#### DE ECONOMIST 153, NO. 1, 2005

# THE RATIONALITY BEHIND IMMIGRATION POLICY PREFERENCES\*\*\*

BY

### HENDRIK P. VAN DALEN\*,\*\* AND KÈNE HENKENS\*

## Summary

What drives stated policy preferences about the number of foreigners? Is it self-interest, as stressed by the political economy of immigration? Does social interaction affect this preference, or is the immigration policy preference completely in line with the preference for the aggregate population size? In this paper we distinguish each of these categories and show, for the case of the Netherlands, that each of these elements applies, although the effect of population size preference and self-interest are the most important elements. There is a clear divide across educational levels, as the less educated are more strongly opposed to immigration than the highly educated: the less educated are more likely to think there are too many foreigners. Experience with foreigners arising from social contact matters in positively appreciating immigrants, especially if people meet non-Western foreigners at work and school. Contact with foreigners while going out decreases people's preference for immigrants. The ethnic concentration of the neighbourhood in which people live does not exert a noticeable effect on the evaluation of the number of foreigners present. The biggest effect on immigration policy preferences is, however, the aggregate population size preference of respondents.

Key words: immigration, social interaction, population preferences

JEL classification: F22, J15, J61

#### 1 INTRODUCTION

Immigration raises mixed emotions among politicians and the population at large. That is, at least, the impression raised by discussions on the pros and cons of immigration in Europe. On the one hand, views seem to be biased or outright xenophobic and some political parties earn a livelihood by catering to these feelings. On the other hand, some governments and international organisations advocate immigration as a way to solve the financial problems associated with ageing populations or stabilising the geopolitical balance of

<sup>\*</sup> Netherlands Interdisciplinary Demographic Institute, P.O. Box 11650, 2502 AR The Hague, the Netherlands: e-mail: dalen@nidi.nl

<sup>\*\*</sup> Erasmus University Rotterdam, Department of Economics, SEOR-ECRI and Tinbergen Institute, P.O. Box 1738, 3000 DR Rotterdam, the Netherlands.

<sup>\*\*\*</sup> Comments by Frans Willekens, Aat Liefbroer, and two anonymous referees are gratefully acknowledged.

powers in the face of widely divergent population growth rates (see Demeny (2003)).

Unfortunately the politics and economics of immigration cannot be split up into separate issues. Problems associated with integration and ethnic diversity are part and parcel of immigration flows, and in that respect it becomes quite important to know how the population at large evaluates immigration flows. Why does immigration raise such mixed feelings? Is it simply a question of economic self-interest? The political economy of immigration (Borjas (1995), Benhabib (1996), Krieger (2003)) suggests that it is quite likely that feelings about immigrants are completely in line with self-interest and that on issues of immigration and integration people will vote accordingly. Immigration supporters are to be found among those who expect to gain (skilled workers, pensioners, multinationals) and immigration protesters among those who expect to lose (unskilled workers and the unions that represent them).

In this paper we will take a closer look at the empirical validity of the political economy model of immigration and offer alternative and complementary explanations of why immigration policy preferences might differ across citizens. Our hunch is that the political economy of immigration may overlook a number of issues that are tied to immigration. The first is related to the socio-psychological consequences of immigration. The reason why immigration raises such mixed feelings may well be the result of a lack of contact with foreigners, or perhaps even the reverse: intense contact with foreigners may bring about (or reinforce) anti-immigration pressures.

The second neglected issue is the issue of population size preferences, as – by definition – the inflow of foreigners affects the size and structure of the aggregate population. In the light of below replacement fertility, immigration has become a more important factor in population growth and an instrument of government policy. The inflow of migrants is among the most discussed policy solutions to prevent the ageing of societies. There are, however, also numerous political pressure groups in the international arena<sup>2</sup> which are pressing for zero or negative population growth in order to prevent a 'tragedy of the commons' (Hardin (1968)). These groups are generally also negative about the consequences of immigration, not on account of any potential ethnic conflict or racism but out of concern for the environment and spatial crowding. The Netherlands is no exception. Here the so-called 'Club of Ten Million' – a pressure group and prospective national political party – advocates population decrease as long as the Dutch population exceeds 10 million.

<sup>1</sup> See, for example, Bauer et al. (2000), Gang et al. (2002), Boeri et al. (2002) and the literature cited in these studies.

<sup>2</sup> See, for instance, the programme of the association for *Negative Population Growth* (www.npg.org/) and links mentioned there, or the Dutch *Club of Ten Million* (www.tienmiljoen.nl/Eng/index.htm).

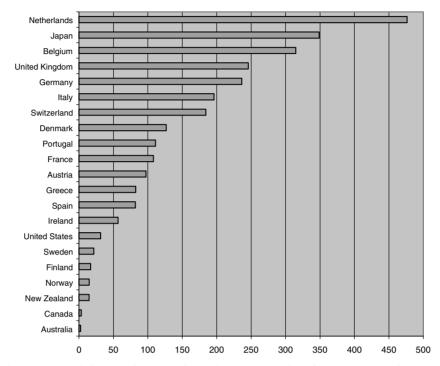


Figure 1 – Population density (no. of people per square km) in OECD countries, 2002 Source: World Bank, Development Indicators (2004)

The question that springs to mind is: to what extent immigration policy preferences are influenced by opinions regarding population size?

The case of the Netherlands is interesting in its own right for a number of reasons. First of all, the Dutch have come to realise that their country has become 'a nation of immigrants'. According to the latest statistics, approximately 18% of the total population is of foreign origin (most broadly defined) and it would be of some interest to see whether the Dutch also have the state of mind that belongs to a so-called nation of immigrants. Secondly, the Netherlands is one of the most crowded and urbanised nations in the world (see Figure 1). The high population density would seem to make the Dutch sensitive to the issues of population size and structure.

And third, the Dutch case may well be exemplary for other European nations. Most European countries are having to get used to the status of immigration nation, and to the presence of non-Western immigrants who do not seem to adapt or integrate. The Netherlands is no exception. Furthermore, although each and every European country has its idiosyncratic political movements, the stellar rise of anti-immigration political movements can be seen

across a number of European nations – Austria (with the Freedom Party and Haider), France (National Front and Le Pen), Belgium (Vlaams Blok with De Winter), Denmark (Danish People's Party) and Italy (Northern League). The Netherlands is no exception to this, and the Dutch have witnessed the rise of a similar figure – Pim Fortuyn – whose political programme was rather outspoken on the issue of closing borders and the forced integration of immigrants in the Netherlands. All in all, the Dutch present us with an interesting case study, and this will be explored in the remainder of this paper.

## 2 WHAT IS BEHIND STATED IMMIGRATION PREFERENCES?

In explaining immigration preferences we make use of three distinctive research lines. These are briefly discussed below.

### 2.1 Political Economy of Immigration

The story of immigration preferences will inevitably revolve around the political economy of immigration, as this particular strand in the public choice literature takes into account how interests of diverse population groups are affected by the inflow of immigrants. According to the standard model of the welfare economics of immigration,<sup>3</sup> the position on the labour market is important for understanding who stands to gain and lose from immigration flows. Worker types with a higher education benefit from an inflow of unskilled labour, whereas the unskilled labour force is expected to be dead set against such an inflow as the immigrants are in most cases low-skilled workers who will compete with the low-skilled indigenous workforce. The subsequent drop in the wage rate for the low skilled and the rise in wages for the highly skilled makes divergent opinions about immigration quite understandable. Of course, attitudes towards immigrants by skill type will depend in the end on the skill composition of actual immigration flows. Highly skilled workers might very well support anti-immigration measures if a country is 'flooded' by highly skilled immigrants. But given the stylised fact that the majority of immigrants are from outside the European Union and that these immigrants are distinctively less skilled than average Dutch native workers (Van Dalen et al. (2005)), skilled workers are likely to be significantly less averse to an increase in immigration than low-skilled Dutch workers.

However, immigrants do not only affect perceived outcomes on the labour market; they can potentially affect capital market asset returns by changing the relative proportions of labour and capital (see Borjas (1995)). For a small open economy with more or less full capital mobility (and therefore an exogenous interest rate) this possibility seems too farfetched to be true.

3 See Borjas (1995, 1999, 2003), Benhabib (1996), Krieger (2003), and Kemnitz (2003).

Nevertheless, one can imagine that immigration flows might affect some asset prices that are set by local circumstances, like the housing market. Especially when negative externalities tied to ethnic concentration are present in a local housing market (or neighbourhood) (see Saiz (2003)), it is understandable that immigrants are viewed as a threat.

A final element that might raise mixed feelings among native voters is the fiscal impact of immigration. The possibility of low-skilled immigration not only harms the employment opportunities of competing native workers, it can also affect the general population as a result of the fiscal consequences of immigration. Generational accounting exercises for the Netherlands (Roodenburg et al. (2003)) point out that by and large immigrants offer a net loss, and given the strong progressive nature of income taxes natives with a net wealth position may be just the ones who fear that a further redistribution will take place if immigration flows increase.

## 2.2 Social Interaction Theory

Social interaction focuses on how non-market interaction of individuals affects social and economic decisions (see Becker and Murphy (2003)). Living among ethnic minorities and meeting people of different groups may affect choices in the public and private domain as individuals learn from such contacts and change their attitude about certain people or groups of people. The way in which ethnic concentration affects preferences may go either way. Ethnic concentration may create a perception of threat and alienation (a negative force), but it can also be a mechanism that offers possibilities for intergroup contact that might reduce unrealistic negative perceptions of how groups view one another (the 'contact' hypothesis). There is a large body of mainly American research (see Pettigrew (1998), Taylor (1998), Oliver and Wong (2003), and the studies cited there) which shows that ethnic concentration engenders negative attitudes towards ethnic minorities. The experience of living among ethnic minorities or having frequent contact with them may, however, also affect the opinions of people positively. Similarity attraction is the causal process that allegedly underlies this contact hypothesis: a consequence of contact is the discovery of similarity between groups. Hewstone and Brown (1986) show, however, that contact alone is often not enough and that several aspects of the contact, such as frequency, quality, areas of contact, voluntary versus involuntary, are also important. In short, it matters what type of contact the indigenous population has with foreigners.

With respect to the *meeting places* where respondents have contact with the outgroup (in our case foreigners) we need to stress that not every contact situation has a high 'acquaintance potential': the contact situation enables individuals to get to know each other as individuals, rather than as stereotypical outgroup members. To account for this diversity of contact and the effect

on immigration preferences, we have used different places of contact – at school, while going out, at work, and at sports clubs (see Hewstone and Brown (1986)). The effect of contact is a priori ambiguous as contact at the various meeting places can go in either direction.

## 2.3 Population Size Preference

In discerning the influence of population size preferences on preferences concerning the number of immigrants residing in a country, one can consider the insights provided by the welfare economics of endogenous population (Razin and Sadka (1995)). Following the usage of Nerlove et al. (1987) we will divide the intellectual debate on population and welfare according to the implicit social welfare criteria used by Bentham and Mill and their utilitarian followers. A welfare criterion is a measuring rod for judging morally correct courses of action – in this case population policy – and, as modern population debates show, people's views on population policy are strongly influenced by their ethical position: they may either invoke the Benthamite welfare function - which stresses the greatest happiness for the greatest number – or a Millian welfare function that simply evaluates welfare in terms of the population average standard of living. In fact, depending on which welfare criterion one supports, one could arrive at opposite policy conclusions in matters of population policy. People endorsing the Benthamite view will support maximising the number of people no matter how small the increment in welfare is. In its most extreme form this will lead, under conditions of fixed resources, to what Parfit (1984) calls the 'repugnant conclusion': a very low standard of living for a very large population. However, people endorsing the Millian welfare view will value a smaller population more as it increases average welfare, assuming some fixed resource (see Nerlove et al. (1987: 3-6)). Clearly, the Millian welfare view is implicit in the neo-Malthusian theory of population.

The same issues will return in matters of immigration as long as the social welfare function includes the welfare of immigrants and as long as both immigrants and natives are ascribed the same utility function. Whether a nation is inclusive or exclusive is essential when it comes down to evaluating immigration policies (see Quibria (1990)), and for this reason the evaluation of aggregate population growth may not coincide with the evaluation of immigration flows.

# 3 DATA AND METHOD

#### 3.1 Data

To examine the various hypotheses empirically, we will use data from a national representative survey on attitudes and opinions concerning population

developments which the Netherlands Interdisciplinary Demographic Institute (NIDI) conducts at regular intervals among the Dutch population. We have used the latest wave, conducted in May 2002. As the opinions, attitudes and preferences of voters are the focus of our attention, only respondents with Dutch nationality are included in this sample.<sup>4</sup> The data were collected by the *CentERdata* databank of the University of Tilburg (see, for more details, centerdata.kub.nl), which maintains a representative Internet-based panel of 2000 households in the Netherlands. To correct for the possibility of two or more respondents per household and their reciprocal influence in stating preferences, we have adjusted the standard errors by requiring the observations to be independent across clusters, i.e. households.<sup>5</sup> The survey data are, however, linked to the 2002 census information from Statistics Netherlands on the respondents' neighbourhood, in particular the population density and the ethnic concentration of the neighbourhood.

The question around which this paper revolves is: 'What is your opinion about the number of foreigners in the Netherlands?' The response categories are: (1) there are too many foreigners; (2) neither too many, nor too few foreigners; or (3) too few foreigners. The question has a clear normative undertone, as it forces respondents to evaluate the number of foreigners. In explaining these stated policy preferences we employ three categories of variables (in addition to some control variables) that fit the different strands of the immigration literature (see Box 1) as set out in Section 2.

The summary statistics of the variables used to test the relevance of the various theories in explaining immigration policy preferences are presented in Table 1.

Most of the statistics need no further explanation. By and large most of the Dutch think there are too many foreigners (60%), 39% think there are neither too many, nor too few foreigners, and barely 1% thinks there are too few foreigners. Because the latter category is so small we will collapse the last two categories and restrict our attention to those who think there are 'too many' foreigners and those who think otherwise. Other noticeable summary statistics are the fact that most respondents are of the opinion that the size of the Dutch population should remain more or less constant

- 4 An alternative to this restriction is to include only those born in the Netherlands. Both definitions have their shortcomings as the nationality criterion may include former foreigners, and the place of birth criterion may also include foreigners as defined by Statistics Netherlands, namely second-generation immigrants. For the estimation results these definitional questions do not matter, since the results are not significantly affected.
- 5 The Huber–White correction was applied to circumvent this problem. Although this is a necessary step to rule out the possibility of dependence of outcomes, the subsequent estimation results hardly differ from the model in which standard errors are not adjusted.
- 6 Keeping the three outcomes to the survey question separate and analysing the categorical ordering by means of ordered logit analysis does not change the following conclusions in any way.

#### Box 1 - Summary of variables explaining immigration policy preferences

#### Variables controlling for demographics of respondents

- Age of the respondent in question. To check for non-linearities or age-group-specific effects we have used four age groups in the estimation process: those whose age is (1) 16-29 years; (2) 30-44 years; (3) 45-64 years; or (4) 65 years and older.
- The number of children in the household of the respondent.
- Religious denomination is the self-reported membership of a religion to which the
  respondent says he or she belongs, with the following categories: (1) no membership; (2)
  Catholic; (3) Dutch Protestant ('Nederlands Hervormd'); (4) Orthodox Protestant
  ('Gereformeerd'); (5) Other Christian religions (evangelical churches, Jehovah's
  Witnesses, other Christian churches); (6) Small non-Christian religious groups (Jews,
  Muslims, no stated religious membership).

## Political economy variables

- The attained *level of education* of respondents. Here each respondent was invited to indicate his or her highest level of education: (1) primary education; (2) high school (lower level *vmbo/mulo*); (3) high school (higher level *vwo* or *havo*); (4) intermediate and higher vocational training (*mbo* and *hbo*); (5) university.
- The *net wealth position* of the household, i.e. the value of private assets minus the level of outstanding debt of the household. Respondents were not required to give a detailed estimate of their wealth position; it was sufficient for them to indicate merely which of the seven wealth intervals best reflected their total wealth (current value of their own house, savings, stocks, etc., minus debts and mortgages). For the present study we collapsed the seven intervals into four categories: (1) € 25,000 or less (base category); (2) € 25,000 € 100,000; (3) € 100,000 € 225,000; and (4) € 225,000 or more.

#### Social interaction variables

- The aggregate *population density* of the neighbourhood in which one lives, split up into four categories, with the urban category as the base category. The neighbourhood is approximated by the area circumscribed by the post-code level, for which quite detailed information on neighbourhood characteristics such as the number of persons and households, ethnic concentration and level of average income is available (see www.statline.nl). To arrive at the population density, we divided the total number of persons living in a post-code area by the surface area (in square kilometres, as given by Geodan IT, see http://www.geodan.nl/uk/).
- The *ethnic concentration* in the neighbourhood, as measured by the percentage of non-Western foreigners living in the neighbourhood (designated by the post-code area).
- The place of contact where respondents meet non-Western foreigners from various ethnic groups. In the survey respondents were asked whether they meet non-Western foreigners, and if so where. Respondents could choose from a number of places (where the respondent with no contact at all with non-Western foreigners served as the base category): (1) at school; (2) at work; (3) while going out (e.g., at a disco or a pub); and (4) at clubs, including sports clubs.

#### Population size preference variable

 Population size preference as measured by the answer to the question 'Should the number of inhabitants of the Netherlands in the future: (1) decrease; (2) remain the same; or (3) increase?'

TABLE 1 – DESCRIPTIVE STATISTICS (MULTIPLIED BY 100 GIVE PERCENTAGES)

| Evaluation number of foreigners                      | Mean  | Standard<br>deviation |
|--|-------|-----------------------|
| Not too many foreigners (= base category)            | 0.408 | 0.49                  |
| Too many foreigners                                  | 0.592 | 0.49                  |
| Age category: 16–29 years                            | 0.137 | 0.34                  |
| 30–44 years  | 0.349 | 0.48                  |
| 45–64 years  | 0.374 | 0.48                  |
| 65+ years  | 0.140 | 0.35                  |
| Number of children                                   | 1.577 | 1.38                  |
| Religious denomination                               | 1.577 | 1.50                  |
| None   | 0.541 | 0.50                  |
| Catholic   | 0.231 | 0.42                  |
| Dutch Protestant ('Nederlands Hervormd')             | 0.104 | 0.30                  |
| Orthodox Protestant ('Gereformeerd')                 | 0.079 | 0.27                  |
| Other Christian religions                            | 0.025 | 0.16                  |
| Non-Christian religious groups (Jews, Muslims, etc.) | 0.020 | 0.14                  |
| Education achieved: primary education                | 0.294 | 0.46                  |
| High school (lower level)                            | 0.212 | 0.41                  |
| High school (higher level)                           | 0.137 | 0.34                  |
| Intermediate and higher vocational training          | 0.246 | 0.43                  |
| University   | 0.111 | 0.31                  |
| Net wealth <sup>a</sup> : Less than €25,000          | 0.324 | 0.47                  |
| €25,000–€100,000                                     | 0.221 | 0.42                  |
| €100,000-€225,000                                    | 0.267 | 0.44                  |
| More than €225,000                                   | 0.187 | 0.39                  |
| Population density neighbourhood                     | 0.243 | 0.43                  |
| (in thousands): more than 4.54 per km <sup>2</sup>   |       |                       |
| 1.87–4.54 inhabitants per km <sup>2</sup>            | 0.257 | 0.44                  |
| 0.50–1.87 inhabitants per km <sup>2</sup>            | 0.249 | 0.43                  |
| Less than 0.50 inhabitants per km <sup>2</sup>       | 0.251 | 0.43                  |
| Ethnic concentration neighbourhood                   | 0.083 | 0.10                  |
| Contact with foreigners: At school                   | 0.214 | 0.41                  |
| At work  | 0.538 | 0.50                  |
| When going out                                       | 0.164 | 0.37                  |
| At clubs (sports and other)                          | 0.220 | 0.41                  |
| Population size evaluation: should decrease          | 0.301 | 0.46                  |
| Should remain constant                               | 0.615 | 0.49                  |
| Should increase                                      | 0.085 | 0.28                  |

Valid sample N = 1726.

<sup>&</sup>lt;sup>a</sup>Value of private assets (housing, financial assets) minus the level of outstanding debt (mortgages, loans).

TABLE 2 – Explaining immigration policy preferences <sup>a</sup> (logit analysis)

|  | Model I     |         | Model II    |         | Model III        |         |  |
|--|-------------|---------|-------------|---------|------------------|---------|--|
|  | Coefficient | t value | Coefficient | t value | Coefficient      | t value |  |
| Constant                                       | -0.88**     | 4.99    | -0.71**     | 2.77    | -1.70**          | 5.75    |  |
| Age category $(16-29 \text{ years} = 0)$       |             |         |             |         |                  |         |  |
| 30–44 years                                    | 0.29        | 1.61    | 0.18        | 0.99    | 0.25             | 1.32    |  |
| 45–64 years                                    | 0.29        | 1.57    | 0.24        | 1.27    | 0.26             | 1.27    |  |
| 65+ years                                      | -0.21       | 0.86    | -0.13       | 0.50    | -0.04            | 0.16    |  |
| Number of children                             | -0.06       | 1.26    | -0.06       | 1.24    | -0.11*           | 2.06    |  |
| Religious denomination (none $= 0$ )           |             |         |             |         |                  |         |  |
| Catholic                                       | -0.36*      | 2.47    | -0.33*      | 2.25    | -0.44**          | 2.75    |  |
| Dutch Protestant                               | -0.41*      | 2.06    | -0.37       | 1.82    | -0.40            | 1.86    |  |
| ('Nederlands Hervormd')                        |             |         |             |         |                  |         |  |
| Orthodox Protestant                            | 0.07        | 0.33    | 0.09        | 0.41    | -0.09            | 0.39    |  |
| ('Gereformeerd')                               | 0.07        | 0.55    | 0.05        | 0.11    | 0.05             | 0.57    |  |
| Other Christian religions                      | 0.54        | 1.38    | 0.71*       | 1.81    | 0.43             | 1.11    |  |
| Non-Christian religious groups                 | 0.91*       | 2.26    | 0.96*       | 2.39    | 1.07**           | 2.74    |  |
|  |             | 2.20    | 0.50        | 2.37    | 1.07             | 2.7.    |  |
| Education achieved (primary educatio           |             | 2.27    | 0.50**      | 2.15    | 0.46**           | 2.70    |  |
| High school (lower level)                      | 0.52**      | 3.37    | 0.50**      | 3.15    | 0.46**           | 2.79    |  |
| High school (higher level)                     | 0.90**      | 5.20    | 0.84**      | 4.72    | 0.83**           | 4.36    |  |
| Intermediate and higher                        | 1.39**      | 9.16    | 1.32**      | 8.52    | 1.37**           | 8.54    |  |
| vocational training                            |             |         |             |         |                  |         |  |
| University                                     | 1.64**      | 8.43    | 1.51**      | 7.60    | 1.50**           | 7.23    |  |
| Net wealth (less than                          | 0.4444      | • •     | 0.404.4     |         | 0.4454           | •       |  |
| €25,000–€100,000                               | -0.41**     | 2.60    | -0.40**     | 2.51    | -0.44**          | 2.69    |  |
| €100,000–€225,000                              | -0.36*      | 2.37    | -0.33*      | 2.10    | -0.41*           | 2.55    |  |
| More than €225,000                             | -0.57**     | 3.21    | -0.50**     | 2.70    | -0.47*           | 2.47    |  |
| Population density neighbourhood (in           | thousands)  | (>4.54: | = 0)        |         |                  |         |  |
| 1.87-4.54 inhabitants per km <sup>2</sup>      | _           | _       | -0.17       | 1.01    | -0.20            | 1.12    |  |
| 0.50–1.87 inhabitants per km <sup>2</sup>      | _           | _       | -0.26       | 1.42    | -0.21            | 1.07    |  |
| Less than 0.50 inhabitants per km <sup>2</sup> | _           | _       | -0.63**     | 3.14    | -0.66**          | 3.12    |  |
| Ethnic concentration neighbourhood             | _           | _       | -0.15       | 0.21    | 0.09             | 0.13    |  |
| Contact with foreigners (no contact =          | 0)          |         |             |         |                  |         |  |
| At school                                      | _           | _       | 0.33*       | 2.34    | 0.40**           | 2.75    |  |
| At work  | _           | _       | 0.30*       | 2.47    | 0.36*            | 2.48    |  |
| When going out                                 | _           | _       | -0.33*      | 2.10    | -0.36*           | 2.12    |  |
| At clubs (sports and other)                    | _           | _       | -0.10       | 0.80    | -0.11            | 0.82    |  |
| Population size evaluation (decrease =         | · (ii)      |         | 0.10        | 00      | ····             | 02      |  |
| Should remain constant                         | 0)          |         |             |         | 1 25**           | 0.41    |  |
| Should remain constant Should increase         | _           | _       | _           | _       | 1.35**<br>2.07** | 9.41    |  |
|  | _           | _       | _           | _       |                  | 8.93    |  |
| Pseudo $R^2$                                   |             | 0.08    |             | 0.10    |                  | 0.16    |  |
| Wald $\chi^2(df)$                              |             | 152.7   |             | 171.7   |                  | 257.3   |  |
| Loglikelihood                                  | -1069       | 9.0     | -1052       | 2.2     | -979             | .0      |  |

<sup>&</sup>lt;sup>a</sup> Note: N = 1726. The dependent variable is the evaluation of the number of foreigners in the Netherlands, with 'too many foreigners' = 0, and 'neither too many, nor too few foreigners' = 1. The symbol \*\* denotes significance at the 1% level and the symbol \* at the 5% level. T values refer to absolute t values. All coefficients are adjusted with the Huber-White correction.

(62%), while a considerable proportion (30%) are in favour of a decreasing population.

#### 3.2 Method

Estimation will be done by means of logit analysis, where the base category of the dependent variable is 'too many foreigners' (=0) and the answer category 'neither too many, nor too few foreigners' is encoded with the value 1. Logit analysis, or logistic regression, is a technique for analysing the effects of j explanatory variables  $x_{ij}$  on a dichotomous dependent variable, like in our case the question whether there are too many foreigners or not:

$$\log\left(\frac{P_i}{1 - P_i}\right) = \beta_{ij} x_{ij} + u_i \tag{1}$$

where the ratio  $\log[P/(1-P)]$  is called the log odds ratio or logit of a probability. Positive  $\beta$  values for the continuous variables indicate that the odds of being in the category 'neither too many, nor too few foreigners' rather than in the category 'too many foreigners' increase as the score on the independent variables increases; negative  $\beta$  values indicate that the odds of being in the second category ('too many foreigners'), rather than in the first ('neither too many, nor too few'), increase as the score on the independent variable increases. Positive  $\beta$  values for dummy variables indicate higher odds of being in the first category, whereas negative  $\beta$  values indicate lower odds of being in the first category.

Three models have been estimated. In the first step, political-economic variables are included. In model II social interaction variables are added to the first model, and, last but not least, population size variables are included in model III. In all models age, number of children and religious denominations are used as control variables. The three models are presented to highlight the fact that in addition to traditional political-economic variables the previously ignored variables are of importance to immigration policy preferences.

## 4 PUTTING THE FORCES TO THE TEST

Three models have been estimated to explain the immigration policy preferences of the Dutch population. The estimation results for the three separate models are presented in Table 2. The last column of Table 2 shows that each of the three forces cited seems to be of some relevance in explaining immigration preferences. It is not just economic self-interest or social contact or population size preferences that can explain immigration preferences; these preferences are clearly a result of all three forces. We will elaborate on these results below.

## 4.1 Political Economy of Immigration

The political economy argument is clearly reflected in the estimation coefficients, as the evaluation of the number of foreigners is positively correlated with the level of education of respondents. In other words, the less educated are more likely to think that there are too many foreigners. To get an impression from some bivariate weighted statistics: 76% of respondents with a low level of education believe that the number of foreigners is too high. The more highly educated are least worried about the number of foreigners – 39% think there are too many, and the remaining 61% think that there are neither too many, nor too few. The almost linearly increasing pattern of coefficients with respect to education is in line with the standard welfare theoretical analysis of immigration shocks, as set out by Borjas (1995), and also in line with empirical studies of developed countries (Bauer et al. (2000), Scheve and Slaughter (2001)).

The wealth variable clearly shows that people with a net wealth position are not enthusiastic about foreigners. However, the difference in wealth coefficients for the upper three wealth categories proved to be not significant. In that respect one could argue that the presence of immigrants divides the 'haves' and 'have nots', where the 'haves' are more negative about the number of foreigners than the 'have nots'.

## 4.2 Social Interaction Arguments

The population density of the neighbourhood in which respondents live is not as important as one might expect based on popular policy debates: a linear (negative) relationship between population density and attitudes towards foreigners cannot be found, as can be deduced from the insignificant coefficients of the population density variable in Table 2. People who live in urban areas serve as the base category and, as shown, there is hardly any difference between respondents who live in different crowded neighbourhoods. The only effect one can detect from the population density figures is quite the reverse from what one would expect: anti-immigration sentiments are stronger among those respondents living in localities with low population densities.

Nor does the second neighbourhood characteristic – the concentration of non-Western foreigners in the neighbourhood – yield the outcome that one would expect. Ethnic concentration is of no significant importance in affecting immigration policy preferences.

In addition to the neighbourhood variables, we used contact variables to test the 'contact hypothesis': the hypothesis that the attitudes of ingroup

<sup>7</sup> A likelihood-ratio test on the null hypothesis of equal wealth coefficients cannot be rejected, as the LR-test value is 0.12 and  $\text{Prob} > \chi^2 = 0.941$ .

members change as a consequence of contact with outgroup members. The contact variables measure the contact that the indigenous population has with non-Western foreigners at various places in society. To limit any selectivity bias (see Pettigrew (1998)) in these settings, we have excluded places where respondents have a clear choice as to whether they meet foreigners, as at home, and restricted our attention to cases where the choice is to some extent circumscribed. Meeting foreigners at work and at school are important measures of integration, and, as the estimation results in Table 2 show, work and school contacts affect evaluations positively. In other words, school and work are important mechanisms for enabling non-Western foreigners to integrate.

Although contact at work and school leads to more positive attitudes towards the inflow of migrants, contact with foreigners while going out at night affects attitudes towards foreigners negatively. The contact with foreigners while going out could perhaps more accurately be described as contact in the public domain – a contact situation which will probably not always result in the same intensity of contact that contact in the private domains of work or school does. In that respect, contact may in this particular case be an approximation of a threat, which apparently discredits the image of foreigners.

### 4.3 Population Size Preference

We have assessed in model III the significance that population size preferences may add to the above set of variables. As can be clearly seen by the two coefficients at the bottom of Table 2 (model III), the immigration policy preference of respondents is greatly affected by their population size preference. Furthermore, the explanatory power of the model is greatly improved by including the population size variable. One might expect that the population size variable is not entirely independent of the evaluation of the number of foreigners. There are, however, two indications that suggest otherwise. First of all, the correlation between these two variables is remarkably low (r=0.27). A second indication is the fact that the coefficients of the other independent variables do not change substantially when switching from model II to model III.

# 4.4 Demographics

Finally, we end by examining the importance of the demographics of respondents. It is noteworthy that age is of no importance in evaluating the number of foreigners. Religion and the number of children are, unlike age, of some importance. The effect of religion is, however, the most interesting of the three control variables. The larger religious groups in the Netherlands – the

8 The full correlation matrix can be obtained from the authors upon request.

Catholics and Protestants – are more set against immigration than the base category: the Dutch with no ties to a religion. This policy stance is in stark contrast to that of members of the smaller non-Christian religious groups, who are more in favour of immigrants. The contrast between these two religious groups is to some extent understandable, as the traditional Christian groups perhaps perceive immigrants as a threat, whereas the non-Christian groups (Jews and Muslims for example) perceive existing immigration flows not as a threat but as a means to strengthen existing religious groups.

### 5 CONCLUSIONS AND DISCUSSION

European countries are struggling with relatively large inflows of immigrants. The acceptance of foreigners is a process that seems to give rise to large anti-immigration groups in countries that used to be quite liberal. The Netherlands is no exception to this. In forming their opinion about the number of foreigners, most of the Dutch respondents (60%) claim that there are too many foreigners. The standard political economy of immigration (Borjas (1995)) would suggest that labour market position (often typified by the level of education or skill) is the dominant force in voting on immigration issues. However, the reason why the majority of Dutch think that there are too many foreigners can in our opinion be explained in more detail by a number of forces besides the labour market position. In order to unravel preferences relating to the number of foreigners, we studied the importance of three forces: (1) self-interest, revealed by positions on the labour market and capital market; (2) social interaction with foreigners; and (3) a population size preference.

Each of the three forces is relevant in explaining immigration preferences. To start with the political economy of immigration, this theory shows how immigration affects labour market outcomes, in particular the distributional effects. Worker types with a higher education benefit from an inflow of unskilled labour, whereas the unskilled labour force is expected to be negatively affected by such an inflow as in most cases the immigrants are lowskilled workers who will compete with the low-skilled indigenous workforce (Borjas (1995, 2003), van Dalen (2001)). The empirical analyses presented in this paper suggest that these allocative effects of immigration also have clear consequences for people's opinions regarding immigration policies: less-skilled workers are much more positive about a restrictive immigration policy than the highly skilled. However, the consequences from the capital market position are less clear. Standard theory predicts that an inflow of immigrants with no capital would make capital a relatively scarce factor in the country of immigration, thereby raising the price of capital. Capital owners would therefore gain from an increase in immigration. Our estimates point in another direction, as capital owners are more strongly opposed to immigration than those without a net wealth position. This outcome suggests that the negative externalities of immigration (on the housing market for instance) could be more important than the straightforward capital market consequences. An alternative explanation as to why those with a net wealth position might be opposed to an increase in immigration flows can be traced to the future fiscal claims. A number of studies have demonstrated that the size and structure of present-day immigration flows involve a considerable net present value loss to European welfare states (Storesletten (2003), Roodenburg et al. (2003)).

Additional insight into the driving forces behind the immigration policy preferences of the indigenous population is gained by encompassing the social interaction and population size preferences that people share. One does not often encounter both these elements in the public choice literature; yet they do seem relevant. Contact with non-Western foreigners can improve attitudes, especially if the indigenous population has contact with foreigners at work or at school. This is an important finding, as school and work not only increase the value of human capital of immigrants, the estimation results suggest that places of school and work can generate substantial positive externalities. The explanation of this may be the favourable contact between an immigrant and the indigenous population not only makes the individuals party to this contact better off, but the effect transcends the personal level of the contact and positively affects the image of the entire outgroup.

However, the empirical analysis also yields some puzzling insights: the concentration of ethnic minorities in the neighbourhood did not affect the immigration policy preferences. This finding is somewhat of a surprise, as anti-immigration supporters (like the party of Pim Fortuyn in the Netherlands) are generally found in large cities where ethnic minorities are concentrated and often segregated. Ethnic minorities, including Turks and Moroccans, are concentrated in cities such as Rotterdam, The Hague and Amsterdam, and their concentration has remained quite stable over the years (Bolt et al. (2002)). The only effect that one can detect from population density figures is quite the reverse from what one would expect: anti-immigration sentiments among the respondents are stronger among those who live in localities with low population densities. In a way, this may be the result of the effect that people who live in crowded, urban areas are better adapted to living with newcomers than are people who live in smaller towns and villages. In the latter newcomers and immigrants are more easily spotted and perhaps seen as a sign that 'the good old times' will never return. Still, the absence of any ethnic concentration effect is puzzling, as numerous other studies, primarily based on US data, show quite strong effects. The reason why such effects may well appear in other data sets can perhaps be traced to the type of data set used. Many studies focus on attitudes in large metropolitan areas where ethnic concentration is high and of an entirely different level than in most European cities, and certainly not at the relatively low level of a national representative survey such as the one used in the present study.

The novel element in our empirical analysis is to connect the issue of immigration preferences to that of preferences concerning population size. It stands to reason that immigration policy views are influenced by population size preferences, as net immigration affects population size by definition. In unravelling the forces behind immigration policy preferences the population size preferences of respondents was found to exert a strong influence. Those with a preference for a population decrease are far more likely to prefer smaller numbers of immigrants than those who prefer a constant population size.

These results have rather strong implications for the economic analysis of migration. This is so because it would seem natural to extend the political economy of immigration by using models of social interaction and by paying close attention to the evolution of social norms, in particular about issues of population size. The bottom line of this paper would seem to be that the political economy of immigration is a highly relevant tool of analysis, but that it captures only part of the truth. In order to sketch a richer map of how immigration and integration develop, models of immigration should also include elements of social interaction as well as the preferences of the native population regarding aggregate population size.

## REFERENCES

- Bauer, T.K., M. Lofström and K.F. Zimmermann (2000), 'Immigration Policy, Assimilation of Immigrants and Natives' Sentiments Towards Immigrants: Evidence from 12 OECD Countries,' Swedish Economic Policy Review, 7, 11–53.
- Becker, G.S. and K.M. Murphy (2003), Social Economics Market Behavior in a Social Environment, Cambridge, MA, Belknap Harvard University Press.
- Benhabib, J. (1996), 'On the Political Economy of Immigration,' European Economic Review, 40, pp. 1737–1743.
- Boeri, T., G. Hanson and B. McCormick (2002), *Immigration Policy and the Welfare System*, Oxford, Oxford University Press.
- Bolt, G., P. Hooijmeijer and R. van Kempen (2002), 'Ethnic Segregation in the Netherlands: New Patterns, New Policies?,' *Tijdschrift voor Economische en Sociale Geografie*, 93, pp. 214–220.
- Borjas, G.J. (1995), 'The Economic Benefits of Immigration,' *Journal of Economic Perspectives*, 9, pp. 3–22.
- Borjas, G.J. (1999), Heaven's Door, New Jersey, Princeton University Press.
- Borjas, G.J. (2003), 'The Labor Demand Curve *Is* Downward Sloping: Reexamining the Impact of Immigration on the Labor Market,' *Quarterly Journal of Economics*, 118, pp. 1335–1376.
- Demeny, P. (2003), 'Population Policy Dilemmas in Europe at the Dawn of the Twenty-First Century,' *Population Development Review*, 29, pp. 1–28.
- Gang, I.N., F.L. Rivera-Batiz and M.-S. Yun (2002), 'Economic Strain, 'Ethnic Concentration and Attitudes Towards Foreigners in the European Union,' IZA Working Paper, no. 578, Bonn. Hardin, G. (1968), 'The Tragedy of the Commons,' Science, 162, pp. 1243–1248.

- Hewstone, M. and R. Brown (1986), 'Contact is not Enough: An Intergroup Perspective on the 'Contact Hypothesis,' in: M. Hewstone and R. Brown (eds), *Contact and Conflict in Intergroup Encounters*, Oxford, Basil Blackwell, pp. 1–44.
- Kemnitz, A. (2003), 'Immigration, Unemployment and Pensions,' Scandinavian Journal of Economics, 105, 31–47.
- Krieger, T. (2003). 'Voting on Low-Skill Immigration under Different Pension Regimes,' Public Choice, 117, pp. 51–78.
- Nerlove, M., A. Razin and E. Sadka (1987), Household and Economy Welfare Economics of Endogenous Fertility, New York, Academic Press.
- Oliver, J.E. and J. Wong (2003). 'Intergroup Prejudice in Multiethnic Settings,' *American Journal of Political Science*, 47, 567–582.
- Parfit, D. (1984), Reasons and Persons, Oxford, Oxford University Press.
- Pettigrew, T.F. (1998), 'Intergroup Contact Theory,' Annual Review of Psychology, 49, pp. 65-85.
- Quibria, M.G. (1990), 'On International Migration and the Social Welfare Function,' Bulletin of Economic Research, 42, pp. 141–153.
- Razin, A. and E. Sadka (1995), Population Economics, Cambridge MA, MIT Press.
- Roodenburg, H., R. Euwals and H. ter Rele (2003), *Immigration and the Dutch Economy*, CPB, The Hague.
- Saiz, A. (2003), 'Room in the Kitchen for the Melting Pot: Immigration and Rental Prices,' Review of Economics and Statistics, 85, 502–521.
- Scheve, K.F. and M.J. Slaughter (2001), 'Labor Market Competition and Individual Preferences of Immigration Policy,' Review of Economics and Statistics, 83, pp. 133–145.
- Storesletten, K. (2003), 'Fiscal Implications of Immigration A Net Present Value Calculation,' *Scandinavian Journal of Economics*, 105, pp. 487–506.
- Taylor, M.C. (1998), 'How White Attitudes Vary with the Racial Composition of Local Populations: Numbers Count,' American Sociological Review, 63, pp. 512–535.
- Van Dalen, H.P. (2001), 'Immigratie: vloek of zegen voor de Nederlandse economie? (transl. 'Immigration: a curse or a blessing for the Dutch economy?'),' Bevolking & Gezin, 30, pp. 3–36.
- Van Dalen, H.P., G. Groenewold and J.J. Schoorl (2005), 'Out of Africa: What Drives the Pressure to Emigrate?,' *Journal of Population Economics*, forthcoming.