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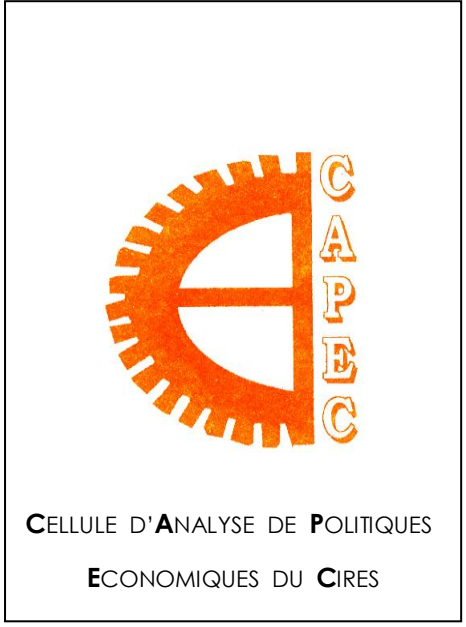

DETERMINANTS OF VOTING IN CÔTE D'IVOIRE: THE CASE OF PRESIDENTIAL ELECTIONS.

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Abstract

This paper examines the determinants of the decision to vote and the vote choice in presidential elections in Côte d'Ivoire using a survey financed by the European Commission and conducted by the Ivorian Center of Social and Economic Research (CIRES) in 2005. The decision of voting and the vote choice are estimated using a Logit model. We find that the probability of voting varies across ethnic groups and significantly increases with education levels, interest in politics, satisfaction with democracy and satisfaction with government but decreases with insecurity during elections. Moreover, we show that there is an inverted U-shaped relationship between age and the probability of voting. This probability is high for men compared to women and for workers and retirees compared to unemployed but it is low for students. Concerning the vote choice, we find that relatively to the "program and party" criterion, the probability of choosing the candidate on the basis of his individual characteristics decreases with age, insecurity, satisfaction with democracy but increases with satisfaction with government and with secondary, university or Koran education level.

Key words: Participation, Voting, Côte d'Ivoire

JEL classification: D72

Résumé

Cet article analyse les déterminants de la décision de vote et du choix des candidats par les électeurs lors des élections présidentielles en Côte d'Ivoire à partir d'une enquête financée par la Commission Européenne et réalisée en 2005 par le Centre Ivoirien de Recherches Economiques et Sociales (CIRES). La décision de voter et le choix du candidat préféré sont estimés à l'aide du modèle Logit. Nous trouvons que la probabilité de voter diffère suivant les groupes ethniques, augmente significativement avec le niveau d'éducation, l'intérêt manifesté pour la politique, la satisfaction vis-à-vis de la démocratie et la satisfaction vis-à-vis du gouvernement mais diminue avec l'insécurité durant les élections. De plus, nous montrons qu'il existe une relation en U renversé entre l'âge et la probabilité de voter. Cette dernière est élevée pour les hommes relativement aux femmes et pour les travailleurs et les retraités comparativement aux chômeurs mais elle est faible pour les étudiants. S'agissant du choix des candidats par les électeurs, nous trouvons que, comparativement au critère « programme et parti politique », la probabilité de choisir le candidat préféré sur la base de ses propres caractéristiques diminue avec l'âge, l'insécurité, la satisfaction vis-à-vis de la démocratie et augmente avec la satisfaction vis-à-vis du gouvernement et les niveaux d'éducation, secondaire, supérieur et Coranique.

Mots-clés: Participation, vote, Côte d'Ivoire

JEL classification: D72

1. Introduction

Further to the wave of democratization during the 1990s, elections have become common in low-income countries. They are even viewed as a pacific and democratic mechanism of conflicts and political crisis resolution in Africa. For example, elections were among the main objectives of the political transition initiated in the Democratic Republic of Congo (RDC) following the inter-Congolese talks in South Africa in 2002 and 2003 as a mean to end the civil war. The objective was the same in Angola, Liberia, Sierra Leone and Burundi. However, in many countries such as Togo, RDC, Nigeria, Kenya, Zimbabwe and Côte d'Ivoire, the electoral competition has produced serious levels of violence. Such a relationship between elections and violence has been confirmed by empirical studies. Collier and Rohner (2008) find that, below per capita income of $2,750, democracy significantly increases proneness to civil war and various other manifestations of violence. Collier and Vicente (2008) explain the surprising results of democracy by focusing on how elections have been conducted. Precisely, they point out that numerous recent African elections aroused widespread international accusations that parties/candidates had resorted to miscounting of votes, bribery, and/or intimidation. Then, they investigate the causes and consequences of such illegitimate strategies using a field experiment on the Nigerian general election of 2007. They establish that voter intimidation is effective in reducing voter turnout and that violence was systematically associated with non-incumbent groups. They also suggest that incumbents have a comparative advantage in alternative strategies, vote buying and ballot fraud. They explain the use of violence by a weak candidate by the fact that it strengthens his post-election position.

Together the results obtained by Collier and Vicente (2008) suggest that to lower parties/candidates incentives to resort to illegitimate strategies, it is important to help them increasing their voting share. This can be achieved through the knowledge of the correlates of the decision to participate in elections and of the candidate choice.

This paper studies such correlates in Côte d'Ivoire where it has been decided to organize transparent elections with no exclusion of candidates in order to end the civil war that broke out in September 2002. As noted above, by providing evidence on the determinants of both the decision to vote and the vote choice, this paper aims to reduce parties/candidates incentives to

rely upon illegitimate strategies for getting elected, and therefore, consolidate peace in Côte d'Ivoire.

Various determinants of the decision to vote and the vote choice have been underlined by research on political participation. Following Verba and Nie (1972), studies on the determinants of the different forms of political participation (voting, campaign activity, communal activity, demonstrations…) distinguish two classes of determinants: socio-demographic characteristics and attitudes. Socio-demographic characteristics include variables such as education, age, income and sex. These variables have been consistently found to explain much variation in such forms of political participation as voting or joining voluntary associations (Milbrath and Goel, 1977). However, the strongest predictors of political participation are age and education (see Winkler et al, 1981, Grönlund and Setälä, 2007). Attitudes are psychological characteristics that could affect political participation. They are captured by various qualitative variables such as political trust or alienation (winkler et al, 1981; Hetherington, 1999); trust in parliament, trust in politicians and satisfaction with democracy (Grönlund and Setälä, 2007); abilities (Verba et al, 1995; Brady et al, 1995); sense of civic duty (Dalton, 2007); party identification (Dalton and Wattenberg, 2001); political interest (Fournier et al, 2007)….

Studies on vote choice use as determinants, the explanatory variables of political participation and additional variables such as race, candidate characteristics, retrospective evaluations of incumbent performance, national economic conditions (Hetherington, 1999). These studies analyze the vote choice using a Logit model (Hetherington, 1999) or a multinomial Logit model while studies on the decision to vote estimate the propensity to vote using a Logit model (Grönlund and Setälä, 2007).

In this paper, we use some of the determinants mentioned above and specific variables to analyze the decision to vote and the vote choice in Côte d'Ivoire. Like in previous studies, the probability to participate in elections as well as the vote choice is estimated using a Logit model. The next section provides some information on data and variables. Section 3 presents the results and section 4 concludes.

2. Data

We use a survey conducted in the District of Abidjan in 2005. This survey was financed by the European Commission and

carried out by the Ivorian Center of Social and Economic Research (CIRES). A total of 6,545 individuals were interviewed. 5,496 of these individuals are Ivoirians and 1,049 are non Ivoirians. 3,896 of the 5,496 Ivoirians were at least 18 years old (ie, the voting age) in 2000 (ie, the year of the last presidential elections).

The questionnaire includes questions on socio-demographic characteristics of the households' members, expenses of the households, democracy and human laws, impact of the civil war, and on the opinion about the ending of the war. With respect to electoral participation, there were questions about whether respondents had voted in presidential, municipal, parliamentary or regional elections during the last five years. 68.22% of the 3,896 Ivoirians said that they voted to at least one election during the last five years. 63.89% voted in presidential elections, 60.09% in municipal elections, 58.01% in parliamentary elections and 48.09% in regional elections.

There are also questions on the main motives for the choice of a candidate by voters in each poll. For example, people were asked whether they had chosen candidate in presidential elections according to the government program, ethnic group, religion, party, or other criteria (experience in politics, wealth, honesty, nationalism, good behavior, peace lover, being a civilian, intelligent...). The proportions of the sample are 13.50% for government program, 2.31% for ethnic group, 0.41% for religion, 6.34% for party and 77.44% for other criteria (see Table 4).

Let's now examine the correlates of the decision to vote and of the vote choice focusing on presidential elections. We use almost the same determinants for both the decision to vote and the vote choice. They include socio-demographics characteristics and attitudes. The socio-demographics characteristics are captured by the following variables: age, sex, education, profession and ethnic group. Age is measured in years (the minimum age is 23 and the maximum age 99) while sex is a dummy variable which takes the value 1 for men and 0 for women. Education is represented by four dummies variables related to the different levels of education: primary, secondary, university or high school and Koran. Profession includes four dummies variables indicating the occupational status: unemployed, worker, student and retiree. Ethnic group consists of five dummies variables referring to the five main ethnic groups which compose the country: *Akan*, *Krou*, Southern Mandé (*mands*), Northern Mandé (*mandn*) and *Gurr*.

We use as attitudes, opinions on five variables: *democracy*, *state*, *politics*, *insecurity* during elections and adhesion to political party. The first variable, democracy, takes the value 1 for respondents who reported that democracy is adapted to Côte d'Ivoire and 0 otherwise. The second, State, is a dummy variable which equals to 1 for respondents who answered that the State of Côte d'Ivoire protect the population without discrimination. The third variable, politics, is also a dummy variable coded '1' for those who report that they are interested in politics and 0 otherwise. The fourth variable, insecurity, takes the value 1 for respondents who reported that they did not vote because of insecurity or that they were the subject of intimidation during elections and 0 otherwise. The last attitudinal determinants, adhesion is a set of seven dummies variables related to criteria of the adhesion to political parties: ethnic, religion, money, leader's charisma, government program, other criteria and no criterion.

Finally, in the model of the decision to vote, we add to the above determinants a dummy variable indicating the possession of the Ivorian identity card. The objective is to check if having this card is a necessary and sufficient condition for participating in elections and therefore, identify the need for mobilizing people to vote.

Table 1 presents some descriptive statistics of the determinants of the propensity to vote and Table A.1 in appendix reports their correlation coefficients. Columns one of Table 1 describes the full sample average values of the different variables while columns two and three give the averages for respectively, voters and non-voters (…). The average age is around 36 for the entire sample. Men represent 49.25% of this sample. The proportions of people having primary, secondary, university (or high school) or Koran education levels are respectively 17.91%, 33.72%, 29.85% and 5.08%. Workers, students, retirees and unemployed represent 49.07%, 14.50%, 4.57% and 31.85%, respectively. The proportions of the different ethnic groups in the entire sample are 48.64% for the Akan, 18.09% for Krou, 6.95% for southern Mandé, 21.28% for northern Mandé and 2.10% for Gurr. 52.31% of the 3,896 individuals report that democracy is adapted to Côte d'Ivoire and 54.90% answer that the government protects the population without discrimination. 31.83% of the 3,896 individuals are interested in politics and 57.57% have the Ivorian Identity Card. 3.92% complains about insecurity during elections. As to the criteria on joining a political party, the

proportions of individuals in the full sample who respond that the adhesion is based on the ethnic group, the religion, money, the leader's charisma, the government program, no criterion or other criteria are respectively, 19.94%, 3%, 10.93%, 5.57%, 35.86%, 18.32% and 6.36%.

A look at the last column of Table 1 suggests that the variables age, sex, university, retiree, Krou, democracy, state, politics, identity card, ethnic adhesion, money adhesion, charisma adhesion and party adhesion affect positively and significantly the probability of voting. On the contrary, illiteracy, primary and Koran educations, student, unemployed, Mandé du nord, and insecurity are negatively and significantly associated with the propensity to vote. However, these observations are only suggestive, and a proper econometric analysis is required to estimate the partial impacts of each of these variables.

Table 1: Descriptive Statistics

Variables	All individuals (3,896)	Vote (2,658)	Not vote (1,238)	Difference between not vote and vote
age	36.33 (11.77)	38.3546 (11.7366)	31.506 (10.3652)	-6.848 (0.39043)***
sex	0.4925 (0.50)	0.5176 (0.4998)	0.4386 (0.4964)	-0.0790 (0.0171)***
uneducated	0.1342 (0.3409)	0.1279 (0.3340)	0.1478 (0.355)	0.0199 (0.01199)*
primary	0.1791 (0.3835)	0.1719 (0.3774)	0.1946 (0.3961)	0.0227 (0.0134)*
secondary	0.3372 (0.4728)	0.3356 (0.4723)	0.3408 (0.4741)	0.0053 (0.0163)
university	0.2985 (0.4576)	0.3213 (0.4670)	0.2496 (0.4329)	-0.0717 (0.0152)***
koran	0.0508 (0.2196)	0.0432 (0.2035)	0.0670 (0.2502)	0.0238 (0.0081)***
worker	0.4907 (0.4999)	0.5496 (0.4976)	0.3643 (0.4814)	-0.1853 (0.0167)***
student	0.1450 (0.3521)	0.0922 (0.2893)	0.2585 (0.4379)	0.1663 (0.0136)***
retiree	0.0457 (0.2088)	0.0602 (0.2379)	0.0145 (0.1197)	-0.0456 (0.0057)***
unemployed	0.3185 (0.4659)	0.2979 (0.4574)	0.3627 (0.4809)	0.0647 (0.0163)***
akan	0.4864 (0.4999)	0.4943 (0.5000)	0.4693 (0.4992)	-0.025 (0.0172)
krou	0.1809 (0.3850)	0.1945 (0.3959)	0.1518 (0.3590)	-0.0426 (0.0127)***
Mandé sud	0.0695 (0.2544)	0.0733 (0.2607)	0.0614 (0.2401)	-0.0119 (0.0085)
Mandé nord	0.2128 (0.4093)	0.1945 (0.3959)	0.2520 (0.4343)	0.0575 (0.0145)***
Gurr	0.0210 (0.1435)	0.0188 (0.1359)	0.0258 (0.1587)	0.0070 (0.0052)
Democracy	0.5231 (0.4995)	0.6079 (0.4883)	0.3409 (0.4742)	-0.2671 (0.0165)***
state	0.5490 (0.4976)	0.6207 (0.4853)	0.3950 (0.4890)	-0.2257 (0.0168)***
politics	0.3183 (0.4658)	0.3461 (0.4758)	0.2585 (0.4379)	-0.0876 (0.0155)***
Identity card	0.5757 (0.4943)	0.6189 (0.4857)	0.4830 (0.4999)	-0.1358 (0.0170)***
insecurity	0. 0392 (0.1942)	0.0308 (0.1729)	0.0573 (0.2182)	0.0265 (0.0074)***
Ethnic adhesion	0.1994 (0.3996)	0.2321 (0.4223)	0.1292 (0.3356)	-0.1029 (0.0125)***
Religion adhesion	0.0300 (0.1707)	0.0323 (0.1769)	0.0250 (0.1563)	-0.0073 (0.0056)
Money adhesion	0.1093 (0.3121)	0.1204 (0.3255)	0.0856 (0.2799)	-0.0347 (0.0101)***
Charisma adhesion	0.0557 (0.2293)	0.0609 (0.2393)	0.0444 (0.2061)	-0.0165 (0.0075)**
Other criteria	0.0636 (0.2441)	0.0605 (0.2386)	0.0703 (0.2557)	0.0097 (0.0086)
No opinion adhe	0.1832 (0.3869)	0.0967 (0.2956)	0.3691 (0.4827)	0. 2724 (0.0148)***
Party adhesion	0.3586 (0.4796)	0.3969 (0.4893)	0.2762 (0.4473)	-0.1206 (0.0158)***

*Note: Numbers in each cell are mean and standard deviation (in brackets). * significant at 10%; ** significant at 5%; *** significant at 1%.*

3. Econometric results

3.1Results for the decision to vote

The dependent variable is a dummy variable taking the value one if an individual has voted in the 2000 presidential elections and zero otherwise. As noted above, the explanatory variables include age, sex, primary, secondary, university or high school, Koran, worker, student, retired, Akan, Krou, southern Mandé (*mands*), northern Mandé (*mandn*), democracy, state, politics, insecurity and six of the seven dummies variables related to criteria of the adhesion to political parties: ethnic, religion, money, leader's charisma, other criteria (*other*), no criterion. We add the square of age to these variables (age2) to account for the non linear effect of age. The results of the estimation are reported in Tables 2.1 and 2.2. Column (1) presents the results when we include only the standard determinants of voting. Note that almost all the coefficients are statistically significant. Age is positively associated with voting, implying that individuals who do not vote are more likely to be young. Similarly, sex affects positively and significantly the propensity to vote, suggesting that men are more likely to vote. More precisely, being a man increases the probability of voting by 0.026 % (see column1 Table 2.2). All the parameters associated with education variables except Koran are significant. Indeed, having a primary, secondary or university standard significantly increases the probability of voting while having a Koranic standard has no effect. The elasticities of the probability of voting with respect to primary, secondary and university standards are respectively, 0.0129, 0.0256 and 0.0696. Therefore, education has an increasing effect on the propensity to vote. The coefficient of *worker* is positive and significant while that of *student* is negative and significant, implying that compared to the unemployed, workers are more likely to vote but students are less likely to vote. Retired people are not more likely to vote than the unemployed. All the coefficients associated with the attitudinal variables are statistically significant. *Democracy*, *State* and *politics* are positively associated with voting like in Grönlund and Setälä (2007). Therefore people who are interested in politics or satisfied with democracy or State have a greater propensity to cast an election ballot. Interest in politics, satisfaction with democracy or State increases the propensity to vote by 0.118%, 0.073% and 0.033%, respectively (column1 of table 2.2).

In column (2), we include the square of age to account for the non linear effect of age. Almost all the significant variables of

column 1 are still significant. Age affects positively and significantly the probability of voting but its square has a significant negative effect. Therefore, there is an inverted U-shaped relationship of age on the propensity to vote. As in column (1), the variables sex, primary, university, worker, student, democracy, state and politics are significant with a decreased level of significance for primary (from 1% to 10% level) and worker (from 1% to 5% level). However, the secondary education variable turns to be insignificant while the coefficient of the variable retirees becomes significant at the 5% level.

Column (3) reports the results when the variable insecurity is included in the model. All the significant variables of column 2 are still significant at least at the same levels of significance and the sign of the observed relation is robust to the inclusion of insecurity. Moreover, insecurity is negatively and significantly associated with the probability of voting. Precisely, insecurity is associated with a decrease of the probability of voting by 0.007% (column (3) of table 2.2). This effect of insecurity is in line with Collier and Vicente (2008) findings that violence is effective in reducing voter turnout. Therefore, fighting against violence during elections can motivate people to participate in election.

Column (4) presents the results when the variables of ethnic groups are added to the previous list of explanatory variables. All the significant variables of column (3) are still significant at the same levels of significance, except for the primary education variable. In addition, all the coefficients associated with ethnic groups are positive but only two are significant. The probability of voting is significantly higher for Krou and Mandé du sud than for the Gurr group. But, the propensity to vote is the same for the Gurr, Mandé du nord and Akan ethnic group. The significant effect of Krou and Mandé du sud on the probability of voting may be explained by the fact that the main candidates for the 2000 presidential elections were from these two ethnic groups.

In column (5), the variable capturing the possession of the Ivorian identity card is included to check if having this card is a necessary and sufficient condition for participating in elections. We find that the coefficient associated with this variable is not statistically significant; implying that having this card is a necessary but not sufficient condition for participating in elections. Therefore, there is a need for mobilizing people who fill the precondition of voting. We also find that all the

significant variables of column 4 are still significant.

Column (6) presents the results when dummy variables related to criteria of the adhesion to political parties are added to the list of variables in column (5). Note that all the significant coefficients in column (5) are still significant and that the coefficient associated with secondary education turns to be weakly significant. The coefficients on all the dummy variables related to criteria of the adhesion to political parties are positive and significant except for the dummy variable "other". Respondents who report that adhesion to political parties is based on the ethnic group, religion, money or leader's charisma are more likely to vote than those who said that adhesion rely upon the government program. Moreover, respondents who have no opinion on the adhesion to political parties have a greater propensity to vote. These results suggest that the government program does not play a significant role in the decision to participate in elections.

In summary, the variables that robustly and significantly affect the voting probability are age, sex, university, worker, student, democracy, state, politics, insecurity, Krou, mands and the variables related to criteria of the adhesion to political parties (ethnic, religion, money, leader's charisma and no criterion). Age has an inverted U-shaped effect on the propensity to vote while all the other variables except insecurity are positively associated with the voting probability.

Table 2.1: Results for the decision to participate in elections

	(1)	(2)	(3)	(4)	(5)	(6)
age	0.062 (0.006)***	0.273 (0.022)***	0.279 (0.022)***	0.283 (0.022)***	0.281 (0.022)***	0.292 (0.023)***
age^2		-0.003 (0.0002)***	-0.003 (0.0002)***	-0.003 (0.0002)***	-0.003 (0.0002)***	-0.003 (0.0002)***
sex	0.210 (0.087)**	0.236 (0.088)***	0.246 (0.088)***	0.257 (0.088)***	0.255 (0.089)***	0.283 (0.090)***
primary	0.292 (0.146)**	0.275 (0.149)*	0.264 (0.149)*	0.232 (0.150)	0.233 (0.150)	0.214 (0.154)
secondary	0.307 (0.135)**	0.225 (0.139)	0.226 (0.140)	0.188 (0.141)	0.189 (0.141)	0.239 (0.145)*
university	0.919 (0.154)***	0.836 (0.158)***	0.832 (0.159)***	0.805 (0.160)***	0.809 (0.160)***	0.810 (0.162)***
Koran	-0.148 (0.201)	-0.211 (0.204)	-0.234 (0.204)	-0.263 (0.205)	-0.260 (0.205)	-0.245 (0.212)
worker	0.336 (0.093)***	0.239 (0.094)**	0.246 (0.095)***	0.267 (0.095)***	0.264 (0.095)***	0.246 (0.096)**
student	-0.793 (0.141)***	-0.538 (0.143)***	-0.549 (0.143)***	-0.538 (0.144)***	-0.538 (0.144)***	-0.500 (0.147)***
retiree	0.223 (0.306)	0.647 (0.312)**	0.673 (0.306)**	0.694 (0.311)**	0.685 (0.311)**	0.711 (0.319)**
democracy	0.879 (0.084)***	0.903 (0.087)***	0.879 (0.088)***	0.869 (0.088)***	0.869 (0.088)***	0.890 (0.090)***
state	0.515 (0.084)***	0.526 (0.086)***	0.521 (0.086)***	0.494 (0.087)***	0.493 (0.087)***	0.470 (0.090)***
politics	0.416 (0.091)***	0.408 (0.092)***	0.417 (0.092)***	0.401 (0.093)***	0.402 (0.093)***	0.306 (0.095)***
insecurity			-0.836 (0.201)***	-0.807 (0.201)***	-0.809 (0.202)***	-0.909 (0.216)***
akan				0.288 (0.190)	0.287 (0.190)	0.296 (0.192)
krou				0.544 (0.207)***	0.541 (0.206)***	0.575 (0.209)***
mands				0.506 (0.241)**	0.499 (0.241)**	0.480 (0.246)*
mandn				0.160 (0.201)	0.157 (0.201)	0.090 (0.204)
Id card					0.058 (0.085)	0.052 (0.087)
ethnic						1.061 (0.121)***
religion						0.472 (0.250)*
money						0.702 (0.143)***
charisma						0.423 (0.195)**
other						0.067 (0.164)
noopinion						0.430 (0.176)**
Constant	-2.654	-6.598	-6.683	-7.020	-7.001	-7.557

	(0.240)***	(0.471)***	(0.474)***	(0.505)***	(0.505)***	(0.521)***
Obs	3672	3672	3672	3672	3672	3672
Co predict	74.48%	74.73%	75.14%	75.14%	75.16%	76.28%
Prob> chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*Robust standard errors in parentheses * significant at 10%; ** significant at 5%; *** significant at 1%*

Table 2.2: Marginal effects (Elasticity)

	(1)	(2)	(3)	(4)	(5)	(6)
age	0.5608 (0.0485)***	2.439 (0.1932)***	2.482 (0.1935)***	2.502 (0.1924)***	2.483 (0.1942)***	2.5161 (0.194)***
age²		-0.9051 (0.0867)***	-0.9236 (0.0867)***	-0.9343 (0.0864)***	-0.9283 (0.0868)***	-0.9417 (0.0862)***
sex	0.0258 (0.0106)***	0.0286 (0.0107)***	0.0297 (0.0106)***	0.0309 (0.0106)***	0.0306 (0.0106)***	0.0331 (0.0105)***
primary	0.0129 (0.0064)**	0.0120 (0.0065)*	0.0115 (0.0065)*	0.0100 (0.0065)	0.0100 (0.0065)	0.0090 (0.0065)
secondary	0.0256 (0.0111)**	0.0185 (0.0111)	0.0185 (0.0114)	0.0153 (0.0115)	0.0154 (0.0115)	0.0189 (0.0115)*
university	0.0696 (0.0116)***	0.0626 (0.0118)***	0.0619 (0.0117)***	0.0596 (0.0117)***	0.0599 (0.0117)***	0.0584 (0.0117)***
Koran	-0.0019 (0.0025)	-0.0026 (0.0025)	-0.0029 (0.0025)	-0.0032 (0.0025)	-0.0032 (0.0025)	-0.0029 (0.0025)
worker	0.0418 (0.0116)***	0.0294 (0.0115)**	0.0301 (0.0115)***	0.0325 (0.0115)***	0.0321 (0.0115)***	0.0291 (0.0115)***
student	-0.0263 (0.0047)***	-0.0176 (0.0047)***	-0.0179 (0.0047)***	-0.0175 (0.0047)***	-0.0175 (0.0047)***	-0.0158 (0.0047)***
retiree	0.0026 (0.0036)	0.0075 (0.0036)**	0.0078 (0.0036)**	0.0080 (0.0036)**	0.0079 (0.0036)**	0.0080 (0.0035)**
democracy	0.1184 (0.0115)***	0.1201 (0.0117)***	0.1164 (0.0117)***	0.1144 (0.0117)***	0.1143 (0.0117)***	0.1142 (0.0117)***
state	0.0733 (0.0120)***	0.0739 (0.0121)***	0.0728 (0.0121)***	0.0687 (0.0122)***	0.0685 (0.0122)***	0.0636 (0.0121)***
politics	0.0330 (0.0072)***	0.0320 (0.0072)***	0.0326 (0.0072)***	0.0311 (0.0072)***	0.0312 (0.0072)***	0.0231 (0.0072)***
insecurity			-0.0073 (0.0017)***	-0.0071 (0.0017)***	-0.0071 (0.0017)***	-0.0077 (0.0018)***
akan				0.0342 (0.0226)	0.0340 (0.0226)	0.0342 (0.0221)
krou				0.0245 (0.0093)***	0.0244 (0.0093)***	0.0253 (0.0092)***
mands				0.0085 (0.0040)**	0.0084 (0.0040)**	0.0078 (0.0040)*
mandn				0.0082 (0.0103)	0.0080 (0.0103)	0.0045 (0.0101)
Id card					0.0081 (0.0120)	0.0071 (0.0120)
ethnic						0.0489 (0.0056)***
religion						0.0035 (0.0019)*
money						0.0191 (0.01854)***
charisma						0.0057 (0.0026)**
other						0.0010 (0.0025)

noopinion						0.0069 (0.0028)**
Obs	3672	3672	3672	3672	3672	3672
Pr(voter) pred	0.7509	0.7538	0.7551	0.7564	0.7565	0.7628

*Robust standard errors in parentheses * significant at 10%; ** significant at 5%; *** significant at 1%*

3.2 Results for the vote choice

Table 3 presents a tabulation of the main motives for the candidate's choice by voters. This evidence allows us to determine the proportions of people who choose their candidate according to government program, ethnic group, religion, political party or other criteria (experience in politics, wealth, honesty, nationalism, good behavior, peace lover, being a civilian, intelligent...). The proportions are respectively 13.50%, 2.31%, 0.41%, 6.34% and 77.44%. Therefore, the majority of people choose their candidate according to individual characteristics of the candidate. Given the low percentages of ethnic group, religion and political party, we include ethnic group and religion in the alternative "other criteria" and merge "government program" and "political party" into an alternative called "program and party". The alternative obtained by gathering ethnic group, religion and other criteria is named "individual characteristics of the candidate". Therefore, the proportions are 19.50% for "program and party" and 80.50% for "individual characteristics of the candidate".

Next, we examine the determinants of the candidate's choice. As already noted, we use all the explanatory variables of the decision to participate in elections except for the dummy variables indicating the possession of the Ivorian identity card. The dependent variable is a dummy variable which takes the value 1 when the candidate is chosen according to individual characteristics and 0 otherwise. Like in the previous section, we use a Logit model to estimate the probability of choosing candidate according to individual characteristics. The results are reported in Tables 3.1 and 3.2. Column (1) reports the results when we include only the standard determinants of voting. Only five of the twelve variables are statistically significant. Age is negatively and significantly associated with the probability of choosing the candidate according to his individual characteristics. This result suggests that young voters are less likely to choose candidates according to individual characteristics. On the contrary, the coefficients associated with the dummies representing Koran, secondary and university education levels are positive and significant. Therefore, having such education levels increases the probability

of voting according to individual characteristics of the candidate. While the effect of the Koran education is quite normal, the positive effect of the secondary and university education is counterintuitive. Such an effect may be explained by the fact that the 2000 presidential elections opposed a military to civilian candidates. In such a context, educated people are more likely to vote for a civilian candidate who is more likely to promote democracy than a military. Similarly, the dummy *State* is positively and significantly associated with the probability of voting according to candidates' individual characteristics. This result implies that respondents who answered that the State of Côte d'Ivoire protects the population without discrimination are more likely to vote according to individual characteristics.

Column (2) presents the results when the dummy variable *insecurity* is included in the model. All the significant variables of column 1 are still significant at the same levels of significance. Moreover, insecurity is negatively and significantly associated with the probability of choosing the candidate on the basis of his individual characteristics. Therefore people who complained about insecurity during elections are more likely to vote according to the government program.

Column (3) presents the results when the variables of ethnic groups are added to the previous list of explanatory variables. All the significant variables of column 1 are still significant at the same levels of significance. However, the coefficients associated with ethnic group variables are not statistically significant. These results suggest that the ethnic origin does not matter for the choice of the candidate.

Column (4) reports the results when the dummy variables related to criteria of the adhesion to political parties are added to the list of variables in column (5). Note that all the significant coefficients in column (3) are still significant (with a decreased level of significance for Koran and insecurity variables) and that the coefficient associated with the dummy variable *democracy* turns out to be weakly significant. In addition, the variables related to adhesion to political party such as ethnic, money, charisma and other criteria are both negatively and significantly connected to voting according to individual characteristics of the candidate. These results imply that relatively to people who respond that the adhesion to political parties is based on the government program, respondents who answer that the adhesion is according to ethnic group, money, the leader charisma or other criteria are less likely to choose

their candidate on the basis of their characteristics. In terms of marginal effects, a year increase in age decrease the probability of voting according to individual characteristics by 0.074% while having a secondary, university or Koran education levels increases this probability by 0.021 %, 0.029% and 0.003%, respectively. Satisfaction with democracy decreases the probability of voting according to individual characteristics of the candidate by 0.015% whereas satisfaction with the State increases this probability by 0.029%. Insecurity is associated with a decreased in the probability of choosing the candidate on the basis of his characteristics by 0.002%. Similarly, reporting that the adhesion to political parties is according to ethnic group, money, the leader charisma or other criteria reduces this probability by, respectively, 0.03%, 0.018%, 0.015% and 0.009%.

Table 3: Frequency of the motives for candidate choice

Motives	Frequency	Frequency in %	Cumulative Frequency
Government program (code= 1)	526	13.50	13.07
Ethnic (code= 2)	90	2.31	15.81
Religion (code= 3)	16	0.41	16.22
Political party (code=4)	247	6.34	22.56
Other (code=5)	3,017	77.44	100
Total	3,896	100	

Table 4.1: Results for vote choice

	(1)	(2)	(3)	(4)
age	-0.013 (0.004)***	-0.013 (0.004)***	-0.013 (0.004)***	-0.012 (0.004)***
sex	-0.025 (0.092)	-0.020 (0.092)	-0.015 (0.092)	-0.034 (0.095)
primary	-0.102 (0.143)	-0.110 (0.144)	-0.118 (0.144)	-0.126 (0.147)
secondary	0.461 (0.140)***	0.463 (0.141)***	0.451 (0.142)***	0.354 (0.144)**
university	0.576 (0.152)***	0.571 (0.152)***	0.554 (0.153)***	0.547 (0.157)***
Koran	0.452 (0.218)**	0.442 (0.217)**	0.455 (0.219)**	0.410 (0.221)*
worker	-0.069 (0.100)	-0.065 (0.100)	-0.061 (0.100)	-0.028 (0.102)
student	0.093 (0.170)	0.081 (0.170)	0.077 (0.170)	0.014 (0.176)
retiree	-0.055 (0.221)	-0.050 (0.222)	-0.053 (0.223)	0.011 (0.230)
democracy	-0.111 (0.095)	-0.128 (0.095)	-0.134 (0.096)	-0.163 (0.097)*
State	0.276 (0.094)***	0.270 (0.094)***	0.261 (0.094)***	0.288 (0.097)***
politics	-0.141 (0.092)	-0.137 (0.092)	-0.135 (0.092)	-0.018 (0.095)
insecurity		-0.479 (0.202)**	-0.453 (0.203)**	-0.375 (0.208)*
akan			-0.077 (0.210)	-0.005 (0.213)
krou			-0.163 (0.224)	-0.074 (0.227)
mands			-0.163 (0.257)	-0.098 (0.258)
mandn			-0.223 (0.218)	-0.122 (0.221)
ethnic				-1.065 (0.113)***
religion				0.172 (0.304)
money				-0.907 (0.138)***
charisma				-1.498 (0.165)***
other				-0.816 (0.165)***
noopinion				-0.100 (0.205)
Constant	1.567 (0.210)***	1.594 (0.211)***	1.737 (0.282)***	2.152 (0.292)***
Obs	3672	3672	3672	3672
Co predict	80.47%	80.47%	80.47%	80.34%
Prob> chi2	0.0000	0.0000	0.0000	0.0000

Robust standard errors in parentheses; significant at 10%; ** significant at 5%; *** significant at 1%*

Table 4.2: Marginal Effects for vote choice (Elasticity)

	(1)	(2)	(3)	(4)
age	-0.0878 (0.0280)***	-0.0868 (0.0281)***	-0.0872 (0.0281)***	-0.0745 (0.0266)***
sex	-0.0023 (0.0086)	-0.0019 (0.0086)	-0.0014 (0.0086)	-0.0029 (0.0082)
primary	-0.0034 (0.0048)	-0.0037 (0.0048)	-0.0039 (0.0048)	-0.0039 (0.0046)
secondary	0.0292 (0.0089)***	0.0292 (0.0089)***	0.0284 (0.0089)***	0.0209 (0.0084)**
university	0.0332 (0.0087)***	0.0328 (0.0087)***	0.0318 (0.0088)***	0.0293 (0.0084)***
Koran	0.0043 (0.0021)**	0.0042 (0.0021)**	0.0044 (0.0021)**	0.0037 (0.002)*
worker	-0.0066 (0.0094)	-0.0061 (0.0094)	-0.0058 (0.0094)	-0.0024 (0.009)
student	0.0023 (0.0043)	0.002 (0.0043)	0.0019 (0.0043)	0.0003 (0.0041)
retiree	-0.0005 (0.0020)	-0.0004 (0.0020)	-0.0005 (0.0020)	-0.00009 (0.0019)
democracy	-0.0114 (0.0097)	-0.0130 (0.0097)	-0.0137 (0.0098)	-0.0155 (0.0092)*
State	0.0299 (0.0101)***	0.0291 (0.0101)***	0.0281 (0.0101)***	0.0289 (0.0097)***
politics	-0.0085 (0.0055)	-0.0082 (0.0055)	-0.0081 (0.0055)	-0.0010 (0.0053)
insecurity		-0.0032 (0.0014)**	-0.0031 (0.0014)**	-0.0024 (0.0014)*
akan			-0.0070 (0.0193)	-0.0004 (0.0183)
krou			-0.0057 (0.0078)	-0.0024 (0.0074)
mands			-0.0021 (0.0033)	-0.0012 (0.0031)
mandn			-0.0089 (0.0087)	-0.0045 (0.0082)
ethnic				-0.0365 (0.0037)***
religion				0.0009 (0.0017)
money				-0.0183 (0.0027)***
charisma				-0.0152 (0.165)***
other				-0.0093 (0.0019)***
noopinion				-0.0012 (0.0024)
Obs	3672	3672	3672	3672
Pr(ind chara) pred	0.8106	0.8109	0.8111	0.8236

Robust standard errors in parentheses; significant at 10%; ** significant at 5%; *** significant at 1%*

4. Conclusion

This paper examined the determinants of the decision to vote and the vote choice in presidential elections in Côte d'Ivoire using a dataset financed by the European Commission in 2005. The decision of voting and the vote choice are estimated using a logit models, respectively. We have found that the probability of voting varies across ethnic groups and significantly increases with education levels, interest in politics, satisfaction with democracy and satisfaction with government but decreases with insecurity during elections. Moreover, we have found that there is an inverted U-shaped relationship between age and the probability of voting. This probability is high for men compared to women and for workers and retirees compared to the unemployed but it is low for students. Respondents who have no opinion on adhesion criteria or report that adhesion to political parties is based on the ethnic group, religion, money or leader's charisma are more likely to vote than those who said that adhesion rely upon the government program.

Concerning the vote choice, we have found that 19.50% of the voters choose candidates according to the government program and the political party while 80.50 vote according to the individual characteristics of the candidate. Relatively to the "program and party" criterion, the probability of choosing the candidate on the basis of his individual characteristics decreases with age, insecurity, satisfaction with democracy and adhesion based on ethnic group, money, leader's charisma or other criteria. On the other hand, this probability is high for people having secondary, university or Koran education level and for people satisfied with government.

Together these results suggest two sets of policy responses. The first set concerns the mobilization of voters and the second set is about actions for getting elected. To mobilize people to vote, one must, for example, pay attention to young and old voters and women and strengthen security during elections. The incumbent government should also promote democracy and protect citizens without any discrimination. To win elections, on top of having a government program, political parties should select candidate according to criteria such as experience in politics, wealth, honesty, nationalism, loving peace…

Appendix

Table A.1: Correlation coefficients

	age	sex	prima	second	univ	koran	work	stude	retir	demci
age	1.0000									
sex	0.0327	1.0000								
prima	-0.0372	-0.1331	1.0000							
second	-0.0484	0.0687	-0.3345	1.0000						
univer	-0.0930	0.2151	-0.3037	-0.4714	1.0000					
koran	0.0573	-0.0034	-0.1081	-0.1679	-0.1524	1.0000				
work	0.1234	0.1619	0.0209	0.0485	-0.0026	-0.0062	1.0000			
stude	-0.3799	0.0967	-0.1641	-0.0441	0.3304	-0.0572	-0.4220	1.0000		
retir	0.4003	0.0694	-0.0196	0.0277	-0.0020	-0.0003	-0.1996	-0.0958	1.0000	
demo	-0.0130	0.0115	- 0.0024	0.0512	0.0745	-0.0700	0.0308	0.0191	0.0156	1.0000
akan	0.0034	-0.0107	-0.0100	0.0070	0.0855	-0.1031	-0.0269	0.0365	0.0212	0.0614
krou	0.0032	-0.0232	0.0284	0.0386	-0.0639	0.0434	-0.0409	0.0099	0.0164	0.0385
mands	-0.0165	-0.0032	-0.0115	0.0149	0.0021	-0.0012	0.0058	0.0050	-0.0180	0.0596
mandn	0.0202	0.0182	0.0033	-0.0591	-0.0461	0.0709	0.0670	-0.0755	-0.0221	-0.1455
cni	0.3254	0.0814	-0.0234	0.0231	-0.0500	0.0113	0.1268	-0.1708	0.1498	0.0047
polity	0.0227	0.0139	-0.0531	-0.0057	0.1338	-0.0345	0.0253	0.0115	0.0260	0.0156
insecu	0.0332	-0.0224	-0.0078	0.0092	-0.0392	-0.0044	0.0214	-0.0404	0.0094	-0.0972
state	0.0204	-0.0146	0.0369	0.0306	-0.0151	-0.0547	0.0263	-0.0096	0.0106	0.3754
ethnic	0.0510	-0.0071	0.0374	-0.0628	0.0110	0.0175	0.0564	-0.0475	-0.0017	-0.0137
religion	0.0076	-0.0268	0.0534	-0.0122	-0.0403	0.0044	0.0099	-0.0104	-0.0094	0.0401
money	-0.0571	-0.0316	-0.0007	-0.0238	0.0658	-0.0425	-0.0292	0.0367	-0.0165	0.0347
charis	0.0515	0.0186	0.0059	-0.0111	-0.0034	0.0118	0.0210	-0.0371	0.0489	-0.0127
party	-0.0046	0.0794	-0.0601	0.1081	0.0328	-0.0302	0.0461	0.0331	0.0176	0.1606
other	0.0845	-0.0623	0.0229	-0.0407	-0.0640	-0.0111	-0.0264	-0.0294	0.0231	-0.0468
noopi	-0.0317	0.0061	-0.0010	-0.0110	0.0176	-0.0536	-0.0014	-0.0289	0.0008	0.0263

Table A.1: Correlation coefficients (continued)

	akan	krou	mands	mandn	cni	polity	insecu	state	ethnic	religion
akan	1.0000									
krou	-0.4632	1.0000								
mands	-0.2722	-0.1342	1.0000							
mandn	-0.4949	-0.2440	-0.1434	1.0000						
cni	-0.0278	0.0197	0.0148	0.0206	1.0000					
polity	0.0084	0.0640	-0.0202	-0.0350	0.0012	1.0000				
insecu	-0.0710	-0.0369	-0.0162	0.1436	-0.0061	-0.0139	1.0000			
state	0.0561	0.0646	0.0417	-0.1503	0.0182	0.0236	-0.0794	1.0000		
ethnic	-0.0363	0.0066	0.0178	0.0540	0.0515	0.0743	0.0387	0.0023	1.0000	
religion	-0.0304	-0.0291	-0.0110	0.0552	-0.0459	-0.0107	0.0030	0.0446	-0.0858	1.0000
money	0.0298	-0.0265	0.0048	-0.0270	-0.0466	0.0963	-0.0068	0.0216	-0.1756	-0.0639
charisma	-0.0129	0.0364	-0.0226	-0.0041	-0.0085	0.0131	0.0373	0.0057	-0.1175	-0.0428
party	-0.0035	-0.0166	0.0432	-0.0070	0.0457	-0.0352	-0.0048	0.1475	-0.3669	-0.1336
other	0.0333	-0.0117	-0.0428	0.0149	0.0383	-0.0317	0.0088	-0.0036	-0.1272	-0.0463
noopin	-0.0260	0.0208	-0.0036	-0.0011	-0.0254	0.0034	-0.0200	0.0664	-0.1303	-0.0474

Table A.1 : Correlation coefficients (continued)

	money	charism	party	other	noopin
money	1.0000				
charism	-0.0876	1.0000			
party	-0.2735	-0.1831	1.0000		
other	-0.0948	-0.0635	-0.1981	1.0000	
noopin	-0.0971	-0.0650	-0.2030	-0.0704	1.0000

References

Brady, Henry E., Sidney Verba, and Kay Lehman Schlozman (1995). Beyond SES : A Resource Model of Political Participation. *American Political Science Review* 89(6): 271-294.

Collier, P and Rohner (2008). Democracy, Development, and Conflict, *Journal of the European Economic Association*, 6(2-3): 531-540.

Collier, P and Vicente, Pedro C. (2008). Votes and violence: Evidence from a field Experiment in Nigeria. **HiCN** *Working Paper 50*.

Dalton, Russell J. (2007). *The Good Citizen : How a Younger Generation is Reshaping American Politics*. Washington : Congressional Quarterly Press. Dalton and Wattenberg, 2001

Dalton, Russell J., and Martin P. Wattenberg. (2001). *Parties Without Partisans*. Oxford : Oxford University Press.

Fournier P.et al (2007). The determinants of youth political participation: conventional versus non conventional. Paper presented at ECPR Conference in Pisa, Italy 6-8 September 2007.

Grondlund, K. et Setala, M. (2007). Political trust, satisfaction and voter turnout. *Comparative European Politics,* 5(4), 400-422.

Heterington J. M. (1999). The Effect of Political Trust on the Presidential Vote, 1968-96. *The American Political Science Review*, 93(2), 311-326.

Milbrath, L. W., and Goel, M. L. Political participation. Chicago: Rand McNally, 1977.

Verba, Sidney, and Norman H. Nie. 1972. *Participation in America : Political Democracy and Social Equality*. New York : Harper & Row.Winkler et al, 1981

Winkler, J. D., Judd, C.M. et Kelman H. C. (1981). Determinants of political participation in a Canadian and a United States City. *Political Psychology*, 3(3-4), 140-161.

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