Time to Get Busy…

Information-based risk management and tools for Basel II.

By Bob Neagle

No matter how small or large the business, all lessors and equipment finance companies are interested in asset quality. Whether they securitize, syndicate, or hold for their own account, all of them need a way to monitor their portfolios, and to plan appropriate strategies to insure the collectibility of payments. Historically companies relied on their collections personal to keep their fingers on the pulse of the portfolio. The goal was to keep "the delinquency numbers down." Once an account looked more "likely to go bad," it would get more attention, but often, that was too late.

Portfolio Management as a Strategic Group

The recent economic environment has put additional strain on portfolios. Segment slowdowns and negative macro-economic conditions have reduced lessees' cash flow, necessitating a more strategic role for portfolio management groups. Strategic portfolio management is gaining added impetus from the fact that all banks and bank-related companies—and by extension, those in the finance business—will fall under the Basel II accords by year-end 2006. This means banks will be required to increase their capital reserves, or to show that they can effectively and predicatively control their credit and operational risks. According to the Basel Committee, the industry oversight group, banks will need to build "an appropriate systems infrastructure" to gather and analyze data across the company. The risk manager will move from relying on the collections and portfolio management teams as a source of intelligence to using data warehousing, data mining and automated default modeling tools to help forecast where problems might reside in a portfolio.

What follows is an admittedly simplified look at what the Basel II Accords will require. The accord's requirements fall into three general areas: minimum capital requirements, review of capital adequacy, and public disclosure.

Minimum Capital Requirement

The "minimum capital" required is defined by the capital ratio, which is simply the amount of capital a bank has available over its risk-weighted assets. According to Basel, this ratio cannot be less than eight percent. The new accord describes approaches for calculating the risk-weighted asset levels, all designed to insure that the calculation produces a meaningful ratio, and not a highly subjective conclusion. The measure of risk-weighted assets will include both credit risk and operational risk. Recognizing that one method won't work for all banks because of their different missions and sizes, the accord identifies three primary approaches by risk type:

Credit Risk	Operational Risk
1. Standardized approach	1. Basic indicator approach
2. Foundation IRB approach	2. Standardized approach
3. Advanced IRB approach	3. Advanced measurement approach

Source: "Overview of the New Basel Capital Accord," Bank for International Settlements, April, 2003.

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It is not the intent of this article to review these approaches one by one, but rather to suggest that there is a level of complexity being brought to risk management oversight internationally. To illustrate, let's look at what a lender who elects one approach or another might face.

If a bank adopts the standardized approach, it must segment its portfolio by risk characteristics: type of financing, type of collateral, the use of external ratings, pre-determined rating for past due accounts and the use of risk mitigants, just to name a few. If another bank elects to use either of the IRB approaches, to calculate its capital ratio it may adopt its own internal risk assessment system tools, but in conjunction with specific formulae provided by the Basel committee. The important point is that banks must assess by exposure the probability of default, the expected loss in the event of a default, the total expected exposure at default (utilized credit lines and term transactions), and the remaining term to maturity of the exposure. Lenders that securitize must also calculate a capital risk ratio that reflects the real economic substance of these transactions.

In addition to credit risk, the Basel II Accord requires banks to assess their "operational risk"—the potential for losses that follow from the actions of employees, the employment of systems, internal processes and even external events. Banks will be allowed to develop their own approach to calculating operational risk, but whatever approach is used, it must be comprehensive, systematic, and defensible.

Review of Capital Adequacy

Once the credit and operational risk is established, a second part of the new accord requires that management review the capital adequacy conclusions, critically assess the conclusions, and take actions appropriate to the findings. Part of the review by management personnel is intended to stress test the portfolio, to hypothesize some possible "what ifs," and to see if there is a sufficient capital cushion in the event the unplanned occurs. This assessment will need to include things like concentration risks, residual risks, securitization risk and the like. The point of this second requirement is that accountable risk management personnel conduct a review, push the assumptions to the limits possible in the business, and determine if the bank should do more than meet the minimum capital requirements dictated by the accord. In light of recent problems in oversight of the business community, the Basel Accord wants management to determine if there could be a capital shortfall, and to reduce risk or increase the capital cushion if it is prudent.

Public Disclosure

The third step is public disclosure. The Basel committee believes that the market is best served when market participants can determine for themselves the level of risk and capital adequacy in a given bank or lending institution. As a result, those banks that use internal methodologies must disclose them in sufficient detail for the market to assess their appropriateness. In addition, all disclosures must be consistent with that required by legal or oversight groups like the accounting profession.

Implications for Lessors

While the Basel II accords do not directly mention leasing companies, the basic principles will surely by extension affect the way lessors think about their risk management practices. If lessors expect to compete for capital from bank funding sources, or for profitable execution in public ABS markets, or to satisfy regulators regarding loan loss reserves, they will have to do so in a language and process that is familiar to all parties. By 2006 that will likely be the language and process of the Basel Accord.

As is well known, the commercial finance and leasing field has a risk management process that ranges from credit granting at inception to portfolio management to asset recovery on troubled loans and leases. Historically the front-end process relied on the skills of analysts to make the credit granting decision. Over time software applications built on the consumer credit models were developed that allowed software to grant credit. With enough data collected on "bad" accounts, the commercial credit market was in a position to build models to determine the likelihood of repayment. Today more and more lenders and lessors with transactions less than $150,000 are using the historical payment data they have to build odds tables and predict with very high reliability whether an account is likely to pay or not. This has freed analysts to spend time on those transactions in the "grey area."

Objective Portfolio Management

The same skill and data, along with some new information and tools, have been brought to bear on the management of a credit based portfolio. For many lenders, once a deal goes on the books, it stays on, and at the same risk-rating assigned at inception, regardless of what has happened to the lessee's financial condition or the industry segment to which it belongs. The reason ratings don't change is because most lenders do not have the time to reconsider the risk- rating post loan or lease closing of every obligor in their portfolio. If a lessee is a risk-rated 5 transactions at inception, it is likely to stay so until it does something public—either files bankruptcy and gets re-rated a 9, or charges off and gets rated a 10. Unless there are covenants that require a quarterly, semiannual or annual review, many borrowers sit on the books at the rating they were assigned at the inception of the loan or lease.

Putting aside the Basel accords for a minute, it is clear that a strategic portfolio management function would help insure not only the soundness of assets, but also the overall business. In addition to the manual process of up-dating financial statements and monitoring payment performance, today lessors can take advantage of a range of tools to help assess current and future performance. One such measure, for example, is level of delinquency in a market segment, or in geographical regions. Presently most lessors can get this type of analytical information on their own portfolio from their own systems, and if they want they can compare it to industry data available from a third party, like PayNet, with sufficient data to make meaningful benchmark comparisons. In the Basel II world, and our current recessionary times, it is not enough to know if you are performing better or worse than others in your set—you really want to look at volatility in performance and seek cause and effect explanations.

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Default Forecasting

Another current important portfolio consideration, which will be more critical in light of Basel II, is the ability to forecast potential defaults. This can be done in a variety of ways. One is to provide more information to the collections team that provides projections. Many companies are in a position to produce a monthly report that shows each obligor, a risk rating, a remaining balance, any balance past due, and a due next date. Collection groups have long used these lists to build their queue of collection calls—a very tactical use of data. Today lessors can use data provided by companies like PayNet, to queue calls based on average days past due. If an account is 10 days late historically, for example, why call on day 4?

Another way is to provide more useful information to the portfolio management team. Consider, for example, that portfolio managers might want to look at their portfolio with more granularity than is provided by their own internal risk rating system, which has 45 percent of their deals rated 5 and 45 percent rated 6. Inside those "buckets" are deals that in conversation with the credit team are "strong 5's" and "weak 5's", but on the portfolio manager's card are simply 5's.

And what about the value of comparable term debt payment history? It was heavily weighed in the decision to grant credit initially. Most credit officers, I think, believe that the greatest predictor of "likely to pay term debt" is how other term debt got paid. But most companies lack a method to discover if other lenders and lessors are not being paid, even though they are, once the deal books.

Post-closing, plenty of analysis can be done to see if the conditions that made the transaction attractive still exist. Do portfolio personnel regularly look at macroeconomic conditions, to predict potential weaknesses in the portfolio?

Take the transportation business, for example. As gas prices increase, truck lenders/lessors' portfolios are likely to suffer. Higher fuel costs increase expense, decrease margin, and reduce the profitability of the business. Wouldn't it be important to know at the front end of an industry segment downturn that you were headed for some challenging times? Wouldn't it be important to know that a particular borrower is late on three of his six leases but not with you just yet? And wouldn't it be critical to be able to re-rate monthly your entire client base, and to group your entire portfolio by level of risk, at levels of granularity greater than your own internal system, each month.

Data warehouses, and predictive modeling tools have helped strategic portfolio management groups, versus asset recovery departments, take advantage of risk management tools to improve asset quality going in, and to monitor asset quality actively over the life of the transaction.

Risk management data providers like PayNet are currently providing information that not only identifies the performance of a lessee in a lessor's portfolio, but also in the portfolios of others.

A look at a hypothetical deal illustrates the value. Lessor A does a $500,000 transaction with Hypothetical Manufacturing. As part of the review process financials are spread, debt service coverage calculated, collateral

The chart illustrates a tool that provides a monthly risk grade and a probability of default rating. In addition these PayNet ratings can be mapped to a bank/lessor's internal system, and public risk ratings also. Furthermore, the chart illustrates (on the right) a method for grouping assets by risk grade or probability of default score so a lender can maintain a snapshot view of changes in a portfolio's risk profile.

PayNet Default Forecasting Service ("DFS")

S & P/Fitch approx. Equiv.	Moody's approx. Equiv.	1-10 Bank-Type Rating	PayNet Default Rating	5 Year Avg. Annual 90+ Default Risk-Category Range	5 Year Avg. Annual 90+ Default Risk-Category Range	Total Outstanding Receivables $			Total Outstanding Receivable Expected to Default in One Year	
						#	$	% of Total	$	% of Total
AAA AA A	Aaa Aa A	1 2 3	1–3	0%–1%	0.5%	1200	$120,000,000	20.0%	$600,000	2.1%
BBB	Baa	4	4	1%–2%	1.5%	1500	$150,000,000	25.0%	$2,250,000	7.8%
BB	Ba	5	5a 5b 5c	2%–3% 3%–4% 4%–5%	2.5% 3.5% 4.5%	800 600 400	$80,000,000 $60,000,000 $40,000,000	13.3% 10.0% 6.7%	$2,000,000 $2,100,000 $1,800,000	7.0% 7.3% 6.3%
B	B	6	6a 6b 6c	5%–6% 6%–7% 7%–8%	5.5% 6.5% 7.5%	350 300 250	$35,000,000 $30,000,000 $25,000,000	5.8% 5.0% 4.2%	$1,925,000 $1,950,000 $1,875,000	6.7% 6.8% 6.5%
CCC	Caa	7	7a 7b 7c	8%–10% 10%–15% 15%–25%	9% 12% 20%	200 100 150	$20,000,000 $10,000,000 $15,000,000	3.3% 1.7% 2.5%	$1,800,000 $1,200,000 $3,000,000	6.3% 4.2% 10.4%
CC	Ca	8	8	25%–66%	45%	100	$10,000,000	1.7%	$4,500,000	15.7%
C D	C	9 10	9–10	66%–100%	75%	50	$6,000,000	0.8%	$3,750,000	13.0%
						Total Portfolio 6000	$600,000,000	100%	$28,750,000	100%

Total Portfolio Weighted	4.8%

= PayNet Default Rating: 5c

= Bank Rating of: 5

= Investment Rating of: BB/Ba

assessed, and other term debt credit references checked. The deal is approved. It is assigned an internal rating of 6, which makes it a middle market deal, at a rating less than the lower side of investment grade. That deals goes on the books and starts paying. Twelve months later it still carries a risk rating of 6, but what Lessor A doesn't know is that the obligor's risk characteristics have changed because it has slowed down its payments to two other lenders/lessors and is now 60 days with one and 90 days with another. If Lessor A knew about the recent slow pays, it would be in a position to change its tactics in managing this account. It would further be helpful for the lender to get a default risk rating that would enable it to map its internal system to external systems, and then measure the likelihood of default on that account via a default probability rating. And on a portfolio basis, running the probability of default rating against the entire portfolio every month would allow for strategic initiatives in the portfolio management function.

Clearly using default forecasting tools will assist in complying with Basel II, and gaining a more strategic role for portfolio management. The lessor utilizing a portfolio risk grading service built on external pay history data can use this data to prioritize collection activity in the collections group. It could use early warning indicators of a slow pay elsewhere as a change to stay on the accounts early and often. It could use the data to restrict access to other open lines of credit. It could use this data to determine the adequacy of its reserves. It could use this data to look at concentrations of risk inside risk rating category 5 at better levels of granularity, making all those 5's something else—5a, 5b, 5c —all with their own meaningful (statistically sound and predictive) probability of default ratings.

So whether banks and lessors are gearing up to comply with Basel II or looking for ways to be more strategic in the management of their portfolios, information-based tools exist that will help convert information to knowledge. It is knowledge that can help a bank or lessor manage reserve levels, comply with Basel II, and most important, maintain asset quality. E|L|T

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