

IMPROVING RISK-ADJUSTED PROFITABILITY AND LOAN PRICING AT A \$100BN US INSTITUTION

Using SunGard's Ambit ERisk Advisory & Consulting Services, a Fortune 500 financial services company in the US was able to improve its risk-adjusted profitability and loan pricing strategies.

The challenge

During the autumn of 2007, an approximately \$100-billion asset institution began looking for ways to improve how it measured the profitability of its banking activities and set prices across commercial and industrial, asset based and commercial real estate lending.

With default rates climbing in many banking sectors during the latter half of 2007, and rising provisions cutting into net income, senior executives needed to be sure their bank could:

- understand where it was making the best risk-adjusted returns across its relationships after taking revenue, cost, and risk drivers into account over the lifetime of each relationship
- market the right products to improve relationship profitability, e.g., cross-selling profitable products such as loan-linked deposit accounts to existing customers

FORTUNE 500 US BANK

Industry: Financial Services

Environment: Centralized

Location: US

Assets: \$100-billion

SOLUTION BENEFITS DERIVED:

- A clearer picture of relationship profitability across the business
- Visibility into types of relationships that are most profitable for the bank
- Improved insight into the dynamics of risk-adjusted profitability in the portfolio
- Gained tools necessary to achieve sustainable returns for stakeholders



- structure individual transactions (e.g., adjusting collateral amounts, maturity, etc) to improve risk-adjusted profitability on a case-by-case basis


The bank's Head of Asset-Backed Lending, says the key goal was 'to better understand which of our customers are producing the most profit for the bank after taking their risk profile into account consistently across our commercial banking footprint.'

To achieve this, the firm had to overcome two big challenges. First, the factors that drive revenues and costs up and down vary significantly across bank business lines and the new model would have to accommodate these differences, as well as take account of difficult-to-estimate profitability drivers such as expected fee income and risk costs.

Second, the bank's executives were determined to measure the risk-adjusted profitability of customer relationships over the lifetime of all the relevant products. A relationship that looks profitable in year one because of high fees in one product area may look much less attractive by year two, especially if risk capital costs begin to rise due to the natural seasoning that occurs with any transaction.

The solution

By March 2008, the bank had selected Ambit ERisk Advisory and Consulting Services, a division of SunGard, to help reconfigure the bank's approach to profitability and pricing.



'We chose Ambit ERisk Advisory and Consulting Services because they'd already run two successful projects with us before so it was easy to feel happy with their level of expertise and how they'd manage this complex project', says the bank's Director of Corporate Planning.

In particular, Ambit ERisk Advisory and Consulting Services had supplied the bank with its Ambit Economic Capital model (i.e., expected losses and economic capital calculation) a year or two earlier. The bank's executives knew that Ambit ERisk Advisory and Consulting Services could adapt this model's granular risk calculations to make sophisticated estimates of transaction risk costs for profitability analyses, including assigning:

- credit risk economic capital in line with multiple risk drivers (e.g., risk rating, collateral, exposure, maturity, borrower and industry concentrations); and
- operating risk capital costs

Perhaps the biggest attraction, however, was that the Ambit ERisk Advisory and Consulting Services approach to profitability was designed to overcome the key analytical problems in revenue and cost estimation, rather than simply aggregating accounting information and then estimating average revenues and costs per deal.

To understand what really drives profitability, banks need to isolate the revenue and cost drivers, including risk costs, that push deals and relationships away from the average, towards economic loss or excess profitability.

As a key part of the project, the Ambit ERisk Consulting team therefore began interviewing the bank's experts in various business lines and analyzing revenue and cost data, with the aim of building accurate estimates for each driver of revenue and cost in each distinct business line. 'There's a lot of uniqueness as you go from one area to the next, which makes it difficult to compare profitability in today's complex banking world', says the project manager who led the bank's internal implementation team for the project.

First, the Ambit ERisk Consulting team looked closely at how the bank calculated cashflow for transactions across various business units and products, for example, improving the way the bank estimated different amortization structures and utilization rates for products such as revolvers. It also examined upfront

and expected ongoing fee income over the life of the transactions, breaking up the analysis by fee type. In addition, the team made sure to consider income derived from non-lending products such as deposits, swaps, and cash management services.

On the expense side, in some business lines, origination costs were much higher for new customers than for existing customers, who require less management time, risk analysis, and legal support. That said, the team knew that any model that recognized high 'new customer' costs must also be flexible enough to recognize efficient behavior, e.g., when a business line clinches, say, three deals at once with a new customer.

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*head of asset-backed lending,
Fortune 500 US bank*

As well as taking account of subtleties in origination costs, the team uncovered the key drivers of servicing costs, such as the way the cost of monitoring collateral values depends on the transparency of asset values in various markets (e.g., asset-based lending versus vanilla corporate loans).

The Ambit ERisk Consulting team also carried out extensive seasoning analyses to chart how the probability of default – and therefore risk costs - changed for pools of borrowers as their loans aged. Loans often look healthiest in their first year when the chance of default is low, dip in creditworthiness for a few years, and then begin to improve again towards the end of the loan tenor.

Only then did the team apply their new research to build a model that accurately adjusted baseline revenue and cost estimates in line with each business line's key drivers.

Business benefits

With the new pricing and profitability model rolled out to loan officers for review by the beginning of September 2008, the bank began generating a clearer picture of relationship profitability across its businesses. For the first time, it could look at profitability in terms of lifetime risk-adjusted return on assets and

capital at levels ranging from product type to individual relationships and facilities.

'Our executives are using the new tool to explore the kind of relationships that are most profitable to the bank and to discover the dynamics of risk-adjusted profitability in our portfolio', says the bank's Head of Asset-Backed Lending.

Importantly, the new model will allow the bank's lenders to see the incremental dollar benefit of changing a wide range of deal terms (see Figure 1). 'Without a model like this, you can't work out the economic gain, for example, of reducing risk by securing more collateral', says the Head of Asset-Backed Lending. As the model is rolled out to line level, the bank's lenders will be able to look at all the possible transaction options and then craft the most profitable risk-adjusted package to offer to new customers.

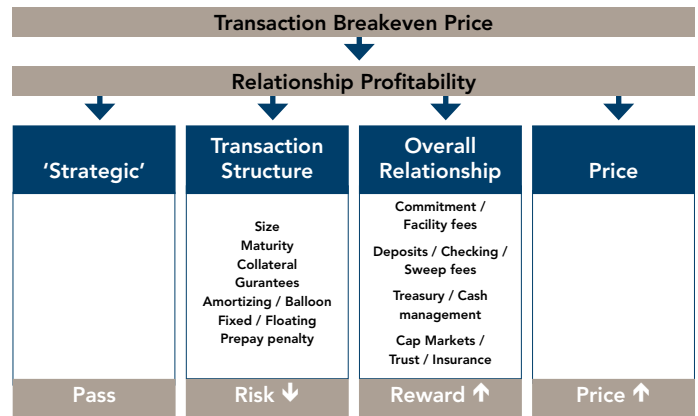
Likewise, the bank's relationship managers will be able to see how to tip existing relationships into profitability, for example, by persuading corporate borrowers to set up non-interest deposit accounts that help customers manage their cashflow while giving the bank a very cheap and therefore profitable source of funding.

The new profitability model therefore acts as a sophisticated relationship risk-adjusted pricing tool that allows the bank to see exactly how competitive it can be (e.g., on loan rates) while retaining a given level of risk-adjusted profitability across a whole relationship.

This is likely to be especially important in banking over the next few years, given the current banking environment. 'There's always been a tug of war in banking between growing the bank's market share and ensuring the bank's long-term profitability,' says the bank's Head of Asset-Backed Lending, 'this new tool will help us to better understand our risk-adjusted profitability and find the right balance to achieve sustainable returns for our stakeholders'.

Looking to the future

Impressed by its new profitability and pricing model (see main text), the bank is also exploring how to optimize its strategic and competitive decisions by taking account of volume targets and deal acceptance rates in addition to risk-adjusted profitability (see Figure 2).



This means working with Ambit ERisk Advisory and Consulting Services to build an 'optimization tool' that will sit on top of the profitability model and help the bank's loan officers quickly see how small changes in a deal's terms can affect profitability.

As the bank's line leaders monitor month-by-month if they are on track to meet their targets in terms of both volume and risk-adjusted profitability, loan officers will use the optimization tool to pinpoint the deals that are most likely to pick up any slack or exceed those goals. If the bank is beating its volume target, the new model will show relationship managers which deals, and deal characteristics, they should get pickier about to reduce risk and boost risk-adjusted profitability.

Alternatively, if the bank needs to increase volumes, the new optimization model will highlight the changes in deal terms that would minimize the impact on risk-adjusted profitability. This will help loan officers negotiate with customers and allow them to pursue portfolio growth in the most profitable and sustainable way.

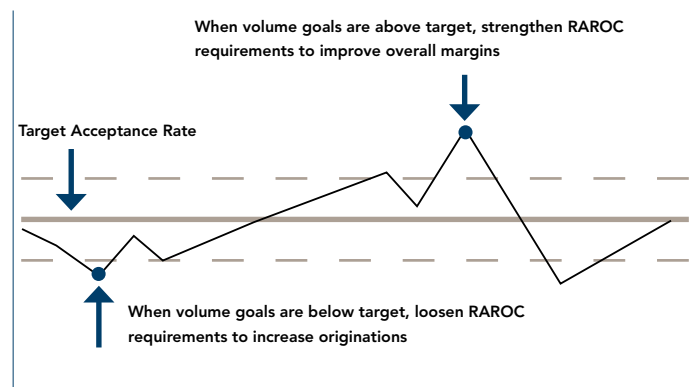


Figure 2: Monitoring acceptance rates over time is the key to knowing when to loosen or tighten risk-adjusted return on capital (RAROC) requirements

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