**Research Comment: On "Liar's Loan? Effects of Origination Channel and Information Falsification on Mortgage Delinquency"**

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A working paper recently released by the Columbia Business School, "Liar's Loan? Effects of Origination Channel and Information Falsification on Mortgage Delinquency" [1] reported three main findings: **(1) mortgages originated through brokers are more likely to become delinquent than similar mortgages made through retail channels; (2) mortgages with low levels of income documentation are more likely to become delinquent than those with standard levels; and (3) African-American and Latino borrowers were more likely than non-Latino, white borrowers to become delinquent.** This report is consistent with the following well-established facts regarding loan delinquencies:

- **Loans originated by mortgage brokers perform worse than those originated by the bank's retail channel, even after controlling for borrower risk factors.** The authors find a large disparity between the delinquency rates of loans originated by brokers versus those originated directly through the bank's retail channel and cannot fully explain the disparity by differences in risk factors such as credit score and loan-to-value ratio, a finding that has been borne out by other research as well.[2] The authors' attribute this unexplained disparity to "manifestation of the misalignment of incentives for brokers who issue loans on the bank's behalf for commissions but do not bear the long-term consequences of low-quality loans." That is, the authors argue that because the financial compensation of brokers is largely based on origination volume, not loan performance, they are not as vested in assuring the long-term viability of the loans they originate. Of course, in virtually all brokered transactions, the responsibility for underwriting ultimately rests with the lender. The implication is that lenders have been less able—or less willing—to maintain standards in the broker channel.

- **Loans with low levels of documentation defaulted at higher rates than loans with full documentation**. The authors find that loans with low levels of documentation perform worse than those with full documentation and point to the poor predictive power of the low-documentation models as indications of inaccurate information on many low-documentation loans. The prevalence of low-doc loans, particularly in the subprime and Alt-A markets, along with their high default rates have been widely noted.[3] The authors

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[1] See Wei Jiang, Ashlyn Aiko Nelson and Edward Vytlacil. "Liar's Loan? Effects of Origination Channel and information Falsification on Mortgage Delinquency". Available at http://www.columbia.edu/~wj2006/liars_loan.pdf.

[2] See "Risky Borrowers or Risky Mortgages: Disaggregating Effects Using Propensity Score Models." Lei Ding, Roberto G. Quercia, Wei Li, Janneke Radcliffe. Available at http://www.ccc.unc.edu/documents/RiskyMortg_Final_Dec11.pdf

[3] See GAO's "Characteristics and Performance of Nonprime Mortgages", available at http://www.gao.gov/new.items/d09848r.pdf and the University of North Carolina's "The Impact of Predatory Loan

should take care, however, not to assume that it was the *borrowers* who lied on their loan applications. It is possible that loan originators falsified information without the borrowers' knowledge in order to over-qualify borrowers for loans. This is particularly likely for mortgage brokers, since broker compensation is dependent upon the volume and terms, but not the performance, of originated loans. Consequently, brokers have a financial incentive to originate as many loans as possible without due regard for borrowers' ability to repay. This incentive structure is also true, albeit to a lesser extent, for retail lenders who sell their loans on the secondary market. The higher default rate of low-documentation loans in both retail and broker channels, but with the disparity between low- and full-documentation loans larger in the broker channel, combined with the larger disparity between the full- and low-documentation models' predictive power in the broker channel, is consistent with a hypothesis of originators falsifying information on low-documentation loans.

- **African-American and Latino borrowers were more likely to struggle with their loans than white borrowers.** The study shows that African-American and Latino borrowers were more likely to be delinquent on their loans than white borrowers with similar characteristics. Because some readers may mistakenly conflate this finding with others in the paper, it is important to explicitly note that <u>the study does not find nor do the authors conclude that African Americans or Latinos were somehow more likely to misrepresent their income on mortgage applications</u>. And, while this paper does not find evidence of disparate loan pricing within fixed-rate products[4] or of steering to low-documentation products, it is nonetheless possible that differences in delinquency rates are due to minority borrowers being disproportionately steered into loan products with other risky features, particularly subprime products. For example**,** previous research has shown that borrowers in African-American and Latino neighborhoods were much more likely to receive subprime loans with prepayment penalties than borrowers with similar risk profiles in white neighborhoods.[5] Such evidence of racial and ethnic steering, combined with conclusions from a recent report published by the University of North Carolina[6] showing that receipt of risky loan products, especially subprime products, are strong determinants of loan defaults, suggests that the disparate delinquency rates in this study may reflect a targeting of dangerous products to minority borrowers.

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Terms on Subprime Foreclosures: The Special Case of Prepayment Penalties and Balloon Payments", Roberto G. Quercia, Michael A. Stegman and Walter R. Davis, available at http://www.ccc.unc.edu/documents/foreclosurepaper.pdf.

[4] It is worth noting that other studies have, in fact, found that minorities receive higher-priced loans than similarly-qualified white borrowers. See"Race, Ethnicity and Subprime Loan Pricing." Debbie Gruenstein Bocian, Keith Ernst and Wei Li. Journal of Economics and Business, Vol. 60, Issues 1-2, January-February 2008, Pages 110-124.

[5] See "Borrowers in High Minority Areas More Likely to Receive Prepayment Penalties on Subprime Loans." Debbie Gruenstein Bocian and Richard Zhai, January 2005. Available athttp://www.responsiblelending.org/media-center/press-releases/archives/rr004-PPP_Minority_Neighborhoods-0105.pdf

[6] See "Risky Borrowers or Risky Mortgages: Disaggregating Effects Using Propensity Score Models." Lei Ding, Roberto G. Quercia, Wei Li, Janneke Radcliffe. Available at http://www.ccc.unc.edu/documents/RiskyMortg_Final_Dec11.pdf .

While the study will be a valuable contribution to the existing literature on loan delinquency, the authors should consider several adjustments as they move to a final analysis. First, the models would greatly benefit from the inclusion of controls for loan segment and product, especially subprime status and product features such as adjustable rates, negative amortization options, and interest-only periods. Second, while the authors control for origination year and cluster observations by MSA, they should consider explicitly controlling for MSA-level housing price changes, since the dynamics of housing price depreciation is a critical determinant of loan default. Third, debt-to-income can be included in the models as it is this ratio (and not income by itself) that is the traditional underwriting variable used by lenders. Fourth, even though the primary interest of the authors' is default and not prepayment, the authors should consider employing a competing-hazard model that jointly estimates the probability of prepayment and default to better isolate default risk.