

Some Major Econometric Tables

For Juha Auvinen and E. Wayne Nafziger's Work

On the Sources of Humanitarian Emergencies

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TABLE 1

## HUMANITARIAN EMERGENCIES: OLS REGRESSION MODELS

Explanatory Variables	(1) LDEATREF	(2) LHUMEMER	(3) LCOHE
Constant	7.31*** (2.67)	4.27** (1.85)	15.07*** (2.51)
LGDPGRO[-1]	-1.83*** (0.55)	-1.16*** (0.38)	-2.54*** (0.52)
LGINI[-1]	0.29** (0.12)	0.18** (0.08)	0.36*** (0.11)
LGNPCAP[-1]	-0.15*** (0.03)	-0.07*** (0.02)	-0.19*** (0.03)
LIMFGNP[-1]	-0.10*** (0.03)	-0.05*** (0.02)	-0.06** (0.03)
LCPIDIFF[-1]	0.26*** (0.06)	0.20*** (0.04)	0.27*** (0.05)
LMILCENT[-1]	0.18*** (0.03)	0.16*** (0.02)	0.15*** (0.03)
LDEATRAD	0.04*** (0.01)	A	0.02* (0.01)
R square	0.18	0.16	0.19
N	663	663	663
DW	0.34	0.31	0.38

Note: The figures are parameter estimates and standard errors (in parentheses), respectively. LGDPGRO = ln real GDP growth; LGINI = ln gini index; LGNPCAP = ln GNP per capita; LIMFGNP = ln use of IMF credit/GNP; LCPIDIFF = ln consumer price index, annual change; LMILCENT = ln military expenditures/GNP; LDEATRAD = ln deaths from domestic violence 1963-77; except for LDEATRAD, all explanatory variables are lagged one year [-1]. Coefficient significant \*\*\* = at the 1 per cent level (2-tailed test), \*\* = 5 per cent level and \* = 10 per cent level; a = not significant; DW = Durbin-Watson test statistic for serial correlation.

## 2. Generalized least squares (Prais-Winsten) models

TABLE 2  
HUMANITARIAN EMERGENCIES: GLS (PRAIS-WINSTEN) REGRESSION MODELS

Explanatory Variables	(1) LDEATHREF	(2) LHUMEMER	(3) LCOHE
Constant	-2.69*** (0.81)	1.18a(0.73)	2.82*** (0.58)
LGDPGRO[-1]	B	-0.29**(0.14)	A
LFOODGRO [-1]	-0.19* (0.12)	A	B
LGINI[-1]	0.97*** (0.16)	0.14* (0.08)	0.56*** (0.14)
LGNPCAP[-1]	-0.14*** (0.04)	-0.07*** (0.02)	-0.21*** (0.03)
LIMFGNP[-1]	A	A	A
LCPIDIFF[-1]	0.16*** (0.04)	A	0.19*** (0.04)
LMILCENT[-1]	0.19*** (0.04)	0.10*** (0.02)	0.19*** (0.03)
LDEATRAD	0.05*** (0.01)	0.02*** (0.007)	0.03*** (0.01)
Rho	0.86***(0.02)	0.88***(0.02)	0.83***(0.02)
N	600	753	732
DW	1.93	1.64	1.98

Note: The figures are parameter estimates and standard errors (in parentheses), respectively. LGDPGRO = ln real GDP growth; LFOODGRO = ln growth of food production per capita; LGINI = ln gini index; LGNPCAP = ln GNP per capita; LIMFGNP = ln use of IMF credit/GNP; LCPIDIFF= ln consumer price index, annual change; LMILCENT = ln military expenditures/GNP; LDEATRAD = ln deaths from domestic violence 1963-77; except for LDEATRAD, all explanatory variables are lagged one year [-1]. Rho = coefficient of autocorrelation. Coefficient significant \*\*\* = at the 1 per cent level (2-tailed test), \*\* = 5 per cent level and \* = 10 per cent level; a = not significant; and b = not included in the equation. DW = Durbin-Watson test statistic for serial correlation.

TABLE 3  
HUMANITARIAN EMERGENCIES:  
FIXED (LSDV) AND RANDOM EFFECTS (GLS) MODELS

Explanatory Variables	LDEATREF		LHUMEMER		LCOHE	
	Fixed	Random	Fixed	Random	Fixed	Random
Constant	3.52*** (0.85)	3.68** (1.46)	0.69** (0.32)	0.11 <sup>a</sup> (0.27)	11.10*** (1.56)	8.61*** (1.19)
LGDPGRO[-1]	A	-0.45* (0.27)	A	a	-0.72*** (0.26)	-0.53** (0.25)
LGINI[-1]	-0.90*** (0.23)	-0.44** (0.19)	A	a	-0.50** (0.23)	A
LGNPCAP[-1]	A	a	-0.11** (0.05)	-0.07** (0.03)	-0.19*** (0.05)	-0.22*** (0.04)
LCPIDIFF[-1]	A	a	A	0.07** (0.03)	a	A
LMILCENT[-1]	0.23*** (0.03)	0.20*** (0.03)	0.17*** (0.03)	0.17*** (0.03)	0.24*** (0.03)	0.23*** (0.03)
LDEATRAD	A	0.05** (0.02)	A	a	a	A
No of units	69	62	91	77	61	83
R square	0.08	0.07	0.04	0.10	0.10	0.18
N	885	775	1102	933	752	996

Note: The figures are parameter estimates and standard errors (in parentheses), respectively. LGDPGRO = ln real GDP growth; LGINI = ln gini index; LGNPCAP = ln GNP per capita; LCPIDIFF = ln consumer price index, annual change; LMILCENT = ln military expenditures/GNP; LDEATRAD = ln deaths from domestic violence 1963-77; except for LDEATRAD, all explanatory variables are lagged one year [-1]. Coefficient significant \*\*\* = at the 1 per cent level (2-tailed test), \*\* = 5 per cent level and \* = 10 per cent level; a = not significant; R square is for 'within effects' in the fixed effects model and for overall effects in the random effects model; no of units = number of cross-sectional units taken into account by the analysis.

TABLE 4

## PROBABILITIES OF HUMANITARIAN EMERGENCIES: PROBIT MODELS

Explanatory Variables	(1) LDEATREF	(2) LHUMEMER
LGDPGRO[-1]	-0.82* (0.45)	-0.41** (0.20)
LGINI[-1]	0.25*** (0.10)	0.12** (0.05)
LGNPCAP[-1]	-0.13*** (0.03)	-0.03** (0.01)
LIMFGNP[-1]	-0.07*** (0.03)	-0.014 (0.011)
LCPIDIFF[-1]	0.05 (0.04)	-0.01 (0.02)
LMILCENT[-1]	0.05* (0.028)	0.02* (0.01)
LDEATRAD	0.04*** (0.01)	0.01*** (0.003)
obs. P	0.33	0.08
pred. P	0.30	0.05
Log Likelihood	-309.79	-136.60
Chi square	95.40	35.42
N	562	562

Note: The figures are changes in probabilities and standard errors (in parentheses), respectively. LGDPGRO = ln real GDP growth; LGINI = ln gini index; LGNPCAP = ln GNP per capita; LIMFGNP = ln use of IMF credit/GNP; LCPIDIFF = ln consumer price index, annual change; LMILCENT = ln military expenditures/GNP; LDEATRAD = ln deaths from domestic violence 1963-77; except for LDEATRAD, all explanatory variables are lagged one year [-1]. The underlying coefficient is significant \*\*\* = at the 1 per cent level (2-tailed test), \*\* = 5 per cent level and \* = 10 per cent level; obs. P = observed probability, pred. P = predicted probability at the mean of the dependent variable. The statistical significance of the model is tested against the value of Chi square with seven degrees of freedom.