

State and prospect of Public Choice: A European view*

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1. Presuppositions

Public Choice scholars, including the present author, take it for granted that Public Choice is an important subject and that it has become increasingly prominent within economics as well as in political science. A European Public Choice scholar is also inclined to believe that over time the European share of contributions has been rising.

This paper proposes to collect evidence on whether these presuppositions are indeed true. Section 2 deals with the importance of Public Choice within economics and political science. Section 3 inquires into the role European scholars have played in the development of Public Choice over time. The next section is devoted to substantive issues: a subjective evaluation of those areas which the author finds the most fascinating today and the most promising in the future (section 4). Section 5 argues that Public Choice should transgress traditional limits and extend the orthodox economic model of man to encompass feature neglected so far. Section 6 offers concluding remarks.

2. Victory of Public Choice?

Has Public Choice gained in importance in economics? How does its importance compare to other fields today? An obvious measure to attempt to answer these questions is the share of "Public Choice" articles in professional economics journals. The following procedure has been used: (1) The "top five" journals in economics have been selected. According to the studies devoted to the journals' rankings (e.g. Hawkins, Ritter and Walter,

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1973) considerable consensus exists of what the leading journals are. (2) Three data points are selected: The present (i.e. the average over 1982/83); ten years ago (i.e. the average over 1972/73), and twenty years ago (i.e. the average over 1962/63). (3) Each article and note has been classified by the author according to whether it belongs to the "Public Choice" tradition or not. While a subjective element certainly enters here, an independent check by other persons has shown considerable consensus of what a "Public Choice" article is.

The results of the analysis are presented in Table 1, top section.

The comforting result is that the share of Public Choice articles in the top five economics journals (*AER*, *Econometrica*, *QJE*, *REcsStats*, *JPE*) has steadily increased from 1.2% in 1962/63 to 2.4% in 1972/73, to 3.2% in 1982/83. There is, however, a strong upward trend (from 0% to 4%) in only one journal, the *American Economic Review*. A much weaker upward trend is visible in the *Journal of Political Economy* (from 0.9% to 2.9%), The other top journals do not exhibit a clearly visible trend. For the *Quarterly Journal of Economics* and the *Review of Economics and Statistics* there is a low in 1972/73, and an increase over the last ten years, and for *Econometrica* there is a high in 1972/73 (with 6.7% of all articles being Public Choice), but this share is reduced to less than half today.

Overall, it would be difficult to speak of a striking victory of Public Choice. The success is rather limited: the present share of Public Choice articles in the top economics journals is "merely" 3.2%.¹

The top five journals considered so far are American.² Does the result differ if one looks at leading European economics journals? (see Table 1, middle). Among the two selected, the *Economic Journal* is the only one so far which does not have a rise of the share of Public Choice articles between 1962/63 and 1982/83, the share being in both periods 3%. *Kyklos* exhibits the same continuous increase as do the *AER* and the *JPE*, but it is even more marked: from 0% in 1962/63 the share rises to 10.7% in 1982/83.³

As Public Choice has in general not had a striking victory in economics, one might look at political science (see Table 1, bottom). In this field there is one journal considered to be by far the best, by general agreement: in the *American Political Science Review* the share of Public Choice contributions has a marked tendency to rise (from 2.6% in 1962/63 to 8.5% in 1972/73) and today is highest among all the journals so far considered, accounting for more than 17% of all articles (and notes). This is indeed a clear victory. An equally favourable picture appears from an analysis of the *European Journal of Political Research*, the organ of the professional political scientists in Europe (the European Consortium of Political Research). In 1982/83, 8.2% of the articles belonged to the Public Choice tradition. However, this share has strongly diminished over the last years, the high point being in 1981 with a share of 21.7%, to 10.7% in 1982 and 5.6% in 1983. If one looks at one

Table 1. Share of Public Choice articles in leading professional journals (in percent) 1962/63, 1972/73, and 1982/83

Journal	years			Average over indicated years
	1962/63	1972/73	1982/83	
<i>"Top Five" in economics</i>				
American Economic Review	0	1.3	4.0	1.8
Econometrica	1.3	6.7	3.1	3.7
Quarterly Journal of Economics	2.8	1.5	3.6	2.6
Review of Economics and Statistics	0.8	0	2.4	1.1
Journal of Political Economy	0.9	2.7	2.9	2.2
Average	1.2	2.4	3.2	2.3
<i>European journals in economics</i>				
Economic Journal	3.0	0	3.0	2.0
Kyklos	0	4.7	10.7	5.1
<i>Political science journals</i>				
American Political Science Review	2.6	8.5	17.3	9.5
European Journal of Political Research			8.2	
American Journal of Politics	1.5	1.2	13.5	5.7

Note: "articles" include notes and memoranda.

of the other publication outlets considered respectable, the *American Journal of Politics*, it may be seen that Public Choice was of little importance: the share was between 1% and 2% twenty and ten years ago, and has now risen to 13.5% of all articles and notes published. The picture for Public Choice is therefore somewhat more comforting in political science, especially in the most recent years.

It may be argued that what matters for a "movement" such as Public Choice is not so much its share in overall journal publications but whether it has been able to influence the thinking of "average" (professional) economists. Concerning this aspect, evidence has been collected and analyzed in a series of surveys of economists' opinions in various countries, recently undertaken by the author and his co-workers Pommerehne, Schneider and Weck.⁴ Two of the propositions, to which the respondents could "generally agree", "agree with provisions", or "generally disagree" (or abstain) make it possible to find out how far Public Choice is accepted by "average" economists. The first proposition is

"Politicians endeavour to pursue an economic policy maximizing social welfare".

Table 2. Answers to the proposition

"Politicians endeavour to pursue an economic policy maximizing social welfare".
Survey results for three European countries, 1982-83.

Country (sample size N)	Answers (percentage shares)			
	I generally agree	I agree with provisions	I generally disagree	no answer
Germany, F.R. (273)	8	44	45	3
Switzerland (199)	9	40	48	3
Austria (91)	8	42	48	2

Source: For Germany Schneider, Pommerehne and Frey (1983); for Switzerland Frey, Pommerehne, Schneider and Weck (1982); for Austria Pommerehne, Schneider and Frey (1984).

Table 3. Answers to the proposition

"Economists should not only analyze the effects of a new tax system on welfare but should also consider the problem of political feasibility and of practical application".
Survey results for three European countries, 1982-83.

Country (sample size N)	Answers (percentage shares)			
	I generally agree	I agree with provisions	I generally disagree	no answer
Germany, F.R. (273)	21	25	52	3
Switzerland (199)	23	25	51	1
Austria (91)	18	22	59	1

Source: See Table 2.

Table 2 lists the results for the three countries.

Less than 10% of the respondents accept this view antagonistic to Public Choice, but less than half fully reject it.

The second relevant proposition is

"Economists should not only analyze the effects of a new tax system on welfare, but should also consider the problems of political feasibility and of practical application".

Table 3 shows the answers given.

Roughly half of the respondents (40% in Austria) support this Public Choice proposition.

Considering the two propositions, one has to conclude that while Public Choice has not achieved an overwhelming victory among "average" (Euro-

pean) economists, a reasonable part of the answers are at least not completely against the Public Choice view.

The answers given to the propositions have been subjected to a multivariate probit analysis in order to find out the determinants of the answers. It turns out that the (presumably) most highly trained professors have a higher tendency to support the Public Choice propositions than the other economists. The same is true for economists who self-profess that they have a political position right of the centre, as well as those who indicate that they have been in the United States for study purposes. This may be interpreted to mean that right-wing economists, and those having a close relationship to the U.S., find Public Choice views more attractive than the other economists do. The reverse causation, however, also makes sense: economists who like the Public Choice approach tend to become more right-wing, and have a stronger interest in a study visit to the U.S. than their fellow economists.

The relationship between Americans and Europeans in the Public Choice movement is discussed in the next section.

3. European and American Public Choice

Three propositions will be advanced and discussed:

- (1) "Public Choice started in America";
- (2) "Public Choice has been dominated by Americans";
- (3) "Over time, Europeans have played an increasing role in Public Choice".

(1) *First proposition: "Public Choice started in America"*

This proposition is rather obvious. There can be little discussion that the main fields within Public Choice have been defined, and its foundations laid, by four "classics" – and these "classics" are all American. They are

- (a) Arrow (1951) and preference aggregation;
- (b) Downs (1957) and party competition;
- (c) Buchanan and Tullock (1962) and constitutional calculus;
- (d) Olson (1965) and interest groups and public goods.

A *second* look at these classics from today's vantage point reveals, however, that there are important European forerunners in all of these fields:

- (a) In preference aggregation, the fundamental paradox of voting has been detected by the French encyclopédistes Condorcet and Borda, and later discovered again by (among others) the Oxford Christ Church student (i.e. fellow) Lewis Carroll, as well as by Black (1948a, b, c) shortly after the Second World War.

- (b) The idea of party competition has been extensively discussed by Schumpeter in his *Capitalism, Socialism and Democracy* (1942). It may well be argued⁵ that much of what is known today as Public Choice is in essence contained in Schumpeter. Consider, for instance, his definition of democracy as

“(T)hat institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people’s vote” (p. 269).

This definition captures masterfully the main features of democracy as seen by Public Choice: that democracy should be looked at as a method, and not in terms of outcome; that there is a close relationship between economic and political competition; and that the favourable outcomes of democracy (in terms of meeting the citizens’ preferences) are an unintended by-product of power seeking politicians.

- (c) The constitutional approach in Public Choice is due to the Scandinavian Wicksell (1896) as has been pointed out repeatedly by Buchanan (e.g. 1975).
- (d) The problems created by the existence of public goods, including the difficulty to form interest groups, has been discussed by Italian public finance scholars (Mazzola, Pantaleoni, de Viti de Marco) in the 1880s. The same has been done in Austria by Sax (1887) and in Sweden by Lindahl (1919).

It would be easy to conclude that though it may be conceded that *modern* Public Choice started in America, the bases of all the main ideas are to be found in Europe. But such a view is mistaken; it is a typical *ex post* argument. Rather, it is contended here that

- (i) Americans have in fact developed Public Choice quite independently and that the European influence is practically nil;
- (ii) Public Choice would not look much different had there been no European forerunners.

A precise test of these contentions is, of course, impossible. However, supporting evidence may be found. For reasons of space, the discussion will be limited to one, very important, forerunner, Schumpeter.

Schumpeter’s insights into (what is later called) Public Choice has been disregarded almost completely by the Public Choice movement. Consider first the “classics”:

- (a) Arrow (1951) does not quote Schumpeter at all;

- (b) Downs (1957), who in effect elaborates Schumpeter, mentions him only twice, and in a very general way;
- (c) Buchanan and Tullock (1962) do not quote him in the main text, and expend on him only one (!) sentence in their “forerunner” appendix;
- (d) Olson (1965) quotes Schumpeter twice, but again only in a very general way.

With regard to surveys on Public Choice, the situation is not much better. Mueller (1979) in his authoritative survey book notes Schumpeter’s “slight *direct* influence” as a “curiosity” (p. 1, footnote 1) but he himself mentions him only once. In Buchanan’s survey (1975), Schumpeter is not mentioned once.

It may be concluded that Schumpeter was not really needed for what is Public Choice today: this European forerunner has not been necessary, nor practically important. The situation is not much different for the other forerunners and areas of Public Choice. A possible exception may be preference aggregation. In this area, Black (1958) transferred the historic knowledge into the present analysis, and provided moreover a delightful account of the achievements of the forerunners such as Condorcet, Borda, or Lewis Carroll. But even here the question arises whether Arrow (1951) knew the paradox of voting before embarking on his own work. In his “Historical Remarks”, appended to the second edition (1963), he states “. . . I was sure that this was no original discovery, although I had no explicit reference . . .” (p. 93), but somewhat surprisingly Black is quoted with his three articles of 1948 in Arrow’s first edition (1951, p. 6, footnote 17)! So the matter is somewhat mysterious. My own interpretation is that Arrow did not know the paradox of voting but detected it himself, and looked for the references afterwards.

(2) *Second proposition: “Public Choice has been dominated by Americans”*

This proposition can be substantiated by counting the share of recognized contributions of Public Choice made by American authors. Table 4 shows the citations of American authors as a share of all citations made in general contributions on Public Choice.

In *survey articles* (top of Table 4) written by American scholars, between 81% and 95% of all citations are of American authors. This share is lower in the case of surveys by European authors, ranging between 58% and 81%, but it is still very substantial. In the case of bibliographies (middle part of Table 4) and of textbooks, the same picture emerges: Americans are mentioned in more than 50% of all citations (except in the case of Bernholz with 45%), but American authors attribute to other Americans 80% and more of the contributions worth citing, while European authors find that Ameri-

Table 4. Share of citations of American authors in general contributions on Public Choice (surveys, bibliographies, textbooks)

	SHARE OF AMERICAN citations
<i>Survey articles</i>	
<i>by American authors</i>	
Mitchell (1968)	90%
Ostrom and Ostrom (1971)	95%
Buchanan (1975)	81%
Mueller (1976)	81%
<i>by European authors</i>	
Taylor (1973)	71%
Esteve (1978)	81%
Frey (1980)	58%
<i>Bibliographies</i>	
<i>by an American author</i>	
Pauly (1967)	81%
(1968)	87%
<i>by European authors</i>	
Pommerehne and Frey (1979)	61%
<i>Textbooks</i>	
<i>by American authors</i>	
Frohlich and Oppenheimer (1978)	87%
Mueller (1979)	78%
<i>by European authors</i>	
Bernholz (1972-79)	45%
Herder-Dorneich and Groser (1977)	52%
Frey (1978)	58%
van den Doel (1979)	51%
Whynes and Bowles (1981)	53%

cans account for "only" between 45% and 58% of the relevant contributions to Public Choice.

Overall, totalling up the three kinds of sources, the American share of all contributions is taken to be 71%.⁶ The remaining part is from Europeans; other continents do not seem to exist (so far) in Public Choice. The evidence collected thus speaks in favour of the second proposition: Americans have indeed played a dominant role in Public Choice. However, the extent of the domination is difficult to establish, because American and European authors' evaluations differ markedly. This evaluation is a mixture of "non-objective" factors due to language and (in this case) American parochial-

isms and “objective” factors indicating that Americans have indeed contributed more to the present state of Public Choice.

(3) *Third proposition: “Over time, Europeans have played an increasing role in Public Choice”*

This proposition can be analyzed by looking at the share of European contributions to the *Public Choice* journal, assuming that there has been neither a positive nor a negative discrimination compared to American authors. Figure 1 reveals that shortly after the beginning of the journal in 1969 (under its present name) there was a peak of the share of European contributions, which dropped already in the following year to a low level of roughly 5% of all articles and notes.

During the 70s there is an increasing trend up to about 9% of the total contributions. In the 80s the trend reverses, and the share of European contributions drops back to roughly 5%, as it was ten years earlier.⁷

The evidence presented speaks rather against the third proposition. Indeed, in the 1980s the reverse seems to be true: Europeans have played a declining role in Public Choice.⁸

It is now possible to summarize the evidence collected concerning the three propositions put forward. Proposition 1 on the American beginnings of Public Choice has been accepted: though there were European forerunners with most important insights, they did not matter much for the development of modern Public Choice. Proposition 2 on the domination of Public Choice by the Americans has also been accepted. An “objective” measurement of this influence is, however, difficult because European and American authors have different perceptions on this issue. Proposition 3 on the increasing role of Europeans in Public Choice is, surprisingly, clearly rejected.

The analysis of the Public Choice movement undertaken so far has on the whole been rather disconcerting. Public Choice is not so important in overall economics (and political science) as an adherent would wish it to be, and the European role is small and has a tendency to become even smaller. One reaction would be to despair, another to go on because one is confident of the intrinsic merit of the Public Choice approach, hoping that the recognition within general economics will follow. The second path is chosen here. There are indeed many areas in which Public Choice can be applied with profit in the future. Such fascinating areas from the point of view of the author are presented in the following section.

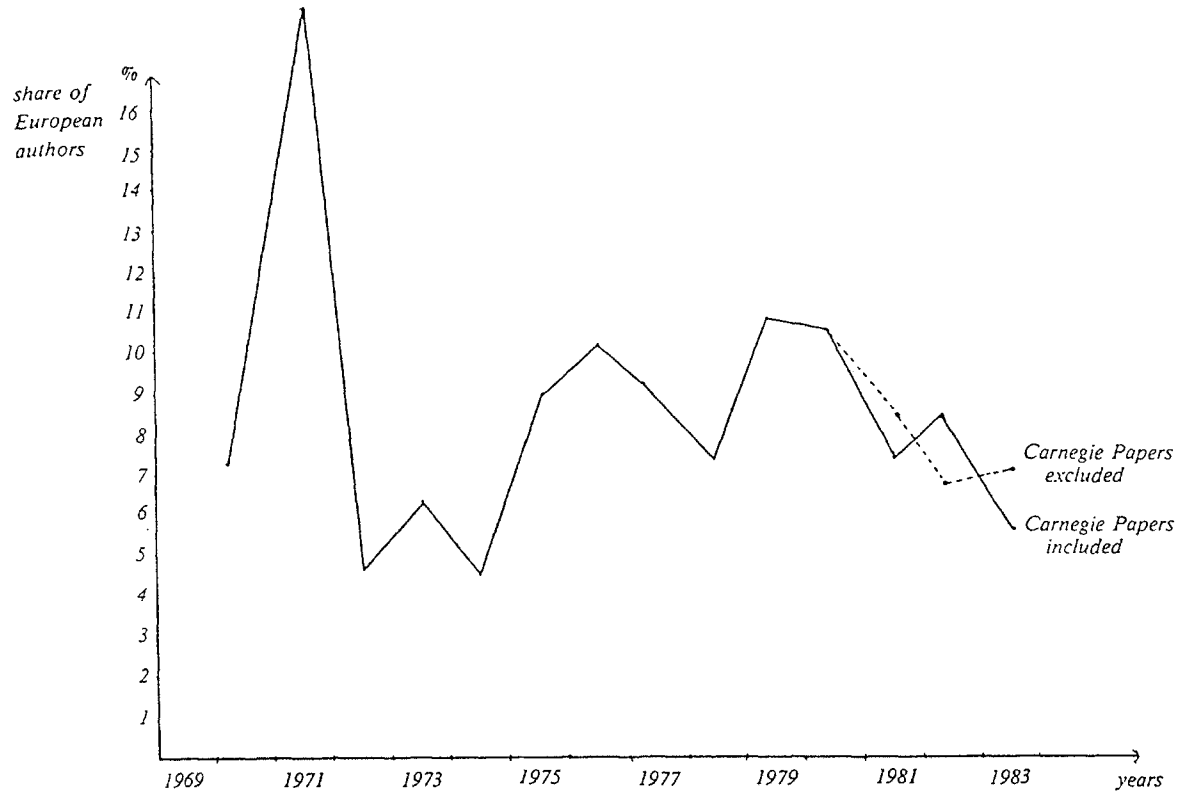


Figure 1. Share of European authors among all authors in the journal *Public Choice*, 1969–1983 (in percent)

4. Fascinating areas in Public Choice

The choice of areas considered “fascinating” and fruitful for future research is based on a purely subjective evaluation, and it is influenced by personal interest and work done by the author in particular areas. No effort is therefore made to find any objective measure of “fascination”.

Three areas are chosen:

- (1) The paradigm change in the theory of economic policy;
- (2) Politico-economic models;
- (3) International Political Economy.

Due to reasons of space, the discussion must be extremely short and only selected aspects can be discussed.

4.1 *The paradigm change in the theory of economic policy*

Two ideas are basic for Public Choice:

- (i) there is in general no social welfare function;
- (ii) government (including public bureaucracy) pursues its own goals and is an endogenous part of the politico-economic system.

Merging these two ideas leads to a rejection of the social welfare maximization approach as it is still prevalent in optimal taxation, optimal public pricing, or optimal tariffs, to name but a few areas. Social welfare maximization is not only mistaken for logical reasons but it is also irrelevant because the government has no incentive to pursue the “social welfare” (even if it existed and were known).

The paradigm change substituting a new approach is due to Buchanan (e.g. 1977), and earlier to Buchanan and Tullock (1962). It draws the important distinction between two levels of policy making: The level where the institutions, or the “rules of the game” are set, and the level of the current politico-economic process within the given rules. This approach requires a fundamental change in thinking. Even when the principles are theoretically well understood, there is a tendency to fall back into the “benevolent dictator” attitude. The paradigm change makes it necessary to move away from outcome evaluation, and to use instead a process or procedural approach. The difficulty of thinking along these lines may be exemplified by an example from Switzerland. In March 1984 there was a referendum about the introduction of a license system for using the motorways. The proposition was accepted by the voters. The temptation was great to evaluate the outcome in terms of social welfare, i.e. to argue about whether this decision

was "good" or "bad". According to the new paradigm of economic policy this is misplaced. What matters is whether the voting procedure has been formally correct (i.e. whether it was undertaken according to the rules) and whether the rules existing systematically discriminate some groups in society whose interests therefore tend to be neglected (an example are the foreigners who have no vote).

The example shows that the paradigm change is not only a theoretical affair but has most important *practical* consequences. They have so far only been touched upon, but have certainly not been spelled out fully. For example, up to now no (empirically testable) positive theory exists of economic advising based on the new paradigm.

4.2 *Politico-economic models*

Econometric (or politometric) analyses of the interdependence between the economy and the policy, usually at a macro level, are known as politico-economic models. During the late 70s, there was active research undertaken into the basic relationships, especially in Europe as evidenced by several recent publications (e.g. Borooah and van der Ploeg, 1983; van Winden, 1983; Kirchgaessner, 1984). The estimates of the evaluation functions (showing the impact of economic conditions on the polity) and of the policy functions (showing the impact of political decisions on the economy) yield quite satisfactory results. In particular, they produce better ex post forecasts than competing models that are either "purely" economic, or that do not use a Public Choice framework (Frey and Schneider, 1982).

At present, the main research emphasis lies on extending the basic framework. One extension has been to introduce more actors such as trade unions, interest groups, classes, and the central bank (see, for example, Gaertner, 1981a, 1981b; Aubin, 1982; Hibbs, 1980). Another has been to account for more sectors. A significant research area has been to analyze the relationship of the domestic civilian economy with the international military system in the form of arms races (see, for example, Allan, 1983; Lambelet and Luterbacher, 1979; Luterbacher, 1975). Finally, differences of institutional or constitutional conditions have been taken into account: the models extend beyond representative democracies and also consider authoritarian governments of communist countries (Lafay, 1979) and direct democracies such as Switzerland (Schneider, Pommerehne and Frey, 1981).

This listing shows that over the last years there have been important developments in politico-economic modelling. However, much is left to be done. Many areas have so far been neglected. With respect to actors, this applies in particular to public bureaucracy (and nationalized industries) for whose behaviour a macro model is needed. Moreover, non-budgetary ac-

tivities such as regulations have grown in importance as a result of budget cuts, and should be appropriately introduced into the models.

Almost totally disregarded is the (private) firms' political influence.⁹ This is surprising in view of the importance of this kind of politico-economic relationship in the popular (and in Galbraith's) view. Some literature exists which econometrically tests for this influence (see Epstein, 1980; Estey and Caves, 1983), but it has so far not been noticed¹⁰ and integrated into politico-economic models. Another disregarded area is the influence of the (electronic) media. A behavioural theory is needed which comes to grips with the systematic distortions of information.¹¹ Such an extension would also make a worthwhile contribution to the issues connected with perception and rational expectations.

Politico-economic models have considerably enlarged our knowledge of the interplay between the economy and the polity, but it is also clear that much further useful research is possible.

4.3 International Political Economy

International aspects are rarely dealt with in Public Choice as evidenced by their complete neglect in surveys and textbooks. On the other hand, there is a 'demand' for a Public Choice analysis in this area by international trade theorists some of which have successfully invaded the field.¹² They are dissatisfied with the 'pure' theory of international trade which knows no institutions (except the market) and no politics, and also with the description of international institutions as undertaken in applied international economics. There is at present an International Political Economy emerging which has so far been disregarded in Public Choice.

The problems analyzed are of a wide variety, and can only be sketched here (see Frey, 1984, for a fuller account).

Most research has been devoted to the analysis of the determinants of protectionism in the form of tariffs and non-tariff barriers. The size of trade barriers is explained by the demand for, and supply of, protection as exerted mainly by interest groups and by the public bureaucracy. The consumers play a very small role; their interests are constantly disregarded. The interests are organized along industries, and not factor lines, as assumed in the traditional theory of international trade.

Another area of research are the determinants of foreign direct investment and of foreign aid. It is explicitly studied how the political factors (such as 'country risk' due to government changes) and economic factors codetermine these flows. Trade wars are also a subject of interest in International Political Economy. The existing theoretical and empirical evidence suggests that they are in most circumstances rather ineffective. An impor-

tant question is whether and how international cooperation can overcome the free rider incentive in the presence of "global commons", or international public goods. Finally, the many forms of international organizations existing today suggest an analysis by the theory of bureaucracy. One of the major differences to domestic bureaucracies is likely to be the fact that there is no government which would have an incentive to monitor and control such organizations. As a consequence they have considerable discretionary room.

An example of an international organization which can be studied from this point of view is the World Bank (see Frey and Schneider, 1985). The research procedure can only be shortly indicated here. Four competing models are compared with each other:

- a "needs" model suggesting that the World Bank extends most credits to those developing countries which need it most;
- a "deserts" model according to which those countries receive most credits which deserve it most because they make the best use of them;
- a "benevolence" model where the credits are taken to be distributed by benevolent (international) bureaucrats who follow exactly the charter of their organization;
- a "politico-economic" model which assumes that bureaucrats maximize their own utility subject to the constraints they are faced with. The most important argument for the World Bankers' utility function is the prestige and recognition they receive for their activity in the international financial community. Due to the predominant role of top executives from the West, a right-wing (pro-capitalist) tendency is another feature of the utility function. The major constraint the World Bank bureaucracy is faced with are possible interventions by the main lenders of the Bank, in particular the U.S., the U.K. and France. They minimize this restriction by acting in a risk averse manner (so that no occasion for an intervention arises), and by pleasing them by extending credits more freely to the ex-dominions and ex-colonies of the large lenders.

The theoretically expected parameter signs of some selected determinants of IBRD-loans per capita are given in Table 5.

The signs are mostly self-explanatory after what has been said above about the characteristics of the four models. It is, for example, theoretically expected that the higher the rate of inflation in a country is, the more credit it will *cet.par.* receive according to the "needs" model, because high inflation means that there is strong pressure on the existing resources in a developing country (positive sign). The "desert" model suggests an opposite (negative) sign because high inflation means that the particular coun-

Table 5. Comparison of models of World Bank behaviour. IBRD loans per capita to developing countries

Selected determining variables	Theoretically expected parameter sign model				Econometric estimate (cross section; 60 LDC, average credits 1972-82)
	"Needs"	"Desert"	"Benevolence"	"Politico-economic"	
<i>Economic variables</i>					
- Rate of inflation	+	-	0	-	-
<i>Political variables</i>					
- Political instability	0	-	0	-	-
- Capitalist climate	0	0	+	+	+
<i>Dependency variables</i>					
- Foreign colonies or dominions (UK, F, USA)	0	0	0	+	+

Source: Frey and Schneider (1985).

try does not control its money supply and fiscal policy well, and in the absence of a responsible economic policy deserves less credits. According to the "benevolence" model, the rate of inflation should be irrelevant for credit giving because this aspect is not mentioned in the World Bank charter. Finally, the "politico-economic" model theoretically suggests a negative sign, because the international financial community whose opinions the World Bankers cherish, value a stable price level highly as it stands for fiscal and monetary discipline.

It may be noted that the two political variables included are usually disregarded in the studies concerned with the World Bank. The dependency variables are expected to be relevant for the "politico-economic" model only. At the right-hand side of Table 5 the signs of the parameter estimates are indicated. They are reached by a multiple regression over 60 less developed countries in the period 1972-81. It may be seen that for the variables selected for this table, as well as for the variables totally included, the "politico-economic" model conforms best with the empirical estimates. This suggests that it is able to capture important aspects of the World Bank's behaviour. The next step will have to be to compare the ex post and ex ante forecasting capacity of the four models.

5. Transgressing traditional limits

The discussion in the last section was concerned with areas in which fruitful Public Choice research could be undertaken in the future. This section deals

with new ideas about the way Public Choice problems can be approached.

The success of applying economics to politics depends on an adequate model of human behaviour. It can well be argued, and there exists considerable evidence, that the economic model of man is the best one existing, and is any case superior to the one used in sociology or political science (see, for example, Opp, 1979; and Lindenberg, 1983). The criticisms raised against it are most often due to misunderstandings, and sometimes simply incompetence.

The economic model of man is, however, not perfect (Sen, 1979), but is subject to important shortcomings and limitations which are of special relevance to Public Choice. The most important are:

- (i) There is little free-riding in the presence of public goods, at least compared to what our behavioural theory predicts (see the experiments by Marwell and Ames, 1981; and Schneider and Pommerehne, 1981);
- (ii) People vote though the benefit cost calculus suggests that they should not (see also Tullock, 1984);
- (iii) The model of expected utility maximization which is the basis of much of the formal reasoning also in Public Choice is largely rejected by experimental evidence (see Kahneman and Tversky, 1979, and the survey by Schoemaker, 1982). What has to be taken seriously are aspects such as:
 - the certainty effect (or Allais paradox);
 - the sunk cost effect;
 - the opportunity cost effect;
 - the endowment effect; and
 - the framing effect.

Important new ideas have been brought forward to integrate these and other aspects of behaviour. It must suffice here to indicate the general direction in which the model of man has been extended. The basic idea is to allow for the weakness of man, but to recognize at the same time that he is able and willing to take action to overcome his weaknesses. This results in a larger set of actions available to man: he actively chooses (and does not simply take as given as is assumed in the traditional model) his perceptions, his preferences, and the constraints he is faced with. To give an example: Ulysses chose to set his own constraints when he asked his companions to bind him to the mast and not to release him, in order not to fall prey to the Sirens (Elster, 1979). This is just one instance of "strategic precommitment" which is of considerable importance in everyday life (see Schelling, 1980; Hirschman, 1982).

These new ideas about human behaviour present an important step from an economic model of behaviour which is applicable to humans *and*

animals¹³ towards an economic model of behaviour which captures the *unique* features of *human* behaviour. There can be no doubt that such extensions can be integrated most fruitfully into Public Choice.

6. Conclusions

The victory of Public Choice may not yet have arrived, and the share of European contributions may still be small. It has nevertheless been argued that there is a great future in Public Choice. Three especially promising areas have been indicated by way of example: the theory of economic policy, politico-economic models; and International Political Economy.

The European contribution to the future development of Public Choice may well consist in introducing novel aspects of human behaviour. The institutional conditions at most European universities provide for a much less strict training of students at the graduate level. The disadvantages of such a system are obvious. There may, however, also be advantages: the young researchers are less pressed into the straight-jacket of received orthodox theory, so that they have by necessity to bring forth more personal initiative and thinking. The relative advantage of European Public Choice may well lie in combining fruitful open areas with new ideas on human behaviour.

NOTES

1. It could, of course, be argued that a 3% share is quite substantial. An independent (informal) inquiry among Public Choice colleagues revealed, however, that they were very surprised about how low the share is.
2. With the exception of *Econometrica* where some of the editors have been Americans.
3. A note of caution: The high share of Public Choice articles may have something to do with the particular editors' inclinations.
4. The sample consisted of members of professional associations in economics in the F.R. Germany (N = 273), Switzerland (N = 199), and in Austria (N = 91). For further information consult the original studies.

Many of the propositions were purposely taken from an earlier American survey (Kearl, Pope, Whiting and Whimmer, 1979), in order to allow for a comparison (which is undertaken in Frey, Pommerehne, Schneider and Gilbert, 1984). Unfortunately, and perhaps typically, the propositions of particular interest for Public Choice were not included in the American survey.

5. This is done in Mitchell (1983) and Frey (1982), who both analyze Schumpeter from the Public Choice point of view.
6. Downing and Stafford (1981) analyze 2529 citations in the period 1978–79 referring to "social choice". (This term commonly indicates the sub-field of preference aggregation, but this is not made clear in the article.) Quite typically for American authors, "articles in a foreign language are excluded" (p. 220). Among the "11 most frequently cited authors", 64% are American, among the "20 most frequently cited", the American share is 80%, which corroborates our evidence.

7. As the Carnegie Conferences on Political Economy (whose *Papers* have been published in *Public Choice* since 1981) are mainly composed of Americans, Figure 1 has been drawn including and excluding the *Carnegie Papers*. As can be seen, the downward trend of the European share of contributions in the 80s is little affected.
8. The counterargument that the measurement by and contributions in *Public Choice* is faulty because European scholars have no incentive to publish in journals, or at least not in *Public Choice*, does not apply here provided these structural conditions remained essentially unchanged during the period considered. It would be relevant if it could be shown that European scholars today have an even smaller incentive to publish in an American journal than at the beginning of the 70s.
9. Exceptions are the campaign spending literature (see the survey by Pommerehne and Lafay, 1983) and the positive theory of tariff formation (see Section 5).
10. The recent books by Borooah and van der Ploeg (1983), van Winden (1983) and Kirchgassner (1984), for example, which contain a vast number of references, do not mention these contributions. Another road is pursued by van Winden (1980).
11. Preliminary empirical work has been carried out by Brody and others; see, for example, Haight and Brody (1977).
12. In particular Baldwin (1976), Magee (1982), Findlay and Wellisz (1983), and already earlier by Kindleberger (1951, 1970). See also Hirschman (1945).
13. Experiments with pigeons and rats have revealed that they obey the most important proposition derived from the model of man, the law of demand. See, for example, Battalio, Kegel, Rachlin and Green (1981).

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