



PROJECT MUSE®

## V-Dem: A New Way to Measure Democracy

Staffan I. Lindberg, Michael Coppedge, John Gerring, Jan Teorell

Journal of Democracy, Volume 25, Number 3, July 2014, pp. 159-169  
(Article)

Published by Johns Hopkins University Press

DOI: <https://doi.org/10.1353/jod.2014.0040>



➔ *For additional information about this article*

<https://muse.jhu.edu/article/549506>

## Research Report

# V-DEM: A NEW WAY TO MEASURE DEMOCRACY

*Staffan I. Lindberg, Michael Coppedge, John Gerring,  
Jan Teorell et al.\**

*Staffan I. Lindberg is professor of political science at the V-Dem Institute of the University of Gothenburg. Michael Coppedge is professor of political science at the Kellogg Institute for International Studies of the University of Notre Dame. John Gerring is professor of political science at Boston University. Jan Teorell is professor of political science at Lund University. Together they are the principal investigators of the Varieties of Democracy Project (<https://v-dem.net>). The contributions of other authors are described in the first note.*

In the last few decades, Western governments have spent huge sums of money to promote democracy abroad. We do not know which, if any, of these programs actually work. If we cannot measure democracy in sufficient detail and with the necessary nuance, we cannot mark its progress and setbacks or affect its future course. Distinguishing the most democratic countries from the least democratic ones is fairly easy: Almost everyone agrees that Switzerland is democratic and North Korea is not. It has proven to be much harder to make finer distinctions: Is Switzerland more democratic than the United States? Is Russia less democratic today than it was last year? Has Venezuela become more democratic in some respects and at the same time less democratic in others?

The needs of democracy promoters and social scientists have converged. We all need better ways to measure democracy. Here we present a new effort aimed at measuring democracy, the Varieties of Democracy Project (V-Dem). Five features distinguish V-Dem from previous endeavors to measure democracy: First, because no consensus exists regarding how to conceptualize and measure democracy, we approach democracy as multidimensional. Instead of imposing a definition that would necessarily omit features of democracy that matter to some users, we measure multiple varieties of democracy and allow users to choose the one that reflects their own understanding of the concept. Second, we collect information on indicators relevant to democracy at a highly dis-

aggregated level and make both aggregated and disaggregated data freely available. Third, we enlist multiple experts to code each subjective indicator, permitting intercoder reliability tests (for nonfactual questions). Fourth, we extend indicators for each country back through modern history to 1900 whenever possible. Finally, we offer not only point scores measuring various dimensions of democracy, but also confidence bounds for every point estimate.<sup>1</sup> While other projects that attempt to measure democracy may contain one or several of these features, none combines them all.

## Five Principles

Although consensus on a core concept of democracy remains elusive, we focus on five key principles or traditions that offer distinctive approaches to defining democracy—electoral, liberal, participatory, deliberative, and egalitarian. (We will also eventually measure majoritarian and consensual varieties of democracy, but our work on these is too preliminary to publish at this point.) There is a thin and a thick version for each of these principles. The thin version, which we refer to as its “component,” includes only the most distinctive attributes of that principle, minimizing its overlap with the other principles. Thus, we refer to a “liberal component,” a “deliberative component,” and so on, which are designed to be conceptually distinct even though they may be empirically correlated.

The *electoral* component of democracy embodies the core value of making rulers responsive to citizens through competition for the approval of a broad electorate during periodic elections. In the V-Dem conceptual scheme, the electoral component is fundamental; without it, we cannot call a regime “democratic” in any sense. At the same time, we recognize that holding elections alone is insufficient, and also that countries can have “democratic qualities” without being democracies.

The *liberal* component of democracy embodies the intrinsic value of protecting individual and minority rights against a potential “tyranny of the majority.” This is achieved through constitutionally protected civil liberties, strong rule of law, and effective checks and balances that limit the use of executive power.

The *participatory* component embodies the values of direct rule and active participation by citizens in all political processes; it emphasizes nonelectoral forms of political participation such as through civil society organizations and mechanisms of direct democracy.

The *deliberative* component enshrines the core value that political decisions in pursuit of the public good should be informed by respectful and reasonable dialogue at all levels rather than by emotional appeals, solidary attachments, parochial interests, or coercion.

The *egalitarian* component holds that material and immaterial in-

equalities inhibit the actual exercise of formal rights and liberties; hence a more equal distribution of resources, education, and health across socioeconomic groups should enhance political equality.

These five components are distinct, with no overlapping attributes. In addition, however, we construct “thick” versions of each of these concepts that include one overlapping element—namely, the *electoral component*, as we believe that no regime should be called a “democracy” of any type unless it builds on this foundation. To round out the picture, electoral democracy is a combination of the thin electoral component plus freedom of association and access to alternative sources of information. (Our “electoral democracy” is therefore very similar to Robert Dahl’s concept of polyarchy.) Collectively, these thick versions of the five concepts are what we refer to as “varieties of democracy.” We argue that, taken together, these offer a fairly comprehensive accounting of the concept of democracy.

Thus, while most indices focus only on democracy’s electoral and liberal elements, V-Dem seeks to measure a broader range of attributes associated with the concept of democracy. Few indices have anything to say about the participatory, deliberative, or egalitarian varieties of democracy, but V-Dem captures each of them in separate *democracy components*; it then breaks down each component into meso-level (mid-range) *subcomponents* that are also measured. There are nineteen sub-components of the five (and eventually seven) components. Finally, we have identified roughly four-hundred detailed *indicators* within the sub-components of democracy, and use 105 of them to construct the indices presented here.

It is important to recognize that the core values enshrined in the varying components, subcomponents, and indicators of democracy sometimes conflict with one another. Such contradictions are implicit in democracy’s multidimensional character. Having separate indicators that represent these different facets of democracy will make it possible for policy makers and academics to examine potential tradeoffs empirically.

V-Dem covers (whenever possible) all sovereign or semisovereign states from 1900 to 2012.<sup>2</sup> This means that Eritrea, for example, is coded as an Italian colony (1900–36), a province of Italian East Africa (1936–41), a British holding administered under the terms of a UN mandate (1941–51), part of a federation with Ethiopia (1952–62), a territory within Ethiopia (1962–93), and an independent state (since 1993).<sup>3</sup> We hope to have funds to start conducting annual updates for each country in 2015 or 2016.

V-Dem aims to achieve transparency, precision, and realistic estimates of uncertainty with respect to each data point. The indicators that we use fall into three main categories: 1) factual data gathered from other datasets or original sources; 2) evaluative indicators coded by multiple country experts; and 3) aggregated variables. The evaluative

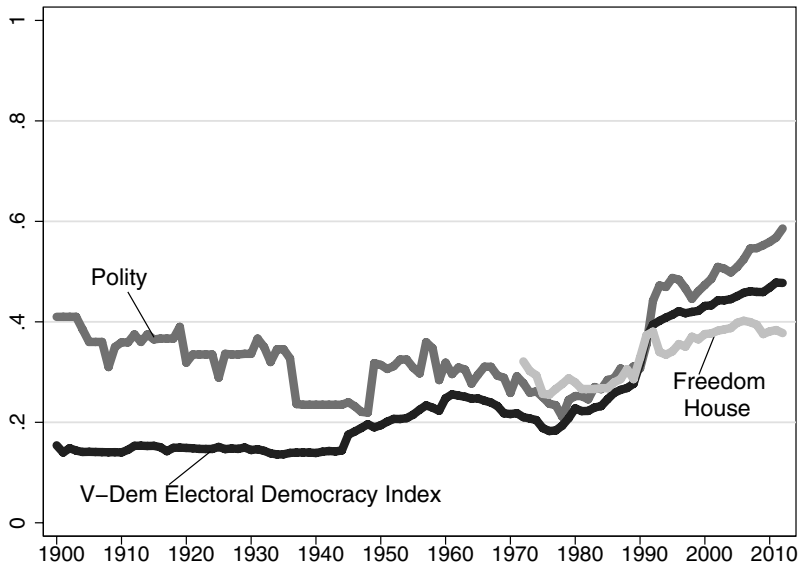
indicators are produced according to a complex and demanding protocol. Typically, five or more independent country experts code each country-year for each indicator. We use a network of scholars who work with V-Dem as regional managers (more than thirty) and country coordinators (almost two hundred) to help identify the best experts available. To date, about two-thousand experts have been involved in the coding.

Our coders' considerable knowledge derives from a combination of experience and education: Most have lived in their countries of expertise for nearly thirty years, and at least 60 percent are nationals of that country. In addition, 90 percent have postgraduate degrees. Ratings accorded to a country are therefore largely the product of in-country expert judgments. In addition to providing a rating on each indicator, country experts also assign a "confidence score" (0 to 100), which measures how certain we can be about the rating. In addition, roughly a fifth of the coders undertake cross-country coding, making it possible for us to calibrate measurements between countries. It is a labor-intensive and demanding exercise.

To arrive at the best possible estimates, we have on our team a group of measurement experts and methodologists who have developed an advanced model for aggregating and weighting expert ratings based on reliability and for calculating confidence intervals. The estimates that we report here will change as more data are collected and estimation models improve. But the estimates do give a good indication of what is distinctive about V-Dem data. All parts of the process will be open to inspection in accordance with norms of full transparency. In April 2014, we published on our website graphs for 68 countries depicting the measurements for the five current core components of democracy, as well as for many of the subcomponents and indicators. We expect to release data for all countries sometime in 2015. For now, we will highlight some of what we can learn from analyzing the current release of V-Dem data.

## **Beyond Electoral Democracy**

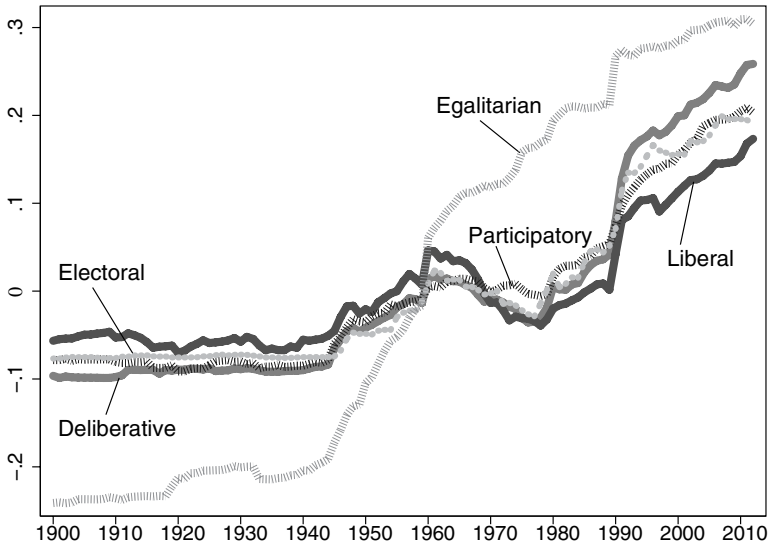
The V-Dem index of electoral democracy conceptually resembles other indices such as those of Polity IV and Freedom House. Figure 1 shows the average level of electoral democracy (on a normalized scale from 0 to 1) from 1900 to 2012 in the 68 countries for which data have already been collected, verified, and made available online.<sup>4</sup> Since V-Dem data are still being collected for many countries, they cannot be compared to global means of familiar indices. They can, however, be roughly compared to means for the same sample of countries. Figure 1 compares V-Dem's electoral-democracy index to the Polity IV and Freedom House (averages of political-rights and civil-liberties scores) indices for this sample. All three indices—V-Dem, Polity IV, and Freedom House—have been rescaled to range from a least-democratic score

**FIGURE 1—MEAN VALUES FOR 68 COUNTRIES**

Notes: All indices are rescaled to the 0–1 interval. Freedom House Political Rights and Civil Liberties are averaged and reversed.

of 0 to a most-democratic score of 1. The figure clearly shows the authoritarian trend in the 1960s and early 1970s, the “third wave” beginning in the mid-1970s, and the accelerated turn toward democracy after 1990. At this high level of aggregation, our electoral-democracy index differs little from the conventional wisdom, although V-Dem’s attention to the extent of the suffrage early in the twentieth century seems to produce scores noticeably lower than Polity’s. Another difference is that, like Polity and the Economist Intelligence Unit index (not shown), the V-Dem index does not show the decline after about 2005 that Freedom House registers. The reasons for this are better addressed country by country rather than at the level of sample means.

These 68 countries are concentrated in the Global South; about half of them are located in Africa. We therefore expect that levels of democracy should be lower than the global average. One novelty of V-Dem’s index of electoral democracy is that it stretches back to the pre-independence era, giving us for the first time comprehensive data on democratization during colonialism, which we can now start studying in a comparative fashion. Given that most of these countries were not affected by the “first wave” of democratization in the early twentieth century, the low trend line for electoral democracy in Figure 1 should come as no surprise. It shows an increase in the level of electoral democracy from the end of World War II into the era of decolonization in the 1960s. The level then drops following the establishment of one-party states and military dictatorships in many of these newly independent countries during

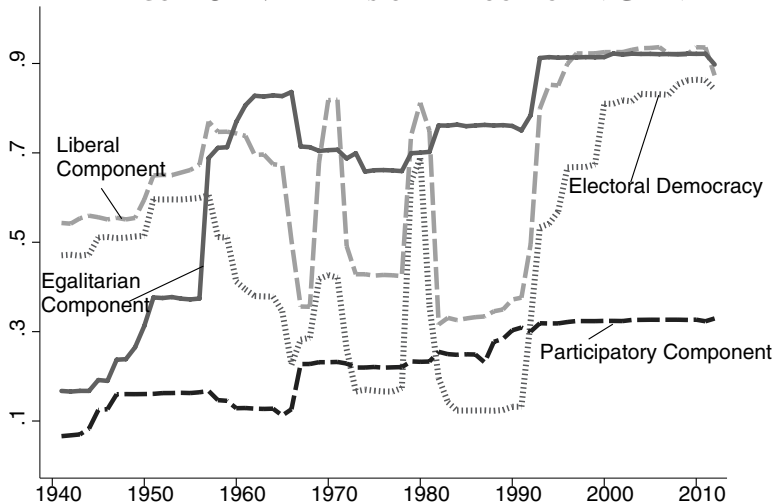
**FIGURE 2—TRENDS IN COMPONENTS OF DEMOCRACY**

*Note:* Mean deviations for 68 countries.

the late 1960s and early 1970s. As the third wave gathered momentum in the 1980s, the level of electoral democracy in these countries rises again—dramatically so in the early 1990s.

The value added by V-Dem comes from its differentiation among electoral and other varieties of democracy and from drilling down to increasingly more detailed levels. Figure 2 charts trends for the electoral, liberal, deliberative, egalitarian, and participatory components. This figure shows the deviations from the sample average (which was attained around 1960 for each) rather than the components themselves, because a high score on one index does not necessarily signify that the sample was in some sense “more democratic” on that component than on other components. The deviations highlight the relatively high and low scores for each index rather than across indices. It is also important to remember that the components measure conceptually distinct aspects, and not overall levels, of democracy.

Although all the component indices trend upward in the long term, there are clear differences in both the extent and timing of change. The most notable tendency is the close correlation among the electoral, liberal, deliberative, and participatory components. We expected the electoral and liberal components to be so correlated, given that other indices such as Freedom House tend to favor electoral and liberal democracy. But because deliberative and participatory democracy have not been measured in such a way before, we had no established expectations about their historical trends. Our data suggest that they track closely with the major waves of democratization and reversal over the past cen-

**FIGURE 3—VARIETIES OF DEMOCRACY IN GHANA**

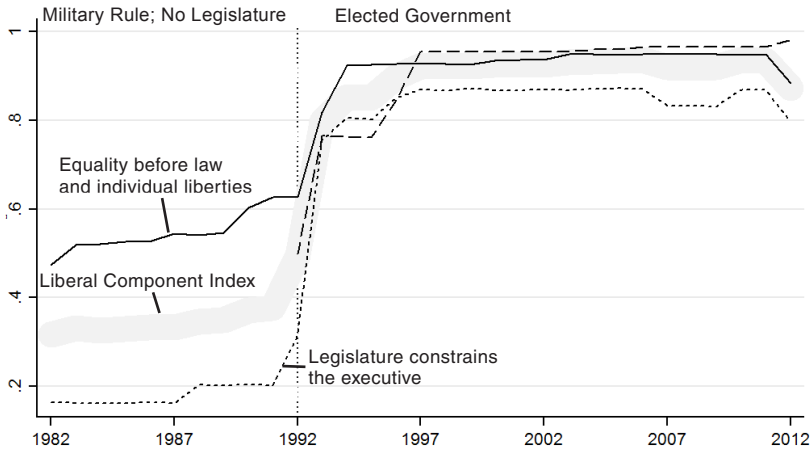
ture, with the deliberative component improving most and the liberal component somewhat less.

The egalitarian component, meanwhile, charts a different trajectory. Its higher level in recent decades does not mean that countries in this sample more closely approximate egalitarianism than they do the other principles; it simply means that the increase in egalitarianism is more dramatic than the increases in the other components. This surge in egalitarianism—which does not necessarily mean that the absolute level today is high (it is probably still rather low)—is a surprising revelation in V-Dem data. It is also interesting that the rise in this component continued fairly steadily from after World War II until at least the 1990s, even during the authoritarian backlash of the 1960s and 1970s when the electoral, liberal, and deliberative components (and to a lesser extent the participatory component) declined. Tracking these components, even in a nonrepresentative sample, illustrates some of the heretofore unmapped terrain of democratization that demands further exploration.

### Drilling Down

These comparisons of averages for a rather arbitrary sample of countries hide more interesting trends at the level of individual countries. We believe that one key contribution of the emerging V-Dem data is the opportunity afforded for “drilling down” from highly aggregated indices of the different varieties of democracy to subcomponent scores and eventually to the 400-plus individual indicators. The nature of the data permits users to pinpoint the specific microdynamics driving a macro-level index change for a specific country. Take Ghana, for example. Figure 3 shows the electoral-democracy score for Ghana alongside the



**FIGURE 4—COMPONENTS OF LIBERAL INDEX FOR GHANA**

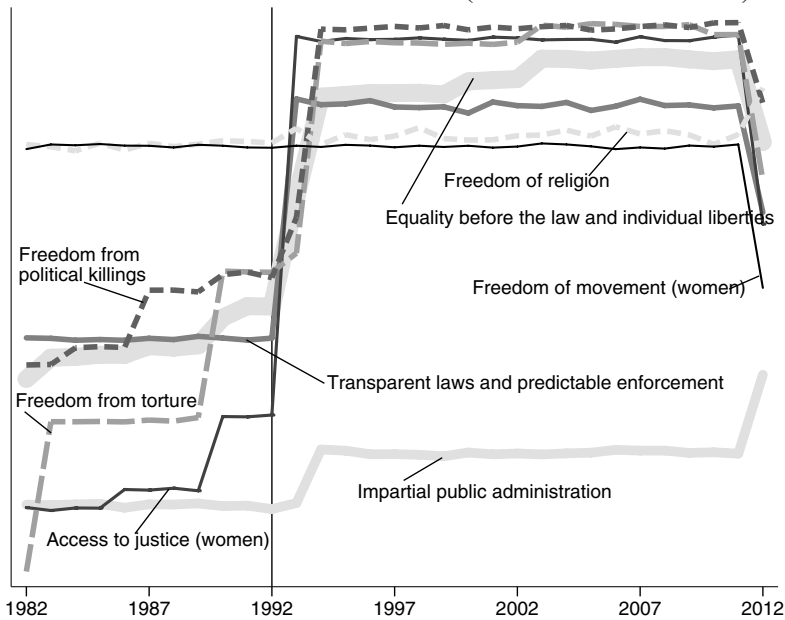
scores for three of the component indices (all normalized on a 0 to 1 scale)—liberal, egalitarian, and participatory. The peaks and valleys clearly coincide with the major political developments and events in the country's history, illustrating even more concretely how we are now able to study decolonization as a period of democratization.

This example demonstrates the value of separate measures. Figure 3 shows the distinct trajectories of component indices. Because these data have not yet been calibrated, for now we must exercise some restraint in making comparisons. Nonetheless, we can see larger differences and trends over time. It is clear, for example, that during the last days of colonialism in Ghana (which won independence in 1957) the liberal aspects of democracy were much more pronounced than the egalitarian and participatory ones. It is also clear that trends in liberalism tend to track much more closely with those of electoral democracy than do the egalitarian and participatory trends. Figure 3 also shows that the participatory component (the least developed area of Ghanaian democracy) was not greatly affected by the latest wave of democratization in the 1990s. These findings open up new avenues for research.

In terms of democratization, it is also notable that the liberal-component index shows a small but noticeable rise during the mid-to-late 1980s, several years before the reforms of 1991 and 1992 that led to the establishment of electoral democracy in Ghana. In other words, liberalization preceded democratization. We must bear in mind, however, that the V-Dem index for the liberal component of democracy is still highly aggregated, and we may want to know exactly which components of liberalism changed in those years.

V-Dem's detailed measurements allow us not only to drill down but also to "zoom in." In Figure 4, we have zoomed in on the three decades between 1982 and 2012 in Ghana. On 31 December 1981, Flight Lieu-

**FIGURE 5—EQUALITY BEFORE THE LAW AND INDIVIDUAL LIBERTIES IN GHANA (SELECTED INDICATORS)**



tenant Jerry John Rawlings staged his second coup, overthrowing the elected regime of President Hilla Limann and taking power for himself. Rawlings ruled Ghana as chairman of the Provisional National Defence Council until 7 January 1993, when he became president after winning the 1992 election.

Figure 4 maps the liberal-component index and three subcomponent indices—equality before the law and individual liberties; judicial constraints on the executive; and legislative constraints on the executive—in Ghana between 1982 and 2012. (The latter measure only begins in 1992 with the inception of an elected legislature.) Figure 4 shows that the two subcomponents present in the 1980s, equality before the law and individual liberties and judicial constraints on the executive, track closely with the liberal component during that decade. In 1993 and 1994, however, equality before the law and individual liberties registered greater improvement than did the other two subcomponents.

What were the changes in rule of law and individual rights that spurred democratization in this country? Figure 5 drills down further still. It shows the subcomponent index for equality before the law and individual liberties as well as the individual indicators constituting that index.

What we learn from Figure 5 is that three specific developments contributed to the change in the index score: First, during 1986 and 1987 scores for freedom from political killings improved. Then, between 1988 and 1990, scores for freedom from torture and access to justice

(for women) improved. In short, Ghana's military regime first stopped killing its opponents, then stopped torturing them and allowed the justice system to start operating more independently and impartially. These improvements enabled the third key development: The opposition and the general population dared to challenge the regime, to demonstrate, and to exert the pressure necessary for the democratization that followed in the 1990s. This calls to mind the transition sequence described by Guillermo O'Donnell and Philippe Schmitter based on their analysis of Latin American experiences.<sup>6</sup> Is this a general "recipe" for success? We do not know, but V-Dem's detailed and comparative database should make it possible for us to answer that question in the near future.

## Looking Forward

If we needed only to identify gross differences in levels of democracy, we could get by with existing measures. But development agencies, international organizations, NGOs, journalists, educators, and scholars need measures that can do more. In this context, one might ponder the sorts of problems that macroeconomists, finance ministers, and policy makers at the World Bank and International Monetary Fund would face if they possessed only highly aggregated indicators of economic performance—an index of "prosperity," for example. As useful as GDP is, it neither measures the whole concept of prosperity nor does it say much that is specific. Without additional variables that measure the components of this macro-level concept, any economic analysis would be severely limited.

In the field of political analysis, we find ourselves in roughly the same position as an economist who has access to one or two cross-national measures of GDP but nothing else. We have some sense of how democratic a country is from existing indices. But we have no detailed and systematic knowledge of how various countries measure up to the different democratic ideals and values emphasized both in the scholarly literature and in praxis. Our historical knowledge in this regard is even weaker. This is the vacuum that the V-Dem project seeks to fill.

The V-Dem dataset will open up to empirical tests longstanding questions about regime transitions. When a country transitions from autocracy to democracy (or vice versa), which elements come first? Are there common patterns, a finite set of sequences, or certain prerequisites? Does a newly vibrant civil society lead to more competitive elections or to an authoritarian backlash? Do accountable elected officials create an independent judiciary or does an independent judiciary make officials accountable? Such questions about sequencing and endogenous causal relationships between components of democracy have been mostly unanswerable before now due to the lack of adequate and systematic data. (Of course, trends can sometimes be misleading, as many countries'

paths to democratization include years of stasis punctuated by sudden movements toward or away from democracy.)

With V-Dem data and its freely available online tools, we hope that teachers and students can accelerate learning; journalists can get a quick overview of any country's political history and recent trends; and activists around the world can obtain locally sourced information to use in holding their own governments accountable. We still do not know definitively whether outside efforts to promote democracy help, hurt, or have no effect. But with V-Dem data, researchers, governments, policy makers, and activists will now be able to work together to better assess the impact of such programs.

## NOTES

\*Our coauthors are four methodologists (Daniel Pemstein, Eitan Tzelgov, Yi-ting Wang, and Adam Glynn) who designed or ran the measurement model that generated the aggregated scores reported here, and ten project managers who developed the online questionnaire (David Altman, Michael Bernhard, Steven Fish, Alan Hicken, Matthew Kroenig, Kelly McMann, Pamela Paxton, Megan Reif, Svend-Erik Skaaning, and Jeffrey Staton). Altman and Reif also contributed their own data to the project. The V-Dem team also includes more than thirty regional managers and 164 country coordinators, all of whom are listed on the V-Dem website (<https://v-dem.net>). In particular, we would like to recognize and thank our excellent project coordinators Josefine Pernes, Natalia Stepanova, and Elizabeth Andrews, as well as invaluable and longtime research assistants Vlad Ciobanu, Talib Jabbar, and Valeriya Mechkova.

1. The document "V-Dem Dataset," available at <https://v-dem.net/DemoComp/en/about/v-dem-dataset/view>, describes these features in more detail.

2. A detailed explanation of our approach can be found on V-Dem's website, <https://v-dem.net>, along with the other V-Dem documents mentioned in this essay.

3. For further details on how countries are coded, see "V-Dem Country Coding Units."

4. To be clear, this is the measurement for the "thick" conception of electoral democracy, including alternative sources of information.

5. The 68 countries included in the analyses here are Africa: Angola, Benin, Burkina Faso, Cameroon, Chad, Democratic Republic of Congo, Republic of the Congo, Djibouti, Eritrea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Madagascar, Mali, Mauritania, Mozambique, Namibia, Niger, Rwanda, Senegal, Sierra Leone, Somalia, Somaliland, South Sudan, Sudan, Swaziland, Togo, Zambia, Zimbabwe; Americas: Bolivia, Dominican Republic, El Salvador, Haiti, Honduras, Jamaica, Nicaragua, Peru, Trinidad and Tobago; Asia: Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Burma, Cambodia, China, Georgia, Indonesia, Kazakhstan, Kyrgyzstan, Laos, Nepal, North Vietnam, Pakistan, South Vietnam, Sri Lanka, Tajikistan, Turkmenistan, Uzbekistan; Europe: Belarus, Moldova; MENA: Algeria, Jordan, Libya, Palestine (Gaza), and Palestine (West Bank).

6. Guillermo O'Donnell and Philippe C. Schmitter, *Transitions from Authoritarian Rule: Tentative Conclusions About Uncertain Democracies* (Baltimore: Johns Hopkins University Press, 1986), 6–14.