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Compensating for Risk

This edition looks at how banks can use risk-adjusted compensation to better align lending decisions with the interests of bank stakeholders

At the highest level, most bank lending functions do something quite simple. They focus on increasing profitability by maximizing lending volume, maximizing margins, and minimizing charge-offs. The reason many banks do not succeed in this aim over the longer term is also quite simple: too much emphasis in bank compensation schemes on volume and margins, and too little emphasis on the risks that lead to unexpected levels of charge-offs.

Table 1: The incentive compensation spectrum

Incentive compensation approach	Volume and margins	Inclusive of charge-offs	Inclusive of long-run EL	Inclusive of long-run EL and EC
Pros	Promotes growth	Includes risk	Looks at long-run risk	Looks at long-run tail risk
Cons	Promotes high risk	Too short-sighted	Doesn't include tail events	Requires long-run stakes in the bank

EL= economic loss; EC = economic capital

For example, line management, relationship managers and portfolio managers are often rewarded using performance measures such as earnings growth, return on equity, net interest income, and value of new business – none of which take risk into account.

While compensation for lending officers is sometimes adjusted to take account of borrower and collateral riskiness, this largely judgmental process does not take into account portfolio concentrations and the likelihood of unexpected levels of loss.

As we can see in Table 1, the wrong kind of incentive compensation promotes business growth but it can also promote risk-taking, with consequences that are obvious in the banking markets today.

Banks with volume-based incentives try to balance this by exerting discipline through their risk management controls. But discipline is hard to sustain if everyone from the lending officer to the chief executive is incentivized in a way that takes only limited account of the longer-term quality of earnings. However, the reason that banks have not moved towards more rigorous risk-adjusted compensation is that it is challenging to grasp conceptually and even tougher to put into practice.

Let's explore some of the alternatives for lending officer compensation set out in Table 1 that might help align short-term compensation with long-term stakeholder interests.

Why not simply factor in charge-offs?

Minimizing charge-offs is both the short and long-term aim, so it's tempting to think that banks might simply adjust compensation in line with the charge-offs associated with each loan officer.

We can see why this is an unsatisfactory solution with reference to the prime and mid-tier consumer lending market. Even in this mildly cyclical market, there are years when the charge-off rate is below the long-term average rate, followed by a number of years when charge-offs rise.

If we rewarded loan officers based on actual point-in-time charge-offs, they would be rewarded handsomely in the benign part of the cycle (while they were building up risks) and less well during more difficult periods (even if they were lending conservatively).

The problem is magnified when we look at the ups and downs of markets with a more pronounced cycle (for example, Figure 1, overleaf). In this kind of market, exemplified by the commercial real estate (CRE) lending market, lenders may experience very low

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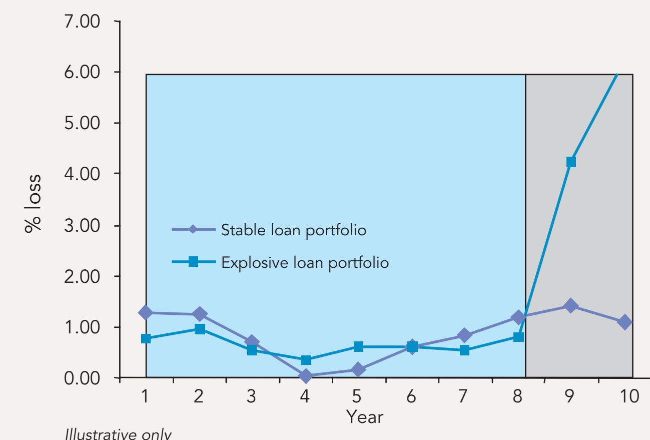
Figure 1: Explosive loss rates



charge-off levels for an extended period in economically balmy conditions. Then some lenders find that their loan portfolio explodes into loss when the downturn comes.

The length of the time-lag between origination and charge-off means that banks can hardly hold back incentive compensation for loan officers until the trough of the credit cycle reveals how much risk-adjusted value each originator has created.

Even if they could do this, they would likely find that the rate of turnover in loan officers meant either that new loan officers were held responsible for the performance of their predecessors, or that much of the portfolio became 'orphaned' in terms of risk-adjusted compensation as loan officers left for positions in other banks.

Incorporating long-run expected loss

What we really want is a more direct and transparent way of assessing the long-term risk-adjusted profitability contribution of loan officers and business builders *as their loans enter the bank portfolio.*

Many banks already try to make this adjustment within their score-card based compensation schemes by using ratings as a way of tempering the effect of other risk-neutral score-card variables (eg, net income, new business volume, and renewals volume).

For example, if a lending officer presides over a fall in the volume-weighted average credit rating of the lending portfolio, the bank will deduct points from the lender's score card. Management may also take into account risk indicators such as the number of 'double downgrades' the portfolio has experienced – often regarded as a proxy for poor initial underwriting decisions. Indeed, the score card result is usually heavily mediated by management judgment on a number of counts.

It is not too difficult to translate this system into a more formal, quantitative approach based on long-term loan-level risk factors such as the borrower's through-the-cycle probability of default and the facility's loss given default, and exposure at default. The numbers for making the expected loss calculation can be drawn from the bank's rating and risk management systems.

However, while this approach solves the 'time lag' problem of using charge-offs to adjust compensation for credit losses, it leaves management with the challenge of incorporating tail risk, ie, the risk of having a high level of losses.

A scheme based entirely on expected loss will fail to account for the chance that the bank will incur *unexpectedly* high levels of loss over the cycle. This risk, which represents bank risk in its truest and most damaging form, is driven by portfolio composition, eg, how correlated borrowers are to one another in a particular sector.

From expected loss to economic profit

In most markets, especially CRE and commercial lending, banks should therefore incorporate some measure of the risk of unexpected loss levels, drawn from the bank's economic capital system.

There are various ways to factor risk costs into a lender's risk-adjusted compensation. The simplest approach is to use a grid to calculate points that contribute to a balanced score card.

For example, in Figure 2, the lender wins a bigger bonus as net income from either interest or fees goes up, and risk costs – defined as expected loss and a cost of capital – fall.

If we wanted to shift the level of sophistication up again, we could set targets based on an economic profit number. The advantage of using an economic profit calculation is that it is all-encompassing and takes account of both net income (including volume, interest and fee income, funds transfer pricing, cost allocations, etc) as well as risk costs (expected loss and the cost of capital).

Banks should also be careful to use a dollar-based economic profit number in risk-adjusted compensation, rather than a percentage-based portfolio-level risk-adjusted return on capital (RAROC) metric. The problem with portfolio-level RAROC is that lenders will be discouraged from making any loans that might drag down their portfolio average RAROC.

In fact, it makes economic sense for the bank to make loans so long as the loan RAROC is above the bank's hurdle rate of return, even for smaller-sized loans.

Figure 2: Balancing risk costs and net income

Origination versus portfolio management compensation

In many lending markets, it makes sense to have distinct functions for loan origination and ongoing credit portfolio management, though working side-by-side with one another. This would allow the bank to structure the risk-adjusted compensation of the two functions in line with the risks they control:

- The bank charges expected loss against the compensation of the loan officer
- The bank also charges the lending officer a fee to cover the cost of unexpected loss, which is paid to the credit portfolio management function
- The credit portfolio manager would then be rewarded based on the risk of the portfolio resulting from portfolio concentrations, measured using the economic profit concept.

The fee paid by the loan officer to the credit portfolio management function acts like an insurance premium, allowing the loan officer to transfer the risk of large portfolio losses to someone more capable of managing them: the credit portfolio manager.

Meanwhile, the credit portfolio manager's compensation is structured to incentivize the manager to reduce portfolio risk, eg, by increasing portfolio diversification; mitigating concentration and correlation risks using derivatives; and improving risk oversight.

Practical considerations

Perhaps the biggest problem when introducing any kind of risk-adjusted compensation scheme based on long-run risk costs is that loan officers may feel undercompensated during an economic boom.

For example, why should they accept compensation based around realistic long-run expected losses or economic profit, when other banks are offering simple volume-based incentives?

To offset this perceived shortfall, banks can offer some kind of long-term equity stake in the bank. By offering equity stakes to loan officers, the bank also mitigates any danger that the risk-adjustment mechanism fails to capture certain 'soft' risks, eg, legal and reputation risks, and risks that arise from unprecedented changes in market structure.

Granting long-term equity sweetens the pill of risk-adjusted compensation, but it can't be regarded as a substitute because:

- Promises for tomorrow (ie, deferred compensation and restricted equity) are naturally less effective at altering behavior than risk-adjusted cash today
- Equity-based schemes that apply are tied to the fortunes of the firm as a whole, which may not reflect decisions made at the lending officer level
- Equity-based schemes are a lagging indicator: the shares of banks that misjudge risks may still do well for an extended period
- Depending on how they are structured, equity options can encourage gaming and manipulation.

Conclusion

Banks that introduce risk-adjusted compensation face considerable cultural, political and practical challenges. The educational process around the new system needs to be intense, while the roll-out needs to be gradual. However, the reward for untangling the problem of risk-adjusted compensation is potentially enormous, for institutions and for the banking system as a whole.

For the bank, risk-adjusted compensation helps to align origination and business growth decisions with the long-term interests of the bank's stakeholders, driving up long-term profitability and lessening the perennial friction between senior management and credit risk managers. For the banking system, risk-adjusted compensation will dampen the banking industry's boom-and-bust cycles and reduce the social costs associated with lending to money to customers, corporations, and developers that can never pay it back.

This article was contributed by Shahram Elghanayan, Managing Director, BancWare ERisk, who welcomes your comments at selghanayan@erisk.com