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The World of Referendums

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Preface

We are pleased to present the *World of Referendums - 2023 edition* report. It is the first such report compiled by a team at the *Centre for Democracy Studies Aarau* (ZDA) at the *University of Zurich*, Switzerland. The report is based on data contained in the unique *Referendum Database* (RDB). We define referendums as instances "(...) of a popular vote on an issue of policy that is organized by the state or at least by a state-like entity, such as the authorities of a de facto state" (Mendez and Germann 2016, 144). So defined, the referendum includes both votes on government proposals as well as citizens' initiatives. The RDB provides an overview of institutional availability and referendum outcomes at the country level worldwide since the end of the 18th century.

In this first *World of Referendums* report, our aim is to provide a graphical and descriptive assessment of institutional availability and referendum practice at the global level. The report also explains how the RDB has been brought to a level allowing interested researchers to access referendum institutions and results data in a convenient way via a dedicated R package.

However, as a word of caution, we would like to remind the reader that this is a largely atheoretical data report. The data presented may reveal many interesting patterns and further avenues for future analyses based on theories and concepts from democracy studies, political economy, institutionalism and comparative public policy.

First, an introduction to the RDB and its history is given. Then we conduct a comparative analysis with a number of parameters: The number and share of referendums over time, trends in their use, as well as a categorization by regime type, turnout, and topic.

This report has been thoroughly compiled and checked by the authors. Any mistakes that remain are our own. We are aware that the database may contain inconsistencies or missing events. This is why we are grateful for your critical feedback via e-mail at feedback ordb.vote.

1. Introduction to the RDB

The Referendum Database (RDB), formerly known as the c2d Referendum Database, is hosted by the Centre for Democracy Studies Aarau (ZDA) at the University of Zurich, an academic research centre dedicated to the study of democracy in Switzerland and around the world.

The RDB is dedicated to the documentation of referendum results at the national level on a global scale, and also at the cantonal level for Switzerland. It contains information on the institutions of direct democracy as well as on their use in the form of votes. RDB strives to become the most comprehensive empirical collection on referendums worldwide.

The RDB can be accessed **here**. Alternatively, the R package **rdb** is offered to access the database's content directly.

1.1. History of the Referendum Database

From 1994 to 2007, the *Referendum Database* was built up and developed at the *Centre for Research on Direct Democracy* (c2d) at the *Department of Constitutional Law* of the *University of Geneva*. The centre brought together researchers in law, political science and sociology studying direct democracy as institutions and political practice. The c2d promoted research on direct democracy from a pluridisciplinary perspective and also provided information, advice and counselling on different aspects to public authorities (Auer and Bützer 2001).

The Referendum Database was originally funded by the Swiss National Science Foundation (SNSF) project Dynamique et actualité de la démocratie directe dans un Etat fédéral, grant no 39348 at the University of Geneva, directed by professors Andreas Auer and Hanspeter Kriesi. It was further developed with funds from the SNFS project La démocratie communale en Suisse: vue générale, institutions et expériences dans les villes 1990-2000, grant no 59366, and other projects.

In fall 2007, the *Centre for Research on Direct Democracy* and the *Referendum Database* were migrated to the Centre for Democracy Studies Aarau (ZDA) at the *University of Zurich*. There, the database was upgraded technically to ensure expandability and usability. Also, data on referendums in U.S. states was added to the database in cooperation with the National Conference of State Legislatures (NCSL) (ZDA 2009). In the following years, the database was further developed, extended and improved; for example by closing gaps in the data on voting results in the Swiss cantons or automating the coding of international voting results. In 2018, the database was completely redesigned and made available in a new format.

After these technical improvements, the main emphasis today is on the valorisation of existing data in the form of annual reports and academic publications.

At the same time, we continue to improve the database and add further data, especially from votes at the subnational and local levels.

1.2. Acknowledgements

Many people were involved in the development, maintenance and expansion of the *Referendum Database* over the years. First and foremost, we would like to pay homage to the founders of the predecessor project, namely professors Andreas Auer, Jean-Daniel Delley and Hanspeter Kriesi, all working at the *Centre for Research on Direct Democracy* (c2d) at the *University of Geneva* at the time. In a first step, and under the lead of Alexander Trechsel, two databases were established, one for Swiss and one for international referendum vote results. These two databases were then merged into the current RDB by Uwe Serdült, Trechsel's successor at the c2d and later at the ZDA.

Collaborators at the *University of Geneva* from 1993 to 2007 were in alphabetical order: Andreas Auer, Antje Beck, Marco Breitenmoser, Michael Bützer, Jean-Daniel Delley, Frédéric Esposito, Philippe Gerber, Sabine Haenni-Hildbrand, Guita Korvalian, Nicolas Kozuchowski, Reto Kreuzer, Hanspeter Kriesi, Claudio Mascotto, Jan Prince, Frank Schuler, Uwe Serdült, Alexander Trechsel, Nicolas von Arx, Tobias Zellweger, and Serge Zogg.

Collaborators at the *Centre for Democracy Studies Aarau* from 2007 until today in alphabetical order: Mayowa Alaye, Corsin Bisaz, Salim Brüggemann, Lukas Christen, Magdalena Despotov, Norina Frehner, Louis Gebistorf, Micha Germann, Andreas Glaser, Robin Gut, Joey Jüstrich, Daniel Kübler, Irina Lehner, Sarah Lüthold, Fernando Mendez, Beat Müller, Joel Probst, Gabriela Rohner, Liana Sala, Uwe Serdült, Evren Somer, Anastasyia Souslova, Andrin Walla, Yanina Welp, Jonathan Wheatley, and Jonas Wüthrich.

Part I.

Comparative analysis

This part of the report provides a comparative overview of the data on national-referendums worldwide contained in the *Referendum Database*. The comparative analysis focuses on:

- the number and share of referendums and ballot dates over time.
- · a trend analysis looking at individual countries and their number of referendums over time.
- the type of referendums worldwide and referendums according to regime type.
- · the turnout in referendums worldwide.
- $\cdot\,$ the topics that were voted on.

2. Number and share of referendums and ballot dates

2.1. National referendums and ballot dates per decade

Figure 2.1 shows the number of national referendums per decade from 1790 until today. The number of referendums fluctuated at low levels in the 19th century. In the 20th century, it has increased steadily from around 50 in the decade from 1900 to 1909 to over 600 in the decade from 1990 to 1999. Since then, the number has decreased to a bit more than 400 per decade from 2010 to 2019. In total, 3061 referendums have been held worldwide since 1790.

In the second graph, we can also see that once we **exclude Switzerland (CH)** and Liechtenstein (LI) from the analysis, the number of referendums worldwide since 1790 is reduced to 2267. Nevertheless, the general trends are the same: Having omitted Switzerland and Liechtenstein, we see a peak at around 500 referendums in the 1990ies, with a bit of a decline since then.

Looking at ballot dates, the picture is more evened-out, but the general trends are similar. There is an increase to a peak of around 250 ballot dates in the decade from 1990 to 1999, with a small decrease for the decades afterwards. Excluding Switzerland and Liechtenstein, the pattern ist the same but the total number of ballot dates is reduced from 1608 to 1197.

(a) Referendums (b) Referendums (without CH & LI) Total number of referendums: 2267 Total number of referendums: 3061 (c) Ballot dates (d) Ballot dates (without CH & LI)

Figure 2.1.: Number of national referendums and ballot dates per decade since 1790

Total number of ballot dates: 1197

Total number of ballot dates: 1608

2.2. Number and share of countries holding referendums

The number of countries that held referendums at least once a decade has increased tenfold since 1900, from around ten in the 1900s to over one hundred from in the 1990s and 2000s (Figure 2.2). If we control for the number of countries worldwide (Beger 2021; Correlates of War Project 2017), we find that the highest share was in the 1950ies and the 1990ies, when around half of all countries worldwide held at least one referendum.

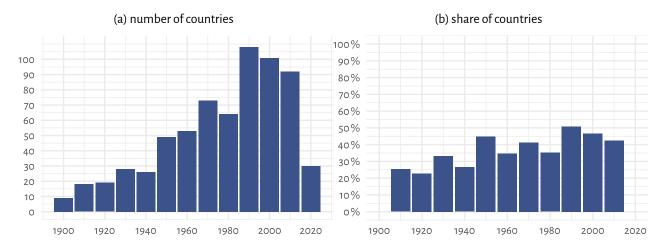


Figure 2.2.: Number and share of countries holding referendums since 1900

2.3. Top-ten analysis

Looking at the top-ten countries with the most referendums, we see that Switzerland held by far the most referendums since 1900, followed by New Zealand and Liechtenstein. Looking at ballot dates, Switzerland is still the lone frontrunner, with Liechtenstein coming in second and New Zealand third. It becomes apparent from Figure 2.3, that only ten countries are responsible for half the referendums and a third of all ballot dates worldwide since 1900.

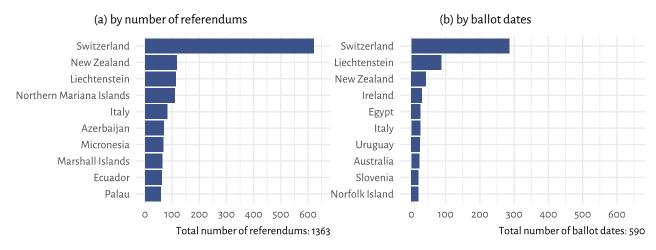


Figure 2.3.: Top-ten countries since 1900

2.4. Population size and ballot dates per country

With regard to referendums, there has been an ongoing debate on whether countries with smaller populations hold referendums more often than countries with larger populations. In line with the findings of Anckar (2004) and Vatter (2000), the analysis in Figure 2.4 shows that there is no correlation between a country's population size (data by The World Bank (2023)) and its number of ballot dates per decade. Without the exception of a few outliers, mainly from Switzerland and Liechtenstein, we don't observe more referendums (y-axis) in countries with a small population (x-axis). In fact, even larger countries can have a relatively high number of referendums per decade, e.g. Egypt in the 1970s.

Switzerland 1970 Switzerland 2000

Switzerland 1980

Switzerland 1980

Switzerland 1960

Switzerland 1960

Liechtenstein 1980

Liechtenstein 1980

Liechtenstein 1900

Liechtenstein 1970 Liechtenstein 2010

Liechtenstein 1970 Liechtenstein 2010

Ireland 2010

Fegypt 1970

Palau 1980

1e+05

1e+07

1e+09

Figure 2.4.: Number of referendums per decade by population size

Population size (log)

3. Trend analysis

For the trend analysis, we refer to Huntington (1993) who defined the following five time intervals of democratization and autocratization. To avoid overlapping time spans, we refer to the categorization by Lührmann and Lindberg (2019):

• First, long wave of democratization: 1828 (we show referendums since 1790, the first year recorded in the RDB) until 1925

· First reverse wave: 1926-1942

· Second wave of democratization: 1943-1960

· Second reverse wave: 1961-1974

· Third wave of democratization: 1975 until today

3.1. Number of ballot dates per wave of democratization

Counting the number of ballot dates during these periods, we find the following:

- During the first wave of democratization, around 200 ballot dates took place, followed by 100 in the first reverse wave.
- During the second wave of democratization, 150 ballot dates took place, followed by 200 ballot dates in the second reverse wave.
- During the third and longest wave of democratization, almost 1000 ballot dates took place.

This shows that the number of ballot dates is not tied to the type of wave (democratization or reverse), but that the number has been steadily increasing over the years. We can see this by looking at Figure 3.1:

20 10 1900 1925 1942 1960 1974 2nd reverse wave 2nd reverse wave 3rd wave

Figure 3.1.: Number of ballot dates per year per wave of democratization since 1900

3.2. Number of ballot dates per wave, top ten countries

As we can see in Table 3.1, **Switzerland**, **New Zealand**, **Liechtenstein**, **Uruguay** and **Australia** have held ballot dates consistently over the several waves and reverse waves. Newcomers were **Ireland** and **Italy** in the 2nd reverse wave, **Egypt** in the second wave, **Norfolk Island** in the second reverse wave and **Slovenia** in the third wave.

Total number of ballot dates: 1512

Table 3.1.: Number of ballot dates per wave of democratization since 1900, top ten countries

	1st wave	1st reverse wave	2nd wave	2nd reverse wave	3rd wave	Total
Switzerland	35	27	45	34	145	286
Liechtenstein	6	11	7	14	49	87
New Zealand	9	4	8	5	17	43
Ireland	0	1	1	3	26	31
Egypt	0	0	2	6	19	27
Italy	0	1	1	1	23	26
Uruguay	1	3	4	3	14	25
Australia	8	3	4	3	5	23
Norfolk Island	0	0	0	2	19	21
Slovenia	0	0	0	0	21	21
Total	90	96	150	186	990	1512

3.3. Ballot dates in democratizing and autocratizing countries, per wave

To differentiate between democratizing and autocratizing countries, we calculate the change on the *liberal democracy index* by Coppedge et al. (2023) between two consecutive years. In this analysis, the number of ballot dates is reduced because the *liberal democracy index* is not available for many small countries or territorial units with many referendums, such as Liechtenstein or Norfolk Island.

Looking at Figure 3.2, we find that the number of ballot dates in **democratizing countries**¹ has risen steadily until it reached a peak in the 1990ies. Since then, the number of ballot dates in democratizing countries has declined. In comparison, the number of ballot dates in **autocratizing countries**² remained constant until the end of the 1980ies, after which it increased and remained constant at a much higher rate than before.

Comparing the net difference between democratizers and autocratizers, there were more ballot dates in autocratizing countries during the 1st reverse wave, but not during the 2nd reverse wave. In the ongoing 3rd wave, we observed an interesting pattern:

- In the beginning of the third wave, there were almost always more ballot dates in democratizing countries.
- At the end of the 1990ies and the turn of the new millennium, there were more ballot dates in autocratizing countries.
- This trend reversed in the 2000s, when democratizing countries held more ballot dates.
- Since around 2010 however, ballot dates in autocratizing countries have quite consistently outnumbered those in democratizing countries.

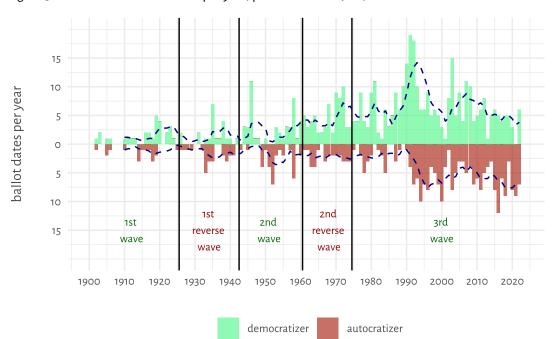


Figure 3.2.: Number of ballot dates per year, per wave since 1900, democratizers and autocratizers

Total number of ballot dates: 802

¹ Countries with a positive change in the liberal democracy index from one year to the next.

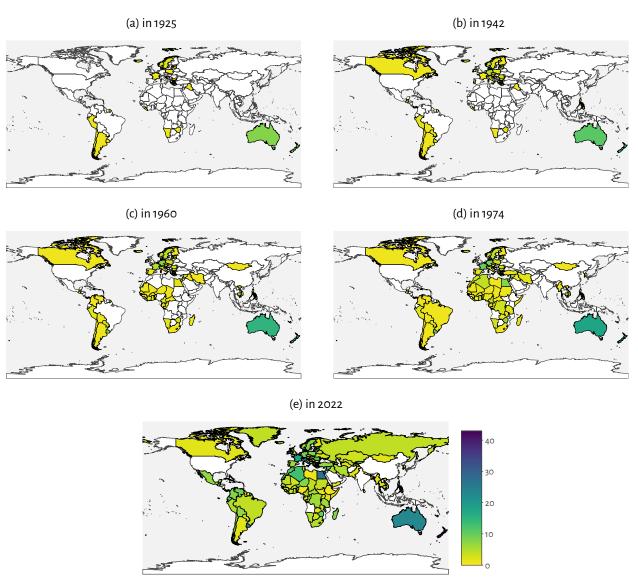
² Countries with a negative change in the liberal democracy index from one year to the next.

3.4. Trend analysis: cumulative world map

The world map below shows the cumulative number of ballot dates on a yearly basis since 1900. It is striking that referendums have spread across almost the entire world to this day. In many countries, referendum use has not been limited to just a few, in some cases even more than 100 referendums have been held.

For ease of presentation, Switzerland and Liechtenstein were excluded from the map, as otherwise the rest of the world would not have been distinguishable in terms of colour. Furthermore, some small states and territories are not shown. Please note that the map shows country borders as of 2022. For example, referendums in *Germany* include those that were held in the *German Reich* (Weimar Republic and Third Reich), the Federal Republic of Germany and the German Democratic Republic.

Figure 3.3.: Cumulative number of ballot dates (excluding Switzerland and Liechtenstein)



4. Referendum and regime type

4.1. Referendum type worldwide

In Figure 4.1 and Figure 4.2, we analyze the institutional trigger type of referendums worldwide since 1900. This variable denotes the way in which a referendum was initiated. As we can see, the differences between the world regions are quite pronounced:

- In **Africa**, most referendums were *top-down* and some *automatic*. There were no *bottom-up referendums*.
- In the **Americas**, most referendums were *top-down*, with some *automatic* and few *bottom-up* referendums.
- · In **Asia**, most referendums were either *automatic* or *top-down*. The number of *top-down* referendums remained low.
- In **Europe**, the frequency of top-down and automatic referendums was similar. The number of bottom-up referendums peaked at the turn of the millennium.
- In **Oceania**, there were many *automatic* referendums and few *bottom-up* and even fewer *top-down* referendums.

In summary, *top-down* referendums dominated in Africa and the Americas. In Asia and Oceania, there was an increase in *automatic* referendums. In Europe, there were the most *bottom-up* referendums, and the number of *top-down* and *automatic* referendums was similar.

250
200
150
100
50
0
1900
1920
1940
1960
1980
2000
2020
automatic top down bottom up

Figure 4.1.: Referendums by institutional trigger type per decade since 1900

Total number of referendums: 2904

(a) Africa (b) Americas (c) Asia 40 30 30 50 20 25 1900 top dov Total number of referendums: 287 Total number of referendums: 264 (d) Europe (e) Oceania 0 bottom up

Figure 4.2.: Referendums by institutional trigger type and region per decade since 1900

4.2. Referendum type by regime type

In figure Figure 4.3, we differentiate the **type** of referendum by **regime type**, using the Regimes of the World (RoW) measure by V-Dem (Coppedge et al. 2023). We find the following:

Total number of referendums: 1309

 In closed autocracies, mostly top-down and a few automatic referendums were held. There were only three bottom-up referendums in closed autocracies.

Total number of referendums: 614

- In **electoral autocracies**, the number of *top-down* and *automatic* referendums was similar and higher than in closed autocracies. Again, there were almost no *bottom-up* referendums.
- · In **electoral democracies**, again mostly *top-down* referendums were held. The number of *automatic* and *bottom-up* referendums was about equal.
- In **liberal democracies**, the number of *bottom-up* referendums was highest, followed by *automatic* referendums and then *top-down* referendums.
- The number of referendums in countries without a Regimes of the World value (NAs) was very high. This is due to the fact that the RoW measure is not available for many of the small island states making up the bulk of automatic referendums.

In summary, we see that referendums took place across democracies and autocracies. However, the **trigger type** varies. *Top-down* referendums dominate in *closed autocracies* and *electoral democracies*. The number of *top-down* and *automatic* referendums is similar in *electoral autocracies* and *liberal democracies*. *Bottom-up* referendums were almost always only observed in *liberal democracies*.

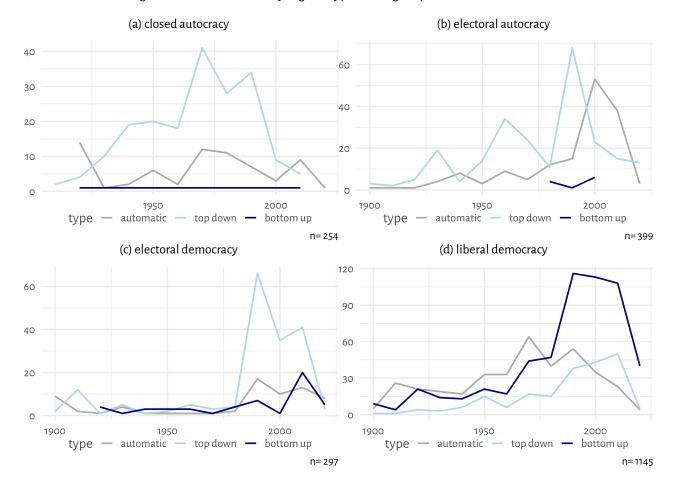


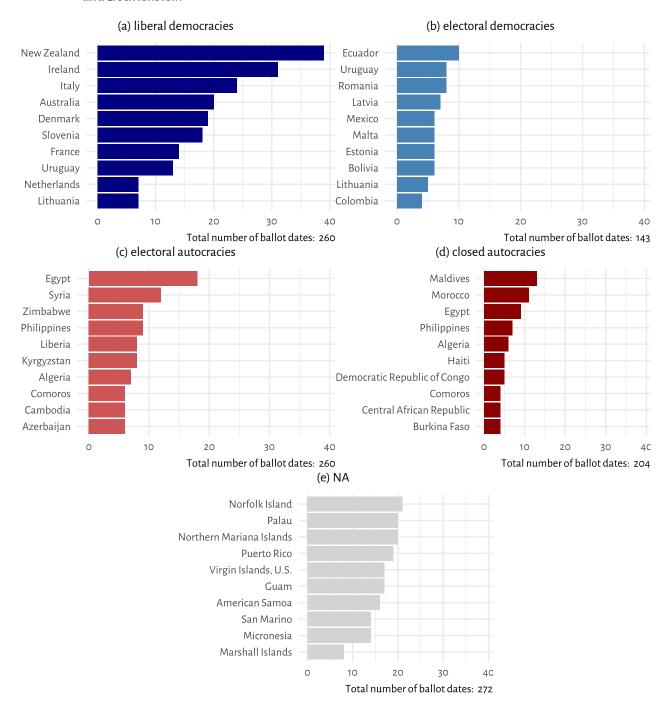
Figure 4.3.: Referendums by regime type and region per decade since 1900

4.3. Rank number of ballot dates by regime type (Regimes of the World)

Figure 4.4 shows the number of ballot dates differentiated by Regimes of the World (RoW) (Coppedge et al. 2023):

- Around 260 ballot dates took place in *liberal democracies*. Excluding Switzerland with close to 300 ballot dates, the frontrunners were New Zealand (39), Ireland (31) and Italy (23). Note that Lithuania is among the top-ten for both *liberal* (7) and *electoral democracies* (5).
- A total of around 150 ballot dates took place in *electoral democracies*. Here, the frontrunners are Ecuador and Uruguay.
- Around 260 ballot dates took place in electoral autocracies. The most frequent countries were Egypt (18), Syria (11) and Zimbabwe and the Philippines with 9 each.
- Around 200 ballot dates took place in closed autocracies. Here, the most frequent countries were the Maldives (13), Morocco (11) and again Egypt (9).
- For around 270 ballot dates, there was no information concerning regime type available. This is where the country names could not be matched with the RoW dataset. This can be due to sovereign states not coded by RoW (e.g. Liechtenstein, Palau or Micronesia) or it can be due to RDB coding territorial units that are not sovereign states (e.g. Norfolk Island: Australia, Northern Mariana Islands: USA, Virgin Islands: USA, etc.).

Figure 4.4.: Top-ten countries since 1900 by number of ballot dates and regime type (RoW), without Switzerland and Liechtenstein

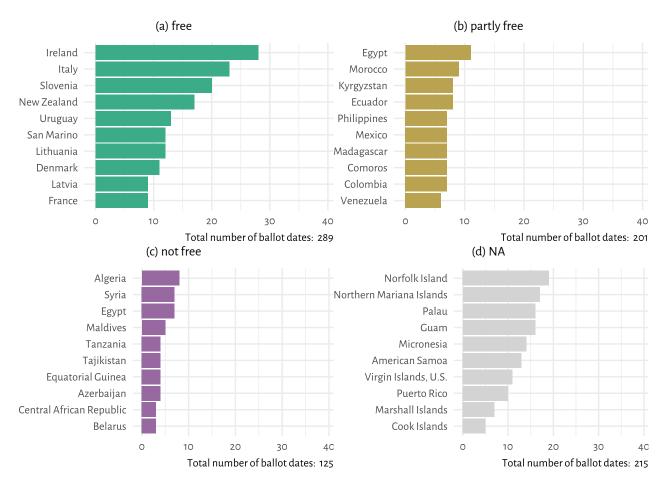


4.4. Rank number of ballot dates by regime type (Freedom House)

In Figure 4.5, we re-run the analysis according to **type** of referendums by **regime type**, this time using the Freedom House measure of regime type (Freedom House 2023). Because Freedom House only gathered data since 1973, the overall numbers are lower and the ranking order changes. What is new with the Freedom House data is that smaller countries such as **San Marino** (*free*), the **Comoros** (*partly free*) and the **Maldives** (*not free*) are added to the list, thus making for a more complete analysis.

However, even using Freedom House data, there were more than 230 cases (NA) where there was no measure of regime type available for a given year.

Figure 4.5.: Top-ten countries since 1973 by number of ballot dates and regimetype (Freedom House), without Switzerland and Liechtenstein



5. Turnout

As we can see in Figure 5.1, the average turnout in referendums has decreased from more than 80 % in the 1940ies to just under 50 % today. The trend is similar over the regions, except for Oceania, where participation is recovering after a long period of decline and is increasing on average.

Looking at turnout by *institutional trigger type*, we find that *bottom-up* referendums have the lowest turnout, followed by *top-down* referendums. *Automatic* referendums seem to have the highest turnout. However, there are vast differences over the different regions, as can be seen in figures Figure 5.2 and Figure 5.3. While participation in national *bottom-up* referendums in the Americas dramatically decreased over the last two decades, the opposite trend is observed in Oceania.

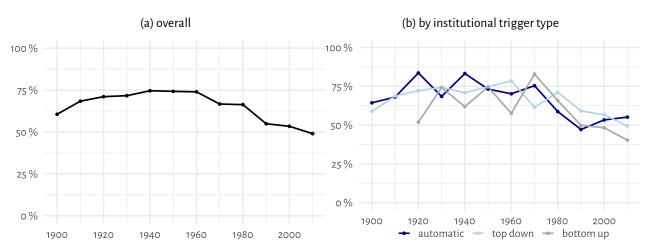
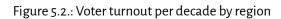
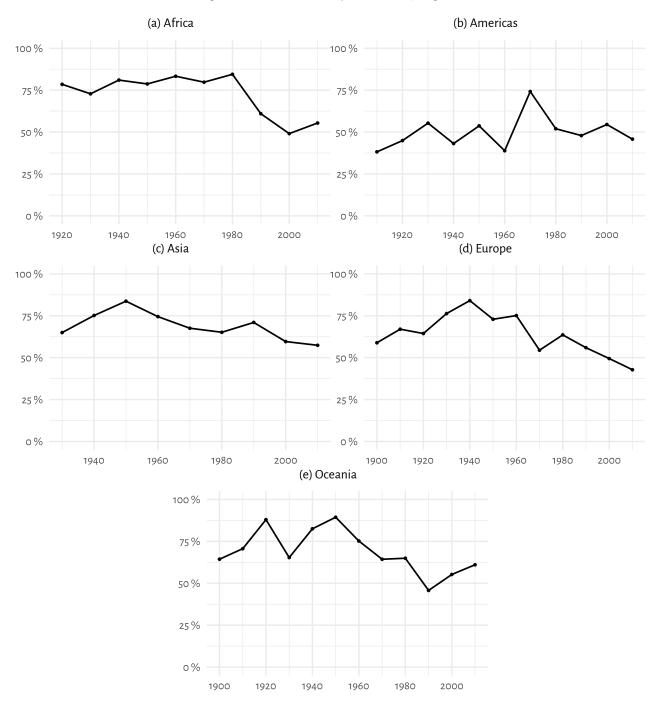
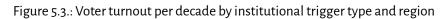
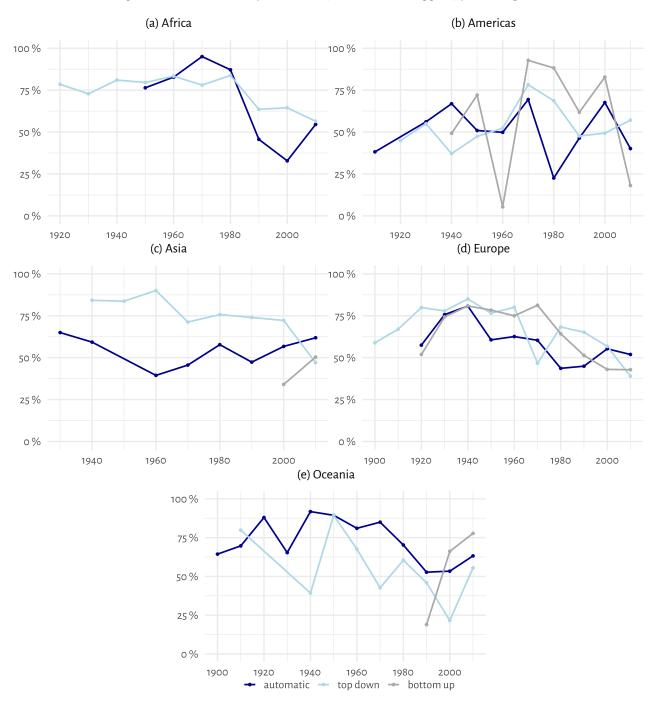


Figure 5.1.: Voter turnout per decade









6. Political topics

6.1. Comparing topic diversity in Switzerland/Liechtenstein with the rest of the world

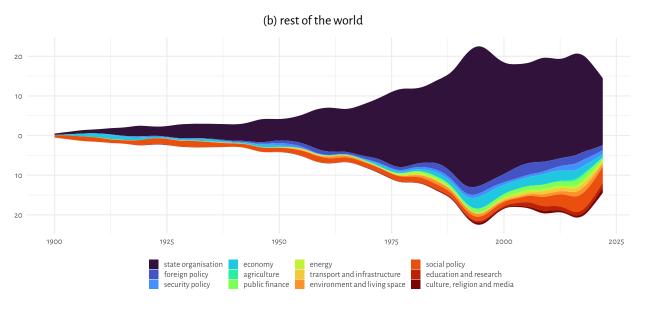
Differentiating Switzerland and Liechtenstein in Figure 6.1 from the rest of the world, we find that the topics of their referendums have been much more diverse. Whereas the rest of the world held the overwhelming majority of referendums on **state organisation**, Switzerland and Liechtenstein have also been voting on that topic, but not only. Just as frequently, they have been voting on **social policy**, a bit less frequently on **public finance**, **the economy** and a host of other topics.

(a) Switzerland and Liechtenstein

5

1900
1925
1950
1975
2000
2025

Figure 6.1.: Frequency of top-tier political topics over time



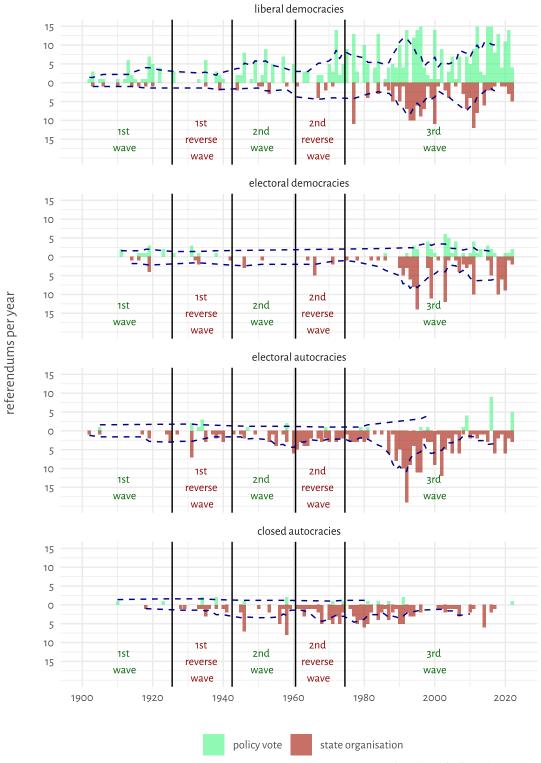
6.2. Votes on policies and state organization by regime type

Differentiating the topics of referendums between votes on **state organization** and on **policies** and distinguishing between regime types in Figure 6.2, we find the following:

- Over time, **liberal democracies** have held more votes on actual policies than on state organization, despite a peak in the latter in the 1990ies.
- This trend is reversed and accentuated for electoral democracies, electoral autocracies and closed autocracies. Over time, these three regime types have held many more referendums on state organization than on actual policies.

These trends can lead us to conclude that **voting on state organization** is something countries do regularly, no matter their regime type, whereas almost only liberal democracies seem to be **voting on policies**.

Figure 6.2.: Top-tier political topics dichotomy by regime type since 1900, without Switzerland and Liechtenstein



Total number of referendums: 1480

Glossary

For more details on the Referendum Database, please refer to the RDB code-book (Brüggemann 2023).

Ballot date Date on which at least one referendum was held in a country. In our analysis, we oftentimes look at ballot dates instead of referendums. This is because in the Referendum Database, for example a popular vote on a new constitution, each article of this constitution is counted as an individual referendum.

In general, differentiating between **referendums** and **ballot dates** entails a few tradeoffs:

- If we look at single **referendums**, the danger is that we count different response options to the same question as distinct events.
- If we only look at unique **ballot dates** per country, we solve this problem. However, we also lose distinct referendums that took place on the same date.
- · Ideally, we would include an additional variable in the *Referendum Database* denoting if referendums taking place on the same date belong together or if they are distinct.

Country In this report, we treat as "countries" those territorial units that hold referendums independently. Excluded from this are sub-national entities, such as federal states in the USA or cantons in Switzerland. Territories differ from federal states in that they may have a certain degree of autonomy, but they do not have the same extensive rights as federal states or provinces. As an example serves Greenland, which belongs to Denmark. Although Greenland is not a province in its own right, it has far-reaching rights of self-determination. For example, the Greenlandic population can also decide on their own independence by referendum.

We rely on the classification into territorial units, based on the ISO standard ISO 3166 that includes independent countries, territories and regions of geographical interest. Furthermore, ISO 3166-3 is used for historical countries that no longer exist.

Legal basis Several authors have identified the legal basis as an important aspect of referendums (Suksi 1993; Gallagher 1996; Setälä 1999; Altman 2017). In the RDB, **legal basis** can take on the following values:

- · non-official: The referendum type has no legal basis.
- · ad-hoc: The referendum type has a legal basis which was specifically created for it.
- · official: The referendum type has a legal basis that wasn't specifically created for it.

Referendum instances In the RDB, we use the term **referendum** to refer to "[...] any popular vote on an issue of policy that is organized by the state or at least by a state-like entity, such as the authorities of a de facto state" (Mendez and Germann 2016, 144).

Regime type For regime type, we refer to the Regimes of the World (RoW) classification developed by the Varieties of Democracy (V-Dem) project (Coppedge et al. 2023). This classification divides countries into the following four types, according to the competitiveness of access to power (polyarchy) and liberal principles:

- · closed autocracy
- · electoral autocracy
- · electoral democracy
- · liberal democracy

Additionally, we also use data compiled by Freedom House (2023) for robustness checks.

Turnout Share of registered voters participating in a referendum.

Type The way the referendum is triggered:

- automatic: The referendum is triggered by a constitutional/legal requirement.
- top down: The referendum is triggered by an institution of the political elite like the monarch/president/government, the parliament, a territorial unit, the UN or another institution.
- *bottom up*: The referendum is triggered by citizen demand (e.g. a signature collection).

Waves of democratization For the World of Referendums Report 2023, we aim to show how many and which type of referendums have occurred over different time periods. For these time periods, we refer to the original work done by Huntington (1993) and refined by Lührmann and Lindberg (2019).

World region To categorize countries into world regions, we rely on the United Nations (UN) geoscheme which subdivides all countries into up to three different grouping tiers based on the UN M49 area code hierarchy.

See the documentation of the R function rdb :: add_world_regions() for further details.

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