

Table 4.2 Innovation, sectoral profiles, and sectoral exports, cross-sectional time-series analyses (full models from p.128)

<i>Dependent Variables</i>	R&D spending as % of value added, all industries	R&D spending as % of value added, all industries	R&D spending as % of value added, all industries	R&D spending as % of value added, all industries	R&D spending as % of value added, total manuf.	R&D spending as % of value added, total manuf.	R&D spending as % of value added, total manuf.	R&D spending as % of value added, total manuf.	R&D spending as % of value added, total manuf.
<i>Independent Variables</i>									
Agriculture, value added as % of GDP	-0.020				-0.018				
	(0.015)				(0.028)				
Fuels, ores, and metals exports as % of total exports		-0.029**				-0.027*			
		(0.011)				(0.015)			
Manufacturing, value added as % of GDP			-0.004				-0.006		
			(0.022)				(0.040)		
Services, value added as % of GDP				0.020**				0.010	
				(0.009)				(0.019)	
Manufactured goods exports as % of total exports									0.008
									(0.036)
GDP per capita (logged)	0.118	1.524**	0.282	0.241	0.104	1.768**	1.489**	0.223	0.274
	(0.235)	(0.656)	(0.204)	(0.190)	(0.387)	(0.839)	(0.695)	(0.326)	(0.328)
Population (logged)	0.788***	0.476	0.772***	0.816***	1.013***	0.818*	0.791*	1.017***	0.972***
	(0.162)	(0.300)	(0.168)	(0.163)	(0.291)	(0.455)	(0.451)	(0.305)	(0.303)
GDP growth	-0.012	-0.013	-0.011	-0.010	-0.021	-0.008	-0.010	-0.020	-0.023
	(0.009)	(0.022)	(0.009)	(0.009)	(0.018)	(0.031)	(0.033)	(0.018)	(0.018)

Number of bilateral investment treaties	0.033***	0.047**	0.035***	0.035***	0.040**	0.063**	0.083***	0.041***	0.038**
	(0.010)	(0.022)	(0.011)	(0.010)	(0.016)	(0.029)	(0.029)	(0.016)	(0.016)
Bilateral investment treaty with United States (dummy)	-0.544*	-1.686***	-0.571**	-0.691**	-0.634	-1.765**	-1.842**	-0.704	-0.603
	(0.289)	(0.645)	(0.285)	(0.282)	(0.466)	(0.839)	(0.805)	(0.468)	(0.460)
Trade	0.013***	0.002	0.012***	0.012***	0.018**	0.006	0.010	0.017**	0.018**
	(0.004)	(0.007)	(0.004)	(0.004)	(0.007)	(0.012)	(0.011)	(0.008)	(0.008)
Capital account	-0.091	0.094	-0.128**	-0.086	-0.034	0.285	0.260	-0.037	-0.168
	(0.064)	(0.130)	(0.065)	(0.063)	(0.133)	(0.203)	(0.202)	(0.136)	(0.120)
US FDI	0.001	-0.005*	0.001	0.000	0.001	-0.005	-0.004	0.001	0.001
	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.004)	(0.004)	(0.003)	(0.003)
US trade	0.021**	0.022	0.023***	0.026***	0.028*	0.040*	0.050**	0.031**	0.026*
	(0.009)	(0.016)	(0.008)	(0.009)	(0.015)	(0.024)	(0.025)	(0.015)	(0.014)
Democracy length	0.010	0.066**	0.010	0.007	0.005	0.079**	0.095**	0.003	0.003
	(0.010)	(0.029)	(0.010)	(0.009)	(0.017)	(0.038)	(0.040)	(0.018)	(0.018)
Control of corruption index	0.093	-0.096	0.090	0.080	0.169	0.027	0.079	0.157	0.140
	(0.094)	(0.145)	(0.095)	(0.092)	(0.151)	(0.207)	(0.211)	(0.149)	(0.150)
Constant	-15.93***	-21.97***	-17.31***	-18.84***	-20.08**	-31.41***	-30.18***	-21.93***	-20.96***
	(4.499)	(7.977)	(4.284)	(4.296)	(8.169)	(11.850)	(11.010)	(7.923)	(7.488)
N	224	238	221	224	213	227	242	213	210
Countries	27	29	27	27	27	29	28	27	27
R ²	0.434	0.150	0.420	0.445	0.291	0.114	0.121	0.279	0.292
Rho	0.682	0.836	0.701	0.673	0.693	0.833	0.808	0.710	0.718
Wald chi-square	63.52	30.05	57.01	69.72	41.97	21.16	22.58	38.58	39.87

<i>Dependent Variables</i>	R&D spending as % of value added, computers and electronic products	R&D spending as % of value added, computers and electronic products	R&D spending as % of value added, computers and electronic products	R&D spending as % of value added, computers and electronic products	R&D spending as % of value added, chemicals	R&D spending as % of value added, chemicals	R&D spending as % of value added, chemicals	R&D spending as % of value added, chemicals	R&D spending as % of value added, chemicals
<i>Independent Variables</i>									
Agriculture, value added as % of GDP	-0.018				-0.041*				
	(0.122)				(0.025)				
Manufacturing, value added as % of GDP		-0.107				0.001			
		(0.097)				(0.031)			
Fuels, ores, and metals exports as % of total exports			-0.112***				-0.020*		
			(0.036)				(0.012)		
Services, value added as % of GDP				0.012				0.039**	
				(0.052)				(0.019)	
Chemical product exports as % of total exports									0.278**
									(0.126)
GDP per capita (logged)	0.467	0.265	2.258	0.551	-0.547	-0.197	0.551	-0.302	0.021
	(0.941)	(0.955)	(1.573)	(0.868)	(0.394)	(0.394)	(0.415)	(0.373)	(0.411)
Population (logged)	2.605***	2.571***	0.133	2.589***	-0.244	-0.292	-0.142	-0.194	-0.387
	(0.695)	(0.621)	(1.116)	(0.649)	(0.265)	(0.289)	(0.269)	(0.253)	(0.301)
GDP growth	-0.029	-0.029	0.019	-0.027	-0.064**	-0.063**	-0.061*	-0.060**	-0.059*
	(0.055)	(0.057)	(0.075)	(0.053)	(0.030)	(0.030)	(0.035)	(0.030)	(0.034)
Number of bilateral investment treaties	0.047	0.064	0.102*	0.049	0.039***	0.042**	0.044**	0.043***	0.058***
	(0.039)	(0.043)	(0.062)	(0.038)	(0.015)	(0.019)	(0.017)	(0.015)	(0.017)

Bilateral investment treaty with United States (dummy)	-0.468	-0.787	-6.117**	-0.585	-0.722	-0.767	-0.972	-1.009	-1.082
	(2.001)	(1.588)	(2.906)	(1.675)	(0.643)	(0.733)	(0.649)	(0.685)	(0.675)
Trade	0.034**	0.040***	-0.019	0.033**	-0.001	-0.002	-0.007*	-0.002	-0.009**
	(0.016)	(0.015)	(0.024)	(0.015)	(0.003)	(0.003)	(0.004)	(0.003)	(0.005)
Capital account	0.144	-0.072	1.205**	0.151	0.021	-0.110	0.147	0.036	0.061
	(0.430)	(0.491)	(0.608)	(0.444)	(0.181)	(0.208)	(0.200)	(0.182)	(0.190)
US FDI	0.116	0.108	0.146	0.114	-0.005	-0.004	-0.004	-0.007	-0.008
	(0.106)	(0.098)	(0.122)	(0.109)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)
US trade	0.012	0.014	0.117	0.014	-0.023*	-0.021	-0.008	-0.015	0.012
	(0.058)	(0.054)	(0.101)	(0.058)	(0.013)	(0.013)	(0.015)	(0.011)	(0.016)
Democracy length	0.037	0.021	0.211***	0.036	0.023	0.023	0.044**	0.018	0.028
	(0.029)	(0.029)	(0.059)	(0.027)	(0.014)	(0.015)	(0.020)	(0.015)	(0.018)
Control of corruption index	-0.115	-0.153	-0.537	-0.141	0.114	0.097	0.032	0.066	0.069
	(0.518)	(0.520)	(0.632)	(0.545)	(0.234)	(0.232)	(0.231)	(0.234)	(0.233)
Constant	-53.00***	-49.04**	-20.82	-54.26***	10.57	7.83	-1.10	5.09	5.82
	(17.474)	(19.393)	(29.502)	(19.494)	(7.568)	(8.142)	(7.552)	(6.905)	(7.979)
N	145	142	150	145	224	221	237	224	237
Countries	24	24	25	24	27	27	29	27	29
R ²	0.258	0.275	0.303	0.256	0.125	0.109	0.147	0.138	0.164
Rho	0.639	0.613	0.754	0.643	0.526	0.589	0.585	0.519	0.598
Wald chi-square	55.18	59.86	51.48	55.52	44.16	37.57	38.89	52.20	30.43

<i>Dependent Variables</i>	R&D spending as % of value added, trans. equipment	R&D spending as % of value added, trans. equipment	R&D spending as % of value added, trans. equipment	R&D spending as % of value added, trans. equipment	R&D spending as % of value added, trans. equipment	R&D spending as % of value added, trans. equipment	R&D spending as % of value added, information services	R&D spending as % of value added, information services	R&D spending as % of value added, information services	R&D spending as % of value added, information services
<i>Independent Variables</i>										
Agriculture, value added as % of GDP	-0.189*						-0.005			
	(0.114)						(0.017)			
Manufacturing, value added as % of GDP		0.137						-0.009		
		(0.133)						(0.010)		
Fuels, ores, and metals exports as % of total exports			-0.014						-0.006	
			(0.021)						(0.006)	
Services, value added as % of GDP				0.041						0.007
				(0.039)						(0.007)
Transportation equipment as % of total manufacturing						0.162***				
						(0.050)				
Transportation equipment exports as % of total exports							0.028			
							(0.023)			
GDP per capita (logged)	0.198	2.609***	1.570**	1.613*	0.691	1.205	0.093	0.109	0.502	0.124
	(1.337)	(0.883)	(0.760)	(0.915)	(0.777)	(0.792)	(0.248)	(0.186)	(0.397)	(0.174)
Population (logged)	1.242***	1.116***	0.942**	1.050**	0.542	0.866**	0.112	0.110	0.065	0.119
	(0.406)	(0.417)	(0.391)	(0.454)	(0.418)	(0.388)	(0.070)	(0.074)	(0.095)	(0.073)

GDP growth	0.079	0.088	0.100	0.106	0.035	0.101	0.005	0.003	0.005	0.005
	(0.090)	(0.092)	(0.086)	(0.093)	(0.067)	(0.086)	(0.007)	(0.007)	(0.008)	(0.007)
Number of bilateral investment treaties	-0.013	-0.012	0.002	0.006	-0.012	-0.003	-0.001	0.001	0.007	-0.001
	(0.022)	(0.027)	(0.024)	(0.021)	(0.021)	(0.025)	(0.003)	(0.004)	(0.008)	(0.004)
Bilateral investment treaty with United States (dummy)	2.283**	1.739**	1.421*	1.475*	1.768**	1.729*	0.082	0.041	-0.237	0.047
	(0.916)	(0.811)	(0.863)	(0.886)	(0.826)	(0.909)	(0.194)	(0.203)	(0.351)	(0.193)
Trade	0.008	-0.010	-0.008	-0.002	-0.023**	-0.009	0.002	0.003	-0.001	0.002
	(0.011)	(0.010)	(0.010)	(0.012)	(0.010)	(0.011)	(0.002)	(0.002)	(0.004)	(0.001)
Capital account	0.151	0.008	0.047	0.007	-0.096	0.071	-0.035	-0.045	0.032	-0.032
	(0.302)	(0.334)	(0.332)	(0.350)	(0.209)	(0.320)	(0.052)	(0.043)	(0.081)	(0.053)
US FDI	-0.014	0.035	0.054	0.011	0.073	0.060	0.007	0.006	0.006	0.005
	(0.053)	(0.046)	(0.057)	(0.063)	(0.051)	(0.057)	(0.007)	(0.008)	(0.010)	(0.007)
US trade	-0.008	-0.017	-0.007	0.014	-0.037	-0.030	-0.010*	-0.008	-0.002	-0.008
	(0.027)	(0.033)	(0.036)	(0.027)	(0.023)	(0.045)	(0.005)	(0.005)	(0.011)	(0.006)
Democracy length	0.062***	0.073**	0.041*	0.053*	0.025	0.046**	0.005	0.005	0.023	0.005
	(0.022)	(0.030)	(0.023)	(0.028)	(0.017)	(0.020)	(0.004)	(0.004)	(0.015)	(0.004)
Control of corruption index	0.010	0.023	-0.129	-0.116	-0.146	-0.118	0.005	0.011	0.019	-0.000
	(0.398)	(0.392)	(0.382)	(0.381)	(0.373)	(0.385)	(0.047)	(0.050)	(0.057)	(0.050)
Constant	-22.89	-46.55***	-30.40**	-36.21**	-15.67	-26.35**	-2.85	-2.91	-5.90	-3.68
	(16.114)	(12.956)	(12.316)	(14.181)	(13.574)	(12.467)	(2.807)	(2.397)	(3.789)	(2.290)
N	130	127	137	130	109	137	180	177	189	180
Countries	20	20	22	20	21	22	27	27	28	27
R ²	0.132	0.122	0.095	0.100	0.282	0.103	0.045	0.043	0.112	0.046
Rho	0.506	0.567	0.664	0.647	0.614	0.641	0.647	0.678	0.751	0.661
Wald chi-square	45.39	41.29	32.99	30.24	50.57	34.68	13.77	13.96	7.92	13.94

Notes: BEA data. Standard errors are in parentheses. *** $p < .01$, ** $p < .05$, * $p < .1$. Panel-corrected standard errors with AR(1) correction and heteroskedastic panels.