#### Price Discrimination and Foreclosures: Two Faces of Predatory Lending

Debbie Gruenstein Bocian, Keith Ernst and Wei Li, Unfair Lending: The Effect of Race and Ethnicity on the Price of Subprime Mortgages

Morgan J. Rose, Predatory Lending Practices and Subprime Foreclosures: Distinguishing Impacts by Loan Category

Alan M. White

## Bocian Ernst & Li

- Strengthens case for race dimension in mortgage pricing
- New contribution combine loan-level data on borrower credit scores and LTV with HMDA APR pricing data
- Limitations disparities within subprime segment only, binary price data, record matching issue

# Advancing the Debate

- No secret explanation for race disparities in mortgage pricing
  - Response to industry omitted variables defense
- Only way to isolate race more clearly as pricing variable would be to get FICO and property value into HMDA dataset
- All the variables used by lenders are here



Score Advantage Lending Program Rate Sheet | Area 2: AR, CO, CT, DC, DE, FL, HI, IN, KY, LA, MT, NE, NH, OK, PA, SD, TN, TX, UT, WY

#### Effective 9/15/2005

RATE ADJUSTMENTS						
INCOME DOCUMENTATION Limited Doc (bank statements) Lite Doc (six months)	+0.125 +0.25					
LOAN SIZE <350,000 \$50,001 - 475,000 \$75,001 - 4250,000 \$750,001 - 4250,000 \$450,001 - \$650,000 -\$650,001	+0.75 +0.25 +0.00 -0.25 +0.50					
PROPERTY TYPES Condo Non-Carner Occupied Second Home 3-4 Units	+0.00 +1.00 +0.25 +0.50					
LENDER PAID BROKER FEE Buryup - 1.30 LPBP Buryup - 1.30 LPBP Buryup - 1.50 LPBP Buryup - 2.30 LPBP Buryub - 2.00 LPBP Buryub - 2.00 LPBP Buryub - 1.50 LPBP Buryub - 3.500K imitad to 1 LPBP	+0.25 +0.50 +0.875 +1.25 -0.50					
PREPAYMENT PENALTY Prepay Buydout (per year, max 1 year)	+1.00 +0.50					
LOAN PROGRAMS (3 YR PREPAY - LANCET) 3 Year Flood Rate 5 Year Flood Rate 15 Year Flood Rate 20 Year Flood Rate 20 Year Flood Rate 30 Year Flood Rate	+0.10 +0.50 +0.65 +0.70 +0.80					
BANKRUPTCY BK < 1 yr A+ 540+ BK < 1 yr A- 560+ BK < 1 yr A- 560+	+0.25 +0.25 +0.25					
OTHER 40 Year Amortization Internet Only High Score Adv Ful/Lite Doc High Score Adv Stated Doc 100% CITV 100% CITV Stated Wage Earner Burpout Feel Mortgage Only	+0.10 +0.35 +0.75 +0.75 +0.25 +0.30 +0.50 +1.00					
Maximum margin is 6.99 (inducting adjustments).						
Final rate determined at time Docs are drawn.						
and seems account assessments						

call your account e	xecutive
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		Full Doc - 2 year fixed 2 year prepay penalty							2	Stated Doc - 2 year fixed 2 year prepay penalty					
HORTGAGE	5 A	65%	70	*/s <sup>LO</sup>	AN TO VAL	UE 85%	90%	95%	63%	70%		ANI TO VAL		90%	
<b>A+</b> ° × 30 mar <b>4</b>	660 640 620 550 550 550 550	5.65 5.670 5.685 5.685 5.685 5.6420 6.420 7.60	55,80 55,90 56,90 66,60 66,60 7,70	100955500 5566667	5.99 5.999 6.15 6.35 6.480 6.7.99 7.99	5.99 6.15 6.35 6.55 6.65 6.75 7.75 8.35	6.30 6.355 6.750 6.750 7.90 7.90 7.90	6.90 6.99 7.125 7.350 8.20	6.10 6.25 6.25 6.45 6.60 7.20 7.75 8.50	6.25 6.35 6.45 6.55 6.80	6.35 6.455 6.655 6.75 6.75 7.55 7.55 8.95	6.55 6.6.75 6.6.95 7.35 7.60 9.25 7.60 9.25 8.92 7.60 9.20	6.65 6.705 7.350 7.360 7.99	6.95 7.05 7.35 7.45 7.70 7.90	
<b>A</b> 1 x 30 last 12 mos. margin: 5.99	720 680 640 620 550 550 550 550	5.65 5.70 5.25 5.90 6.25 6.25 6.35 6.35 6.35 6.35 7.90	5.75 5.85 5.99 6.15 6.30 6.40 6.99 7.45 7.99	7.80 5.599 66.355 7.80 66.355 7.80 7.80 7.80 7.80	5677759990 5677759990 5555666666778	6.10 6.25 6.30 6.60 6.70 7.15 7.60 8.15 8.65	6.40 6.50 6.65 6.90 6.95 7.60 7.99	6.99 7.155 7.250 7.655 7.75	6.15 6.20 6.35 6.80 7.20 7.20 7.75 8.35 8.90	6.30 6.40 6.90 7.05 7.30 7.90 8.60	6.40 6.50 6.80 6.99 7.25 7.45 8.15 8.99 9.30	6.75 6.75 7.15 7.35 7.35 8.10 9.75	6.85 7.05 7.10 7.20 7.50 7.70 7.90	7.20 7.50 7.60 7.70 7.80	
<b>A-</b> 3 x 30 last 12 mos. margin: 6.25	720 660 640 620 550 555 525 500	5.755 5.855 5.955 6.235 5.555 6.655 5.055 7.70	5.95 5.95 6.25 6.630 6.60 7.850 7.820	560550 66130 666666 66788 889 889 889 895 895 805 805 805 805 805 805 805 805 805 80	6.15550005505050 6.6666667886666	6.25 6.35 6.60 6.70 7.80 7.80 8.95 8.95	6.55 6.755 6.955 7.60 7.85 8.30	7.10 7.30 7.35 7.55 7.80 8.05 -	6.25 6.355 6.75 6.90 7.15 7.90 8.55 9.15	6.50 6.65 6.85 6.99	500955555 6689555555 77789955	6.80 6.905 7.25 7.25 7.955 8.655 9.	7.25 7.35 7.45 7.65 7.99		
B+ 4 x 30 last 12 mos. margin: 6.50	680 640 620 680 555 525 500	7.99 5.90 5.99 6.20 6.30 6.50 6.80 7.30 7.75 8.15	8.20 5.99 6.15 6.30 6.40 6.60 6.85 7.40 7.90 8.30	6.10 6.25 6.50 6.65 6.99 7.50 8.50	6.70 6.80 7.05 7.70 8.30	6.75 7.05 7.15 7.30 7.90 7.90 8.05	7.10 7.25 7.35 7.55 7.80 7.95	-	6.40 6.85 7.05 7.20 7.50 7.50 8.70 8.70	6.95 7.15 7.25 7.65 8.15 8.85	6.65 6.95 7.10 7.25 7.40 7.75 8.65 9.20 9.80	7.10 7.20 7.35 7.50 7.60 8.10 8.95 9.60	7.55 7.70 7.80 7.90 8.20		
B 1 x 60 last 12 mos. margin: 6.65	680 660 620 550 525 500	5.95 6.20 6.40 6.50 6.90 7.60	6.05 6.30 6.50 6.65 6.95 7.50 7.99 8.40	6.20 6.455 6.655 6.705 7.65 7.65	6.25 6.60 6.65 6.75 6.85 7.15 7.90 8.50 8.70	6.85 7.05 7.10 7.20 7.35 7.55 8.10 9.05			6.45 6.85 7.15 7.25 8.80 9.5	6.95 7.05 7.30 7.35 7.25 8.95	6.80 7.10 7.35 7.55 7.80 8.80 9.30 10.05				
C+ 1 x 90 last 12 mos. margin: 6.85	680 660 620 620 5555 525 500	1805050 005050 005050 005050 00505555 0050555555	6.65 6.85 6.99 7.35 8.20 8.20 8.20	6.75 6.90 7.20 7.50 7.50 8.40 8.40	6.95 7.10 7.15 7.30				6.80 6.95 7.25 7.55 7.50 8.35 9.20	7.10 7.25 7.35 7.45 7.70 7.99 8.80 9.55	-				
C 1 x 120 last 12 mos. margin: 6.95	680 640 620 555 500 5525 500	8.65 8.95 9.05 9.25 9.25 9.35 10.10 10.20 10.55	9.55 9.80 9.95 10.05 10.15 10.25 10.55 11.40 11.55	-						-	If a low that up At At St St		um Rati	-	

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- Borrower variables
  Loan product are:
  - -FICO score
  - -Property value
  - -Mortgage rates

- variables are:
  - -Loan amount
  - -Documentation level
  - -Prepayment penalty
  - -Broker premium paid

# **Policy Implications**

- Steering problem
  - CRA enforcement, low-price lenders failing to market to high-priced borrowers
  - Suitability or fiduciary duty for brokers
- Pricing discretion problem
  - Require lender validation of pricing algorithms
  - Transparency Adv rules: rate calculators on Internet
  - Transparency early binding written price offer
  - Reduce complexity with standardized products
  - Suitability or fiduciary duty trusted advisor for product selection

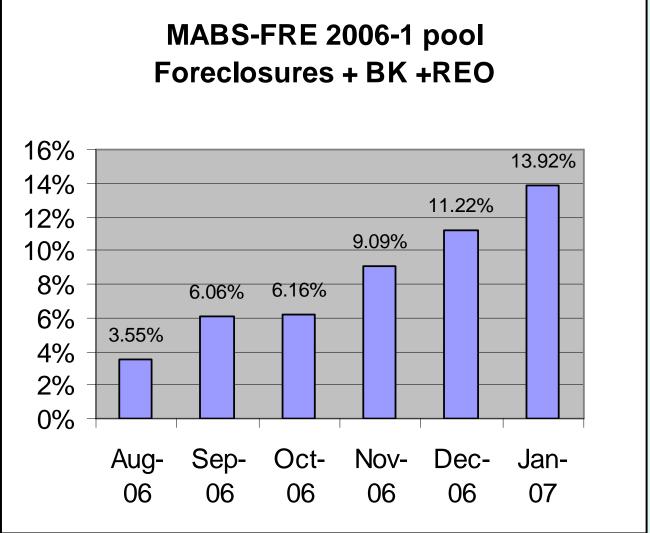
### Rose on Foreclosures

- 32,618 Chicago subprime mortgages originated 1999-2003, 13% entered foreclosure
- Refinance ARMs with three-year prepayment penalties had 20.6% foreclosure incidence
- No-doc loans have lower foreclosure rates, but are less seasoned (i.e., few originated in 1999, more in 2003)
- Limitations Heterogeneity of subprime
  - Chicago (inner city) vs. purchase loans in CA
  - 1999 vs. 2003 vintages

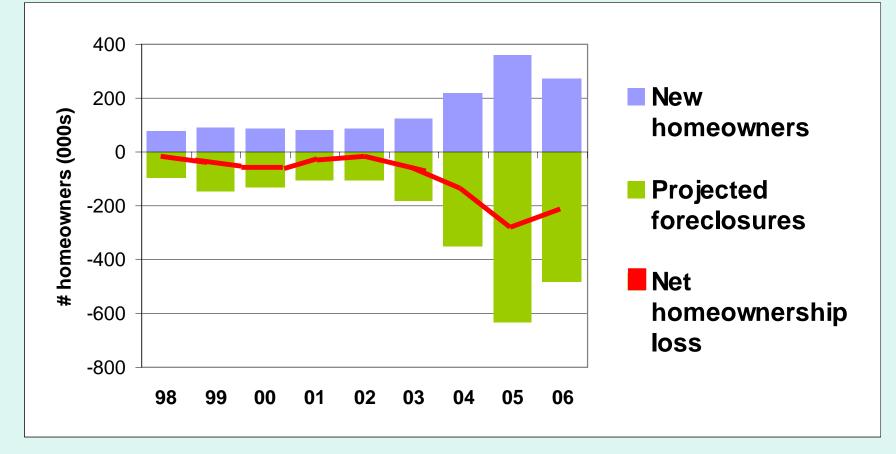
# Key Findings

- Purchase and refinance mortgages have very different risks
  - Odd case of no-doc purchase loans, much lower foreclosures, possibly market segment anomaly
- Layering of risk factors increases foreclosure rate more than single factors

### Evolution of Subprime Today



# Subprime Homeownership: A Net Loss



# **Policy implications**

- Market will accept high levels of foreclosure over time, intervention needed to prevent major harm
- Regulation and guidance should treat purchase mortgages and refinancings separately
- Scrutinize lenders who combine rather than offset risky product features
- Outcomes approach –benchmark foreclosure rates, target lenders with highest rates for exam or licensing action
- Internalize costs community impact fees