E C O N O M I C S B U L L E T I N

Determinants of the Public's Preference for a Referendum on Monetary Union

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Abstract

Public support is crucial for the success of a monetary union. An aspect of the monetary unification process that could influence public support is how the decision to participate is made. This article analyzes the determinants of the public's preference for a referendum on the adoption of a common currency. The survey data used is from Kenya, a member of the East African Community (EAC) which currently is pursuing a monetary union. The results suggest a younger public increases the probability that a referendum will be the preferred method. Sharing a language or culture with communities in other member countries increases the probability that a referendum is preferred, while a more favorable appraisal of the effects of monetary union decreases the probability of choosing the referendum.

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1. Introduction

The decision by a country to participate in a monetary union carries with it considerable social, political and economic implications. A large literature discusses the advantages of monetary union against the drawback of loss of monetary policy autonomy. Frankel and Rose (2002), and Rose and Stanley (2005) analyze the gains due to enhanced trade. Alesina and Barro (2002) discuss gains from imported credibility. Beyond the traditional cost-benefit analysis, public support is crucial for the success of such a high impact policy change. An aspect of the monetary unification process that could influence public support is how the decision to participate is made. Frequently democracies call for a referendum on an issue of this magnitude to enhance legitimacy and commitment if a 'yes' vote is achieved. An example is the Danish referendum that rejected the adoption of the euro favored by the government of Prime Minister Anders Rasmussen.

This article analyzes the determinants of the public's preference for a referendum in the decision to participate in a monetary union. Data from a survey carried out in Kenya, a member of the East African Community (EAC), is used. The stated objective of the EAC is to achieve a monetary union by the year 2012 (EAC, 2007). However it is not yet stated how the decision, at the national level, on participation will be made by EAC member countries. Thus the paper gives an indication of how the public is disposed. Public goodwill will be very crucial for the success of this proposal as the region has failed in a monetary union arrangement in the past.[1]

With the emergence of the European Monetary Union (EMU), a number of authors have analyzed the public's support for monetary union. For example Kalthenthaler and Anderson (2001) suggest that variations in attitudes toward European common currency are driven by considerations of costs and benefits, as well as the interaction of European level politics and the domestic level politics of the European Union (EU) member states. Hayo (1999) analyzed the relationship between objective knowledge of the EU and people's attitudes towards the EMU. He argues that a higher level of EU knowledge could influence people towards further monetary integration. Valev (2006) concludes that support for early euroization in Bulgaria, a country seeking to join the EMU, is affected by concerns about currency devaluation and the perception of how widely the euro is used, while the opposition comes from attachment to national currency. However, no study has modeled the public's preferences with respect to how the decision should be made. The data and variables used are described in section 2. In section 3 the results of the probit model is discussed, and a conclusion given in section 4.

2. Methodology

2.1. The Data

[1] The EAC currently comprises five member countries; Kenya, Uganda, Tanzania, Rwanda and Burundi. Three countries (Kenya, Uganda and Tanzania) participated in an earlier monetary arrangement started under British rule. In the arrangement the countries used a common currency (the East African Shilling) linked to the Sterling pound in a currency board arrangement that lasted till 1966.

The survey was administered by enumerators[2] using a structured questionnaire. The survey was only administered in Kenya; hence in translating to the national language, Kiswahili, the primary concern was with comparability of meaning and description of the monetary union scenarios. Thus the interpretive equivalence approach (Hui and Triandis, 1985; Okazaki and Sue, 1995; Johnson, 1998) was adopted. Interviews were carried out in six of eight provinces, chosen on the basis of voter population.[3] These are Nairobi, Rift Valley, Central, Eastern, Nyanza, and Western provinces. A total sample size of 700 responses was achieved, with 29.2% from Nairobi, Rift Valley 23.1%, Central 16.2%, Eastern 15.8%, and Nyanza and Western 7.9% each.[4] Only the adult population (over 18 years) was interviewed. A municipality/city (of at least 100,000 people) was chosen at random from each province. Once a municipality was identified, random sampling was then applied with roughly half the subsample obtained from within the municipality and the other half from the rural environs around it. The interviews were conducted during the month of April, 2008 with the respondents presented with closed-ended questions. The responses relevant to this paper are summarized in Table 1.

2.2. Binary Probit Model

The aim is to explain the publics' choice of a referendum as the preferred way to decide participation in a monetary union. Since the dependent variable **(Decision)** is captured as a binary variable, a standard binary choice model is used. Assume an underlying unobservable latent variable (say degree of preference for a referendum) such that:

$$y^* = X\beta + e, \qquad y = 1 \; if \; [y^* > 0] \tag{1}$$

where β is K*1 and X is 1*K set of independent variables (including a constant) discussed in Table 1, with $e \sim$normal (0, 1) and independent of X. The observed response is $y = 1$ if respondent chooses a referendum, and zero otherwise. If G is the cumulative density function of e, the probability of choosing a referendum is given by;

$$P(y = 1 \mid X) = P(y^* > 0 \mid X) = G(X\beta) \tag{2}$$

[2] A small team of interviewers from the country, fluent in both English and Kiswahili, was recruited and trained for the purpose. English is the official language and the language of instruction in all learning institutions in the country, but not the first language. As such most people who have gone through some level of schooling have a very good command of the English language. As proficiency in English is linked to formal education, linguistic problems were anticipated from those who have not gone through (or only had few years of) formal education. In such cases where interpretation was necessary the questions were presented in Kiswahili.

[3] The North Eastern province which is the least developed province, with the smallest (and most sparse) population was excluded on the basis of its remoteness. Also excluded is the Coast province which has the second lowest population and also contains a high proportion of communities heavily represented in the other provinces included in the interviews.

[4] The proportion of the sub-sample from each province is based on the weight of the province's registered voters in November, 2007 provided by the Electoral Commission of Kenya (ECK) with an adjustment made for diversity; regions with more diverse communities being given an additional weight. Voter statistics are provided at http://www.eck.or.ke/downloads/Registeredvoterscomparative.pdf (Accessed April, 2008).

The probit model is obtained when $G(.)$ is restricted to follow the standard normal distribution function. A positive value of one of the coefficients β_k means y^* increases if the x_k independent variable increases in "(1)". Accordingly, the probability that a referendum is picked as the method of choice to make the participation decision ($y = 1$) will increase.

3. Explaining the Public's Choice of a Referendum

Table 1 (Column three) provides the mean responses from the survey. About 61% are male and the average level of education is a high school diploma. A notable 47.9% of them share a culture or language with a community in another EAC country. Some 50% of the respondents have travelled outside Kenya at least once and 82% were employed. An information score of only 1.34 is achieved indicating that on average respondents are not well informed about the proposed monetary union. The mean appraisal is 2.9 suggesting that on average not much "effect" is expected from the monetary union. The coefficients of correlation among the explanatory variables (Table 2) are all small (0.3 and lower). Most of them are substantially lower than that. This is reassuring as it means multicollinearity will be minimal.

Table 3 provides the results of the binary probit model. The model performs fairly well with an overall correct prediction rate of 64%. Three variables significantly affect the public's choice of a referendum as the mode of decision. Age is significant and carries the expected negative sign. A younger public increases the probability that a referendum will be chosen as the preferred way to decide whether the country should join a monetary union. This is possibly an indicator that the younger public is more aware of their rights and keener to exercise directly these democratic rights. As expected, sharing a language or culture among communities across member states increases the probability that a referendum is preferred. The citizens' appraisal of the effects of monetary union is negative and highly significant. A less favorable evaluation of the effects of monetary union increases the probability of choosing the referendum. This suggests that when the public evaluation of effects of monetary union is less favorable the public is more interested in participating directly in the decision.

4. Conclusion

The article uses survey data to analyze the determinants of the public's preference for a referendum to decide whether to participate in a monetary union. The survey was conducted in Kenya, a founding member of the EAC. This regional bloc is currently pursuing a monetary union. Though the governments of the EAC have suggested a target monetary union date of 2012, the responses suggest the public still needs a lot more information before they could comfortably vote on whether to participate. The results reveal that the public's preference for referendum is influenced by a number of variables. These are age, common culture, and appraisal of the effects of monetary union. A younger public increases the probability of choosing the referendum method. A shared culture or language among the EAC communities increases the preference for a referendum, and a less favorable view of the effects of the monetary union increases the probability of preferring a referendum.

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Table 1. Description of Variables Used

Variables	Description of Variable	Mean Response	Expected Sign
Decision	Binary variable: (decision by a referendum = 1, otherwise = 0)	0.507	Dependent Variable[a]
Gender	Binary variable (Male =1, female=0)	0.610	Ambiguous
Age	Measured based on an increasing six-point scale (1 to 6)	2.138	Negative
Education level (Educ1)	Measured using a three-point scale (primary school = 1, High school and further post primary training = 2, and college diploma/university education = 3).	2.281	Positive
Cultural links (Cultlinks)	Binary variable (if there are communities in other EAC countries that share culture/language of respondent = 1, otherwise = 0)	0.479	Positive
Travel (Travelout)	Whether respondent has traveled out of Kenya or not. Binary variable (travelled out of Kenya at least once = 1, otherwise = 0)	0.496	Positive
Employed	Employed includes both formal and informal employment. Binary variable (employed=1, unemployed =0)	0.820	Ambiguous
Level of information (Information)	Measured using a three-point scale (Need much more information before I could be asked to vote whether Kenya should abandon its currency for the common currency = 1; Need a bit more information before I could be asked to vote = 2; I already have enough information and can be asked to vote =3)	1.343	Positive
Appraisal	Respondent's subjective appraisal of the effects of a common currency for EAC on Kenya. Measured using a five-point scale (very bad thing = 1, relatively bad thing = 2, neither good nor bad (no effect) = 3, relatively good thing = 4, very good thing = 5)	2.937	Negative

[a] The respondents were asked their opinion how the decision should be made by Kenya on whether to abandon the Kenya shilling for a common EAC currency. Respondents could pick "by referendum", or "by parliamentary/executive decision".

Table 2. Correlation Coefficients among Variables

	de~n	gender	Age	educ1	cul~ks	tra~out	emp~d	inf~n	app~l
Decision	1								
Gender	-0.064	1							
Age	-0.121	0.180	1						
Educ1	0.030	-0.216	-0.115	1					
Cultlinks	0.073	0.078	0.004	0.077	1				
Travelout	0.042	0.076	0.029	0.132	0.205	1			
Employed	-0.024	0.086	0.301	-0.019	0.013	0.058	1		
Information	0.026	0.050	0.038	0.033	0.039	0.079	0.001	1	
Appraisal	-0.247	0.098	0.179	-0.068	0.028	-0.049	0.103	-0.043	1

Table 3. Binary Probit Model Results of Public Preference for a Referendum

Explanatory Variables	Coefficient	z-values
Gender	-0.026	-0.22
Age	-0.110	-1.92*
Educ1	-0.031	-0.35
Cultlinks	0.286	2.49**
Travelout	-0.055	-0.48
Employed	0.075	0.48
Information	0.065	0.75
Appraisal	-0.209	-5.54***
Constant	0.667	2.22**

Notes: (1) * is significant at the 10% level, ** at the 5% and *** at the 1% level.