FEDERAL RESERVE BANK OF PHILADELPHIA

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SVP Commentary On…

Effective Corporate Governance

by Michael E. Collins

The accelerating pace of change has resulted in shifting business conditions, increased volatility, shorter product life cycles, new competitors, and vast amounts and flows of information. As today's businesses manage all of these challenges, effective corporate governance becomes increasingly important. Corporate governance codes and/or blue ribbon commission reports have been adopted on every continent but Antarctica. Every country has its own, distinct brand of corporate governance, reflecting its legal and regulatory culture. However, as geographic boundaries cease to function as trade boundaries, it is likely that the basic tenets of corporate governance will converge throughout the world.

It is important to remember that corporate governance is an ever-evolving concept that requires the constant influx of new ideas. What worked in the industrial past may not, and in fact does not, work in today's technological, service-based economy. The California Public Employees' Retirement System, known as "CalPERS," has been a leader in the corporate governance movement. While I cannot specifically endorse their activities or positions, CalPERS has developed a set of eleven Corporate Governance Principles and related Guidelines that I believe address many criteria that should be considered in an effective corporate governance structure.

I would like to touch on four of the criteria that I believe are particularly critical for all companies, and for banks in particular. First, a substantial majority of the board should consist of independent directors. This may be conceptually easy to accept, but it is often difficult to implement. There are at least ten regulatory or recommended definitions of "interested person," "outside director," "significant relationship," and "independent director" that companies in various industries must decipher when assessing a potential director's fit within an organization. The concept and importance of independent directors may be best summarized by Robert H. Rock, Chairman of the National Association of Corporate Directors, who said that "a director's greatest virtue is the independence which allows him or her to challenge management decisions and evaluate corporate performance from a completely free and objective perspective." Mr.

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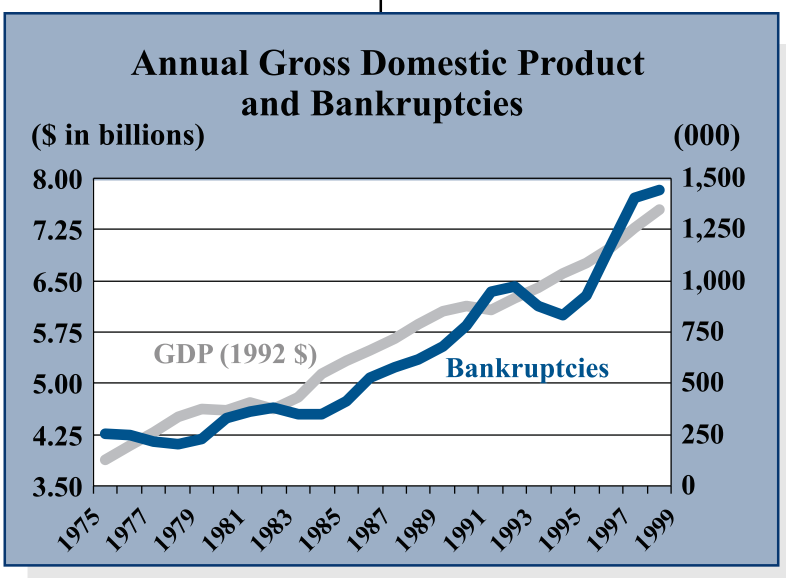
Credit Derivatives: Focusing on Bankruptcies

by Joanna H. Frodin, Vice President

Historically, the total number of bankruptcies, both personal and business, has followed economic activity in a reasonably predictable way. Bankruptcy rates rose toward the end of economic booms, as economic activity slowed, and fell during the subsequent recessions and initial expansion phases of the following booms.

While changes in the Bankruptcy Reform Act of 1978, which provided new benefits to potential debtors, appeared to explain a subsequent increase in bankruptcies in the early 1980s, research suggests that changes in economic activity were the primary explanatory factor.[1,2] As the chart demonstrates, bankruptcies tracked GDP growth, with some lag, over the long run until 1995.



In 1995, during a period of strong, non-inflationary growth, the bankruptcy rate rose, and bankruptcies reached new historical levels. The predictable pattern appeared to have broken down, leading to considerable discussion about the probable causes. These included: increases in credit extension to subprime markets via credit cards, home equity loans, and finance company loans; growing familiarity with the provisions of the Bankruptcy code and reduction in the stigma attached to bankruptcy; and, spending spurred on by stock market gains and high consumer confidence.

Interestingly, rising bankruptcy rates led to calls for revisions of the bankruptcy laws to rebalance the interests of debtors and creditors. Creditors, particularly large credit card companies, increasingly are the focal points for concentrations of consumer debt, previously more diffused. One of the directions of the bankruptcy law changes was to encourage debtor use of Chapter 13, with scheduled repayments of debt, over Chapter 7, with complete charge-offs of debt, to help creditors reduce bankruptcy losses. Legal reform, close to reality at the end of 1998, appears less certain at this time.

New Tools for Hedging Risk.

If legislative reform with the potential to reduce bankruptcy-related losses does not take place in 1999, institutional creditors may turn their attention to hedging against unexpected rises in future bankruptcies that would translate into increased charge-offs. New credit derivative tools, futures and options on futures, related to a quarterly bankruptcy index, have been available on the Chicago Mercantile Exchange since spring 1998.[3] Most credit derivatives, described in the fourth quarter 1996 edition of *SRC Insights*, provide protection for funding instruments against counterparty default. Similarly, the basic concept of bankruptcy-index-related derivatives is protection against consumer default risk.

The Bankruptcy Index. At the heart of this approach to hedging default risk is the CME Quarterly Bankruptcy Index (CME-QBI), a quarterly bankruptcy index (QBI) derived directly from nationwide bankruptcy filing data, updated daily. For example, the total of new filings in the first quarter of 1999 was 322,215. The index for the quarter equaled 322.225 (equal to 322,215/1,000, rounded to the nearest .025).

1 Domowitz, Ian and Thomas L. Eovaldi, “The Impact of the Bankruptcy Reform Act of 1978 on Consumer Bankruptcy”, Journal of Law and Economics 36, 1993, pp. 806-835.

2 Ibid.

3 As of April 19, electronically on GLOBEX, the CME’s network.

Index Futures. The futures contracts are agreements, similar to other exchange-traded index futures, to buy or sell the quarterly bankruptcy index, on a cash-settled basis. The notional value of a contract equals $1,000 times the index number, or $1.00 per bankruptcy filing. A "tick," the minimum price change of a contract, equals .025, or 25 filings, or $25 at settlement. Settlements occur quarterly, starting with March. For example, the settlement price of a March 1999 contract was 322.225. Had a company bought this contract when its price was $310.00, upon expiry its gain would have been $1,000 x 12.225, or $12,225. Similarly, had it bought the contract when its price was 325.000, it would have lost $1,000 x 2.275, or $2,275, if held to expiry.

A company seeking protection against unexpected losses in some future period could take two approaches.

1) *A strip of futures:* Suppose ABCard Co. wants protection against unexpected losses in the Year 2000. It purchases, "goes long," a strip of March '00, June '00, September '00, and December '00 futures at the hypothetical prices 305.105, 312.205, 320.445, and 326.600, respectively. Assume these prices all stand above the current price. While ABCard Co. predicts market conditions that will yield uncertain, but nasty, surprises in 2000 and buys protection, the seller takes the contrary view.

The basic concept of bankruptcy index-related derivatives is protection against consumer default risk.

2) *A stack of futures:* Alternatively ABCard Co. wants protection, but anticipates a spike in bankruptcies of uncertain timing. It could purchase a stack of futures with a March '00 expiration, and roll them over into subsequent quarters, if necessary.

Options on Futures. Another approach for creditors is the use of options on bankruptcy-related futures, rather than the futures themselves. Through purchase of a call option, ABCard Co. could hedge against unexpected increases in default losses, but not have to risk any price declines in its futures position, margin calls, and administrative burden.

Facing the Future

ABCard Co. is convinced that an economic downturn is around the corner, but is unsure, along with everyone else, about its timing. It wishes to hedge, or trade away, some default losses, or risk, associated with a downturn. Its charge-off rate, an annual measure of the default rate on its receivables, is highly correlated with bankruptcies which, in turn, are highly correlated with economic activity. ABCard Co. can estimate its expected losses, given its estimates of economic behavior, but wants protection against "unexpected" losses. How does it calculate an appropriate hedge?

Assume ABCard Co. tends to see 10 cardholder bankruptcies for every 1,000 national filings, with average losses of $3,000. Default losses would equal $30,000 per 1,000 new filings, or a one-point increase in the bankruptcy index. The number of futures contracts needed equals $30,000/$1,000, or 30, to cover the potential default losses associated with a one point increase in the bankruptcy index. Thirty is the "hedge ratio" for this company, given stability of the correlation of its defaults with national filings.

Calculating its expected losses based on the futures index ($30,000 per 1,000 x QBI) for a given quarter in the futures, ABCard Co. would hedge against the reality of a higher QBI in that quarter. As expiry draws nearer, the hedge would work to offset potential losses if the futures price rises above its purchase price. ABCard Co. would sell it prior to expiry or let it expire. If the futures price falls below the purchase price, ABCard Co. would incur a loss, which it may minimize by selling when the price dips, but it also may not incur higher losses from defaults.

Conclusion

Bankruptcy-related credit derivatives provide an interesting new variation on an old "futures" theme. The next economic downturn will provide a good test period to ascertain their usefulness to different types of institutional creditors and speculative counterparties in the market place. Flexibility of the derivative instrument and liquidity will be key. Stay tuned . . . . . ■

Risk Management for Electronic Banking Activities

by Saba Tesfaye, Examiner

The popularity of electronic banking continues to expand along with the popularity of the Internet. It is becoming clear that many consumers and businesses, particularly those that are technologically sophisticated, find the new electronic delivery methods an attractive option for accessing familiar banking and payment services. In response to this demand, growing numbers of financial institutions are offering services over the Internet, and transactions initiated over the Internet are widely reported to be on the increase. However, it is important to recognize that what is described as a new form of banking—electronic banking—simply involves delivering or gaining access to existing retail banking products and services in new ways.

Banks are in the business of managing risk. Clearly, electronic banking activities pose significant risks for banks. Consequently, any bank that considers providing its products through a new delivery channel must identify and assess the risks inherent with that channel, and develop plans to manage those risks. One article—"Alternate Delivery Channels: Why Should You Care?"—which appeared in the third quarter 1998 edition of *SRC Insights*, discussed the five information technology elements, or risks, identified by the Board of Governors in SR 98-9. This SR Letter, *Assessment of Information Technology in the Risk-Focused Frameworks for the Supervision of Community Banks and Large Complex Banking Organizations*, addressed information technology in its broadest sense.

In March 1998, the BASLE Committee on Banking Supervision issued a comprehensive study on the potential risks of using electronic banking. This study defined "electronic banking" as the provision of banking products such as deposit-taking, lending, account management, the provision of financial advice, electronic bill payment and stored value through electronic channels. A bank contemplating the electronic delivery of its traditional products and services would be well advised to incorporate elements of this study in developing methods for assessing, managing and controlling the risks associated with electronic banking.

Risks associated with electronic banking are unlimited.

BASLE Committee's Electronic Banking Risks

The BASLE Committee concluded that three risk categories—operational, legal, and reputational—might be the most important risk categories for electronic banking. Nevertheless, because of rapid changes in technology the risks associated with electronic banking are unlimited. Following is a summary of the BASLE Committee's findings related to these risk categories. The full text of the study can be found on the Bank for International Settlement's web site, at 'www.bis.org/publ/index.htm'*.

Operational Risk. Operational risk can arise from the potential for loss resulting from poor security systems, inadequately designed or implemented electronic banking systems, and customer misuse of products and services.

Security risks arise from both external and internal sources. Banks should maintain adequate controls over access to their critical accounting and risk management systems, and information that is communicated with third parties. In the case of stored value activities, the banks must take measures to deter and detect counterfeiting. In addition to external attacks on electronic banking and

*This website, which is not affiliated with or authorized by the Federal Reserve System, contains information that may be helpful to you. The Federal Reserve, however, has no control over the information contained therein and cannot guarantee its accuracy.

stored value mechanisms, banks are exposed to operational risk with respect to employee fraud. Bank employees could secretly acquire authentication data in order to access customer accounts, or steal stored value cards.

System design, implementation, and maintenance risk is an ongoing issue. An electronic banking system that is incompatible with user requirements can result in a risk of an interruption or slow-down of the existing systems. Banks should avoid over reliance on systems designed by service providers.

Customer misuse of products and services, whether intentional or inadvertent, may cause the bank to incur financial losses as criminals gain access to personal information (authentication information, credit card numbers, or account numbers) sent in a non-secure electronic transmission. Money laundering may also pose a concern.

Reputational Risk. Reputational risk arises from negative public opinion that may result in a critical loss of funding or customers. A significant breach of security caused by internal or external attacks on a bank's system may result in a negative public opinion. In addition, banks may be subject to reputational risks when systems or products do not work as expected.

Legal Risk. Legal risk arises from violations of, or non-conformance with laws, rules, regulation, or prescribed practices. With respect to electronic banking, banks may face legal risks from failure to protect customer privacy, inadequate disclosure of information to customers, money laundering and uncertain or ambiguous applicability of laws and rules.

Other Risks. In addition to the above, other risks—credit risk, liquidity risk, interest rate risk, and market risk—exist in an electronic banking environment.

Credit Risk is the risk that a counterparty will not settle an obligation for full value at the time when it is due. Banks that are engaged in electronic banking may face credit risk from the default of a stored value card issuer. Inadequate evaluation of creditworthiness of remote banking customers can increase credit risk.

Liquidity Risk is the risk that a bank will be unable to meet its funding needs. Banks that specialize in stored value activities may be unable to ensure that funds are adequate to cover redemption and settlement demands at any particular time.

Interest Rate Risk is the risk of losses resulting from interest rate movements. Unfavorable movement in interest rates could reduce the value of assets relative to electronic money (stored value) liabilities outstanding.

Market Risk is the risk of losses in on- and off-balance sheet positions arising from movements in the market prices, including foreign exchange rates. Market risk affects banks that accept foreign currencies in payment for stored value system.

BASLE Committee's Risk Management Program

In order to minimize the risks associated with electronic banking, the BASLE Committee recommends that banks develop a risk management program prior to committing to an electronic banking program. The program should include the three basic elements of assessing risks, controlling risk exposure, and monitoring risks.

Assessing Risk. In assessing the risks associated with electronic banking, management should consider the following steps:

- Identify and quantify risks.
- Determine the bank's risk tolerance based on the assessment of losses that the bank can afford to sustain in the event of a problem.
- Compare its risk tolerance with its assessment of the magnitude of risk to determine if the risk exposure fits within the tolerance limits.

Managing and Controlling Risks. The following steps are involved in managing and controlling risks:

- Formulate security policies and measures; define responsibilities for designing, implementing, and enforcing information security measures (encryption, firewalls, and passwords); establish guidelines to evaluate policy compliance; enforce in-

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Introducing the New and Improved Consumer Compliance/CRA Examination Unit

As Michael Collins noted in his column in the Fourth Quarter 1998 edition of *SRC Insights*, SRC reorganized the Consumer Compliance and CRA examination unit (CC/CRA) in October 1998. Two primary forces drove these changes. The first was the planned retirement of Robert N. Downes, who had provided over 30 years of service to the bank supervision department. The second force was the need to better align the compliance unit given the strategic implementation of a risk-focused examination process.

The new organizational structure will achieve the department's broad objective of an integrated, risk-focused, and burden sensitive supervisory process. In addition to satisfying this overarching goal, we believe this structure enhances examiner development and capitalizes on the unique blend of talent contained in the CC/CRA unit. The organizational profile below summarizes the unit's structure and the individuals responsible for management and oversight of the primary business processes.

Reed Raymond is an assistant vice president with oversight responsibility for the CC/CRA examination unit. Reed has over 15 years of field examination experience in domestic and international safety and soundness examinations. More recently, he has headed our support services, quality control, and information technology units.

Connie Wallgren is the manager of the CC/CRA unit responsible for day-to-day management of the function, including examination scheduling, coordination with our Domestic Safety and Soundness examination unit to achieve a strategy of integrated supervision, and staff management and development. Connie has 12 years of experience in SRC, including 8 years of field examination work, primarily in consumer compliance and CRA.

Elements of Risk-Focused Supervision

The risk-focused examination process for consumer compliance examinations focuses on three major elements: examinations, outreach, and monitoring. The following individuals have primary responsibility in these areas:

Examinations - John Fields, who has 14 years of experience in compliance, is responsible for the implementation of the Board's risk-focused examination procedures. He is involved in all aspects of the examination process relative to risk-focus, including the review of planning memos and on-the-job training of examiners in the decision making essential to the successful implementation of this new supervisory approach.

Outreach - Bob Snarr, who possesses 18 years of experience in compliance examinations, has responsibility for outreach activities. This includes close interface with the Reserve Bank's Consumer and Community Affairs Department to improve communication and maximize the sharing of resources between our departments. Bob is also involved in banker education, participating on panels with other agencies, and writing newsletter articles for the SRC Insights publication.

Monitoring - Carole Foley, who has 14 years of bank supervisory experience, has responsibility for moni-

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Bob Snarr	(215) 574-3460	bob.snarr@phil.frb.org
Denise Mosley, Sr. Staff Asst.	(215) 574-3729	denise.mosley@phil.frb.org

toring activities and CC/CRA issues related to the applications process. As part of the monitoring function, Carole is responsible for the pre-examination process, working closely with the department's Off-Site Integration Unit. In addition, Carole maintains compliance risk profiles, and is responsible for consumer complaint investigations on all Third District state member banks.

We believe that these changes will allow the consumer compliance examination unit to be more responsive to the rapid changes in the financial services industry, and to be proactive in addressing the needs of our banking constituencies. Reed and Connie plan to visit with as many institutions a possible during the year, but if you have questions on these changes, or any other compliance or CRA examination issue, please call or e-mail them.

HAVE YOU HEARD?

The Federal Reserve Bank of Philadelphia will be holding seminars on *Interagency Fair Lending Procedures: What You Need To Know for Your Next Examination.* Please contact Denise Mosley at (215) 574-3729 for more information or to register for one of these seminars:

Philadelphia, PA	June 24, 1999
Harrisburg, PA	July 21, 1999

SVP Commentary On…

Effective Corporate Governance

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Rock further states that "a director should not be beholden to management in any way. If an outside director performs paid consulting work, he becomes a player in the management decisions."

The second issue is director qualifications. Once it is determined that a potential director is independent, the director's characteristics, experiences, perspectives, and skills should be assessed. Each director should add something valuable to the board as a whole. Director competency in areas such as accounting or finance, business or management experience, specific industry knowledge, crisis response, leadership, strategic planning, or international markets will enhance their oversight of the business. Furthermore, each director should have the time, energy, and ability to bring these new perspectives to the board. Competing time commitments from a personal business or other board appointments may disqualify an otherwise exemplary candidate.

The third criterion is director performance. The board should develop performance criteria for the board as a whole and for members individually. At the director level, these criteria should address attendance, preparedness, participation, and candor. An absentee director who attends meetings only to collect a check and rubber stamps management's proposals is ineffective at best, and dangerous at worst.

Fourth, the independent directors, not the full board, should establish performance criteria and compensation incentives for the CEO, and regularly review the CEO's performance against the criteria. Truly independent directors will act on behalf of the shareholders, while inside directors may be explicitly or implicitly pressured to act in the CEO's best interest.

None of these principles are new, but for many businesses, they may represent a significant departure from the status quo. Nonetheless, I borrow a quote from Ira M. Millstein, co-chair of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees, who said "a performing board is most likely to respond effectively to a world where the pace of change is accelerating. An inert board is more likely to produce leadership that circles the wagons."

It is important to remember that, as the 20th century is drawing to a close, we appear to be embarking on a new business environment with many new rules. The pace of change is accelerating, and I do believe that an inert board will be an ineffective board.

Risk Management for Electronic Banking Activities

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formation security measures; and report security violations.

- Enhance internal communication with respect to electronic banking products.
- Perform feasibility study prior to implementing new products.
- Adopt policies to limit risks arising from reliance on outside service providers by ensuring that contractual obligations of each party are clearly understood and are defined in written enforceable contracts.
- Implement a program to educate customers about the use of new products and services, fees charged for services and products, and ensure the compliance with disclosure requirements.

Monitoring Risks. To properly monitor the risks associated with electronic banking, management should take the following measures:

- Perform a complete testing of system operations.
- Ensure that the appropriate standards, policies, and procedures related to electronic banking are developed and that the bank complies with these policies.
- Ensure that audit personnel in charge of auditing electronic banking possess specialized expertise to perform an accurate review.

The nature and scope of risks associated with electronic banking will naturally change rapidly, keeping pace with technological innovation. Therefore, banks will find that they will have to manage current risks while simultaneously adjusting to new risks. As this new distribution channel evolves, you should always feel free to call your bank regulator if you have any questions on the risks associated with electronic banking. At the Federal Reserve Bank of Philadelphia, you can call Saba Tesfaye at (215) 574-3487. ■

NEXT ISSUE

Interest Rate Risk at Community Banks

Consumer Compliance Update

Mutual Funds Activities in Banks

More Still on Year 2000

Editor................Cynthia L. Course

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