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Using CAMELS Ratings to Monitor Bank Conditions

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Bank supervisory agencies are responsible for monitoring the financial conditions of commercial banks and enforcing related legislation and regulatory policy. Although much of the information needed to do so can be gathered from regulatory reports, on-site examinations are needed to verify report accuracy and to gather further supervisory information. Much research has explored the value of this private information, both to the bank supervisors and to the public who monitor banks through the financial markets.

This *Economic Letter* selectively surveys this literature, focusing mainly on studies using CAMELS ratings. These supervisory ratings are assigned at the end of exams and are directly disclosed only to senior bank management and to the appropriate supervisory personnel. CAMELS ratings are commonly viewed as summary measures of the private supervisory information gathered by examiners regarding banks' overall financial conditions, although they also reflect available public information.

The general consensus in this literature is that the private supervisory information contained in CAMELS ratings is useful in the supervisory monitoring of banks. Furthermore, to the extent that this information filters out into the financial markets, it appears to affect the prices of bank securities. Thus, private supervisory information in CAMELS ratings also appears to be useful in the public monitoring of banks.

What are CAMELS ratings?

During an on-site bank exam, supervisors gather private information, such as details on problem loans, with which to evaluate a bank's financial condition and to monitor its compliance with laws and regulatory policies. A key product of such an exam is a supervisory rating of the bank's overall condition, commonly referred to as a CAMELS rating. This rating system is used by the three federal

banking supervisors (the Federal Reserve, the FDIC, and the OCC) and other financial supervisory agencies to provide a convenient summary of bank conditions at the time of an exam.

The acronym “CAMEL” refers to the five components of a bank’s condition that are assessed: Capital adequacy, Asset quality, Management, Earnings, and Liquidity. A sixth component, a bank’s Sensitivity to market risk, was added in 1997; hence the acronym was changed to CAMELS. (Note that the bulk of the academic literature is based on pre-1997 data and is thus based on CAMEL ratings.) Ratings are assigned for each component in addition to the overall rating of a bank’s financial condition. The ratings are assigned on a scale from 1 to 5. Banks with ratings of 1 or 2 are considered to present few, if any, supervisory concerns, while banks with ratings of 3, 4, or 5 present moderate to extreme degrees of supervisory concern.

All exam materials are highly confidential, including the CAMELS. A bank’s CAMELS rating is directly known only by the bank’s senior management and the appropriate supervisory staff. CAMELS ratings are never released by supervisory agencies, even on a lagged basis. While exam results are confidential, the public may infer such supervisory information on bank conditions based on subsequent bank actions or specific disclosures. Overall, the private supervisory information gathered during a bank exam is not disclosed to the public by supervisors, although studies show that it does filter into the financial markets.

CAMELS ratings in the supervisory monitoring of banks

Several academic studies have examined whether and to what extent private supervisory information is useful in the supervisory monitoring of banks. With respect to predicting bank failure, Barker and Holdsworth (1993) find evidence that CAMEL ratings are useful, even after controlling for a wide range of publicly available information about the condition and performance of banks. Cole and Gunther (1998) examine a similar question and find that although CAMEL ratings contain useful information, it decays quickly. For the period between 1988 and 1992, they find that a statistical model using publicly available financial data is a better indicator of bank failure than CAMEL ratings that are more than two quarters old.

Hirtle and Lopez (1999) examine the usefulness of past CAMEL ratings in assessing banks’ current conditions. They find that, conditional on current public information, the private supervisory information contained in past CAMEL ratings provides further insight into bank current conditions, as summarized by current CAMEL ratings. The authors find that, over the period from 1989 to 1995, the private supervisory information gathered during the last on-site exam remains useful with respect to the current condition of a bank for up to 6 to 12 quarters (or 1.5 to 3 years). The overall conclusion drawn from academic studies is that private supervisory information, as summarized by CAMELS ratings, is clearly useful in the supervisory monitoring of bank conditions.

CAMELS ratings in the public monitoring of banks

Another approach to examining the value of private supervisory information is to examine its impact on the market prices of bank securities. Market prices are generally assumed to incorporate all available public information. Thus, if private supervisory information were found to affect market prices, it must also be of value to the public monitoring of banks.

Such private information could be especially useful to financial market participants, given the informational asymmetries in the commercial banking industry. Since banks fund projects not readily financed in public capital markets, outside monitors should find it difficult to completely assess banks’ financial conditions. In fact, Morgan (1998) finds that rating agencies disagree more about banks than about other types of firms. As a result, supervisors with direct access to private bank information could generate additional information useful to the financial markets, at least by certifying that a bank’s

financial condition is accurately reported.

The direct public beneficiaries of private supervisory information, such as that contained in CAMELS ratings, would be depositors and holders of banks' securities. Small depositors are protected from possible bank default by FDIC insurance, which probably explains the finding by Gilbert and Vaughn (1998) that the public announcement of supervisory enforcement actions, such as prohibitions on paying dividends, did not cause deposit runoffs or dramatic increases in the rates paid on deposits at the affected banks. However, uninsured depositors could be expected to respond more strongly to such information. Jordan, et al., (1999) find that uninsured deposits at banks that are subjects of publicly-announced enforcement actions, such as cease-and-desist orders, decline during the quarter after the announcement.

The holders of commercial bank debt, especially subordinated debt, should have the most in common with supervisors, since both are more concerned with banks' default probabilities (i.e., downside risk). As of year-end 1998, bank holding companies (BHCs) had roughly \$120 billion in outstanding subordinated debt. DeYoung, et al., (1998) examine whether private supervisory information would be useful in pricing the subordinated debt of large BHCs. The authors use an econometric technique that estimates the private information component of the CAMEL ratings for the BHCs' lead banks and regresses it onto subordinated bond prices. They conclude that this aspect of CAMEL ratings adds significant explanatory power to the regression after controlling for publicly available financial information and that it appears to be incorporated into bond prices about six months after an exam. Furthermore, they find that supervisors are more likely to uncover unfavorable private information, which is consistent with managers' incentives to publicize positive information while de-emphasizing negative information. These results indicate that supervisors can generate useful information about banks, even if those banks already are monitored by private investors and rating agencies.

The market for bank equity, which is about eight times larger than that for bank subordinated debt, was valued at more than \$910 billion at year-end 1998. Thus, the academic literature on the extent to which private supervisory information affects stock prices is more extensive. For example, Jordan, et al., (1999) find that the stock market views the announcement of formal enforcement actions as informative. That is, such announcements are associated with large negative stock returns for the affected banks. This result holds especially for banks that had not previously manifested serious problems.

Focusing specifically on CAMEL ratings, Berger and Davies (1998) use event study methodology to examine the behavior of BHC stock prices in the eight-week period following an exam of its lead bank. They conclude that CAMEL downgrades reveal unfavorable private information about bank conditions to the stock market. This information may reach the public in several ways, such as through bank financial statements made after a downgrade. These results suggest that bank management may reveal favorable private information in advance, while supervisors in effect force the release of unfavorable information.

Berger, Davies, and Flannery (1998) extend this analysis by examining whether the information about BHC conditions gathered by supervisors is different from that used by the financial markets. They find that assessments by supervisors and rating agencies are complementary but different from those by the stock market. The authors attribute this difference to the fact that supervisors and rating agencies, as representatives of debtholders, are more interested in default probabilities than the stock market, which focuses on future revenues and profitability. This rationale also could explain the authors' finding that supervisory assessments are much less accurate than market assessments of banks' future performances.

In summary, on-site bank exams seem to generate additional useful information beyond what is publicly available. However, according to Flannery (1998), the limited available evidence does not support the

view that supervisory assessments of bank conditions are uniformly better and more timely than market assessments.

Conclusion

The academic literature effectively shows that CAMELS ratings, as summary measures of the private supervisory information gathered during on-site bank exams, do contain information useful to both the supervisory and public monitoring of commercial banks. A relevant policy question is whether supervisors might benefit by disclosing CAMELS ratings to the public. Such disclosure could benefit supervisors by improving the pricing of bank securities and increasing the efficiency of the market discipline brought to bear on banks. As argued by Flannery (1998), market assessments of bank conditions compare favorably with supervisory assessments and could improve with access to supervisory information. However, although supervisors could benefit from such improved public monitoring of banks, the costs to the current form of supervisory monitoring must also be considered. For example, if CAMELS ratings were made public, the current information-sharing relationship between examiners and bankers could change in a way that adversely affects supervisory monitoring. Further research and debate on this question is currently needed.

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