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Christopher P. Beshouri
US Office of Comptroller of the Currency

Peter J. Nigro
US Office of Comptroller of the Currency

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Securitization of Small Business Loans

Christopher P. Beshouri Peter J. Nigro

This paper assesses the potential impact of securitization in improving small businesses' access to credit. It begins by examining the nature of small business lending and the factors that make banks the primary providers of credit to small businesses. The paper then examines the conditions under which the benefits of securitization are fully realized and whether the nature of small business lending satisfies those conditions. We argue that certain characteristics of small firm finance, especially information problems and the need for ongoing monitoring, are likely to mitigate the full benefits of securitization, that is, the substantial funding cost advantages. Specifically, loan buyers will demand substantial levels of loss protection to compensate for their uncertainty over the returns on the underlying credits and to leave intact the seller's incentive to monitor properly the loans sold. Loss protection, however, will reduce or eliminate any funding cost advantages, including capital cost reductions. In the absence of lower funding costs, banks are unlikely to undertake substantial new lending to small businesses. Securitizations of small business loans could still take place, but they are likely to be undertaken for special purposes rather than as a primary funding mechanism.

I. Introduction

The critical role of small firms in the U.S. economy, particularly as the primary creators of jobs, is often used as justification for government intervention in the small business sector. This intervention has appeared in numerous forms: tax incentives, streamlined regulatory and supervisory procedures, and loan guarantees. Recent research has examined the role of small firms in the U.S. economy in an effort to bring about more effective government intervention and to clarify the basis for those interventions. For example, while SBA reports show that small firms, especially those with fewer than 20 employees, were responsible for all *net job growth* between 1988 and 1990, other studies, such as Davis, Haltiwanger, and Schuh (1994)

Christopher P. Beshouri and Peter J. Nigro • Senior Financial Economists, Economics and Evaluation Division, Office of the Comptroller of the Currency, 250 E. ST SW, Washington, DC 20219.

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have shown that there is no clear relationship between *net job growth* and employer size over longer periods of time. Their study also argues that many of the new jobs created by small firms are in the service sector, where job quality and wages tend to be lower. Such studies do not invalidate the policy focus on small firms, but they do indicate that a clearer and more sophisticated understanding of small business economics is needed to make informed policy choices.

Small firms' access to credit has been central to the public policy debate. Recently, policymakers have been considering measures to increase the flow of credit to small firms, in particular the development of a secondary market for small business loans. Most legislative initiatives insinuate that small business loan securitization will enhance the marketability of small business loans, permitting banks to make more small business loans and quickly sell them off to other investors. Using mortgage loans as a guide, they argue that the development of a secondary market would permit specialization in origination, servicing, and funding of small business loans by the most efficient financial intermediary. Furthermore, the act of pooling and offering loans for sale in a secondary market would help take small business funding from the narrower bank market to the broader and deeper capital markets. The combination of nonbank participants in credit delivery and the use of securitization of loans to tap the capital markets would, the reasoning goes, lead to more credit or cheaper credit or both for small businesses.

However, we argue that the nature and magnitude of the benefits of securitization will vary according to the type of asset being securitized. Securitization is likely to deliver substantial benefits when the underlying credits are relatively easy to assess and require little post-funding monitoring. When information and monitoring problems are substantial, however, the benefits of securitization are likely to be minimal. In assessing securitization as a solution to the credit problems facing small firms, it is important to understand the specific nature and attributes of small business lending. In particular, there are two prominent characteristics associated with small firms: the shortage of reliable information about their risks and returns and the importance of ongoing monitoring in delivering expected loan returns. These obstacles have not been present or have been small in magnitude for assets that have been successfully securitized.

Because of the shortage of reliable information and the need for ongoing monitoring, purchasers of small business loans will demand that the seller provide relatively high levels of loss protection. Investors will seek high levels of loss protection to compensate for their inability to estimate with confidence the risks and returns of the underlying assets and to keep intact the seller's incentive to monitor properly the loans sold. The eco-

nomic effect of providing loss protection is that the selling bank essentially is unable to shed fully the risk of the loans it has sold, thereby mitigating some of the benefits of the loan sale. As the level of loss protection provided by the seller rises, the benefits to the seller from the loan sale fall. The need for the provision of loss protection also limits the entry of nonbank originators into the small business lending market.

This does not mean that securitizations of unguaranteed small business loans will not take place. They already have taken place, and will continue to take place. But we argue that they will be few in number, will involve the top-end of the small business loan market, and will carry substantial levels of loss protection. The few small business loan securitizations to date have in fact carried substantial levels of loss protection.

These conclusions about the limited benefits of securitization in this area assume that in general banks have made and are holding as many small business loans as they desire; that is, banks do not face a funding constraint. However, if funding is a problem, and if securitization can lower funding costs, then securitization—even when the selling bank provides substantial loss protection—becomes more beneficial. Specifically, there may be banks that want to make and hold additional loans but forgo these (profitable) lending opportunities because they find deposit generation too expensive. Such banks would presumably be willing to hold the first-loss position on loans they sell, if by so doing they can generate affordable funding through the capital markets for unexploited small business lending opportunities. Under these circumstances—where funding is a problem and banks would be willing to take on additional risk-securitization holds out more promise. Note however, the nature of such transactions: the selling bank retains a substantial portion of the underlying credit risk on the loans it sells, and the transaction does not generate capital cost savings. The funding benefits are relative to deposit generation. Unless funding problems are widespread, the retention of credit risk--and the associated diminution of capital cost savings-will prevent securitization from having the impact in small business lending that it has had elsewhere.

Public and private initiatives to promote a secondary market for small business loans specifically, and a higher level of lending to small firms generally, must take these characteristics of small business lending into account, both in the design of the initiatives and in the assessment of the potential impact of those initiatives. Of course, if a securitization program is preceded by or developed simultaneously with some type of federal or state loan guarantee or credit enhancement program, then the amount of credit available to smaller firms would likely increase. It is critical to

emphasize, however, that the increase in small business lending would follow largely from the guarantee, not the presence of a secondary market.

The rest of the paper is organized as follows. Section II examines the nature of small business finance and small businesses' primary sources of credit and other financial services. Section III summarizes the relationship between sources of funding and the severity of information and monitoring problems by analyzing a firm's ability to tap different types of debt markets. Section IV analyzes the types and potential benefits of securitization. Section V provides support for our hypothesis by examining the characteristics and benefits of small business securitizations that have been completed. Section VI provides conclusions.

II. THE NATURE OF SMALL BUSINESS LENDING

Information problems and the need for ongoing monitoring by the lender/investor are at the root of the credit availability problems of small firms. The lack of information and the heterogeneity of small firms makes their success difficult to predict. Small business borrowers are also likely to require direct, intensive monitoring by their lenders because of scarcity of collateral, absence of reputation, and the nature of the credit purpose. This section evaluates the characteristics of small firm finance and the impact that information problems and monitoring can have on a firm's access to credit.

A. Information Problems and Small Business Borrowers

The most common explanation given for small firms' credit availability problems is the scarcity of information available to investors about project quality, financial soundness, or probable losses. Many small firms also lack marketable collateral or have marginal net worth. Start-up firms experience the most trouble, since they often have little beyond a business plan to show to a prospective lender, and many creditors typically require three years of financial statements from credit applicants. General information about small firms, or the industry in which the firm operates may help, but aggregated data is not a dependable indicator of the credit quality of other small business borrowers, because the prospects of small firms can vary dramatically, even within the same business line. The heterogeneity of these borrowers also makes it difficult to develop uniform underwriting standards. Lacking uniform underwriting standards, lenders are limited in their ability to use less expensive, automated credit-scoring methods for loan processing.

The alternative for lenders is to expend additional resources to discover the true creditworthiness of a small business borrower. For example, loan officers at South Shore Bank in Chicago, an institution specializing in loans to information-problematic borrowers like small businesses, routinely drive through their neighborhoods, examining neighboring properties and developing links to community and business groups. These efforts provide additional market-specific and borrower-specific information that might not be available through the standard loan application process. Lenders can also provide complementary services that might raise the likelihood that the lender is repaid, such as technical assistance programs, basic business guidance, or financial counseling. But while these services may enhance the lender's ability to evaluate creditworthiness or increase the probability of repayment, they raise the lender's costs and thus make the loan less profitable.

Operating expenses would be an important issue for lenders even if small business borrowers were not information-problematic. Smaller loans provide a smaller base over which to spread the fixed costs of lending, regardless of information availability. One estimate puts a typical bank's per-loan-dollar operating expenses for small business loans at 300 basis points, roughly four times the per-loan-dollar expense of middle-market loans and about 15 times higher than the per-loan-dollar expense of loans in the large, corporate market.²

B. Agency Problems and the Need for Monitoring

Small business lending costs are also higher because lenders typically must directly monitor borrowers on an ongoing basis. The need for monitoring arises out of the familiar agency problem or problem of moral hazard in lending: Once borrowers secure funds, they may take actions that do not maximize the probability of loan repayment. Consequently, lenders monitor borrowers directly or indirectly in an effort to control the agency problem, that is, to influence the borrower's attitude toward risk. Monitoring, which is distinct from servicing, involves paying close attention to firm-specific attributes such as investment policy, use of other credit, management changes, personnel changes, strategic plans, and project choices (see, e.g., Mester, 1992). The borrower's behavior in these areas can affect the variability of the firm's cash flow, which is the primary source of loan repayment. Monitoring is undertaken to restore or maintain compatibility between the actions of the borrower and the interests of the lender, and thereby minimize cash flow variability.

Lenders could, of course, choose to ignore the agency problem and not monitor. But if there is a relationship between monitoring and borrower behavior, and a subsequent relationship between borrower behavior and firm profitability, then there is a clear relationship between monitoring and loan returns. Therefore, neglecting monitoring when it is required implies that the volatility of loan returns will rise while the level of returns falls (see, e.g., Pennachi, 1988).

Generally, lenders will prefer indirect mechanisms to monitor borrower behavior, since such mechanisms typically entail lower costs than direct, ongoing monitoring. A common indirect monitoring mechanism is the loan-to-value (LTV) ratio. Maintaining an LTV ratio less than one is meant to put a sufficient level of borrower wealth at risk such that the borrower's incentives approximate those of the lender. One other indirect monitoring mechanism worth noting is reputation, which can ease the need for direct monitoring by acting as a form of collateral. Firms with reputation have less incentive to take excessive risks because their behavior toward a single lender can impact their relationship with other creditors and suppliers. The cost of directly monitoring firms will also fall if the firm has multiple creditors or if the firm's debt or equity trades publicly. In these cases, a number of different agents, such as rating agencies and stock analysts, typically cross-monitor the firm, which lowers the monitoring costs absorbed by any single agent (see Booth, 1992).

Covenants are an effort to mitigate the agency problem "contractually" by bonding the borrowers to observable and verifiable performance and operating criteria. A common covenant is a maximum debt-service-toincome ratio, which is meant to keep the firm's accumulation of additional debt at a level the lender considers manageable. Other common covenants may bond borrower behavior toward the maintenance and liquidation of assets-in-place. It is important to note, however, that covenants are not viable in cases such as general purpose or working capital loans. Because of the indeterminate nature of the credit need, the lender would be left to bond borrower behavior toward investment policy, strategic plans, project choice, or managerial compensation (see Booth, 1992). Behavior in these areas has a distinct impact on the likelihood of repayment, but the borrower's actions are not clearly observable and verifiable ex ante, or even contemporaneously. Such actions might be inferred from ex post outcomes, if there is sufficient information regarding expected returns to a borrower or a borrower's line of business. However, the creditor cannot influence the firm's decisions after the fact. Consequently, covenants are limited in their usefulness, and probably least effective when the loan proceeds are for an indeterminate purpose.

Although agency problems and the associated need for monitoring are common concerns in finance, they are especially prominent in small firm finance. Small firms, especially start-ups, lack many of the characteristics that naturally help alleviate the agency problem in business lending. Their net worth is thin, limiting the loss protection that their own equity can provide and thus the amount of credit they can secure. If small firms have collateral, often it is not easily marketable or firm-specific. Consequently, repayment of loans to small firms rests primarily on expected future cash flow, which is directly influenced by the borrower's actions.

Furthermore, small firms also rely more heavily on general purpose credit, such as lines of credit, than on borrowings for assets-in-place, both in terms of volume and number of transactions (see Table 1).³ Because general purpose credit cannot be tied directly to a set of assets, monitoring these types of loans is not easily achieved through covenants or other contractual features. Equally important, small firms also often lack reputation, which indicates that there is limited public information available about them. The lack of information suggests that there will be a shortage of third party monitors, and the full monitoring costs will fall on a single agent. This often leads to the establishment of a relationship with a specific lender, which can substitute for reputation. However, such a relationship is built over time and is not easily transferable.

Taken together, the characteristics of small firm borrowers and the purposes for which they need credit limit the usefulness of indirect monitoring mechanisms. Consequently, lenders must resort to more expensive direct monitoring of small business borrowers. Because this form of monitoring is more costly, the profitability and thus attractiveness of small business lending falls.

C. The Role of Banks in Small Firm Finance

The information costs associated with borrower screening have long been viewed as a rationale for the existence of financial intermediaries. Because the price mechanism does not provide a perfect screening device, lenders will instead base credit decisions on imperfect, nonprice mechanisms, such as referrals, relationships, or exacting underwriting standards.⁴ Although these screening mechanisms can be effective, they are also costly.

Diamond (1984) argued that financial intermediaries arise as a consequence of these screening costs. To avoid duplication of effort, and to lower their individual costs, investors will form coalitions or designate a single agent to perform the screening function for them. A coalition or intermediary can achieve economies of scale in information production and pro-

Most Recent Loan Chained by 111m, 1507-1500				
Loan Type	Percent	Mean in Thousands	Median in Thousands	
Line of Credit	30	\$679	\$100	
Mortage	14	\$335	\$120	
Motor Vehicle	28	\$ 33	\$ 12	
Equipment	15	\$ 63	\$ 26	
Other	11	\$282	\$ 35	

Table 1
Most Recent Loan Obtained by Firm, 1987-1988

Source: Federal Reserve Board of Governors, 1988.

cessing that investors cannot obtain individually (see also Ramakrishnan & Thakor, 1984). These coalitions also deliver diversification benefits to investors.

This literature, however, does not provide for an explicit relationship between the bank's advantage in information production and the inherent nature of the bank itself. The bank's advantage instead arises largely out of its choice to specialize in information production. This assumption implies that any nonbank entity could make the same choice and become competitive with banks in the bank loan market. Furthermore, the early literature viewed information production as taking place at loan origination, resuming only in the event of borrower default, suggesting no significant relationship between monitoring and loan returns.

More recent literature on the theory of the banking firm argues that financial intermediaries form not just because they can achieve economies of scale in information production and processing, as suggested above, but because they have a competitive advantage in borrower monitoring that arises from their provision of transactions services (Nakamura, 1991, 1993). Like screening, monitoring involves fixed costs, and investors find it economical to delegate monitoring to a central agent. However, banks have an advantage over nonbanks in generating information to monitor loans because of their exclusive access to the cash flow information contained in transactions accounts kept with the bank. Such cash flow information is valuable because changes in cash flow can signal changes in borrower quality.

This information base cannot be duplicated by a nonbank competitor unless that competitor provides unrestricted transactions accounts to borrowers (i.e., it mimics a bank). Alternatively, borrowers seeking nonbank credit could attempt to communicate the same cash flow information tononbank investors, and thereby erode the bank's exclusive advantage. Nonbank investors, however, would have no ability to verify the information

borrowers provide, and banks would have no incentive to confirm or deny the information for the benefit of these nonbank investors. To do so would erode the banks' own competitive position. Nakamura also points out that this exclusivity is more likely for small or medium-sized firms that operate in a limited geographical vicinity; smaller firms are more likely than larger firms to channel all of their financial activity through a single bank or branch.⁵

Other studies extend this line of reasoning by arguing that a bank's unique ability to monitor arises over time as the borrower and lender develop an intimate and continuing business relationship. This relationship allows the firm to communicate key aspects of its operation to banks, aspects that may be observable by the capital and money markets, but are difficult to verify. Rajan (1992), for example, refers to an information set that includes not only cash flow patterns, but also information on project targets, strategic planning, and quality of personnel. Such information becomes verifiable by outsiders only ex post, beyond the point where any actions could be taken to influence the firm's decisions.

Carey, Prouse, Rey, and Udell (1993) emphasize the agency and monitoring problems in explaining the existence of financial intermediaries in what they call the "covenant-monitoring-renegotiation" (CMR) paradigm. In this formulation, banks establish specific covenants in their financial contracts with borrowers that are intended to control borrower behavior. Banks then produce information on an ongoing basis to monitor adherence to covenants. Breaches in covenants lead to foreclosures or renegotiations. The CMR paradigm underscores the value of relationship and renegotiation in a bank-debt contract relative to a nonbank debt contract.

Lumner and McConnell (1989) test the implications of monitoring- and relationship-based theories of financial intermediaries by examining the information content in bank loan decisions. They show that although such decisions have a positive impact on the stock returns of borrowing firms, this impact is only significant for renewals of credit arrangements. New loans—loans to applicants having no history with the lender to which they are applying—do not produce significant excess returns to the firm's stock. This finding suggests a time-dependency in the bank's comparative advantage in producing information for monitoring.

Table 2 provides some evidence on the reliance of small firms on banks for credit and for other financial services, such as transaction accounts. Furthermore, the clustering of services at banks by small-businesses enhances the bank's access to information unavailable to other financial institutions, and allows them to monitor closely users of funds on an ongoing basis. Overall, the information and monitoring advantage of banks enhances

Table 2
Financial Services Provided to Small- and
Medium-Sized Firms by Banks and Nonbanks

	Commercial	
Financial Service	Bank (%)	Nonbank (%)
Checking	95	8
Savings	82	27
Credit	81	42
Leasing	31	76
Line of Credit	92	11
Mortgage	79	24
Motor Vehicle Loan	61	46
Equipment Loan	75	31
Other Loan	80	24
Other	94	14
Transactions	96	8
Cash Management	93	7
Credit Related	89	14
Brokerage	12	88
Trust	96	8

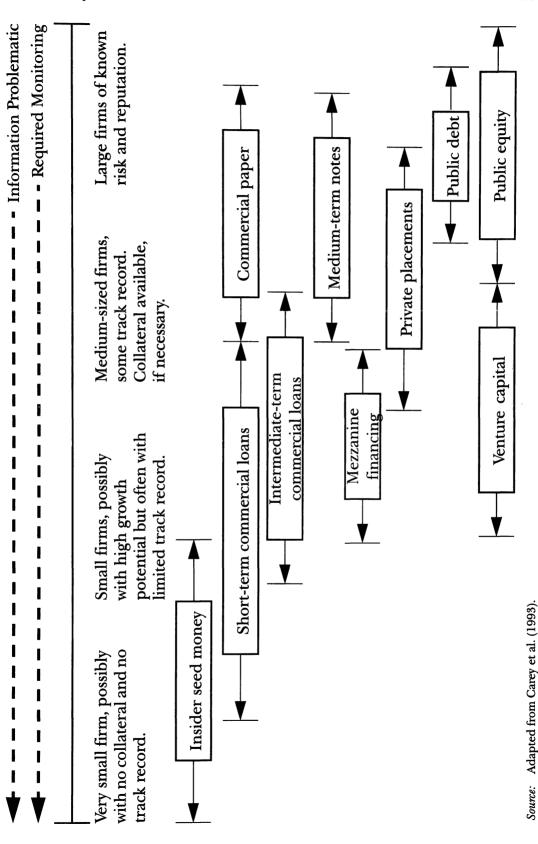
Source: Gary Elliehausen and John D. Wolken (1990).

their ability relative to nonbanks to evaluate, price, and control risk of information-problematic and monitoring-intensive borrowers.

III. DEBT MARKET MIGRATION

Banks are the primary source of funds for small firms, as the foregoing argues, because banks can most efficiently solve the information and monitoring problems these borrowers present. By extension, the severity of information problems and the amount of direct monitoring required should help determine any firm's funding options and terms. Size also plays a prominent role. Scheme 1 summarizes the relationship between the source of funding and the severity of information problems and degree of monitoring required. In an arrangement adapted from Carey et al. (1993), firms are arrayed across two spectrums: "information problematic" and "direct monitoring required." Moving from left to right, information problems (regarding the creditworthiness of borrowers) become less and less severe. Similarly, the degree of direct monitoring required decreases from





left to right. In other words, the latitude to use indirect monitoring mechanisms increases.⁶

Size may influence debt market migration independent of information and monitoring problems. For example, a single residential mortgage may be an excellent credit, but too small for the appetite of the capital markets. Similarly, a high-grade small firm with stellar reputation offering an asset-based debt instrument may not attract capital market attention simply because of size. Size can be an inhibiting factor because of due diligence costs. Due diligence costs have a significant fixed component, so investors have the incentive to spread these costs over larger investments.

Table 3 shows for manufacturing firms how sources of credit can vary by firm size. Of the smallest manufacturing firms, 41 percent draw their funding from banks, compared to 17 percent for the largest manufacturing firms. However, the data also reveal that reliance on bank loans neither increases nor decreases monotonically across size classes, consistent with expectations (see Figure 1). Reliance on bank loans *increases* from 41 percent to 50 percent as the asset size of the firm rises from less than \$5 million to between \$25 million and \$50 million, and then *decreases* to as low as 17 percent for the largest firms. Use of total nonbank debt displays a mirror image pattern: reliance on nonbank debt *decreases* from 28 percent for the smallest firms to near 20 percent for the next few size classes, and then steadily *increases* until it reaches 65 percent for the firms with more than \$1 billion in assets. The retention rate follows a fairly steady corresponding downward path across all of these asset size classes, falling from 80 percent for the smallest firms to 29 percent for the largest.

The manufacturing firm data are consistent with life-cycle patterns of financing. Small firms initially rely on insider debt (such as borrowings from relatives), assets in their private portfolio, accrued expenses, trade credit, or retained earnings for ongoing finance (see, e.g., Fazzari, Hubbard, & Petersen, 1987; Walker, 1989). Over time, firms may migrate out of costly nonbank debt and into bank loans as they grow larger and develop a track record (see Walker, 1989). At the most mature stage of the cycle, where they have developed reputations as credible bank borrowers, firms may gain greater access to cheaper, more exclusive sources of capital.

The assumption is that borrowers desire to migrate from the smallest, least liquid, and presumably most expensive sources of credit to the larger, deeper, and cheaper credit markets as their creditworthiness becomes more transparent and as the cost of monitoring the firms declines. This assumption of migration between debt markets is consistent with life-cycle analyses of small firms (see Walker, 1989) and firms of all sizes (see Churchill & Lewis, 1983). Diamond (1991) shows that as firms develop

Table 3
Select Sources of Funds for all Manufacturing
Industries Average from 1986 to 1993

	Total Debt Provided by (%)					
Size Class	Banks	Other Institutions	Trade Accounts & Trade Notes Payable	Row Total	Relative Total*	Retention Rate**
<\$5 million	41	26	33	100	5	80
\$5-\$10 million	48	20	31	100	2	76
\$10-\$25 million	50	21	30	100	3	72
\$25-\$50 million	50	23	27	100	3	78
\$50-\$100 million	47	28	25	100	3	78
\$100-\$250 million	44	34	22	100	5	60
\$250M-\$1B	36	45	19	100	13	49
>\$1B	17	64	19	100	13	49
All size classes	25	53	21	100	100	68

Notes:

Source: Quarterly Financial Reports of the Census (1986-1993).

reputation their access to the direct finance market increases. This pattern suggests that there are preconditions to debt market migration. Ramakrishnan and Thakor (1984) formalize the decision for the borrower as a choice between directly signaling its quality to investors and indirectly signaling quality by contracting debt through a financial intermediary. Here, the borrower will choose the signalling process that involves lower costs. Signalling costs can vary by numerous factors including borrower size, industry, age, and collateral.

Other types of costs may also prompt firms to choose direct finance over bank-intermediated debt when possible. Rajan (1992) argues that bank-intermediated debt becomes onerous and wealth-extracting because of the access and control over the firm that the bank's relationship with the borrower provides. As a consequence, borrowers will migrate to other sources of finance whenever possible. However, Carey et al. (1993) qualify this line of argument by pointing out that the greater ability to renegotiate bank debt has value that compensates for some of its higher direct and indirect costs. For this reason, firms with access to the direct finance market might instead choose a large, syndicated bank loan.

^{*}Relative total is total funds to a size class, excluding retained earnings, as a percent of total funds to all firms.

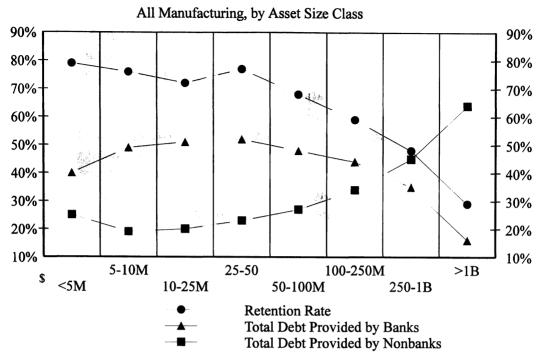
^{**}Retention rate is net after-tax income not distributed as dividends as a percent of total after-tax-income.

IV. SECURITIZATION

Securitization is the process of bundling existing loans into pools and issuing new financial claims against those pools. These new financial claims can have denomination, maturity, and risk characteristics that are either *identical* to or *different* from those of the underlying loans, depending upon the purposes of the securitization and the perceived preferences of investors. During the past two decades, securitization has been successfully utilized in certain sectors and has revolutionized some areas of financial intermediation, beginning with mortgages in the 1970s, and spreading to other assets such as automobile loans and credit card receivables in recent years. The ability of securitization to transform seemingly illiquid assets into easily marketable securities has lead to substantial benefits for the borrower, lender, and investor.

Securitization can be viewed as a vehicle allowing once bank-dependent borrowers to migrate to the public debt markets. Based on the above discussion, and as depicted in Figure 1, select borrowers can accomplish such migration only when important information, monitoring, and size criteria are met. Pooling solves the size problem. Technological advances have eased the information problems, allowing for the accumulation and analysis of enormous amounts of loan performance information. It is now relatively affordable for third-party investors to evaluate through due diligence the expected performance of the credits that underlie a securitization. Such efficiency gains have diminished one of the key motives for forming "financial coalitions" in the first place: the reduction of transactions costs to individual investors.

Achieving transactions cost reductions relies on more than just technology, however. The ability to utilize sampling techniques on the target portfolio is also a critical factor in lowering due diligence costs. In a sufficiently large pool of small credits, investors can randomly sample the loans, rather than evaluate all of them, without compromising the credit analysis. Due diligence costs would be prohibitive otherwise. This reliance on sampling assumes some degree of homogeneity in the underlying credits, not only in terms of the underwriting standards that they satisfy, but also in performance characteristics. Transactions costs for the investor are also reduced to some extent by professional rating agencies, which provide verification of the observed quality of the underlying credits. Rating agencies also help size the credit enhancements or "loss protection" that the underlying credits will require before the associated securities will command the attention of investors.



Source: U.S. Bureau of the Census (1986-1993).

Figure1
Quarterly Financial Data

Because of the nature of the credits that have been securitized in volume to date, direct post-credit monitoring has not been a problem needing resolution. Nearly all of the credits that have been securitized in volume have been asset-backed, except for credit card receivables and accounts receivable. Credit card receivables, however, generate an excess spread to protect investors from losses. Securitized accounts receivable deals have involved large, well-known corporations, short-term maturities, and substantial overcollateralization (loss protection).

It is important to emphasize that although securitization can provide a vehicle to move intermediated loans into the capital markets, it cannot by itself resolve underlying information and monitoring problems. Individual loans that are information- and monitoring-problematic before the securitization will be no less so after the securitization. Securitization is an information-consuming technology, not an information-generating one. Consequently, securitization delivers the most benefits when the credits in the pool have few information or monitoring problems or, if substantial problems are present, when inexpensive loss protection is available.

For loan types with few such problems, the potential benefits of securitization are numerous, including increased asset liquidity, improved allocation of risk, a higher level of investment in the affected sector, and, for banks, a reduction in regulatory capital and reserve requirements. Furthermore, by allowing for a separation of loan origination, loan funding, and loan servicing, securitization allows market participants to play to their strengths. The net effect of these benefits is lower prices or an increase in the general level of investment in the affected sector or both. Arguments for how and why these potential benefits emerge are numerous and compelling; the principal ones are outlined in the next section. Subsequent sections analyze why such benefits are unlikely when information and monitoring problems have not been resolved.

A. The Benefits of Securitization

Securitization could raise overall investment by channeling funds between informationally segmented banking markets. Segmentation results because banks in one region have better information about the local economy and potential borrowers than do banks from other regions. Banks in one community may not be willing, therefore, to make loans to borrowers in another, simply because they are unable to properly evaluate the credit-worthiness of those borrowers. Profitable projects in one region may go unfunded, while marginally profitable projects in other regions receive funds.

The underlying premise here is that opportunity-rich banks face a funding or deposit constraint but view an expansion of the deposit base as a costly option. The crucial implication of this premise is that banks are willing to accept the risk of additional loans—would make and hold more loans—if they had funding available. Securitization provides a means of resolving the liquidity constraint by tying the constrained banks to capital/deposit resources in another community. Through the vehicle of securitization, capital-surplus or deposit-surplus banks in regions with limited lending opportunities could purchase loans made by capital-constrained or deposit-constrained banks in regions with abundant lending opportunities (see Boyd & Smith, 1989; or Carlstrom & Samolyk, 1994). By linking previously segmented markets, securitization would provide borrowers with funding opportunities that did not previously exist.

Lower prices and/or higher quantities of credit may result for the affected borrowers—such as buyers of homes or small business owners—as securitization allows banks to tap a broader funding base than is available through the more restricted demand deposit market. Securitization can

lower funding rates in many ways. Investors outside the bank's local deposit market may have a greater tolerance for interest rate and credit risk, and these investors may have maturity preferences that directly match those of the assets being funded. Further benefits can arise from the opportunities for portfolio risk management achieved by expanding the number of loans in the pool to achieve both geographic and industry diversification.

The transformation of denominations and maturities made possible through securitizations can also further improve risk-sharing beyond that achieved by tapping into a broader funding base. Securitizations typically involve multi-tranche or multi-class securities, which allow investors to hold claims against specific bank assets, with credit risk varying across each tranche.⁷ The most risk-averse investors would purchase the senior claims, whereas those with less risk-aversion can select the subordinated claims. Borrowing rates would be reduced to the extent that the multiple instruments more closely match investor preferences. This is consistent with Beneveniste and Berger (1987), who argue that securitization may lower funding costs by creating prioritized or sequential loss claims.

Securitization might also deliver lower overall funding costs to banks by allowing them to reduce or avoid regulatory taxes, such as reserve and capital requirements, a point made by Pennachi (1988). The reduction in regulatory taxes results from the decreased reliance on deposits and the reduction in asset holdings, or in some cases a shift to asset holdings that require less capital. Increased marketability of these loans also may lower the liquidity premium that banks would require to hold these assets. In a competitive market, these lower funding costs will translate into lower interest rates for borrowers, thus prompting more bank lending.

James (1988) argues that securitization may raise overall investment by resolving a conflict that can arise between a bank's shareholders and debtholders. Bank management may forego profitable investment opportunities that would reduce the bank's overall risk in order to avoid a wealth transfer from shareholders to debtholders. This transfer takes place because yields on debt payments are fixed and reflect the riskiness of the portfolio that exists at the time the debt is issued. Even though subsequent projects may lower the portfolio's risk, debt payments remain fixed. Thus, existing debtholders would be compensated to carry more risk than they actually bear. Shareholder resistance to this wealth transfer islikely to result in underinvestment in risk-reducing, profitable projects. Securitized debt resolves this conflict by effectively issuing new debt for each pool of new projects. Returns to new debtholders therefore will always reflect the actual risk of the new projects being undertaken. All else equal, this would raise the level of investment in the affected loan markets.

B. "Disintermediation Securitization" vs. "Balance-Sheet Securitization"

The net benefits of interlinked markets—improved risk-sharing, reduction in regulatory taxes, resolution of shareholder/debtholder conflicts—is a lower borrowing rate or a higher quantity of credit or both. These benefits will not, however, automatically materialize wherever securitization is applied. Basically, the benefits of securitization to the selling bank (and the affected borrower) rise as the amount of loss protection provided by the selling bank falls. Conversely, the benefits of the loan sale fall as the amount of loss protection provided by the selling bank rises. In fact, the capital benefits of the loan sale approach zero as the percentage loss protection provided by the seller approaches the percentage capital charge on the loan. 10

That loss protection, or credit enhancement as it is also called, can take any number of forms: a subordinate piece on a structured deal, a letter of credit guaranteeing first losses up to a certain percentage of principal value, or a recourse obligation. Regardless of the form, the economic effect of providing loss protection is that the seller retains some, or in many cases, all of the credit risk on the underlying loans. This provision of loss protection mitigates the benefits of securitization to the seller.

Consider the mechanics. If a bank can sell off all of a single mortgage loan, then it has shed the entire risk of the loan and now can use the proceeds of the sale to make additional loans. By entering into a cycle of origination and sale, the bank can raise the number of mortgage loans it makes in a given year while generating fee income, yet it neither alters its risk profile nor incurs capital costs because it does not book any assets. Furthermore, because the loan sale process frees originators from having to hold these assets on book, new nonbank originators have more incentive to enter the market. The net effect is therefore twofold: each originator can make more loans than before and the number of participating originators rises.

Following Berger and Udell (1992), we call this type of securitization "disintermediation securitization." Disintermediation securitization is defined as securitization involving the sale of bank loans where the seller retains no stake in the loans and no longer acts as principal monitor of the loan to ensure its repayment. Banks might continue to play a role as broker between borrower and lender, but they are no longer the only agent that can match borrowers and investors, and they no longer necessarily provide the funding or the monitoring for the loans. Loan sales under these conditions would genuinely reflect a shift away from bank-funded debt to direct financing by the capital markets. Borrowers are naturally migrating from a debt market that

requires some degree of lender monitoring to another debt market, where the lender does not need to retain a stake in the credit and where the lender's role in monitoring is reduced or eliminated. This natural migration to the next credit market delivers lower funding costs and a higher quantity of credit to the affected borrowers. Developments in the mortgage and auto loan markets exemplify this type of migration. In both of those cases, a bank is no longer needed in the underwriting, servicing or monitoring of the loans.

In contrast, if a bank can only sell off a senior portion of the loan, retaining, for example, the first 20 percent as loss protection, then the bank has less to use for additional loans and the bank retains the preponderance of the credit risk of that loan. The bank certainly has proceeds available to make additional loans, but each new loan alters the bank's risk profile. Furthermore, under current and proposed capital rules for loan sales where the seller retains some obligation to cover losses, the bank's regulatory capital charges can easily be equal to the capital it held against the loan before the sale. Unless the bank finds the marginal cost of deposit generation too great, such that securitized funding comes cheaper, securitization buys the bank little benefit. Similarly, the incentive for non-bank originators to enter the market is also dampened to the extent that they cannot act as simple fee generating brokers, but might actually have to maintain a lending book.

We label these transactions "balance-sheet securitizations," defining them as securitizations where the originator retains a stake in the loans sold. As described, the originator can maintain this stake either on-balance sheet, perhaps by holding a subordinated position, or off-balance sheet, through the provision of recourse or a letter of credit. ¹³ Regardless of the form of this stake, the seller is obligated to cover losses up to a certain percentage of the asset's value. In this respect, the seller's stake in the loan plays a role much like that of regulatory capital, which is first in line to absorb losses against a bank's portfolio. Balance-sheet securitizations, even poolings of nonperforming real estate, routinely take place.

C. Factors Influencing the Amount of Seller-Provided Loss Protection

Two critical factors affect the amount of loss protection a bank will have to provide on loans it sells: 1) the risks and returns of the underlying assets; and 2) the amount of direct monitoring the loans will require and the costs involved in arranging for that monitoring. Obviously, the higher the risk on the underlying assets, the more loss protection the purchaser will require.

An example of the relationship between credit quality and loss protection is apparent in the amount of credit loss protection that rating agencies require of loan portfolios that desire a certain rating. Table 4 shows the amount of structural credit protection required to obtain each of the listed ratings. The column on the right provides an example of how much loss the underlying collateral with the corresponding rating must be able to withstand without interrupting payments. The lower the credit quality, the higher loss protection is provided. Note also that the lower the initial quality of the underlying loans, the more marginal loss protection the deal requires to reach the top rating.

Of course, investors need basic information about a host of borrower and business attributes to estimate risks and returns. The absence of such information regarding the creditworthiness of the underlying borrowers complicates risk assessment, thereby leading investors to require even more loss protection. Information problems also make it difficult for purchasers to detect whether losses they experience on the loans they purchase are due to bad luck, bad underwriting, or moral hazard. This difficulty creates an incentive for the seller to sell bad loans or to make loans that they otherwise would not make. However, the purchaser minimizes adverse incentives to the seller by raising the seller's stake in the loans sold. Since the adverse actions will now affect the seller first and foremost, the seller has incentive to adhere to prudent underwriting practices. In short, loss protection will rise as risk rises and as information problems about risks and returns worsen.

The relationship between monitoring problems and the amount of a loan the bank can sell off is also straightforward. Banks that sell loans lose their incentive to monitor (see Berger & Udell, 1992; Boyd & Smith, 1989; Greenbaum & Thakor, 1987; Mester, 1992). Failing to monitor can adversely affect the distribution of loan returns, as described above. The more severe the agency problem, the greater the adverse impact that failing to monitor will have on the return distribution. Investors can be expected to recognize the relationship between monitoring and returns for such loan types, and to seek a contract that restores the bank's incentive to monitor. By purchasing less of the loan, the buyer leaves the bulk of the benefits from monitoring to the selling agent, restoring the seller's incentive to properly monitor the borrowers.

Preliminary research by Beshouri and Nigro (1994) on loan sales contracts provides some evidence for the relationship between monitoring and loss protection. Beshouri and Nigro analyze large credits sold off by U.S. commercial banks in an effort to isolate the factors affecting the level of loss protection provided by a selling bank. Among other things, their analysis

Table 4:
Loss Protection Associated with a
Given Credit Rating on Senior Bank Loans

Desired Rating	Loss Protection Provided (percent)
Aaa	51
Aal	41
Aa2	39
Aa3	37
A1	35
A2	34
A3	32
Baal	31
Baa2	29
Baa3	26

Source: Linda Moses (1992).

shows that the lead or originating bank on these large credits retains a greater share of the loans that require more extensive post-funding monitoring. Specifically, for those loans where monitoring requirements are high, the average amount the selling bank must retain on those loans is higher than the average amount required for all loans.¹⁵

Overall, loss protection will rise as risk worsens, and as problems of information and monitoring worsen. However, the higher the level of loss protection provided by the selling bank, the higher its credit risk exposure, the less it has in the way of funds to recycle, and the fewer regulatory capital benefits the loan sale can generate. Capital costs are perhaps the most significant issue for most banks contemplating loan sales. However, once the percentage loss protection provided by the bank exceeds the percentage capital requirement for the loans securitized, the bank no longer generates capital cost savings. Regulatory policy currently requires banks to hold capital against all of the assets supported by a recourse obligation.

V. SMALL BUSINESS LOAN SEDURITIZATIONS: IMPLICATIONS AND SOME EVIDENCE

Based upon the foregoing arguments, securitizations of loans that are information- and monitoring-problematic should carry substantial amounts of loss protection. This should be the case for securitizations of small business loans, because little public information exists about small business borrow-

ers and they require substantial amounts of post-funding monitoring. The structure of the few small business loan securitizations that have been done to date is consistent with these predictions.

Table 5 shows important characteristics of three securitizations of non-guaranteed, small business loan securitizations. Host importantly, all three deals required substantial loss protection. The Chrysler Financial Corporation securitization carried a 35 percent subordination, while the Fremont General Corporation deal of 1993, the first transaction under SEC Rule 3(a)-7, carried 19 percent subordination. Honey Store deal, which securitized the unguaranteed portions of SBA loans, carried nine percent subordination, and a four percent spread account. He level of loss protection is well in excess of the capital charge for all these transactions.

Several other features of these securitizations are also worth noting.

- 1. All the loans in each individual deal are from the same originator or group of affiliated originators, so there is naturally some "uniformity" in the loan underwriting standards. This would not automatically be the case for pools of loans originated by a multitude of unaffiliated lenders.
- 2. These transactions are all asset-backed; real estate was used in two cases.
- 3. The average loan size in each case is fairly large, making the underlying credits more middle-market than small business loans. The average loan size varies from about \$200,000 in the Chrysler deal to over \$1.5 million in the Fremont deal.

More recently, Norwest, a bank holding company headquartered in Minneapolis, has been making an effort to securitize small business loans. Norwest has approached smaller banks in the region with strong credit track records to participate in a securitization program. These smaller originating banks screen potential borrowers using a weighted average of four separate credit worthiness tests: cash flow, leverage, profitability, and working capital. To ensure homogeneity of loans, Norwest only considers loans to manufacturers for the program. Loans that pass the four-part screen are referred by the originating bank to Norwest, where they have a 75 percent chance of being pooled and securitized. Both of these requirements—limiting the credits to a fairly homogenous pool and satisfying strict underwriting performance criteria—greatly reduce any information problems associated with these loans. Most importantly, and consistent with our predictions, Norwest requires each participating banks to maintain a 65 per-

cent ownership position in the loans it sells. This mitigates any remaining information and risk problems, and eases any concerns the pooler and the ultimate investors may have about the loans being properly monitored. Thus far, Norwest has not yet been able to gather sufficient credits to get the program off the ground.

In contrast to the thin secondary market for unguaranteed small business loans, there exists a flourishing secondary market for the guaranteed portions of SBA 7(a) loans. About 37,000 SBA loans, with value of about \$7.9 billion, have traded hands since the secondary market began operating. This market provides liquidity to the guaranteed portions of SBA loans, and helps originators better match maturities of assets and liabilities. This market also enhances SBA's ability to provide small businesses with access to long-term debt.

SBA-backed small business loans are, however, quite different from the types of small business credits analyzed in this study. The SBA loans in these pools are, by definition, registered instruments backed by the full faith and credit of the U.S. government. Furthermore, the pools only include the guaranteed portions of those SBA loans. This guarantee effectively amounts to 100 percent loss protection, thus obviating any investor concerns over risk, information, or monitoring. Clearly, the success of the secondary market for the guaranteed portions of SBA loans flows from the presence of the U.S. government guarantee, a guarantee not present for ordinary loans. ¹⁹

The actual and proposed securitization programs of non-guaranteed small business loans described above are all examples of what we call "balance sheet securitizations," meaning that the selling banks are not able to entirely shed the loan (and the risk) from their balance sheets. The crucial distinction between small business loan securitizations that have taken place and disintermediation securitization is that with respect to the former, concerns about potential adverse actions on the part of the selling bank, the riskiness of the underlying borrowers, and the impact of monitoring on a loan's returns have not been resolved. Rather, these concerns have been circumvented through the provision of ample loss protection by the selling agent.

Over time, subordination specifically, and loss protection generally, may decline as the market becomes increasingly familiar with these transactions. However, this loss protection must not only fall as low as the capital requirement that banks normally must meet on such loans, it must surpass that point to generate capital cost savings for banks. Furthermore, if nonbank originators in the mortgage credit market are any guide, nonbank originators are likely to enter the small business lending market in large numbers



Table 5. Small Business Loan Securitizations				
Issuer	Chrysler Financial	Fremont Financial	The Money Store	
Credit Type	Nationwide real-estate secured	Nationwide revolving asset-backed loans	Nationwide adjustable SBA 7(a) loans secured by owner occupied commer- cial real estate	
Amount	\$350 million	\$200 million	\$76 million	
Structure	REMIC Trust	Revolving Master Trust	Revolving Master Trust	
Rating	AAA	AAA	Class A: AAA Class B : A	
Loss Protectio n	35 percent subordination	19 percent subordination	9 percent subordination 4 percent spread account	
Pricing	LIBOR + 120bp	LIBOR + 47bp	Class A: Prime –95.0 bp Class B: Prime –12.5 bp	
Expected Term	2 years	3 years	7.6 years	
Investor Profile	Bank portfolios, Europe and mutual funds	Mutual funds and bank portfolio	Mutual funds and other institutional investors	
Loan size	No mortgage loan having a principal greater than \$2,000,000	Loan from \$500,000 to \$5,000,000 Average: \$1,500,000	Original loan less than \$50,000 to \$2,000,000 Average: \$398,000	

Table 5. Small Business Loan Securitizations

when their need to maintain a portfolio of these credits is minimal. Retaining portions of the loans they originate pushes these market participants into the role of portfolio manager.

Average: \$209,730

Securitization of small business loans therefore can take place, and we have seen a scattered few, but such securitizations do not allow small business loans to migrate fully off the bank's balance sheet. Because of these factors, securitization will not allow banks to shed risk, generate fees, or lower capital costs to the extent seen in the securitizations of other types of loans. Consequently, in the absence of government guarantees (implicit or explicit), or other programs that reduce the risks faced by loan purchasers or loan sellers, securitization cannot be expected to have the same impact on credit flows to small business borrowers that it has had for borrowers in the mortgage, auto loan, or credit card markets.

VI. CONCLUSIONS AND POLICY IMPLICATIONS

The securitization of business loans is not a sufficient condition to increase the amount of credit available to small businesses. This does not mean that securitization lacks value in the area of small business lending, only that the value lies elsewhere. Securitization might furnish investors with a bankdirected channel for funding small business loans, facilitate some diversification, and increase the liquidity of select portions of a bank's small business loan portfolio. However, our analysis suggests that the level of loss protection increases as information problems and the need for direct monitoring required by the lender rise and that as the amount of loss protection rises, the benefits from securitization are greatly reduced. Two of the most prominent characteristics of small business borrowers are the lack of information available about small business risks and returns, and the substantial amount of post-funding monitoring they require. Consequently, any such securitizations are likely to carry substantial loss protection, which, among its other effects, will reduce or eliminate any capital cost reductions expected from thesecuritization. Consequently, such securitizations are likely to have little impact on a bank's willingness to make more of the same loans. Regardless of the future success of schemes to securitize the high end of small business loan market, banks are likely to retain an important role in small business finance due to their special advantages in monitoring these credits.

If securitization is unlikely to raise the equilibrium level of small business lending, the obvious question is: what will? Members of Congress have proposed a number of bills they believe will accomplish this goal. Some of their bills envision an explicit guarantee through an expansion of SBA lending or creation of a government-sponsored enterprise (e.g., Velda-Sue). Others would create an implicit guarantee through the deposit insurance fund by lowering the capital requirements against recourse obligations. Some of these programs seek to promote a secondary market for small business loans, while others go directly to the issues of the risk and losses associated with small-business lending, treating the development of a secondary market as a separate issue. Further analysis would be necessary to determine the merits of these various approaches.

If a securitization program were preceded by or developed simultaneously with some type of loan guarantee or credit enhancement program, then the amount of credit available to smaller firms would easily increase. However, the increase in small business lending would follow largely from the guarantee, not the presence of a secondary market. While the implicit or explicit guarantees in government-sponsored programs might improve the flow of credit to small businesses, the benefits must be weighed along

with the costs. In particular, federal or state guarantees or credit enhancement programs to promote a secondary market would expose government to significant contingent liabilities and could subject commercial banks to subsidized competition.

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NOTES

- 1. Numerous proxies have been used to define a business as small, including the number of employees, the level of annual sales or assets, the organizational structure, and the level of market concentration in an industry. For the purposes of this paper, we are concerned with firms that are involuntarily confined to a local financial market in accessing credit and face all of the problems that such segmentation implies. In particular, market segmentation can lead to differences in rates across borrowers with similar risk characteristics, but residing in different locales. By moving away from a definition that focuses strictly on specific size characteristics and moving toward one that groups firms according to common elements in their financing outcomes, we avoid excluding firms that might face financing constraints but which would not be considered small on an asset-based or employee-based standard.
- 2. See Davies (1993).
- 3. See Elliehausen and Wolken (1990) for a description of the data.
- 4. The price mechanism does not provide a perfect screening device, because raising interest rates to compensate for concerns over risk may actually drive out safe borrowers, and lower the average credit quality of the borrower pool. For a discussion of credit rationing, see, for example, Stiglitz and Weiss (1981).
- 5. If banks are allowed to branch across state lines, larger firms would have a genuine option to use a single banking firm for all of their transactions services. Nakamura's argument would then have some, but not complete, applicability for these larger firms as well. The difference is that larger firms may be more transparent to third parties even if a single bank handles all of that firm's banking business.

- 6. The critical difference from Carey et al. (1993) is that information availability is broken down here to its component parts: information for origination and information for monitoring. We also subsume the firm size into the information spectrum.
- 7. Whereas loan sales typically distribute losses proportional to the participation of the loan purchaser, securitization allows a bank to prioritize or sequence claims against a pool of loans, such that one party provides loss protection to all subsequent investors in the loan pool. Each sequence represents a separate tranche, or loss position, just as senior debt is one tranche and mezzanine debt another.
- 8. It is immaterial whether this loss protection is purchased or provided in the way of a retained portion of the loan.
- 9. Portions retained in securitizations typically differ from portions retained in participations. In the latter case, all participants share losses and proceeds proportional to their percentage participation. So a 10 percent participation in a loan exposes the participant to 10 percent of the losses and obligates the participating bank to put up 10 percent of the overall capital required. In the event of a 10 percent loss on the underlying assets, the holder of a 10 percent participation would absorb a one percent loss. Securitizations are more akin to structured financings, where loss positions are sequential not proportional, and where capital requirements can be more substantial. For example, a 10 percent subordinate position in a securitization would expose the participant to all losses against the total assets securitized up to the full value of that position. So a 10 percent loss on the underlying assets would wipe out this subordinated position and leave all holders of senior positions intact.
- 10. Capital benefits are zero when the seller provides first-loss protection equal to or greater than the capital charge on the loans sold. For example, capital benefits are zero if a banks holds a four percent first-loss position on mortgage loans sold into a pool. This is because current capital rules require that the selling bank hold capital not only against the first-loss position, but against all more senior positions as well. These rules reflect the fact that a subordinate position in a securitization exposes the holder to all losses against the total assets securitized, up to the full value of that subordinate piece.
- 11. Because the bank holds the first 20 percent of the loan, it faces all losses on the underlying loan up to 20 percent which, except for exceedingly risky loans, covers the preponderance of the credit risk.
- 12. For a description of current and proposed recourse capital rules, see Federal Register 1994. The Riegle Banking Act of 1994 has special provisions that could ease capital requirements for well-capitalized banks.
- 13. Loss protection can also be capitalized into purchase price through the use of discounts. The disadvantage of this loss protection for sellers is that they must recognize expected future losses (or some multiple of expected future losses) upon sale, and would not benefit if losses turned out to be less than expected.
- 14. The importance of strict FNMA and GNMA guidelines becomes more apparent in light of the incentives that sellers of loans can face. Strict guidelines by these agencies help police seller behavior, and violation of these guidelines can lead to loss of accreditation as a FNMA or GNMA participant. A similar argument is made in Constand et al (1991) for resolving agency problems in asset-based lending contracts.
- 15. Beshouri and Nigro (1994) mimeo.
- 16. In these deals the loans were converted in to securitites by creating a special purpose vehicle (SPV) in the form of a trust, to which the whole loans were sold. The trust then issued securities financed from the cash flow generated by tyhe pool of loans. By establishing a trust structure, multiple securitizations can be done, while maintaining

- maximum flexibility in the structure and terems of the series issued. An often-cited reason for the feasibility and successful placement of these securities backed by loans has been the SEC passage of Rule 3a-7. This rule exempted securitizations of loans from the provisions of the Investment Company Act of 1940.
- 17. The Fremont deal is also unique because the loans securitized constituted a large percentage of the lender's portfolio. This eliminates investors' potential concerns that the pool may not be representative of the lender's entire small business loan portfolio. Such concerns are prominent when only select portions of a portfolio are securitized.
- 18. This deal was highly unusual, and it is unlikely that the SBA would permit a less well-known originator to complete a similar deal.
- 19. Note that even in these deals, however, the SBA requires the originator to retain the unguaranteed portion of the loans it sells. This ensures that the originator continues to have an incentive to monitor the loans properly. While monitoring may not matter to the investor, it does matter to the SBA, because it is the guarantor of last resort.
- 20. One provision within the recent Community Development Financial Institution legislation sets up a loss sharing program along the lines of state-based programs, such as the Michigan Strategic Fund.

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