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Advances in Political Economy

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Institutions, Modelling and Empirical Analysis

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to. With neither external demand nor internal consumption able to pull the Spanish economy and with all tiers of government cutting expenditures to reduce public deficits since 2010, it must be no surprise that the economy remains in contraction in 2011 and 2012, as preliminary figures already available reveal.

#### 5 Concluding Remarks

Regarding the evolution of sub-central, as well as central, public debt in Spain over the period 2000–2011 the present investigation indicates that the impacts of economic conditions seem the key factors. The figures here provided show that a turning point took place in 2008 when the world financial crash started. This is not to say that the singularities regarding political and fiscal decentralization arrangements and public deficit and debt controls are irrelevant for the evolution of public debt. In fact, as the chapter stresses, it is a common ground in many published articles to state that if sub-central governments are left to their own devices and their borrowing activities are not centrally controlled, it is likely that these governments tend to borrow excessively as regards to the macroeconomic needs of the country, also entering the risk of default more easily than would be otherwise if strict regulations were settled and enforced, ceteris paribus.

In the Spanish case this undisciplined fiscal behavior has not taken place till 574 2007. The detailed formal limits on deficits and debt that have always existed have 575 no doubt positively influenced this evolution of debt over the period, as mentioned in 576 the chapter. The increase registered in tax revenue along the period played also a key 577 role. As growth rates were higher in Spain than the EU average it is no surprise that 578 debt levels in Spain experienced also greater reduction in terms of GDP till 2007, 579 580 as the figures provided show. As regulations and controls regarding public deficits and debt were also in effect during 2008 and 2009, it seems straightforward that 581 these regulations cannot be charged for the spectacular increase registered in public 582 deficits and total debt after the world financial crash. Total public deficit in Spain 583 reached (-) 4.5 per cent of GDP in 2008 and (-) 11.2 per cent in 2009, whereas in 584 585 2007 all governments had registered a surplus of (+) 1.9 per cent of GDP. And this has been also the case concerning many other European countries. The limits estab-586 lished in the European Stability and Growth Path could not be achieved by most EU 587 countries. As regards to public debt, the chapter has stressed that in just four years 588 total outstanding debt by all governments in Spain doubled (from 36.1 per cent in 589 590 2007 to 72.1 per cent in 2011). Therefore, it is evident that the extremely serious recession experienced since 2008 has been paralleled by a substantial increase in 591 public deficits and debt levels in Spain even if no relevant change was introduced in 592 the country regarding the basic rules characterizing political and fiscal decentraliza-593 tion as well as debt issuing controls. 594

Moreover, the analysis provided in the chapter also indicates that it has been at
 the central level of government where the debt has increased more in absolute terms
 since 2007, with 267 thousand millions euros (about 334 billions US dollars) being

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added to the stock of total public debt in Spain in just four years. In terms of GDP, central public debt has reached 52.1 per cent of Spanish GDP in 2011, whereas in 2007 this figure was 27.7 per cent. Regarding sub-central governments, the chapter shows that they have also registered a spectacular increase in debt since 2007, going from 8.5 per cent of Spanish GDP in 2007 to 16.4 per cent in 2011, then adding 85 thousand millions euros (about 106 billions US dollars) to the stock of total outstanding public debt. As previously stressed, the main reason for the higher amount of debt added by the central level of government relates again with the higher impact caused on central public finances by what most consider the worst financial crisis of the past century in the western world, and subsequent economic recession generated. As soon as the crisis was evident, central government in Spain, as well as in many other countries, engaged in stabilization policies in order to counteract the forces of the recession. In a period where tax revenues were drastically being reduced as a result of recession the increase registered in central public spending, including those public expenditures needed for first bailouts and restructuring in the financial sector, could lead to no other situation than the one mentioned above. Of course, in some countries public deficits and debt have increased more than in others, as mentioned in the paper.

As Spain has been highlighted as a main contributor, together with Greece, Por-617 tugal, Ireland and Italy, to the overall crisis in the Euro Zone, it is evident that Spain 618 must suffer from singular problems. As mentioned in the chapter, the evolution of 619 public debt alone cannot explain the serious problems experienced in the country 620 since 2010 for successfully issuing new debt at reasonable interest rates. A key is-621 sue is again the extremely negative evolution registered in GDP since 2008, which 622 has lead unemployment to reach 22 per cent of the active population after a bubble 623 bursting taking place also in the building sector. The stock of private debt in the by 624 households, banks and firms, as well as the expected levels of elderly population 625 having the right to get a public pension, are also key aspects, though not among the 626 research purposes of the present chapter. Finally, let me conclude by stating also 627 that in no way did I attempt to extract any prediction for the future, nor did I attempt 628 to examine the case of any specific regional government but their overall evolution 629 regarding debt. Though the analysis provided in the chapter indicates that political 630 and fiscal decentralization in Spain has not been paralleled by fiscally undisciplined 631 behaviors on the part of sub-central governments, at least not till the financial crash 632 started in 2008, there is nothing in the present chapter that excludes these undis-633 ciplined behaviors from happening in the future. Future political affairs cannot be 634 predicted as we predict the result of chemical reactions. 635

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## **Deciding How to Choose the Healthcare System**

Olga Shvetsova and Katri K. Sieberg

#### 1 Introduction

17 The continuing debate in the United States over the form of health care provision is 18 illustrative as to how difficult that choice can be. The choice is further complicated 19 by political activity—lobbyists with a vested interest in various formats—and a no-20 ticeable effect from path dependence—people are used to what they have and are 21 afraid of change, and some groups actually stand to lose from change, at least in the 22 short run. What might the decision have been in the absence of these effects? Our 23 paper creates a model to explore this question. In particular, we appeal to insights 24 from Buchanan and Tullock (1962), Rawls (1971) and Kornai and Eggleston (2001) 25 to ask what type of health care provision would a polity choose from behind the veil 26 of ignorance, and what type of mechanism—unanimity (constitutional) or majority 27 (legislative) would they prefer to use to select it?

28 The selection of a health care system is a highly charged subject. Health care 29 is a service that is expected to be used by everyone at least once in their lifetime, 30 and because access to health care can make the difference between life and death, 31 many argue that health care should be a right. However, the situation is compli-32 cated. Health care is expensive, and improvements in technology-while improving 33 outcomes-also make it even more costly (Newhouse 1992). Thus, debates focus 34 on which type of system would best provide health care at efficient costs, and what 35 tradeoffs are associated with which systems. Many, including Pauly (1986), and 36

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Klarman (1969) among others, assert that the market is the best way to induce efficiency in health care consumption. Here, cost control is the main objective. They appeal to the effect of prices to reduce surplus demand-noting that without this incentive, health provision will become overly costly. Klarman states,

After considering several possible explanations, the hypothesis is advanced that health insurance may enhance one's taste for health services and permit one to indulge in it as the risk of large, unexpected, and unwanted bills is eliminated. (1969, 557)

Others (including Enthoven (1993); Fuchs 1996) argue for a highly regulated form of private insurance to avoid inherent problems in private provision-among these, lack of universal coverage. Hsaio (1994) and Sieberg and Shvetsova (2012) argue that if universal care is a goal, then private coverage will be more, not less costly.

Given the range of the debate among social scientists, it is interesting to consider what system would be chosen if given an opportunity to do so outside of the prior social context. Further, from an institutional perspective, we explore how the selection mechanism itself would affect that choice. Appealing to the logic of Buchanan and Tullock (1962) and Rawls (1971), we show that under unanimity, a polity would select an entitlement system of health care provision, and under majority rule, the same polity would opt for private provision. Behind the veil of ignorance, a polity would select unanimity as the selection mechanism in order to minimize overall cost to society.

69 One noteworthy aspect of our model is that although it is motivated by decision 70 making over health care systems, it is not limited to that particular case. Instead, the 71 model extends to apply to a certain case of collective actions problems. In typical 72 collective action problems, society would be better off under cohesive support for 73 one policy, but individual self-interest can lead to suboptimal provision. The twist 74 for this particular set of problems is that this self-interest is bolstered by median 75 voter awareness that 1. The polity is unwilling to allow the suboptimal outcome to 76 occur, and 2. The median voter herself is unlikely to bear the added costs associ-77 ated with choosing the suboptimal policy while nonetheless enjoying the benefits of 78 the 'rescue' with regard to the outcome. In addition to the selection of health care 79 systems, arrangements such as the Glass-Steagall Act (and the FDIC),<sup>1</sup> universal ed-80 ucation provision, pollution control, among other issues, can be addressed through 81 this analysis. We argue that in cases involving this particular version of the collective 82 action problem, unanimity is the ex-ante preferred mechanism to make decisions. 83

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#### 1.1 Buchanan and Tullock

In The Calculus of Consent (1962), Buchanan and Tullock ask the same question as those debating the reorganization on healthcare in America are raising on both 89

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EDITOR'S PROOF

<sup>&</sup>lt;sup>1</sup>We are grateful to a reviewer for this suggestion.

sides of the controversy: "How shall the dividing line between collective action and private action be drawn?" (p. 5). Since, unlike the current debaters, Buchanan and Tullock offer a theory as their answer and not a prescription to cure all ills, their theory can be applied and we do so here.

Specifically, Buchanan and Tullock's theory of constitutional choice consists of two main components: they define a constitution as a delineation of which decision rule to apply to each policy area, and they propose to start with a premise that the constitution itself is arrived to by unanimity. Faced with healthcare as a policy area then, their approach is to: 1) unanimously choose which decision rule to put into the constitution for 2) making fundamental decisions on healthcare policy (we can suppose that the particulars of policy implementation can be delegated to the bureaucracy).

**HOOAG** 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 When it comes to defining a feasible set of decision rules, their approach is general, and they allow any fraction of the population to potentially be deemed decisive on an issue. While not claiming that they model any actual constitutional process, Buchanan and Tullock illustrate how various constitutional provisions are in actuality the decision rules of the format of "the fraction of the population." Of specific 109 110 interest is their explanation of how one would model the Bill of Rights in this way: a right is a policy issue which can only be decided by unanimity, they say. Indeed, 111 with any right, an individual is in a possession of her initial endowment of it (e.g., 112 of free speech, or of property of some land). It is a matter of the society or some 113 of its subsets wanting to expropriate that endowment that the constitution must ad-114 dress. So protecting the right means setting such a decision rule for that issue that 115 expropriation can occur only with the consent of the person who possesses the ini-116 tial endowment. Unanimity, with a blocking coalition of one, is the unique decision 117 rule satisfying this requirement. 118

Another type of a decision rule common in constitutions is simple majority. Sim-119 ple majority has the advantage of generating just one decisive coalition for each 120 decision, whereas deciding by a specified-size minority has a potential for simul-121 taneous existence of two or more decisive coalitions promulgating conflicting poli-122 cies.<sup>2</sup> Realistically then minority decision rules fall in a category of federal or auton-123 omy provisions, with majoritarian procedures, but instituted within constitutionally 124 specified minorities. 125

In a constitution as it addresses the polity at large, then, options for deciding 126 in policy areas range from simple majority, to super-majorities, and all the way to 127 unanimity. To capture the constitutional process of Buchanan and Tullock, Fig. 1 128 takes just the extremes of the feasible set of decision rules and for a given policy 129 issue sketches the sequence of decisions. 130

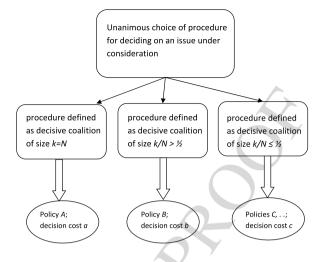
By backward induction, in order to know which decision rule would benefit her 131 most, an individual at the unanimous constitutional stage needs to compare expected 132 utilities from implementation of policy decisions which would be made under each 133 134

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 $<sup>^{2}</sup>$ Note however that majoritarian coalitions in representative bodies elected by majority in districts

<sup>136</sup> can reflect but a minority support in the electorate, in the extreme speaking for "50 percent of 50 137 percent."

Fig. 1 Logistics of institutional choice according to Buchanan and Tullock (1962)



feasible procedure. This directly reflects the theory of Buchanan and Tullock: constitution is a unanimous choice of rules where we proceed from their expected consequences and select by backward induction.

#### 1.2 Rawls

Unanimity, of course, is problematic because it can so easily lead to the inability to decide or, in Buchanan and Tullock's terms, to the cost of decision making becoming prohibitive. Indeed, under unanimity, each individual is a blocking coalition, and if they want different things, bargaining can be endless and even futile. Buchanan and Tullock suggest resolving the difficulty through agreeing on utility transfers and bar-gaining over the amounts of those transfers. That approach however works only in an ideal environment of perfect enforcement where one can be assured of receiving the utility transfer just as was promised at the bargaining stage. But in any realis-tic setting the commitment that the future winner from a policy would then (upon having won) share the benefits with the losers cannot be credible, and this knowl-edge would prevent the expected losers from entering any such contract. Promise of utility transfers made at a policy making stage might just as well be excluded from consideration once contract enforcement difficulties are taken into account. This makes unanimity as a decision rule impractical. Indeed, unanimity seems to work best when we want something *not* to happen, such as when we want a right not to be violated or entitlements withheld. But when it comes to reaching an active consensus, conflicting preferences present an insurmountable difficulty, which does not bode well for the constitutional stage as in Buchanan and Tullock (1962).

Rawls (1971) introduces an assumption which allows the unanimity rule to pro duce a Buchanan-Tullock style constitution successfully: in order for the individuals

to be able to decide unanimously, they must decide as one. Literally, the decisionmaking process of each person must be exactly the same and incorporate identical inputs as everybody else's—we need a society to be comprised of individuals who are similarly uninformed about their positions in the future distributive processes which the constitution will regulate. In Rawlsian terms, at the meta-constitutional stage individuals decide behind the "veil of ignorance" and find it easy to think alike because they are in fact alike. Rawls makes de-facto additional assumptions about the risk-aversion of these individuals by invoking the maximin solution concept (thus his individuals are extremely risk-averse), but that assumption is needed only in order to lead to the specific constitutional outcome of interest to Rawls. If we keep an open mind with regard to what a constitution might be, his first, minimalist assumption that individuals are similarly uninformed about themselves, i.e., have identical beliefs, including about their risk-aversion, is sufficient for each individual to have the same preferences over institutional options and thus for the unanimity procedure to bear fruit.

If Rawls' framework can be accepted, then it could be argued that any individual, 200 when properly deprived of identifying information, would know exactly what the 201 decision rule should be for a particular policy area. Whether we see this theoretical 202 construct as an appropriate approximation for the choice of the decision rule for a 203 specific policy area depends very much on that policy area. On some issues it is 204 easier to imagine that individuals do not know their type than on others. Things that 205 will need to be weighed in when determining how far behind "the veil of ignorance" 206 individuals remain with regard to their future gains or losses from the policy would 207 include the issue-specific mechanisms by which the types of individuals become 208 revealed, including the utility function and the technology of the provision of the 209 good in question. We will return to the discussion of the Rawlsian assumption as it 210 applies to healthcare when we describe the model below. 211

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# <sup>214</sup> *1.3 Kornai and Eggleston*

Looking for the basis on which to ground the model's assumptions about the preferences of actors on the issue of interest—the safeguarding of health and life—what can one say about the social demand regarding healthcare outcomes? Can we discern at least some consensus for what could be viewed as a long-term social welfare function for healthcare? It turns out that the answer may be a very cautious "Yes."
Kornai and Eggleston (2001) posit that, at the very least,

- (1) people do not want a poor person to die from a disease from which a rich person would not have to die with standard medical treatment, and
- (2) people do not believe that a sick person must pay more for basic necessary care than a healthy person (Kornai and Eggleston 2001, p. 50).

It is, of course, ultimately an empirical question whether or not individual pref erences are aligned according to these assumptions. It is possible that different so cieties correspond to Kornai's postulates to different degrees. We adopt these two

assumptions here, on the grounds of their theoretical appeal and based on the initial empirical validation in classroom experiments at the University of Tampere and Binghamton University in Fall 2010 and Fall 2012.

The two assumptions above sketch the popular consensus within the principal in favor of a social welfare function with the following characteristics:

- If it came to a life-threatening emergency, the principal will prefer to pay to apply accepted life-saving treatment, and
- The principal prefers not to withhold the public subsidy for the care of the more sick (whose care is more expensive) by the less sick (whose care is less expensive).

These presumably are the common preferences of every citizen in a society and thus are unanimously held at the constitutional stage. It is these preferences that designate our problem into the special class of collective action problems. Individual self-interest can lead to suboptimal provision under majority rule, and yet the polity is unwilling to let individuals suffer the consequences.

#### 2 Actors: The "Society" and the "Patient"

Thinking about the process depicted in Fig. 1 above as a choice of a contractual mechanism where the society in some form functions as the principal, we observe 252 that an individual—a patient—becomes the society's agent to whom the legislation assigns however many or few responsibilities for organizing her own healthcare financing.

255 Another observation to draw from Fig. 1 is that "society" is too general a term 256 within this framework, because individuals who comprise it make decisions under 257 different rules of aggregation at different junctions and experience changing levels 258 of information as the process unfolds. We thus need to be more specific and identify 259 the "society" in its varying incarnations as separate players. At the Rawlsian stylized 260 "constitutional" stage, not knowing yet whether one will be rich or poor, healthy or 261 sick, all individuals are as one and they share these preferences. If they were also 262 maximin players (Rawls 1971), and so sought to avoid the worst possible turn of 263 event, they would compare the alternative choice structures from the point of view 264 of the most destitute member of the society. Thus when we assign payoffs for the 265 ex-ante principal, we assign the minimal level of payoff achieved by any of the three 266 principals. The payoffs of agent-patients may be even lower, but we ignore that in 267 order to avoid building our argument on a tautology that the principal produces a 268 certain policy because as an agent he would suffer the least under that policy.

269 This approach allows us to view the choice of the decision body which then 270 chooses the healthcare policy as delegation to a sub-principal of the full principal, 271 or, alternatively, as relying on a super-agent of the full principal. The principal's 272 preferences over who to entrust with the drafting of the healthcare "contract" will 273 then simply depend on the comparison of the implementation outcomes of the contracts which maximize the respective utility functions of the appointed sub-principal 274 275 (super-agent) which acts on the society's behalf. 276

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303 304 In addition to the Constitutional principal and the policy-setting principal, there is also the stage of implementation of the policy, and the contract enforcement at the implementation stage is also conducted by the principal or some authorized representative thereof. If, for example, a patient has no assets to cover a life saving or life extending treatment, it is up to the medical provider on site to deny her care if that is what the contract calls for, and a doctor or a hospital in that case unilaterally represents the societal principal.

In a sense, we have three different personifications of what colloquially is treated as the same actor in matters of welfare provision. Multiple personifications however imply separate actors with distinctive preferences and potentially conflicting interests. Our model exposes the implications of these conflicting interests within different institutional structures.

The three types of actors representing the societal principal are labeled below as EAP, IP, and PP. An Ex-ante Principal, EAP, acts at the constitutional stage. An Interim principal, IP, depending on the constitutional choice, can be either majoritarian or by unanimity (IPM or IPU). Notice that the by-unanimity interim principal is comprised of the same people but differs from the ex-ante principal by the level of information that members of the society have about their own types and the distribution of types in the population. Finally, at the implementation and enforcement stage, there is the Ex-Post Principal, PP.

All four (counting both IPM and IPU) actors representing the principal, we claim, share the basic preferences as postulated by Kornai and Eggleston (2001) which we discussed above.

### 2.1 The Ex-ante Rawlsian Principal

Rawls's premise and Kornai–Eggleston's assumptions have been historically ap pealing to scholars of political economy. Hayek has argued as far back as 1945 that:

There is no reason why, in a society which has reached the general level of wealth ours has, the first kind of security should not be guaranteed to all without endangering general freedom; that is: some minimum of food, shelter and clothing, **sufficient to preserve health**. Nor is there any reason why the state should not help to organize a **comprehensive system of social insurance** in providing for those common hazards of life against which few can make adequate provision. (emphasis added, Matthews 2010)

Fuchs (1996, 16) also states that medical care meets Adam Smith's 1776 definition of a necessary—in that it is necessary to sustain life and that it is indecent for even the lowest people in society to be without it.

Insofar as the total (or average) cost of the policy is concerned, we assume that the constitutional principal, EAP, prefers it minimized as long as acceptable outcome is achieved with regard to care. Provision of healthcare at some level viewed as adequate is the first priority, while cost-minimization is secondary. We stay away from 322