Volume Title: Home Mortgage Delinquency and Foreclosure

Volume Author/Editor: John P. Herzog and James S. Earley

Volume Publisher: NBER

Volume ISBN: 0-87014-206-2

Volume URL: http://www.nber.org/books/herz70-1

Publication Date: 1970

Chapter Title: Appendix C Regression Equations for Calculating Risk Indexes

Chapter Author: John P. Herzog, James S. Earley

Chapter URL: http://www.nber.org/chapters/c3299

Chapter pages in book: (p. 159 - 160)

Appendix C

Regression Equations for Calculating Risk Indexes

The equations which were used to calculate risk indexes through time are listed below. The first term on the right-hand side of each equation is the constant. This is followed by the regression coefficient and mnemonic symbol of each variable included in the equations. Standard errors of the regression coefficients appear in parentheses directly below the coefficients to which they apply.

Delinquency Risk

CONVENTIONAL LOANS

Sample Data

$$R = \underset{}{.3026} + \underset{(.0420)}{.1694RLS} - \underset{(.0001)}{.00034T} + \underset{(.0139)}{.04148P_1} + \underset{(.0247)}{.1191P_2} + \underset{(.0133)}{.1641P_3} + \underset{(.0136)}{.1830FJ}$$

Aggregate Data

$$R = \underset{}{.3509} + \underset{(.0487)}{.1824RLS} - \underset{(.0001)}{.00046T} + \underset{(.0141)}{.0513P_1} + \underset{(.0140)}{.1570P_2}$$

FHA AND VA LOANS (SAMPLE AND AGGREGATE DATA)

$$R = \underset{}{.2972} + \underset{(.0812)}{.4451RLS} - \underset{(.00016)}{.00055T} - \underset{(.1808)}{.1002RPI}$$

Conditional Foreclosure Risk

CONVENTIONAL LOANS

Sample Data

$$R = .0943 + .0704RLS + .00049T + .0852P_1 + .0484P_2 + .0560P_3 + .0741FJ$$
$$\qquad\quad (.0532) \qquad (.00013) \quad (.0190) \qquad\qquad (.0302) \quad (.0167) \quad (.0221)$$

Aggregate Data

$$R = .1198 + .0432RLS + .00054T + .0872P_1 + .0541P_2$$
$$\qquad\quad (.0201) \qquad (.0001) \quad (.0187) \quad (.0231)$$

FHA AND VA LOANS (SAMPLE AND AGGREGATE DATA)

$$R = -.0618 + .2916RLS + .00051T - .5121RPI$$
$$\qquad\quad (.1022) \qquad (.00019) \quad (.2167)$$

Straight Foreclosure Risk (Conventional Loans)

SAMPLE DATA

$$R = .1574 + .0400RLS + .0012T + .0285P_1 + .0244P_2 + .0274P_3 + .0579FJ$$
$$\qquad\quad (.0160) \qquad (.0004) \quad (.0053) \qquad\qquad (.0098) \quad (.0053) \quad (.0052)$$

AGGREGATE DATA

$$R = .1331 + .0473RLS + .0023T + .0293P_1 + .0513P_2$$
$$\qquad\quad (.0167) \qquad (.0008) \quad (.0054) \quad (.0062)$$