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affects public support for the EU**

by

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# **Scale versus heterogeneity: how the economy affects public support for the EU**

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**ABSTRACT:** This paper proposes a simple political economic model of public opinion support for the EU, drawing on the recent economic literature on integration processes. The basic element is the existence of a trade-off between the benefits of centralisation and the costs of harmonising policies in the presence of heterogeneous preferences among countries. Subsequently we test the model with panel data on the EU member countries. The findings broadly confirm that economic benefits and costs do consistently shape citizens' attitude towards EU membership. Our analysis may thus shed some light also on the awkward process of ratification of the European Constitution.

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## 1. Introduction

The role of public opinion in the process of European economic and political integration has so far been neglected by economists, whereas international relations scholars have been paying it increasing attention in the last fifteen years, because the implementation of international bargains struck by governments often requires domestic support, as the use of referendum in some member states clearly demonstrates. What are the factors that influence public opinion support for the European Union (EU)? Following theories of utilitarian support, we assume that citizens are in favour of membership if they receive economic benefits from it. To develop this idea, we propose a simple political economic model drawing on the recent economic literature on integration and disintegration processes. The basic element is the existence of a trade-off between the benefits of centralisation and the costs of harmonising policies in the presence of heterogeneous preferences among countries.

Subsequently we empirically test the model with data on the EU; more precisely, we perform an econometric analysis employing a panel of member countries over time. The second part of the paper therefore tries to answer the following question: does public opinion support for the EU really depend on economic factors? The findings broadly confirm that economic benefits and costs do consistently shape citizens' attitude towards EU membership, even if some differences over time and across countries can be noted. Consequently, the key to regain the significant amount of support lost in the last fifteen years is to be found in economic policies effectively promoting growth and employment. Our analysis may thus shed some light also on the awkward process of ratification of the European Constitution. Citizens in many member states are called to express their opinion in national referenda, which may well end up in rejection of the Constitution, as recently happened in France and the Netherlands, triggering a European-wide political crisis. These events show that nowadays understanding public attitude towards the EU is not only of academic interest, but has a strong relevance for policy-making too.

The paper is structured as follows. Section 2 discusses the relevance of public opinion in the process of European integration and provides a concise historical overview of the evolution of public support for the EU. Section 3 presents a political economic model of citizens' support for membership of the EU. Section 4 presents the estimation of the model and its results. Section 5 discusses the relevance of our findings for the present debate about ratification of the European Constitution and the future of public attitude towards the EU. Section 6 briefly concludes.

## 2. The Relevance of Public Opinion for European Integration

The process of creation and development of the EU was traditionally viewed as an elite-driven process by the two leading theories of European integration, neofunctionalism (Haas 1958, 1964; Lindberg 1963) and intergovernmentalism (Hoffmann 1966), the former emphasising the role of supranational institutions, the latter that of national governments. Public opinion was not considered as a relevant actor and was assumed to show a passive attitude towards the integration process, sometimes referred to as “permissive consensus” (Lindberg and Scheingold 1970). This concept indicated that citizens in member states were either not interested in European affairs or generally supported actions to promote integration, but attributed them low political salience.

The role of public opinion in the process of European integration has been paid increasing attention by international relations scholars in the last fifteen years (to mention only a few studies, Reif and Inglehart 1991; Franklin et al. 1994; Anderson 1998; Gabel 1998a; Gilland 2002), starting from the observation that attempts to achieve international cooperation often involve domestic ratification of international bargains.<sup>1</sup> Indeed, we have witnessed an increasing use of the referendum in some member countries as an instrument for ratification of new treaties negotiated by national governments: the Single European Act (1986), the Maastricht Treaty (1992), the Amsterdam Treaty (1997) and the Nice Treaty (2001)<sup>2</sup>, as documented in Table 1. The outcome has generally been positive, but in two cases a treaty was firstly rejected (the Maastricht Treaty in Denmark and the Nice Treaty in Ireland), then approved in a second referendum after some more concessions or clarifications. Referenda have also been held in Denmark and Sweden on a specific European issue, namely the adoption of the euro; in both cases, the majority of citizens voted against it. The two most recent enlargement rounds have been accompanied by referenda in all accession countries (except for Cyprus); in 1994, the Norwegian citizens decided that their country would not become a member of the EU after their government had signed the accession treaty (Table 2).

Moreover, in 2005 some countries held referenda on the recently agreed “Treaty Establishing a Constitution for Europe” (the so-called “European Constitution”). Spain and Luxembourg approved it, but France and the Netherlands rejected it, opening a serious political crisis in the EU and probably causing the death of the Treaty itself (Table 1).

<Tables 1 and 2 here>

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<sup>1</sup> The seminal work on this subject is Putnam (1988).

<sup>2</sup> The years in parentheses refer to the signature of the treaties.

It seems therefore correct to argue that ‘European mass publics have the ability and the willingness to constrain and possibly forestall further progress toward a unified Europe’ (Anderson 1998, p.570). The relevance of the role played by public opinion in the current phase of European integration stimulates the analysis of the determinants of citizens’ support for the EU. A well-established concept in international relations theory is that of ‘utilitarian support’ (Easton 1965, 1975): an individual supports a certain political system if she believes that it promotes her own economic (or political) interests. By applying this concept to an international union like the EU, one can argue that people are in favour of European integration if it has been making them better off.

Comparative public opinion research is often subject to a host of potential problems involving the measurement of citizens’ opinions, such as variations in question wording across different studies, irregularity in the timing or frequency of surveys, and so on. In the case of public support for European integration, the *Eurobarometer* surveys enable us to avoid these problems. Indeed, since 1973 the European Commission has regularly undertaken these semiannual European-wide opinion polls (in spring and in autumn)<sup>3</sup>, conducted by private polling agencies in each member state through interviews of a sample of approximately 1000 people in each country (Gabel 1998b; Hix 1999)

The *Eurobarometer* surveys ask a series of identical questions about public support for the EU and the integration process. We can therefore analyse public attitudes towards the EU, using a standard question that has been regularly repeated in each member state. This permits meaningful cross-national and cross-temporal comparisons of data. Throughout this paper, we will use the following measure of public support for the EU: the percentage of people answering ‘a good thing’ to the question: ‘Generally speaking, do you think that (your country’s) membership of the European Union/Community is a good thing, a bad thing, neither good nor bad?’

Figure 1 depicts the evolution of the percentage of EU citizens supporting their country’s membership of the EU, from autumn 1973 to autumn 2003, and claiming that their country has benefited from EU membership, from spring 1984 (when a question about membership benefits started to be regularly asked) to autumn 2003. No single trend for the whole period can be detected. Support for membership was slightly declining over the 1970s and reached a minimum of 50% in 1981, then it rose significantly throughout the 1980s, reaching an historical maximum of 72% in 1991. Afterwards, it fell dramatically down to 46% in 1997<sup>4</sup>, then it followed an erratic path within a 48-55% range. The most significant finding emerging from Figure 1 is that opinions about

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<sup>3</sup> In the following figures, the suffix S after a date will indicate ‘spring issue’ and the suffix A ‘autumn issue’ of the *Eurobarometer* surveys.

<sup>4</sup> The entry of Austria, Finland and Sweden in 1995 (three countries showing a very low level of support for membership) significantly contributed to the lowering of this figure.

benefits followed a very similar path: indeed the correlation coefficient between the two series is 0.84.

<Figure 1 here>

The idea of utilitarian support appears therefore consistent with the findings of the *Eurobarometer*, and is very interesting from an economic perspective, because it permits to establish a relation between the observable performance of economic variables and citizens' support for integration.

Indeed, the EU has had and still has, first, an economic nature. However, economic integration has not made member states irrelevant in the eyes of public opinion. To evaluate the impact of EU activity on their well-being, citizens of, say, Italy are not interested in the economic performance of the EU as a whole, but in that of the Italian economy. Despite the integrated nature of the European market and of some EU policy programs, therefore, the performance of the market is still measured at the national level. Actually, the promise of increased prosperity and employment through the gains from free trade has been the most prominent argument offered in support of the original Common Market and then the Single Market (Tsoukalis 1997). As argued by Eichenberg and Dalton (1993), 'if the EC has promised anything, it has promised the enhancement of member states' national economic welfare' (p. 510).

Public opinion support for European integration is thus influenced by factors that occur at the national level. Using a metaphor, one might say that the image of the EU is filtered through national lenses. More precisely, the hypothesis is that citizens of a member state realise that the EU does affect their economic welfare and they make it a target of their evaluation, which, however, is based on the performance of their own national economy. Support for the EU is higher (lower) when the national economy is doing well (badly). In other words, it is assumed that public opinion perceives that the national economy is influenced by membership of the EU.<sup>5</sup>

While the importance of economic conditions as a basis for citizens' evaluation of national political institutions is well-documented in the political business cycle literature (Alesina et al. 1997), only a small number of studies in the 1990s have investigated the link between national economic performance and mass support for European integration (Eichenberg and Dalton 1993; Anderson and Kalthenthaler 1996). These articles draw upon theories of economic voting (Lewis-Beck 1988; Norpoth et al. 1991), but only make informal assumptions and are mainly empirical<sup>6</sup>. To the best of our knowledge, this topic has never been the subject of a formal treatment. Indeed, usual formal models of political business cycle at the national level are not well suited for the EU

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<sup>5</sup> This assumption does not require public opinion to have an exact knowledge of how the EU works and what its competencies and activity are, which would be definitely unrealistic.

<sup>6</sup> The findings of these studies will be discussed in Section 4.

level, because there is no EU-wide political cycle between two subsequent elections. Citizens do not periodically vote on membership of the EU and the European elections obviously cannot be considered as equivalent to national elections, because their aim is not that of choosing a European government. A different approach is thus required to study the effect of economic conditions on public opinion support for the EU.

### 3. The Model

The approach we will follow is that of the recent literature on the political economy of international unions and the unification or break-up of nations (Bolton and Roland 1997, Alesina and Wacziarg 1999, Alesina et al. 2001, 2005a, to mention only the most relevant). Here we emphasise some basic features which may be relevant to the modelling of public opinion support for the EU. The general perspective is that unification provides returns to scale in the provision of public goods, but reduces each member state's ability to determine its most favoured bundle of public goods. These papers focus on a trade-off between the benefits of centralization, arising from economies of scale or externalities, and the costs of harmonizing policies as a consequence of the increased heterogeneity of countries' (or regions') preferences in a union. Alesina et al. (2001) argue that 'the core of our model, and an element that in our view is central to the political economy of all unions [...], is the existence of a tension between the heterogeneity of individual countries' preferences and the advantage of taking certain decision in common' (p. 4).

Bolton and Roland (1997) employ heterogeneity in economic fundamentals (income or productivity) and distortionary taxation to study the conditions under which a majority in favour of secession (or unification) arises in the regions of a democratic country. Alesina et al. (2001, 2005a) analyse the determinants of the degree of centralisation and the size of international unions by modelling a union as a group of countries deciding together on the provision of public goods or policies which produce a spillover effect across members.

These papers do not deal explicitly with the issue of mass support for membership of an international union, but their reasoning can be extended to include it. The model presented in this section is a modified version of that proposed by Bolton and Roland (1997), explicitly taking heterogeneity in preferences among countries into account.

While they focus on a country made up of two regions, we consider here a union composed of  $n$  countries. The population and capital in a generic member country  $i$  are indicated by  $L_i$  and  $K_i$ ; total national output  $Y_i$  and per capita output  $y_i$  are given respectively by:

$$Y_i = K_i^a L_i^{1-a} \quad \text{and} \quad y_i = \frac{Y_i}{L_i} = k_i^a \quad (1)$$

We assume perfectly competitive labour and capital markets in each country  $i$ . Productive factors are mobile inside countries, but not across them. Therefore the equilibrium real rate of return on capital  $r_i$  and the equilibrium real wage  $s_i$  are:

$$r_i = a(y_i/k_i) \quad \text{and} \quad s_i = (1-a)y_i \quad (2)$$

Individuals differ in their labour and capital endowment; hence an individual  $v$  in country  $i$  will have an income of:

$$w_{vi} = s_i L_{vi} + r_i K_{vi} \quad (3)$$

The income distribution in each country  $i$  is given by a density function  $z_i(w_v)$ ; thus  $z(w_v) = \sum_i z_i(w_v)$  is the income distribution in the whole union, with support  $[0, \bar{w}]$ . Total output equals total income:

$$Y_i = \int_0^{\bar{w}} w_v z(w_v) dw_v \quad (4)$$

The differences between regions are fully summed up by differences in factor returns (determined by the absence of factor mobility) and in income distribution.

The assumption of factor immobility may sound quite inaccurate in the case of an international union like the EU and thus needs explaining. First, labour mobility among EU countries is actually very low (Hantrais 2000). Capital mobility is much more intense, but it can be easily shown that introducing it in our framework would lead to more unrealistic results. Indeed capital mobility would imply that  $r_i = r$  for any  $i=1, \dots, n$ . Since it follows from (1) and (2) that  $r_i = ak_i^{a-1}$ , then we would obtain equal capital-output ratio  $k$ , equal per capita income  $y$  and equal wage  $s$  in all countries in equilibrium, while distribution of income could still differ among countries. At present, by contrast, we observe very large differences in per capita income, even when expressed in purchasing power parity, among EU countries: the richest member country (Luxembourg) is about five times wealthier than the poorest one (Latvia)<sup>7</sup>. Second, and most important, the fundamental element characterising the union in this model is the common provision of a public good  $G_u$ , which does not require factor mobility to be implemented.

Following Alesina et al. (2001),  $G_u$  can be interpreted in a broad sense as a common policy (not only in the economic field, but also in areas like social policy or defence), where for each country

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<sup>7</sup> If one only takes the "old" fifteen members into account, Luxembourg is about three times richer than the poorest country (Portugal).

the benefits of centralisation derive from the exploitation of economies of scale or externalities, while the costs are represented by the loss of independent policy-making.

The provision of the public good is financed through a linear income tax; in per capita terms, this imply:

$$g_u = t_u y_u \quad (5)$$

where  $t_u$  is the union's tax rate. An individual's utility is defined over the consumption of a private good  $c_{vi}$  and the public good  $g_u$ . To keep things as simple as possible, the individual utility function assumes the following form:

$$U_{vi}^{IN}(c_{vi}, g_u) = u_v(c_{vi}) + H(g_u) = \log c_{vi} + \log(\beta_i g_u) \quad (6)$$

where the superscript *IN* means "when country *i* is a member of the union".  $\beta_i \in [0,1]$  is a parameter capturing the heterogeneity in preferences over the public good among countries. The lower  $\beta_i$ , the higher the cost deriving from the loss of independent policy-making for country *i*.<sup>8</sup>

The most preferred per capita amount of public good for an individual with income  $w_{vi}$  is given by the solution to the following problem:

$$\max_g [\log c_{vi} + \log(\beta_i g_u)] \quad (7)$$

$$\text{s.t. } c_{vi} = (1-t_u)w_{vi} \text{ and } g_u = t_u y_u \quad (8)$$

By substituting (8) in (7), we find that the optimum per capita amount of public good is:

$$g_u^*(w_{vi}) = \frac{y_u}{2} \quad (9)$$

which is independent of  $w_{vi}$  and therefore is the same for all individuals in the union. Hence (9) is the per capita amount of public good provided by the union, with an equilibrium tax rate of 0.5. An agent with income  $w_{vi}$  receives the following payoff when her country is inside the union:

$$U_{vi}^{IN}(w_{vi}) = \log w_{vi} + \log \beta_i + \log y_u - 2\log 2 \quad (10)$$

Now we have to find what the utility of the individuals would be if country *i* were not a member of the union. In such case, the public good  $g_i$  is autonomously provided in country *i* and therefore there are no heterogeneity costs. However, the absence of integration carries a different kind of cost: an efficiency loss for the national economy, since potential benefits from international coordination are missing. For instance, imagine the simple case of a free trade area: as noticed by Bolton and Roland (1997), production costs and consumer prices in a country may be higher when it is outside the union than when it is inside, because its trade with the members of the free trade

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<sup>8</sup> Alternatively, we may think of  $\beta_i$  as of the extent of the spillover effect in the provision of the public good at the union level. In this case, the higher  $\beta_i$ , the higher the benefits of centralisation.

area is lower. To put it bluntly, the better (worse) the performance of the national economy inside the union, the higher (lower) the cost that being outside the union would entail.

To model this effect, we assume that outside the union individuals get a pre-tax income of only  $w_{vi}^?$ , where  $?? [0,1]$  is a parameter (the same for all countries) capturing the efficiency loss from autarchy: the lower  $?$ , the greater the loss. The individual utility function now takes the following form:

$$U_{vi}^{OUT}(c_{vi}, g_i) = \log c_{vi} + \log g_i \quad (11)$$

The most preferred per capita amount of public good for an individual with income  $w_{vi}$  is given by the solution to the following problem:

$$\max_g [\log c_{vi} + \log g_i] \quad (12)$$

$$\text{s.t. } c_{vi} = (1 - t_i)w_{vi}^? \text{ and } g_i = t_i y_i \quad (13)$$

By substituting (13) in (12), we find that the optimum per capita amount of public good is:

$$g_i^*(w_{vi}) = \frac{y_i}{2} \quad (14)$$

which is independent of  $w_{vi}$  and thus is the same for all individuals in country  $i$ . Hence (14) is the per capita amount of public good autonomously provided by country  $i$ . Consequently the equilibrium tax rate is again 0.5. An agent with income  $w_{vi}$  receives the following payoff when her country is outside the union:

$$U_{vi}^{OUT}(w_{vi}) = ?\log w_{vi} + \log y_i - 2\log 2 \quad (15)$$

An individual with income  $w_{vi}$  supports her country's membership of the union when  $U_{vi}^{IN}(w_{vi}) > U_{vi}^{OUT}(w_{vi})$ . Since  $U_{vi}^{IN}(w_{vi}) - U_{vi}^{OUT}(w_{vi})$  is always increasing in  $w_{vi}$ , it follows that a majority of individuals supports membership of the union if so does the agent with the median income (the median voter).

The median voter in country  $i$  has the following utility when her country is inside the union

$$U_{mi}^{IN} = \log w_{mi} + \log \beta_i + \log y_u - 2\log 2 \quad (16)$$

whereas her utility if country  $i$  is outside the union is given by:

$$U_{mi}^{OUT} = ?\log w_{mi} + \log y_i - 2\log 2 \quad (17)$$

Hence the median voter prefers her country to be inside the union than outside it when

$$? = U_{mi}^{IN} - U_{mi}^{OUT} = (1 - ?)\log w_{mi} + \log \beta_i + \log y_u - \log y_i > 0 \quad (18)$$

We can rewrite (18) as:  $\frac{w_{mi}^{1-\beta_i} \beta_i y_u}{y_i} > 1$ . It is straightforward to notice that  $\beta_i$  is increasing

in the union's average per capita income  $y_u$ , the parameter  $\beta_i$  and the median voter's income  $w_{mi}$  and decreasing in country  $i$ 's average per capita income  $y_i$  and the efficiency loss parameter  $\beta_i$ .

A particular situation arises if we assume  $\beta_i=1$  and  $\beta_i=1$  (no efficiency loss nor heterogeneity). In this case we obtain the following result:

**PROPOSITION 1.** If  $\beta_i=1$  and  $\beta_i=1$ , a majority of country  $i$ 's citizens is in favour of membership if  $y_u > y_i$ , i.e. if country  $i$  is poorer than the union's average.

This happens because of an implicit redistribution effect in the provision (and financing) of the public good in the union; from (9) and (14), we find indeed that  $y_u > y_i \Rightarrow g_u^* > g_i^*$ . Poorer countries receive a higher per capita amount of public good inside the union than outside it while paying the same fraction of their income in taxes<sup>9</sup>; the reverse is true for richer-than-average countries. Hence the difference constitutes an implicit transfer from the latter to the former.

#### 4. Econometric analysis

In the last fifteen years, citizens' support for European integration has been investigated empirically in a number of studies, which can be divided into two different categories, according to the focus of their analysis: individuals or countries. The former include the works by, among others, Gabel and Palmer (1995), Anderson and Reichert (1996), Anderson (1998), Gabel (1998), which took personal economic and social factors into account and identified systematic differences in individual-level support for integration related to partisanship, age, income, occupation, cognitive skills and political values.

However, we are primarily interested in the latter (and less developed) strand of literature, because our focus too is on cross-national determinants of support. The two most prominent examples of this kind of studies are Eichenberg and Dalton (1993) and Anderson and Kaltenthaler (1996). Both used a panel data approach. Eichenberg and Dalton analysed eight countries (the founding members, except for Luxembourg, plus Denmark, Ireland and the UK) for the 1973-88 period, using a number of economic and political variables to explain the dynamics of public support for EU membership. They found a significant effect of inflation, but not of unemployment

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<sup>9</sup> Remember that the tax rate is 0.5 in both cases.

nor of GDP. Anderson and Kaltenthaler examined a larger number of countries (twelve) for a slightly longer time period (1973-93) and found that also unemployment (besides inflation) was significant, while GDP growth remained insignificant. Interestingly, they highlighted an upward trend in support; this is not surprising, because, as shown in Figure 1, the period taken into account ended when public support for the EU had reached its all-time high and was just starting to decline.

The main aim of this section is not simply to update those previous studies, but to test our model with a view to providing a more complete and theoretically grounded picture of public support for the EU. According to our model, national economic conditions do influence citizens' attitude towards European integration, since membership of the EU increases the efficiency of the national economy. Therefore, a good economic performance positively affects public support for the EU. We follow the previous studies in choosing three variables as basic indicators of national economic performance: GDP growth, unemployment rate and inflation rate. We also add public debt and public deficit, which, especially after the signature of the Maastricht Treaty, have become increasingly relevant to public opinion's eyes in determining whether the management of public finances is sound or poor. GDP growth is expected to exert a positive impact, whereas unemployment, inflation, public debt and public deficit should have a negative effect.

However, two are the really novel elements of the model. First, it indicates that support for EU membership depends negatively on the ratio between national per capita income and the EU average one: the poorer a country (compared to the other EU members), the more positive its citizens' attitude towards EU membership.

Second, the model explicitly includes preference heterogeneity among member countries. It is not obvious how to measure it, hence we adopt two different strategies to do so. Firstly, we propose a simple measure consistent with our model, where we defined a parameter  $\beta$  which captured heterogeneity over the provision of a public good ( $\beta=1$  meant complete homogeneity, while  $\beta=0$  implied complete heterogeneity). By analogy with it, we take public expenditure as a proxy for the public good and thus construct the following indicator:

$$EXPEND = (1 - |G_i - G_{EU}|) * 100 \quad (19)$$

defined as one minus the absolute value of the difference between the ratio of public expenditure to GDP in country  $i$  ( $G_i$ ) and the EU average ( $G_{EU}$ ), expressed in percentage terms. It takes a maximum value of 100 if  $G_i = G_{EU}$ ; the farther the value of  $G_i$  from that of  $G_{EU}$  (irrespective of whether it is larger or smaller), the lower  $EXPEND$  is. Since a higher degree of heterogeneity should reduce support for the EU, its coefficient is expected to have a negative sign.

Secondly, we also generate a more indirect proxy variable capturing preference heterogeneity: we group member countries according to their date of accession to the EU and attribute each group

a different score. The basic argument runs as follows. The founding states created the European Community, shaped its institutions and its policies (such as the Common Agricultural Policy) and then pressed for the advancement of the integration process after the accession of new members. Therefore we may assume that, among all member states, their preferences have been the most similar to the policies actually enacted by the EU throughout its existence.

By contrast, public opinion was less favourably predisposed towards integration in the countries entering the EU in 1973<sup>10</sup>; the "permissive consensus", mentioned in Section 2, did not exist in those countries, thus constraining elites' aspirations to join early (Rabier 1989). Moreover, even after quite a long period of membership, they chose to opt out of some new common policies: the UK and Denmark have not adopted the euro and the UK and Ireland are not part of the "Schengen area". The Mediterranean countries joining in the 1980s are different still: they entered late not because of a lack of enthusiasm for the EU as an organisation, but because they were previously excluded for political reasons, since until the mid-1970s they were run by undemocratic governments. Finally, the 1995 enlargement brought in three countries that had previously resisted accession to the EU for almost forty years and whose publics have shown a very low level of support for EU membership; hence, their preferences are assumed to be the most different from those of the founding members.

Consequently, we attribute a score of 4 to the five founding members<sup>11</sup>, 3 to Greece, Portugal and Spain, 2 to Denmark, Ireland and the UK, and 1 to Austria, Finland and Sweden. The sign of the coefficient of this new variable (labelled ENTRY) is expected to be positive; this is analogous to what happened in our theoretical model, where a higher  $\beta$  indicated a higher degree of preference homogeneity. Certainly this definition of heterogeneity is quite crude; moreover, alternative criteria for the division of countries into groups might be suggested. Nevertheless, our choice seems consistent with the historical development of the European integration process.

After defining the relevant variables, the estimation of the model was carried out employing two different panel datasets, the first comprising all EU member states (except for Luxembourg) for the 1995-2003 period, the second covering a smaller number of countries (the five founding members, Denmark, Ireland and the UK), but a longer time span (1978-2003)<sup>12</sup>. The model can be specified as follows<sup>13</sup>:

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<sup>10</sup> The extreme case was Norway, which, after signing the accession treaty, rejected EU membership by referendum.

<sup>11</sup> Luxembourg is excluded because of its very small size.

<sup>12</sup> *Eurobarometer* data start in 1973. However, quarterly GDP figures for Denmark were only available since 1978. Thus, in order to have a balanced panel, our sample starts in 1978.

<sup>13</sup> All the results reported here were obtained using EViews 5.0.

$$MEMB_{i,t} = a + \beta_1 GROWTH_{i,t} + \beta_2 UNEMPL_{i,t} + \beta_3 INFL_{i,t} + \beta_4 DEBT_{i,t} + \beta_5 DEFICIT_{i,t} + \beta_6 GDP\_RATIO_{i,t} + \beta_7 EXPEND_{i,t} + \beta_8 ENTRY_i + e_{i,t}$$

(20)

where

$MEMB_{i,t}$  is the percentage of people supporting their country's membership of the EU, as defined in Section 2;

$GROWTH_{i,t}$  is the quarterly real GDP growth rate<sup>14</sup> in country  $i$ , in the quarter prior to that in which the *Eurobarometer* survey was conducted, expressed in percentage terms;

$UNEMPL_{i,t}$  is the unemployment rate in country  $i$ , in the quarter prior to that in which the *Eurobarometer* survey was conducted, expressed in percentage terms;

$INFL_{i,t}$  is the quarterly inflation rate<sup>15</sup> in country  $i$ , in the quarter prior to that in which the *Eurobarometer* survey was conducted, expressed in percentage terms;

$DEBT_{i,t}$  is the ratio of country  $i$ 's general government consolidated gross debt to GDP in the year in which the *Eurobarometer* survey was conducted, expressed in percentage terms;

$DEFICIT_{i,t}$  is the ratio of country  $i$ 's general government net borrowing to GDP in the year in which the *Eurobarometer* survey was conducted, expressed in percentage terms;

$GDP\_RATIO_{i,t}$  is the ratio of country  $i$ 's real per capita GDP to the EU average, in the quarter prior to that in which the *Eurobarometer* survey was conducted, expressed in percentage terms;

$EXPEND_{i,t}$  is the measure of heterogeneity in public expenditure defined above;

$ENTRY_i$  (as specified above) takes a value of 4 for the five founding members, 3 for Greece, Portugal and Spain, 2 for Denmark, Ireland and the UK, and 1 for Austria, Finland and Sweden;

$e_{i,t}$  is the error term;

$N$  is the number of cross-sectional units (countries);

$T$  is the number of time points.

Since the *Eurobarometer* surveys are carried out in spring and autumn (corresponding to the second and fourth quarter), first- and third-quarter figures were employed for  $GROWTH$ ,  $UNEMPL$ ,  $INFL$  and  $GDP\_RATIO$ . Details about data sources are reported in Annex.

Given the structure of the dataset, we had to deal with some problems in the estimation process: cross-sectional heteroskedasticity, contemporaneous correlations of the residuals for different cross-

<sup>14</sup> The model was also estimated using annual (instead of quarterly) GDP growth rates, obtaining very similar results.

<sup>15</sup> Measured as the consumer price index (CPI) growth rate.

sectional units<sup>16</sup> and autocorrelated residuals within each time series. A strategy frequently followed in the political economic literature is the application of a feasible generalised least squares (FGLS) estimator, which corrects, on the one hand, for both cross-section heteroskedasticity and contemporaneous correlations, and, on the other hand, for autocorrelations of the errors by assuming that they follow a first-order autoregressive process (AR(1)):

$$e_{i,t} = s_i e_{i,t-1} + u_{i,t} \quad |s_i| < 1 \quad (21)$$

This methodology was firstly proposed by Parks (1967) and is often referred to as the Parks estimator (see Greene 2003 for more details). However, it presents a potentially severe pitfall: Beck and Katz (1995) show that, unless T is much larger than N, the FGLS methodology tends to strongly underestimate the true variability of the estimator. Consequently, this produces highly overconfident standard errors and, therefore, t-ratios are much higher than the correct value. They suggest a different strategy: first, use OLS and the appropriate covariance matrix to obtain standard errors which are robust to contemporaneous correlations as well as different error variances in each cross-section (labelled “panel corrected standard errors”); second, impose the restriction of equal autocorrelation coefficients across units ( $s_i = s$  for all  $i$ ).

Hence we estimated Equation (20) for the EU-14, where T=16 and N=14, by pooled OLS with panel corrected standard errors (following the Beck and Katz methodology) and an AR(1) correction. For the EU-8 equation, where T=50 and N=8, we employed both this methodology and (since in this case T is actually much larger than N) a FGLS specification correcting for both cross-section heteroskedasticity and contemporaneous correlations of the errors<sup>17</sup>. The latter approach is also very similar to that adopted by Eichenberg and Dalton (1993) and Anderson and Kaltenthaler (1996) and thus may facilitate a comparison with their findings.

The results for the EU-14 clearly confirm our theoretical predictions (Table 3). Both the positive impact of economic growth and the negative one of unemployment are significant, even if the latter is stronger than the former, as shown by a comparison of their standard errors. Inflation does not seem to be of concern for the European public opinion, probably because it has permanently been low throughout the period considered in our analysis. Economic growth and unemployment are thus the variables of the business cycle that matter most in citizens’ view. By contrast, price stability appears to be taken for granted, even if one may argue that its achievement has represented precisely one of the main successes of economic integration, through monetary policy coordination in the European Monetary System and the three phases of the European Monetary Union, leading to

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<sup>16</sup> By contemporaneous correlations, we mean that the residuals for unit  $i$  at time  $t$  are correlated with the residuals for unit  $j$  at time  $t$ . In our context, a relevant example could be a similar business cycle between two or more EU countries.

<sup>17</sup> This specification is termed “Cross-section SUR” by EViews, because it is analogous to a seemingly unrelated regressions (SUR) framework. The AR(1) correction with a common  $s$  is retained.

a single monetary policy run by the ECB for most EU members since 1999. Public debt seems to matter more than public deficit to European citizens: the negative effect of the former is significant (even if not very large), whilst that of the latter is not. As shown in Table 3, we estimated Equation (20) with both EXPEND and ENTRY and with only one of them at a time. There are no considerable differences among the three specifications. The degree of preference homogeneity has a strongly positive effect on support for membership, confirming the predictions of the theoretical model.

<Table 3 here>

The coefficient of GDP\_RATIO is negative and highly significant: *ceteris paribus*, the poorer a country the higher its support for the EU, as we expected. This may happen because of the redistribution enacted by the EU budget in favour of the less developed members to promote the goal of economic and social cohesion by means of the Structural Funds.<sup>18</sup> Indeed, allocation of EU expenditure has become one of the most delicate issues in intergovernmental negotiations, even if the EU budget is equal to only 1.1-1.2% of its total GNP, because “winners” and “losers” can be easily identified on the basis of the difference between benefits received from EU budget and contributions paid to it (Laffan and Shackleton 2000).

We may test this hypothesis directly, by replacing the variable GDP\_RATIO in Equation (20) with a new variable BALANCE, defined as a country’s benefits from minus contributions to the EU budget, expressed as a percentage of GNP. In this case, we should expect a positive sign for the BALANCE coefficient, since poorer countries are generally net beneficiaries. The results shown in Table 4 fully corroborate our hypothesis.

<Table 4 here>

With regard to the EU-8 equation for the 1978-2003 period (Tables 5 and 6)<sup>19</sup>, we may first notice that both the OLS and the FGLS specifications yield qualitatively and quantitatively similar results; the main difference is just the value of the UNEMPL coefficient, which is quite larger (in absolute value) in the former than in the latter. Second, our model performs well in the long run too, with some interesting differences in comparison with the previous EU-14 case. Economic conditions are still important, but now inflation is the most significant of these variables, whereas GDP growth and public debt exert no effect on support for the EU. Unemployment remains significant at 5% level. These findings are similar to those of Anderson and Kaltenthaler (1996) for the 1973-1993 period, where inflation and unemployment were significant, but economic growth was not. By contrast, Eichenberg and Dalton (1993) found that only inflation was significant, but

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<sup>18</sup> For a detailed presentation and discussion on the Structural Funds, see, for instance, Allen (2000).

<sup>19</sup> The DEFICIT variable is not included in these regressions because data for some countries were not available for the whole period.

they used a slightly different definition of the dependent variable<sup>20</sup> and, as mentioned above, their analysis focused on a shorter period (1973-1988).

It is not surprising that inflation plays a relevant role in shaping mass support for the EU over the extended time period, because economic policy in the late 1970s and the 1980s exhibited a strong anti-inflationary stance all over Western Europe, and also at the EC level through the creation of the EMS. Hence we may argue that citizens seemed to share the concern of their governments about price stability after the stagflation phenomenon in the 1970s.

Another difference compared with the EU-14 results is the insignificance of EXPEND and ENTRY (both when employed one at a time and together), which suggests that heterogeneity of preferences becomes relevant only when a larger number of countries is included in the analysis. That is to say, subsequent enlargement rounds (especially the 1995 one) have made the EU more diverse and only in the last few years such increased heterogeneity has affected support for EU membership. On the contrary, the coefficient of GDP\_RATIO is still negative and significant, which implies that, *ceteris paribus*, support for the EU is higher in poorer member countries.

<Tables 5 and 6 here>

## **5. Citizens' response to economic performance: what implications for the European Constitution and the enlargement process?**

We can draw some policy implications from our analysis. Firstly, the timing of national referenda on EU issues affects their chance of success. *Ceteris paribus*, if a country holds a referendum when its economic growth is sluggish and its unemployment is high, it will be more likely to see a majority of citizens voting against further integration. This is consistent with the experience of the recent referenda in France and the Netherlands, where citizens have rejected the European Constitution: according to Eurostat figures, the unemployment rate in France reached 9.8% in April 2005 and quarterly real GDP growth in the Netherlands was -0.1% in the first quarter of 2005<sup>21</sup>. Unfortunately, national policymakers have little freedom for choice in this respect, because EU treaties usually indicate a date for their entry into force and referenda can only be held during a period starting after the signature of the treaty and ending before the envisaged date of entry into force. For instance, the European Constitution should have been ratified by 1 November 2006, two years after its signature; the first referendum took place in February 2005 in Spain, while

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<sup>20</sup> Instead of absolute support for EU membership, they employed net support (percentage of citizens in favour of membership minus percentage of citizens against it).

<sup>21</sup> The Netherlands also pays the largest net contribution to the EU budget in percentage of GNP (0.43% in 2003), corresponding to roughly 120€/per capita.

the last ones were originally scheduled in the UK and the Czech Republic in spring 2006. In such a short time span, economic conditions are not very likely to change dramatically. The only really effective tool at government's disposal is choosing parliamentary ratification instead, provided that a referendum is not compulsory according to national constitutional rules, because, as Moravcsik (1994) argued with regard to the near rejection of the Maastricht Treaty in France, 'referenda on international issues are likely to be risky' (p.59).

Secondly, it appears quite clear that, in order to boost public support, the EU should concentrate its activity on policies promoting economic growth and fighting unemployment. However, the picture is complicated by the fact that many elements of economic policy still remain of national competence, even if member states have to coordinate their economic policies.<sup>22</sup> At present, EU countries are engaged in the so-called Lisbon Strategy, launched at the Lisbon European Council in 2000, aiming at making the EU 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion' (European Council 2000).

So far the outcome has been disappointing and in 2005 the European Commission proposed a revision of the Lisbon Strategy, giving a higher priority to growth and employment (European Commission 2005). However, its implementation still depends on how seriously national governments take their commitments. EU institutions should then focus their activity on areas where they can really exert a strong impact, namely the single market. Indeed, according to the words of the European Constitution, the Union has 'exclusive competence' on 'the establishing of the competitions rules necessary for the functioning of the internal market' (Art. I-13), while the internal market as a whole is an area of 'shared competence' (Art. I-14), which means that 'the Member States shall exercise their competence to the extent that the Union has not exercised, or has decided to cease exercising, its competence' (Art. I-12).

The most topical issue in the internal market area is the liberalisation of trade in services, which account for roughly 70% of jobs in the EU. A real single market for services has not been established yet, because numerous sectors still hide, de facto, behind national barriers. In 2004 the Commission proposed a directive (usually referred to as 'services directive') precisely aiming at abolishing those barriers. According to an independent study, the liberalisation of services could create up to 600,000 new jobs and add €33 billion a year to EU GDP (Copenhagen Economics 2005), giving a relevant contribution to the relaunch of the Lisbon Strategy. However, in March 2005 the European Council did not endorse the proposed directive and invited the Commission to redraft it, by stating that:

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<sup>22</sup> See European Commission (2002) for details on the procedures for coordination of economic policies in the EU.

‘In order to promote growth and employment and to strengthen competitiveness, the internal market of services has to be fully operational while preserving the European social model. [...] [The] ongoing debate [...] shows that the directive as it is currently drafted does not fully meet these requirements’ (European Council 2005, p.7).

Indeed, the strongest opposition to the services directive came from France (followed by Germany), that feared a risk of “social dumping”, in which competition from poorer EU countries would drive down French welfare standards and could trigger a wave of job losses for French nationals (Gros 2005). The most interesting feature of the story is that rejection of the services directive was linked to the referendum on the European Constitution that France was going to hold in May 2005: preservation of the “European social model”, allegedly threatened by the proposed liberalisation in the services sector, was perceived by the French government as one of the elements able to persuade the French people to vote in favour of the Constitution (Franck 2005)<sup>23</sup>. Therefore, a policy measure which could boost economic growth and employment over the next few years and consequently increase public support for the EU in the long run, has faced opposition because in the short run it is deemed to be very unpopular and may worsen the image of the EU in people’s eyes.

In terms of government popularity, the trade-off between long-term benefits and short-term costs of economic reforms is well known at the national level, but this paper suggests that a similar trade-off is relevant also at the EU level, in terms of support for the integration process. The main difference is that in the former case citizens may vote against the government at the following election, while in the latter they can only express their discontent by voting against further integration when (and if) a referendum on EU issues is held in their country.

Finally, looking at the future of public opinion support for the EU, we may use our model to make some tentative predictions about the impact of the 2004 enlargement, which brought in eight central and eastern European countries (CEECs), plus Cyprus and Malta. According to our analysis, on the one hand heterogeneity of preferences should increase, since public expenditure in the new member states is generally much lower than the EU average<sup>24</sup>; this would negatively affect the level of mass support for EU membership. On the other, the new members are much poorer than the EU average (thus they should be large net beneficiaries from the EU budget) and are enjoying much higher GDP growth rates. According to Eurostat figures, in 2004 per capita GDP among the CEECs

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<sup>23</sup> An opinion poll conducted by TNS-Sofres on the referendum day in France actually found that the most frequently mentioned reason for voting “No” was precisely that ‘the Treaty will worsen unemployment in France’ (see <http://www.tns-sofres.com>).

<sup>24</sup> According to Eurostat, in 2004 the average public expenditure in the ten new member states was 42.7% of GDP whereas the EU -25 average equalled 47.7% .

ranged from 78% of EU average in Slovenia to 44% in Latvia, while growth in 2004 varied from 8.3% in Latvia to 4.2% in Hungary and Slovenia and in 2005 it is forecast to range from 9.1% in Latvia to 3.4% in Poland. These two features should boost support for the EU in the CEECs.<sup>25</sup> The net effect could therefore be ambiguous and only in the next few years one could determine whether it is positive or negative.

## 6. Concluding remarks

In this paper we firstly proposed a model of citizens' support for membership of international unions, with explicit reference to the EU. The core of the model is the existence of a trade-off between the advantages of centralising the provision of public goods and the heterogeneity in preferences among countries. Subsequently we tested the model on a panel of EU countries. The findings were consistent with our theoretical expectations: the conditions of the national economy, differences in income among member states and heterogeneity of preferences shape citizens' attitude towards their country's membership of the EU. Consequently, this analysis offers some interesting policy implications for the present debate about ratification of the European Constitution and, more generally, about how the EU could act in order to gain more support from the European public. The broad conclusion which we can draw is that the reaction of the Europeans to the advance of the integration process does not seem to be a priori either positive or negative. It may well depend on the impact of integration on the economic performance of their country.

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<sup>25</sup> The accession of the CEECs might also have a negative effect on support for the EU in some "old" member countries like Italy and, to a lesser extent, Spain and Ireland, which are going to receive a lower amount of Structural Funds as from 2007.

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## Annex. Data Sources

Variable	Source
MEMB	European Commission, <i>Eurobarometer</i> surveys, various issues.
GROWTH	OECD, <i>Economic Outlook</i> , No 75. Figures for Denmark are from Eurostat <i>New Cronos</i> database. All data are expressed at 1995 prices.
UNEMPL	OECD, <i>Economic Outlook</i> , No 75.
INFL	IMF, <i>International Financial Statistics</i>
DEBT	Eurostat, <i>Government Statistics</i>
DEFICIT	See DEBT
GDP_RATIO	See GROWTH
BALANCE	European Commission, <i>Annual Report on Allocated Expenditure</i> , various issues
EXPEND	See DEBT

**Table 1. Referenda on European Issues in Member States**

Treaty/Policy	Country	Year	Ratified (R)/Not Ratified (NR)
Single European Act	Denmark	1986	R
	Ireland	1987	R
Maastricht	Denmark I	1992	NR
	France	1992	R
	Ireland	1992	R
	Denmark II	1993	R
Amsterdam	Denmark	1998	R
	Ireland	1998	R
Nice	Ireland I	2001	NR
	Ireland II	2002	R
Accession to the EU	Austria	1994	R
	Finland	1994	R
	Norway	1994	NR
	Sweden	1994	R
	Czech Republic	2003	R
	Estonia	2003	R
	Hungary	2003	R
	Latvia	2003	R
	Lithuania	2003	R
	Malta	2003	R
	Poland	2003	R
	Slovakia	2003	R
	Slovenia	2003	R
Adoption of the Euro	Denmark	2000	NR
	Sweden	2003	NR
European Constitution	France	2005	NR
	Luxembourg	2005	R
	Netherlands	2005	NR
	Spain	2005	R

Source: European Commission

**Table 2. Referenda on Accession to the EU since the 1990s**

Country	Year	Ratified (R)/Not Ratified (NR)
Austria	1994	R
Finland	1994	R
Norway	1994	NR
Sweden	1994	R
Czech Republic	2003	R
Estonia	2003	R
Hungary	2003	R
Latvia	2003	R
Lithuania	2003	R
Malta	2003	R
Poland	2003	R
Slovakia	2003	R
Slovenia	2003	R

Source: European Commission

Table 3. Determinants of public opinion support for EU membership in the EU-14: regression results, 1995-2003

Dependent Variable: MEMBERSHIP			
Method: Pooled OLS -AR(1) with Panel Corrected Standard Errors and Covariances			
Variable	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
CONSTANT	19.446 (3.123)**	6.348 (1.481)**	11.188 (2.901)**
GROWTH	0.624 (0.284)*	0.625 (0.293)*	0.634 (0.289)*
UNEMPL	-1.669 (0.391)**	-1.435 (0.288)**	-1.796 (0.365)**
INFL	-0.184 (0.308)	-0.203 (0.270)	-0.217 (0.298)
DEBT	-0.173 (0.077)*	-0.187 (0.038)**	-0.165 (0.041)**
DEFICIT	-0.034 (0.381)	-0.266 (0.312)	-0.155 (0.306)
GDP_RATIO	-0.211 (0.045)**	-0.239 (0.054)**	-0.256 (0.050)**
EXPEND	1.048 (0.367)**		0.489 (0.123)**
ENTRY		9.775 (1.165)**	10.392 (1.247)**
Adjusted R-squared	0.899	0.899	0.901
s	0.806	0.822	0.812
N observations	224	224	224
F-statistic	86.354	91.955	88.820

\* significant at 5% level

\*\*significant at 1% level

Source: author's calculations

Table 4. Determinants of public opinion support for EU membership in the EU-14: regression results, 1995-2003

Dependent Variable: MEMBERSHIP			
Method: Pooled OLS -AR(1) with Panel Corrected Standard Errors and Covariances			
Variable	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
CONSTANT	14.380 (3.577)**	4.645 (0.835)**	9.808 (1.978)**
GROWTH	0.535 (0.255)*	0.534 (0.257)*	0.519 (0.253)*
UNEMPL	-1.708 (0.379)**	-1.258 (0.271)**	-1.717 (0.355)**
INFL	-0.089 (0.309)	-0.044 (0.302)	-0.132 (0.304)
DEBT	-0.101 (0.043)*	-0.314 (0.038)**	-0.293 (0.041)**
DEFICIT	-0.204 (0.404)	-0.054 (0.276)	-0.202 (0.260)
BALANCE	4.339 (0.790)**	4.808 (1.045)**	5.687 (1.223)**
EXPEND	0.919 (0.419)*		0.537 (0.204)**
ENTRY		11.892 (0.900)**	12.939 (0.999)**
Adjusted R-squared	0.893	0.903	0.905
S	0.856	0.843	0.872
N observations	224	224	224
F-statistic	85.869	95.932	93.638

\* significant at 5% level

\*\*significant at 1% level

Source: author's calculations

Table 5. Determinants of public opinion support for EU membership in the EU-8: regression results, 1978-2003

Dependent Variable: MEMBERSHIP			
Method: Pooled OLS -AR(1) with Panel Corrected Standard Errors and Covariances			
Variable	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
CONSTANT	5.433 (3.247)	2.789 (1.789)	3.572 (2.798)
GROWTH	0.066 (0.201)	0.062 (0.200)	0.064 (0.199)
UNEMPL	-1.100 (0.487)*	-1.055 (0.471)*	-1.051 (0.449)*
INFL	-0.607 (0.198)**	-0.613 (0.201)**	-0.620 (0.194)**
DEBT	-0.070 (0.056)	-0.069 (0.050)	-0.071 (0.049)
GDP_RATIO	-0.064 (0.021)**	-0.099 (0.027)**	-0.098 (0.028)**
EXPEND	0.120 (0.254)		0.086 (0.258)
ENTRY		5.500 (5.069)	5.663 (5.121)
Adjusted R-squared	0.899	0.899	0.899
s	0.796	0.781	0.778
N observations	400	400	400
F-statistic	255.161	256.747	239.072

\* significant at 5% level

\*\* significant at 1% level

Source: author's calculations

Table 6. Determinants of public opinion support for EU membership in the EU-8: regression results, 1978-2003

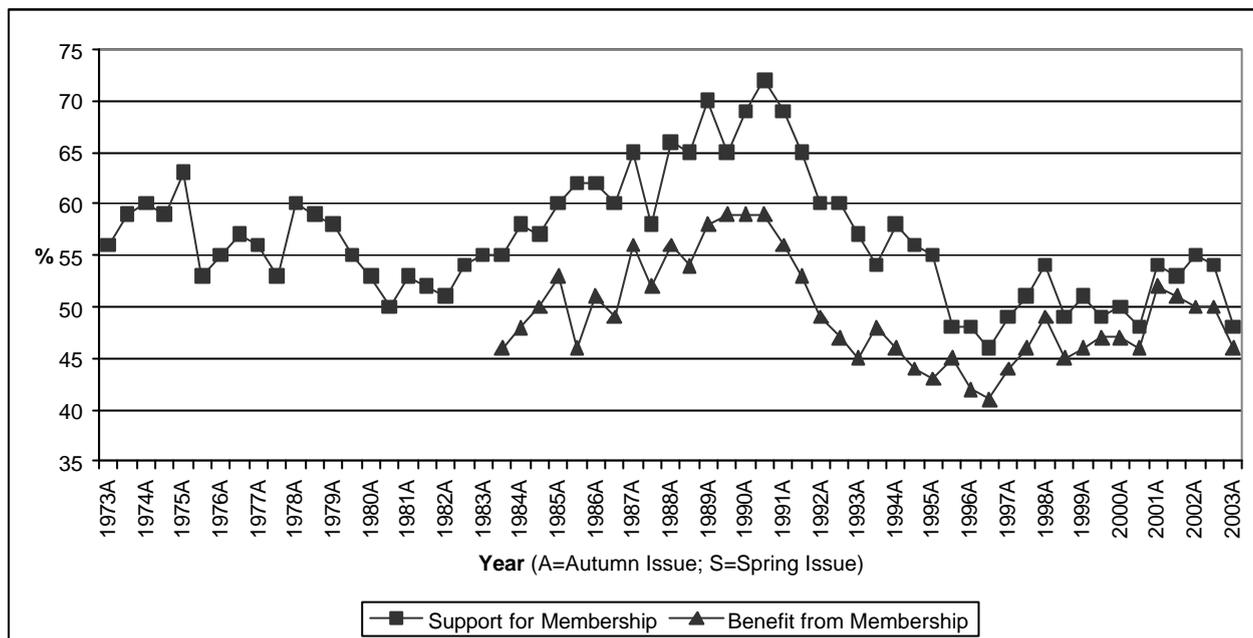
Dependent Variable: MEMBERSHIP			
Method: FGLS-AR(1)			
Variable	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
CONSTANT	4.231 (3.209)	1.874 (1.313)	1.454 (1.929)
GROWTH	0.068 (0.132)	0.090 (0.131)	0.088 (0.104)
UNEMPL	-0.506 (0.220)*	-0.433 (0.184)*	-0.449 (0.186)*
INFL	-0.556 (0.174)**	-0.558 (0.173)**	-0.559 (0.161)**
DEBT	-0.023 (0.041)	-0.032 (0.039)	-0.032 (0.033)
GDP_RATIO	-0.101 (0.032)**	-0.162 (0.046)**	-0.161 (0.046)**
EXPEND	0.100 (0.179)		0.049 (0.166)
ENTRY		6.167 (7.264)	6.096 (7.156)
Adjusted R-squared	0.926	0.926	0.927
s	0.857	0.865	0.822
N observations	400	400	400
F-statistic	1252.968	1249.245	1169.618

\* significant at 5% level

\*\*significant at 1% level

Source: author's calculations

Figure 1. Support for and benefit from EU membership according to the *Eurobarometer* opinion polls (EU average)



“Support for Membership” = % of people answering “a good thing” to the following question: ‘Generally speaking, do you think that [your country’s] membership of the European Community/European Union is “a good thing”, “a bad thing”, “neither good nor bad”?’

“Benefit from Membership” = % of people responding “has benefited” to the following question: ‘Taking everything into consideration, would you say that [your country] has on balance benefited or not from being a member of the European Community/European Union?’

Source: *Standard Eurobarometer*, various issues