institution. FTP can also be used to indicate the profitability of the different product lines and each staff member, as well as act as a great medium for comparison between employees, branches etc.

Others had defined FTP as an internal measurement and allocation process that assigns a profit contribution value to funds gathered and lent or invested by the bank. It is a critical component of the profitability measurement process, as it allocates the major contributor to profitability, net interest margin (Kawano, 2005).

Another definition of FTP is: an internal measurement framework designed to assess the financial impact of a bank's sources and uses of funds. FTP allocates net interest margin variances caused by the imbalance of funds provided and used by business units within the bank. Results of the FTP measurements can be used to evaluate the profitability of products and customer relationships, and to isolate returns for various risks assumed in the financial intermediation process (Payant, 2000).

In the past, banks have viewed their branches, and those gathering deposits as the cost generators and their loan officers as the profit makers.

FTP helps banks to allocate margin, better understand where profits come from, isolate and manage the interest-rate risk component of the margin. An effective FTP analysis enables banks to increase profitability by:

1. Evaluating alternative investment and funding decisions
2. Improving the strategic allocation of resources
3. Helping to identify high-performing products, segments, channels
4. Enhancing understanding of poor-performing products, segments, channels
5. Making better pricing decisions
6. Evaluating the performance of the treasury group
7. Improving the planning budgeting process (Levey, 2008).

The FTP system specifications are:

- a) Breaking down interest income by transaction or client, or any sub portfolio such as business units, product families or market segments.
- b) Transferring interest rate risk, which is beyond the control of business units, to ALM (asset liability management)
- c) Pricing funds to business units with economic benchmarks, using economic transfer prices.
- d) ALM missions are to maintain interest rate risk within limits while minimizing the cost of funding or maximizing the return of investments.
- e) Transferring funds between units.
- f) Setting target profitability for business units (Bessis, 2002)

An internal system exchanges capital between units. Transfers go through ALM. The central pole buying all resources from business lines, collecting them through deposits and selling funds to the lending business lines is ALM unit. Transfer prices allow the calculation of interest income based on transfer prices, in such a way that the addition of interest income of all units, including ALM, sums up to the accounting interest income of the overall banking portfolio (because all internal sales and purchases of funds compensate).

The FTP system major purposes are to:

- a) Calculate the performance margins of a transaction or any sub portfolio of transactions and its contributions to the overall margin of the bank (revenues allocation).
- b) Allocate funds within the banks.
- c) Define pricing policies: risk-based pricing is the pricing that would compensate the risks of the bank, independent of whether this pricing is effective or not, because of competition, in line with the overall profitability target of the banks.
- d) Provide incentives or penalties, differentiating the transfer prices to bring them in line with the commercial policy, which may or may not be in line with the target risk-based prices.
- e) Provide mispricing reports, making explicit the differences between the effective prices and what they should be, that is the target risk-based pricing.
- f) Transfer liquidity and interest rate risk to the ALM unit, making the performance of business lines independent of market movements that are beyond their control (Bessis, 2002).

The list above demonstrates that the FTP system is a strategic tool, and that it is the main interface between the commercial part and the financial part of the bank. Any malfunctioning in the system interferes with commercial and financial management, and might create a gap between global policies and operations management. A risk management system can't be implemented without having a consistent FTP system.

The common resource, the liquidity, is shared by all business units of a financial institution. The more important function of FTP is to exchange funds between business units with ALM. The system nets the balances of sources and uses of funds within the bank. A pricing system is required to exchange of funds between units with ALM. FTP serve to calculate revenues as spreads between customer's prices and internal references. There is no way to calculate internal margins of transactions, product lines, customer or market segments, and business units without FTP. In conclusion transfer prices provide a major link between the global bank earnings and individual sub portfolios or individual transactions.

The Figure 1 arranges the above issues in two main groups:

- The organization of the FTP.
- The definition of economic transfer prices.

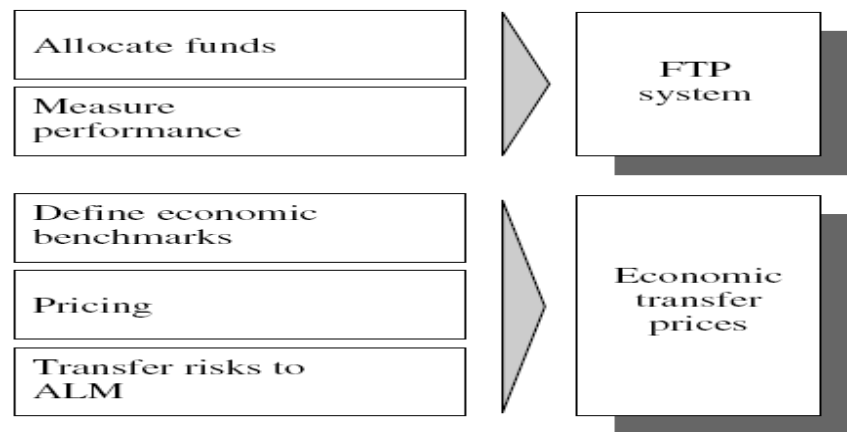


Figure 1. The 'Funds Transfer Pricing' system and its applications (Bessis, 2002)

The uses and the resources of funds are generally unbalanced for business units, and so the FTP system allows netting the differences and allocating funds to those having liquidity deficits, or purchasing excesses where they appear. From the several solutions for organizing the system, the most important choice is to decide which balances are 'netted' and how.

The organization varies across banks; various entities are potentially interested in an FTP system. The Treasury is the unit which, raises debts or invests excesses in the market, and so it is obviously interested in the netting of cash flows. Management control is also involved since internal prices also serve to monitor commercial margins. Asset liability management is the unit in charge of managing the liquidity and interest rate exposures of the bank, so the internal prices should be compliant with the choices of ALM. The various units of the bank participate in transfer pricing from various angles. They might have overlapping missions.

The organization might change according to the management choices. Considering that ALM is in charge of the system, then other management units are end-users of the system.

Objectives

The following objectives should be the most important in designing a transfer pricing system:

1. The systems should motivate profitable actions that result in achievement of the bank's goals. Badly designed, a transfer pricing system may produce actions that maximize the profit of a branch or a department, but are prejudicial to the bank as a whole.
2. Performance evaluation (of profit centers, products, and customers) should be very well done. The transfer pricing system must provide concrete and neutral comparisons. The ideal situation is when all profit centers are finishing with the same relative contribution. But where one profit center makes twice the profits as another we cannot consider that they both performed at the same level.
3. The system should be simple and understandable; a system that can be promptly accepted. It is not cost-effective to have a complicated system that takes a long time to learn, as well as requires significant training time and resources. Transfer pricing can be handled in many ways, so an appropriate system should be available for any size bank.

Accordingly to the major results desired, a bank can determine a selection on its necessities. However, it may not be possible to expect achievement of all objectives.

There are several related objectives and uses a bank may desire such as: facilitating pricing decisions, placing a value on funds, separating credit risk from interest rate risk, and supporting asset/liability management.

The need for fund transfer pricing

FTP system allows in general the decomposition of interest income. The interest constitutes a large part of a bank's profit and that can be seen in a bank's income statement.

Net interest income is the largest component of a typical commercial bank's income (followed by fees and commissions) and can constitute up to 80 percent of a bank's revenue. On the income statement, this component is decomposed into interest income and interest expense for the entire bank and no further analysis is available (Kugiel, 2009).

In the example from Figure 2 and Figure 3 we can see that despite the unprecedented impact of the financial crisis and challenging commercial environment, ING's banking businesses reported commercial growth across all

three business lines. Total result before tax declined 88.0% to EUR 533 million, driven by impairments and fair value changes due to the extreme market volatility and sharp decline in asset prices combined with higher risk costs.

amounts in millions of euros	2008	2007	2006
Interest income	97,578	76,765	59,159
Interest expense	-86,292	-67,730	-49,826
Interest result 30	11,286	9,035	9,333
Investment income 31	-2,386	809	528
Net gains/losses on disposals of group companies	162	138	-45
Gross commission income	3,994	4,166	3,794
Commission expense	-1,099	-1,240	-1,113
Commission income 32	2,895	2,926	2,681
Valuation results on non-trading derivatives 33	343	126	136
Net trading income 34	-405	740	901
Share of profit from associates 6	-210	238	180
Other income 35	492	580	476
Total income	12,177	14,592	14,190
Addition to loan loss provisions 5	1,280	125	103
Intangible amortisation and other impairments 36	154	-5	16
Staff expenses 37	5,988	5,421	5,091
Other operating expenses 38	4,222	4,597	3,956
Total expenses	11,644	10,138	9,166
Result before tax	533	4,454	5,024
Taxation 39	-170	753	1,211
Net result (before minority interests)	703	3,701	3,813
Attributable to:			
Shareholders of the parent	772	3,589	3,753
Minority interests	-69	112	60
	703	3,701	3,813

	2008	2007	2006
Dividend per ordinary share (in euros)	9.14	2.80	3.87
Total amount of dividend paid (in millions of euros)	4,250	1,300	1,800

Figure 2. Consolidated profit and loss account of ING Bank

Source: Annual Report ING Bank 2008

30 INTEREST RESULT

Interest result

	2008	2007	2006
Interest income on loans	31,088	26,185	21,742
Interest income on impaired loans	-24	-26	13
Total interest income on loans	31,064	26,159	21,755
Interest income on available-for-sale securities	7,448	7,397	6,989
Interest income on held-to-maturity securities	669	736	755
Interest income on trading portfolio	45,510	32,442	21,414
Interest income on non-trading derivatives	7,076	6,190	5,231
Other interest income	5,811	3,841	3,015
Total interest income	97,578	76,765	59,159
Interest expense on deposits by banks	4,856	5,131	3,559
Interest expense on customer deposits and other funds on deposit	19,594	18,563	15,107
Interest expense on debt securities	3,760	3,556	3,173
Interest expense on subordinated loans	1,088	1,055	1,011
Interest on trading liabilities	44,092	29,383	18,823
Interest on non-trading derivatives	7,391	6,115	5,159
Other interest expense	5,511	3,927	2,994
Total interest expense	86,292	67,730	49,826
Interest result	11,286	9,035	9,333

Interest margin

in percentages	2008	2007	2006
Interest margin	1.09	0.94	1.06

Figure 3. The interest results of ING Bank

Source: Annual Report ING Bank 2008

Underlying income decreased 16.6% to EUR 11,286 million. The total interest margin rose to 1.09% from 0.94% in 2007. Commission income decreased 1.1% driven by lower asset management fees and lower income from the securities business.

Underlying Investment income (including net gains/losses on disposals of group companies) fell from EUR 891 million in 2007 to EUR –2,224 million in 2008, mainly due to impairments on bonds and equities, and negative revaluations on real estate.

Underlying other income dropped 87.3% as a result of negative trading income and losses from associates.

The underlying cost/income ratio increased to 82,6% from 65,5% in 2007 driven by the sharp decline in income. The underlying net addition to the provision for loan losses increased to EUR 1,280 million from EUR 125 million in 2007. Risk costs in 2008 were 48 basis points of average credit-risk weighted assets, as gross additions to loan loss provisions of 62 basis points were offset by 14 basis points in releases.

Decomposition of net accounting interest result into products reveals that all loans and other assets generate interest income, while deposits and other liabilities carry interest expense. Judging product effectiveness using this measure would result in evaluating all loans as profitable and all deposits as causing losses. This is simply wrong, since giving a loan to customer requires funds that usually come from deposits placed by another customer. Each deposit has a value to the bank as a source of loan activity, and each loan carry the cost of using funds from that source. FTP puts an internal price on deposits, deducted as cost from loans (Kugiel 2009).

FTP not only allows calculating profitability of loans, deposits and other products. It also enables measurement of interest income by branches, business lines and customers. Measuring profits on different levels allows the internal comparison of effectiveness, evaluation and appraisal (Kocakulah & Egler, 2006). Monitoring the participation of different sources in the creation of overall profits is one of the elements necessary to manage a bank. It allows making rational decisions about resource allocation, cost control and level of profitability. Information on product and customer profitability creates the basis for pricing decisions, and indicates which products and customers are the most cost-effective for the bank (Convery, 2003).

Faulty FTP systems can even cause bankruptcy, as was the case of Franklin National Bank and many other financial institutions in USA in the '70s (Deventer, 2002).

Transfer prices

Each fund transfer pricing system is based on transfer prices (TP).

A transfer price is an internal rate of interest used to calculate transfer income or cost due to an internal flow of funds in a financial institution. It is very similar to actual rate of interest paid or received on a bank product, since it

concerns the same transaction balance that the actual rate of interest does. As the actual accounting income received on a loan is calculated based on the interest rate, the internal transfer expense is calculated using the transfer price. There is a transfer cost for each loan, and there is a transfer income for each deposit.

The interest margin is the difference between interest rate and a transfer price, and it allows calculating the internal interest profit on a transaction. The actual method of assigning transfer price to a loan or deposit depends on the choice of FTP methodology.

Banks are utilizing diverse form of transfer pricing. The system motivates profitable actions and provides comparable performance evaluation.

A FTP system is a major tool available to assist in enhancing profits, as profitability, rather than growth, has become the key to bank success and survival.

Banks can no longer assume growth will automatically result in profits, as may have been the case in the past. Banks are apparently well aware of this, as evidenced by a BAI (Bank Administration Institute) research project that found the majority of respondents indicating use of some form of funds transfer pricing.

About half the respondents had cited profitability reporting by as the primary use of the transfer pricing system.

In general, the bank is either in an excess funds position and is able to invest in securities/funds sold, or is in a deficit position and needs to purchase funds. However, on a profit center level there are generally net funds users and net funds providers. Branches are usually providers as their deposit balances usually exceed their loan balances. Administrative departments such as charge card, dealer center, international banking etc., generally would have loan balances in excess of any deposit balances.

These areas would be users of funds. Even if reference is made for profit centers, the concept of net funds users and providers is equally applicable to products and customers.

Net funds users would receive credit for interest income without being charged for the full amount of associated interest expense, without a transfer pricing system, while net funds providers would be charged with interest expense without being credited for the full amount of assisted interest income. In conclusion, net funds users have the advantage because all interest income is assisted with assets and all interest expense is associated with liabilities. So, the net users appear more profitable than the net providers, there is no problem for the bank as a whole, as all interest income and expense are taken into account.

Transfer pricing provides an internal source of revenue to net funds providers and an internal source of expense to net funds users.

Bank management should know how and where profits are being generated within the bank on an organization, product, and customer level. This is where a funds transfer pricing system would be utilized (Kawano, 2005).

Conclusion

In the past, the organizational structure of large banks has evolved into a series of semiautonomous lines of business, each with its independence, with a different customer, product, distribution etc. This decentralized organizational structure, has created problems concerning performance measurement, risk management, and resource allocation. Banks had been obliged to find new ways to measure and evaluate the performance of different lines of business.

After years of research, bank management accountants have developed many innovative solutions to such problems and discovered how to value efficiently the transfer of funds among lines of business, how to assign capital allocation and how to differentiate rates to businesses that differ in riskiness. While still the progress is needed in this field, banks had understood both where and how they make money, as well as the potential risks involved.

The result of these innovations in management accounting was that banks succeeded in creating risk-based performance standards for lines of business, so as to avoid an uninspired allocation of resources to risky businesses that may appear superficially attractive.

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