At the outset this morning I would like to congratulate you: 2005 marked the first year in the history of the federal deposit insurance program in which there were no failures of FDIC-insured institutions. While the banking industry clearly has benefited from a relatively healthy macroeconomic environment, I think the lack of bank failures last year is strong evidence that supervisory agencies — both state and federal — have been doing an outstanding job. In fact, one could argue that we have done too good a job, since, as our recently retired Fed Chairman was fond of observing, the optimal number of bank failures is certainly not zero, the point being that risk-taking is an essential part of banking, and even if our banking system as a general matter is taking only prudent, well-managed risks, there may still be some failures from time to time. Furthermore, risk is an inherent part of innovation, and when banks are trying new things, some will succeed and some will not. But innovation is vital to the continued growth and progress of the industry and its ability to provide the public with ever more useful and efficient financial services over time. I would like to note, as usual, that the views expressed are my own and are not necessarily those of my colleagues in the Federal Reserve System.

The theme of innovation and its relationship to risk permeates contemporary banking and finance. We certainly see it in the growing use of interest rate and credit derivatives for risk management. While such tools can assist organizations in limiting their exposures to risk, they can also, if used imprudently, be a source of increased risk. Although the term “financial innovation” typically conjures up images of what we might call “high finance,” innovation has also been arguably the most important driver for the evolution of the market for consumer credit, the subject of my talk to you this morning. Because much of the transformation of consumer credit markets in recent decades amounts to the development of new and more varied loan products for a growing set of consumers with more variable pricing.

Many recent innovations in consumer credit products have garnered a fair amount of attention both in the popular press and in supervisory and legislative arenas. Rather than address any of the specifics surrounding these issues, I would like to take two steps back and look at these innovations from a broader perspective. Over the last two decades, we have witnessed what can arguably be called a revolution in retail consumer finance. Perhaps the hallmark of this revolution has been the dramatic expansion of unsecured lending through the proliferation of credit cards. This growth has not been limited to unsecured credit, but also includes innovative mortgage and home equity lending.

The wave of innovation that has driven these trends has brought widespread change to the financial services industry. While this expansion of credit has been broadly beneficial to a wide array of consumers, it has also brought with it a growth in the number and
frequency of consumer defaults and bankruptcies, a trend that has contributed to a growing concern in some quarters that American households have “lost control” of their finances to a dizzying array of new products and options and that lenders are taking on new risks for which they may not be adequately prepared.

My main purpose today is to discuss the nature of innovation in lending, particularly at the retail end. As regulators, it is important for us to understand that innovation is an inherently risky activity, whether we are talking about a large, sophisticated institution that “invents” new products or processes, or a smaller community bank that innovates by putting new products or processes to use. As supervisors, it is important for us to understand that innovation in financial products is likely to be a feature of the banking landscape for many years to come. Supervisory practice and philosophy should view financial innovation as a relatively permanent feature of the banking industry, rather than treat each burst of innovation as an episodic, one-off occurrence. Thus, as a general principle, supervisors place a great deal of emphasis on the ability of bankers to measure, monitor and manage their risk profiles over time and make informed risk acceptance decisions, since risk is intrinsic to the banking business. Supervisory guidance regarding innovative consumer finance products should recognize their potential benefits to a wide array of households in addition to their risk management implications.

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The expansion of consumer credit in the U. S. over the last decade and a half has been truly astonishing. This expansion occurred across a number of product lines. Probably most prominent has been the expansion of credit card lending. Home mortgage lending, including home equity credit, has also seen robust growth. Much new mortgage lending recently has taken the form of so-called “non-traditional mortgages,” such as “interest-only” mortgages that allow the borrower to defer principal payments for the first few years, or “option ARMs” that provide the borrower with several flexible payment options.

An especially prominent feature of the secular expansion of consumer credit has been the growth in lending to lower-income consumers, many of whom had in the past been unable to obtain credit on as favorable terms from the financial sector. Indeed, many had been unable to obtain credit except from fringe lenders such as pawnbrokers, payday lenders, or through informal arrangements with friends and family. Some borrowers that take out non-traditional mortgages would not have qualified for traditional mortgage products otherwise, or would not have qualified for loans as large. The growth in retail credit, thus, has brought expanded social benefits to a wide array of consumers.

I would argue that this broad expansion of consumer credit has been driven by advances in information and communication technologies, which have reduced the cost of obtaining, evaluating and monitoring consumer account information. At a basic level, this dramatically increased the productivity of the back-office functions associated with all phases of the banking business. Payments processing and the associated book-keeping tasks became much cheaper. The result was a general decline in the intermediation costs that lenders ultimately must recover on top of their funding costs. Competition forced
lenders to pass on these cost savings to borrowers in the form of lower lending rates.
More consumers could afford to borrow, and the market expanded.

The application of information technology to the lending process itself has been evident
in a number of ways, from the automation of underwriting to the use of credit scoring.
Lenders have been able to access and utilize an expanded array of information about
potential borrowers. These advances did not change the fundamental nature of
underwriting, however; they just made it more effective. Underwriting is about making
distinctions between people in order to decide whether to lend, and if so, how much to
charge. When lenders were limited to reviewing paper loan applications and old-
fashioned credit reports, they could sort potential borrowers into only a few broad
categories. New technologies allowed lenders to bring more and more consumer-specific
information to bear on lending and pricing decisions, and thus make finer distinctions
between consumers. The result was that the lending decision and loan terms could be
more closely tailored to individual borrowers. Lenders were able to offer lower interest
rates to less-risky customers, and were able to pluck out the creditworthy from among the
group of customers that formerly were unable to qualify for credit at all.

Beyond the direct impact of new technologies on underwriting, innovations also
contributed to the spread of loan securitization, by making it easier for investors to assess
the risk characteristics of the underlying loans. Securitization separates loan origination
from holding loans on a balance sheet, thereby allowing originating institutions to
economize on funding and capital costs. And the development of quantitative methods
for the pricing of options — combining the massive computing power that came online in
the late 1980s with the models that finance theorists pioneered in the mid-1970s —
opened the door for banks and other financial intermediaries to properly price the put
feature inherent in a long-term mortgage, and the option value of loan commitments such
as home equity lines of credit and credit cards.

The technology-driven expansion of retail credit is evident in the growth of household
debt and in the proliferation of entirely new credit products. For example, many non-
traditional mortgage products, particularly those offered to less-creditworthy borrowers,
would not have been economically feasible without the new, more advanced pricing
models and underwriting techniques. Likewise, home equity lines of credit became more
widely available in part because of the lower cost of accurately assessing
creditworthiness.

These developments have also had important consequences for the structure of retail
lending markets and for the activities of community banks. Much of the innovation I have
been describing involves realizing economies from standardization and from the
application of technologies with substantial economies of scale. One implication has been
the increased concentration of some consumer lending activity at relatively large lenders.
This appears to be particularly true in the case of credit cards. On the other hand, the
spread of securitization, especially in home lending, allows smaller institutions to remain
in the market as originators of credits that then get securitized. On the whole, however,
technological advances in lending based on quantitative underwriting seem to have
favored larger institutions. Consequently, these changes have tended to move community
banks toward lending based on less quantitative and more judgmental underwriting
techniques where they appear to have a comparative advantage — exploiting the fact that quantitative measures of creditworthiness will always be to some extent incomplete, and that other information available to local lenders can be difficult to commoditize. Thus, loans where it’s hard to quantify risk assessment, as in “character lending” and commercial real estate, have become increasingly important to community banks.

This is also a recurring theme — the idea that technological advances in banking enhance economies of scale and therefore result in more concentrated market shares. I think that it’s possible to make too much of this idea, since it is often possible for the benefits of scale to be brought to mid-sized and even smaller institutions through the provision of services by third parties. Still, the consequences of innovation for the structure of the industry are important to bear in mind, and the fact that banks of different sizes might implement technology in different ways — some doing it in-house and some acquiring it from third parties — creates another dimension of change — organizational change — of which supervisors must be aware.

The usual presumption regarding innovations that successfully penetrate markets — from high-speed Internet to high-definition TV — is that they are broadly beneficial to consumers, and I believe this to be true of retail financial market innovations as well. The expansion of retail credit has allowed consumers greater flexibility in managing their household finances, responding to fluctuations in household financial conditions, and accumulating durable goods. At the same time, the expansion of retail credit has brought an increase in what one might call “bad outcomes” — households that face high debt burdens, have trouble meeting payment commitments, and perhaps even default and resort to bankruptcy. The popular media regularly recount horror stories of unsuspecting consumers who find themselves in dire straits following an encounter with the retail credit industry. Consumer advocates have publicized accounts of abusive practices by unscrupulous lenders and have charged regulators with lax enforcement of existing consumer protections. It appears that a significant constituency now favors tighter legislative and regulatory constraints on retail credit providers of all types, from banks to payday lenders. And new credit market products and practices have given rise to supervisory concerns about the associated risks.

The rising incidence of credit problems and the resulting sentiment for new or tighter regulation are natural byproducts, I would argue, of the wave of innovation in financial products and services. A credit expansion naturally brings with it an increase in the incidence of “bad outcomes.” As credit becomes available to a broader array of borrowers, there is an inevitable increase in the number and even the rate of delinquencies, defaults and bankruptcies. Moreover, the new borrowers being drawn in to credit markets are likely to be, on average, less financially savvy and more vulnerable to the unscrupulous as they struggle to learn about unfamiliar credit products. The popular focus on cases of fraud and financial distress often drives the politics of consumer finance. The very nature of innovation in consumer credit markets thus gives rise to compelling stories that are powerful motivators for attempts to regulate or restrain new practices.

Proposed restraints on retail lending often are intended to protect consumers from their own poor judgment, which makes them vulnerable to abusive lending practices. In fact,
in many historical episodes of expanding credit, the desire to regulate has been accompanied by a popular belief that growing debt is a sign of decaying values and thrift. One historian has referred to this persistent belief as the “myth of lost economic virtue.” Belief in this myth can easily hide from view the positive economic role of credit in household financial management and the benefits that come from expanded access to credit.

Increases in the number or frequency of bad credit outcomes could also expose some banks to increased losses. Of course part of the reason for a credit expansion is improvements in the ability of lenders to measure, price for, monitor and absorb such losses, so the mere increase in losses after the fact should not, in itself, be cause for concern, especially if they are expected losses that are priced and reserved for. As long as a lender’s entry into a new product line is appropriately managed, increased loss rates are in a sense a measure of the extent to which access to credit has been provided to new borrowers. But just as new financial products expose inexperienced borrowers to the possibility of mistaken credit market choices, so too may lenders bring different levels of experience to the adoption of new financial products. These banks, like the new consumer borrowers, will inevitably have varied experiences in their new ventures — some will be more successful than others. But the learning that comes along with the trial and error inherent in these diverse experiences is a vital part of the innovation process. Because innovation and progress don’t just come from people inventing new products; they also come from people learning how to manage new processes.

This last observation may have implications for how regulators think about banks’ ventures into new activities — whether in consumer finance or any other line of business. Examiners are naturally going to pay close attention to the risks associated with new activities, as well they should. But we also have to recognize the value of the learning that is inherent in the process of financial innovation, as in any other innovative endeavor. As always, we need to be mindful of benefits as well as risks when evaluating banks’ activities, and be careful not to stifle worthwhile financial innovations. Seeking such a balance suggests that robust risk practices should include sound processes for approving new product offerings.

Perhaps a more important implication of retail credit expansion for banks and their supervisors stems from the fact that standardization and automation have moved much of this lending — or the credit exposure, in the case of home loan securitization — off the books of community bank organizations either to large banks or to securities markets in the case of home loan securitization. I mentioned earlier that this seems to have driven many community banks toward lending based on softer, less quantitative risk assessment — commercial real estate, for example. Could this broad movement have made community bank lending inherently riskier, or harder to monitor and assess? If so, we would have reason to ensure that the banks moving in this direction understand and are prepared to manage the risks they take on. The proposed guidance on commercial real estate lending issued by the federal financial agencies this past January seeks to do just that. As always, however, regulators need to be mindful of the extent to which observed trends in bank lending may be driven by productive innovation rather than risk management myopia.
Much of the popular response to consumer credit expansion and its byproducts has been less about prudential supervision, however, and more about consumer protection. Many proposals amount to calls for lending restrictions or the outright prohibition of some lending practices. This strikes me as a dangerous approach. In the long run, it would tend to slow innovation and constrain the availability of financial products to a broad range of consumers in order to protect the relatively few who use a credit product inappropriately or unadvisedly. It would be analogous to limiting homeowners insurance on the grounds that many homeowners never file claims in excess of their premium payments and thus end up regretting their purchase of insurance.

Since the rise in undesirable borrowing outcomes is related to the increased participation of inexperienced and uninformed borrowers as the credit market expands, a more promising approach would seem to be to improve the knowledge and expertise of borrowers. One method to address this problem is through careful and more thoughtful design of lender disclosures. The supervisory community ought to encourage disclosure statements written for real consumers, rather than lawyers, as now seems to be the case. More broadly, moving from strict rules-based consumer protection regulations towards more principles-based disclosure expectations might allow for more effective customer communications in the face of complex and ever-changing products.

More broadly, everyone in the financial services industry should understand their interest in enhancing consumers’ financial literacy. We train our young people in how to use automobiles, after all, a product whose early market penetration drew in less savvy users. In my opinion, we could do a better of job of training people in how to use financial products.

On a supervisory level, we would not want our response to the spread of new lending products to squelch innovations that are useful to consumers. So while we need to ensure that banks understand sufficiently well the risk characteristics of new lending products they deploy and that banks at the forefront of innovation have particularly robust risk management practices, any guidance we provide on such products should recognize that innovations that meet a market test are generally beneficial, and that the learning generated by early experience with new products often results in significant product improvements over time. Balancing these considerations is the challenge.

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