Appendix A

Table A1. Distribution of government formations according to countries (main sample)

Austria 1945-2014 (22), Bulgaria 1991-2014 (2), Croatia 2000-2011 (8), Czechia 1993-2014 (6), Estonia 1992-2015 (14), Finland 1944-2014 (45), France 1947-2014 (36), Germany 1949-2013 (22), Greece 1974-2015 (3), Hungary 1990-2014 (2), Iceland 1944-2013 (6), Ireland 1944-2011 (16), Israel 1949-2014 (57), Italy 1946-2014 (45), Latvia 1993-2014 (7), Poland 1991-2014 (15), Portugal 1976-2011 (6), Romania 1990-2014 (14), Slovakia 1993-2012 (5), Slovenia 1992-2014 (5), Turkey 1983-2014 (7).

Table A2. Distribution of government formations according to regions and time period (main sample)

Government formations	CD-Index					
	All	(1, 2)	[2, 3)	≥ 3	Pre-1990	Post-1990
Western Europe	258	61	72	125	173	85
Eastern Europe	85	22	42	21	0	85

Table A3. Distribution of government formations according to regions and time period (sample includes independent PMs)

Government formations	CD-Index					
	All	(1, 2)	[2, 3)	≥ 3	Pre-1990	Post-1990
Western Europe	265	64	76	125	178	87
Eastern Europe	94	25	44	25		94

Table A4. Distribution of government formations according to regions and time period (sample includes independent PMs and constitutional monarchies)

Government formations	CD-Index					
	All	(1, 2)	[2, 3)	≥ 3	Pre-1990	Post-1990
Western Europe	462	122	136	204	312	150
Eastern Europe	94	25	44	25		94

Appendix B

Table B1. Conditional logit analysis of PM party choice in moderately-fragmented party systems ($2 \geq CDI < 3$)

	Dependent Variable: Prime Ministerial Party (1, 0)				
	Model 1	Model 2	Model 3	Model 4	Model 5
	Coeff/SE	Coeff/SE	Coeff/SE	Coeff/SE	Coeff/SE
Party Characteristics					
Largest party	2.67***	2.64***	2.63***	2.68***	2.67***
	(0.26)	(0.27)	(0.27)	(0.27)	(0.28)
Previous PM	1.20***	1.16***	1.16***	1.16***	1.18***
	(0.31)	(0.33)	(0.33)	(0.33)	(0.33)
Median party	0.66***	0.65*	0.64*	0.65**	0.63*
	(0.33)	(0.33)	(0.33)	(0.33)	(0.33)
President party		0.14			
		(0.36)			
President's Mode of Election					
President party × Direct election			-0.05		
			(0.50)		
President party × Indirect election			0.30		
			(0.48)		
President's Constitutional Role					
President party × Proactive role				0.34	
				(0.44)	
President party × Reactive role				-0.21	
				(0.56)	
Presidential Scenarios					
President party × Direct election × Proactive role					0.31
					(0.61)
President party × Direct election × Reactive role					-0.7
					(0.80)
President party × Indirect election × Proactive role					0.36
					(0.60)
President party × Indirect election × Reactive role					0.15
					(0.73)
N-Formations	114	114	114	114	114
N-Parties	943	943	943	943	943
Log-likelihood	-92.78	-92.72	-92.57	-92.37	-92.02
Prediction rate	0.8	0.8	0.8	0.8	0.8
Outcomes predicted	91	91	91	91	91
Average p-value for rejecting IIA	0.69	0.77	0.85	0.74	0.85
Number of HM tests failed (out of 50 replications)	4	4	4	6	3
LR $\chi 2$ vs. Model 1		0.71	0.42	0.83	1.52

Note: Results are from a conditional logit model. Standard errors in parentheses (clustered by government). The LR $\chi 2$ tests compare Models 2-5 to the baseline Model 1. * p<0.10, ** p<0.05, *** p<0.01.

Table B2. Conditional logit analysis of PM party choice in moderately-fragmented party systems (CDI ≥ 3)

	Dependent Variable: Prime Ministerial Party (1, 0)				
	Model 1	Model 2	Model 3	Model 4	Model 5
	Coeff/SE	Coeff/SE	Coeff/SE	Coeff/SE	Coeff/SE
Party Characteristics					
Largest party	1.73***	1.64***	1.67***	1.67***	1.73***
	(0.21)	(0.22)	(0.22)	(0.22)	(0.23)
Previous PM	1.73***	1.59***	1.58***	1.60***	1.66***
	(0.21)	(0.21)	(0.21)	(0.21)	(0.22)
Median party	1.20***	1.20***	1.21***	1.19***	1.20***
	(0.23)	(0.23)	(0.23)	(0.23)	(0.23)
President party		0.88***			
		(0.23)			
President's Mode of Election					
President party × Direct election			1.09**		
			(0.34)		
President party × Indirect election			0.71**		
			(0.31)		
President's Constitutional Role					
President party × Proactive role				1.02***	
				(0.28)	
President party × Reactive role				0.63	
				(0.39)	
Presidential Scenarios					
President party × Direct election × Proactive role					1.41***
					(0.37)
President party × Direct election × Reactive role					-1.01
					(0.92)
President party × Indirect election × Proactive role					0.36
					(0.51)
President party × Indirect election × Reactive role					0.92**
					(0.42)
N-Formations	146	146	146	146	146
N-Parties	1278	1278	1278	1278	1278
Log-likelihood	-177.13	-170.31	-169.97	-170.00	-166.67
Prediction rate	0.64	0.63	0.63	0.63	0.63
Outcomes predicted	93	92	92	92	92
Average p-value for rejecting IIA	0.62	0.58	0.67	0.64	0.68
Number of HM tests failed (out of 50 replications)	6	7	7	12	8
LR $\chi 2$ vs. Model 1		13.63***	14.32***	14.26***	20.93***

Note: Results are from a conditional logit model. Standard errors in parentheses (clustered by government). The LR $\chi 2$ tests compare Models 2-5 to the baseline Model 1. * p<0.10, ** p<0.05, *** p<0.01.

Appendix C

Table C1. Largest party predictor of PM party at varying cut-points of political uncertainty and bargaining complexity (sample includes independent PMs and constitutional monarchies)

Party system domination (CD-Index)	Formation Opportunities	PM = Largest Party (#)	PM = Largest Party (%)
All	556	394	71%
(1, 2)	147	132	90%
[2, 3)	180	128	71%
≥ 3	229	134	59%

Table C2. Largest party predictor of PM party at varying cut-points of political uncertainty and bargaining complexity (sample includes independent PMs and constitutional monarchies and is limited to post-1990 governments)

Party system domination (CD-Index)	Formation Opportunities	PM = Largest Party (#)	PM = Largest Party (%)
All	244	181	74%
(1, 2)	53	48	91%
[2, 3)	97	76	78%
≥ 3	94	57	61%

Table C3. Mixed logit analysis of PM party choice in moderately-fragmented party systems (2 ⩾ CDI < 3) (sample includes independent PMs and constitutional monarchies)

	Dependent Variable: Prime Ministerial Party (1, 0)									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Party Characteristics										
Largest party	3.13***		3.20***		3.95***	2.91	3.17***		6.24	-8.87
	(0.34)		(0.41)		(1.32)	(2.68)	(0.38)		(3.98)	(6.71)
Previous PM	1.44***	3.05***	1.47***	3.20***	1.80**	3.89**	1.44***	3.22***	3.27**	3.81
	(0.41)	(0.81)	(0.46)	(0.91)	(0.80)	(1.80)	(0.44)	(0.93)	(1.56)	(4.16)
Median party	0.82**		0.83**		0.82***		0.81**		0.79*	
	(0.33)		(0.36)		(0.40)		-0.35		(0.46)	
President party			0.18	1.09						
			(0.51)	(1.24)						
Election Modes										
PR party × Direct election					-0.08					
					(0.79)					
PR party × Indirect election					0.70	0.08				
					(0.77)	(1.96)				
Constitutional Roles										
PR party × Proactive role							0.14	-0.92		
							(0.60)	(1.35)		
PR party × Reactive role							0.36			
							(0.80)			
Presidential Scenarios										
PR party × Direct election × Proactive role									0.36	
									(0.92)	
PR party × Direct election × Reactive role									-3.24	
									(3.88)	
PR party × Indirect election × Proactive role									-0.8	0.09
									(1.89)	(1.77)
PR party × Indirect election × Reactive role									2.16	
									(1.47)	
N-Formations	180		180		180		180		180	
N-Parties	1617		1617		1617		1617		1617	
Log-likelihood	-185.75		-185.47		-184.65		-185.49		-183.11	
Prediction rate	0.71		0.71		0.71		0.71		0.71	
Outcomes predicted	128		128		128		128		128	
LR $\chi 2$ vs. Model 1			0.56		2.21		0.52		5.29	

Note: Results are from a mixed logit model. Standard errors in parentheses (clustered by government). For each model, the "Mean" column indicates the fixed coefficients and the means of the random coefficients and the "SD" column indicates the standard deviation of the random coefficients. The LR $\chi 2$ tests compare Models 2-5 to the baseline Model 1. * p<0.10, ** p<0.05, *** p<0.01.

Table C4. Mixed logit analysis of PM party choice in moderately-fragmented party systems (2 ⩾ CDI < 3) (sample includes independent PMs and constitutional monarchies, post-1990)

	Dependent Variable: Prime Ministerial Party (1, 0)									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Party Characteristics										
Largest party	5.01*	4.44	5.40	4.89	5.56	5.05	9.33	10.09	8.56	9.13
	(3.01)	(4.17)	(3.48)	(4.64)	(3.74)	(4.90)	(7.72)	(9.58)	(6.26)	(7.75)
Previous PM	1.43**		1.49**		1.49**		1.76**		1.83**	
	(0.66)		(0.64)		(0.64)		(0.72)		(0.72)	
Median party	0.34		0.42		0.38		0.9	-0.03	0.86	-0.02
	(0.61)		(0.88)		(0.65)		(0.82)	(1.74)	(0.82)	(1.59)
President party			-0.42							
			(0.88)							
Election Modes										
PR party × Direct election					-1.16					
					(1.63)					
PR party × Indirect election					0.04					
					(1.02)					
Constitutional Roles										
PR party × Proactive role							-3.7	0.04		
							(3.24)	(3.21)		
PR party × Reactive role							1.82			
							(1.23)			
Presidential Scenarios										
PR party × Direct election × Proactive role									-2.82	
									(3.44)	
PR party × Direct election × Reactive role									-0.44	
									(2.94)	
PR party × Indirect election × Proactive role									-4.02	-0.01
									(3.78)	(3.92)
PR party × Indirect election × Reactive role									2.68*	
									(1.44)	
N-Formations	97		97		97		97		97	
N-Parties	871		871		871		871		871	
Log-likelihood	-89.34		-89.21		-88.94		-86.39		-85.73	
Prediction rate	0.78		0.78		0.78		0.78		0.78	
Outcomes predicted	76		76		76		76		76	
LR $\chi 2$ vs. Model 1			0.26		0.8		5.9		7.23	

Note: Results are from a mixed logit model. Standard errors in parentheses (clustered by government). For each model, the "Mean" column indicates the fixed coefficients and the means of the random coefficients and the "SD" column indicates the standard deviation of the random coefficients. The LR $\chi 2$ tests compare Models 2-5 to the baseline Model 1. * p<0.10, ** p<0.05, *** p<0.01.

Table C5. Mixed logit analysis of PM party choice in highly-fragmented party systems (CDI ≥ 3) (sample includes independent PMs and constitutional monarchies)

	Dependent Variable: Prime Ministerial Party (1, 0)									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Party Characteristics										
Largest party	2.29***		2.25***		2.25***		2.25***		2.32**	
	(0.24)		(0.26)		(0.26)		(0.26)		(0.26)	
Previous PM	1.82***	2.01***	1.88***	1.61**	1.90***	1.66***	1.88***	1.52**	1.90***	1.98***
	(0.27)	(0.62)	(0.28)	(0.71)	(0.27)	(0.63)	(0.27)	(0.68)	(0.30)	(0.70)
Median party	1.56***		1.57***		1.57***		1.54***		1.63***	0.07
	(0.24)		(0.25)		(0.24)		(0.25)		(0.25)	(1.15)
President party			0.62	2.14***						
			(0.42)	(0.80)						
Election Modes										
PR party × Direct election					0.73	3.11***				
					(0.68)	(1.18)				
PR party × Indirect election					0.70*					
					(0.37)					
Constitutional Roles										
PR party × Proactive role							0.83*	1.94**		
							(0.50)	(0.96)		
PR party × Reactive role							0.27	2.38**		
							(0.66)	(1.14)		
Presidential Scenarios										
PR party × Direct election × Proactive role									1.67***	-1.81
									(0.64)	(1.25)
PR party × Direct election × Reactive role									-2.56	-3.7
									(2.13)	(3.08)
PR party × Indirect election × Proactive role									0.03	
									(0.63)	
PR party × Indirect election × Reactive role									1.27**	
									(0.56)	
N-Formations	229		229		229		229		229	
N-Parties	2250		2250		2250		2250		2250	
Log-likelihood	-267.81		-260.14		-258.35		-259.9		-254.12	
Prediction rate	0.65		0.66		0.67		0.66		0.68	
Outcomes predicted	150		151		153		152		155	
LR $\chi 2$ vs. Model 1			15.34***		18.92***		15.82***		27.38***	

Note: Results are from a mixed logit model. Standard errors in parentheses (clustered by government). For each model, the "Mean" column indicates the fixed coefficients and the means of the random coefficients and the "SD" column indicates the standard deviation of the random coefficients. The LR $\chi 2$ tests compare Models 2-5 to the baseline Model 1. * p<0.10, ** p<0.05, *** p<0.01.

Table C6. Mixed logit analysis of PM party choice in highly-fragmented party systems (CDI ≥ 3) (sample includes independent PMs and constitutional monarchies, post-1990 governments)

	Dependent Variable: Prime Ministerial Party (1, 0)									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Party Characteristics										
Largest party	2.91***		2.84***	0.08	2.94***		2.92***		3.01***	
	(0.41)		(0.43)	(1.64)	(0.44)		(0.44)		(0.46)	
Previous PM	2.28***	2.99***	2.21***	3.27**	2.29***	3.61**	2.20***	3.04**	2.62***	4.15**
	(0.58)	(1.11)	(0.62)	(1.28)	(0.67)	(1.44)	(0.59)	(1.18)	(0.89)	(2.03)
Median party	1.90***		1.86***	0.03	1.84***	0.08	1.77***		1.75***	
	(0.40)		(0.41)	(1.27)	(0.42)	(1.23)	(0.41)		(0.45)	
President party			1.42**							
			(0.58)							
Election Modes										
PR party × Direct election					2.23**					
					(1.00)					
PR party × Indirect election					0.98					
					(0.72)					
Constitutional Roles										
PR party × Proactive role							2.05***			
							(0.77)			
PR party × Reactive role							0.77			
							(0.76)			
Presidential Scenarios										
PR party × Direct election × Proactive role									3.62**	
									(1.68)	
PR party × Direct election × Reactive role									-0.46	
									(2.34)	
PR party × Indirect election × Proactive role									0.45	
									(1.71)	
PR party × Indirect election × Reactive role									1.21	
									(0.98)	
N-Formations	94		94		94		94		94	
N-Parties	1053		1053		1053		1053		1053	
Log-likelihood	-100.1		-96.53		-95.93		-95.82		-94.4	
Prediction rate	0.68		0.67		0.7		0.68		0.68	
Outcomes predicted	64		63		66		64		64	
LR $\chi 2$ vs. Model 1			7.14*		8.35**		8.56**		11.41**	

Note: Results are from a mixed logit model. Standard errors in parentheses (clustered by government). For each model, the "Mean" column indicates the fixed coefficients and the means of the random coefficients and the "SD" column indicates the standard deviation of the random coefficients. The LR $\chi 2$ tests compare Models 2-5 to the baseline Model 1. * p<0.10, ** p<0.05, *** p<0.01.