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# Choice Democracy 

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#### Abstract

Democracy is defined by two core tenets: voice and pluralism. Within these constraints, a wide variety of regime types can be designed. We show that the only new, untested form of democracy is when every citizen is governed by the political party of his/her choice. Multiple full-fledged governments would coexist in the same national territory at the same time, each one sovereign only over the people who chose to vote for it - hence the name: "Choice Democracy". Choice Democracy can be regarded as pure polyarchy, the broadest form of political competition, and a robust mechanism for disciplining government agencies. We argue that this system makes democracy more stable by reducing the risk of revolutionary and financial crises. We develop a theory for the optimal number of governments per countries, where the answer is determined by a trade-off between cooperation and competition. We also provide evidence indicating that Choice Democracy would be viable in the real world.


Keywords: Democracy, choice, polyarchy, stability, competition, efficiency.
JEL Codes: H11, H12, H41.

## 1 Introduction

The idea of this paper is to discipline government agencies by placing them in direct competition with rivals. Each major political party would form a full-fledged government with its own executive, legislative and judicial branches, its own budget, its own set of laws and civil service, and would rule only over the people who voted for it. Thus, multiple governments would coexist simultaneously

[^0]on the same national territory, and every citizen would be free to switch costlessly between them at regular intervals without having to relocate. We regard this as the ultimate form of political competition, and hence the ultimate disciplining device for governmental institutions.

This regime fulfills the two fundamental requirements of democracy: voice and plurality. Our first theoretical contribution is to demonstrate logically that it is the only type of democracy fulfilling these two criteria that has not yet been tried. We name this system "Choice Democracy" because every citizen will be governed by the party of his or her choice. This is not meant to imply that, in existing types of democracies, voters do not have any choice. They have a collective choice. From the point of view of methodological individualism (Schumpeter 1909), the notion of collective choice is fraught with difficulties, exemplified by Arrow's impossibility theorem (Arrow 1950). ${ }^{1}$

The second main contribution of our paper is to develop a theory for the optimal number of governments per country. The only two numbers that have been studied so far in the literature are one government (current system) and infinitely many governments (anarchy). Our analysis reveals that the optimal number of governments per country lies strictly between one and infinity. More precisely, we point out the existence of a trade-off between cooperation and competition: the fewer the governments, the more cooperation and the less competition between them, and vice-versa. The optimal number of governments is when cooperation and competition are both present in a balanced way. We stop short of giving a universal numerical answer, out of respect for country-specific cultural and historical factors.

The main advantages of Choice Democracy are: 1) better-quality public services at lower cost, 2) reduced risk of violent revolutionary crises, and 3) better long-term financial sustainability. One potential concern is that Choice Democracy would lead to less redistribution from the rich to the poor. We show that it would lead to less redistribution across parties but more redistribution within parties, so that the net effect on the amount of redistribution is ambiguous - but the net effect on the quality and effectiveness of redistribution policies is unambiguously positive. Another criticism is that Choice Democracy would abolish the secret ballot. We provide several reasons why the secret ballot may not be as sacred as generally thought but concede that, as long as people remain attached to it, Choice Democracy will not be politically feasible. Since political feasibility is notoriously hard to extrapolate across time and space, we do not consider this to be a strong objection against putting forward the idea of Choice Democracy.

We also provide evidence that Choice Democracy would be feasible in practice. The major

[^1]innovation is that law would be attached to the person and not to the territory: two people living at the same address could be ruled by two different governments according to different laws. It turns out that there are many examples throughout history, and even today, of laws that are attached to the person. We briefly review the notion of personal law and conclude that it is equal in standing to territorial law. We also survey an existing body of law called Conflict of Laws or Private International Law which provides well-established legal procedures for resolving disputes between two people that are subject to different sets of laws. Finally, we describe in detail the case of Brussels, the capital of Belgium, where people can individually decide what government (called Community) will rule them. Due to certain limitations, Belgium is not the perfect example of Choice Democracy, but it does prove that two people living at the same address can be ruled by two different governments in the real world.

The remainder of the paper is organized as follows. In the next Section we compare Choice Democracy with related forms of democracy proposed in the literature. Section 3 shows that Choice Democracy is the only type of democracy that has not yet been tried. Section 4 characterizes the optimal number of governments per country. Section 5 highlights the main advantages of Choice Democracy. Section 6 addresses some potential criticisms against Choice Democracy. Section 7 explains how Choice Democracy would work in practice and shows that it is viable in the real world. The final section concludes.

## 2 Relation to Existing Literature

Choice Democracy can be compared to the notion of separation of powers championed by Montesquieu (1748). Under separation of power, Montesquieu argued, each branch of government can limit the power of the other branches, which offers protection from abuses to the citizen. While Montesquieu sought a separation of power along functional lines, Choice Democracy seeks a separation of power along ideological lines, corresponding to the different political beliefs held by the electorates of the various parties.

Choice Democracy shares some features with the Functional, Overlapping, Competing Jurisdictions (FOCJ) of Frey and Eichenberger (1996). These authors envision competing jurisdictions that have no territorial monopoly on the provision of public services, which is similar to Choice Democracy. There are, however, two important differences. First, FOCJ are functional while Choice Democracy is bundled: every political party is responsible for exercising all government functions. Second, FOCJ are overlapping, which means that their geographical extensions can vary. By
contrast, under Choice Democracy the reach of every party extends over the same territory: the territory of the country.

Choice Democracy can be construed as a version of consociational democracy (Lijphart 1969) with full segmental autonomy.

Gersbach (2005) also explores ways of redesigning democracy to fix problems such as shorttermism, demagoguery (especially the tendency to make promises that will not be kept), and low-quality public services (through incentive contracts). The main difference is that he works under the constraint that the number of governments per country must remain one - whereas we relax this constraint.

Choice Democracy differs from geographical devolution inspired by the subsidiarity principle, because it gives more importance to ideological divisions than to geographical ones. We cannot assume that all left-wing people are concentrated in the same corner of the country. Also, unless devolution proceeds all the way to secession, the central government remains "above" local governments in the sense that, in case of dispute, it is the ultimate arbiter of which responsibilities are devolved and which ones are centralized. By contrast, under Choice Democracy, no superior entity can limit the scope of the contract for government passed between a party and its own voters. Choice Democracy is essentially independent from geographical devolution because Choice Democracy can be instituted at the national level without modifying the responsibilities of local governments.

## 3 Classification of All Possible Types of Democracies

The definition of democracy on which we rely throughout the paper comprises only two conditions, so it should not be controversial:

Voice Every citizen has a say in the manner in which he or she is governed. This voice is expressed by voting for a political party.

Pluralism There are at least two parties capable of governing. It implies that at least two parties have the legal right and the effective capability to broadcast their message, put candidates up for election, secure financing, etc. Certain filtering mechanisms can be in place to prevent fringe parties from getting close to power, but we require that at least two parties make it through the filter.

This is not original. For example, according to Dahl (1971), participation and contestation are characteristic features of polyarchal democracy.

The first theoretical contribution of this paper is a classification of all the types of democracy that could potentially exist. This is an extension of the classification of all the types of democracy that currently exist. Kaiser (2002) shows that all of today's democratic regimes can be understood as an interpolation between two pure types:

1. Alternation: one party assumes power alone until it the time is ousted. This is characteristic of Westminster-style 'first-past-the-post' systems.
2. Inclusion: major parties form a coalition and share government functions. This is exemplified by the Netherlands and the so-called 'magic formula' in Switzerland.

The way to extend Kaiser's (2002) framework to cover all possible types of democracies is to view alternation and inclusion as two different answers to the same fundamental question: How is power allocated across p This question puts the spotlight on the crossroads where pluralism (core tenet of democracy) meets power (the essence of government). Alternation answers by allocating power across time: one party governs for a few years, then another one takes over, etc. Inclusion answers by allocating power across functions: one party takes Treasury, another Defense, etc. ${ }^{2}$

Therefore the research problem is: Does there exist any power allocation rule other than time and function? In such an alternate rule, parties would not divide time slots among themselves, therefore all major parties would assume some kind of political power at every point in time. Since these parties would not divide government functions among themselves either, each one would have a full cabinet of ministers active at every point in time. Thus, any power allocation rule other than time and function requires the coexistence on the same national territory of at last two competing governments at every point in time.

The only way for them to coexist is if their jurisdictions do not overlap: no man can serve two masters. So the only power allocation rule other than time and function is to have different parties govern different citizens.

What citizens are governed by what party? A priori, there could be an infinite number of methods for performing this mapping. However, one method stands out among all others as maximizing citizen satisfaction. It is to have Party A govern the citizens who voted for Party A, Party B gov-
${ }^{2}$ One characteristic of inclusive coalition governments which we do not explicitly take into account here is the possibility of mutual veto between coalition members, i.e., having a coalition program approved by all coalition members. In making this simplification, we follow the analysis of Laver and Shepsle (1996), who view a coalition government as a collection of ministers with individual jurisdictions. Consequently, overall government policy is "a bundle of individual party-preferred policies, depending on which party receives which portfolio."
ern those who voted Party B, etc. Any other scheme would have at least one citizen administered according to principles of which she disapproves. This would evidently be suboptimal.

Indeed, one of the core tenets of democracy is that every citizen has a say in the manner in which she is governed. If Party A is governing a subset of the population and Mrs. Smith votes for Party A, she is explicitly stating her desire to be included in this subset. To exclude her from this subset would be to deny the preference that she expressed. It would be to deny her a say in the manner in which she is governed. This would violate a core tenet of Democracy: voice.

In conclusion, the only type of Democracy that has not yet been tried is the one where every citizen is governed by the political party for which he or she voted in the last elections: Choice Democracy. When the following elections come around, the voter is free to switch to a different party, provided all dues have been paid and outstanding obligations fulfilled.

According to Dahl (1971), the characteristic feature of democracy is that it is a polyarchy from the Ancient Greek poly (many) and archos (ruler): multiple power centers coexist at the same time in the same country, and citizens can gravitate towards one or the other. Since governments are the ultimate power centers, Choice Democracy is the ultimate polyarchy: multiple governments coexist at the same time in the same country, and citizens can gravitate towards one or the other.

## 4 Optimal Number of Governments per Country

A second way to derive the existence of Choice Democracy is to look beyond democracy at a broader classification of political regimes. At one extreme, we have the current nation-state in all its forms (democratic or not), where the number of governments coexisting in a given territory is $N=1$. At the other extreme, we have anarchy, where the number of governments coexisting in a given territory is $N=0$, or equivalently $N=\infty$. Having an infinite number of governments, i.e., allowing every individual to govern him- or herself, is the same as having zero government: these are two ways of defining anarchy. ${ }^{3}$ Thus, we can represent the possible numbers of governments per country along a circle, with $0=\infty$, as per Figure 1. This begs the question: what about the other numbers comprised strictly between one and infinity? It is generally accepted that $N=1$ is a valid object of study in Political Science, since this is the current default. Similarly, $N=\infty$ has attracted a considerable amount of attention from authors such as Kropotkin (1898), Hirshleifer (1995), Ahrensdorf (2000) and countless others. At its most modest level, the current paper simply makes the case that all the other numbers from two upwards (but strictly less than the number

[^2]

Figure 1: Possible Numbers of Governments Coexisting in a Given Territory: $N$.
of inhabitants) are also worthy of study. To the best of our knowledge, there has not been any literature about them until now. The more ambitious aim of the paper is to start mapping out the uncharted range $2 \leq N<\infty$.

The drawback of anarchy $(N=\infty)$ is well-known: there is an insufficient degree of cooperation between self-governing individuals. The drawback of $N=1$ is that a single government detains a territorial monopoly over the provision of public services. The absence of competitive pressure enables government agents to use their monopoly power to pursue their own objectives even when they conflict with the common good. Thus, $N=1$ has too little competition and $N=\infty$ has too little cooperation. Conversely, with $N=1$ cooperation is perfect, because the unique government cooperates perfectly with itself. And when $N=\infty$ we have perfect competition between a large number of individual agents. Thus, in summary, $N=1$ has perfect cooperation but no competition, while $N=\infty$ has perfect competition but no cooperation. This trade-off between competition and cooperation is the key to mapping out the intermediary range $2 \leq N<\infty$. Most interactions between human beings or between organizations display an element of competition and an element of cooperation. Ideally both properties should be present in a balanced way. The intermediary range $2 \leq N<\infty$ might be able to deliver a better balance between cooperation and competition than the extremes $N=1$ and $N=\infty$ can.

Let us start for simplicity with the case $N=2$. The primary concern, relative to $N=1$, is that there might too little cooperation between the two independent governments that rule the territory. This concern can be expressed in a number of ways:

- What about externalities?
- What about public goods?
- What about economies of scale?
- What about free riders?

We address this problem at the most abstract level possible in order to give a general answer applicable to all specific concerns in this general class. Cooperation between $N=2$ governments is a classic case of the Prisoner's Dilemma. The payoff table for this game is reproduced in Table 1. Game Theory teaches that there is a major difference between the one-shot Prisoner's Dilemma

|  | Cooperate | Betray |
| :---: | :---: | :---: |
| Cooperate | win - win | lose more - win more |
| Betray | win more - lose more | lose - lose |

Table 1: Payoff Table of the Classic Prisoner's Dilemma Game.
and the repeated game. In the one-shot game, both parties go for the Nash (1951) equilibrium of being selfish. In the repeated game, however, they both cooperate for fear of future retaliation by the other party. Axelrod (1981) showed that tit-for-tat is the optimal strategy. Tit-for-tat starts by cooperating. If Player 1 is betrayed by Player 2 , he retaliates by betraying Player 2 the next round. If Player 2 starts cooperating again, Player 1 forgives him and reverts to cooperating. Two tit-fortat players who meet each other start by cooperating, and keep on cooperating forever, thereby reaping the maximum possible benefits from their interaction, and driving out all other types of players. Cooperation arises endogenously out of self-interest in the repeated game. Fudenberg and Tirole (1991) refer to this as the folk theorem.

Politics is clearly a repeated game since elections are held every four years (or some similar interval) ad infinitum. Therefore both parties will cooperate by internalizing externalities in their decision-making process, realizing economies of scale through joint management whenever it is beneficial, and resisting the temptation to free-ride.

We can illustrate this general result by focusing on the specific area where cooperation is the most important: war. This is especially critical in the light of new evidence by Cederman et al.
(2011) that a systematic increase in war severity took place when the French Revolution of 1789 started spreading modern political ideas.

On the one hand, when a country faces a direct threat of invasion by a foreign power, the natural reaction of both political parties is to build an "Union Sacrée" (Sacred Union) around the common goal of National Defense. The reason is that an invasion threatens everyone, regardless of ideology, because every citizen stands to lose his/her life, home and family. We can expect the same spontaneous cooperation to occur, for the same reason, under Choice Democracy. On the other hand, Choice Democracy would make it harder to get both parties to agree to invade a neighboring country. No party could be forced to sign a declaration of war against its will and share the cost (in blood and treasure) of a war of aggression, even if it is in the minority. Thus, Choice Democracy would reinforce democratic peace theory (Layne 1994).

The extension to more than two parties is straightforward as long as the total number of parties remains small. Buchanan (1965) reframes the so-called 'free-rider problem' as a 'large-number problem': it only arises when the number of players exceeds a critically large size. If I am one player among a million, the impact of my decision on the decisions of others is negligible, so I might as well be selfish. If, however, the number of players is small enough that my decision will impact the decisions of others, then I need to think strategically about it - which keeps me honest. More recently, Murphy et al. (2006) confirmed experimentally that cooperation breaks down as the number of players increases.

This analysis demonstrates that there exists a fundamental trade-off between competition and cooperation: the higher the number of governments $N$, the less cooperation and the more competition; conversely, the lower the number of governments $N$, the more cooperation and the less competition. Qualitatively speaking, the optimal number of governments per country is the number $N$ in the intermediary range $2 \leq N<\infty$ where competition and cooperation are both present in a balanced way.

The implication for Choice Democracy is that there must be some mechanism that ensures only the major parties have the right to govern their own voters. Citizens who initially voted for fringe parties would be forced to choose their government among the more mainstream parties that passed the threshold. The exact number of parties allowed to govern would depend on the political culture and history of the country. For example, in the US, having only two parties (Democrat and Republican) seems the natural choice. In the UK, it might be necessary to have three parties: Labour, Conservatives and Liberals. In Switzerland, the so-called "magic formula" has traditionally reserved the right to govern to the top four parties. We are careful to say for the record that these
are not recommendations but just illustrations.

## 5 Advantages

This section covers the main advantages of Choice Democracy relative to current forms of democracy.

### 5.1 Public Services

In existing regimes the government, however appointed, detains a territorial monopoly over the provision of public services. In the absence of competitive pressure, the monopolist produces goods and services of ever-decreasing quality at ever-increasing cost. This is the ultimate cause of many specific problems currently observed.

The only limit to this degenerescence is the threat of exit (Tiebout 1956; Hirschman 1970). It means the ability for every citizen to part ways with a government that produces public services (s)he deems unsuitable. In popular parlance, it is "voting with one's feet". This is what young East Germans successfully did in 1989. Soon thereafter, the territory formerly known as East Germany came under the rule of a government that delivered better-quality public services at lower cost.

The key variable here is the cost of exit. The costlier the exit, the more the monopolist can abuse his privileged position. In the limit, if exit is costless, the monopoly is de facto dissolved.

In existing democracies, exit is costly because it requires geographical readjustments. This is why only the most egregious public policy errors get corrected through geographical exit. On top of the obvious frictions in the housing and job markets, relocating entails a net loss of human capital and social connections, compounded by an emotional cost. While there may exist cosmopolitan travelers whose life is not tied to a specific language, culture or society, their numbers are still insignificant and likely to remain so for the foreseeable future.

This effect goes a long way towards explaining why Luxembourg, San Marino, The Faroe Islands, Bermuda, Singapore, Hong Kong and Macao are systematically ranked among the 15 richest countries in the world. The smaller the country, the lower the cost of geographical exit. Subject to more intense competitive pressure, smaller countries are forced to deliver better-quality government services at lower cost if they want to keep their population.

Choice Democracy provides an alternative to geographical exit. Any citizen can exit his or her government simply by choosing a different party at the next election. Thus, in Choice Democracy, exit is truly costless. Competitive pressure guarantees public services of ever-increasing quality at
ever-decreasing cost. Thus, Choice Democracy is the only way to combine the efficiency of a small country with the economies of scale of a larger country.

### 5.2 Minimizing Democratic Dissatisfaction

Under Choice Democracy, every citizen gets the government (s)he chose. To formalize this insight, define Democratic Dissatisfaction as the percentage of voters who democratically expressed their desire to be governed by someone other than the person who eventually came to power. This is related, but not identical, to measures of popular cabinet support. Calculations in Appendix A reveal that Democratic Dissatisfaction is of the order of $63 \%$ in the US, $68 \%$ in France and $80 \%$ in Switzerland. In all three cases it is above the $50 \%$ mark. This is not an original observation, as Anderson et al. (2005) also noticed that: "the share of citizens who did not vote for the incumbent government commonly outnumbers the share of citizens who did." This makes intuitive sense, as people hold very diverse opinions. It would be highly unusual for any candidate to attract more support than all her opponents put together. And yet, in traditional forms of democracy, there can be only one minister at any point in time in any given function.

While voice is a core tenet of democracy, existing democracies fulfill less than half of that promise. Choice Democracy would fulfill nearly all of the promise of voice because almost every citizen would be governed by the party of his/her choice. We say "almost" because people who vote for fringe parties would not get their first choice (see Section 4). Under Choice Democracy, Democratic Dissatisfaction would be close to $0 \%$. We can illustrate this result graphically by placing various types of regimes along the axis of Democratic Dissatisfaction. By construction, Democratic Dissatisfaction is $100 \%$ in authoritarian regimes such as dictatorship and monarchy, because the people do not even have the right to elect their ruler. Figure 2 shows that all existing democracies lie somewhere between Choice Democracy and authoritarian regimes in terms of Democratic Dissatisfaction.

Minimizing Democratic Dissatisfaction is also important for a very down-to-earth reason. A given citizen is more likely to comply with government edicts if he or she has personally chosen that government. This is why people are more rebellious in monarchies than in democracies: noone chose the King. ${ }^{4}$ When it comes to reducing the risk of violent revolutionary crises, Choice Democracy provides as much improvement over traditional democracy as traditional democracy did over monarchy.

[^3]

Figure 2: Ranking of political regimes by Democratic Dissatisfaction.

### 5.3 Long-Term Sustainability

Medicare, Medicaid, Social Security, unfunded off-balance-sheet liabilities of the US government, as well as Treasury debt, are set to reach unsustainable levels over the next few years. David Walker, Comptroller General of the United States, Head of the Government Accountability Office (GAO), was very clear about this in the well-publicized interventions he made throughout 2007. The situation got even worse after the crisis of September 2008. Below is a small sample of the high-level, non-partisan warnings that came out just in 2010:

May 16 A poll published in the Financial Times shows that $46 \%$ of Americans "think it likely that their government will be unable to meet its financial commitments within 10 years".

July 5 Harvard historian Niall Ferguson warned the participants of the Aspen Ideas Festival about the increasing risk of the American empire collapsing within the next two years due to the country's rising debt level and fiscal imbalances (Ferguson 2010).

July 11 Erskine Bowles, co-chairman of President Obama's debt and deficit commission, said: "We can't grow our way out of this... We can't tax our way out..."

Sept. 15 Former Federal Reserve Chairman Alan Greenspan told the Council on Foreign Relations that: "Our choice is not between good and bad. It's between terrible and worse."

The situation in other democracies, especially in Europe, is not much better. This is a symptom of instability if there ever was one. As a matter of fact, it is the ultimate metric of instability because, every time the traditional rules of the democratic game created disgruntlement among a certain part of the population, the political 'solution' has been historically to throw money at the problem. By tracking the amount of money that is missing, we can track the rise of the tensions created by current forms of democracy.

Choice Democracy is not designed to solve these legacy problems, which are - by their very nature - unsolvable, even under traditional democracy. It is designed to address the more fundamental questions: How did we get there? What do we learn from that? And how are we going to avoid making the same mistakes next time?

Under Choice Democracy, heavily indebted parties will find it harder to attract voters. A party cannot shower its current electors with "bread and circuses" for which the next generation will have to foot the bill, because the next generation is under no obligation to vote for this party and pay back its debts with their own tax money. They would rather send their tax money to a less indebted party that will spend it on public services they (not their predecessors) can consume. Good borrowing will remain possible, as long as it finances investment into an infrastructure capable of delivering superior public services. Ultimately the voter will be the judge. For this reason, political governance will be more financially sustainable under Choice Democracy. This will substantially reduce the likelihood of financial crises.

## 6 Disadvantages

After presenting the main arguments in favor of Choice Democracy, we address some criticisms that can potentially be levied against it.

### 6.1 Redistribution

An objection that is sometimes raised is that Choice Democracy would lead to less redistribution. First, this criticism can be dismissed outright because it is partisan. There is no formula for computing the optimal degree of redistribution in society. Redistribution, by its very nature, relies on interpersonal utility comparisons, which are hard to justify scientifically. No-one can tell whether the current degree of redistribution in Western democracies is too high or too low. To properly study forms of democracy, we must remain above partisan arguments. Having said that, we will still make the effort of answering this criticism as if it was legitimate.

The fear is that all the rich people would flock to a party (which we will call "right-wing") offering low tax rates and spending next-to-nothing on redistribution. All the poor people would vote for another party (which we will call "left-wing") which would want to redistribute money, but would be unable to raise the tax revenues necessary to do so. There would be a funding problem.

The answer is that differences between the left-wing and the right-wing party in terms of: 1) taxation levels and attractiveness to the rich, and 2) redistribution levels and attractiveness to
the poor, would be relatively small. Therefore there would be no funding problem. This counterargument is developed in two phases. First, we argue that these differences are already small in existing democracies. Second, we argue that it would be in the self-interest of each party's leadership to keep them small under Choice Democracy.

Existing Democracies Despite all the rhetoric, right-wing parties do not meaningfully reduce tax rates or cut social spending when they are in office. From 1870 to 1996, the ratio of government revenue to GDP quadrupled from around $10 \%$ to a $43 \%$ average in Western Democracies (see pp. 51-55 of Tanzi and Schuknecht (2000)). From 1880 to 1990, median social spending in the same countries grew from $0.29 \%$ of GDP to $24 \%$ (see pp. 12-13 of Lindert (2004)). During this period, right-wing governments were in power approximately half the time. If they had really been as eager to cut taxes and social spending as they are reputed to be, then we would still be hovering around the $10 \%$ and $0.29 \%$ levels respectively. Clearly, there is a gap between campaign rhetoric and actions in power. This gap is best exemplified by George H.W. Bush's campaign promise "Read my lips: no new taxes", which he broke after only two years in office. It is a little-known, but highly significant, fact that US public spending as a percentage of GDP actually crept up while free-market apostle Ronald Reagan was in office. The reason is obvious: every organization wants to grow, and to grow you need more revenues. Therefore maximizing the total tax take is a goal of the government taken as an organization.

Second, despite all the rhetoric, left-wing parties do not specialize in attracting the poor. In France and in the UK, working-class people have been seduced by far-right parties such as the Front National and the British National Party, instead of the Communist Party or the Labor Party. In the United States, Gelman et al. (2007) conclude that: "Income is not the driving factor in politics". Democrats do very well at attracting the rich who live in rich states, such as Connecticut. Once again, the reason is simple: every party needs funding, and it is the rich who provide funding. To be successful in contemporary democracy, a political party must be fairly balanced and generalist. It must embody a set of values, principles and ideals capable of attracting men and women, young and old, rich and poor.

This is not to say that there are no differences between the left and the right. Just that, in practice, these differences are small relative to the commonalities. The public debate happens to put the spotlight on the differences and not the commonalities because there is no point discussing what everybody agree on. The linguist Noam Chomsky notes that there are strict limits on the spectrum of acceptable opinion, but that there is a very lively debate within that spectrum (Chomsky 1998).

A meta-analysis of 43 empirical studies by Imbeau et al. (2001) shows that "the average correlation between the party composition of government and policy outputs is not significantly different from zero." This is to be expected: governing has become a technique in and of itself (Ellul 1964), and the range of technically admissible solutions is relatively narrow.

Under Choice Democracy The overarching principle which we will invoke here is that it is in the interest of the leadership of every government to maximize its total tax take. This principle is not only theoretically consistent with the fundamental axioms of economic rationality (maximizing the utility function of the empire-builder, cf. Jensen, 1986), but also empirically validated by the growth of government in the Western world over the past century. It has four implications.

First, the left-wing party will not raise taxes on the rich, because it would scare them away, and that would reduce the party's total tax take.

Second, there will be no "race to the bottom" where each party tries to offer the lowest possible tax rate. This is because lowering the tax rate is a classic case of the Prisoner's Dilemma. It only increases a given party's tax take if the other party does not do it. If both parties do it, both parties end up with lower tax takes than if they had both kept their tax rates high. As mentioned in Section 4, parties will eschew the Nash equilibrium of low tax rates and low tax takes because politics is a repeated game and they are afraid of retaliation.

Third, the right-wing party will not cut down on redistribution because it needs arguments to justify the size of its tax take. If it did not spend the money on redistribution, what would it spend it on? Party leaders cannot just put the money in their own pockets. They can only justify their tax take by producing public goods or club goods (similar to public goods, but excludable). Either way, it is a form of redistribution: either to the whole population, or to right-wing voters. The best way to justify the tax take is to finance every possible type of expenditure that taxpayers might consent to. Helping the poor is certainly one of them. Rich people even make some charitable donations without being forced to. As a matter of fact, taxpayers will consent to give more to the poor who vote like them, than they currently consent to give to the poor who could vote differently. Sole et al. (1975) showed that human beings are more generous towards people who have the same opinion as themselves. Since such consent is the only effective limit on the amount of redistribution, Choice Democracy will bring about more redistribution within the electorate of each party, and less redistribution across parties. The net effect is indeterminate. While redistribution across parties may go down, it will not vanish because the production of public goods generates positive externalities. For example, whatever the right-wing party spends on security, i.e., more
police and more surveillance cameras, is a direct subsidy in terms of reduced crime rate to the left-wing voters who did not pay for it. This subsidy goes disproportionately to the poor, who run a higher risk of being victims of crime. Such positive externalities will be internalized because politics is a repeated game between a small number of parties, as shown in Section 4.

Finally, faced with two political parties that have relatively similar tax rates, proportions of rich taxpayers, and redistribution policies, the poor will also vote strategically. Assuming for the sake of the argument that the two parties have exactly the same size of redistribution budget, a poor person would rather vote for the party with fewer poor, in order to maximize the amount of redistribution per capita. Since every poor person will make the same calculation, the distribution of the number of poor people across parties will be equalized. The pattern of this equalization will not be random: the poor who vote for the left (resp. right) wing party will be the ones with above-average affinity for left (resp. right) wing ideology.

In summary, it is in the interest of the left-wing party to retain its rich voters so that it can collect large tax receipts, and it is in the interest of the right-wing party to retain its poor voters so that it can justify collecting large tax receipts.

Let us now shift from quantity to quality. To the extent that redistribution is socially desirable, it falls under the general category of public services analyzed in Section 5.1, thus Choice Democracy will provide higher-quality social redistribution at lower cost because different governments operating in the same territory will compete to offer the best possible kind of social redistribution.

### 6.2 Secret Ballot

Under Choice Democracy, each major political party will need to know the list of the citizens who voted for it, at a minimum so it can collect taxes from them. Therefore every citizen will have to declare officially for whom he or she voted. We can assume that the voting record of every citizen will become publicly available. This means the abolition of the secret ballot. The secret ballot is a common feature among the types of democracies that currently exist, and it makes sense for them. Over several generations, this has generated a great deal of attachment to the tradition of the secret ballot. Below we present six arguments supporting the thesis that abolishing the secret ballot (within the context of Choice Democracy) may nonetheless turn out to be acceptable, neutral or even beneficial.

The secret ballot is not an intrinsic part of democracy per se. Since Choice Democracy is a new type of democracy, it is not bound a priori to share any specific characteristic with formerly
existing types, apart from the two core principles of voice and plurality. It is possible to have political systems that are democratic yet have no secret ballot. The model for all democracies, Athenian democracy, usually voted by show of hands. The Economic Intelligence Unit ranked Switzerland as the $8^{\text {th }}$ most democratic country in the world in 2010, with a Democracy Index of 9.09/10, and the highest accolade "Full Democracy", yet to this day there is no secret ballot in the Swiss Landsgemeinde (cantonal assemblies). Furthermore, there exist institutions that define themselves as democractic, and that are generally accepted as democractic, where the ballot is not secret. Prime examples are the various parliaments and senates around the world. The U.S. Congress, e.g., has never been accused of functioning in a non-democratic way just because the voting record of Members of Congress is public. While the secret ballot is a key ingredient of the democratic systems in vogue today, it is not intrinsic to democracy in general.

Rational voter apathy, rational voter ignorance and demagoguery. Voter apathy means that citizens who are eligible to vote do not show up on election day. Voter ignorance is even worse: citizens do cast their votes, but they choose for whom to vote based on superficial reasons, without understanding the candidate's program and its likely consequences. Both of these perversions are rational under existing types of democracies. For example, the probability that Mr. Dupont's vote is the swing vote in the second (decisive) round a French presidential election is of the order of one in ten million. This means that Mr. Dupont would have to live for 50 million years before his vote makes a difference once on average. With such infinitesimal odds, what is his incentive to show up and do his homework? Ultimately, the cause of rational voter apathy and rational voter ignorance is the secret ballot. Proof: Apathy and ignorance will remain rational as long as the voter's life is not personally affected by her own vote. If the relationship between the voter and her vote is severed by anonymity, then the consequences of her personal vote cannot possibly be fed back to her.

Since abolishing the secret ballot will reduce voter ignorance, it will also reduce the incentives of the political parties to wage election campaigns that "hit below the belt" with catchy slogans, spin doctors and trendy haircuts. In a word, it will reduce demagoguery.

Extremism. To the extent that removing the secret ballot will have some effect, it will be a marginal negative effect on the most extreme parties. Pollsters know that the scores of extreme parties must be manually adjusted upwards because people do not willingly admit to voting for them. Somebody might vote for Communists or Trotskyites in a secret-ballot situation, but say he votes Socialist when he is polled on the phone. Similarly, somebody might vote for a far-right party
in a secret ballot, but say she votes for a mainstream moderate-right party when polled on the phone. Therefore Choice Democracy will further enhance the stability of democracy by reducing the extremist 'protest vote'.

Comparable Breaches of Privacy. Religion is an even more sensitive - and potentially explosive - matter than politics. Yet in Switzerland taxpayers have to declare their religion in their tax forms. This does not appear to generate any adverse consequences or public outrage. In the US, 127 million citizens chose to register officially as either Republicans or Democrats, a number to be compared with the last presidential election's turnout of 132 million. It does not seem to worry them that others might find out for what party they vote. Or, more precisely, they judge that being more closely integrated with the party of their choice (by having the right to vote in its Primaries) more than compensates for the corresponding loss of privacy. Anecdotally, the amount of private information voluntarily disclosed on social networks such as Facebook suggests that maintaining a high degree of privacy is not a modern priority. Given the ability to freely search the Internet for detailed information on a person, maintaining a high degree of privacy may not even be an option in modern times.

Protection from Adverse Consequences. According to the British Ballot Act of 1872, the purpose of secrecy was to make it easier for servants to vote differently from their masters. At the time, every bourgeois mansion had a governess, a butler, a cook, maids, etc. In the countryside, the livelihood of the farm worker and his family depended on the goodwill of the Lord of the Manor. This world is long gone. Employer-employee relationships are now governed by the Labor Code, not quasi-feudal arrangements. Anti-discrimination laws were unimaginable back then. Today, they severely punish anyone who would discriminate against others based on their political opinions.

More generally, the right to be able to declare publicly one's political opinions without suffering adverse consequences is protected under freedom of speech, which is already recognized as a basic human right in democracy.

Contract for Government. It is true that, even with freedom of speech guarantees and antidiscrimination laws, a voter can be pressured by family, neighborhood, business relationships, as well as financial considerations. But let us broaden the scope of the argument to encompass other decisions as important as the choice of government: what studies to pursue, what employer to choose, where to live, whom to marry? Considering the life of a human being as a whole, these decisions are as critical as the decision of whom to vote for. And they are all taken under pressure
from family, neighborhood, business relationships, as well as financial considerations. Yet nobody has ever suggested that these decisions should be made anonymously. To anonymize these decisions would preclude the establishment of a two-way relationship, a mutually agreed contract, between the individual and his/her educational institution, employer, local environment, and spouse. It would be nice if such decisions could be taken independent from external pressures, but in the end every person must carve his or her own path, taking all relevant considerations into account. We contend that the choice of what laws to abide by falls in the same category.

The problem with the secret ballot is that it reduces the act of voting to its numerical dimension: when I vote for party A, the only consequence of my action is that Party A's tally goes from, say, $55,752,528$ to $55,752,529$. By contrast, Choice Democracy makes the act of voting contractual: when I vote for party A, I agree to abide by its rules, and in return party A agrees to provide me with the public services I need. Since the relationship between a citizen and his/her chosen party is the lynchpin of democracy, any development that makes this relationship less statistical and more organic is desirable.

Once Choice Democracy has abolished the secret ballot, voting for a party will be signing a Social Contract (Rousseau 1762) with that party, valid until the next elections. To make matters more concrete, the organizers of the election should probably include some legal language along those lines in the document that every voter will sign in order to declare what party he is voting for. This will, for the first time in history, give irrefutable legitimacy to the theory of the Social Contract. In the current system, the very existence of a Social Contract is easily challenged by Doubting Thomases who say tongue-in-cheek: "I cannot remember what day I signed this contract, and I sifted through all my drawers but could not find any copy of it." It is easy for ill-intentioned agitators to foment revolution and destabilize democracy by claiming that the Social Contract is a fiction invented to anesthetize the populace, as no physical evidence can be brought to light to confound them. Once Choice Democracy abolishes the secret ballot, these subversive arguments will be squarely refuted, and every citizen will be duty-bound to obey the government with which (s)he signed a contract.

In spite of all these arguments, we concede that the high regard in which the secret ballot is held means that Choice Democracy may not be politically feasible here (in standard Western-style democracies) and now (in 2011). However, political feasibility is notoriously difficult to extrapolate across space and time. Opening the academic debate on Choice Democracy may be the best way to imagine a path for transitioning towards it.

## 7 Choice Democracy in Practice

After a theoretical analysis of the pros and cons of Choice Democracy, we now briefly touch on some practical implementation issues. In the real world, can two people residing at the same address be subject to different laws promulgated by different governments?

### 7.1 Personal Law

Consider two long-term Swiss residents who have apartments in the same building, hold the same types of jobs, and consume the same public services. One is Australian and the other American. They are not subject to the same law. The first one is legally required to pay less taxes than the second one because Australia does not tax the income of Australian citizens living abroad, while the US do. Since taxes are the cost of governing, paying different amounts of taxes is no small detail: it touches upon the very essence of what it means to be governed. These two people are governed differently. And yet this creates no practical problem.

Every once in a while, the Ambassador of Canada in Washington has to hire an American gardener to trim the lawn of the embassy. The Ambassador and his embassy enjoy diplomatic immunity, which means that they are not subject to American laws. What if a business dispute arose between the Ambassador and the gardener about the quality of the service rendered and/or the size of the bill? It would get resolved somehow (see Section 7.2 below for procedural details). Canada and the US would not go to war over this bill.

Today, many Muslims living in the UK have their legal disputes adjudicated by Sharia courts. This was endorsed by the Lord Chief Justice, Lord Phillips, in July 2008. These courts apply Sharia law, not British law - even though these Muslims are UK citizens living in the UK. Yet this creates no conflict. Rulings issued by Sharia courts are enforceable with the full power of the UK judicial system, through the county courts or High Court. Even some non-Muslims frequent Sharia courts now.

From the conquest of Constantinople until its downfall in the early $20^{\text {th }}$ century, the Ottoman Empire voluntarily gave extra-territoriality to certain specific religious and national communities on its territory, such as Venetians and Genoans. These communities were basically self-regulated, had their own judicial systems, and were exempt from Ottoman law. The Sultans granted this privilege in order to attract and retain craftsmen, traders and other valuable foreign professionals whose presence boosted the Ottoman economy.

This phenomenon is nothing new. In fact, it has been going on at least since the Early Middle

Ages. Cabaniss (1953) cites the following passage from Archbishop Agobard of Lyons' (769-840) book Against the Law of Gundobad:

It constantly happens that of five men walking or sitting side by side, no two have the same terrestrial law.

In summary, the co-existence of multiple jurisdictions operating on the same national territory poses no special difficulties in practice. Every crime is ultimately committed by a human being, so as long as it is clear what sets of laws he is supposed to obey, he can be judged in accordance with them. This is the age-old principle of "every man shall obey his judge, and if necessary, must himself indicate the judge in the valley, before whom he ought properly to appear" inscribed in the Swiss Federal Charter of August 1291. Only after the Treaty of Westphalia in 1648 did the notion of territorial law start to take precedence over personal law, but this victory won on the bloody battlefields of the Thirty Years War is a case of "might makes right" far removed from any democratic principles.

### 7.2 Trans-Jurisdictional Disputes

What happens in case of conflict between a citizen administered by Government A and another citizen administered by Government B? Trans-jurisdictional disputes are easiest to resolve when the different governments have signed a treaty agreeing how disputes will be adjudicated. For example, the 1980 Vienna Convention signed by 76 governments facilitates the resolution of disputes on the international sale of goods. Also, when a dispute arises within the context of a contractual relationship, the contract itself often specifies what court is competent and what law is applied.

Nonetheless, there are cases where no treaty and no contractual agreement are applicable. A substantial body of law, called Conflict of Laws or Private International Law, is solely devoted to handling such situations. There are three main issues:

1. What court will judge the dispute? This is the question of the forum. The judge has to declare himself competent to hear the case brought by the plaintiff. One general principle known as actor sequitur forum rei ("follow the defendant") is for the plaintiff to file the lawsuit in the defendant's jurisdiction. Otherwise, it would lead to "forum shopping" for plaintiff-friendly judges.
2. What law will the judge apply? This is a separate question, as the judge may determine that the applicable law comes from a different jurisdiction than his own. The judge counts
the factors that connect the legal issues to the laws of potentially relevant governments, and applies the laws that have the greatest connection.
3. Can judgments rendered in one jurisdiction be enforced in another? Actor sequitur forum rei facilitates enforceability because, if the defendant is found guilty by the judicial branch of the government to which he belongs, this government can immediately force him to serve his punishment. In addition, there is the principle of double criminality: judgments rendered in one jurisdiction are not enforceable in another unless the conduct is deemed illegal by both governments.

Conflict of Laws or Private International Law has grown over time in response to social need:

- there were many non-citizens in the Roman Empire, so a special judge (prcetor peregrinus) and a special body of law (ius gentium) were set up to deal with them;
- at the beginning of the Renaissance, the explosion of trading in Northern Italy made it necessary to establish rules and principles for adjudicating commercial disputes between business people belonging to different city-states;
- from 1776 onwards, the foundation of the United States, where every individual state has its own judicial branch and legal system (in addition to the federal level), forced the development of rules capable of resolving inter-state disputes;
- finally, the current wave of globalization stimulated further growth and refinement in Private International Law.

In summary, trans-jurisdictional disputes that may arise under Choice Democracy can already rely on a well-established and sophisticated body of law to handle them. This body of law itself is capable of evolving further in order to better meet the needs of Choice Democracy if necessary.

### 7.3 The Belgian Experiment

Article 2 of the 1980 Belgian Constitution created three Communities. These are independent governments whose sovereignty extends not over different regions but over different groups of citizens. For example, a Belgian citizen living in Brussels can freely choose to be governed by the French Community or by the Flemish Community. Communities are real, autonomous, full-fledged governments. Two of them have their own budgets, executive bodies, parliaments and civil services (the third one opted to share resources with a region for efficiency reasons). Due to the doctrine
of the "equipollence of norms" (Destatte 1995), each Community government has a standing equal to that of the federal government of Belgium. Its decisions cannot be overruled even by the Prime Minister.

Choice is first exercized on election day. A Belgian citizen living in Brussels can either vote for a French-speaking list of candidates, or for a Dutch-speaking list, but not for both. Every candidate must declare upfront what Community he belongs to, and there cannot be any bilingual list. This choice is then confirmed when the same citizen knocks on the door of the French Community or of the Flemish Community to request public services.

Currently, this version of Choice Democracy is still limited in two ways. First, the choice is not offered to all Belgians. Belgians living in the city of, e.g., Tirlemont do not have the option to choose the French Community. This potentially poses a disenfranchisement problem for thousands of Belgians. Second, the government functions exercised by the Community are limited to:

Culture Sports, tourism, public television and radio channels, cinema, theaters, historical monuments, libraries, etc.

Education Schools, school buses, research, etc.
Personalized Services Healthcare, protection of youth, social welfare, aid to families, services to the disabled, fight against illiteracy, help for prisoners, etc.

Due to these limitations, Belgium should not be regarded as an example of Choice Democracy. It is merely a proof-of-concept demonstrating that the most controversial feature of Choice Democracy has been tested and found to work well in the real world: two people living at the same address can be ruled by two different governments.

## 8 Conclusion

The basic idea of this paper is to dramatically broaden the scope of political competition between parties by opening up the provision of public services to competition between multiple governments operating in the same national territory at the same time. Every citizen would be free to be ruled by the party/government of his or her choice, hence the name: "Choice Democracy". We derive the existence of Choice Democracy in two ways, first by extrapolating a classification of the various types of democracies to encompass any type that could exist but does not yet exist, and second by interpolating between the current nation-state and anarchy. When the number of governments per country is strictly greater than one, but not much greater than one, we avoid the drawback of
anarchy, which is lack of cooperation, while reaping the benefit of competition. Such competition acts as a robust disciplining device, compelling government agencies to serve their constituencies as well as they possibly can. It also makes democracy more stable by reducing the risks of revolutionary and financial crises. The biggest hurdle against the adoption of Choice Democracy is the abolition of the secret ballot, but it is compensated by the formal signing of a real Social Contract between each citizen and the political party that governs him or her. Our evidence indicates that Choice Democracy would be viable in the real world.

## Appendix A: Democratic Dissatisfaction in 3 Countries

Section 5.2 defined Democratic Dissatisfaction as the percentage of voters who democratically expressed their desire to be governed by someone else than the candidate who eventually came to power in that election cycle.

United States People who voted in the Primaries for someone other than the eventual winner of the Presidential Elections are democratically dissatisfied by definition. Percentages of the popular vote earned by the winner in the Presidential Election and in his Primary Election are shown in Table 2. We can see that Democratic Dissatisfaction in the US is of the order of $100 \%-36.92 \%=$

| Year | Winner | Election | Primary | Election $\times$ Primary |
| :---: | :--- | :---: | :---: | :---: |
| 1972 | Richard Nixon | $60.70 \%$ | $86.92 \%$ | $52.76 \%$ |
| 1976 | Jimmy Carter | $50.08 \%$ | $40.16 \%$ | $20.11 \%$ |
| 1980 | Ronald Reagan | $50.70 \%$ | $59.79 \%$ | $30.31 \%$ |
| 1984 | Ronald Reagan | $58.80 \%$ | $98.80 \%$ | $58.09 \%$ |
| 1988 | George H. W. Bush | $53.40 \%$ | $67.90 \%$ | $36.26 \%$ |
| 1992 | Bill Clinton | $43.00 \%$ | $52.01 \%$ | $22.36 \%$ |
| 1996 | Bill Clinton | $49.24 \%$ | $88.98 \%$ | $43.81 \%$ |
| 2000 | George W. Bush | $47.87 \%$ | $62.00 \%$ | $29.68 \%$ |
| 2004 | George W. Bush | $50.73 \%$ | $100.00 \%$ | $50.73 \%$ |
| 2008 | Barack Obama | $52.92 \%$ | $47.40 \%$ | $25.08 \%$ |
| Average |  |  |  | $36.92 \%$ |

Table 2: Share of the Popular Vote won by the winner of the US Presidential Elections.
63.08\%.

France The French have a two-round voting process for Presidential elections. All candidates satisfying certain eligibility criteria participate in the first round, and then the top two face each other off in the second round two weeks later. Thus, the total percentage of people who voted in the first round for a candidate other than the ultimate winner is a direct estimate of Democratic Dissatisfaction. There have been seven Presidential elections by direct universal suffrage under the $\mathrm{V}^{\text {th }}$ Republic between 1965 and 2007. Results are summarized in Table 3. Democratic Dissatisfaction can be estimated to be: $100 \%-31.70 \%=68.30 \%$.

Switzerland The Swiss government is composed of seven ministers called Federal Councillors. Traditionally, the so-called 'magic formula' is supposed to allocate two Federal Councillors to each one of the top three parties, and one Federal Councillor to the fourth-ranked party. This enables

| Year | Winner | $1^{\text {st }}$ Round Score |
| :---: | :---: | :---: |
| 1965 | De Gaulle | $44.65 \%$ |
| 1969 | Pompidou | $44.47 \%$ |
| 1974 | Giscard d'Estaing | $32.60 \%$ |
| 1981 | Mitterrand | $25.85 \%$ |
| 1988 | Mitterrand | $34.11 \%$ |
| 1995 | Chirac | $20.84 \%$ |
| 2002 | Chirac | $19.88 \%$ |
| 2007 | Sarkozy | $31.18 \%$ |
| Average |  | $31.70 \%$ |

Table 3: First-Round Scores of the ultimate winner of the French Presidential Elections.
us to compute a direct estimate of the percentage of government functions that are exercized to the satisfaction of the average citizen. Results from the last five elections are summarized in Table 4. Using the magic formula, $24.2 \%+20.8 \%+17.6 \%=62.5 \%$ of Swiss voters have two

| Year | $1^{\text {st }}$ Party |  | $2^{\text {nd }}$ Party |  | $3^{\text {rd }}$ Party |  | $4^{\text {rd }}$ Party |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1991 | FDP | $21.0 \%$ | SPS | $18.5 \%$ | CVP | $18.0 \%$ | SVP | $11.9 \%$ |
| 1995 | SPS | $21.8 \%$ | FDP | $20.2 \%$ | CVP | $16.8 \%$ | SVP | $14.9 \%$ |
| 1999 | SVP | $22.5 \%$ | SPS | $22.5 \%$ | FDP | $19.9 \%$ | CVP | $15.9 \%$ |
| 2003 | SVP | $26.7 \%$ | SPS | $23.3 \%$ | FDP | $17.3 \%$ | CVP | $14.4 \%$ |
| 2007 | SVP | $28.9 \%$ | SPS | $19.5 \%$ | FDP | $15.8 \%$ | CVP | $14.5 \%$ |
| Average | $24.2 \%$ | $20.8 \%$ | $17.6 \%$ | $14.3 \%$ |  |  |  |  |
| Magic Formula | 2 | 2 |  | 2 | 1 |  |  |  |

Table 4: Scores of Top Four Parties in Swiss Federal Elections.
representatives on the Federal Council; $14.3 \%$ have one Federal Councillor; and the remainder, $100 \%-62.5 \%-14.3 \%=23.1 \%$, who voted for parties outside the top four, have no Federal Councillor at all. Therefore the average Swiss citizen has:

$$
(62.5 \% \times 2)+(14.3 \% \times 1)+(23.1 \% \times 0)=1.4
$$

representatives on the Federal Council out of seven. Democratic Dissatisfaction with government functions can be directly estimated as: $100 \%-(1.4 / 7)=80 \%$.

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[^1]:    ${ }^{1}$ In addition, acquiring information about what party has the best program requires costly effort (starting with the rudiments of an education in logic, rhetoric, political science, economics, ethics and history), so there is a massive free-rider problem in choosing collectively for whom to vote: voter apathy and ignorance are rational.

[^2]:    ${ }^{3}$ Since the number of self-governing entities in a given territory is necessarily capped by the number of inhabitants, we use the convention that $\infty$ represents the number of inhabitants.

[^3]:    ${ }^{4}$ This is easily seen from the much lower tax burden that people have been willing to bear in monarchies (historically never above one-tenth of GDP) compared to democracies (one-third to one-half of GDP).

