

# FRBSF ECONOMIC LETTER

Number 2002-36, December 13, 2002

## The Promise and Limits of Market Discipline in Banking

A key issue on the agenda for bank regulators is how to leverage market discipline to supplement their supervisory efforts. For example, in the recently proposed revision of the Basel Capital Accord, market discipline is one of the three pillars, along with capital regulation and supervision, of the structure for safeguarding the banking system.

The rationale for and practice of safeguarding the banking system have a long history in the U.S. The rationale is that banking firms are special in a number of ways. They perform certain unique functions in the financial system, such as providing backup liquidity to the economy and serving as one of the channels for the transmission of monetary policy. Because of their specialness, and because banks are subject to “runs” on their deposits, the government provides deposit insurance and discount window borrowings as a safety net for the banking system. Motivated by the desire for financial stability, and the protection of the safety net from abuses, the government imposes an extensive set of regulations on banks and subjects them to prudential oversight. Regulation and supervision of banks is an integral part of the financial architecture.

Indeed, among all industries, the banking industry is arguably one of the most tightly regulated. Banks are subject to restrictions on ownership, organizational structure, permissible activities, maximum leverage ratio, and lending practices. In addition to banking regulations, regulators employ a large army of personnel engaged in prudential supervision. These include “resident” examiners who are posted full-time in some of the larger banks, examiners who go on-site, usually once a year, to conduct bank examinations, and analysts who perform off-site surveillance on a regular basis.

The idea of leveraging market discipline to supplement these supervisory efforts is by no means new. As the Chairman of the Federal Reserve System, Alan Greenspan, has remarked, “the real pre-safety-net discipline was from the market, and we need to adopt policies that promote private counterparty supervision as the first line of defense for a safe and

sound banking system” (2001). This *Economic Letter* discusses the promises and limits of market discipline in banking.

### The promise of market discipline

In addition to the monitoring that regulators do, there are other sources of monitoring for banks. One is a corporate governance structure, which helps suppliers of finance to the bank assure themselves of getting a return on their investment. The typical governance structure includes oversight by the board of directors, timely disclosure of all relevant information to investors, and sets of covenants in the firm’s contracts with different claimants, such as its bondholders. Another source is market participants, who continuously monitor to protect their own financial interest in the firm. Their collective actions of buying and selling a bank’s securities in the financial market provide an independent assessment of the bank’s financial condition. In addition to securities holders, other market monitors specific to banks include uninsured depositors and counterparties in financial transactions, such as swaps and repurchase agreements.

There are two types of market discipline: direct and indirect. Direct market discipline refers to the control or influence all of these market participants have over a bank’s behavior, including decisions on investment, financing, and operations. Direct market discipline is exerted through a risk-sensitive financial instrument when a banking organization’s expected cost of issuing that instrument changes with the firm’s risk profile. To the extent that banks must issue debt on a fairly regular basis, direct market discipline often is thought of as exerted by debt-holders rather than by stockholders. Indeed, debt claims are in better alignment with the claims on the deposit insurance fund than equities and, hence, are more consistent with the regulator’s goal in exerting direct market discipline.

Indirect market discipline is pricing information from both the primary and the secondary markets of securities issued by the banking organization that provides a signal of the firm’s risk level. When those

market signals reflect an assessment of increased bank risk-taking, potential investors, uninsured depositors and liability holders, and other counterparties of the banking organization will demand higher returns on other bank instruments or additional collateral for certain credit transactions. If the level of bank risk-taking indicated by the market signal cannot be tolerated by market participants, they may limit their risk exposure by refusing to deal with the bank. Such signals also can be useful to regulators to assess the firm's risk level.

Among debt securities, some observers argue that subordinated notes and debentures (SNDs) are particularly well suited to exert both direct and indirect market discipline because they constitute one of the most junior of all bank debt instruments (see Federal Reserve 1999); that is, they are among the last debtholders in line to be made whole if the bank runs into trouble. As such, SND holders likely view a bailout in the event of bank failure as highly improbable, a view that is less likely to be held, for example, by uninsured depositors. Depositor preference laws also reinforce such views. Moreover, the conjunction of the Basel capital standards and current market practices have led to SNDs having quite a long maturity relative to other bank liabilities. Together, the long maturity and the junior status of SNDs suggest that their yields should be more sensitive to the perceived risk of the issuing banking company than yields on other liabilities.

For indirect market discipline, the signaling information from bank stocks has two advantages over the signaling information from bank debt securities. One advantage is data availability. Currently, the number of banking organizations that issue debt publicly, including both SNDs and Certificates of Deposit (CDs), is relatively small compared to the number that have publicly traded equities. The second advantage is data quality. Because the market for bank equities is more liquid and is covered by more professional analysts than the market for bank debt, stock prices tend to be more efficient than bond prices in reflecting firm-specific information. So, in terms of data availability and data quality, bank stocks are clearly better than bank debt for indirect market discipline. Market participants and regulators have been extracting information about bank risk from stock prices on a regular basis.

### **Limits and related policy concerns**

While the concept of market discipline is promising, a number of practical concerns require careful

consideration. At the top of the list is its impact on risk-taking. The intent of direct market discipline is to constrain a bank from taking on too much risk because the market imposes higher financing costs on riskier transactions. However, a profit-maximizing bank can be expected to trade off risk and return at the margin. Thus, higher financing costs would not necessarily constrain risk-taking per se if those costs could be fully compensated by a higher risk-adjusted return. So, a better way to think about direct market discipline is that the banking firm's financing costs would constrain it only from taking risk that is not properly priced. From this perspective, the usefulness of direct market discipline to banking regulators may be limited if the objective is to constrain risk-taking rather than to assess whether the risk is properly priced. This applies to the pricing of both debt and equity.

Next on the list is the relative scarcity of SNDs in the hands of market participants. This limits the value of SNDs in indirect market discipline—that is, in providing accurate signals to regulators about a bank's risk profile. Most of the SNDs issued by banks are held by the parent holding company and are not traded publicly. The few SNDs that are traded publicly are issued by bank holding companies rather than by banks. To the extent that banking regulators should be more concerned about the safety and soundness of the bank than of the holding company, market signals from the holding company's financial instruments would be inherently noisy, depending on the level of nonbanking activities in the banking organization. Moreover, targeting SNDs that are issued by bank holding companies may give the impression that banking supervisors also are concerned about the safety and soundness of the holding company, which might suggest to the market that the bank safety net also extends to the holding company's nonbank subsidiaries.

To address the relative scarcity of publicly traded bank SNDs, policymakers have proposed ways to increase banks' issuance of them. In fact, the Gramm-Leach-Bliley Financial Modernization Act of 1999 contains provisions that require large banks to have at least one issue of "high-quality, unsecured public debt outstanding," which essentially amounts to an SND. The Federal Reserve has studied the costs and benefits of a policy that includes, among other options, a mandatory requirement for the very large banks to issue SNDs on a regular basis (see Federal Reserve 1999). Over the years, a number of banking observers also have proposed SND policies that are even more ambitious, including one that calls

for a rate cap on bank SND yields to limit bank risk-taking, and another that allows more SNDs to be counted as bank capital in meeting regulatory capital requirements. However, a mandatory SND policy could be quite burdensome to banks, so it is not surprising that such a policy has been enacted only in a very limited way in Gramm-Leach-Bliley. As an alternative that would keep the focus of market discipline on banks rather than on the parent company, it may be useful to examine some other bank-issued financial instruments, such as large negotiable CDs. Currently, a number of large banks regularly issue large CDs that are traded in the money market. Although these instruments tend to have shorter maturity and are more senior than SNDs, their yields nonetheless respond to the underlying risk of the issuing bank rather than the holding company.

The third limiting issue is that market discipline works only for banks that issue publicly traded securities—that is, it works only when market prices are available. Thus, market discipline would not be applicable to community banks and small regional banks that do not issue these securities. This may be a minor issue, since one of the driving forces for embracing market discipline is to address the growing complexity of large banking organizations that could have systemic implications. Currently, all of these large complex banking organizations have some form of publicly traded securities outstanding. Finally, in order for market discipline to be effective, investors must have timely and accurate information. This requires a high degree of transparency and an effective disclosure policy at banking organizations. Policymakers are keenly aware of these requirements and are actively pursuing policies to enhance transparency and to improve disclosure in banking.

### Conclusions

Market discipline in banking is necessary to limit the scope of the federal safety net. The idea is

particularly attractive in light of the growing complexity of banking organizations. Market discipline is exerted when the pricing of bank securities reflects the bank's true underlying risk, which can limit bank risk-taking directly, through the debt issuance channel, or indirectly, when the secondary market prices convey to market participants and banking supervisors the true risk of the bank. However, the integration of further market discipline into the supervisory framework is not an absolutely straightforward proposition. In moving forward, policymakers must ensure that they limit the bank safety net so as to convince bank investors that their investments are at risk. In addition, they need to recognize that the market may not limit bank risk-taking *per se* but may simply price securities commensurate with their risk. Other policy considerations, such as the choice of financial instruments and efforts to improve transparency in banking are also crucial for making market discipline an effective supplement to U.S. bank supervision and regulation.

**Simon Kwan**  
**Research Advisor**

### References

[URLs accessed December 2002.]

Federal Reserve System. Study Group on Subordinated Notes and Debentures. 1999. "Using Subordinated Debt as an Instrument of Market Discipline." Staff Study 172, Board of Governors of the Federal Reserve System. <http://www.federalreserve.gov/pubs/staffstudies/1990-99/ss172.pdf>

Greenspan, Alan. 2001. "The Financial Safety Net." Remarks to the 37th Annual Conference on Bank Structure and Competition of the Federal Reserve Bank of Chicago, Chicago, IL (May 10). <http://www.federalreserve.gov/boarddocs/speeches/2001/20010510/default.htm>

ECONOMIC RESEARCH  
FEDERAL RESERVE BANK  
OF SAN FRANCISCO

PRESORTED  
STANDARD MAIL  
U.S. POSTAGE  
PAID  
PERMIT NO. 752  
San Francisco, Calif.

P.O. Box 7702  
San Francisco, CA 94120  
Address Service Requested

Printed on recycled paper  
with soybean inks



**Index to Recent Issues of *FRBSF Economic Letter***

<b>DATE</b>	<b>NUMBER</b>	<b>TITLE</b>	<b>AUTHOR</b>
5/31	02-17	Reforming China's Banking System	Moreno
6/14	02-18	Country Crises and Corporate Failures: Lessons for Prevention...	Glick
6/28	02-19	Towards a Sovereign Debt Restructuring Mechanism	Spiegel
7/5	02-20	Productivity in Heart Attack Treatments	Gowrisankaran
7/26	02-21	Trends in the Concentration of Bank Deposits: The Northwest	Laderman
8/2	02-22	Using Chain-Weighted NIPA Data	Jones
8/9	02-23	Technical Change and the Dispersion of Wages	Trehan
8/16	02-24	On the Move: California Employment Law and High-Tech Development	Valletta
8/23	02-25	Argentina's Currency Crisis: Lessons for Asia	Spiegel
9/06	02-26	The Role of Fiscal Policy	Walsh
9/20	02-27	Why Do Americans Still Write Checks?	Gowrisankaran
9/27	02-28	Japan Passes Again on Fundamental Financial Reform	Cargill
10/4	02-29	Can the Phillips Curve Help Forecast Inflation?	Lansing
10/11	02-30	Setting the Interest Rate	Marquis
10/18	02-31	Learning from Argentina's Crisis	Moreno
10/25	02-32	Stock Market Volatility	Krainer
11/8	02-33	Productivity in the Twelfth District	Wilson
11/15	02-34	Riding the IT Wave: Surging Productivity Growth in the West	Daly
11/22	02-35	Recent Trends in Unemployment Duration	Valletta

Opinions expressed in the *Economic Letter* do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco or of the Board of Governors of the Federal Reserve System. This publication is edited by Judith Goff, with the assistance of Anita Todd. Permission to reprint portions of articles or whole articles must be obtained in writing. Permission to photocopy is unrestricted. Please send editorial comments and requests for subscriptions, back copies, address changes, and reprint permission to: Public Information Department, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco, CA 94120, phone (415) 974-2163, fax (415) 974-3341, e-mail [sf.pubs@sf.frb.org](mailto:sf.pubs@sf.frb.org). **The *Economic Letter* and other publications and information are available on our website, <http://www.frbsf.org>.**