

Table S1: Kenya endogenous switching regression estimation of outcomes variables

Variables	HDDS		FCS		MAHFP		Food expenditure share	
	<i>Employed</i>	<i>Non-engaged</i>	<i>Employed</i>	<i>Non-engaged</i>	<i>Employed</i>	<i>Non-engaged</i>	<i>Employed</i>	<i>Non-engaged</i>
Sex of the household head	-0.263 (0.564)	-0.058 (0.129)	-1.329*(6.076)	-1.621 (1.601)	0.409* (0.213)	0.080 (0.249)	1.258 (1.041)	-0.570 (2.227)
Age of the head	-0.021 (0.022)	-0.001 (0.003)	-0.749*** (0.232)	-0.075* (0.044)	-0.010** (0.006)	0.007 (0.007)	-0.050 (0.228)	0.039 (0.063)
Household size	-0.175 (0.156)	0.019*** (0.034)	-2.129 (1.699)	0.282 (0.427)	0.061 (0.064)	0.068 (0.065)	-4.827*** (1.568)	-3.657*** (0.605)
Education status of the head	-0.295 (0.339)	0.303*** (0.088)	0.372 (3.668)	2.905*** (1.088)	0.149 (0.123)	-0.303** (0.143)	1.735 (3.630)	-6.624*** (1.543)
Marital status of the head	-0.385 (0.722)	-0.162 (0.144)	-1.546** (0.764)	-1.669*** (1.789)	-0.202 (0.186)	0.323* (0.179)	-1.621 (1.796)	-1.494 (2.534)
Livestock owned	-0.028 (0.038)	0.096*** (0.027)	-0.291 (0.410)	1.521*** (0.333)	0.086 (0.033)	-0.189*** (0.047)	0.412 (0.395)	-0.268 (0.473)
Land size	0.583** (0.339)	0.042 (0.042)	8.591** (3.607)	1.139*** (0.522)	-0.207* (0.111)	-0.022 (0.079)	-2.318 (3.601)	-0.473 (0.768)
Distance to market	0.801 (0.506)	0.081 (0.068)	4.755 (5.522)	-0.510 (0.843)	0.544*** (0.164)	0.053 (0.085)	-2.657 (5.228)	2.127* (1.195)
Distance to road	-0.212 (0.245)	-0.101 (0.088)	0.719 (2.611)	2.625** (1.079)	0.535*** (0.128)	-0.131 (0.161)	1.617*** (2.555)	0.852 (1.530)
Households lost their land rights	-0.229 (0.931)	-0.443 (0.293)	3.397 (1.094)	-2.565 (3.641)	0.704** (0.309)	0.389 (0.522)	2.233 (1.669)	11.112*** (5.156)
Access to other source of revenue	0.210 (0.670)	-0.033 (0.159)	5.481 (1.217)	-0.589 (1.967)	0.543** (0.226)	0.012 (0.013)	-0.109 (7.288)	-4.501 (2.784)
Migration status	1.196* (0.648)	0.048 (0.167)	-3.748 (0.035)	3.368 (2.069)	-0.257 (0.247)	0.072 (0.279)	3.545 (6.928)	-3.843 (2.926)
Location dummy	-0.115 (0.529)	0.108 (0.126)	1.008 (5.752)	1.111 (1.566)	0.098 (0.186)	0.719 (2.611)	9.865* (5.817)	2.867 (2.221)
Constant	6.237 (3.189)	6.631 (0.646)	11.528 (34.544)	7.810 (7.976)	0.028 (0.162)	1.204 (0.045)	2.969 (3.351)	6.540 (11.295)
σ_i	0.471*** (0.223)	0.241*** (0.049)	2.831 (0.211)	2.738 (0.038)	0.954*** (0.147)	0.797*** (0.039)	3.106*** (0.205)	3.079*** (0.037)
ρ_i	0.705 (0.456)	-0.548 (0.333)	0.664 (0.444)	-0.321 (0.228)	-0.638** (0.321)	-1.279*** (0.319)	-1.281** (0.399)	0.221 (0.268)
Log likelihood	-934.12		-2143.62		-1077.11		-2289.28	
Wald χ^2	60.14***		75.87***		32.78***		84.17***	
LR test of independent equations χ^2	4.01		3.37		15.51***		8.20**	
Observations	46	442	46	442	46	442	46	442

Note: σ_i - sigma; ρ_i - correlation coefficients (rho); * p<0.10, ** p<0.05, ***p<0.01

Table S2: Madagascar endogenous switching regression estimation of outcomes variables

Variables	HDDS		FCS		MAHFP		Food expenditure share	
	Employed	Non-engaged	Employed	Non-engaged	Employed	Non-engaged	Employed	Non-engaged
Sex of the household head	1.502 (1.007)	0.440 (0.593)	0.173 (0.261)	1.974** (0.772)	-0.820 (0.760)	0.152 (0.379)	0.694** (0.321)	-0.855 (0.392)
Age of the head	-0.039* (0.023)	0.006 (0.012)	-0.016 (0.173)	-0.043 (0.093)	0.003 (0.017)	-0.003 (0.008)	0.004 (0.005)	0.173 (0.107)
Household size	0.011 (0.120)	0.084 (0.058)	-1.828** (0.788)	0.464 (0.434)	-0.235 (0.090)	-0.036 (0.037)	-0.002 (0.034)	-0.627*** (0.616)
Education status of the head	0.054 (0.255)	0.227 (0.181)	3.827 (1.804)	0.005 (1.334)	0.146 (0.196)	0.072 (0.116)	0.053 (0.085)	0.210*** (0.505)
Marital status of the head	1.609 (0.931)	0.133 (0.596)	1.547 (3.268)	-1.142 (2.805)	-0.571 (0.680)	0.101** (0.383)	0.269 (0.193)	0.211 (0.761)
Livestock owned (TLU)	0.043 (0.028)	0.005 (0.003)	0.198* (0.118)	0.044 (0.027)	-0.008 (0.021)	0.001 (0.002)	0.048 (0.034)	0.461 (0.682)
Land size	0.019 (0.042)	-0.008 (0.007)	-0.073 (0.277)	0.057 (0.054)	-0.003 (0.030)	0.013*** (0.004)	-0.019 (0.057)	-0.266 (0.955)
Distance to market	-2.637** (1.224)	0.157** (0.224)	6.257 (5.501)	4.754*** (1.796)	-1.026 (0.755)	-0.096 (0.166)	-0.075 (0.153)	0.011 (0.209)
Distance to road	-1.104 (0.862)	-0.358 (0.524)	0.719 (2.611)	-0.235 (0.456)	-0.713 (0.618)	-0.284 (0.341)	-1.627 (0.628)	0.997 (1.043)
Households lost their land rights	-0.439 (1.373)	0.289 (0.762)	0.881 (1.821)	-2.779 (5.765)	0.259 (1.019)	0.135 (0.479)	0.213** (0.979)	0.013 (0.104)
Access to other source of revenue	0.242 (0.124)	-0.233 (0.156)	0.456 (0.217)	-0.234 (0.452)	0.945 (0.549)	0.045 (0.233)	0.562 (0.069)	-0.897 (0.354)
Migration status	-1.546** (0.764)	0.235 (0.256)	-1.748 (0.035)	0.562 (0.069)	-0.897 (0.354)	-0.365 (0.279)	0.026 (0.089)	0.195 (0.795)
Location dummy	-1.566 (1.599)	0.163 (0.358)	1.008** (0.752)	1.042*** (2.930)	0.997 (1.043)	0.257 (2.611)	0.026 (0.089)	0.195 (0.795)
Constant	-1.301 (1.067)	2.932 (1.928)	-5.678 (12.071)	3.879 (7.527)	12.939 (2.543)	10.139 (1.224)	3.879 (7.527)	0.031 (0.082)
σ_i	0.718*** (0.102)	0.947*** (0.058)	2.997*** (0.229)	2.972*** (0.068)	0.528** (0.217)	0.454*** (0.046)	2.679*** (0.097)	2.882*** (0.052)
ρ_i	-0.102 (0.652)	-0.961 (0.282)	2.279** (1.180)	-0.878** (0.402)	0.068 (0.552)	0.029 (0.306)	-0.021 (0.642)	0.189 (0.531)
Log likelihood	-786.88		-1382.57		-669.33		-1439.36	
Wald χ^2	30.77***		32.53***		17.48		17.30**	
LR test of independent equations χ^2	6.69**		3.91		1.00		0.08	
Observation	61	243	61	243	61	243	61	243

Note: σ_i - sigma; ρ_i - correlation coefficients (rho); * p<0.10, ** p<0.05, ***p<0.01

Table S3: Mozambique endogenous switching regression estimation of outcomes variables

Variables	HDDS		FCS		MAHFP		Food expenditure share	
	Employed	Non-engaged	Employed	Non-engaged	Employed	Non-engaged	Employed	Non-engaged
Sex of the household head	1.433*** (0.952)	0.111* (0.316)	1.579 (0.509)	-0.292 (0.336)	3.827 (1.804)	0.005 (1.334)	-1.546** (0.764)	-1.669*** (1.789)
Age of the head	0.049 (0.018)	-0.013 (0.008)	0.047 (0.092)	0.048 (0.051)	1.547 (3.268)	-1.142 (2.805)	-0.291 (0.410)	1.521*** (0.333)
Household size	-0.289** (0.122)	-0.055 (0.051)	0.530 (0.599)	0.541 (0.344)	0.198* (0.118)	0.044 (0.027)	8.591** (3.607)	1.139*** (0.522)
Education status of the head	-0.205 (0.304)	0.056 (0.132)	3.203 (1.579)	3.246 (0.899)	-0.073 (0.277)	0.057 (0.054)	4.755 (5.522)	-0.510 (0.843)
Marital status of the head	0.859 (0.604)	-0.386** (0.202)	-5.996 (3.125)	-1.964 (1.356)	6.257 (5.501)	4.754*** (1.796)	0.719 (2.611)	2.625** (1.079)
Livestock owned (TLU)	0.145 (0.427)	0.023 (0.255)	-0.878 (2.128)	-1.827 (1.712)	0.719 (2.611)	-0.235 (0.456)	3.397 (1.094)	-2.565 (3.641)
Land size	0.039 (0.054)	0.127* (0.049)	0.277 (0.247)	-0.292 (0.336)	0.881 (1.821)	-2.779 (5.765)	5.481 (1.217)	-0.589 (1.967)
Distance to market	-0.234 (0.360)	0.127 (0.148)	-0.028 (0.036)	0.144 (0.143)	0.456 (0.217)	-0.234 (0.452)	-3.748 (0.035)	3.368 (2.069)
Distance to road	0.407 (0.349)	0.379*** (0.142)	0.849 (1.665)	3.776 (0.938)	-1.748 (0.035)	0.562 (0.069)	1.008 (5.752)	1.111 (1.566)
Households lost their land rights	0.518 (0.552)	1.206*** (0.304)	-5.403 (2.766)	2.177 (2.049)	0.043 (0.028)	0.005 (0.003)	-0.101 (0.088)	0.719 (2.611)
Access to other source of revenue	-2.551*** (0.642)	-0.809*** (0.305)	-4.335 (5.837)	1.585 (1.834)	-2.637** (1.224)	-0.008 (0.007)	-0.443 (0.293)	3.397 (1.094)
Migration status	0.183 (0.490)	0.292 (0.213)	-0.321 (2.302)	-7.791 (1.409)	0.019 (0.042)	0.157** (0.224)	-0.033 (0.159)	5.481 (1.217)
Location dummy	1.685* (0.939)	0.614* (0.320)	1.599 (7.530)	-2.762 (1.980)	-1.104 (0.862)	-0.358 (0.524)	0.048 (0.167)	-3.748 (0.035)
Constant	-0.717 (2.948)	5.190 (1.299)	33.206 (16.383)	14.974 (8.272)	-0.439 (1.373)	0.289 (0.762)	3.879 (7.527)	1.939 (2.543)
σ_i	1.070*** (0.101)	0.674*** (0.052)	2.538*** (0.165)	2.578*** (0.043)	1.133*** (0.103)	0.800*** (0.052)	-0.665*** (0.073)	0.453*** (0.022)
ρ_i	1.350*** (0.242)	0.554* (0.312)	0.622 (0.529)	-0.466** (0.219)	1.434*** (0.219)	-1.392** (0.274)	0.039 (1.202)	-0.023* (0.652)
Log likelihood	-1187.18		-2088.89		-1262.08		-670.89	
Wald χ^2	53.82***		66.59***		42.99***		12.03	
LR test of independent equations χ^2	8.85**		4.11		5.23**		7.42**	
Observation	121	383	121	383	121	383	121	383

Note: σ_i - sigma; ρ_i - correlation coefficients (rho); * p<0.10, ** p<0.05, ***p<0.01