Friedrich L. Sell and *Jürgen Stiefl*

The Electoral System of the US: Reform Proposals from a Political Economy Point of View

ABSTRACT

The US, one of the oldest democracies in the world, needs to face deficiencies in its electoral system. The first one has to do with the so-called "Electoral College." Ruled by the majority principle, it may lead to almost paradoxical results: a candidate may win far less than 50 percent of the popular vote share and yet be elected as US President. The second one is located in the "geography" of the elections for the House of Representatives, organized in the federal states. Surprisingly, the likelihood for winning a district is, to a large extent, dependent on its geographical design and allocation. Thereby, it is possible for even minority parties to take advantage and win the majority of representatives ("gerrymandering"). We discuss both of these problematic aspects of the US electoral system and put forward some alternatives to improve the situation from a political economy point of view.

"One cannot establish the reign of liberty without that of mores,[1] and mores cannot be firmly founded without beliefs" (Tocqueville 1969, 17).

The US is, as is well known, one of the oldest democracies in the world. However, its electoral system presents some severe deficiencies. Beyond the heatedly discussed topic of "voter suppression," two more important problems exist. The first one has to do with the specific system for the election of US Presidents, which is called the "Electoral College." Ruled by the majority principle, it may lead to almost paradoxical results: a candidate may win far less than 50 percent of the popular vote share and yet become elected as US President. The second one is located in the "geography" of the elections for the House of Representatives, organized in the federal states. This is so because the likelihood for winning a district is, surprisingly, to a large extent dependent on its geographical design and allocation. As outlined in the US Constitution, every decade at least 43 of the states (after a new census has been evaluated) re-design their format and extension ("Redistricting"). Thereby, it is possible for even minority parties to take advantage and win the majority of representatives ("gerrymandering"). Both of these two issues are intimately interlinked: without a majority in the House of Representatives, the administration of any US President is hardly capable of enforcing its political and economic program. Conversely, disposing of a majority in the US Congress does not help a party very much as long as the President comes from the opposite political homeland. We discuss both of these problematic aspects of the US electoral system and put forward some alternatives to improve the situation from a political economy point of view.

THE OBVIOUS IMBALANCE IN THE "ELECTORAL COLLEGE" SYSTEM

"The U.S. Electoral College is perhaps one of the oddest institutions in American politics. For those who teach it to undergraduates, it is often the subject of significant confusion, leaving students to wonder why it even exists" (Duquette et al. 2013, 4). To be elected as an US President, a candidate must accumulate the majority of votes/electors who have their origin in the 51 federal states. In the following, we will analyze the Presidential election decision of November 2020.

[1] "So I use the word to cover the whole moral and intellectual state of a people" (Tocqueville 1969, 287).

Friedrich L. Sell

is Professor emeritus at the University of the Federal Armed Forces, Munich. His main fields of research are labor economics, income distribution, European monetary policy, and the political economy of elections in democracies.

Jürgen Stiefl

is Professor at the University of Applied Sciences Aalen. His main fields of research are European monetary policy, common market studies, and the political economy of elections in democracies.

Table 1

Electors and Eligible Voters by Federal States in 2020

Federal states	Electors	Residents entitled to vote	Federal states	Electors	Residents entitled to vote
Alabama	9	3,683,055	Nevada	6	2,153,915
Alaska	3	525,568	New Hampshire	4	1,079,434
Arizona	11	5,189,000	New Jersey	14	6,158,999
Arkansas	6	2,182,375	New Mexico	5	1,515,355
Colorado	9	4,313,054	New York	29	13,670,596
Connecticut	7	2,603,327	North Carolina	15	7,756,051
Delaware	3	720,531	North Dakota	3	565,143
Florida	29	15,551,739	Ohio	18	8,859,167
Georgia	16	7,383,562	Oklahoma	7	2,845,835
Hawaii	4	1,007,920	Oregon	7	3,196,425
Idaho	4	1,292,701	Pennsylvania	20	9,781,976
Illinois	20	9,027,082	Rhode Island	4	799,642
Indiana	11	5,000,007	South Carolina	9	3,926,305
Iowa	6	2,321,131	South Dakota	3	648,104
California	55	25,962,648	Tennessee	11	5,124,867
Kansas	6	2,087,946	Texas	38	18,784,280
Kentucky	8	3,312,250	Utah	6	2,191,487
Louisiana	8	3,373,932	Vermont	3	499,884
Maine	4	1,085,285	Virginia	13	6,196,071
Maryland	10	4,313,416	Washington	12	5,437,844
Massachusetts	11	5,072,901	Washington D.C.	3	540,685
Michigan	16	7,550,147	West Virginia	5	1,394,028
Minnesota	10	4,118,462	Wisconsin	10	4,368,530
Mississippi	6	2,201,950	Wyoming	3	431,364
Missouri	10	4,603,060	Sum	538	234,629,885
Montana	3	837,298			
Nebraska	5	1,383,551			

Source: https://www.electprojekt.org/2020g.

With the exception of Nebraska (NE) und Maine (ME), the so-called "winner-takes-all" principle applies to all 49 other states. Given the total number of 538 electors, a majority requires to at least "win" 270 electoral votes. It is worth looking at the popular vote, too. We do this with the help of Table 1.

Table 2

Hypothetical Majority of Votes in the States with the Largest Number of Electors

Federal states	Electors	Persons	Cumulated sum	Necessary popular votes (assumption of 51%)
California	55	25,962,648	55	13,240,950
Texas	38	18,784,280	93	9,579,983
Florida	29	15,551,739	122	7,931,387
New York	29	13,670,596	151	6,972,004
Illinois	20	9,027,082	171	4,603,812
Pennsylvania	20	9,781,976	191	4,988,808
Ohio	18	8,859,167	209	4,518,175
Georgia	16	7,383,562	225	3,765,617
Michigan	16	7,550,147	241	3,850,575
North Carolina	15	7,756,051	256	3,955,586
New Jersey	14	6,158,999	270	3,141,089
			Sum	66,547,986

Sources: Table 1; own calculations.

Starting from the information given by Table 1, we now proceed to calculate two separate scenarios:

- Scenario 1: Suppose a candidate is capable of winning all those 11 states (among them the "swing states" Florida, Michigan, Pennsylvania, Ohio, and Illinois) which together yield the necessary quorum of 270 electors. In 2020, 66,547,986 voters or a popular vote share of 66,547,986/234,629,885 = 28.36 percent would have sufficed to achieve this goal (see Table 2).
- Scenario 2: In the following, we organize the federal states in ascending order according to the numbers of residents entitled to vote/the number of electors which they, so to speak, contribute. The last column calculates for each state the hypothetical "gross price" for an elector in units of residents entitled to vote (Table 3).

Table 3

The "Gross Price" for an Elector in the Federal States of the US

Federal states	Electors	Residents entitled to vote	Gross price for an elector in units of residents entitled to vote	Federal states	Electors	Residents entitled to vote	Gross price for an elector in units of residents entitled to vote
Wyoming	3	431,364	143,788	Louisiana	8	3,373,932	421,742
Vermont	3	499,884	166,628	Maryland	10	4,313,416	431,342
Alaska	3	525,568	175,189	South Carolina	9	3,926,305	436,256
Washington D.C.	3	540,685	180,228	Wisconsin	10	4,368,530	436,853
North Dakota	3	565,143	188,381	New Jersey	14	6,158,999	439,929
Rhode Island	4	799,642	199,911	Illinois	20	9,027,082	451,354
South Dakota	3	648,104	216,035	Washington	12	5,437,844	453,154
Delaware	3	720,531	240,177	Indiana	11	5,000,007	454,546
Hawaii	4	1,007,920	251,980	Oregon	7	3,196,425	456,632
New Hampshire	4	1,079,434	269,859	Missouri	10	4,603,060	460,306
Maine	4	1,085,285	271,321	Massachusetts	11	5,072,901	461,173
Nebraska	5	1,383,551	276,710	Georgia	16	7,383,562	461,473
West Virgina	5	1,394,028	278,806	Tennessee	11	5,124,867	465,897
Montana	3	837,298	279,099	New York	29	13,670,596	471,400
New Mexico	5	1,515,355	303,071	Arizona	11	5,189,000	471,727
Idaho	4	1,292,701	323,175	Michigan	16	7,550,147	471,884
Kansas	6	2,087,946	347,991	California	55	25,962,648	472,048
Nevada	6	2,153,915	358,986	Virginia	13	6,196,071	476,621
Arkansas	6	2,182,375	363,729	Colorado	9	4,313,054	479,228
Utah	6	2,191,487	365,248	Pennsylvania	20	9,781,976	489,099
Mississippi	6	2,201,950	366,992	Ohio	18	8,859,167	492,176
Connecticut	7	2,603,327	371,904	Texas	38	18,784,280	494,323
Iowa	6	2,321,131	386,855	North Carolina	15	7,756,051	517,070
Oklahoma	7	2,845,835	406,548	Florida	29	15,551,739	536,267
Alabama	9	3,683,055	409,228	Sum	538	234,629,885	
Minnesota	10	4,118,462	411,846				
Kentucky	8	3,312,250	414,031				

Sources: Table 1; own calculations.

Following the "winner-takes-all-principle," the numbers of Table 3 are still somehow "inflated," as 51 percent of the counted votes are sufficient to win all the electors of one state. Therefore, in Table 4, we have calculated the "net price" for an elector in units of residents entitled to vote. As a result, only 54,004,047 votes or a popular vote share of 54,004,047/234,629,885 = 23.01 percent would have sufficed (see Table 4) to achieve the required number of 274 (>270) electors.

Summing up: Both in scenario 1 as in scenario 2, a sort of "election paradox" shows up: just slightly more than 25 percent of the eligible voters hypothetically determine who becomes US President.

IS THERE A SCOPE FOR REFORMING THE ELECTORAL COLLEGE SYSTEM?

Any reform proposal should respect core insights won from the political economy of institutional/political reforms. To be brief, we here concentrate on the principles of (i) transparency of procedures and (ii) enforceability of any reform proposal.

The *Direct Election Plan* suggests to vote the candidates according to their overall achieved popular share directly (Whitaker and Neale 2004). Then there is no need for an Electoral College system anymore. This plan has been followed since 1798 in the elections for the House of Representatives.[2] The winner is the candidate who accumulates more than 50 percent of the valid vote cast.[3]

The *District Plan*, also known as the "Congressional District Method," is used in the states of Maine (since 1972) and of Nebraska (since 1996). Following the proportionality principle, the concurrent parties are allocated to electors according to the (relative) vote share which they achieve in the corresponding districts. In 2000, for example, George W. Bush won

[2] See also https://studyhq.net/direct-election/.
[3] Bauer (2016) discusses further reform options.

Table 4

The "Net Price" for an Elector in the Federal States of the US

Federal states	Electors	Residents entitled to vote	Sum of electors	Net price for an elector in units of residents entitled to vote
Wyoming	3	431,364	3	219,996
Vermont	3	499,884	6	254,941
Alaska	3	525,568	9	268,040
Washington D.C.	3	540,685	12	275,749
North Dakota	3	565,143	15	288,223
Rhode Island	4	799,642	19	407,817
South Dakota	3	648,104	22	330,533
Delaware	3	720,531	25	367,471
Hawaii	4	1,007,920	29	514,039
New Hampshire	4	1,079,434	33	550,511
Maine	4	1,085,285	37	553,495
West Virginia	5	1,394,028	47	710,954
Montana	3	837,298	50	427,022
New Mexico	5	1,515,355	55	772,831
Idaho	4	1,292,701	59	659,278
Kansas	6	2,087,946	65	1,064,852
Nevada	6	2,153,915	71	1,098,497
Arkansas	6	2,182,375	77	1,113,011
Utah	6	2,191,487	83	1,117,658
Mississippi	6	2,201,950	89	1,122,995
Connecticut	7	2,603,327	96	1,327,697
Iowa	6	2,321,131	102	1,183,777
Oklahoma	7	2,845,835	109	1,451,376
Alabama	9	3,683,055	118	1,878,358
Minnesota	10	4,118,462	128	2,100,416
Kentucky	8	3,312,250	136	1,689,248
Louisiana	8	3,373,932	144	1,720,705
Maryland	10	4,313,416	154	2,199,842
South Carolina	9	3,926,305	163	2,002,416
Wisconsin	10	4,368,530	173	2,227,950
New Jersey	14	6,158,999	187	3,141,089
Illinois	20	9,027,082	207	4,603,812
Washington	12	5,437,844	219	2,773,300
Indiana	11	5,000,007	230	2,550,004
Oregon	7	3,196,425	237	1,630,177
Missouri	10	4,603,060	247	2,347,561
Massachusetts	11	5,072,901	258	2,587,180
Georgia	16	7,383,562	274	3,765,617
			Sum	54,004,047

Sources: Table 3; own calculations.

(all) 11 electors in the state of Missouri under the actually ruling electoral system. Opposed to this, the District Plan would have allocated 8 electors to Bush, but 3 to his rival, Al Gore (Whitaker and Neale 2004).

According to the *Proportional Plan,* the Electoral College system would not be totally abolished, but only modified: electors would be assigned to the candidates in every state based on the percentage of total valid votes received, respectively, *independent of the fact from which districts the votes came from.* Virtually spoken, this regime would have let Gore defeat Bush in the year 2000 by 269 (his real score was 267) electors against 263 (his real score was 271). Six further electors would have been assigned to "other" (Whitaker and Neale 2004). Notice that the state of Colorado considered introducing this plan in the year 2004.

The *Automatic Plan,* as the fourth significant alternative, would also modify the existing electoral system: here, specific electors would be chosen only if they themselves could win a majority of votes in their respective district. Abolishing the "Electoral College" system, electors would no longer be in the role of "middlemen." The Presidential election results of 2000 would not have been so different under this alternative regime, after all. Thus, the tally would have been 271 electoral votes for Bush/Cheney and 267 (as opposed to 266) for Gore/Lieberman (Whitaker and Neale 2004).

Results:

- Transparency und simplicity: The "District Plan," "Automatic Plan," and "Proportional Plan" meet this criterion satisfactorily; given that the "Proportional Plan" intends to conserve elements of the Electoral College, a system familiar to the US incumbents, this plan might have a comparative advantage with regard to this criterion.
- Enforceability: The "Direct Election Plan" seems to be less enforceable than the "District Plan," as it is in need of a constitutional amendment with a qualified majority of two-thirds in Congress. Putting the "Automatic Plan" and the "Proportional Plan" in place would also mean passing a constitutional amendment, which in turn requires two-thirds of Congress to vote and agree on the decision and that decision needs to be ratified by 38 of the 51 states. Therefore, the "District Plan" fulfils this criterion best.

MANIPULATIVE REDISTRICTING: THE CASE OF "GERRYMANDERING"

In 2020, a census was conducted in all 51 US states. This gives the respective legislatures, governments, and/or advisory commissions the opportunity to redraw the existing districts for the upcoming elections of members of the House of Representatives. The districts should, in principle, be compact, contiguous to each other, and encompass the same size and structure of population (Szikalai and Heberger 2020). Experience from the past, however, shows that the possibility to redistrict is nevertheless used in many cases by politicians for "gerrymandering." This wording refers and goes back to the former governor of Massachusetts, Elbridge Gerry. Almost artistically, in 1812 his fantasy led him to create districts looking

Figure 1
A Simple Case of Gerrymandering (with No Independents)

100 D	100 D	100 D	100 R	100 R	100 R	100 R
100 D	100 D	100 D	100 D	100 D	100 D	100 D
100 D	100 D	100 R	100 R	100 R	100 R	100 R

D = Democrats R = Republicans

Source: Sell and Stiefl (2021); own compilation.

much like a salamander (Illinger et al. 2018), with the clear purpose to secure his re-election.

Gerrymandering with No Independents

We depart from the simplifying assumption that there are only 2 Parties (no Independents, voter turnout of 100 percent) and a total of 2,100 incumbents. 1,200 of these are partisans[4] of the Democrats, 900 vote in favor of the Republican Party. Hence, in the popular vote, the Democrats have a win of 57.1 percent ("vote share") over 42.9 percent of the Republicans. We assume that new districting regulation distributes these 2,100 incumbents over seven units of election. In Figure 1, the districts are depicted – in a simplifying stylized version of the existing reality – as seven vertical parallels: This is still in the vein of Elbridge Gerry, because theoretically it is about the same to allocate incumbents over a given distribution of districts or to distribute districts over a given allocation of incumbents. District 1 and 2 together contain 600 partisans of the Democrats only. Districts 3 includes 200 partisans of the Democratic Party and 100 partisans of the Republican Party. District 4 through 7 contain 200 partisans of the Republican Party and 100 partisans of the Democratic Party each. As we can easily discern, the Democrats (Republicans) win 3 (4) out of 7 districts and hence send a minority (majority) of representatives into the House of Representatives in Washington DC. This equals to a "seat share" of 42.9 percent (57.1 percent) or just the inverse of the above-identified "vote share." This scenario is a strong indicator for active gerrymandering.

What can we learn from Figure 1? Obviously, the Republicans win districts four through seven, giving in with respect to the first three districts. The Democrats have a win of 100 percent in districts 1 and 2, and of 66.66 percent in district 3. This is what is called "packing and cracking" (Konishi and Pan 2018): give to the opponents a large majority in a minority of districts ("packing") and beware to conquer a majority in the majority of districts with the lowest margin at hand ("cracking"). As a result, Republicans (Democrats) win 4 (3) out of 7 districts, that is a "seat share" of 57.1 percent (42.9 percent), though their popular vote share of 42.9 percent (57.1 percent) is much lower (higher) and, of course, minoritarian (majoritarian).

It is obvious that gerrymandering sparks (at least) two types of problems: an *incentive and a representation* problem (Bierbrauer and Polborn 2020). The latter is due to the fact that the leading party in the popular vote may become second in the seat share. The incentive problem arises because "packing" tends to motivate rent-seeking among the "100 percent-electors" (Donges and Freytag 2009). Furthermore, studies demonstrate that the turnout is negatively affected by repeated "packing" (Bierbrauer and Polborn 2020).

HOW TO REDESIGN "REDISTRICTING"?

Different approaches from economics and also from political economy science can contribute to overcoming the gerrymandering trap. In the first place, here, we follow the excellent proposal of Bierbrauer and Polborn (2020): their idea, rooted in sub-game perfect solutions of non-cooperative game theory, invites each Party to appoint partisans in a round-by-round process and to delegate them to the different districts (whose number is exogenous) until the total number of partisans (of both Parties) expires. The dynamics of action and reaction are meant to let both Parties neutralize each other. Each Party is equipped with partisans according to their popular vote share. In general, the Party that is allowed to start has a so-called first-mover disadvantage, because it is not able to react to its opponent's last move. Any equilibrium of the game must guarantee that a win in the seat share is accompanied by a corresponding lead in the vote share. Let us inspect the details with the help of Figure 2, where there are (only) partisans of Republicans or Democrats, but no Independents. Districts have to be equally sized.

Notice that the Democrats use their first move to delegate 100 partisans to each district (1 through 7). Thereby, they "consume" 700 of their 1,200 partisans. In the second stage, Republicans do the same and consume also 700 of their 900 partisans. In the third stage, Democrats delegate their remaining 500 par-

[4] The origins of the term "partisan" are reported in Sell (1998).

Figure 2

Correcting for the Simple Case of Gerrymandering

100 D	100 D	100 D	100 D	100 D	100 D	100 D
100 R	100 R	100 R	100 R	100 R	100 R	100 R
100 D	100 D	100 D	100 D	100 D	100 R	100 R

D = Democrats R = Republicans

Source: Sell and Stiefl (2021); own compilation.

tisans, Republicans follow and finish the game with the delegation of their resting 200 partisans. What is the result? Democrats (Republicans) win 4 (3) of the 7 districts, so their "seat share" now is 57.1 percent (42.9 percent) which exactly matches their "vote share" of 57.1 percent (42.9 percent). Moreover, the sequencing in the score of the parties is now correct: Democrats defeat Republicans both in the vote share and in the seat share. If one is still not satisfied with this result, have a look at the alternatives: the seat shares might be 71.4 percent versus 28.6 percent (with 5 seats for the Democrats and 2 for the Republicans): too far away from the vote share (57.1 percent vs. 42.9 percent)!

Figure 3

An Optimal Finite Districting Game of Two Moves with Independents

200 I	200 I	200 I
200 D	50 D	50 D
	150 R	150 R

I = Independents D = Democrats R = Republicans

Source: Bierbrauer and Polborn (2020); own compilation.

Figure 4

An Optimal Finite Districting Game of Four Moves with Independents

400 I	400 I	400 I
100 D	100 D	100 D
100 R	100 R	100 R
100 D	50 D	50 D
100 D	150 R	150 R

I = Independents D = Democrats R = Republicans

Source: Bierbrauer and Polborn (2020); own compilation.

Correcting for the Case of Gerrymandering When There Is a Significant Number of Independents

In Figure 3, we have reduced the framework to three districts. However, we assume that there are 600 (out of a total of 1,200 partisans) Independents (I) divided equally among the districts.

If we let the Democrats (D) start the game and allow them to assign their own (300) partisans to all three districts, the Republicans (R) will follow and distribute their respective partisans (300) in the second round. For D, getting just one independent partisan (out of 200) on its side is enough to win the first district. R, however, may succeed in districts two and three, provided they convince 51 I (out of 200) in each case to follow them. This is more likely than for D to persuade 151 I. Let D and R convince in the end all relevant Independents in districts 1 through 3, respectively. Otherwise, their votes would be "lost." As a result, we then have a popular vote in favor of R (58.3 percent) against 41.7 percent (D). But R wins 2 out of 3 districts (seat share: 66.66 percent). In a sense, the "trap of gerrymandering" is being solved, as one party, the Republicans, is the winner both in the popular *and* in the seat share.

In Figure 4, we again have three districts; we now consider the existence of 1,200 Independents (from a total of 2,400 partisans), equally distributed over the districts. We let the Democrats (D) again start the game: now they may draw the first and the third move (the Republicans (R) and the second and the fourth move). For D it is sufficient to pull over just 101 independent partisans (out of 400) to their side to win the first district. This is more likely than for R to persuade 301 I. R, however, may succeed in districts two and three, provided they convince 151 I (out of 400) in each of these districts to follow them. This is more likely than D to persuade 251 I. Let D and R convince in the end all relevant Independents in districts 1 through 3, respectively. Otherwise, their votes would be "lost." As a result, we again have a popular vote in favor of R (58.3 percent) against 41.7 percent (D). R again wins 2 out of 3 districts (seat share: 66.66 percent.) and the gerrymandering puzzle, again, is solved.

All presented equilibria are sub-game perfect and are associated with a "second-mover advantage." In

other words, the party that makes the penultimate move has a strategic disadvantage. As a result, this disadvantage will be smaller as the parties' shares in the "popular vote" are more similar, as the number of partisans to be awarded in each round is smaller, and as the number of total rounds/moves is larger. Finally, the dice can already decide at the beginning who will be first and who will be second.

The concept of Bierbrauer and Polborn (2020) is, though sophisticated, at the same time (i) both simple and transparent. But is it (ii) enforceable? What can bring the almost hostile Parties in the US to agree on a mechanism which avoids gerrymandering effects/consequences and is also less arbitrary than tumbling dices?

Public finance is primarily dedicated to the role of government in providing public goods to the private sector. Whenever individuals are being affected (whether positively or negatively) by actions of other economic agents, this issue is investigated under the label of "external effects" and the possible strategies for their internalization. Experts speak of so-called "non-pecuniary, technological external effects" (Luckenbach 2000): activities in consumption and/or in production of one group of agents has a negative (social costs) or positive (social benefits) effect on the activity (in consumption and/or in production) level of another group of agents. This mechanism should not be confounded with (monetary) spill-over effects stemming from ordinary market processes, where rising or falling prices due to demand or supply shifts are a natural outcome of new relevant information/expectations.

It is then the obligation of economic policy to design internalization strategies with the aim to reduce (to raise) external costs (benefits). Guy Kirsch (2004), a prominent representative of the school of "political economy," has developed a smart mechanism for the internalization of external costs: all those individuals who would suffer (or enjoy) the consequences of a decision should participate in the decision-making process itself. The idea is, generally speaking, to make all those who are directly affected by a problem become explicitly involved in its solution.

Gerrymandering, in a sense, is comparable to the occurrence of external costs: the voting activity of those (Republican or Democrats) voters is affected negatively, whose weight in the vote share is not reflected sufficiently in the seat share as a consequence of the partisan districting policy of either Democrats or Republicans. There already exists some sort of model for the idea of Kirsch in reality. In some of the affected US states, we find "redistricting commissions" which either come up with own suggestions to the legislative or at least they function during the process of redesign as consulting/advisory agencies. If not currently available, "participating clauses" – beyond the, in several cases, existing "compactness clauses" for the design of districts – should be established. Herewith, a large part of stakeholders in the process of elections to the House of Representatives would come into play. It goes without saying that these stakeholders must include not only Bi-partisans and Partisans but also the group of Independents (Bierbrauer and Polborn 2020). Therefore, the practised system in California and Iowa, where so-called "non-partisan districting committees" act in an advisory role is a good starting point but perhaps not yet the final solution (Konishi and Pan 2018). In essence, the concept of Kirsch (2004) develops further what Dudenhöffer (1984) already claimed in his remarkable PhD thesis: consumers should be given the right to decide upon issues regarding the usage of the public good "environments." Substituting "consumers" by "voters" and "environment" by "democracy," underlines the analogy.

A further contribution to solve the gerrymandering puzzle may be drawn from political economy science: the concept of "Logrolling" enables parliamentarians from different Parties (I, II) to combine two, in principle independent motions (A, B), in a sort of interlinked vote. Party I may, for example, be willing to support motion B which stems from Party II, if (and only if) the latter is prepared to do the same with regard to motion A which comes from Party I (Külp 1976). It is understood that none of the implicated Parties is capable of organizing a qualified majority of votes in favor of its own plan alone. To make the case of redistricting, suppose A (I) is meant to be the share of social expenditures in the public budget for the next ten years (the Republican Party), while B (II) is related to the geographic design of districts in the respective federal state. A "logrolling deal" would create a constraint for the intention of the Republicans (Democrats) to gerrymander (to expand social policies): they would only succeed in their purpose of redistricting in as much as they are willing to consent additional expenditures in the field of social policy. The inverse holds for the Democrats.[5]

CONCLUSIONS

> "This is a self-established truth
> which it is needless to discuss:
> you are rich and I am poor"
> (Tocqueville 1969, 188).

The quote from Tocqueville could be extended to "it's your fault, not mine!" And it fits the relationship between Republicans and Democrats in the recent history of the US well. So much seems certain: only if both of these Parties take responsibility for the damage caused and are willing to collect the shards

[5] "Logrolling is a procedure which seems to fit well the issue of gerrymandering, because it presupposes that the individuals involved do know each other and are also able to communicate with each other. Both is usual in parliaments" (Donges and Freytag 2009, 240).

will the US democracy regain its strength. In this paper, we have presented, in our view, feasible reform proposals, both for the Electoral College and for the issue of (Re)-Districting. And yet, the issue of "voter suppression," not debated in this contribution, casts new shadows ahead.

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