Mortgage Lending, Discrimination, and Taxation by Regulation

Benjamin Zycher and Timothy A. Wolfe

Amid the tolling of church bells, and the joyous shouts of aspiring bureaucrats, a "Policy Statement on Discrimination in Lending" (the Statement) was published earlier this year by 10 federal agencies. This reflects a recent rise in the political prominence of the "lending discrimination" issue, itself thrust to the front pages by a 1992 study of purported discrimination in mortgage lending published by the Federal Reserve Bank of Boston. That 10 federal bureaus have clambered aboard this bandwagon reveals more about the political and budgetary potential inherent in the issue than about the actual degree of illegal discrimination by lending institutions. In particular, the evidence presented in the Boston Fed study is, as discussed below, far more ambiguous than widely assumed, notwithstanding the view

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expressed early in the Statement that "the 1992 Federal Reserve Bank of Boston study on lending discrimination, congressional hearings, and agency investigations have indicated that race is a factor in some lending decisions."

It is not clear whether by "indicated" the authors of the Statement mean "demonstrated" or merely "asserted." In any event, it is useful to consider briefly whether implementation of the regulatory approach outlined in the Statement is likely to improve the operation of capital markets, particularly in the context of the political pressures attendant upon the "discrimination" issue.

The Statement is based upon the Fair Housing Act (FHA) and the Equal Credit Opportunity Act (ECOA), the two statutes that specifically proscribe discrimination in lending. Liability under the two statutes is civil rather than criminal, thus reducing the evidentiary standard required to "prove" discrimination. This evidence can be of "overt" discrimination, of "disparate treatment" of credit applicants on the basis of such prohibited characteristics as skin color, or of a "disparate impact" across applicants correlated with prohibited character-

istics. Such disparate impacts would be illegal if "not justified by business necessity" or if a "less discriminatory alternative" exists.

The Statement asserts that "disparate treatment may more likely occur in the treatment of applicants who are neither clearly well-qualified nor clearly unqualified," because such cases leave more room for lender discretion. It is also true, of course, that "gray area" cases leave more room for discretion on the part of the enforcement agencies, and such discretion is almost certainly affected by the politics of the discrimination issue. The likelihood of such enforcement

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discretion is enhanced by the assertion in the Statement that "a pattern or practice of disparate treatment on a prohibited basis may also be established through a valid statistical analysis of detailed loan file information, provided that the analysis controls for possible legitimate explanations for differences in treatment." That the interpretation of such statistical or econometric evidence is both science and art is clear to anyone familiar with the economic analysis of data, as the discussion below of the Boston Fed study should demonstrate. Will the agencies' lawyers understand this? Will the congressmen and senators considering the agencies' budget requests understand it? It is unlikely that their political incentives will lead them toward neutral examination of the evidence. The recent agreement by the Justice Department to allow exercise of "oversight" by Congressman John Dingell (D-Mich.) with respect to discretionary enforcement of environmental law is not an encouraging precedent, and in particular does not bode well for the politicization of law enforcement.

Lending practices devoid of discriminatory intent or application still may have disparate impacts correlated with, say, race. The Statement makes it clear that such practices may be illegal, particularly if they are not justified by "business necessity" or if there exists a

"less discriminatory alternative." It is not clear just what might be judged to be a "business necessity"; indeed, the Statement allows only that "factors that may be relevant to the justification could include cost and profitability." For precisely what must a "business necessity" be necessary? If the answer is "business survival," it is hard to imagine what in the context of lending discrimination might be "necessary," that is, without which bankruptcy becomes certain. After all, were regulators to force lenders to operate without some "necessary" practice or procedure, most firms still could operate in the face of the resulting inefficiencies, at least for a while and particularly if competitors were subject to the same constraints. If the ultimate "necessity" is something less than the very survival of the lender—say, some profitability—then it is hardly "necessary" unless the authors of the Statement were to endorse the view that maximum profitability is a "necessity." Even in the context of the capital market, in which firms must attract capital, profit erosion caused by regulation is analogous to a tax, and so sooner or later would drive up the market interest rate charged by the affected lenders. It is possible under such conditions that all lenders simply would lend less and that not a single lender would leave the market. Is avoidance of that effect "necessary?" The Statement offers no clue.

In any event, until the regulators proscribe a given practice, it would be hard to know or demonstrate that it is "necessary." And even with demonstration of an undefined "business necessity," a lending practice still might be judged illegal if a "less discriminatory alternative" exists. It is unclear from the Statement how the degree to which a given lending practice is "discriminatory" is to be measured or compared with alternative practices. Perhaps a "less discriminatory" alternative is one that yields more lending to members of groups ostensibly protected under the FHA and ECOA; but since a given bank can lend only so much, more lending to one group necessarily leaves less credit—and thus more "discrimination"— for another. Nor does the Statement delve into the issue of the inevitable tradeoffs between satisfaction of a "business necessity" and availability of "less discriminatory" alternatives. On the one hand, if a practice is truly "necessary," then by definition there cannot be an alternative,

whether less discriminatory or not. If, on the other hand, the "necessity" is not truly necessary by whatever criterion is applied by the regulators, then how much of the necessity is "too much" to give up in exchange for a less discriminatory alternative? Again, the statement offers no insights.

The wide scope for regulatory discretion in both discovery of "discrimination" and enforcement decisions is illustrated by the discussion in the Statement of the existence of disparate impacts: "Frequently [the existence of a disparate impact] is [established] through a quantitative or statistical analysis. Sometimes the operation of the practice is reviewed by analyzing its effect on an applicant pool; sometimes it consists of an analysis of the practice's effect on possible applicants, or on the population in general. Not every member of the group must be adversely affected for the practice to have a disparate impact. Evidence of discriminatory intent is not necessary to establish that a policy or practice adopted or implemented by a lender that has a disparate impact is in violation of the [FHA] or ECOA."

Can lenders under such standards know whether they are in compliance? If not, then it is likely that they will be driven inexorably to adopt lending quotas. The Statement notes that "a reason to believe" that the ECOA has been violated requires that "a reasonable person would conclude from an examination of all credible information available that discrimination has occurred." Is it reasonable to expect "reasonable persons" to agree on the implications of econometric findings? There is plenty of reason to doubt it.

Some Discrimination Subtleties

That there is bigotry in the world cannot be denied, but the effects of prejudice upon actual behavior may be far weaker than might be assumed casually. Many social scientists—certainly most economists—would agree that the degree to which actual behavior reflects any underlying prejudice is influenced heavily by the incentives imposed upon individuals by prevailing economic and political institutions. An unabashed bigot believing, say, that black people are inferior can be led by circumstances to exhibit absolutely colorblind behavior; alternatively, an individual utterly devoid of racial, reli-

gious, ethnic, or other prejudice per se can be induced to "discriminate" against members of a given population group in ways indistinguishable from those practiced by the most vehement advocates of racial hierarchy.

Thus, for example, it would not be surprising were a severely injured white supremacist to opt for medical care from a black doctor rather than death. In the wake of a series of publicized attacks upon women reportedly committed by a white male, a female landlord profoundly committed to the principle of human equality well might refuse to interview white males for an apartment rental. Similarly, given the easily available data on crime rates, an individual of any race, religion, color, or outlook might be more likely to cross the street when approached by a group of black teenagers than when approached by a group of white teenagers otherwise identical in number, age, size, dress, demeanor, and all other characteristics.

Those examples may be extreme in some sense, however plausible in contemporary

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America, but the central point is that the particular circumstances pertaining to specific individuals matter. That reality unfortunately has not been recognized in much recent public discussion of sizeable disparities in white and non-white mortgage approval rates. That incomes and credit histories and other relevant components of "creditworthiness" are correlated with racial characteristics is acknowledged widely; far more limited is recognition of the great difficulty inherent in efforts to distinguish in statistical analysis the effects of prejudice (if any) from other factors. Perhaps unsurprisingly, that difficulty has created a tendency to shunt the complex analytic problems aside, with a resulting

willingness on the part of many simply to assume that racial disparities in mortgage lending approval rates represent evidence of racial discrimination at least in part. For example, a recent front-page article in the *Wall Street Journal* begins by asserting that "when it comes to buying a home, not all Americans are created equal. If you're black, it's twice as likely your mortgage application will be rejected as it is if you're white." Not until one reads the notes beneath a table accompanying the article is it

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learned that "credit-history information on applicants—a key element in lending decisions—did not have to be reported to federal regulators, so it couldn't be evaluated."

But the difficulties inherent in complex statistical analysis provide grounds for great caution, particularly as the charge of "discrimination" is highly visible and volatile politically; if substantially mistaken, those charges are likely to lead regulatory policy in perverse directions, an outcome exacerbated by politically asymmetric regulatory incentives. In particular, efforts to correct lending behavior that is discriminatory in appearance but colorblind in fact can affect capital markets adversely. Those adverse effects would take the general form of capital misallocation, yielding over time reduced capital availability in the aggregate, a less valuable capital stock, and a smaller economy. It is far from clear that such an outcome would prove salutary over time for any group, whether poor or not.

A home mortgage loan from the viewpoint of the lender is an investment the return to which depends upon future repayment; ex ante, the present creditworthiness of the prospective borrower is defined as the likelihood of repayment. As evaluated in credit markets by lenders, perceived creditworthiness clearly is determined by numerous criteria, applied in evaluation

processes blending objective standards and subjective judgment. There are few reasons to believe that the borrower characteristics determining creditworthiness are distributed randomly across various population groups.

To the extent that individual creditworthiness as perceived in lending markets tends to be correlated with racial or ethnic characteristics, racial disparities in approval rates may be unrelated in reality to racial characteristics per se. Such disparities, then, might mask more fundamental differences in the market evaluation of risks inherent in home mortgage loan investments made by lenders across population groups. Indeed, skin color, national origin, ethnicity, and other such human attributes are likely for innumerable reasons to be correlated with various factors that most would agree ought to be classified under the general heading of creditworthiness. Those factors—say, income or credit history—may be unobjectionable in the eyes of most people, but it is clear that a failure to control for them (or to separate them out) in statistical analyses may reveal "discrimination" where none exists. Moreover, the argument that lending discrimination is widespread implies that lending institutions systematically forgo opportunities to make profitable loans to qualified applicants, a premise that is not wholly plausible.

The Boston Fed Study

In short, racial differences in lending approval rates cannot simply be assumed to result from racial or other prejudice. That seems straightforward, but several recent newspaper inquiries seem to conclude that racial "discrimination" is important in the mortgage lending market, a finding based upon journalistic investigations of differential mortgage lending approval rates among black and white applicants—or between black and white "neighborhoods"—with uniformly poor controls for other factors possibly correlated with skin color. More serious is a study published in October 1992 by the Federal Reserve Bank of Boston, written by four members of its research staff. Alicia Munnell, Lynn Browne, James McEneaney, and Geoffrey Tootell (MBMT) gathered data on home mortgage applications as reported under the Home Mortgage Disclosure Act (HMDA), and supplemented the HMDA data with additional infor-

mation on the financial and employment characteristics of loan applicants deemed important by lenders, as stated in MBMT interviews. (Alicia Munnell, then vice president for research at the Boston Fed, now is the assistant secretary for economic policy of the Treasury Department.) The supplementary data were obtained from individual loan application files supplied by Boston area lenders in response to a MBMT survey, and from census information on neighborhood characteristics. This yielded detailed data for 3,062 loan applications from 1990. That total comprises 2,340 applications from whites, of whom 10.3 percent were denied, and 722 applications from blacks and hispanics, of whom 28.1 percent were denied.

By including data on a number of variables deemed important for lending decisions, the MBMT statistical analysis was designed to investigate the influence of race on lending decisions while controlling for other relevant factors likely to be correlated with race. The MBMT model attempts to control for such factors as the ability of the loan applicant to support the loan, default risks, potential default losses, and the characteristics of the loan and of the loan applicant. Thus, the MBMT econometric analysis purportedly reveals the "pure" effect of race on lending decisions independent of other variables. MBMT conclude from the data analysis that "minority applicants with the same economic and property characteristics as white applicants would experience a denial rate of 17 percent rather than the actual white denial rate of 11 percent." (The 10.3 percent rejection figure noted above for white applicants refers to the final MBMT sample, while the 11 percent figure refers to the rejection rate for white applicants among the 18,838 HMDA mortgage loan application reports from which the MBMT sample is drawn.) The 17 percent/11 percent racial gap is estimated by the MBMT econometric model, which predicts acceptances and denials of loan applications based upon the data in the MBMT sample, and which estimates the separate effects of several factors (including race) upon the probability of denial, again based upon the sample data.

MBMT attribute this gap in denial rates to reduced flexibility on the part of lenders when confronted with less-than-perfect minority applications relative to that for white applications also afflicted with imperfections: ". . . for the same imperfections whites seem to enjoy a general presumption of creditworthiness that black and hispanic applicants do not, [and] lenders seem to be more willing to overlook flaws for white applicants than for minority applicants."

A "model" naively predicting that all applications are approved would "predict" with 86 percent accuracy; the MBMT model is barely a better predictor than the naive model.

How Convincing Is the Boston Fed Analysis?

There is no question that the MBMT analysis makes a serious effort to estimate the influence of race while controlling for other important factors correlated with race. MBMT believe that their model is a powerful predictor of approval

Table 1: Denial Rate Predictions by MBMT and by the Alternative Model

Total Obligation Ratio	Denial Rates (percent)		
	Actual	MBMT Prediction	Alternative Prediction
36 percent or lower	9.9	10.6	10.6
36 percent to 40 percent	14.4	16.2	13.4
greater than 40 percent	38.8	32.3	36.7

Source: MBMT, Table 6; author computations.

Table 2: Alternative Model Predicted Denial Rates (percent)

Applicant Group	Actual	Predicted
Whites	9.8	9.8
Blacks	31.0	32.0
Hispanics	22.0	19.0

Source: Author computations.

and denial, in part because it predicts 89 percent of the loan decisions in the sample correctly, and in part because their model predicts denial rates in the sample more accurately than do two simpler models. Both of those predictive abilities are far less impressive than may appear at first glance. The issue of the predictive power of the MBMT model is only one of three relevant to the credibility of the MBMT findings:

• How powerful is the MBMT model as a predictor?

• How reliable are the MBMT data?

• How reliable are the MBMT findings?

How powerful is the MBMT model as a predictor? That the MBMT model predicts 89 percent of the sample outcomes correctly actually is not very impressive, since about 86 percent of the applications in the sample were approved. Thus, a "model" naively predicting that all applications are approved would "predict" with 86 percent accuracy; the MBMT model is barely a better predictor than the naive model. An alternative model—quite simple but still highly realistic—is easy to formulate: It predicts denial of any application that (1) contains information given by the applicant that proves unverifiable by the lender, or (2) seeks and is rejected for private mortgage insurance, or (3) contains a credit history failing to meet the guidelines established by the lender. This simple model predicts approvals for the MBMT sample with an accuracy rate of 92.5 percent, and predicts denials with an accuracy rate of 72.8 percent; as discussed below, the MBMT model predicts denials correctly for less than 36 percent of the sample.

Table 1 (previous page) presents actual denial rates for the MBMT sample and denial rates predicted by the MBMT model and by our alternative model, for three subsamples delineated by "total obligation ratio" (the ratio of total pro-

posed debt expenses to income). In the MBMT Table 6, similar comparisons are made between the MBMT model and two simpler models; the superior predictive power of the MBMT model leads MBMT to conclude that their model "performs remarkably well."

The simple alternative model is a better predictor of denial rates at the two higher total obligation ratio classifications; moreover, the alternative model predicts denial rates by racial group closely, as shown in Table 2 (above).

Perhaps most important, the MBMT model predicts denials poorly. (The following discussion is based upon a somewhat modified version of the MBMT data set, containing 2,701 loan applications instead of 3,062. The 361 deleted applications are as follows: 130 were deleted by MBMT before release of their data set, 129 were deleted due to substantial missing data, 100 were deleted because they were recorded as not owner-occupied, and two were deleted because they were recorded as applications for refinance loans.)

Table 3 (next page) presents a comparison of four models with respect to their ability to predict rejections; these four were estimated with the same econometric technique applied by MBMT in their analysis. The four models are (1) a slightly modified MBMT model (MBMT I), (2) an MBMT model (MBMT II) with its three credit history variables replaced with a "meets lender's credit guidelines" variable and an "unverifiable information" variable, (3) the alternative model described above (ALT I) but estimated econometrically, and (4) the alternative model with added variables for black and hispanic applicants (ALT II).

Of the four models, the MBMT model (as modified slightly) predicts the actual denials correctly less than 36 percent of the time, by far the poorest denial prediction rate among the four models. In 75 cases in which applications actually were denied, the MBMT model predicts a denial probability of less than 0.1. In 36 such cases, it predicts a denial probability lower than 0.05, and in 17 cases a denial probability less than 0.03. Moreover, the MBMT model has the

highest ratio of total predict-
ed denials to correctly pre-
dicted ones (column 5); in
simple terms that means
that the MBMT model must
make the most denial
"guesses" per denial predict-
ed correctly. All of the mod-
els predict too few denials,
but MBMT "underpredicts"
denials far more than the
other models. Thus, it is
clear that the MBMT model
achieves its "89 percent cor-
rect" prediction rate by vast-
ly overpredicting approvals
relative to the other models,
since an approval prediction
chosen randomly has an 86
percent chance of being cor-
rect. This poor ability to pre-
dict denials—even apart
from the other problems
inherent in the MBMT
model noted below—does
not inspire confidence in its
ability to estimate the effect
of race in lending decisions.

How reliable are the
MBMT data? Substantial
data errors and inconsisten-
cies are rampant in the
MBMT data set; it is difficult

Table 3: Prediction of Denials: MBMT and Three Alternative Models

Model	(1) Actual Denials	(2) Correctly Predicted Denials	(3) Total Predicted Denials	(4) (2)/(1) (percent)	(5) (3)/(2)
MBMT I	379	135	178	35.6	1.32
MBMT II	379	242	296	63.9	1.22
ALT I	379	245	308	64.6	1.26
ALT II	379	260	330	68.6	1.27

Source: Author computations. The data and the estimated equations are available from the authors upon request.

Notes: (1) MBMT I differs from the original MBMT model in that the lat-
ter included as a variable the ratio of average rents to the value of the
rental housing stock in each tract. MBMT would not release that variable
for reasons of confidentiality; MBMT I includes instead the vacancy rate
in each tract. The results for the two models differ only slightly.

(2) MBMT II deletes the variables for consumer credit history,
mortgage credit history, and public credit history, replacing them with
variables for "meets lender's credit guidelines," and for "unverifiable
information."

(3) ALT I includes a constant term and three variables: "meets
lender's credit guidelines," "unverifiable information," and "sought and
was denied private mortgage insurance."

(4) ALT II includes the variables in ALT I and adds two variables
for black and hispanic applicants.

to determine whether the errors have biased the
findings because the degree to which many loan
files contain "suspicious" information lies on a
continuum; at some point deletion of apparently
erroneous data becomes arbitrary. This discus-
sion instead is intended to offer some insight
into what appears to be at a minimum substan-
tial sloppiness in the preparation of the MBMT
data set. As many of these data errors and
inconsistencies were uncovered independently
by Day and Liebowitz, by Horne, and during the
preparation of this paper, there is some overlap
among our respective discussions.

The MBMT data set contains a substantial
number of obvious and probable errors. One
loan is for $169,000, with monthly payments of
$1,223, but the term is only 12 months, thus
implying an interest rate both negative and large
in absolute value. The same is true for another
12-month loan for $300,000, with monthly pay-

ments of $2,800. One applicant with annual
income of $4,000 was approved for a $181,000
loan, while another applicant with annual
income of $5,000 received a loan of $148,000.
Those latter two cases, and others like them,
may not be erroneous in that the lenders may
have had other information about the borrow-
ers' future income prospects. But even if that is
the case, the MBMT statistical analysis would
not take such additional information into
account, and so would yield misleading find-
ings.

One approved application was for a loan of
$271,000 for an individual with an annual
income of $11,000; but the data set indicates
that this individual's ratios of housing debt pay-
ments to income and total debt payments to
income are zero. Another observation is similar:
a loan of $245,000 was approved for an individ-
ual earning $47,000 per year, but the "front-end"

ratio of housing debt payments to income supposedly is zero. In all, there are no fewer than 13 large loans approved for individuals with modest incomes but with such ratios equal to zero. Other observations record "back-end" ratios of total debt obligations to income lower than the ratio of only mortgage debt to income, an obvious inconsistency.

One loan for $165,000 ostensibly was approved even though the applicant had a net worth of almost -$2 million. Another loan was approved, for $979,000, for a house priced at $118,000; the actual loan amount was $97,900, as reconstructed from various data sources. A $3,115,000 loan was approved for the purchase of a $445,000 house; the actual loan was for $311,500. Another approved loan was for a

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home purchase listed in the MBMT data set at a price of $124,000; the actual price was $240,000, so that the true loan/value ratio of 65 percent was recorded instead at 125 percent.

Another applicant with annual income of $34,000 received a $400,000 loan, to be repaid in 12 payments of $154. Another $140,000 loan was approved with a total of eight payments under $1,500. The MBMT data set contains no fewer than 22 cases in which there implicitly are large negative interest rates. Another applicant was approved for a $55,000 loan to purchase a $174,000 home, even though his annual income was $30,000 and his net worth was -$7.9 million. Four other applicants with net worths between -$1.4 million and -$4.3 million were approved for loans even though their annual incomes averaged only $95,000. Interestingly, all of the above cases were loans approved for white applicants, a fact that may have biased the MBMT findings.

Even more curious are the cases in the MBMT data set in which applications are recorded as having been denied, but then are recorded as loans subsequently sold on the sec-

ondary market. The MBMT data set, as noted above, is a subset of the HMDA data for 1990; in the subset of those HMDA data that are applications for home purchases, there are 15 cases in which applications are recorded as denied but then sold on the secondary market. Of these 15 obvious inconsistencies, none is from a hispanic applicant and 1 is from a black applicant. But in the MBMT data set—again, supposedly a subset of the HMDA data—there are 43 applications recorded as denied and then sold on the secondary market, of which 40 are black or hispanic. This inconsistency remains to be explained.

It is at least plausible that other errors of similar magnitude exist in the MBMT data along with numerous errors less obvious. Monthly and annual income figures often are inconsistent by substantial proportions. Another serious problem is presented by special programs for affordable housing; applicants for such programs disproportionately are members of minority groups, and applicants often are found to be overqualified for the special programs. MBMT define such overqualified applicants as "rejected" for mortgage loans even though the "rejection" has nothing to do with a conventional mortgage application. More generally, Horne reports that data errors of varying magnitudes were found by examiners in 57 percent of the applications actually denied but predicted by the MBMT model to be approved. Day and Liebowitz report that of the 2,932 MBMT applications that they examined, hundreds failed to pass various consistency tests.

How reliable are the MBMT findings? Three central problems with the MBMT findings suggest strongly that they are not reliable. First, there is the problem of poorly defined variables. Table 3 indicates that the ability of the MBMT model to predict denials increases sharply upon substitution of the "meets guidelines" and "unverifiable information" variables in place of the three MBMT variables measuring the credit histories of applicants. That is not altogether surprising in that those credit history variables are defined poorly. The variable for mortgage credit history is defined without adjustment for the degree to which any late mortgage payments are recent or "ancient history"; moreover, a loan applicant without a mortgage history is treated more favorably than an applicant with only one or two late mortgage payments. The variable for consumer credit history includes no adjustment

"FREEZE! THIS IS A SCREW-UP!"
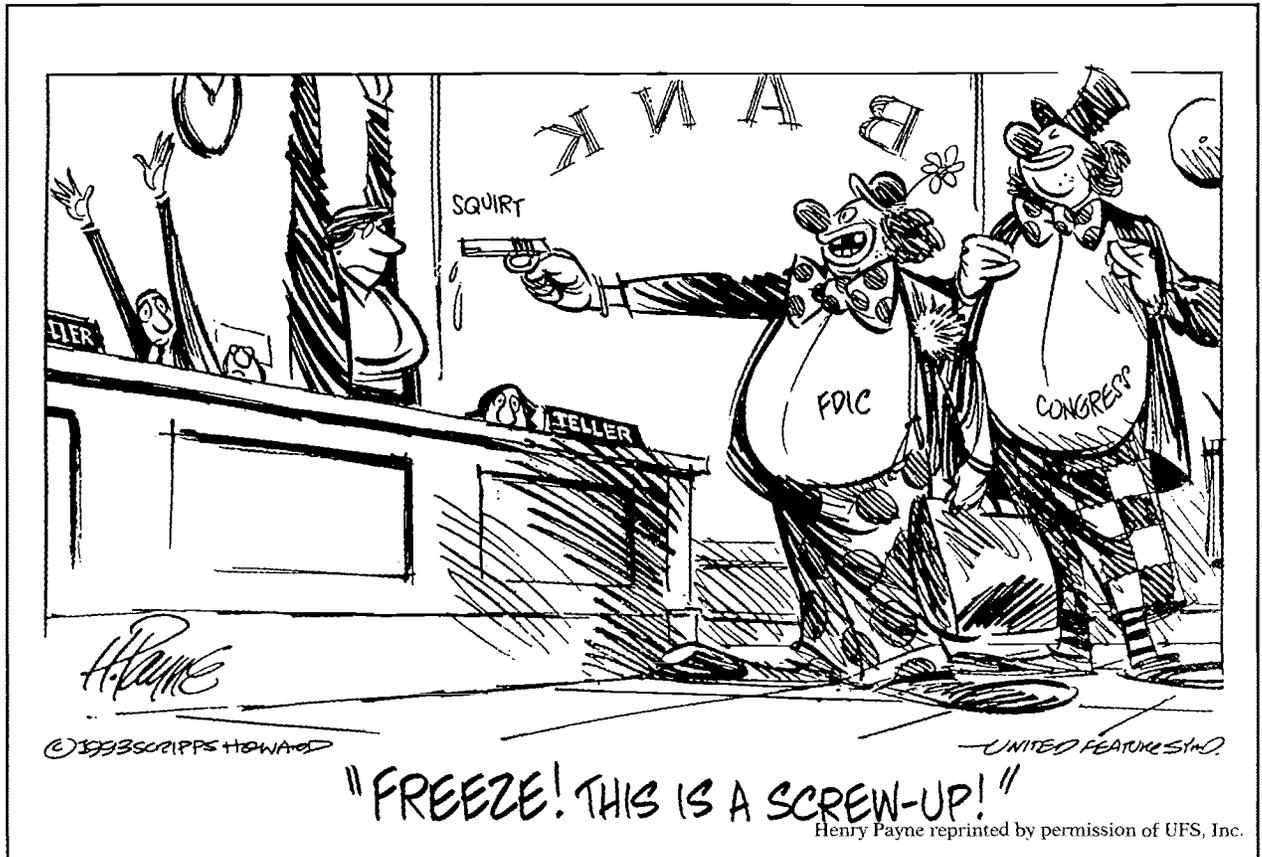
for the magnitude of late payments, if any, or for the degree to which any past delinquencies are recent or old. And the variable for public credit history indicates merely whether a bankruptcy is present in the public record; again, there is no sensitivity in this variable to the size of any defaults, their distance in time, etc. It is reasonable to conclude that the manner with which MBMT have controlled for the credit histories of loan applicants—a crucial consideration for lenders—is poor, notwithstanding their seemingly elaborate efforts to do so.

Other variables also are defined poorly. The importance of the ratio of the loan to the value of the property (LTV) is recognized by MBMT, but the model incorporates the crucial threshold value of 80 percent (above which private mortgage insurance is required) only indirectly at best. That yields implausible predictions by the MBMT model; for example, the MBMT results predict that an increase in LTV from 77 percent to 110 percent (one standard deviation) would increase the likelihood of loan denial by only 11 percent.

More important, there is the second problem of robustness. MBMT believe that their findings are not sensitive to the choice of variables and other parameters, but Day and Liebowitz show that the MBMT findings on racial discrimination are highly sensitive to the choice of subsamples and to the presence of a few observations. When Day and Liebowitz divide the sample into housing type subsamples—condominiums, multiunit homes, and single family homes, with and without need for private mortgage insurance—it is only the subsample of single family homes without need for private mortgage insurance in which the MBMT race variable is significant economically and statistically. Moreover, Day and Liebowitz show that the MBMT statistical finding on the effect of race is attributable to about six denied loan applications, each of which is idiosyncratic in one or more dimensions, and at least four of which easily can be explained on grounds other than racial prejudice.

Third, MBMT-type econometric findings generally are unreliable if important information about loan applicants available to lenders is unavailable to or unused by the statistical ana-

lyst, but is correlated with race or other variables that are included in the econometric analysis. The exclusion in the MBMT model of the "meets guidelines" and "unverifiable information" variables, discussed above, is an example of this problem. In principle, an MBMT-type econometric model will control for the differing characteristics of minority and non-minority loan applicants; but in practice the measurement and modeling difficulties inherent in statistical examination of often-subtle economic behavior often yield findings that cannot be taken at face value.

Taxation by Regulation

The Statement notes that HMDA data provide insufficient information for statistical analysis of discrimination because the data omit such important variables as credit histories and debt

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ratios. But the Statement does argue that "HMDA data are useful . . . for identifying lenders whose practices may warrant investigation for compliance with fair lending laws." Given the ambiguity inherent in data on lending decisions, and given the political volatility of the discrimination issue, such use of HMDA data in the search for culprits is likely to prove perverse.

Suppose that two lenders—the Equal Opportunity Bank and the Bigotry Bank—are open for business; but minority applicants know that only the most wealthy and famous among them will be approved for a loan at the Bigotry Bank. Accordingly, almost all minority applicants waste no time and effort at the Bigotry Bank, and attempt to do business instead with the Equal Opportunity Bank; the only minority applicants applying at the Bigotry Bank are those sufficiently wealthy or famous to be guar-

anteed approval. The Bigotry Bank then will have a spotless record—all its minority loan applications will be approved—while the Equal Opportunity Bank, precisely because of its reputation for fairness, will have some substantial number of denials. The use of HMDA data to find those worthy of investigation is likely to ensnare lenders analogous to the Equal Opportunity Bank precisely because of their reputations for fairness. Will the politics of fair lending allow such lenders uniformly to avoid adverse consequences? Or will the agencies' regulators, seeking budgets from Congress and thus driven by congressional incentives to engage in taxation by regulation, feel compelled to produce some quota of scalps?

Fair lending, always an issue not far from political prominence, now has achieved a new critical mass among journalists and regulators. Unfortunately, neither journalism nor regulation is the same as scholarship. On the basis of poor data and analysis, regulators now are delaying mergers until lenders accused of bias establish special funds for minority lending or for "compensatory" payments to past loan applicants who were denied credit, and agree to enhance marketing and other efforts among potential minority customers. Lawsuits charging past racial discrimination are being settled along similar lines.

As there are no free lunches, the charges, adverse publicity, defense costs, and costs of settlement are analogous to a tax on lenders, particularly since colorblind behavior still is subject to the risk of discrimination accusations based on shoddy data, poor analysis, and political ambition. Unlike explicit taxation and spending, which must emerge from a complex process of political competition within a legislature and between the legislature and the executive, such taxation by regulation in important ways faces fewer constraints in that even the innocent will be willing to pay some regulatory tax in order to avoid the costs and risks of investigations and adverse publicity. Thus, the potential for abuse is very real, and thus can the coercive and confiscatory power of government be enhanced. Nor are the implications for access to capital and the aggregate productivity of capital likely to prove salutary for either the poor or the non-poor.

Those are only two reasons among many that accusations of racial discrimination ought to be

made only after minute scrutiny of the underlying data and analysis. That is a crucial standard that the MBMT analysis fails. This review of the MBMT analysis does not answer the question of whether the market for Boston mortgage loans is evenhanded, but it does suggest strongly that the MBMT analysis is a poor basis upon which to formulate and enforce regulatory policy. In particular, MBMT-type models—even apart from data sloppiness and conceptual errors—for the reasons discussed above must be handled and interpreted with great care.

A different approach is likely to prove more effective: If lenders are discriminating against particular groups—that is, holding them to higher standards—then over time loans to members of those groups will prove more profitable on average than loans to groups purportedly treated more fairly. In a few years much data will be available on defaults, late payments, interest rates, and other factors affecting loan profitability, and those data will be available on an individual basis. An econometric examination of loan profitability across racial and other population groups, holding other factors constant, will offer the prospect of a real advance in our understanding.

Selected Readings

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