

**IMF Working Paper**

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April 14, 1999

WP/99/33  
Correction 1

Subject: **Determinants of Ex-Ante Banking System Distress: A Macro-Micro Empirical Exploration of Some Recent Episodes**

**CORRIGENDUM**

The attached page 64 of WP/99/33 (March 1999) is reissued to include the numbers in parenthesis which were inadvertently omitted.

Att: (1)

Other Distribution:  
Department Heads  
Division Chiefs



Table 7.1. Estimation Results—Bank Failures in Colombia

	(1)		(2)	
	(a)	(b)	(a)	(b)
	Probability of Failure Odds Ratio	Exponential Hazard Hazard Ratio	Probability of Failure Odds Ratio	Exponential Hazard Hazard Ratio
<b>Proximate Indicators of Fragility:</b>				
NPLA	1.341 (1.183)	1.132* (5.711)	--	--
CA	--	--	1.563 (1.178)	1.168* (-5.424)
<b>Model Statistics:</b>				
Model $\chi^2$	7.66*	32.62*	7.59*	29.42*
Pseudo R <sup>2</sup>	0.554	--	0.548	--
Log likelihood	-3.084	-16.720	-3.120	-17.516
Number of banks: 18				
Number of records (1980–88): 132				
Number of failures (1980–89): 5				

Notes: The dependent variable takes the value of one if a bank is intervened at time t+1 and the value zero otherwise. Probability of failure is estimated by fixed-effects logit. The odds ratio and hazard ratio depict exponentiated coefficients. The z statistics are given in parenthesis and are based on robust (Huber and White) standard errors which account for correlated observations in grouped data. P|z| is the test of the underlying coefficient being zero. One, two, and three asterisks indicate significance levels of 1, 5 and 10 percent, respectively.

Models 1 (b) and 2 (b), using a Weibull parametric distribution, produced a p value of 1 and, hence, an exponential distribution was estimated.

Table 7.1. Estimation Results—Bank Failures in Colombia (Concluded)

	(3)		(4)	
	(a) Probability of Failure Odds Ratio	(b) Weibull-Hazard Hazard Ratio	(a) Probability of Failure Odds Ratio	(b) Weibull-Hazard Hazard Ratio
<b>Bank-Specific Variables:</b>				
<b>Credit Risk</b>				
LNFIELD	1.506 (0.547)	1.255 (1.533)	—	1.225** (1.952)
<b>Liquidity Risk</b>				
DEPPUB	—	1.049*** (1.749)	—	1.063* (2.456)
DEPIB	0.894 (-0.399)	1.036 (0.969)	—	1.100 (1.065)
INTDEP	1.596 (0.817)	1.235* (2.365)	—	1.304* (3.370)
<b>Moral Hazard</b>				
INTAS	0.370 (-0.475)	0.555*** (-1.737)	—	0.565* (-2.568)
<b>Regional/Macroeconomic Variables</b>				
PEXP	—	—	0.816 (-1.281)	1.107 (1.042)
<b>Banking Sector Variable:</b>				
BSLNGDP	—	—	1.183 (0.421)	0.572 (-0.916)
<b>Model Statistics:</b>				
Model $\chi^2$	6.24	15.06*	5.23***	24.13*
Pseudo R <sup>2</sup>	0.451	—	0.378	—
Log likelihood	-3.796	-11.200	-4.302	-9.723
p (Weibull)	—	1.281 (0.958)	—	3.353*** (1.833)

Notes: The dependent variable takes the value of one if a bank is intervened at time t+1 and the value zero otherwise. Probability of failure is estimated by fixed-effects logit. The odds ratio and hazard ratio depict exponentiated coefficients. The z statistics are given in parenthesis and are based on robust (Huber and White) standard errors which account for correlated observations in grouped data. P|z| is the test of the underlying coefficient being zero. One, two, and three asterisks indicate significance levels of 1, 5 and 10 percent, respectively.

Model 4 (a) did not converge. Hence, the micro-macro components were separated.