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PARTIES, GROUPS, PUBLIC CHOICES

This short paper deals with two issues: first, based on the theory of rational decisions an attempt will be made in order to make an assumption on who is going to vote in any election, and to outline roughly the static model of a society whose members can think only in terms of money that is in terms of transfers based on taxation. In the second section, I shall investigate those social groups who play a significant political role in a dynamic model of society, as well as their relationship with their own parties. Finally, in the closing section, I shall try to merge the two approaches.

I. WHO VOTE?

According to the theory of public choices, politics are intended to correct market failures, however this is frequently coupled with government policy failures. Politics mean mainly decisions on public finances, that is decisions taken on the magnitude of tapping private incomes, primarily through taxation, and on utilisation of the money collected in this mannerpartly for transfers, partly for the acquisition of public goods or services. The structure of incomes and expenditures will be decided through general elections. The first question to elucidate is who will vote among those who are entitled to, the second one is whom they are going to vote for? The theory of public choices says briefly, that the role of politics is to secure those public

goods (including transfers) which individuals are not disposed to offer willingly. The only way for guaranteeing public goods and transfers is the imposition of taxes by the State and spending the collected money for the purchase of public goods. The task of politicians is to identify the preferences of the individuals regarding public goods, that of bureaucrats is to offer the right public goods to the electors and lobby groups as reward for the votes of the electors and extended financial support. The primary objective of the politicians is to improve their chances of re-election; meanwhile the bureaucrat's aim is to increase the strength of their administration by maximising the volume of public money over which they wish to exercise control.

The very first question raised by the theory of public choices is the following: why rationally thinking individuals go to vote, though their contribution as to the final desired outcome of the elections is negligible. Let's assume that for an individual the victory of A or B party would result in a difference of 0.8 M HUF, he would certainly go to vote if his ballot were decisive as far as the final outcome of the elections. However there are 8 million voters, consequently, the likelihood that his vote will be decisive regarding the outcome of the election is negligible, 1 to 8 million. Given that his total gain would be 0.8 M HUF, taking into account his real chances, his gain will only be 0.1 HUF. If the impact of his participation at the elections can be put to only 0.1 HUF, then he had better to stay at home or go hiking. Nonetheless, a significant number of people goes to vote. Why? This is called the paradox of voting. This is the very question we are going to investigate.

As elections are mainly about public funds, it seems evident that the more a person is interested in public funds, the more will be inclined to go to vote. An individual may be interested in public funds in two ways: either he pays high taxes; either a significant portion of his income comes from social transfers. Among people who have the right to vote, those whose income rests to a greater extent on public finance (either in the form of taxes, either in the form of benefits) will participate in voting in a higher proportion. While examining the proportion of the social transfers in countries where abstention from voting is not penalised, we reach the conclusion that the bigger is the proportion of social transfers in a given country the bigger is the disposition of its citizens to go to vote. Let "k" be the proportion of social transfers compared to the GDP, and then see the participation in countries where abstention is not penalised. (In countries like Italy, Australia, Greece, Costa Rica, Belgium, Uruguay and Venezuela people under the menace of fines or the imposition of specific taxes are successfully pressurised to go to vote. We are not going to deal with these countries.) The following diagram compares the average participation rate in the elections to the proportion of public expenditures on welfare for the years 1958–76. Figures on welfare expenditures are a few years posterior compared to those regarding participation rates.

In countries with low participation rate (with an average participation below 70%) the average proportion of welfare expenditures is 25%, while in countries with high participation rates (with an average of 85%) the average welfare expenditures compared to GDP is 33%. Those who like to make out empirical rules, could determine the proportion of the participation in the elections as follows: one fifth of the electorate shall participate under any condition, and above this margin, every additional 1 point percentage of welfare expenditure will attract 2% of the electorate to

the polls, either because they vote for additional transfers, or on the contrary, for the reduction of charges. Table and figure below show that the correlation between implicit tax rate (in the year of 2000) and voting participation (general elections, cc 2000) is quite strong (R^2=65%).

Table 1.
Welfare expenditures and voting participation[1]

Country	"A"	"B"	Country	"A"	"B"
USA	59	19	Norway	82	34
France	70	33	Finland	84	33
Japan	71	16	Germany	84	27
Canada	71	26	Sweden	86	40
United Kingdom	74	29	Denmark	87	36
Ireland	75	26	Austria	89	30

"A": Participation rate at the elections in %
"B": Welfare expenditures as compared to GDP in %

Table 2.
Tax rate and voting participation[2]

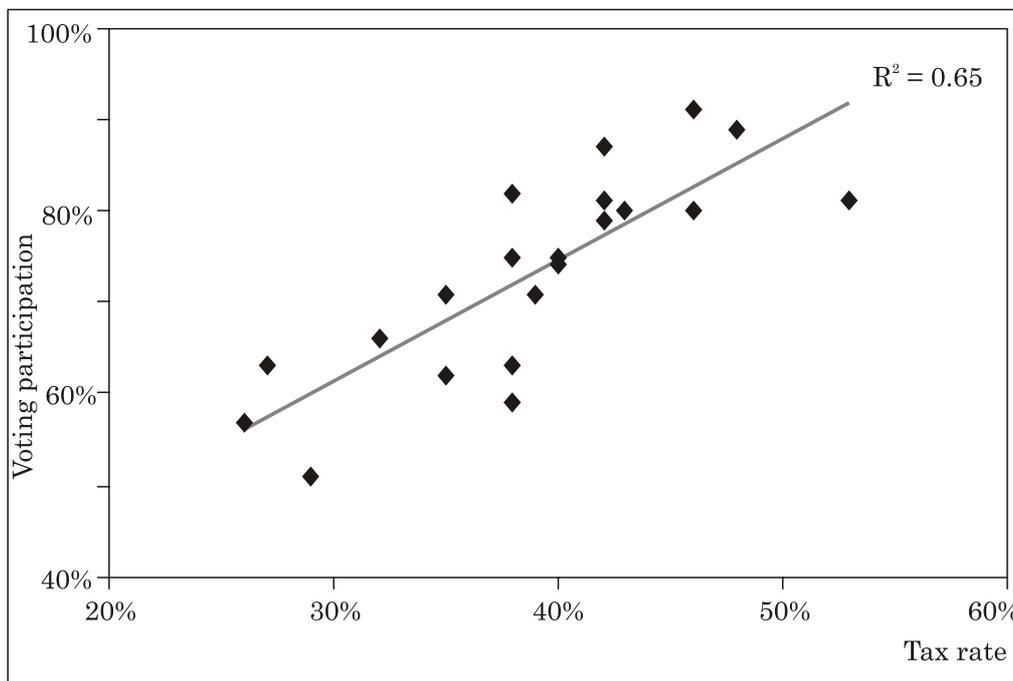|	Country	Tax rate (%)	Voting participation (%)
1	Canada	38	63
2	USA	29	51
3	Japan	27	63
4	Korea	26	57
5	Austria	43	80
6	Belgium	46	91
7	Czech Republic	40	74
8	Denmark	48	89
9	France	46	80
10	Germany	38	82
11	Greece	38	75
12	Hungary	39	71
13	Ireland	32	66
14	Italy	42	81
15	Luxembourg	42	87
16	Netherlands	42	79

[1] Source: World Competitiveness Report, 1994 WEF, Genova and Johnson (1991).
[2] Source: Tax rate (tax/GDP) in 2000, OECD and
[2] Source: World Competitiveness Report, 1994 WEF, Genova Voting participation in 2000-2002: Http//www. electionworld.org/ Elections around the world.

Table 2. (cont'd)
Tax rate and voting participation

17	Norway	40	75
18	Portugal	35	62
19	Spain	35	71
20	Sweden	53	81
21	United Kingdom	38	59

Figure 1.
Voting participation and tax rate

This assertion is valid not only among countries, but inside of each country, too. The pensioners, whose income fully depends on transfers will go to vote like the middle aged wealthy people whose income is strongly curtailed through taxation, meanwhile those who are not likely to make much gains or losses compared to their income are less inclined to go to vote. These are relatively young and/or low-income workers. Let's designate by "k" the ratio of income deriving from public money.

The welfare expenditure ratio is not the only factor affecting people's disposition to vote. I assume that the theory of public choices is correct when it explains with the "stowaway phenomenon" why individuals consider useless to go to vote, but it is also right not to investigate the extent of this behaviour. We might rightly presume based

on Aronson, that the fewer people share identical conditions the more they feel responsible for the given class. The voting therefore is an activity one can easily skip, and behave like a stowaway. It is my assumption that bigger is the class, bigger is the inclination of individuals belonging to this group to behave stowaway-like. If an individual belongs to a class, which makes up one fourth of the electorate he will be more inclined to go to vote than an individual who belongs to a class, which constitutes one third of the electorate. If "a" indicates a class' relative size, then its disposition for voting will vary according to (1-a). (We know from American surveys, that in a number of smaller classes like Hispanic voters, small cities, scarce agrarian population, etc. the disposition for voting is higher than in bigger classes. In section II. I will attempt to identify 6 relevant classes of the Hungarian society, but so far I shall only put forward ad hoc examples, since in this section I address the voter versus non-voter issue, and not that of the intent of their votes. I assume that a disposition for voting ("v") might be easily ascribed to every individual, therefore any individual will vote according to its dependence from public money, and its behaviour ("stowaway" or "paying passenger") will depend on the relative size of the class he belongs to: v = k*(1-a). Let me give two illustrations to this assertion. If the income of a pensioner is fully depending on public money k will be equal to 1 (k = 1), and since they represent ¼ of the whole electorate (a = 0.25) the likelihood for voting of a pensioner (v) will be as follows: v = 1*(1-0.25) = 0.75. Let us have a look now at the case of the over-subsidised American farmer: 80% of his income comes from subsidies (k= 0.8), and the proportion of the agrarian population among the total population is 3% (a=0.03), then the farmers' disposition for voting (v) will be as follows: v = k*(1-a) = 0.8* (1-0.03) = 0.78). According to our hypothesis the disposition for voting is v=k*(1-a), that is more the income of a member of a given class depends on public money, and smaller is the group he belongs to, bigger is the probability that he will go to vote. "v" can take a value between 0 and 1, as well as any of the multiplicators.

As an example let's see the expected disposition for the voting of Hungarian pensioners. If the totality of their income comes from public money then k=1 and they make up one forth of the 8 Million' Hungarian electorate, that is they number 2 million, then "a"=0.25 , and "v" will make k*/(1-a)=1* (1-0.25)= 0.75.

At the elections of 1990, from 100 pensioners 74 voted, which is a quite satisfactory result. The case of young people, too is well explainable: the likelihood they are going to vote is small, since in their case k is small, because their income is low, the personal income tax alike, they have to pay. Similarly, the proportion of voters among middle aged wealthy people is high since in their case the value of "k" is high. We might complement our model with the expenditures related to voting. This should express the kind of efforts a citizen has to make in order to familiarise himself with the parties' campaign slogans. Higher is the qualification of the head of the family, easier is the task of the voter to orient himself in the political information jungle. So far qualification has not been taken into account among factors having an impact on the voting behaviour. The time spent on orientation is a component of the expenditures related to voting. If we wanted to take into account this factor also, the quotient of the number of years spent in education and of the average number of years spent in education by the electorate might be a suitable multiplicator to this effect. Let this average value be 10 years. If the voter finished secondary school, that is he spent in education 12 years, then the value of i" shall be: i=12/10=1.2) As a result the disposition of voting will be:

$$v = k*(1-a)*i.$$

Let us review now, that *among the wealthy and the poor, depending on their specific social status how many will go and what are they likely to vote for.* Looking at the conditions of the countries in a somehow simplified manner we might state that 1/3rd of their population constitutes the wealthy and 2/3rd belongs to the less affluent segment of the society. The smaller in number wealthy citizens in case of identical sharing of public money are more likely to go to vote while among the active and less prosperous people lesser number will go to vote due to the lower per capita share of public money and the higher number of stowaways. Consequently, from the two segments of voters, *grosso modo* the same number will present themselves at the voting booths. (Let's assume that among the wealthy the average $k = 0.33$ and $a = 1/3$. Consequently $v = 0.33*(1-1/3) = 2/9$. The multiplying of this factor with the number of wealthy voters will produce the proportion of the wealthy voters (WP) then $WP = av = 2/27$. Among the less prosperous segment $k = 0.33$, and the number of voters will be the same as above: $av = ak(1-a) = 0.33*0.66*(1-0.66) = 2.27$. Apparently the followers of two parties will participate in equal number at the elections, only the number of the potential followers of one of the parties are twice populous of the other's. In this illustrative model we considered identical the value of k, which in the case of wealthy meant taxation rate, and that of the poor subsidy rate. (In the 2nd section I am going to elaborate with more details on the issue of stowaways, but first I will focus on the value of k.)

Let us illustrate this assumption by the following example. If a society consists of 10 well- off people each disposing a pre tax income of 100 unit, and of 20 poor people with a pre tax income of 25 unit each, then the national income shall be: $Y = 10*100 + 20*25 = 1500$. It will be easy to calculate the absolute value of k which will be identical for both groups. In the given case, if $k = 1/3$ the slash for 10 wealthy $25/(100-25)$ will be equivalent to the proportion of the assistance offered to the poor: $12.5/(12.5+25)$. (We calculated the value of k by positioning as numerator the amount paid for taxes or received as a transfer, while we shall use as denominator the amount obtained by decreasing or increasing the market value of the income with the amount figuring in the numerator.) It is vital to explain, why the wealthy people shall not endeavour to reduce to a minimum level his tax rate, meanwhile the poor will not endeavour to obtain to maximum level of assistance rate.

We might assume, that in case of an apparent situation of equilibrium between taxes and transfer rates (k), if during its political campaign a political party in order to articulate the interests of its own voters shall profess a departure from this equilibrium will mobilise to a lesser degree its own voter than their opponents. This suggests that no change will occur. Let's take the following example: if the party of the wealthy people will support with too much vehemence its own supporter and shall demand to abolish the progressivity of the income taxes, like Hayek, this will attract to the polls those poor who precisely received assistance thanks to that type of taxation. (Obviously the party of the poor will draw the attention of the poor to this very fact, and no doubt about, it has good reasons to do so.) Let us have a look into the electoral results based on the previous example when k (that is tax and transfer rate) instead of the original 1/3 (k=1/3) is ½ (according to the suggestion of the poor) or ¼ (according to the suggestion of the wealthy).

If the party of the poor suggests that the wealthy should pay tax equivalent to k=1/2, then because 333/(1000−333)=1/2=k, the rate of public money devoted to the assistance to the poor shall be (333/20)/(333/(20+25))=0.42. How this should mobilise the potential voters? The number of wealthy voters party (WP) shall be as follows: WP = av = ak (1−a) =1/9. while that of the poors party (PP), PP=ak(1−a)=0.84/9. This means, that the only consequence of the suggestion of the party of the poor regarding taxes was that a greater number wealthy went to the polls, and they turned down the tax increase proposal.

Let us look at the opposite case, that is the tax cut. By using the same calculation methodology, if k=1/4 then because 200/(1000-200)= 1/4, the rate of public money devoted to the poor shall be (200/20)/(200/20)+25)= 0.29. WP will be 0.5/9 and PP= 0.58/9, consequently the tax cut proposal of the wealthy will mobilise a greater number poor, and they will turn down it.

The example referred above, shows what will happen in a society consisting of 1/3 of wealthy and 2/3 of poor when the first's income is four times higher than that of the latter's, and when one of the parties intends to depart from the value of k which, corresponds to the share of public money for both. It is possible to generalize this example: if the proportion of the wealthy is (a) then that of the poor will be (1−a) and the followers of both parties will go to the polls in equal number, since WP=ak(1−a) and PP=(1−a)ka! If any of the parties wanted to depart from that, it would better mobilise the opponent camp, than its own. Finally, nothing will change, thus "k" might be considered as an equilibrium factor. It seems to be easy to calculate its value if we know the value of "a" and that of the pre-redistribution' income ratio (j), that is the proportion existing between the assistance-free incomes of the wealthy and the poor. Thanks to an easy operation we shall reach k= (ja−(1−a)/(ja+(1−a). k will be the value around which the tax rate will evolve if the volume of market imbalance is j, and the proportion of the wealthy among the population is "a". As we saw above if j=4 then k=1/3.

Historical trends: If the gap (that is j) between incomes increases it will lead to the increase of k, and if the proportion of the middle class (the wealthy) (a) will grow, this will also lead to the increase of k. Thus we have in front of us the whole history of the last century, since the growth of the market has continuously increased the value of j, and the enrichment increased (a). Consequently, k persistently grew, that is the implicit tax rate from the 3-5% value of the early 20th century has reached these days the level of 30-40%.

So far, we tried to demonstrate that in a democratic society consisting of two groups if there is a situation of equilibrium, the tax rate of the wealthy precisely corresponds to the transfer rate of the poor. In order to move further ahead into the subject, it is necessary to investigate the matter of some specific American and Hungarian social groups, namely that of the farmers, the pensioners, the civil servants, the employees of the public administration and the entrepreneurs.

Regarding the subsidies given to the American farmers, FRIEDMAN'S view is that, the farmers should be assisted as poor and not in their capacity of producers of agricultural goods. The republican politicians however refuted this view, because it was cheaper to buy these votes through subsidies. Since if all poor would get assistance that should be financed by the wealthy and this would be equal to a self-afflicted wound. Provided, that this small social group gets subsidies, that others

have no access to, then it is granted that the republicans would obtain agrarian votes at a low cost. As far as the pensioners are concerned, if the pay as you go [PAYG] scheme is applied, the value of k is 1. Hence relying on the empirical method, it is possible to examine whether the voting disposition of the pensioners is affected in a given country by the prevailing pensions scheme (funded, or PAYG), and whether the growing ratio of pensioners increases, or not the voting disposition of this category of people. Considering from this point of view the different pension schemes one can say that a shift from the PAYG to the funded scheme shall reduce the "k" value and the voting disposition ("v") of the affected segment of the pensioners, while it shall significantly increase the voting disposition of those who continue to stay in the PAYG scheme, since the size of their group shrunk. The income of the civil servants almost totally depends on public money. Since their proportion is not too significant (1-2%) one can expect that 98% of this category of people will cast their vote. (A large proportion of the US Army professional personnel goes to the polls, though their electoral preference is opposite to that of the civil servants, since as we shall see later, the republicans who favour lower taxes and cheaper government, on the ground of protecting the propriety and wealth advocate the increase of defence expenditures. This would mean more jobs and higher wages for the military. Consequently, Army personnel normally vote for the republicans. The number of the employees in the public administration is much higher and their income only through the intermediary of the local governments depends on public money. They income being fairly smaller their taxation ratio can't be too significant. Their voting disposition should be in the range of 70-80%. The entrepreneurs are linked to the State budget through taxes and other forms income slash, consequently their voting disposition is considerably smaller. In all probability the big entrepreneurs, because of the progressive taxation system are more likely to go to the polls than the so called self employed. Among the employees of the private sector those employed by large international companies most likely get higher income and pay higher taxes. Consequently their voting disposition is stronger than that of the employees of SME's.

So far we have discussed the matter of who is going to vote and what might be the interests of the voter from a sociological point of view, but we have not spoken about the *spiritual attitude of the voter,* that is what he has in mind while casting his vote. What is important in this respect is that the individual's spiritual attitude is not just simple, but - espousing Berne's approach – it has three "layers". This means that it might easily occur that a voter being a donor will vote for transfer-party and vice versa: a voter benefiting from transfers will vote for the donor-party. This attitude could depend on the positions of these parties regarding the principles of freedom and other much-worshiped values. Regarding freedom's principles and worshiped values the transfer-party advocates input-pressure and output-taboo, while the donor-party promotes input-taboo and output-pressure. Promoting the prohibition of abortion means input-pressure, and that of capital-punishment/death penalty or freedom to carry weapons means output-pressure. A donor-party shall advocate input-taboo, that is one should get money thanks to the market and not to redistribution, or the fate of a baby should be decided by God and not by the mother. While the transfer-party advocates output-taboo, and says that the regulation of inputs through redistribution and abortion is not only permitted but

even justified, but capital punishment and to carry weapons and thus put in danger others' life is prohibited. The phenomenon of dreams which failed to materialise, means that the individual beyond issues directly regarding his personal fortune and health will be asked questions on the magnitude of the Army, the necessity of a global power, or whether rain forests, or the Danube river should be protected or not. One might be consulted on generation issues too „should my generation sup- port others or not"?

   The issues regarding *money making* are mostly the concern of the adults, that of *life regulation* of the parents, while dreams about personal ambitions are of chil- dren's concern. The wealthy join the donor party. They don't like to give, nor do they favour birth control, and if they investigate long-range issues, they know that they will have to pay for that in the form of taxes, therefore they don't press for such a course of action. In the US the democrats are less well-off, they favour abor- tion, value environment protection, briefly they are supportive of transfers. Among the three-layers of an individual's character the central one seems to be the firmest, that is $k*(1-a)*i$, and i's positive or negative sign (you pay, or you receive) will de- termine the party one is likely to vote for. It might happen that because of consid- erations to material solidarity, to the abortion or to the world peace a wealthy per- son will vote for the transfer party. This means that social status is more likely to facilitate the identification of the individuals' voting disposition and less their party predilection.

Table 3.
Social status versus party predilection

	The right-wing voter	*The left-wing voter*
	About 1/3 of the population, the WASPs, the members of the majority ethnic group, the likely voters of the party of wealthy and donor.	About 2/3 of the total popu- lation, the ethnic minorities, with no capital, the likely voters of the party of transfer and poor.
Considering the public money ex- cessive or insuffi- cient.	Paying high taxes and receiv- ing limited social benefits, considering public funds excessive, the wealthy, the entrepreneurs.	Being the recipients, consid- ering social benefits as insuf- ficient, and would like addi- tional public aid, the poor, the pensioners, the depend- ents.
The start or the end of life might be regulated by hu- mans, what might be the holy end of life.	Refusing abortion, as with an additional child living stan- dard is not changing. To set example for criminals, rob- ber-murderer are condemned to death.	Not refusing abortion, as under current conditions difficulties occure to make both ends meet as well. Pen- alty of death is refused as human error can not be ex- cluded.
The binding effect of concepts like generation, nation,	My generation, my nation, my way of life is of absolute value. The environment.	World peace, equal opportu- nities are vital issues, as well as the protection of the envi-

environment is either absolute, or relative.		ronment (rain forest, bison).

What is positive, is that the fundamental factor of this scheme is the rank of the individual within the social establishment (leader, owner, having power or being weak). The one who is weak and exposed will be in need of social help thus will vote for tax rates to increase and will be free rider his social group being large. Donors' way of thinking is just opposite. This contradiction however is not antagonistic. The policy compensating market deficiencies allows the alternation of winners.

II. ON THE POLITICAL STRUCTURE OF THE SOCIETY

It is necessary to identify the kind of structure of a society, which would reveal its political stratification too. In what follows, an effort will be made toward that direction.

Let's take for fundamental feature the following: depending on the volume of the initial capital (this well might be physical, human, or intellectual) the individual possesses at the beginning of his/her career, he/she is situated on the top or on the bottom. (In order to determine statistically the meaning of the top and the bottom, it is necessary to identify among members of the society holding the fewer amount (x%) of initial capital the individual who might be considered as the border line between the two extremities. This person will be the individual, whose capital possession will be equivalent to 1-x%, and those who are positioned above him will belong to the upper echelon (up) and those below shall belong to the lower one (down). In the course of his/her career the individual will linger there where he/she started, or will move toward one or the other direction. If he/she starts from down either he/she will move toward a lower, or toward a higher level. If he/she starts up high, he/she will move either higher, or lower. If he/she is in a high position, it must be seen, to what extent his/her standing is high in respect to the possession of goods of high prestige.

Likewise, if the individual moved from down toward lower position, his/her position will be similar to that of workers living in an urban or rural area.

Based on this taxonomy we distinguish six different social classes:
- *The parvenus* (from the bottom to the top). Typically they consider superfluous any social rule, and they often consider justified the rejection of the old and obsolete rules of conduct, politically speaking they are aggressively right wingers, since they are not only pleased, but also self-satisfied with their performance and with the higher social status they have reached.
- *The patricians* (remaining on the top with much prestige). In most of the cases, the social status where they were born to is an elegant one. In Hungary they are Catholics or Protestants, in the US they belong to the WASPs. They are rightists and conservatives, but respect the rules of the game.
- *The citizens* (remaining on the top with less prestige). Traditionally they make their way in the economic and social world. In Hungary they are usually Jews, atheists, or followers of minor Churches, in the US they are typically economically speaking prosperous members of non-White ethnic groups, in Latin-

America they are mestizos, in Malaysia wealthy Chinese merchants. They are overwhelmingly leftwing voters.

- *The losers* (from the top to the bottom). Compared to their abilities, they start with superior initial capital endowments. For their failure they blame the fraudulent market competition behind which they perceive either globalism, or the immigrants. They demand the abolition of the competition through administrative intervention. Politically speaking they are right-wingers, since they wish to belong to the group they were excluded from under disgraceful conditions.
- *The proletarians* (remaining on the bottom). They remain where they were, they accept the rules of the society they live in. They are leftwing voters, consequently often co-operate with the citizens.
- *The farmers* (remaining on the bottom). They represent a minority not only inside society but also among those who are "on the bottom". Since they are small in number and they all stick to the land and the village, the right wing buys their vote through different government subsidies.

It is easy to recognize in the above description a sketchy picture of the post-war European and American societies, however there is a sizeable difference among countries depending on the electoral system (majority or proportional) in force.

In the case of a majority system, the proletarians and the citizens will vote for the Democrats (left), while the members of the four other groups for the Republicans (right). If a bi-party system prevails, then irrespectively, which group outnumbers the other the Democrats have exactly a 50% chance for a victory. (The developments of American history in the course of the last 100 years substantiate this statement.)

Let's try to make an assumption on the size of the different social strata. The simplest solution would be to find a common denominator appropriate for the description of all the three dimensions (capital, prestige, mobility). Considering a 1/4-3/4 division of society, from the point of view of initial capital' value, $3/4^{th}$ of the society is down and $1/4^{th}$ is up. (We would not make a big mistake when assuming that in modern societies $1/4^{th}$ of the society possesses $3/4^{th}$ of the capital.) Let the proportion of those who control the smaller part of the capital be $3/4^{th}$ (t=3/4). The figures on mobility might be defined also by the assertion that conditions of $3/4^{th}$ of the population are static, while 1/3 rd moves either toward the up either toward the down (American and British mobility surveys from the 70's substantiate these figures.) Let assume then, that the proportion of the mobile population is $1/4^{th}$ (m=$1/4^{th}$).

Finally, the dimension main/subgroup also separates the majority from the minority. The proportion $3/4^{th}$, $1/4^{th}$, among these two entities seems quite reasonable. Let „f" indicate inside the non-mobile group those who have a relative prestige edge: f= 3/4.

Based on a systematic sociological survey we might have the real „m" and „f" values. The size of the patrician' group would not simply be equal to 3/4*3/4*3/4*, but its proportion (t) would be the product of the multiplication of 1-m and f, that is patricians = t*(1-m)*f. But for the time being let's deal with the impact of the estimated values. (The picture would be even more complex, if we assumed that upward mobility is different from downward mobility, and within a given class issues

such as the way of life would be involved. Then the proportions would be different for the dominant' and subaltern' subgroups.) In consideration of necessity, we are going to neglect these different factors, so t=m=f=3/4. This formula will allow us to calculate the size of a given group. For getting parvenus, we have to multiply two values, since regarding the initial capital' position, and the moving in the upward direction, $3/4^{th}$ of the society belongs here and regarding the mobility only $1/4^{th}$. Consequently, the proportion of parvenus will be as follows: $3/4*1/4 = 3/16 = 12/64$. Let us look now into the case of the proletarians. The first multiplying factor is the initial capital' position; the proletarians belong to the $3/4^{th}$ of the population which possesses limited capital only, the second one is the mobility factor. Since their mobility is quite limited the value of this factor will be 3/4. Finally, regarding their attitude toward order, they are part of the mainstream, which has a multiplying factor of $3/4^{th}$ too. Let us review the six classes together:

- Patrician = $1/4*3/4*3/4 = 9/64$
- Citizen = $¼*3/4*1/4 = 3/64$
- Loser = $¼*1/4* = 1/16 = 4/64$
- Farmer = $¾*3/4*1/4 = 9/64$
- Proletarian = $¾*3/4*3/4 = 27/64$
- Parvenu = $¾*1/4 = 3/16 = 12/64$

It is worth examining the level of social class (which is not equal to the number of voters); how many are actually on the top and on the bottom (what is the proportion of the wealthy to the poor)?

The parvenu + the citizen + the patrician = $24/64^{th}$ will be on the top, the proletarian + the farmer + the loser = $40/64^{th}$ will be on the bottom. Consequently, the proportion of top to bottom is $(24/64):(40/64)=3/5$, so there are almost twice as much poor then wealthy.

As far as the political orientation is concerned: Parvenu+ patrician + farmer+ loser = 34/64 are right wing, citizen + proletarian = 30/64 are leftwing, thus the proportion of right to left is 34/30.

We got to an important issue which is erroneously called class voting, that is the likelihood for an individual situated on the top to vote for the right is: parvenu + patrician/on the top= 21/24, while the likelihood for those situated at the bottom to vote for the left: proletarian/ bottom=21/40. (According to empirical surveys carried out in Sweden in the 80's, the proportion of those on the top voting to the right was 80%, while that of those at the bottom voting for the left was 60%.)

In our model-society the top makes 35-40%, while right wingers are about 55% of the society. Without any further investigation we might conclude that in countries with a proportional electoral system, the right has better chances to win than the left notwithstanding the fact that it makes a smaller proportion of the society. During the post war period, 60% of the countries with no majority electoral systems had right wing government, while 40% had left wing government. Let us examine this problem more closely.

Electoral results do not depend just on the size of the supporter's group, since the stance of the so called, free riders might have a significant impact on the outcome. Under identical conditions, the bigger a group, the smaller the proportion of those who go to the polls. Under a majority electoral system, one might presume that if the proportion of the Democrat's supporters is 60%, and that of the Republi-

cans 40, then only 40% of Democrats, and 60% of the smaller in size Republicans will go the polls. Hence 48% of the whole society will participate in the elections, since 60%*40%+ 40%*60%= 48%. This value is quite close to the proportion of voters who participate in the US presidential elections. This also explains the fact, that considering a historically longer period, irrespective of the proportion of their supporters, why the Democrats have about 50% of a chance of success.

Under the proportional electoral system, the impact of the free riders' effect is somehow more complex, since one has to count for each class the number of the voters. If the size of the class is b, then taking into account the free riders' effect the proportion of actual voters in this class will be (1-b) (Aronson's social-psychological tests show, that parallel to the growth in size of a group, an increasing number of individuals feel free not to assume responsibility. If an individual was alone while noticing a noise related to a possible accident, and he went out to check what happened, he was ready to help. If two persons noticed the noise, they might or might not go out and help, but if they were three, they never did so.) Parvenus make up 12/64th part of the society, and we assume that the proportion of those who will go to the polls will be: 1-(12/64) = 52/64. Then for each class the proportion of the votes will be as follows: parvenu= (12/64)*(52/64)=15%, citizen 4%, loser 6%, patrician=12%, proletarian=24%. All in all 74% of the whole society will go to the polls.

This result would be quite disappointing for the left-wingers, since the left would get only 39% (33%+6%) of the seats. In a dynamic model, this 40% would mean, that from 5 elections, 3 would be won by the right, and 2 by the left. (As far as parliamentarians elected on individual lists are concerned, the same applies as in the case of the bi-party system. Therefore one might anticipate that from seven parliamentary elections three will be won by the left and four by the right.)

CONCLUSIONS

The present report in some aspects, proposes new assumptions. It might seem somehow inconsistent that in the first chapter the criteria for distinguishing a class is the sketchy character of the poor and the wealthy, however to my view, no society is fragmented along these lines. Nonetheless for the sake of analysis it might seem appropriate to adopt these criteria. In the second chapter I distinguish six social classes. These classes make up the voters of two or six parties depending on the electoral system (majority or proportional) in force

If we know the number of people belonging to each of the classes, and we also know the number of people who vote for each of the parties, then a new problem will arise. The individual who is associated to a high v (v=k*I) value is going to the polls. The question is for whom he is going to vote? The majority will vote for the party corresponding to their specific social class. However, there will be quite a few numbers of people who are going to the polls, but convinced by one of the opinion-leaders he will not vote for his own party but for another. How to explain this development?

Within each social class, probably a proportion of 5-10% of people belongs to the opinion leaders, and each of these leaders are able to draw on the side of his own party 3 or 4 persons on the day of the elections. Since most likely there will be a higher number of opinion leaders in the bigger class, and fewer in the smaller one, then it might be correct also to say that a certain number of voters have weak linkages

to their own party and are under the influence of the opinion leaders. Hence, the model consists of three components. The first is a question: who is going to vote, and who will stay at home? The second is about the force of gravity of the different social class. Finally the third component is related to the character of the opinion leaders.

REFERENCES

BLAIS, A. Why do people vote? An experiment on rationality. Public Choice 99 (1) 39-55. Apr. 1999.

BUCHANAN, J. M. (1958): Public Principles of Public Debt. Homewood, Il: Irwin.

GERSCHENKRON, A. (1962): Continuity in History and Other Essays Economic Backwardness in Historical Perspective, The Belknap Press of Harvard University Press.

HARDIN, R.: Collective Action as an Agreeable n-Prisoners Dilemma, Behavioral Science, vol. 16, 1971, pp. 472-481.

HAYEK, F. A. (1967): The Principles of a Liberal Social Order in: Studies in Philosophy, Politics and Economics. Routledge and Kegan Paul, London.

LUCAS, R. E. (1988): On the mechanics of economic development. Journal of Monetary Economics, 22, 3-42.

MANKIW N. G., ROMER, D. and WEIL, D. N. (1992): A contribution to the empirics of economics growth. Quarterly Journal of Economics, 407-437.

MANKIW, N. G. (1995): The growth of nations. Brookings Papers on Economic Activity.

OLSON, M.: The logic of collective action, Harvard University Press, Cambridge, 1965.

OLSON, MANCUR (1982): The Rise and Decline of Nations: Economic Growth, Stagfalation, and Rigidities Yale University Press New Haven and London.

PARFIT, D.: Prudence, Morality, and the Prisoner's Dilemma, 1978 British Academy, Philisophial Lecture, The British Academy 1981.

RAPAPORT, A.: Exploiter, Leader, Hero, and Martyr: The Four Archetypes of the 2x2 Game, Behavioral Science, vol. 12, 1967, pp. 81-84.

ROSTOW, W. W. (1960): The Stages of Economic Growth

ULMANN-MARGALIT, E.: Coordination Norms, in Edna Ullmann-Margalit, The Emergence of Norms, Oxford University Press, Oxford 1977, pp. 74-114.