

ANNEX B: ECONOMETRIC MODELLING

TABLE 1B: OLS RESULTS - ROYALTY AND LICENSE FEES PAYMENTS EQUATIONS

Explanatory variables	Models and dependent variable: $\ln s_{i,t}$ = Royalty and license fees payments Bop current US\$ 1995-2001					
	Leading Indicator Dynamic Model			Dynamic Model		
<i>Freedom House</i> 1990 -1996	0.756*** (0.064)	-	-	0.041** (0.020)	-	-
<i>Polity</i> 1990-1996	-	0.131*** (0.020)	-	-	0.008 (0.005)	-
<i>Vanhanen</i> 1990-1996	-	-	0.022*** (0.003)	-	-	0.003** (0.001)
Constant	-1.766*** (0.405)	1.495*** (0.298)	1.292*** (0.296)	0.050 (0.093)	0.202*** (0.038)	0.143*** (0.052)
$\ln s_{i,t-1}$	-	-	-	0.932*** (0.014)	0.942*** (0.012)	0.935*** (0.013)
R ² adjusted	0.287	0.113	0.159	0.959	0.959	0.959
Durbin-Watson	2.015	1.998	2.029	1.907	1.913	1.907
F test sign.	0.000	0.000	0.000	0.000	0.000	0.000
N. cases	339	339	339	338	338	338

*** Parameter is Significant at 0.001; ** Parameter is Significant at 0.05; * Parameter is Significant at 0.1

Note: The Prais-Winsten estimation method based on the autoregression procedure estimates true regression coefficients from time series with first-order autocorrelated errors. Standard errors are in parenthesis. Moreover, i subscripts denote countries, t subscripts denote time.

TABLE 2B: OLS RESULTS - SCIENTIFIC AND TECHNICAL JOURNAL ARTICLES EQUATIONS

Explanatory variables	Models and dependent variable: $z_{i,t}$ = Scientific and technical journal articles per million people (1995-2001)					
	Leading Indicator Dynamic Model			Dynamic Model		
<i>Freedom House</i> 1990 -1996	52.005*** (4.213)	-	-	0.742** (0.335)	-	-
<i>Polity</i> 1990-1996	-	11.073*** (1.252)	-	-	0.098 (0.085)	-
<i>Vanhanen</i> 1990-1996	-	-	4.453*** (0.334)	-	-	0.061** (0.025)
Constant	-83.888** (34.415)	112.163*** (32.688)	8.055 (31.944)	-1.537 (1.449)	1.175* (0.634)	-0.099 (0.855)
$z_{i,t-1}$	-	-	-	1.003*** (0.003)	1.005*** (0.002)	1.003*** (0.003)
R ² adjusted	0.234	0.134	0.276	0.998	0.998	0.998
Durbin-Watson	1.853	1.869	1.880	1.924	1.921	1.934
F test sign.	0.00	0.00	0.00	0.00	0.00	0.00
N. cases	493	493	463	462	462	462

*** Parameter is Significant at 0.001; ** Parameter is Significant at 0.05; * Parameter is Significant at 0.1