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AN ECONOMIC ANALYSIS OF THE SEPARATION OF POWERS - SOME PRELIMINARY EVIDENCE AND MANY QUESTIONS

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AN ECONOMIC ANALYSIS OF THE SEPARATION OF POWERS - SOME PRELIMINARY EVIDENCE AND MANY QUESTIONS

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1. Introduction

Until recently, economists did not pay much attention to the quality of institutions that structure interaction situations. Over the last decades, this has radically changed: representatives of public choice analyze politics by drawing on the tool kit of economists (Mueller 1989 is an overview), representatives of the New Institutional Economics are interested in the economic consequences of various institutional rule sets (Voigt and Engerer 2002 is an overview), and representatives of positive constitutional economics ask, more specifically, about the consequences of the most basic set of institutions, namely constitutional rules (Voigt 1997 is an overview).

In this paper, we are interested in the constitutional political economy of the separation of powers. This is a very broad topic indeed and we will focus on three aspects, namely (i) the role of the judiciary as one of the three traditional branches of government according to the separation of powers à la Montesquieu, (ii) the role of agencies independent from government such as central banks and (iii) the interplay between (i) and (ii). As the subtitle indicates, this paper is more a research program rather than one containing original insights. Yet, the little available empirical evidence will shortly be surveyed.

There are various aspects to the constitutional political economy of the separation of powers: (i) the distinction between a theoretical and the empirical level of analysis; (ii) the distinction between positive and normative analysis; (iii) the focus on constitutional rules as *explananda* explaining different outcomes of interest to the economist such as income and growth levels on the one hand and constitutional rules as *explanantia* to be explained by the tool kit of economists, i.e. by analyzing the relevant preferences and restrictions; (iv) and lastly whether the relevant institutions are implemented domestically or internationally.

In this paper, some of the relevant issues with regard to these aspects will be discussed: in the second section, the notion of separation of powers is delineated; the third section deals with some pertinent theoretical issues. Section four is devoted to empirical issues, and in section five some of the normative questions are at least mentioned.

2. Defining Separation of Powers

The term separation of powers is inseparably linked to Montesquieu's *De l' esprit des loix* (1748) in which he describes a functional separation between the legislature,

[1] voigt@wirtschaft.uni-kassel.de. Many of the insights and most of the questions presented in this paper have evolved out of research projects pursued jointly with others. I am intellectually indebted to Eli Salzberger. Anne van Aaken, Roland Kirstein, Lars Feld, and Bernd Hayo, the co-authors of the relevant papers. It has been very stimulating to cooperate with them.

the executive and the judiciary.[2] Although Montesquieu's account is based on a misinterpretation of the British system, it formed the basis for constitutional thinking in what was to become the United States of America (see Hamilton, Madison, and Jay 1788/1961). Ever since, the doctrine of separation of powers has been a hallmark of liberalism, the assumption being that state organs whose actions were monitored by other organs could do less harm.

In this context, it is important to distinguish between various sorts of separation of powers. Structures of government in which different branches can decide independently of the other branches in different areas (a rigid separation of powers) is very different from structures in which a joint decision is needed (a model of checks and balances).[3] This latter type has also been interpreted as a constraint on politicians for the benefit of the citizens. Recently, however, representatives of a revisionist approach have been arguing the opposite - that separation of powers can work against the citizens (see the arguments of Landes and Posner 1975, Brennan and Hamlin 1994 and Persson et al. 1997, 1178).[4]

The concept of the separation of powers belongs to the most basic rules regarding the state, and is usually enshrined in the constitution. Delegation of powers, in contrast, can occur under a given constitution. Scholars of constitutional political economy often make a distinction between the "choice of rules" on the constitutional level and the "choice within rules" on the post-constitutional one. It almost seems to suggest itself to assign the separation of powers to the constitutional level and the delegation of powers to the post-constitutional one. On closer examination, the separation might not be as clear-cut as it appears at first sight. On the one hand, constitutions evolve over time, and post-constitutional choices, such as delegation of powers, might have repercussions on the constitutional level. On the other hand, organs like an independent central bank might be the result of constitutional choice. Should they be considered as a part of separation of powers or a mere delegation of powers? In

[2] However, the idea of separation of government power finds its roots in the ancient world in the writings of Aristotle. In the modern context, it was in seventeenth-century England that the doctrine emerged for the first time as a coherent theory of the state.

[3] Brennan and Hamlin (2000) have recently proposed to call this second version "division of power", meaning that one particular power can only be exercised if various agents cooperate (chs. 11 and 12).

[4] Brennan and Hamlin (1994) develop a "revisionist view" of the separation of powers. To make their point, they draw on standard monopoly models used in economics and distinguish between a horizontal and a vertical separation of powers. Starting out with a monopoly, the introduction of the horizontal separation amounts to two (or more) suppliers competing for demand and thus to the introduction of duopoly (or oligopoly). The equilibrium price will then he below the monopoly price and consumer rent will subsequently increase. A vertical separation of powers also entails a division of the original monopoly, albeit in a different way: Now, single functions of the process arc divided; there is. e.g., one monopolistic firm that produces a good and a second monopolistic firm that distributes it. Brennan and Hamlin also call this functional separation of powers. The (individually) maximizing strategies of the vertically separated firms will at best lead to the monopoly price, but usually the price will even be higher and the accruing consumer rent will thus be lower than in the original monopoly. Brennan and Hamlin argue that the separation of powers doctrine as conventionally understood is equivalent to the functional separation of powers and will therefore not protect citizens from exploitation by the governing. The next logical step in the argument, unfortunately not made by Brennan and Hamlin, would then be to claim that the vertical separation of powers is the result of politicians trying to increase their rents at the cost of citizens. If such an argument is made, one would need to explain why the vertical separation of powers was only introduced relatively late in history.
They further argue (ibid.) that the horizontal separation of powers could, on the oilier hand, have beneficial results. In order to unfold, it needs to entail an "exit" -option for citizens as well as the absence of strong externalities between competing states.

this paper, we are interested in the economic analysis of both the separation and the delegation of powers.

3. Some Theory

The central normative question with regard to the separation of powers is: how should it be optimally designed so that the welfare of society is maximized? Before being able to answer this question, one needs to have at one's disposal some positive theory informing us on the different - and economically relevant - effects that different ways of separating and delegating powers have. This is not a sufficient condition for being able to implement a welfare-enhancing separation of powers but it sure is a necessary one. In this section, we will therefore focus on positive theory.

Until quite recently, the conventional wisdom with regard to the separation of powers was that it constrains government. This would mean that those in office could make themselves better off by getting rid off it. It was Landes and Posner (1975) who started to question conventional wisdom from an economic point of view. According to them, legislators have an interest in an "independent" judiciary because its existence enhances the benefits a legislator can obtain from legislation. This is because an independent judiciary can prolong the life span of the legislative deals that the legislators strike with interest groups. Prolonging the life span of legislation, especially beyond the term of the legislator, increases its value for the interest groups and thus increases the amount they are willing to pay the legislators for legislation. An extension of this argument to the role of the presidential veto and to the constitutional mechanism as a whole was offered by Grain and Tollison (1979a, 1979b).

Landes and Posner define a judiciary as independent if it enforces "existing statutes in accordance with the intent of the enacting legislature" (ibid., 883) and thus producing stable expectations. Legislators have an interest in being able to make credible commitments *vis-à-vis* the representatives of interest groups. The existence of an independent judiciary enables them to do this by reducing the possibilities of post-contractual opportunism either by themselves or by their successors. According to Landes and Posner, the political branches have various means to impose costs on the judiciary ("budgetary harassment, tinkering with the courts' jurisdiction and altering the composition of the judiciary by the creation of many new judgeships" [ibid., 885]) which, in turn, could maintain its independence best by enforcing the 'contracts' that earlier legislatures had struck with interest groups (Salzberger 1993 has a thorough discussion and modification of the model; a review of the critique of the model and also of empirical tests can be found in Voigt 1997).

The same topic has been tackled from a different angle by Weingast (1993). He portrays what could be called the dilemma of the strong state. On the one hand, a state strong enough to implement private property rights is a precondition for a prosperous development. On the other, representatives of the state could also misuse their strength in order to attenuate these rights or even expropriate private owners. Representatives of the state have, of course, incentives to promise that they will refrain from *ex post opportunism*, i.e., the attenuation of property rights or outright expropriation. But if there is no separation of powers and representatives of government have the power to make and enforce rules as they wish, this promise will not be credible. Rational governments thus have an interest in establishing institutional mechanisms that would allow them to make credible promises.

Breaking promises must be costly for government. As long as the expected utility

from carrying out ones promises is higher than that from breaking ones promises, a rational government can be expected to stick to its promises. It could thus create institutions that allow citizens to exchange governments in case the current one has broken its promises. Barzel (1997) discusses the role of parliament as a device for autocrats to credibly bind themselves. It can also be read as an argument in favor of the separation of powers. He argues that secure kings deliberatively gave up some of their power. This enabled them to credibly commit themselves to their promise not to confiscate the property of their subjects. Barzel's approach thus contradicts the more conventional one that conceptualizes the emergence of parliament as the consequence of a shift in the relative power between a dictator and its subjects. *Ex post*, the separation of powers can thus be explained as an attempt to reduce the self-commitment problem of government. Other devices include the vertical separation of powers (i.e., federalism) and the delegation of competence to international organizations (Levy and Spiller 1994; Voigt and Salzberger 2002).[5]

The relevance of informal variables

Until now, possible reasons for establishing a separation of powers system have been given by pointing towards the credibility-enhancing effects of such systems that would eventually translate into higher income levels. Yet, the possibilities to set up and implement such systems might be constrained by informal factors that we now shortly turn to. For the sake of the argument, assume that all three government branches set out to form a cartel in order to better exploit the citizens. This will only become unattractive for government if the costs that arise with such behavior outweigh the additional (expected) benefits. This, in turn, will only be the case if relevant parts of the public or - formulated more precisely: the citizens - are able to produce the public good opposition spontaneously.

We can here only name some crucial preconditions that need to be met if the spontaneous production of the public good opposition is to be likely: (1) Government behavior not in conformity with the constitution needs to be easily ascertainable. The governing can increase ascertain ability by formulating the text of the Constitution concerning their competences as unequivocal as possible.[6] (2) Individual attitudes need to be compatible with the concept of the Constitution that is to safeguard individual rights; one attitude would, e.g., be the conviction that the reason of the state (and the constitution) are only collective means in order to enable the attainment of individual goals - and not of any supra-individual, or collective goals. Only then can one count on the perception of the constitution as instrument to constrain the governing, but also to endow them with certain competences. The attitude that success in life is not entirely determined by fate but - at least to some degree - by individual effort is another necessary condition for the possibility of a society to produce the collective good opposition spontaneously in case of need. If this attitude is not shared by major parts of the population, opposition makes little to no sense. (3) The production of opposition is equivalent to the voluntary contributions to the production of a public good, i.e., the logic of collective action becomes relevant here (Olson 1965). We know that the chances of overcoming the problem of collective action are higher if the potential number of contributors is rather low, if there is an obvious key of the effort that the various actors should display and if every actor can trust in the other actors

[5] Grossman and Noh (1990, 1994) show that the credibility of a government is a precondition for its acting as if it were an agent of the citizens. The credibility is shown lo be positively correlated with the survival probability of a particular government.

[6] Schelling's (1960), focal points" come to mind here. With regard to constitutions, Hardin (1989) has argued that they can also be interpreted as deliberately created conventions.

contributing their share. Societies in which a large number of voluntary organized associations exist should, then, have less difficulty in overcoming the problem than societies made of unorganised individuals. These are, however, no sufficient conditions for the production of public goods, since Olson's problem remains relevant.[7]

The relevance of time for credibility

Supposedly, newly created or newly independent states will have to build up a reputation for being credible. This might take years or even decades. Establishing the separation of powers domestically might be conceived as a step in the direction towards enhancing credibility, but it might be complemented by a delegation of competence to international organizations such as the European Convention on Human Rights or the European Union. It is now interesting to inquire into possible tradeoffs (and complementarities) regarding these two different modes of separating and delegating powers. Relevant questions are: under what conditions will the creation of a separation of powers system domestically be credible? How do "credibility gains" differ between the creation of a horizontal separation of powers and the creation of both a horizontal and a vertical separation of powers? What is the additional credibility that can be gained by joining international organizations? What international organizations lead to the highest increase in credibility? What are the conditions that make application for membership in an international organization more likely? One simple economic measure of the credibility of the institutional framework of a country is its interest rates. It would thus be interesting to regress them on an indicator of separation/delegation of powers.

The delegation of competence from legislators to others has been analyzed using the economic approach in three distinct frameworks: (1) the delegation of competence to international organizations, (2) the delegation of competence to regulatory agencies, created by legislators, and (3) the internal organization of legislatures in which committees are created which remain, however, under the legislature's supervision. The decision to delegate either to a domestic agency or to an international organization has practically never been analyzed within a single framework. We thus present a simple model trying to unify the first two approaches.

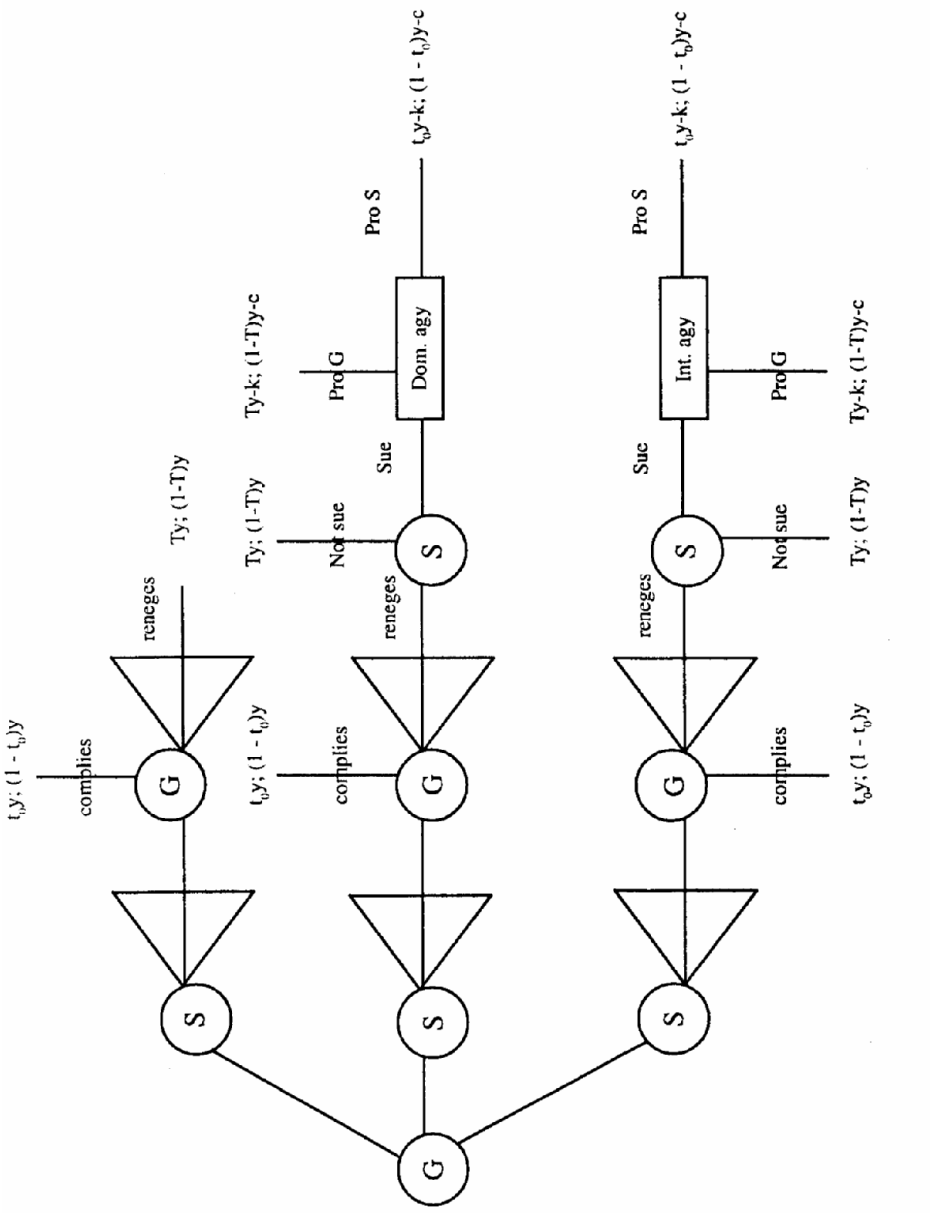
We propose to start with a game in which the main emphasis is on the capacity of a government to credibly commit itself. This rapacity might be influenced by whether the legislators decide to decide themselves or to delegate in such a way that their promises would be enforced by independent agencies. Since the degree of the delegatee's independence might depend also on whether we are dealing with domestic or international agencies, the capacity to credibly commit to certain policies might be influenced not only by the decision whether to delegate, but also by the mode of delegation chosen. We chose to focus on commitment capacity because we believe it to be crucial for the countries in transition whose delegation decisions are analyzed in Salzberger and Voigt (2002).

[7] Putnam (1993) has shown that differences in the quality of local infrastructure goods among the various regions of Italy can be explained with the differences in the relevance of such voluntary founded and horizontally organized associations La Porta et al. (1997) asked whether this relationship holds for a larger number of countries, i.e. generally, and found evidence in support of that hypothesis

A simple game

There are three actors in this game, two of which interact strategically and who are supposed to be risk-neutral. Government (G) either acts itself or delegates some competence to an independent agency either domestically or internationally. Subjects (S), in turn, can either consume or invest. Once invested, they are subject to *ex post* opportunism by G. In case G has created or joined an agency *ex ante,* subjects can carry their case there and sue G. The prospect of losing there might lead G not to renege on its promises. Since this will only occur if it has created or joined an agency *ex ante,* this consideration might be the reason for creating agencies in the first place. The third actor in this game is the (domestic or international) agency. It is not modelled as interacting strategically with the other two actors but its moves are simply interpreted as a move of nature, i.e. the agency decides with a certain probability in favor of the plaintiffs. The probability of deciding in favor or against a plaintiff might depend on whether the agency is domestic or international.

Figure 1: The game in extensive form



The game is modeled as a one-shot game. Drawing on the distinction between constitutional and post-constitutional choice, we assume a constitution to be exogenously given. Assume that the constitution guarantees private property rights. In the model, this is expressed by a level that a variable t can maximally have. This variable not only comprises taxes but also the costs that are due to additional regulation, which reduce profits. The tax and regulation level in conformity with the constitution is called t_o here.

G moves first and decides whether it wants to keep on deciding itself in the future or whether it creates a domestic agency - or joins an international one. Subsequently, S has to decide whether to consume or invest a share of his endowment; assume that individual income **y** increases with investment. A decision to invest not only means to forgo some consumption now, but also to make oneself subject to *ex post* opportunism by G. In the next stage, G has to decide whether it wants to comply with the constitution, i.e. charge up to t_0 for its services, or whether it wants to renege and charge a level beyond that which we will call T (with $T > t_0$) here.

If G has not created or joined an agency, the game is over now, i.e. there is no possibility for S to sue G for not having complied with the constitution.

But if G has decided to delegate some of its powers, S has the option to sue G in case it has reneged upon to.[8] Taking a case to court will cost S c. We assume that it does not matter whether a case is taken to a domestic or to an international agency. In case G is sued, it will have to bear costs k - with c and k being common knowledge. Once S has sued G, the agency decides. We assume that it makes an either-or decision, i.e., it will not attempt to find a middle of the road position. We call the probability that the domestic agency decides in favor of S p, and the probability that the international agency decides in favor of S analogously q. We assume that an international agency enjoys a higher degree of independence than a domestic one. Chances that it will take political considerations into account therefore appear to be lower which translates into $q > p$.[9]

G is thus interested in two things, namely in high investment by S and - once these are sunk - in exploiting parts of it by setting T. Yet, S will anticipate this, which would lead to low investment. This could lead G in having an interest in being able to credibly commit itself to comply with the constitutionally defined t_0. Under certain circumstances, G might therefore be interested in using an agency to do just that. In the remainder of this section, we want to examine these conditions. This will be done by backward induction.

The first step in walking back: to sue or not to sue

In case there is an agency, the game will be over after nature has revealed the agency's decision. Before that, **S** has to decide whether to give in after **G** has reneged upon the constitution or whether to sue **G**. If **S** does not sue, his payoff is (1 - T) y. If he sues, his expected payoff is $p (1 - t_0) y + (1 - p) (1 - T) y - c$. He will thus sue, iff

$$p(1-t_0)y+(1-p)(1-T)y-c>(1-T)y.$$

This can be rearranged to

$$p(T-t_0)y>c.$$

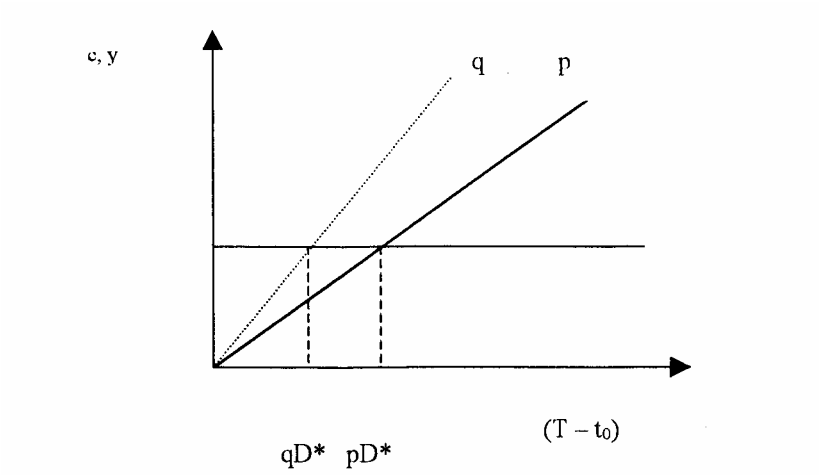
For the international agency, the analogous equation reads:

$$q(T-t_0)y>c.$$

Interpreting the "suing condition", we see that **S** will only sue if the expected payoff from doing so (probability of winning times the differences in payoff of complying with the exploitation attempt minus not accepting and winning) exceeds the costs of suing. Figure 2 shows this graphically.

[8] For simplicity, we assume that an agency can perfectly recognize unfounded cases and will refuse to deal with them. This is common knowledge and will lead S to go only to court when **G** has indeed exceeded t_0. Kirstein 1999 deals with the issues that arise when courts cannot perfectly monitor unfounded cases, i.e. when strategic suing is an option.

[9] This assumption is, of course, debatable. It could be argued that L could simply exit from the international agency etc.



Up to the exploitation level pD* (or qD*), S will not sue. If q>p holds, it is already quite obvious that an international agency can reduce the maximum exploitation that G gets away with without being sued.

The second step in backward induction: to comply or to renege?

In this stage of the game, G has to decide whether he wants to comply with the constitution (i.e. play t_0), or renege (i.e. play T). With his decision in this stage, G triggers S's behaviour in the next stage of the game, i.e. he can induce him either to give in or to sue him.

Theoretically, three cases might become relevant:

(1) G complies with the constitution, which yields a payoff of t_0y to him.

(2) G does not comply with the constitution but can avoid being sued, i.e. S gives in. This yields a payoff of D*y for G.

(3) G does not comply with the constitution and gets sued. In this case, his expected payoff would be $pt_0y + (1-p)\ T\ y - k$.

With a given y at this stage of the game and the additional assumption that exploitation as such does not cause any exploitation costs, (2) would dominate (1). We can thus confine ourselves to analyzing under what conditions **G** will prefer avoid being sued over being sued. If he accepts being sued it does not make sense to constrain himself in exploitation, in other words, once he accepts to be sued he will rationally choose a maximum level of exploitation and thus set T = 1. The expected payoff from exploit *and* being sued can be rewritten as

$pt_0y + (l - p)\ y - k$

Remember that the suing condition for S was $p\ (T - t_0)y > c$ for the case with a domestic agency. This can be rearranged to

$(T - 1_0) > c/py$.

If G wants to exploit S without being sued he will choose an exploitation level D* such that $(T - 1_0) = c/py$ holds. His payoff in this case would be $(T - t_0)\ y$ which is

equivalent to cy/py or simply c/p.[10] G will thus prefer to exploit and being sued iff

$pt_0y + (l-p)\ y-k>c/p.$

This can be rewritten as

$y + p(t_0-l)y-c/p>k.$

y is the entire yield, the term $p(t_0 - l)y$ is negative since $(t_0 - 1)$ is negative. This share $y + p(t_0 - l)y$ minus the payoff G could have secured if he had exploited S only to such an extent that S would not have sued him must outweigh the costs of being sued k. Again, for the international agency the analogous condition would be

$y + q(t_0 - l)y - c/q > k.$

The probability of losing p (q) appears twice: the higher it is, the lower the share that results from $y + py(t_0 - 1)$. Also, the higher it is, the lower the payoff from exploitation without being sued. But since this payoff is reduced from the first term, it has an ambivalent effect for G's decision.

So far, we have thus seen that G will always choose a level of T that surpasses the constitutionally agreed upon one t_0 but that the exact level of T chosen can depend on (a) whether an independent agency exists at all and on (b) where the independent agency is anchored. What remains to be seen is the question whether G can secure a higher payoff in case an agency exists. Only if that is the case will it have an incentive to create (or join) an agency in the first stage of the game. Whether it pays or not depends on the investment behavior of S.

Walking even further backwards: to invest or not to invest

We assume that increasing tax levels reduce investment ($I' < 0$) and that y increases in investment ($y' > 0$). In the simple one shot game depicted here, there is nothing that could hinder L from setting T = 1 if there is no .agency (since we did not introduce a cost component of exploitation either in real costs of collecting the yield or in an increasing probability for being overthrown).[11] We should thus expect a very low investment level in case of no agency. It will definitely be lower than the one we can expect in case there is an agency. Since we know already that G will *c .p.* set a higher tax level in case of a domestic rather than an international agency, we also know - even without specifying the investment function further - that investment in case of an international organization will be higher than in case of a national one which will translate into a higher y in case of an international organization.

Finishing backward induction at the very start: to choose or choosing not to choose

Whether it pays for G to create an agency depends on the elasticity of y with regard to t. There might very well be cases in which G will be better off by joining an international organization rather than by setting up a domestic agency of its own. If we assume parameters c and k given, this result is primarily driven by the difference between p and q (which we also assume to be given). A government that does not want

[10] Correspondingly, the payoff of S is y-c/p in this case.
[11] For such considerations, see Kirstein and Voigt 2000.

to join an international organization but still wants to induce high levels of investment might also try to achieve a low c going along with a high k.

The model could be made more realistic by introducing the possibility that an agency might take wrong decisions, by taking into account that the government will face exploitation costs other than reduced levels of investment, by relieving the monolithic bloc assumptions concerning G and S and thus admitting collective action problems, by introducing the possibility that G could exit the international agency or sack the domestic one as a consequence of an unfavorable decision, by modeling it as an (in)finitely repeated game etc. This model has solely focused on the capacity of a government to credibly commit and to the investment behavior that result from differential commitment capacities. A number of more refined models focusing on other aspects of the delegation decision will be necessary in order to get to grips with all the aspects involved.

In this section we have described some of the problems pertinent to the economic analysis of the separation of powers, including commitment and credibility problems, the issue of time inconsistency, but also the possible relevance of informal institutions. We now turn to have a look at the little available empirical evidence and combine the look with the presentation of a number of questions that remained unanswered.

4. Empirical Issues

4.1 Some Methodological Priors

Empirical research concerned with the effects of basic institutions on income and growth levels has experienced quite a boost in recent years. One reason for this is the increased availability of data. To name but one example: ten years ago, the effects of various degrees of economic freedom on income and growth were usually measured by a very crude and - as it turned out - often wildly inaccurate proxy, namely the degree of democracy observed in a country (for a survey see Przeworski and Limongi 1993). This has only changed by the generation of detailed freedom data produced by the Economic Freedom Network on an annual basis (see, e.g., Gwartney, Lawson, Park and Skipton 2000; Sturm and de Haan 2001 provide a survey of results found by using these data).

Also, easily obtainable und usable data banks have been provided by some international organizations such as the World Bank (see, e.g., (he Databank of Political Institutions by Beck et al. 2001; but it also the various government indicators made available by Kaufmann et al. 1999a, 1999b). Of course, there remain deficiencies. The author of this paper has been involved in some attempts to produce new datasets, e.g., with reference to the independence of the judiciary.

The precondition for being able to estimate models concerned with the consequences of delegating powers to national and/or international organizations empirically is the availability of some indicator for the degree of delegation both domestically and internationally. Candidates for measuring international delegation could be whether there is a constitutional basis for transferring sovereign rights, what status international law and international agreements enjoy in the legal system of the various countries and - of course - the number of international organizations that a country is member of. Ascertaining domestic delegation should be more cumbersome: domestic agencies grossly vary in structure and do not lend themselves to easy comparison.

Additionally, it is not the letter of the law that is of central interest but the factual situation found in the countries under scrutiny. This is, of course, even more difficult to ascertain than the letter of the law.

4.2 Exogenously Given Institutions

4.2.1 Domestic Institutions

In this section, we take a look at various domestic government agencies, which we assume to be exogenously given. We are primarily interested in the economically relevant effects that they provoke. We propose to look at (i) the economic consequences of central banks, (ii) the economic consequences of the judiciary, (iii) the economic consequences of prosecution agencies, and (iv) the consequences of independent competition authorities. This order was chosen not because of possible cause-effect relationships but because research concerning the effects of independent central banks is clearly most advanced and we suppose that some of the results can be transferred to the other three (independent) branches or government agencies mentioned.

4.2.1.1 Independent Central Banks

With regard to monetary policy, it had been suspected for a long time that more independent central banks would be correlated with lower degrees of inflation. To make such a suspicion empirically tractable, one needs indicators with which the degree of independence of various central banks become comparable. Since the early 1990ies. a number of such indicators have been constructed (Grilli, Masciandaro, and Tabellini 1991, Cukierman 1992, Cukierman, Webb, and Neyapti 1992, and Debelle and Fischer 1995 are examples). It turned out that the degree of central bank independence (CBI) is indeed a good indicator for the inflation rate one can expect in a given currency, at least for the industrialized countries. There is an intense debate about advantages and disadvantages of the various components that make up the indicators (Berger, de Haan, and Eijffinger 2001 is a good survey of the discussion). The possible divergence between *de iure* and *de facto* independence, i.e. between the legal foundations of a central bank and the actual independence which central bankers really enjoy is taken into account e.g. by Cukierman's (1992) "turnover rate". For less developed countries, the turnover rate is a much better proxy for predicting inflation rates than *de iure* independence. It is thus important to distinguish between *de iure* and *de facto* CBI and it almost suggests itself to inquire into the determinants that can explain the difference between the two concepts. This is equivalent to an endogenization of CBI and will thus be taken up in section 4.3 of this paper. There, it will be hypothesized that the *de facto* degree of judicial independence could be an important variable explaining the congruence (or diversion) between *de iure* and *de facto* CBI.

4.2.1.2 Economic Consequences of an Independent Judiciary

It can be conjectured that more independent judiciaries have important economic effects: the more independent they are, the more certain can a citizen be that in case of a conflict between state and individual it is not the state who wins simply because it is the state but on the merits of the case under scrutiny. Independent judiciaries will therefore increase the certainty of expectations a citizen has vis-a-vis state actions. This might lead to higher investment levels, which might, in (urn, lead to higher growth rates.

For a long time, estimating the effects of a (factually) independent judiciary on economic growth was believed to be desirable but infeasible due to the impossibility to quantify a concept as fuzzy as judicial independence. Recently, two new indicators measuring *de iure* as well as *de facto* **JI** have, however, been presented (Voigt 2001). For simplicity reasons, these indicators measure the independence of the highest court of a country, no matter whether it is a supreme court or a constitutional court. In many states, the judiciary is made up of thousands of decision-makers and, therefore, radical simplification is necessary. The focus on the highest court seems warranted because even though courts are personally independent, the ultimate control of court decisions lies with the highest courts, as they review - on the initiative of the parties involved - the lower court decisions. The independence of the highest court thus seems crucial.

The indicator measuring *de iure* **JI** contains twelve variables, the indicator measuring *de facto* **JI** eight. The *de iure* indicator includes variables such as the modus of nominating or appointing highest judges, their term lengths, the possibility of re-appointment, the procedure of removing them from office, their pay and possible measures against reduction of their income, the accessibility of the court, the question of whether there is a general rule allocating cases to specific judges, and publication requirements concerning the decisions of the court. The *de facto* indicator includes variables such as the effective average term lengths, the number of times judges have been removed from office since 1960, the question of whether their income has remained at least constant in real terms since 1960, the size of the budget of the court, and the number of cases in which the relevant articles of the constitution were changed as well as the number of times in which other government branches remained inactive when their action was necessary in order to implement a court ruling.

All variables can take on values between 0 and 1. The sum of the variables is then divided by the number of variables for which information is available. One thus ends up with two variables *{de iure* and *de facto)* that can lie between 0 and 1. By now, data are available for about 100 countries. Feld and Voigt (2003) find that while *de iure* **JI** does not have an impact on economic growth, *de facto* .11 positively influences real GDP per capita growth in a sample of 56 countries. The impact *aide facto* **JI** on economic growth is robust to outliers, to the inclusion of several additional economic, legal and political control variables and to the construction of the index. The authors thus conclude that judicial independence matters for economic growth.

The German court system is highly specialized with seven different types of courts. One possible extension of the research agenda with regard to the effects of the judiciary would be to compare the effects of specialized and less specialized court systems. We conjecture that more specialized systems will lead to a higher degree of drift (i.e. courts will more easily move away from the intentions of those establishing the court system) and secondly to less coherence with regard to overall jurisdiction because more specialized judges will put more heavy emphasis on their specific area and neglect the compatibility with other areas. An example could be the German judges on the social and labor courts that tend to neglect the costs their decisions imply for employers - and the economy as a whole.[12]

[12] An alternative conjecture is that the costs they impose with their decisions on employers depend on the business cycle: during recessions, they would be more careful with imposing additional burdens on employers than during times of full employment. More conjectures come to mind: the amount of costs might depend on (i) the profitability of the relevant firm, (ii) on the size of its labor force, etc.

4.2.1.3 Economic Consequences of an Independent Procuracy

Having shown that an independent judiciary is conducive to economic growth, a logical next step is to inquire into the differential economic consequences that various modes of setting up state prosecution agencies have. In most legal systems, the judiciary cannot initiate proceedings by itself but depends on the procuracy - and possibly some other organizations. In most legal systems, the prosecution of criminal acts is the task of the executive branch of government. Hence a suboptimal prosecution rate can be expected in case the alleged crimes have been committed by members of the executive - and possibly also by members of the legislature.[13]

Aaken, Salzberger, and Voigt (2002) have recently proposed a number of hypotheses with regard to the incentive structure of prosecutors. Their central argument is that the structure of the prosecution agency found in a given country can be an important determinant of the amount of crimes committed by politicians. It can be interpreted as complementing other recently published papers in which it has been argued that criminal behavior by politicians and other public figures can be explained by drawing on regulatory policies (Ades and di Tella 1999), on the level of economic development more generally, on historical and cultural factors (Treisman 2000), or on political institutions - more precisely electoral institutions - (Persson et al. 2001, Golden and Chang 2001). Such behavior is contingent also on the way criminal acts are investigated and prosecuted.

In other words, the level of corruption will crucially depend on a subset of legal institutions, in particular those of the prosecution system of a country, as public prosecutors can be seen as the main gatekeepers of criminal justice. It is conjectured that the probability of prosecution of crimes committed by government officials is an important determinant in the amount of crimes committed by government officials. The authors name a couple of variables that could be relevant for the probability that government members will be prosecuted after having committed a crime. They argue

(i) that legal discretion provides incentives for the government to try to influence the procuracy. Possible sources for legal discretion can, inter alia, be the opportunity principle (as opposed to the principle of mandatory prosecution) or the high salience of indeterminate legal terms;

(ii) that judicial review of the prosecutors' decision to prosecute (not to prosecute) increases the likelihood that crimes committed by government members get prosecuted. This would in particular be the case for judicial review in cases in which the procuracy decided not to prosecute;

(iii) that a monopoly to indict held by the procuracy would reduce the likelihood that crimes committed by government members get prosecuted;

(iv) that the subjection of prosecutors to instructions and orders would reduce the likelihood that crimes committed by government members get prosecuted. Aaken, Salzberger and Voigt (2002) differentiate between external orders given, e.g., by the minister of justice and internal orders given, e.g., by the head prosecutor and conjecture that the possibility of external orders would be particularly detrimental;

(v) that the likelihood that crimes committed by government members get prosecuted

[13] Inversely, the executive could insure the procuracy to have unpopular members of the opposition prosecuted to an unwarranted degree

also depends on the structural independence granted to prosecutors which is manifested in their appointment procedures, their term length, their typical career paths (who has the competence of promotion?) etc.

In order to test their hypothesis, the authors have devised a questionnaire containing some two dozen questions that capture most of the aspects conjectured to be relevant in the sense just described. The available corruption indices will be regressed upon this newly created indicator and the hypotheses just sketched thus put to an empirical test.

4.2.1.4. The Relevance of Other Independent Agencies

Quite a few other government agencies have functions comparable to that of central banks: whereas central banks are to secure stable money, environmental agencies are to secure a healthy environment, regulation agencies are to secure safety standards as well as a "fair" division of the rents between producers and consumers ensuing from some regulated activities, and competition agencies are to secure fair competition conducive to additional welfare gains. Yet there has been little research on these questions.

One reason for this might be that the goal of central banks is easily quantifiable and their success easily verifiable. This is not the case with regard to the other agencies just named: their goal is often not easily quantifiable and they might indeed be allocated a number of goals leading to the necessity of tradeoffs. It is impossible to discuss all relevant aspects with regard to all government agencies here. Instead, we highlight some of the relevant issues with regard to competition authorities in an exemplary fashion.

Independent government agencies have the advantage of not having to look for general popularity because they do not get reelected by the citizen voters. This enables them to carry out decisions that are unpopular in the short run but may enhance efficiency in the long run. They can thus be an instrument to ease the problem of time inconsistency. At times, competition authorities will have to agree to mergers that promise to be efficiency enhancing but that are highly unpopular due to substantial job cuts. More generally, governments are often tempted to make industrial policy by actively manipulating the structure of certain markets etc. Often, the competence over competition policy instruments can enable governments to carry out such policies. If the competition law of a country unequivocally and exclusively names the maintenance of an adequate framework for competition as the goal to be achieved and hands the authority to realize this goal to an independent agency, then competition policy should be more focused and more effective.[14]

Another important aspect of competition policy is its predictability: if firms considering a merger can form correct expectations of whether a proposed merger would be endorsed or not, this would not only reduce the costs that are involved with mergers that are started but must then be unraveled because they are vetoed but also those mergers that would be welfare enhancing but are never pursued because the potential participants expect the competition authorities to turn it down.

Next to the independence and the quality (in the sense of predictability) of

[14] This presupposes that the two areas mentioned - maintenance of competitive framework on the one hand and industrial policy - cannot only be distinguished conceptually but also empirically.

competition authorities, additional aspects that could be relevant are:

- how broad the competences of a competition authority are (investigatory, prosecutorial, decision-making functions combined as in the EU?) and whether different persons carry out the various tasks of the competition authority;
- whether the information and decision-making process of the competition authority follows an adversarial or an inquisitional set-up;
- whether decisions of the competition authorities can be appealed, and if so, how long this process takes:
- whether the burden of proof is with the competition authorities or the firms suspected to behave in a manner incompatible with the relevant competition law;
- whether the competition authorities themselves but also the appellate bodies can draw on economic expertise in order to prepare their decisions;
- whether officials of the competition authorities are perceived to be corrupt;
- how possible conflicts with (i) other domestic regulation agencies, with (ii) competition agencies in other countries, and with (iii) supranational competition agencies are settled.

To the best of my knowledge, no research has been carried out in this area. If the approach advocated in this paper is followed, a new dataset on the various characteristics of the competition authorities is needed. As a first step, it might, however, be interesting to use available subjective evidence concerning the quality of the competition agencies. This is, e.g., provided by IMD's annual survey of competitiveness in the world.

As mentioned above, the analyis of the effects of (independent) government agencies need not be constrained to those explicitly mentioned here. Others include election commissions[15], statistical offices, accounting offices etc

4.2.2 International Institutions

With regard to domestic institutions, their effects on economic growth and other economically relevant variables were estimated by comparing the consequences of different institutions (degrees of independence etc.). This approach is not easily carried over to the estimation of the effects of international institutions, one of their defining attributes being that they are made up of a multitude of members, namely the nation-states.

Two approaches seem to suggest themselves: to compare how the members of an international organization are faring compared to the non-members. This would only be sound if all other possibly relevant differences could be properly controlled for, i.e. if the ceteris paribus condition could be secured. This appears to be next to impossible. The second possible method does not promise to be much easier: here one would set out to compare the effects of international organizations that are restricted to regional areas.

[15] Prima facie, election commissions would seem to exert little influence on economically relevant variables. Yet, one could argue that impartial decisions on elections can be an important aspect in stabilizing democracies and stability could be an important precondition for low interest rates and high investment levels. Situations in which the independence of electoral commissions would seem important include the prevention of gerrymandering, reallocation of parliamentary representation according to political interest, manipulation of election dates, counting of the votes etc.

Again, this approach is laden with difficulties: some of the cross-country studies introduce dummy variables for continents (mostly Africa and Latin America) and all the differences between the regions that go beyond the differences in the organizational set-up could not be properly taken care of following such an approach.

Yet, maybe a mixture of the two "pure" approaches just sketched can do the job: compare the economic performance of a country before and after joining a (regional) international organization. There are some empirical studies estimating growth rates of the late entrants into the EU. The usually show that subsequent to membership, growth rates can significantly pick up (as seems to have been the case in, e.g., Ireland, Spain and Portugal) but that membership in itself is not sufficient but that additionally, domestic effects are needed (which seem to be lacking in Greece that remains behind on almost all accounts).

4.3 Endogenizing Institutions

In section 4.2, we assumed the various government branches and agencies as given and asked whether differences in their structure could help to explain differences in economically relevant variables such as growth rates between countries. The step taken in this section almost suggests itself: given that some structures are more conducive to economic growth, how come the most successful institutional structures are not simply emulated by the less successful countries? Are there any variables that constrain the emulation of institutions that have proven to be successful elsewhere? In short: what are the variables that explain the differences in the factual independence of the judiciary, the central bank and so forth.

We hypothesize that *de facto* **JI** is crucial for the *de facto* independence of other formally independent government agencies. This is why we begin this section of the paper with some insights concerning the variables determining *de facto* **JI** and then turn to possible factors determining the factual independence of other government agencies.

Having at one's disposal indicators of both **CBI** and **JI** could help to ascertain their relationship empirically. It can be conjectured that judicial independence precedes central bank independence, in other words, that one can explain central bank independence by looking at judicial independence. A competing hypothesis would, of course, be that it is a third factor that explains both central bank and judicial independence. This could, e.g., be the reputation that both central banks and constitutional courts enjoy among the population at large (a good reputation of these organs will make it less attractive for members of government to tinker with their independence since that will make government less popular among its citizens).

But hypotheses which would become empirically tractable are not confined to possible interdependencies between central bank independence and judicial independence. One could, e.g., ask whether certain constitutional structures are more conducive to independent judiciaries than others. To give but one possible example: it could be argued that the necessity of a court resolving conflicts between constitutional organs is higher in federally structured states than in unitary states and that we should therefore expect more independent judiciaries in the former.

Regression analysis such as that just proposed depends upon the possibility to

operationalize or code all the information one wants to use. This might lead to interesting new insights but will invariably be connected with disregarding information that might also be relevant. A second methodological approach of analyzing the independence of various government agencies could therefore consist in comparing the development of a small number of courts in more detail, i.e. in carrying out case-studies.

Before we turn to discussing the various government agencies one by one, we want to propose some hypotheses regarding the delegation decision of legislators. As already spelled out above, these are testable in principle, yet an indicator for both domestic and international delegation is needed.

The following hypotheses have been elaborated in more detail in Voigt and Salzberger (2002); they are thus only spelled out here:

- Majority Rule will lead to higher levels of both domestic and international delegation;
- the higher the number of elected legislators per voting district, the lower the levels of both domestic and international delegation;
- the higher the *de facto* independence of the judiciary, the higher the levels of both domestic and international delegation;
- the effect of common vs. civil law on delegation is unclear *prima facie;*
- the higher the number of domestic veto players, the higher the levels of both domestic and international delegation;
- compared with unitary states, federal states should display a higher level of international delegation;
- the higher the level of domestic delegation, the higher the level of international delegation.

We now turn to some preliminary evidence as well as some pertinent research questions will regard to specific agencies.

4.3.1 Domestic Institutions

4.3.1.1 Explaining *de facto* JI

Based on the above-mentioned new indicators for both *de hire* and *de facto* judicial independence. Hayo and Voigt (2003) recently inquired into the variables that could predict the level of factual **JI** to be found in a given country. They started from the observation that on the basis of 80 countries, the partial correlation coefficient between *de iure* and *de facto* **JI** is a meager 0.22 and *de iure* **JI** thus a rather poor predictor of *de facto* **JI.** They distinguish between exogenous explanatory variables that can - at least in the short or medium term - not be influenced and exogenous explanatory variables that can - at least in principle - be changed in the short run. Among the first group they include ethnic diversity of a society, its religious traditions, and its legal history. Examples for factors that are - at least in principle - subject to deliberate modification are the number of political constraints of a political system, the question of whether it is a unitary or a federal system or what type of court system a country chooses to set up. Such an approach was chosen because it promises to shed light on the question to which degree a society has the capacity to

establish a judiciary that is not only formally independent but that is indeed factually so.

Using a rigorous model reduction process in the empirical analysis, they show that five variables appear to be of particular relevance for explaining the level of *de facto* **JI**. *De facto* **JI** is increased by *de iure* **JI**, confidence of the population in the legal system, per capita income, political instability, and by parliamentary systems as opposed to presidential ones. These results should, however, be read with some caution. First, a number of variables that one would classify as important influences on *de facto* **JI,** for example the factor "collective action", turn out to be insignificant. As these variables are only available for a rather small number of countries, we may simply be lacking enough observations to disentangle their effects. Thus, it is a desideratum to construct indicators for the other theoretically relevant variables that are available for the entire sample size. Secondly, the data for *de iure* as well as *de-facto* **JI** are not beyond any doubt.

More research concerning the transformation mechanisms that drive the results is certainly necessary. To name but one example: why is it that higher GNP per capita is correlated with higher levels of *de facto* **JI**? What is the actual cause behind this correlation?

4.3.1.2 Explaining *de facto* Central Bank Independence

There is a large literature concerned with the analysis of CBI. Early on, some of the most important authors in this field pointed to the non-congruence of de *iure* and *de facto* independence. Cukierman (1994, 1438) stressed a possible connection between the rule of law and de facto CBI: „Legal independence is a reasonable proxy for actual independence provided there is sufficient respect for the rule of law in the country under consideration. "Within the CBI literature there is one group of scholars who argue that CBI and price stability might indeed be correlated but the CBI might not cause price stability but that there might be a third factor which determines both CBI and price stability. One possible candidate that has been proposed is the inflation- or stability-culture of a country (Hayo 1998): Assuming that neither preferences nor institutions are fix, it is argued that experiences with inflation might induce preferences for price stability and that these lead to the founding of an independent central bank. If, following this decision, the inflation rates do indeed decrease, the public support of the central bank increases which enables it to realize even lower inflation rates and so forth. There is thus a feedback mechanism. Hayo delivers empirical evidence in favor of his hypothesis: using Eurobarometer data, he shows that there is a relationship between stability culture and low inflation, Before, Posen (1993) had doubts that low inflation rates could be explained with a high degree of (formal) CBI but had advanced the hypothesis that the political weight of those group having an influence in low inflation rates were decisive and had explicitly mentioned the financial sector.

Voigt (2002) advances the hypothesis that the divergence between *de jure* and *de facto* CBI can be explained with the different degree to which countries are able to make credible commitments. It is further argued that this capacity is partially determined by *de facto* **JI.** It is not conjectured that a supreme court would solve conflicts between the central bank and government but instead, the degree of *de facto* **JI** is taken as a proxy for the degree to which the rule of law is realized in a given country, i.e., for the degree to which government officials are constrained by rules. In

order to test this hypothesis, one could therefore also draw on indicators measuring the "rule of law".[16]

It can be conjectured that the capacity of representatives of central banks to increase their competence over time, are correlated with the reputation that they enjoy in public. It would therefore be rational for them, to invest in reputation and prestige. Endogenizing reputation would thus be an interest point on the research agenda.

4.3.2 International Institutions

There is an immensely high number of international organizations. Analyzing their development, it would probably make sense to devise a taxonomy that classifies them according to theoretically derived and plausible criteria. It would - inter alia - inform us about how decisions in international organizations are taken. With regard to nation state constitutions, a typology classifying them as parliamentary vs. presidential, uni- vs. bicameral, unitary vs. federal etc. has emerged. A similar typology with regard to international organizations could probably help in explaining why nation states have delegated certain competence and how decisions within these organizations are made.

The regimes created by various international organizations can be interpreted as "proto-constitutions." The creation of nation state constitutions has been analyzed by drawing on the economic approach (McGuire and Ohsfeldt 1989a, 1989b). It almost seems to suggest itself to apply this approach in order to understand the creation and development of international organizations. Possible *explananda* include: the scope of authority delegated, the procedure used for determining delegates and for creating the constitution of the newly created international organization, the role and extent of agenda setting, the decision rules used within the international organization etc. etc.

5. Normative Issues and Outlook

In this paper, the emphasis was on positive issues. But normative issues always loom large: under what conditions should competences be delegated? Should delegation be confined to issues in which time inconsistency problems are important? Should the agencies be granted the power to finance themselves? What effects does delegation entail in terms of legitimacy? Could it even undermine the stability of democratic regimes? What is the optimal degree of judicial independence? Is there a degree beyond which the "least dangerous branch" (Hamilton) turns into a dangerous one? What are the consequences of a variety of independent agencies on political transaction costs? How about the possibilities that policies pursued by the various agencies are inconsistent with each other? What are the consequences on the possibilities to carry out welfare-enhancing log rolling? What are the likely effects on rent seeking? Etc.

We do not want to enter this discussion in any detail but simply broaden the scope of interest even further. In this paper, specialized agencies have played an important role. These are part of the executive or the judiciary. With regard to the legislature we do, however, observe that most countries only dispose of one single parliament and not

[16] Although it is not the central focus of this conjecture, it could still be interesting to know whether there are central banks that have the competence to sue their government in case they believe their independence has been breached. The opposite would also be interesting to know: does government have the competence sue the members of the board because it believes that they have been taking wrong decisions?

specialized ones responsible for various activities. One could thus ask whether the optimal number of parliaments is really one (or one plus the number of state parliaments in federally organized states). Why should there not be any gains from specialization? Why should members of different parliaments not be elected according to different rules and for different periods of time? Would it make sense to have one parliament dealing with externalities, another one dealing with natural monopolies and so on? Or one for allocation and another one for distribution issues? These questions have never been systematically dealt with. What would such a modified set up imply for the amount of political transaction costs, for the amount of resources spent on rent seeking, for the legitimacy of parliament, for the ability of (welfare enhancing) logrolling etc.?

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