

Internet Appendix

A.1. Derivation of Model Propositions

This section presents the derivation of the three propositions discussed in Section II. First, we consider a W2 borrower's utility-maximizing choice of income exaggeration for a low-doc loan, given a loan cost r . A W2 borrower solves the following utility maximization:

$$\max_x U_W^N(x) = u(L^N; \mu(x)) - rL^N(x) + \rho [pu(L^F; \mu) + (1-p)u(L^N(x); \mu) - rL^N(x)]$$

This objective function is globally concave. The first order condition is:

$$\frac{dU_W^N(x)}{dx} = (1 + \rho(1-p)) \left(\frac{\mu\sqrt{\beta y}}{2\sqrt{x}} - r\beta y \right) = 0.$$

Rearranging gives,

$$x_W = \frac{\mu^2}{4r^2\beta y}.$$

We insert this choice of income exaggeration into the objective function and analyze the borrower's choice between a low-doc loan and a full-doc loan.

$$B_W^N(\mu) \equiv U_W^N(x_W) - U_W^F = (1 + \rho(1-p)) \left(\frac{1}{4r} \mu^2 - \sqrt{\alpha y} \mu \right).$$

This is a convex quadratic function that takes a value of zero when $\mu = \{0, \mu^*\}$, where $\mu^* \equiv 4r\sqrt{\alpha y}$.

The benefit of a low-doc loan $B_W^N(\mu)$ is positive if and only if $\mu > \mu^*$ and otherwise non-positive.

A W2 borrower without a concern about future credit access is characterized by $\rho = 0$. The choice of income exaggeration is unchanged. The benefit of a low-doc loan becomes: $B_W^N(\mu) = 1/4r\mu^2 - \sqrt{\alpha y}\mu$, which is smaller in absolute value than for a W2 borrower with future credit concerns. The threshold value μ^* is unchanged.

A self-employed borrower's utility-maximizing choice of income exaggeration for a low-doc loan,

given a loan cost r , is defined by:

$$\begin{aligned} \max_x U_S^N(x) &= u(L^N(x); \mu) - rL^N(x) \\ &+ \rho [p(u(L_D^N; \mu) - rL_D^N - \gamma x L_D^N) + (1-p)(u(L^N(x); \mu) - rL^N(x))] . \end{aligned}$$

The first order condition is:

$$\frac{dU_S^N(x)}{dx} = (1 + \rho(1-p)) \left(\frac{\mu\sqrt{\beta y}}{2\sqrt{x}} - r\beta y \right) - \rho p \gamma \beta y = 0.$$

Rearranging gives,

$$x_S = \left(1 + \frac{\rho p \gamma}{r(1 + \rho(1-p))} \right)^{-2} \times \frac{\mu^2}{4r^2 \beta y} \equiv Ax_W,$$

where $A \equiv [1 + \rho p \gamma / r(1 + \rho(1-p))]^{-2} \in (0, 1)$. We plug this choice of income exaggeration in the objective function and analyze the borrower's choice between a low-doc loan and a full-doc loan.

$$\begin{aligned} B_S^N(\mu) &\equiv U_S^N(x_S) - U_S^F \\ &= \mu^2 \frac{(1 + \rho(1-p))}{4[r(1 + \rho(1-p)) + \rho p \gamma]} + \mu [\rho p \sqrt{\beta y} - (1 + \rho)\sqrt{\alpha y}] + (1 + \rho)c^H - \rho p r \beta y \\ &\equiv \theta_1 \mu^2 + \theta_2 \mu + \theta_3, \end{aligned}$$

where $\theta_1 \equiv \frac{\sqrt{A}}{4r} > 0$, $\theta_2 \equiv \rho p \sqrt{\beta y} - (1 + \rho)\sqrt{\alpha y} < 0$, and $\theta_3 \equiv (1 + \rho)c^H - \rho p r \beta y$. $B_S^N(\mu)$ is a convex quadratic function that takes a value of θ_3 when $\mu = 0$. The sign of θ_3 depends on c^H . Further rearranging gives

$$B_S^N(\mu) = \theta_1 \left(\mu + \frac{\theta_2}{2\theta_1} \right)^2 + \theta_3 - \frac{\theta_2^2}{4\theta_1}.$$

The global minimum of $B_S^N(\mu)$ is $\theta_3 - \frac{\theta_2^2}{4\theta_1}$. Thus, there are three cases for the solution to $B_S^N(\mu) = 0$.

1. If $\theta_3 > \frac{\theta_2^2}{4\theta_1}$, then $\forall \mu : B_S^N(\mu) > 0$.
2. If $\theta_3 \in \left[0, \frac{\theta_2^2}{4\theta_1}\right]$, then $B_S^N(\mu) = 0$ has two roots: $\mu_S^* = -\frac{\theta_2}{2\theta_1} + \sqrt{\frac{\theta_2^2}{4\theta_1^2} + \frac{\theta_3}{\theta_1}}$ and $\mu_S^{**} = -\frac{\theta_2}{2\theta_1} - \sqrt{\frac{\theta_2^2}{4\theta_1^2} + \frac{\theta_3}{\theta_1}}$. Thus, $B_S^N(\mu) \leq 0$ for $\mu \in [\mu_S^{**}, \mu_S^*]$, and $B_S^N(\mu) > 0$ for $\mu \in (0, \mu_S^{**})$ and $\mu > \mu_S^*$.
3. If $\theta_3 < 0$, then $B_S^N(\mu) = 0$ has one root. Thus, $B_S^N(\mu) \leq 0$ for $\mu \in (0, \mu_S^*]$, and $B_S^N(\mu) > 0$ for $\mu > \mu_S^*$.

A.2. Estimation Results for the Semi-log Model of Borrower Income (Section V.)

Table A1 reports the coefficient estimates for the income regressions where the dependent variable is the log of borrower income. Column [1] includes all full-doc W2 observations, while Column [2] includes all full-doc self-employed observations.¹ The signs and significance of the coefficients generally match across the two subsamples. The coefficients indicate that women and minorities have lower incomes while borrowers with higher credit reputation have higher incomes. An individual's income is positively related to the neighborhood (ZIP code) income level, and negatively related to the changes in MSA house prices in the two-year period prior to loan origination.

We use the coefficients in Table A1 to compute estimates of income for the full-doc (in-sample) and low-doc (out-of-sample) loan borrowers. To calculate an estimate of income exaggeration (*INC_EXAG*), we subtract the estimated income from the reported income. Since estimated and reported income are both in logs, *INC_EXAG* represents the percentage difference between the borrower's reported income and estimated income.²

¹Full-doc borrower income is verified by the lender.

²*INC_EXAG* is winsorized at the at the 1% level, but the main results are unchanged without winsorization.

Table A1: Model for Income Estimation

Dependent Variable: Natural Logarithm of Borrower Monthly Income	[1]		[2]	
	W2	Log Income Full Doc	Self-Employed Log Income Full Doc	Coeff. Std. Err.
The FICO score of the primary borrower at origination (FICO)		0.0002*** (0.0000)	0.0004*** (0.0001)	
An indicator set to one if the borrower was a female (FEMALE)		-0.1157*** (0.0015)	-0.0985*** (0.0075)	
The age of the primary borrower (AGE)		-0.0027*** (0.0001)	-0.0022*** (0.0003)	
An indicator set to one if the borrower was a minority (MINORITY)		-0.0077*** (0.0016)	-0.0132* (0.0076)	
Zip Code Income per Capita (ZIP_INC)		0.1021*** (0.0023)	0.0496*** (0.0093)	
Loan amount at origination (LOG_LOAN)		0.6762*** (0.0019)	0.6782*** (0.0080)	
An indicator set to one if the property was an investment property (INVESTMENT)		0.3685*** (0.0032)	0.5236*** (0.0107)	
MSA house price growth over previous two years (HPI_2YR)		-0.2483*** (0.0094)	-0.1133*** (0.0406)	
Origination Year Dummies	Yes		Yes	
MSA Fixed Effects	Yes		Yes	
Constant		0.0760 (0.0835)	0.1985 (0.2486)	
N	253,114		19,509	
Adj. R^2	0.54		0.45	

Note: This table presents coefficient estimates from an OLS regression of log borrower income for the full-doc funded loans from the New Century database. The coefficients in columns 1 and 2 are used to estimate the log income of the W2 and self-employed loans, respectively. Heteroskedasticity-robust standard errors adjusted for clustering at the MSA level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

A.3. Example Wholesale Rate Sheets

First Franklin®
A National City Company

FIRST MORTGAGE ARM
2 YR. FIXED / 2 YR. PRE-PAY (31/6% CAPS)

Credit	FULL DOC									
	LTV RANGES									
	100-95.01	95-90.01	90-85.01	85-80.01	80-75.01	75-70.01	70-65.01	65-60.01	60-55.01	55-50.01
Score	7.75	7.25	7.25	7.00	6.50	6.40	6.25	6.15	6.15	6.15
2700	8.00	7.50	7.40	7.15	6.65	6.65	6.50	6.40	6.40	6.40
600-699	8.10	7.75	7.50	7.25	6.75	6.75	6.60	6.50	6.50	6.50
600-679	8.20	7.85	7.60	7.35	6.85	6.85	6.70	6.60	6.60	6.60
600-659	8.30	7.95	7.70	7.45	6.95	6.95	6.80	6.70	6.70	6.70
600-639	8.40	8.05	7.80	7.55	7.05	7.05	6.90	6.80	6.80	6.80
600-619	8.50	8.15	7.90	7.65	7.15	7.15	7.00	6.90	6.90	6.90
600-599	8.60	8.25	8.00	7.75	7.25	7.25	7.10	7.00	7.00	7.00
600-579	8.70	8.35	8.10	7.85	7.35	7.35	7.20	7.10	7.10	7.10
600-559	8.80	8.45	8.20	7.95	7.45	7.45	7.30	7.20	7.20	7.20
600-539	8.90	8.55	8.30	8.05	7.55	7.55	7.40	7.30	7.30	7.30
600-519	9.00	8.65	8.40	8.15	7.65	7.65	7.50	7.40	7.40	7.40
600-499	9.10	8.75	8.50	8.25	7.75	7.75	7.60	7.50	7.50	7.50
600-479	9.20	8.85	8.60	8.35	7.85	7.85	7.70	7.60	7.60	7.60
600-459	9.30	8.95	8.70	8.45	7.95	7.95	7.80	7.70	7.70	7.70
600-439	9.40	9.05	8.80	8.55	8.05	8.05	7.90	7.80	7.80	7.80
600-419	9.50	9.15	8.90	8.65	8.15	8.15	8.00	7.90	7.90	7.90
600-399	9.60	9.25	9.00	8.75	8.25	8.25	8.10	8.00	8.00	8.00
600-379	9.70	9.35	9.10	8.85	8.35	8.35	8.20	8.10	8.10	8.10
600-359	9.80	9.45	9.20	8.95	8.45	8.45	8.30	8.20	8.20	8.20
600-339	9.90	9.55	9.30	9.05	8.55	8.55	8.40	8.30	8.30	8.30
600-319	10.00	9.65	9.40	9.15	8.65	8.65	8.50	8.40	8.40	8.40
600-299	10.10	9.75	9.50	9.25	8.75	8.75	8.60	8.50	8.50	8.50
600-279	10.20	9.85	9.60	9.35	8.85	8.85	8.70	8.60	8.60	8.60
600-259	10.30	9.95	9.70	9.45	8.95	8.95	8.80	8.70	8.70	8.70
600-239	10.40	10.05	9.80	9.55	9.05	9.05	8.90	8.80	8.80	8.80
600-219	10.50	10.15	9.90	9.65	9.15	9.15	9.00	8.90	8.90	8.90
600-199	10.60	10.25	10.00	9.75	9.25	9.25	9.10	9.00	9.00	9.00
600-179	10.70	10.35	10.10	9.85	9.35	9.35	9.20	9.10	9.10	9.10
600-159	10.80	10.45	10.20	9.95	9.45	9.45	9.30	9.20	9.20	9.20
600-139	10.90	10.55	10.30	10.05	9.55	9.55	9.40	9.30	9.30	9.30
600-119	11.00	10.65	10.40	10.15	9.65	9.65	9.50	9.40	9.40	9.40
600-099	11.10	10.75	10.50	10.25	9.75	9.75	9.60	9.50	9.50	9.50
600-079	11.20	10.85	10.60	10.35	9.85	9.85	9.70	9.60	9.60	9.60
600-059	11.30	10.95	10.70	10.45	9.95	9.95	9.80	9.70	9.70	9.70
600-039	11.40	11.05	10.80	10.55	10.05	10.05	9.90	9.80	9.80	9.80
600-019	11.50	11.15	10.90	10.65	10.15	10.15	10.00	9.90	9.90	9.90
600-000	11.60	11.25	11.00	10.75	10.25	10.25	10.10	10.00	10.00	10.00
MARGIN	6.40	6.40	5.90	5.90	5.40	5.40	5.40	5.40	5.40	5.40

Credit	RAPID PURCHASE / RAPID REE									
	LTV RANGES									
	100-95.01	95-90.01	90-85.01	85-80.01	80-75.01	75-70.01	70-65.01	65-60.01	60-55.01	55-50.01
Score	8.25	7.75	7.75	7.50	7.00	6.85	6.75	6.65	6.65	6.65
2700	8.50	8.00	7.85	7.65	7.15	7.15	7.00	6.90	6.90	6.90
600-699	8.75	8.40	8.20	7.90	7.35	7.35	7.20	7.10	7.10	7.10
600-679	8.85	8.50	8.30	8.00	7.45	7.45	7.30	7.20	7.20	7.20
600-659	8.95	8.60	8.40	8.10	7.55	7.55	7.40	7.30	7.30	7.30
600-639	9.05	8.70	8.50	8.20	7.65	7.65	7.50	7.40	7.40	7.40
600-619	9.15	8.80	8.60	8.30	7.75	7.75	7.60	7.50	7.50	7.50
600-599	9.25	8.90	8.70	8.40	7.85	7.85	7.70	7.60	7.60	7.60
600-579	9.35	9.00	8.80	8.50	7.95	7.95	7.80	7.70	7.70	7.70
600-559	9.45	9.10	8.90	8.60	8.05	8.05	7.90	7.80	7.80	7.80
600-539	9.55	9.20	9.00	8.70	8.15	8.15	8.00	7.90	7.90	7.90
600-519	9.65	9.30	9.10	8.80	8.25	8.25	8.10	8.00	8.00	8.00
600-499	9.75	9.40	9.20	8.90	8.35	8.35	8.20	8.10	8.10	8.10
600-479	9.85	9.50	9.30	9.00	8.45	8.45	8.30	8.20	8.20	8.20
600-459	9.95	9.60	9.40	9.10	8.55	8.55	8.40	8.30	8.30	8.30
600-439	10.05	9.70	9.50	9.20	8.65	8.65	8.50	8.40	8.40	8.40
600-419	10.15	9.80	9.60	9.30	8.75	8.75	8.60	8.50	8.50	8.50
600-399	10.25	9.90	9.70	9.40	8.85	8.85	8.70	8.60	8.60	8.60
600-379	10.35	10.00	9.80	9.50	8.95	8.95	8.80	8.70	8.70	8.70
600-359	10.45	10.10	9.90	9.60	9.05	9.05	8.90	8.80	8.80	8.80
600-339	10.55	10.20	10.00	9.70	9.15	9.15	9.00	8.90	8.90	8.90
600-319	10.65	10.30	10.10	9.80	9.25	9.25	9.10	9.00	9.00	9.00
600-299	10.75	10.40	10.20	9.90	9.35	9.35	9.20	9.10	9.10	9.10
600-279	10.85	10.50	10.30	10.00	9.45	9.45	9.30	9.20	9.20	9.20
600-259	10.95	10.60	10.40	10.10	9.55	9.55	9.40	9.30	9.30	9.30
600-239	11.05	10.70	10.50	10.20	9.65	9.65	9.50	9.40	9.40	9.40
600-219	11.15	10.80	10.60	10.30	9.75	9.75	9.60	9.50	9.50	9.50
600-199	11.25	10.90	10.70	10.40	9.85	9.85	9.70	9.60	9.60	9.60
600-179	11.35	11.00	10.80	10.50	9.95	9.95	9.80	9.70	9.70	9.70
600-159	11.45	11.10	10.90	10.60	10.05	10.05	9.90	9.80	9.80	9.80
600-139	11.55	11.20	11.00	10.70	10.15	10.15	10.00	9.90	9.90	9.90
600-119	11.65	11.30	11.10	10.80	10.25	10.25	10.10	10.00	10.00	10.00
600-099	11.75	11.40	11.20	10.90	10.35	10.35	10.20	10.10	10.10	10.10
600-079	11.85	11.50	11.30	11.00	10.45	10.45	10.30	10.20	10.20	10.20
600-059	11.95	11.60	11.40	11.10	10.55	10.55	10.40	10.30	10.30	10.30
600-039	12.05	11.70	11.50	11.20	10.65	10.65	10.50	10.40	10.40	10.40
600-019	12.15	11.80	11.60	11.30	10.75	10.75	10.60	10.50	10.50	10.50
600-000	12.25	11.90	11.70	11.40	10.85	10.85	10.70	10.60	10.60	10.60
MARGIN	6.40	6.40	5.90	5.90	5.40	5.40	5.40	5.40	5.40	5.40

Credit	NIV									
	LTV RANGES									
	100-95.01	95-90.01	90-85.01	85-80.01	80-75.01	75-70.01	70-65.01	65-60.01	60-55.01	55-50.01
Score	8.40	7.90	7.90	7.65	7.15	7.00	6.90	6.75		<65
2700	8.55	8.15	8.15	7.75	7.25	7.25	7.15	7.00		
600-699	8.75	8.40	8.15	7.90	7.40	7.40	7.35	7.25		
600-659	9.00	8.50	8.40	8.15	7.60	7.60	7.50	7.40		
600-639			9.00	8.75	8.25	8.25	8.15	8.00		
600-619	9.20-9.29		9.00	8.75	8.25	8.25	8.15	8.00		
600-599	9.30-9.39		9.10	8.75	8.25	8.25	8.15	8.00		
600-579	9.40-9.49		9.15	8.99	8.40	8.40	8.25	8.15		
600-559					8.65	8.65	8.50	8.40		
600-539					8.85	8.85	8.50	8.40		
600-519					9.05	9.05	8.65	8.50		
600-499					9.25	9.25	8.75	8.65		
MARGIN	6.40	6.40	5.90	5.90	5.40	5.40	5.40	5.40	5.40	



▼ Maximum \$500K. Borrower cannot own any other real estate in whole or in part.

Refer to Sections 20.3, Subprime 8.0'20 Program for details.

¹ SFRs, PUDs and condos. Owner-occupied, primary residences only.

**FIRST-TIME HOMEBUYERS WITHOUT
12 MONTHS' RENTAL VERIFICATION**

12 MONTHS RENTAL FLEXIBILITY		
	< 620	≥ 620
2 Units	90% LTIVCLTV	95% LTIVCLTV
Non-owner Occ. 2nd Home		
3-4 Unit	80% LTIVCLTV	85% LTIVCLTV
DTI	LTIVCLTV ≤ 95%; 50% LTIVCLTV > 95%; 45% (60% w/2 mo. reserves)	50%

8/15/2006

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STATED DOC: Self-Employed						Owner-Occupied Primary Residence: SFR, PUD, Low-High-Rise Condo, 2 Units For other Occupancy and Property types please see Occupancy/Property LTV Adjustment Matrix 1													
Risk Grade	Mortgage Rating	Bankruptcy		NOFDC Released	Minimum Score	LTV													
		Discharged	Dismissed			65%	70%	75%	80%	85%	90%	95%	100% ²	80-20%					
AA+	0/30/12	1 day	2 yrs	3 yrs	700+	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					680	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					660	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					620	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
AA	13/30/12 (See *** footnote) Rolling 30s 6x30 + 1 ¹	1 day	2 yrs	3 yrs	600	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					580	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					560	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					540	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					520	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
A-	24/30/12 Unlimited 30s Rolling 30s 6x30 + 1 ¹	1 day	2 yrs	3 yrs	620	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					600	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					580	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					560	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					540	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
B	18/30/12 Unlimited 30s No rolling 30s	1 day	1 yr BK Buyout OK	2 yrs	620	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					600	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					580	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					560	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					540	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
C	18/30/12 Unlimited 30s 6x30/60s No rolling 50s	1 day	1 yr BK Buyout OK	1 yr	620	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	
					600	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					580	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					560	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
					540	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
Max Cash Out ³						\$500k	\$500k	\$500k	\$500k	\$500k	\$500k	\$500k	\$500k	\$500k	\$500k				

For complete details, see Seller's Guide, Section 18.4, General Underwriting Guidelines for Subprime Loans, Section 18.1, Risk Grades, LTVs, and Loan Amounts or individual loan program guidelines.

¹ DTI Ratios: Borrowers must have twice the required disposable income.

² Reserves required for first-time homebuyers.

³ Chapter 13 BK Buyouts: Maximum \$5,000 cash out after bankruptcy payoff.

⁴ If a mortgage shows serious delinquency (120 days or more past due in the last 36 months), the file should contain evidence that no foreclosure activity has taken place.

Misc. Notes:

— Credit Comeback program is available for 40-, 30-, or 15-year fixed-rate loan only.

**** If 1/20 mortgage rate is not rolling, AA+ guidelines may be used; however, AA pricing still applies.

Example subject to the following restrictions:

— AA+ risk grade only.

— 620 minimum credit score.

— Credit Comeback program is not allowed.

— Borrowers who own five or more properties, including subject property, are not allowed.

80/20 PROGRAM	
Options	80/15S, 80/10/10, 75/25 options also available.
Terms	10-, 20-, 25- year terms not allowed.
Geographic Restrictions	Ineligible in Arkansas. Some eligible states are subject to additional restrictions.

Refer to Sections 20.3, Subprime 80/20 Program for details.

CLTV TABLE (Countrywide only; elsewhere in the first line)		
Credit Score	Max CLTV	Max LTV ²
560	≤ 80% LTV	> 80% LTV
540	100% ¹	90%
520	85%	90%
500	90%	90%
500	90%	Not Allowed

¹ SFRs, PUDs and condos. Owner-occupied, primary residences only.

² Secondary financing not allowed with LTVs greater than 50%.

INTEREST-ONLY	
Guideline	Restriction
Risk Grades	AA+, AA and A- only
Ineligible	— Rural Properties — Investment Properties — 10, 20, 25, and 40/40 terms — Credit Comeback program
Min. Credit Score	560
Max LTV/CLTV	95% (80/20 program, 100% CLTV)
DTI	80/20 program: 45%

FIRST-TIME HOMEBUYERS WITHOUT 12 MONTHS RENTAL VERIFICATION

	< 660	≥ 660
2 Units	90% LTV/CLTV	95% LTV/CLTV
Non-Occupied 2nd Home 3-4 Unit	80% LTV/CLTV	85% LTV/CLTV
DTI	LTV/CLTV ≤ 95%; 90% LTV/CLTV > 95%; 45% (50% w/2 mo. reserves)	50%

Figure A.3: Countrywide Wholesale Mortgage Rate Sheet (Stated Documentation)

STATED DOC: Non-Self Employed / W2						Owner-Occupied Primary Residence: SFR, PUD, Low-High-Rise Condo, 2 Units (For other Occupancy and Property types please see Occupancy/Property LTV Adjustment Matrix.)									
Risk Grade	Mortgage Rating	Discharged	Bankruptcy	Dismissed	NOIFC Released	Minimum Score	65%	70%	75%	80%	85%	90%	95%	100%	80/20
AA+	0-3/20x12	1 day		2 yrs	3 yrs	640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	Continued
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
AA	1-3/20x12 (See footnote) No rolling 30s 0-3/20 = 1Y	1 day		2 yrs	3 yrs	640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
A-	2-3/20x12 No rolling 30s 0-3/20 = 1Y	1 day		2 yrs	3 yrs	640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
B	1-6/20x12 Unlimited 30s No rolling 30s	1 day	Bk 13 Buyout OK	1 yr	2 yrs	640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
C	1-6/20x12 Unlimited 30s No rolling 30s	1 day		1 yr	1 yr	640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
						640	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M	\$1M
DTI Ratio							55%	55%	55%	55%	55%	55%	55%	55%	55%
Max Cash Out ²							\$250K	\$250K	\$250K	\$250K	\$250K	\$250K	\$250K	\$250K	\$250K

For complete details, see Seller's Guide, Section 18.4, General Underwriting Guidelines for Subprime Loans, Section 18.1, Risk Grades, LTVs, and Loan Amounts or Individual loan program guidelines.

¹ For an Underwriting Summary, see Underwriting Notes tab in this matrix.

² DTI Ratios: Borrowers must have twice the required disposable income. Non-owner occupied properties eligible to maximum 30%.

³ Chapter 13 BK Buyouts: Maximum \$2,000 cash out after bankruptcy payoff. If a mortgage shows serious delinquency (120 days or more past due in the last 36 months), the file should contain evidence that no foreclosure activity has taken place.

Misc. Notes:

— Credit Comeback program is available for 40-, 30-, or 15-year fixed-rate loan only.

**** If 1x20 mortgage late is not rolling, AA+ guidelines may be used; however, AA pricing still applies

80/20 PROGRAM	
Options	80/15/5, 80/10/10, 75/25 options also available.
Terms	10-, 20-, 25- year terms not allowed.
Geographic Restrictions	Ineligible in Arkansas. Some eligible states are subject to additional restrictions.

Refer to Sections 20.3, Subprime 80/20 Program for details.

CLTV TABLE (Countrywide only purchases the first lien)		
Credit Score	≤ 80% LTV	> 80% LTV ²
560	100% ¹	90%
540	95%	90%
520	90%	90%
500	90%	Not Allowed

¹ SFRs, PUDs, and condos. Owner-occupied, primary residences only.
² Secondary financing not allowed with LTVs greater than 50%.

INTEREST-ONLY	
Guideline	Restriction
Risk Grades	AA+ and AA only
Ineligible	— Rural Properties — Investment Properties — 10, 20, and 40/40 terms — 3-4 units — Credit Comeback program
Min. Credit Score	620 for all borrowers
Max. LTV/CLTV	90% (80/20 program: 100% CLTV)
DTI	80/20 program: 45%
Property Types	SFR, PUD, and low-rise condo only
Occupancy	Owner-occupied primary residences only

FIRST-TIME HOMEBUYERS WITHOUT 12 MONTHS' RENTAL VERIFICATION

	< 660	≥ 660
2 Units	90% LTV/CLTV	95% LTV/CLTV
Non-0/10 2nd Home 3-4 Unit	80% LTV/CLTV	85% LTV/CLTV
DTI	LTV/CLTV ≤ 95%; 50% LTV/CLTV > 95%; 45% (50% w/2 mo. reserves)	50%

Figure A.4: Countrywide Wholesale Mortgage Rate Sheet (Stated Documentation / W2)

Full and Limited Doc ARM* Wholesale Rate Sheet

CREDIT Lines	Score	65%	70%	75%	80%	85%	90%	95%	100%	80/20 ADV	80/20 2nd
0 x 30 and No BK/NOD in the last 24 months	680	6.10	6.70	6.75	6.80	6.90	7.25	7.70	8.55	6.95	10.35
	660	6.65	6.75	6.80	6.95	7.00	7.45	7.80	8.80	7.10	11.05
	620	6.90	6.80	6.85	7.05	7.30	7.55	7.90	9.55	7.20	11.45
	600	6.95	7.05	7.15	7.30	7.60	7.85	8.30	10.10	7.25	12.10
	580	7.05	7.10	7.20	7.40	7.75	8.40	9.05	10.85		
	560	7.50	7.55	7.70	7.75	8.25	8.90				
	525	8.00	8.10	8.25	8.30	8.75					
	500	8.50	8.60	8.75	8.80						
1 x 30 and No BK/NOD in the last 24 months	680	6.60	6.80	6.85	6.90	7.25	7.35	7.95		7.05	10.45
	660	6.75	6.85	6.90	7.00	7.30	7.55	8.05		7.15	11.10
	620	6.85	6.90	7.05	7.10	7.40	7.65	8.15		7.25	11.50
	600	7.10	7.15	7.30	7.35	7.70	7.95	8.45		7.30	12.15
	580	7.40	7.50	7.60	7.80	8.20	8.65	9.85			
	560	7.85	8.00	8.15	8.30	8.70	9.10				
	525	8.30	8.45	8.65	8.75	9.15					
	500	8.70	8.85	9.05	9.15						
3 x 30 and No BK/NOD in the last 24 months	680	6.65	6.85	6.90	6.95	7.30	7.45	8.05			
	660	6.80	6.90	6.95	7.05	7.35	7.65	8.15			
	620	6.90	6.95	7.10	7.15	7.45	7.75	8.25			
	600	7.15	7.20	7.35	7.40	7.75	8.05	8.55			
	580	7.50	7.60	7.70	7.90	8.30	8.75	9.95			
	560	7.95	8.10	8.25	8.40	8.80	9.20				
	525	8.45	8.60	8.80	8.85	9.25					
	500	8.85	9.00	9.20	9.30						
1 x 60 and No BK/NOD in the last 12 months	680	7.05	7.15	7.30	7.40	8.05	9.10				
	660	7.15	7.25	7.40	7.50	8.25	9.30				
	620	7.25	7.35	7.50	7.65	8.50	9.40				
	600	7.55	7.60	7.75	7.80	8.65	9.80				
	580	7.85	7.95	8.15	8.25	8.85	10.00				
	560	8.40	8.50	8.65	8.80	9.25	10.30				
	525	8.60	8.70	8.85	8.90						
	500	9.10	9.20	9.35	9.40						
1 x 90 and BK/NOD in the last 12 months	680	7.65	7.75	7.85	8.05						
	640	7.80	7.90	8.00	8.20						
	620	8.00	8.10	8.20	8.40						
	600	8.15	8.25	8.35	8.55						
	580	8.35	8.45	8.55							
	560	8.50	8.65	8.75	8.90						
	525	8.85	9.00	9.15							
	500	9.45	9.70	10.20							
1 x 120	680	9.65	10.45	10.60							
	640	9.80	10.75	10.90							
	620	10.00	10.90								
	600	10.15	10.95								
	580	10.35	11.20								
	550	10.85	11.25								
	525	11.40	12.05								
	500	11.90	12.20								
Max Debt Ratio	500	55%	55%	55%	50%	50%	50%	50%	50%	50%	50%

Purchase Special Rates Reduced up to 35 bps!
Prime Advantage, Credit Advantage, 80/20 Combo Advantage, (1st Lien Only)

All Doc types, Loan Amount >=\$150,000

ADJUSTMENTS

Type	Characteristics	Rate	LTV
Purpose	Purchase	0.000	
Income Doc	Limited (6 mos Bank Statements)	0.250	
Occupancy	Non-owner	0.750	-5
	Second home	0.000	-5
Property	Condo and 2 units	0.250	
	3-4 units, rural	0.500	-10
Prepayment	For early yr reduced (1st Mgt)	1.000	
Loan Amount	\$50,000 to \$219,999	0.250	
	(1st Mgt)	0.000	
	\$220,000 to \$639,999	-0.250	
	\$640,000 to \$1,250,000	0.500	
Program	Credit Adv	0.000	
	Prime Adv	0.000	
	100%	0.000	
	80/20 combo	0.000	
Product	ARM	0.000	
	Fixed	0.650	
Payment Terms	Interest Only 5 Yr	0.200	
	40 Yr Reduced Pymt	0.100	

PRIME ADVANTAGE
Max Loan Amount \$1,250,000
Max Cash Out \$50,000 when open collections/charge offs > \$5,000
Disregard collections/charge offs that are over 24 months old
Rural properties cannot exceed 80% LTV

Loan Amounts > \$500,000
Exclusions: rural properties, non-owner, 2nd homes; Max Cash out \$100,000; Max Buy-Up 2%; Minimum 2 months PIT
Max LTV 95%; (\$500,001 - \$600,000); Max LTV 90% (\$600,001 - \$650,000); Max LTV 85% (\$650,001 - \$850,000)

Between \$850,001 and \$1,250,000
Exclusions: Interest only, 40 Yr reduced payment
See shaded area to determine Max LTV

Minimum Rate: ARM - 6.10; Fixed - 6.75

CREDIT ADVANTAGE - High Score Determines Pricing
Exclusions: rural properties, non-owner, 2nd homes and 1x120 or greater
Max Loan Amount \$750,000
Max LTV 90%; up to \$650,000. Max LTV 85% (\$650,001 - \$750,000)
Minimum Middle FICO >= 500 Minimum Rate: ARM - 6.60; Fixed - 7.25

100% ADVANTAGE
Exclusions: rural, non-owner, 2nd, 3+ units
Minimum 2 months PIT
All delinquent credit should be brought current or paid off
Minimum Loan Amount \$75,000; Max Loan Amount \$500,000
Max Cash Out \$50,000; LTVs > 95 %; Interest Only Option NOT offered.
Minimum Rate: ARM - 8.55; Fixed - 9.20

80/20 COMBO ADVANTAGE		
Exclusions: rural properties, non-owner, 2nd homes, 3-4 units All delinquent credit should be brought current or paid off Max Combined Cash Out \$25,000; 2nd Mortgage is fixed rate with no prepay penalty; No Buy-Up or Buy-Down allowed on 2nd Mortgage		
Loan Amount	Max	Min
1st Mortgage	\$680,000	\$80,000
2nd Mortgage	\$170,000	\$20,000
Total Combined	\$850,000	\$100,000
Minimum Rate for 1st Mortgage: ARM - 5.45; Fixed - 6.48 Minimum Rate for 2nd Mortgage: 10.35		

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40/30 and Interest Only

All Program specific guidelines apply, plus the following rules:
Prime Advantage & Credit Advantage
- Exclusions: non-owner, fixed income borrowers
- Maximum delinquency 3.30 and No BK/NOD in last 24 months
- Max Debt Ratio 90%; initial payment used for qualification
- Interest Only minimum middle FICO >= 600 for Prime Advantage and >= 620 for Credit Advantage
- 40Yr Reduced Payment minimum middle FICO >= 550
- Max LTV: 95% Prime Advantage; 90% Credit Advantage
100% Advantage & 80/20 Combo Advantage
- Exclusions: fixed income borrowers
- Add: exclusions for Interest Only: 100% Program
- Applies to 1st lien of 80/20 Combo Advantage
- Interest Only min middle FICO >= 620
- 40Yr Reduced Payment minimum middle FICO >= 600
- Initial payment used for qualification

MAXIMUM FEES

AMC Fees - \$999; Misc Broker Fees - \$1,500
Points and APR Fees combined:
Own Occ & Ltv Amt <=\$417,000 6.00%
Own Occ & Ltv Amt >\$417,000 7.50%
Non-Owner and Second Home 7.50%
Total Broker fees including FTA not to exceed 5% of loan amount

NOTES AND LIMITATIONS

Orig fee, PVA, and other broker fees limited to 5% of Loan Amt
Tri-merged credit report only
Prime & Credit Advantage min. loan amount is \$50,000
*ARMs represents 2/28 and 3/27; Terms Available 30-, 20-, and 15- year
Margins on ARMs = 6% over LIBOR, Initial Cap = 2%; Periodic Cap 6%
Loan term = 30 years
Par rates for 2/28 with 2 year prepay (max 2 years)
Par rates for 3/27 with 3 year prepay (max 3 years)
Par rates for Fixed with 3 year prepay (max 3 years)

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T-Box: OR0162

SEND SUBMISSIONS TO:
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Suite 1500 Orange, CA 92668
T-Box: OR0162

Upon approval of a completed loan submission Agent will issue a written or electronic Loan Approval which constitutes a commitment to fund the loan. Agent's approval is subject to the completion of all required documentation and statements regarding loan terms or pricing are valid. Prior to issuance of the loan approval, all rates and program are subject to change based on the latest effective rate sheet published on www.arentmortgage.com. For mortgage professionals only - not for consumer use. Equal Housing Lender. Equal Housing Lender. Equal Housing Lender. Finance Lenders License.

Figure A.5: Argent Wholesale Mortgage Rate Sheet

A.4. Additional Results

Table A2: Comparison of New Century Data to loans originated in 2004 and 2005 as reported in Demyanyk and Van Hemert (2011).

Variable	Demyanyk and Van Hemert Sample	New Century Data
Loan Amount	\$190,000	\$193,000
FRM	21%	23%
Refinance	61%	66%
FICO	620	613
CLTV	84%	83%
Investor	8%	8%
Full-Doc	73%	60%
Rate	7.40%	7.70%

Table A3: Relationship Between Low-doc, Employment Type, and Mortgage Performance (OLS)

	[1]		[2]	
	Default		Default	
Dependent Variable: Default	Coeff.	Std. Err.	Coeff.	Std. Err.
Employment Type				
W2	-0.0075***	(0.0017)	-0.0068***	(0.0017)
Documentation Type				
Low-Doc	0.0015	(0.0020)	0.0017	(0.0020)
Low-Doc $\times$ W2	0.0064***	(0.0021)	0.0058***	(0.0021)
Loan Characteristics				
Property Characteristics	Yes		Yes	
Borrower Characteristics	Yes		Yes	
Interest rate environment	Yes		Yes	
Area Characteristics	Yes		Yes	
Origination Year Fixed Effects	Yes		Yes	
MSA Fixed Effects	No		Yes	
N	455,546		455,546	
Mean Default Rate (Full-doc Self-Employed)	0.0512		0.0512	
Mean Default Rate (Full-doc W2)	0.0478		0.0478	
Adj. R^2	0.05		0.06	

Note: The coefficient estimates are derived from a linear probability model of mortgage performance on income documentation, employment type, an interaction term between income documentation and employment type, loan characteristics, borrower characteristics, property characteristics, and area characteristics for the funded loans from the New Century database. Heteroskedasticity-robust standard errors adjusted for clustering at the MSA level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table A4: Relationship Between Low-doc, Employment Type, and Mortgage Performance Over Different Time Windows

Dependent Variable: Default	[1]		[2]	
	Default 12 months		Default 36 Months	
	M.E.	Std. Err.	M.E.	Std. Err.
Marginal Effects of Low-Doc				
Self-Employed (<i>Lowdoc</i>)	0.0048***	(0.0015)	0.0057***	(0.0019)
W2 (<i>Lowdoc</i>)	0.0094***	(0.0010)	0.0129***	(0.0013)
Loan Characteristics				
Property Characteristics	Yes		Yes	
Borrower Characteristics	Yes		Yes	
Interest rate environment	Yes		Yes	
Area Characteristics	Yes		Yes	
Origination Year Fixed Effects	Yes		Yes	
MSA Fixed Effects				
	No		Yes	
N	454,326		455,058	
Mean Default Rate (Full-doc Self-Employed)	0.0291		0.0571	
Mean Default Rate (Full-doc W2)	0.0279		0.0526	
Log Likelihood	-52,979		-81,052	

Note: This table presents marginal effects of *Lowdoc* on default by employment type. The marginal effects are derived from a probit model of mortgage performance on income documentation, employment type, an interaction term between income documentation and employment type, loan characteristics, borrower characteristics, property characteristics, and area characteristics for the funded loans from the New Century database. In Column [1], a loan is defined as in default if it becomes 60 plus days delinquent within the first 12 months after origination. In Column [2], a loan is defined as in default if it becomes 60 plus days delinquent within the first 36 months after origination. Heteroskedasticity-robust standard errors adjusted for clustering at the MSA level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table A5: Probit Model of Extreme Income Exaggeration

Dependent Variable: INC_EXTREME	[1]		[2]	
	Coeff.	Std. Err.	Coeff.	Std. Err.
Marginal Effects of Low-Doc				
Self-Employed (<i>Lowdoc</i>)	-0.0346***	(0.0109)	-0.0367***	(0.0049)
W2 (<i>Lowdoc</i>)	0.0333***	(0.0054)	0.0152***	(0.0038)
Loan Characteristics	Yes		Yes	
Property Characteristics	Yes		Yes	
Borrower Characteristics	Yes		Yes	
Interest rate environment	Yes		Yes	
Area Characteristics	Yes		Yes	
Origination Year Fixed Effects	Yes		Yes	
MSA Fixed Effects	Yes		Yes	
N	449,916		449,916	
Log Likelihood	-246,687		-139,277	

Note: This table presents marginal effects estimates from a probit model of *INC_EXTREME* on type of income documentation, loan characteristics, borrower characteristics, property characteristics, and area characteristics for the funded loans. In Column [1], *INC_EXTREME* takes a value of one if *INC_EXAG* falls in the top quartile for the borrower's employment type (e.g. W2 or self-employed). In Column [2], *INC_EXTREME* takes a value of one if *INC_EXAG* falls in the top decile for the borrower's employment type (e.g. W2 or self-employed). Heteroskedasticity-robust standard errors adjusted for clustering at the MSA level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table A6: Probability Model of Extreme Income Exaggeration (OLS)

	[1]		[2]	
	INC_EXTREME_75	INC_EXTREME_90	INC_EXTREME_75	INC_EXTREME_90
Dependent Variable: INC_EXTREME	Coeff.	Std. Err.	Coeff.	Std. Err.
Employment Type				
W2	-0.0355***	(0.0024)	-0.0355***	(0.0024)
Income Documentation				
Low-Doc	-0.0333***	(0.0106)	-0.0347***	(0.0043)
Low-Doc x W2	0.0674***	(0.0098)	0.0506***	(0.0048)
Loan Characteristics				
Property Characteristics	Yes		Yes	
Borrower Characteristics	Yes		Yes	
Interest rate environment	Yes		Yes	
Area Characteristics	Yes		Yes	
Origination Year Fixed Effects	Yes		Yes	
MSA Fixed Effects	Yes		Yes	
Constant	0.1649***	(0.0185)	0.1185*****	(0.0143)
N	449,916		449,916	
Adj. R^2	0.01		0.01	

Note: This table presents coefficient estimates from a linear probability model of *INC_EXTREME* on type of income documentation, loan characteristics, borrower characteristics, property characteristics, and area characteristics for the funded loans. In Column [1], *INC_EXTREME* takes a value of one if *INC_EXAG* falls in the top quartile for the borrower's employment type (e.g. W2 or self-employed). In Column [2], *INC_EXTREME* takes a value of one if *INC_EXAG* falls in the top decile for the borrower's employment type (e.g. W2 or self-employed). Heteroskedasticity-robust standard errors adjusted for clustering at the MSA level are reported in parentheses. ***, **, *, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table A7: Results from Figure 4 in Tabular Form

		Default	
Dependent Variable: Default		M.E.	Std. Err.
Marginal Effects of Low-Doc			
Self-Employed			
INC EXAG = -0.530 (<i>Lowdoc</i>)		0.0092***	(0.0030)
INC EXAG = -0.296 (<i>Lowdoc</i>)		0.0076***	(0.0022)
INC EXAG = -0.062 (<i>Lowdoc</i>)		0.0060***	(0.0018)
INC EXAG = 0.172 (<i>Lowdoc</i>)		0.0045**	(0.0019)
INC EXAG = 0.406 (<i>Lowdoc</i>)		0.0030	(0.0024)
INC EXAG = 0.640 (<i>Lowdoc</i>)		0.0016	(0.0030)
W2			
INC EXAG = -0.530 (<i>Lowdoc</i>)		0.0031*	(0.0018)
INC EXAG = -0.296 (<i>Lowdoc</i>)		0.0071***	(0.0013)
INC EXAG = -0.062 (<i>Lowdoc</i>)		0.0107***	(0.0010)
INC EXAG = 0.172 (<i>Lowdoc</i>)		0.0140***	(0.0009)
INC EXAG = 0.406 (<i>Lowdoc</i>)		0.0170***	(0.0012)
INC EXAG = 0.640 (<i>Lowdoc</i>)		0.0197***	(0.0016)
Loan Characteristics			
Property Characteristics		Yes	
Borrower Characteristics		Yes	
Interest rate environment		Yes	
Area Characteristics		Yes	
Origination Year Fixed Effects		Yes	
N		449,917	

Note: This table presents marginal effects of low-doc at different levels of estimated income exaggeration by employment type. -0.57 and 1.02 are the 5th and 95th percentiles of income exaggeration, respectively. The marginal effects are derived from the probit model of mortgage default described in equation (10) for the funded loans from the New Century database. Bootstrap standard errors are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table A8: Job-Specific Overstatement by Employment Type within the California and Florida

Panel A	[1]	[2]
Borrower Business Types that have at least 10 full- and 10 low-doc observations within California	W2	Self-employed
Job-Specific Overstatement	14.22%	-8.59%
% of Borrower Business Types with Job-Specific Overstatement > 0	77.00%	22.22%
% of Borrower Business Types with Job-Specific Overstatement Significantly > 0	44.00%	0.00%
N	100	18
Panel B	[1]	[2]
Borrower Business Types that have at least 10 full- and 10 low-doc observations within Florida	W2	Self-employed
Job-Specific Overstatement	23.39%	0.45%
% of Borrower Business Types with Job-Specific Overstatement > 0	97.62%	75.00%
% of Borrower Business Types with Job-Specific Overstatement Significantly > 0	61.90%	0.00%
N	42	4

Note: This table presents summary statistics by employment type for *Job-Specific Overstatement*. Column [1] in Panel A includes borrower business types that had at least 10 full-doc/W2 and 10 low-doc/W2 observations in California. Column [2] in Panel A includes borrower business types that had at least 10 full-doc/self-employed and 10 low-doc/self-employed observations in California. Column [3] reports mean differences between columns [1] and [2]. We perform a one tail mean difference test with the null hypothesis that the low-doc average income is less than or equal to the full-doc income for each of the borrower business types. *% of Borrower Business Types with Job-Specific Overstatement Significantly > 0* reports the percentage of borrower business types for which we were able to reject the null hypothesis. There are 8,639 (6,300) observations in the 100 (18) different W2 (self-employed) borrower business types within California in Panel A. Panel B includes borrower business types that have at least 10 low-doc/W2 (self-employed) and 10 full-doc/W2 (self-employed) observations in Florida. There are 3,099 (1,516) observations in the 42 (4) different W2 (self-employed) borrower business types within Florida in Panel B.

Table A9: MSA House Price Changes and Low-Doc Share of Originations

Dependent Variable: Δ House Price	[1] Δ HPI (2006-2007)		[2] Δ HPI (2006-2008)		[3] Δ HPI (2006-2009)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
% Low-Doc (2004 - 2005)	0.3236	(0.2753)	0.4837	(0.3318)	0.0771	(0.3844)
% of Low-Doc that are W2	0.1323	(0.1341)	0.3486**	(0.1557)	0.1552	(0.1884)
% Low-Doc $\times$ % of Low-Doc that are W2	-0.3161	(0.4313)	-0.7075	(0.5273)	-0.2495	(0.6036)
Δ HPI (2000-2005)	-0.1250***	(0.0408)	-0.3339***	(0.0489)	-0.3760***	(0.0438)
Inverse of Supply Elasticity	0.7675***	(0.2462)	0.8457***	(0.2675)	0.4502	(0.3279)
% Low-Doc $\times$ Inverse of Supply Elasticity	-1.3565***	(0.4557)	-1.4681***	(0.5123)	-0.5994	(0.6153)
% of Low-Doc that are W2 $\times$ Inverse of Supply Elasticity	-0.8130*	(0.4390)	-1.2087**	(0.4830)	-0.7849	(0.5408)
% Low-Doc $\times$ % of Low-Doc that are W2 $\times$ Inverse of Supply Elasticity	1.3385	(0.8223)	1.9908**	(0.9564)	1.1941	(1.1059)
Δ HPI (2000-2005) $\times$ Inverse of Supply Elasticity	0.0660	(0.0590)	0.1277*	(0.0685)	0.0956	(0.0620)
Δ Unemployment (2006 - 2007)	-0.1791	(0.1142)				
Δ Per Capita Income (2006 - 2007)	1.0537*	(0.5693)				
Δ Population (2006 - 2007)	3.1809***	(0.7471)				
Δ Unemployment (2006 - 2007) $\times$ Inverse of Supply Elasticity	0.0125	(0.1716)				
Δ Per Capita Income (2006 - 2007) $\times$ Inverse of Supply Elasticity	-0.7398	(1.0167)				
Δ Population (2006 - 2007) $\times$ Inverse of Supply Elasticity	-2.6778***	(0.9904)				
Δ Unemployment (2006 - 2008)			0.1337**	(0.0545)		
Δ Per Capita Income (2006 - 2008)			0.8239***	(0.2725)		
Δ Population (2006 - 2008)			2.2314***	(0.4425)		
Δ Unemployment (2006 - 2008) $\times$ Inverse of Supply Elasticity			-0.2281***	(0.0774)		
Δ Per Capita Income (2006 - 2008) $\times$ Inverse of Supply Elasticity			0.8966	(0.6883)		
Δ Population (2006 - 2008) $\times$ Inverse of Supply Elasticity			-2.2173***	(0.5536)		
Δ Unemployment (2006 - 2009)					0.0213	(0.0253)
Δ Per Capita Income (2006 - 2009)					0.8809***	(0.2874)
Δ Population (2006 - 2009)					1.5920***	(0.3803)
Δ Unemployment (2006 - 2009) $\times$ Inverse of Supply Elasticity					-0.0298	(0.0433)
Δ Per Capita Income (2006 - 2009) $\times$ Inverse of Supply Elasticity					0.6451	(0.6141)
Δ Population (2006 - 2009) $\times$ Inverse of Supply Elasticity					-1.1789**	(0.4951)
Constant	-0.1305	(0.0838)	-0.2441**	(0.0958)	-0.0593	(0.1289)
Observations	266		266		266	
Adjusted R-squared	0.48		0.75		0.79	

Note: This table reports the coefficient estimates from an OLS regression of house price changes on the share of low-doc loans and the proportion of low-doc loans to that are to W2 borrowers as defined by Equations ((15)) through ((16)). White's heteroskedasticity robust standard errors are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table A10: Results from Figure 4 in Tabular Form

Default		
Dependent Variable: Default	M.E.	Std. Err.
Marginal Effects of Low-Doc		
Self-Employed		
FICO = 520 (<i>Lowdoc</i>)	-0.0009	(0.0059)
FICO = 570 (<i>Lowdoc</i>)	0.0036	(0.0031)
FICO = 620 (<i>Lowdoc</i>)	0.0061***	(0.0020)
FICO = 670 (<i>Lowdoc</i>)	0.0070***	(0.0016)
FICO = 720 (<i>Lowdoc</i>)	0.0069***	(0.0016)
FICO = 750 (<i>Lowdoc</i>)	0.0062***	(0.0015)
W2		
FICO = 520 (<i>Lowdoc</i>)	0.0140****	(0.0025)
FICO = 570 (<i>Lowdoc</i>)	0.0135***	(0.0016)
FICO = 620 (<i>Lowdoc</i>)	0.0123***	(0.0012)
FICO = 670 (<i>Lowdoc</i>)	0.0107***	(0.0011)
FICO = 720 (<i>Lowdoc</i>)	0.0090***	(0.0011)
FICO = 750 (<i>Lowdoc</i>)	0.0073***	(0.0011)
Loan Characteristics	Yes	
Property Characteristics	Yes	
Borrower Characteristics	Yes	
Interest rate environment	Yes	
Area Characteristics	Yes	
Origination Year Fixed Effects	Yes	
N	449,917	

Note: This table presents marginal marginal effects of low-doc at different levels of FICO score by employment type. The marginal effects are derived from the probit model of mortgage default described in equation (12) for the funded loans from the New Century database. Heteroskedasticity-robust standard errors adjusted for clustering at the MSA level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

References

Demyanyk, Yuliya, and Otto Van Hemert, 2011, Understanding the Subprime Mortgage Crisis, *Review of Financial Studies* 24, 1848–1880.