



Appendix II

	OECD	VP rigidity formula	Euclidean distance for lower-upper	VP rigidity with Euclidean distance for lower-upper	Relevant articles
Albania	0	2/3 + e (all members)		0.677	177
Argentina	0	2/3 (lower) + 2/3 × lower-upper + 0.5 (convention)	0.165	1.277	30
Armenia	0	2/3 parl.		0.67	202–208
Australia	1	0.5 (lower) + 0.5 × lower-upper + 0.5 (ref.) + e (maj. of states' voters)	0.165	1.093	128
Austria	1	2/3	0.251	0.667	44 but also 42–45
Belgium	1	2/3 (lower) + 2/3 lower-upper + e (2/3 present)	0.045	0.707	46, 77, 195–77, 198
Benin	0	3/4 + 0.5 (ref.) – e (other route) + e (all members)		1.25	154–156
Bhutan	0	3/4 of parl. + 0.5 – e (king or ref.)		1.24	2, 33–35
Bolivia	0	2/3 + 0.5 (ref.)	0.054	1.167	411
Botswana	0	2/3		0.667	88–89
Brazil	0	3/5 (lower) + 3/5 lower-upper + e (two rounds)	0.153	0.702	60
Bulgaria	0	3/4 + e (3 ballots) – e (alt route: 2/3 2x) + e (all members for maj.) + e (at least 2 months before discussion)		0.77	153–163
Burundi	0	4/5 (lower) + 4/5 lower-upper – e (alt route: pres. can send to ref.) + e (abs. maj. to initiate amendment) + e (all members for maj.)	0.375	1.11	297–300

(cont.)

	OECD	VP rigidity formula	Euclidean distance for lower-upper	VP rigidity with Euclidean distance for lower-upper	Relevant articles
Canada	1	0.5 + 2/3 + e (50% pop. representation) – e (alt: instead of senate, pass 2x in house > 180 days apart)	0.401	1.167	35, 38–49, 52
Cape Verde	0	2/3 members – e (pres. cannot refuse to prom.) + e (all members for maj.)		0.667	173, 179, 309–315
Chile	1	3/5 (lower) + 3/5 lower-upper + 0.5 (pres.) – e (can override pres.) + e (all members for maj.)	0.15	1.19	127–129
Colombia	0	0.5 (lower) + 0.5 lower-upper + e (two discussions) – e (alt: can do constituent assembly) – e (alt: ref.)	0.092	0.536	155, 374–379
Comoros	0	2/3 + 2/3 (councils) – e (alt: councils or ref.) + e (all members for maj.)		1.333	42
Costa Rica	0	2/3 + e (multiple debates and delays) + 0.5 (pres.) + e (all members for maj.)		1.187	195–196
Croatia	0	2/3 + e (maj. vote to decide yes/no on amendment) + e (maj. draft approval) + e (all members for maj.)		0.697	87, 147–150
Cyprus	0	2/3 (turkish community) + 2/3 (greek community) + e (all members for maj.)		1.343	182

Czech Republic	1	3/5 (lower) + 3/5 lower-upper + e (all members for maj.)	0.461	0.887	9, 39, 41, 62, Appendix B #8
Denmark	1	0.5 + 0.5 (post-election) + 0.5 (ref.) + e (40% voters say yes)		1.51	88
Dominican Republic	0	2/3 + e (maj. in both houses) + e (two chambers) + e (maj. present in both houses for joint session)	0.551	0.697	93, 99, 120, 267–272
East Timor	0	2/3 + e (120 days advance notice for proposals)		0.677	154–157
Ecuador	0	2/3 (of NA) + (0.5 ref.) + e (time)		1.18	84, 103, 106, 120, 441–444
El Salvador	0	2/3 + e (agreement by 0.5 + 1 members for proposal)		0.677	246, 248
Estonia	1	3/5 (parl.) + 0.5 (ref.) + e (time between 3 readings) + e (3 readings) + e (all members for maj.) – e (alt) – e (alt)		1.11	78, 161–168
Finland	1	0.5 (first vote) + 2/3 (second vote, post elections) – e (alt)		1.157	73, 94, 95
France	1	0.5 (lower) + 0.5 lower-upper + 0.5 (ref) + e (time for bill consideration: tabling delays) – e (alt path)	0.171	1.086	42, 89
Georgia	0	2/3 + e (amendment suggestion needs 50% of members) + e (delay for discussion after draft pub.) + e (all members for maj.)		0.697	68.4, 102, 103
German Federal Republic	1	2/3 (lower) + 2/3 lower-upper + e (all members for maj.)	0.281	0.864	79
Ghana	0	2/3 + e (pub. 2x in gazette, 3 months apart) + e (3 readings) + e (2/3 at second AND third reading) + e (all members for maj.)		0.707	289–292

(cont.)

	OECD	VP rigidity formula	Euclidean distance for lower-upper	VP rigidity with Euclidean distance for lower-upper	Relevant articles
Greece	1	0.5 (first vote) + 3/5 (second vote after elections) – e (alt path for revisions: 3/5 + 0.51) + e (two rounds of votes in first round [mult. Readings])		1.1	110
Guatemala	0	2/3 + 0.5 + e (all members for maj.)		1.177	173, 277–281
Guyana	0	Maj. + ref. + e (2–6 months to submit to ref.) – e (alt route: 2/3)		1	66, 164
Honduras	0	2/3 + e (all members for maj.) + e (ratify in subsequent session)		0.687	5, 218, 373, 374
Hungary	1	2/3 + e (all members for maj.)		0.677	s, 1.2, 8.3
Iceland	1	0.5 (first vote) + 0.5 (second vote, post elections) + e (pres. confirms)		1.01	79
India	0	0.5 (lower) + 0.5 lower-upper + e (2/3 members present)	0.099	0.56	368
Indonesia	0	0.5 (lower) + 0.5 lower-upper + e (2/3 members present)	0	0.51	37
Ireland	1	0.5 (lower) + 0.5 lower-upper + 0.5 (ref.)	0.17	1.085	46–47
Italy/Sardinia	1	0.5 (lower) + 0.5 lower-upper + e (two debates) + e (time: 3 months between debates) + 0.5 (ref.) – e (alt route: 2/3, no ref.)	0.17	1.095	138 (referendum Art. 75)

Israel	1	0.5 (lower house)		0.5	
Jamaica	0	0.5 (lower) + 0.50 lower-upper + e (all members for maj.) + e (wait 3 months for debate)	0.024	0.532	49
Japan	1	2/3 (lower) + 2/3 lower-upper + 0.5 (ref.) + e (all members for maj.)	0.208	1.315	96
Kenya	0	2/3 (lower) + 2/3 lower-upper + e (3 readings) + e (certificate) + e (all members for maj.)	0.04	0.723	94.3, 255, 256, 257
Korea, Republic of	1	2/3 + 0.5 (ref.) + e (maj. to introduce amendment) + e (delay of 20 days to consider amendments) + e (all members for maj.)		1.197	128–130
Kyrgyz Republic	0	2/3 + e (time: 6 months or less to adopt amendments after proposal) + e (3 readings) + e (2 months between readings) + e (all members for maj.)		0.707	74.2, 97.6, 114
Latvia	1	2/3 + e (2/3 present) + e (3 readings)		0.687	76–79
Lebanon	0	2/3 + e (time: 4 months) + e (all members for maj.)		0.687	65, 76–79
Lesotho	0	0.5 (lower) + 0.5 lower-upper + 0.5 (ref.) + e (time: limit for holding ref.) – e (alt: 2/3)	0	1	85
Liberia	0	2/3 (lower) + 2/3 lower-upper + 2/3 (ref.) + e (2/3 approval for ref.) + e (time: 1 year wait for ref.) + e (all members for maj.)	0.19	1.49	87, 91–93
Lithuania	1	2/3 + e (time: 1-month delay) + e (signs and promulgates) + e (all members for maj.)		0.697	67, 147, 148, 149

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	OECD	VP rigidity formula	Euclidean distance for lower-upper	VP rigidity with Euclidean distance for lower-upper	Relevant articles
Luxembourg	1	$2/3 + e$ (two rounds of votes) + e (3 months between votes) – e (can substitute ref. for second round of voting) + e (all members for maj.)		0.687	114
Macedonia (Former Yugoslav Republic of)	0	$2/3 + e$ (second round of voting: need maj.) + e (all members for maj.)		0.687	129–131, amend. 18
Malawi	0	$2/3 + e$ (all members for maj.)		0.677	195–197, schedule
Malaysia	0	$2/3$ (lower) + $2/3$ lower-upper + e (3 readings) + e (all members for maj.)	0.39	0.947	159, 161e
Mali	0	$2/3$ (NA) + 0.5 (ref.)		1.17	118
Mauritius	0	$2/3 + e$ (all members for maj.)		0.677	46–47
Mexico	1	$2/3$ (lower) + $2/3$ lower-upper + 0.5 (states) – e (half members for maj.)	0.083	1.212	135
Moldova	0	$2/3 + e$ (6 months between initiative and passage) + e (all members for maj.)		0.687	63, 141–143
Mongolia	0	$3/4 + e$ (all members for maj.)		0.76	26, 68–70
Montenegro	0	$2/3 + e$ (public hearing [1 month+]) + e (two votes of $2/3$) + e (all members for maj.)		0.697	155–157

Mozambique	0	2/3 NA		0.67	291, 292, 295
Namibia	0	2/3 (lower) + 2/3 lower-upper – e (alt route: ref. if second chamber does not approve) + e (all members for maj.)	0.21	0.807	131, 132
Nepal	0	2/3 + e (all members for maj.)		0.677	148
Netherlands	1	1/2 (lower) + 1/2 lower-upper + 2/3 (lower) + 2/3 lower-upper	0.124	1.312	137–142
New Zealand	1	Maj.		0.5	See text at right
Nicaragua	0	3/5 + e (commission)		0.61	141, 191–195
Niger	0	3/4 + 0.5 (ref.) – e (alt: 4/5)		1.24	173–175
Norway	1	2/3 + e (previous proposal)		0.677	112
Pakistan	0	2/3 + 1/3 lower-upper + e (all members for maj.)	0.513	0.848	238, 239
Panama	0	Maj. (abs.) + maj. (abs., second) + e (gazette) + e (3 readings) – e (alt)		1.01	313–314
Papua New Guinea	0	2/3 parl. + e (time)		0.68	13, 14
Paraguay	0	0.5 (lower) + 0.5 lower-upper + 0.5 (ref.) + e (180 days to call ref.)	0.184	1.102	289–290
Peru	0	Abs. maj. + 0.5 ref. – e (alt: 2/3)		0.99	32, 101.4, 206
Philippines	0	3/4 (lower) + 3/8 lower-upper + 0.5 (pleb.) + e (60–90 days to hold pleb.) – e (alt: constitutional convention) – e (initiative)	0.411	1.394	17
Poland	1	2/3 (lower) + 2/3 lower-upper + e (adopt twice) + e (60 days to adopt second time)	0.212	0.828	235
Portugal	1	2/3 + e (all members for maj.)		0.677	284–289

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	OECD	VP rigidity formula	Euclidean distance for lower-upper	VP rigidity with Euclidean distance for lower-upper	Relevant articles
Romania	0	2/3 (lower) + 2/3 lower-upper + 0.5 (ref.) – e (alt: 3/4 joint session) + e (all members for maj.)	0.124	1.249	150–152
Senegal	0	0.5 (lower) + 0.5 (ref.) – e (alt: 3/5) + e (second chamber)		1	71, 103
Sierra Leone	0	2/3 + e (publish in ≥ 2 issues of gazette, at least 9 days apart) + e (3 readings) + e (all members for maj.)		0.697	108
Slovakia	1	3/5 + e (all members for maj.)		0.61	84.4, 152.1
Slovenia	1	2/3 + e (2/3 approval of proposal) + e (all members for maj.)		0.687	168–171
Solomon Islands	0	2/3 + e (two readings) + e (give bill to speaker 4 weeks in advance) + e (all members for maj.)		0.697	61
Somalia	0	2/3 of both chambers + e (committee) + 0.5 ref.		1.17	57, 63, 71
South Africa	0	2/3 + e (30 days before bill publish in gazette) + e (submit to provincial legislatures) + e (submit comments to speaker) + e (wait 30 days for introducing or tabling) + e (all members for maj.)	0.048	0.717	74

275	Spain	1	3/5 (lower) + 3/5 lower-upper – e (alt: joint session) – e (alt: can pass 2/3 in the lower house and maj. in upper) + e (all members for maj.)	0.096	0.6576	75, 87, 166–169
	Surinam	0	2/3 NA		0.667	72, 83, 181(2)
	Sweden	1	0.5 (first vote) + 0.5 (second vote) + e (9-month delay between two votes) – e (alt: abs. maj. + ref.) – e (alt: 3/4 with maj. present)		0.99	8.5.14–17, 8.8.21
	Switzerland	1	0.5 (people) + 0.5 (cantons) – e (alt: parl. route)	0.239	0.99	4.2.138, 4.2.139, 4.2.140, 4.2.142, 6.1.192–195
	Taiwan before 2000	0	3/4 + e (3/4 present) – e (alt procedure)		0.75	Additional articles to the Constitution of the Republic of China (Fourth Revision); Art. 27 and 174 of the Constitution
	Taiwan after 2000	0	3/4 + 0.5 + e (ref. turnout) + e (3/4 present)		1.27	Additional Article 12 (replaces 174) (previously discussed in Art. 27, 30, 174, additional Art. 1)
	Thailand	0	0.5 (lower) + 0.5 lower-upper + e (maj. of all members) + e (3 readings) + e (15-day delay between second and third readings)	0	0.53	291

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Trinidad And Tobago	0	2/3 (lower) + 2/3 lower-upper + e (all members for maj.)	0.37	0.923	18.4, 54
Tunisia	0	1/2 pres. + 2/3 (assembly) + e (initial approval by maj.) - e (alt route)		1.167	76-78
Turkey before 1987	1	2/3 + 0.5 (pres.) + e (two rounds of debate) + e (all members for maj.)		1.19	
Turkey after 1987	1	3/5 + 0.5 (pres.) + e (two rounds of debate) + e (all members for maj.) - e (alt: 2/3)		1.11	
Ukraine	0	2/3 + e (maj. approval in previous round) + e (all members for maj.)		0.687	154-159
United Kingdom before 1911	0	0.5 (lower) + 0.5 lower-upper	0.551	0.776	
United Kingdom after 1911	1	0.5 (maj. in LH)		0.5	
Uruguay	0	0.5 (ref.)	0.035	0.5	331
USA	1	2/3 (lower) + 2/3 lower-upper + 3/4 - e (alt) - e (alt) + e (all members for maj.)	0.123	1.489	5
Yugoslavia (Serbia)	0	2/3 + e (all members for maj.)		0.677	203-205 + AD97
Zambia	0	2/3 + e (public in gazette) + e (3 readings) + e (all members for maj.)		0.697	79