Risk management in the lending environment essay sample

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Risk refers to uncertainty about future outcomes. Traditional market risk management deals almost exclusively with portfolio value changes driven by trading returns. Trading returns are calculated from mid-price, and hence the assessed market risk corresponds to an idealized market with no friction in obtaining the fair price. However risk in many markets possesses an additional liquidity component; traders do not realize the mid price when liquidating a position quickly or when the market is moving against them. Instead they realize the mid price less the bid-ask spread. (Michel Crouhy, 57)

Credit risk is the oldest form of risk in the financial markets. Credit risk is as old as lending itself, which means that it dates back at least as far as 1800 B. C, it is essentially unchanged from ancient Egyptian times; now as then, there is always an element of uncertainty as to whether a given borrower will repay a particular loan. This report is about how financial institutions are using new tools and techniques to reshape, price and distribute this ancient form of financial risk. (Sergio M. Focardi, 17-19)

Ever since banks as we know them were organized in Florence seven hundred years ago, they have been society’s primary lending institutions. Managing credit risk has formed the core of their expertise. Traditionally bankers and other lenders have handled credit evaluation in must the same way that tailors approach the creation of a custom made suite by carefully measuring the customer’s need and capacities to make sure that the financing is a good fit. Today’s approach does not differ fundamentally from the one used by the earliest banks.

It is easier to design a suit for a customer you already know. Because of the very nature of this approach, banks have been drawn to relationship banking. Typically they are more concerned about their relationship with a customer than they are about the profitability of a specific loan or about the effect this transaction may have on their overall loan portfolio. In recent decades this traditional approach has led to unacceptable results, banks have done a rather poor job of pricing and managing credit risk.

The counterpart to credit risk is market risk – the change that an investment's value will change in price as a result of marketplace forces. Market risk has affected financial institutions ever since markets were created. In contrast to credit risk, however techniques for managing market risk have undergone a radical change. (John B. Caouette, 165) Anyone who tours a large trading floor at a bank or an investment bank can see that the management of market risk has been in focus of tremendous technological development. Major break though have turned this aspect of risk management into something of a science – one that is applied to both entities and debt instruments.

This is not to suggest that market risk has been eliminated. In the case of America's savings and loan association, for example and entire industry quaked because of bad bets made on market trends during a period when deregulations was increasing the risks in the financial markets. As is now well known, the industry tried to grow its way out of its problems by adopting unsound funding and unsafe lending practices. Protected by the government' s increased deposit insurance limit, the industry's high stakes bets in the commercial real estate and junk bond markets constituted on the job

training in credit and market risk, paid for by unwitting U. S. taxpayer (3). Similar investment excesses by newly deregulated domestic financial institutions in Asian countries are believed to be a root cause of the Asian financial crisis that developed in 1997. (Nigel Da Costa Lewis, 156)

Despite its shortcomings in anticipating systemic events the science of managing market risk does nevertheless reflect late-twentieth-century knowledge and technology. For example, banks have adopted the concept of gap management, duration and even the theory of contingent claims. Major Banks have created huge markets for interest rate and currency swaps.

By contrast, the management of credit risk remains, to a substantial degree, a kind of cottage industry in which individual lending decisions is made to order. As befits a cottage industry, there is for the most part, no common credit language. Practitioners, academics and regulators heatedly debate fundamental measurements such as default timing, default events, workout costs and recoveries. There is a dearth of reliable quantitative data on financial and non financial variables in the period preceding business failure as well as recovery rates following such failure.

The traditional providers of credit include banks, finance companies, life insurers, industrial companies, and the government. These diverse players have somewhat different objectives and constraints and their approach to the credit process has different in matters of detail. As a consequence their overall experience as creditors as varied as well. Nevertheless all share the same fundamental strategy: they focus on custom tailoring the credit decision to the individual borrower. In this sense they can all be classified as

cottage industry players. We use the term cottage industry to suggest that each participant takes a unique approach to every single credit. Apart from the residential mortgage and fixed-income securities markets, there are few areas where all participants utilize the same credit language.

It is not uncommon to argue that the credit spread inherent in many financial instruments could be more aptly explained as being caused by the presence of liquidity risk, rather than the credit risk. Such a view is supported by rather convincing financial arguments or related econometric. Liquidity risk arises from mismatches between the assets and liabilities. This risk arises because banks generally fund themselves with liabilities that have very short contractual maturity (e. g. demand deposits such as checking accounts). Banks take the money they receive from these liabilities, set aside a small of cash and invest the rest in assets that have long maturity e. g. commercial loans. In general, customers leave most of their in the demand deposits for a long time, and the small amount of cash that the bank set aside is sufficient to meet customers' request for withdrawals. However if withdrawals are unusually high, there is a risk that the bank would not have enough cash to meet the demand.

Such a situation could happen if there was a rumor that the bank or financial institution could have a liquidity problem, which would lead customers to withdraw their funds, thereby creating a liquidity problem and increasing the rumors. This vicious cycle is called a " run on the bank". To overcome this liquidity shortage situation bank's choices can be simplified into three: borrow money from other banks, if they are willing and able to supply more cash; sell some of the loans, possibly at deeply discounted prices, or default

to the customers and go out of business. This risk of defaulting or being forced to sell at a loss is called funding liquidity risk or cash crisis risk. (Nigel Da Costa Lewis, 01)

Typical type of outflows for bank are;

- Scheduled loan disbursements to customers
- Scheduled repayment to customer, such as maturing fixed deposits.
- Scheduled loan repayment to other banks as well as corporations.
- Unscheduled repayments to customers, such as withdrawals from checking account deposits.
- Discretionary lending to other banks in the short term inter-bank market.

The bank typically has the following inflows and sources of cash;

- Scheduled payments being made into the bank by customers, including loan repayment.
- Unscheduled payments by customers, such as checking account deposits and rollover of expiring fixed deposits into new fixed deposits.
- Semi discretionary payments from the sale of normal trading securities.

Operation risk is everywhere in the business environment. It is the oldest risk facing banks and other financial institution. Any financial institution will face operational risk long before it decides on its first market trade or credit transaction. Of all the different types of risk facing financial institutions, OR can be amount the most devastating and the most difficult to anticipate. Its appearance can result in sudden and dramatic reductions in the value of a

firm. The spectacular collapse of Barings in 1995, the terrorist attack on the World Trade Center in September 2001, the $691 million in losses due to fraud report by Allied Irish Bank in 2002, and the widespread electrical failure experienced by over 50 million people in the northeastern United States and Canada in august 2003 are all concrete but very different illustrations of Operational Risk.

The rapid pace of technological change, removal of traditional trade barriers, expanding customer base through globalization and e-commerce and mergers and consolidations have led to the perception that OR is increasing. Indeed, although many function can be outsourced, OR cannot. Increasingly, banks and other financial institutions are establishing OR management functions at the senior executive level in an effort to better manage this class of risk. (Nigel Da Costa Lewis, 05)

There is no generally accepted definition of OR in the financial community. This lack of consensus related to the fundamental nature of operation risk itself. Its scope is vast and includes a wide range of issues and problems that fall outside of market and credit risk. A useful starting point is to acknowledge that OR encompasses risk inherent in business activities across an organization. Operational risk is defined as every risk source that lies outside the areas covered by market risk and credit risk. (Caroline Jonas, p97)

Many early banks sprang up around groups of industrial enterprises. A number of related companies might join together to establish a bank and then look to it to fund their subsequent activities. Most of America’s money

center banks have industrial roots of this kind. In Europe, where banks had similar origins, this pattern is still in evidence: Deutsche bank for example may well be the largest owner of industrial companies in Germany. A similar pattern can be seen in Japan, where major banks are leading members of Keiretsu – group of hundreds, if not thousands, of interconnected companies that are the banks' primary customers.

Traditionally, banks have managed credit risk almost exclusively by adopting procedures of credit analysis focuses on two distinct but interrelated issues: the borrower's willingness and ability to repay a loan. Analyzing willingness to pay is, essentially, a matter of investigating the borrower's character. Analyzing the ability to pay is a matter of investigating the borrower's economic prospects.

Rating agencies specialize in evaluating the creditworthiness of corporate, municipal, and sovereign issuers of debt securities. It is their job to inform investors about the likelihood that they will receive all principal and interest payments as scheduled for a given security. What, in other words is the probability of default? And if default should occur, what level of recovery can be expected. In some markets – the United States for example – (Robert Mark, 111) the capital markets have replaced banks as the primary source of debt capital and rating agencies have assumed enormous importance in the management of credit risk.

Prospectuses for fixed income mutual funds for example invariably express the credit quality of a portfolio in rating agency terms and many investors pay careful attention to this information. Many corporations rely on the

rating agencies to establish their creditworthiness as borrowers or guarantors in the financial markets. Although used primarily by investors, bond ratings have also been incorporated into state and federal regulations as a means of ensuring that bank, insurance companies and pension funds will maintain fixed-income portfolio of sufficient credit quality. The primary regulatory uses of rating agency information are summarized in table

Risk management Process

Ratio imparts information in an absolute and comparative sense. A company’s return on equity for example is a ratio that provides evidence about its profitability its debt service coverage ratio is a measure of its capacity to carry its leverage; its ratio of working capital to current assets is a clue to its liquidity. Bankers have evolved their own jargon for speaking about these ratios. They talk about EBITDA (earning before taxes, interest depreciation and amortization) and cash flow coverage as enthusiastically as baseball fans discuss their favorite player’s batting average. Everybody knows that if EBITDA to interest falls below 1. 5, an account is going to need special attention. (Paul Narayanan, 27)

Tools from statistics and operations research such as survival analysis neural networks, mathematical programming, deterministic and probabilistic simulation, and game theory have all contributed to the progress in credit risk measurement. So, too have advances in our understanding of financial markets, such as arbitrage pricing theory, option pricing theory and the capital asset pricing model.

The new tools for measuring credit risk have been applied to a wide range of financial products – consumer loans, residential real estate loans, commercial real estate loans, and commercial loans as well as swap, credit derivatives and other off-balance sheet products. Not with standing all this progress, we should point out that current credit risk models are more in the nature of pioneering efforts to seek better solutions, rather than the culmination of the search. Some of the results of these efforts may fall away completely, but most will be incorporated into models that are yet to be constructed. In that sense, all of our models are bridges to the future.

Classical economist characterize capital as the produced means of production, by which they means that capital represents the accumulation of wealth generated from the use of labor and land – the two other factors of production. Financial models represent mental labor and capital, and they may be regarded as the produced means of problem solving. They represent, in other words, an accumulation of human insight, experience and experiment that can be applied to explaining the way that people behave or things work.

A model greatly facilitates our understanding of a phenomenon and, eventually, its exploitation. Models for measuring credit risk are no exception. With a credit model we seek to determine, directly or indirectly, the answer to the following question: given our part experience and our assumptions about the future, what is the value of a given loan or fixed income security? Equivalently, what is the quantifiable risk that the promised cash flows will be forthcoming?

Models are often constructed on theories. The theory of options, for example might suggest, might suggest an approach to measuring credit risk. It might be possible to assess the riskiness of a home loan by assuming that the borrower will exercise the option to default if there is no longer any equity in the home. A simple model of default may then be built that uses the loan-to value ration as a predictor of default. The higher the loan-to-value ratio, the less equity the owner has in the home and the higher the probability of default. Today this simple model provides a foundation for home mortgage lending.

To generate a more accurate prediction of the probability of default, additional variables can be added to this model. The second variable might be the size of the debt relative to the borrower’s cash flow or disposable income. This is known as income ratio. (Dan Galai, 11)

US banks traditionally made loans with a term of one year or less – typically to enable their commercial customers to meet their seasonal needs. Bankers focused on a borrower’s working capital, trying to determine whether there would be sufficient assets to repay the loan if the business had to be liquidated. Balance sheets were carefully reviewed, but income statements were largely ignored. In the past 50 years, however banks have moved beyond financing working capital to financing their customers’ fixed assets. This shift made collateralization virtually irrelevant to the credit process. No liquid market exists for collateral such as hospital supplies, automotive parts etc. (Paul Narayanan, 201)

Work cited

John B. Caouette, Edward I. Altman, Paul Narayanan. Managing Credit Risk: The Next Great Financial Challenge. Wiley, 1998.

Michel Crouhy, Dan Galai and Robert Mark. The Essentials of Risk Management. McGraw-Hill, 1st Ed, 2005.

Carl L. Pritchard, Risk Management: Concepts and Guidance. ESI International, 3rd Ed, 2001.

Michel Crouhy, Robert Mark, and Dan Galai. Risk Management: McGraw-Hill, 1st Ed, 2000.

Sergio M. Focardi, Caroline Jonas. Risk Management: Framework, Methods, and Practice: Wiley, 1st Ed, 1998.

Nigel Da Costa Lewis. OperationalRiskwith Excel and VBA: Applied Statistical Methods forRiskManagement: Wiley, 2004.

Operation Risk, 2004

www. riskglossary. com/articles/operational_risk. htm

www. bis. org/publ/bcbsca07. pdf