Immigration and voting on the size and the composition of public spending

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Abstract

This paper develops a model to analyze the effects of immigration by skill on the outcome of a majority vote among natives on both the size as well as the composition of public spending. Public spending can be of two types, spending on rival goods (transfers) and on non-rival goods (public goods). I find that the effect of immigration on public spending depends on preferences for the different types of spending. In particular, immigrants of either skill can increase (decrease) the size of total public spending, if natives have a relative preference for spending on public goods (spending on transfers). I provide some illustration of spending patterns in OECD countries during 1980 - 2010.

JEL: F2, H4, H5.

Keywords: immigration, political economy, transfers, public goods.

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1. Introduction

High and increasing stocks and flows of immigration in past decades have sparked wide-ranging popular and political discussions in destination countries that offer high levels of redistribution. In these so-called welfare states, immigration has been viewed as a potential danger to redistributive systems. A number of studies as summarized for example in Nannestad (2007) indicate that the total fiscal net effect of immigration can be negative at least in the short run, depending on the labor market characteristics of immigrants such as skill. In this case, immigration could lead to a downsizing of the welfare system, as political support for it could weaken.

In this paper, I use a political economy framework to determine the effect of immigration on the equilibrium level of redistribution. In my model, natives vote on both the level and on the composition of public spending in a majority vote. Public spending can be of two types, spending on private goods (henceforth called transfers) and spending on public (non-rival) goods. The distinction between transfers and public goods is important, because the effect of immigration on spending costs is different. The per capita cost of transfers can increase with immigration depending on the skill composition of immigrants relative to natives (both immigrants and natives can be high- or low-skilled in the model). However, immigrants help spread the cost of public goods, as they increase population size. Spending on goods that exhibit a certain non-rivalry in consumption can represent a significant part of the public budget. In OECD countries, spending on public services, transport, defense and education made up around 50 per cent of total public spending on average since 1970.[1] Studies on the net fiscal effects of immigrants as surveyed in Smith and Edmonston (1997) or Wadensjö and Orrje (2002) usually take this public-good nature of part of the public spending into account and show that it can make an important difference for the results on immigrants' net fiscal contributions.

Taking up the distinction of the different types of public spending in a political economy model, I show that whether the majority voting outcome on public spending (and the share of that spending on transfers and on public goods) increases or decreases with immigration depends importantly upon the preferences of the median voter for transfer- versus public-

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[1] Sanz and Velazquez (2007).

goods spending. In particular, in contrast to findings in the existing literature, I find that immigration of either skill can increase (decrease) total public spending, if the median voter has a relative preference for spending on public goods (transfers).

The model also allows for an implementation of cultural preferences as suggested for example in Hillman and Weiss (1999) by weighing utility derived from public goods according to the relative number of immigrants and natives. For example, an increase in immigration could lead to a decrease in utility derived from the consumption of public goods, because it increases ethnic heterogeneity. I consider how the effect of immigration on public spending can change in the case with ethnic tastes compared to the case without, and how this depends on spending preferences for public goods and transfers.

Different strands of the literature have examined the question of how immigration might change public spending in destination countries. Conventional theory of tax competition argues that immigration constrains countries' spending policies because workers have an incentive to migrate to benefit from inter-regional differentials in taxes and benefits. Mobile high-skilled workers will move to countries where taxes are lower, other things being equal. In the same way, mobile low-skilled workers will move to countries where transfers are higher. As a result, the initial extent of public spending becomes unsustainable. Cremer and Pestieau (2004) provide a survey of the theoretical literature on labor mobility and fiscal redistribution, which yields consistent results: under labor mobility, spending is generally lower than in autarky.

Political economy models, just as models on tax competition and arbitrage, also typically argue that immigration reduces public spending. In these models, immigration induces natives to choose to redistribute less. For example in Razin, Sadka and Swagel (2002), transfer spending decreases with low-skilled immigration, even though immigrants join the pro-welfare coalition. This is because low-skilled immigration may decrease the marginal benefit of redistribution for the median voter in the destination country and therefore induce the median voter to vote for lower public spending (fiscal leakage effect). In Hansen (2003), the native median voter chooses lower spending on transfers in order to reduce immigration, which he dislikes because of the cultural heterogeneity that it causes. Ortega (2005) shows that high levels of redistribution can be preserved, if voters also take into account the impact of low-skilled immigrants' votes on future policies. In Mayr (2007), multiple voting equilibria

on redistribution arise: if the native majority of either high- or low-skilled is not too strong, both a high- and a low-redistribution outcome is possible.

This paper contributes to the political economy literature on immigration and redistribution by being the first (to my knowledge) to distinguish between different types of public spending. To do so, I allow for voting on two dimensions: the total amount of public spending and the composition of public spending, that is, the share spent on transfers and on public goods. In this framework, I derive conditions for immigration of either skill to increase or decrease the political economy outcome on public spending depending on native preferences for the different types of public spending. The paper is organized as follows. In Sections 2-4, I describe the theoretical model and derive the conditions for total public spending to increase or decrease with high- and low-skilled immigration, given that both the level and the composition of public spending is endogenous. Section 5 provides an extension that allows for endogenous spending preferences. Section 6 discusses some empirical implications of the model using data on the level and the composition of public spending in OECD countries during 1980 - 2010. Section 7 concludes.

2. The model

Consider a population which consists of natives and immigrants, whose numbers n and m are exogenously given.[2] Both can be either high-skilled or low-skilled: the number of the high-skilled and low-skilled is n_h, m_h and n_l, m_l, respectively. They earn some exogenous pre-tax incomes y_h and y_l.[3] High-skilled workers are more productive than low-skilled workers and, therefore, $y_h > y_l$, for natives and immigrants alike. Natives choose the optimal size of public spending g by majority voting. Immigrants are not allowed to vote.[4] The amount of public spending is limited by public revenue, which is levied by a flat-rate tax on labor income. That is, the budget constraint needs to hold. A share σ of public spending g is

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[2] I do not look at the long-run dynamics of immigration. In the short run, the number of immigrants is assumed to be restricted by a binding quota.

[3] It is assumed that pre-tax incomes are not affected by immigration. Empirical studies generally show that wage effects of immigrants are small (Brücker et al. 2002, Hanson et al. 2002).

[4] Although EU citizens for example are allowed to vote on a local level if they are resident in another member state, they cannot vote on public spending, which is primarily determined by the central government (see for example Bauer 2004).

spent on rival goods (for example health benefits or student grants), which I will call transfers. A share 1-σ is spent on non-rival goods (for example defense or law enforcement), which I will call public goods. Natives also choose the share of public spending on transfers and on public goods by majority voting.[5] Natives and immigrants are treated alike fiscally.

The utility function of a native individual i is given by:

$$U_i = \left[\frac{\sigma g}{m+n}\right]^{\alpha} + \left[(1-\sigma)g\right]^{\beta} + z(1-\tau)y_i, \tag{1.1}$$

$$0 < \alpha \leq 1, \quad 0 < \beta < 1, \quad 0 < \sigma < 1, \quad 0 < \tau < 1, \quad 1 < z$$

where α and β are preference parameters for public spending on transfers and on public goods. In the following, I will call it a relative preference for transfers (public goods) whenever $\alpha > \beta$ ($\alpha < \beta$). σ is the share of spending on transfers and τ is the flat-rate tax. z is a parameter that enhances marginal utility derived from net income relative to that derived from public spending for numerical reasons.[6] Utility is assumed to be quasi-linear without loss of generality[8] and additive in the individual's share in total public spending on transfers and public goods and net income. Because of non-rivalry, the size of the population does not diminish the utility derived from public goods. This is not true for transfers. I allow for transfers to be imperfect substitutes for individual income, as they can consist not only of cash transfers but also of in-kind transfers.[9] In the special case of $\alpha = 1$, government transfers and net income are perfect substitutes.[10]

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[5] Voting campaigns provide ample evidence for the fact that what matters for voters is not only the total amount of public spending, but also what public spending is used for. In particular, they might prefer to spend some given amount of public funds on public goods rather than on transfers, or vice versa.

[6] By setting $z > 1$, we can avoid obtaining unrealistically high equilibrium values of g, which would require a tax rate of larger than 1.

[8] Results would remain qualitatively the same with decreasing marginal utility of net income. More precisely, there would only be a qualitative change of conditions (1.13) and (1.14) below, which would become less easy to interpret.

[9] Besides, cash transfers are typically received under conditions different from receiving income (e.g. working versus being ill in the case of health benefits or being a student in the case of student grants).

[10] It is easy to restrict the share of transfer recipients among natives and migrants by introducing a factor in the denominator of the first term on the right-hand side of (1.1). This would not qualitatively change results.

The government's budget constraint implies that total spending equals total revenue:

$$g = \tau \left[\left(m_h + n_h \right) y_h + \left(m_l + n_l \right) y_l \right].$$ (1.2)

Using (1.1) and (1.2), one can rewrite individual utility as follows:

$$U_i = z y_i + g^{\alpha} \left(\frac{\sigma}{m+n} \right)^{\alpha} + g^{\beta} (1-\sigma)^{\beta} - z s_i g, \quad i = h, l,$$ (1.3)

where $s_i = \dfrac{y_i}{\sum y_i}$ is the share of individual income in total income, equivalent to the

individual share in the cost of public spending g.

Natives choose the optimal size of total public spending g and the optimal share of public spending on transfers, σ, by majority voting. Both variables depend on the number of high-skilled and low-skilled immigrants.

Individual i's preferred size of public spending g_i^* is given by the maximization of the utility function (1.3) with respect to g. The first-order condition is

$$\alpha g_i^{-1+\alpha} \left(\frac{\sigma_i}{m+n} \right)^{\alpha} + \beta g_i^{-1+\beta} (1-\sigma_i)^{\beta} - z \frac{y_i}{\sum y_i} = 0.$$ (1.4)

Individual i's preferred share of public spending on social transfers σ_i^* is given by the maximization of the utility function (1.3) with respect to σ. The first-order condition is

$$\alpha \left(\frac{g_i}{m+n} \right)^{\alpha} \sigma_i^{\alpha-1} - \beta g_i^{\beta} (1-\sigma_i)^{-1+\beta} = 0,$$ (1.5)

which can be expressed as

$$g_i = \left[\frac{\alpha}{\beta} \frac{(1-\sigma_i)^{1-\beta}}{\sigma_i^{1-\alpha}} \frac{1}{(m+n)^{\alpha}} \right]^{\frac{1}{\beta-\alpha}}.$$ (1.6)

3. Equilibrium

Natives vote simultaneously on the amount and composition of public spending g and σ by majority voting. Since voting preferences are single-peaked (the utility function is concave in g and σ), the voting outcome will be the choice of the median voter, $\sigma^*_{med}, g^*_{med}$, who is assumed to be of the same skill in both votes.[11] The two first-order conditions (1.4) and (1.5) above give the following two implicit expressions for the equilibrium amount and composition of public spending:

$$G: \quad \alpha g_{med}^{-1+\alpha} \left(\frac{\sigma_{med}}{m+n} \right)^{\alpha} + \beta g_{med}^{-1+\beta} (1-\sigma_{med})^{\beta} - z \frac{y_{med}}{\sum y_i} = 0, \quad (1.7)$$

$$S: \quad \alpha \left(\frac{g_{med}}{m+n} \right)^{\alpha} \sigma_{med}^{\alpha-1} - \beta g_{med}^{\beta} (1-\sigma_{med})^{-1+\beta} = 0. \quad (1.8)$$

According to (1.7) and (1.8), total public spending g_{med} and the spending share σ_{med} depend on the preference parameters for public goods and transfers as well as on total population size. A greater financing share of the median voter, $y_{med} / \sum y_i$, decreases the chosen amount of public spending g_{med}, ceteris paribus, but does not affect the spending share σ_{med}.

The public spending equilibrium $(\sigma^*_{med}, g^*_{med})$ is characterized by the compatibility of both conditions G and S. In the following, I will suppress the subscript and write σ^* and g^* for the optimal choice of the native median voter for simplicity.

Proposition 1. *There exists at least one public spending equilibrium (σ^*, g^*) characterized by G and S. The equilibrium features positive spending on both transfers and public goods.*

According to G, g is a positive finite number for $\sigma = 0$ and $\sigma = 1$, while according to S, g is infinite (zero) for $\sigma = 0$ and zero (infinite) for $\sigma = 1$ in the case where $\alpha < \beta$ ($\alpha > \beta$).

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[11] This is to avoid transitivity problems of multi-dimensional voting.

Both G and S are strictly monotonous functions as shown in the proof to Proposition 2 below. Therefore, G and S cross at least once, as shown for example in Figure 1.

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Proposition 2. *If natives care more (less) about transfers than about public goods, $\alpha > \beta$ ($\beta > \alpha$), then the optimal share of spending on transfers σ is increasing (decreasing) in total spending g, and vice versa.*

The condition for S to be downward-sloping in (σ, g)-space is:

$$\frac{\partial \sigma^*}{\partial g} = -\frac{S_g}{S_\sigma} < 0 . \tag{1.9}$$

Implicit differentiation of (1.8) and rearranging (1.9) gives

$$g > \left[\frac{\alpha^2}{\beta^2} \frac{(1-\sigma)^{1-\beta}}{\sigma^{1-\alpha}} \frac{1}{(m+n)^\alpha} \right]^{\frac{1}{\beta-\alpha}} . \tag{1.10}$$

The condition for G to be downward-sloping in (σ, g)-space is:

$$\frac{\partial g}{\partial \sigma} = -\frac{G_\sigma}{G_g} < 0 . \tag{1.11}$$

Implicit differentiation of (1.7) and rearranging (1.11) gives

$$g > \left[\frac{\alpha^2}{\beta^2} \frac{(1-\sigma)^{1-\beta}}{\sigma^{1-\alpha}} \frac{1}{(m+n)^\alpha} \right]^{\frac{1}{\beta-\alpha}} , \tag{1.12}$$

which is the same as (1.10). Therefore, if G is downward-sloping (upward-sloping) in (σ, g)-space, S is downward-sloping (upward-sloping), as well. Moreover, comparing (1.6) with (1.10) and (1.12) shows that one can distinguish two cases: if $\beta > \alpha$, G and S are downward-sloping, whereas if $\alpha > \beta$, they are upward-sloping.

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4. Immigration

Proposition 3. *Both high- and low-skilled immigration increases total public spending and decreases the share of spending on transfers, if natives prefer spending on public goods to spending on transfers ($\beta > \alpha$) and income inequality is sufficiently low such that condition (1.14) below is fulfilled.*

According to the proof to Proposition 2, S and G are downward-sloping in (σ, g)-space, if $\beta > \alpha$. Further, according to the proof to Proposition 1, if S and G are downward-sloping, then G is cutting S from above. Therefore, high- (low-)skilled immigration increases the equilibrium value of total public spending, if it causes a rightward-shift of G and (or) a downward-shift of S - see Figure 1.

Figure 1. Effect of immigration on equilibrium public spending g and share of spending on transfers σ, for $\alpha < \beta$.
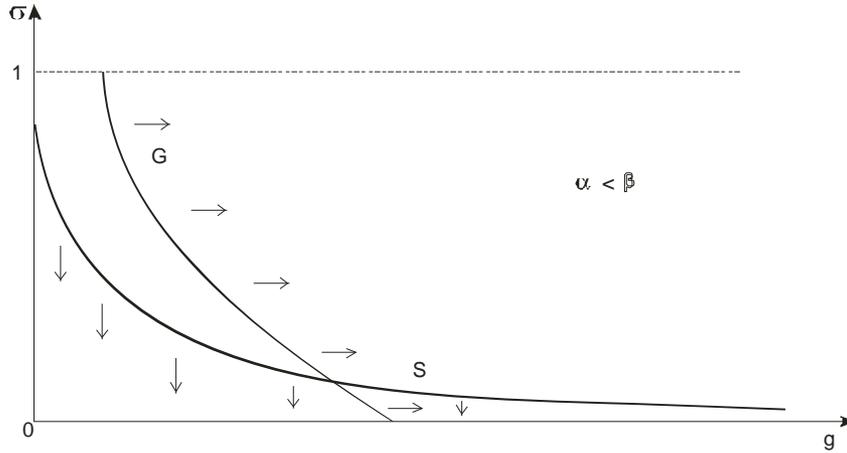
From (1.7), it follows that $\dfrac{\partial g}{\partial m_h} > 0$, iff:

$$z\frac{y_h}{\bar{y}}\frac{y_{med}}{\sum y_i} > \alpha^2 g^{-1+\alpha}(\frac{\sigma}{m+n})^\alpha, \qquad (1.13)$$

where $\bar{y} \equiv \dfrac{\sum y_i}{m+n}$ is mean income.

Analogously, it follows that $\frac{\partial g}{\partial m_l} > 0$, iff:

$$z \frac{y_l}{y} \frac{y_{med}}{\sum y_i} > \alpha^2 g^{-1+\alpha} (\frac{\sigma}{m+n})^{\alpha}. \qquad (1.14)$$

Immigration affects median voter utility derived from public spending g in two ways. First, it decreases her marginal cost of public spending, $\frac{y_{med}}{\sum y_i}$, proportional to the (marginal) immigrant's share in the average financing cost, $\frac{y_h}{y}$ or $\frac{y_l}{y}$. This decrease in the marginal cost of spending for the median voter is greater for lower levels of income inequality as measured by the ratio of mean to median income. This is because the median voter's share in the cost of public spending is greater for greater levels of his (median) income relative to mean income. Second, immigration decreases the median voter's marginal utility of public spending on transfers, $\alpha g^{-1+\alpha} (\frac{\sigma}{m+n})^{\alpha}$, by lowering the amount available for the median voter.

Conditions (1.13) and (1.14) state that the increase in marginal utility of the median voter caused by the decrease in the marginal cost of g due to high-skilled and low-skilled immigrants is larger than the decrease in marginal utility caused by their co-using of public funds. Under this condition, immigration increases the optimal size of g for the median voter - for any given σ.

Next, I derive the effect of high-skilled and low-skilled immigration on the share of spending on transfers σ for any given g. From (1.8) it follows that

$\frac{\partial \sigma}{\partial m_h} < 0$ and $\frac{\partial \sigma}{\partial m_l} < 0$, if:

$$-\alpha^2 \sigma^{-1+\alpha} g^{\alpha} (m+n)^{1-\alpha} < 0, \qquad (1.15)$$

which is easily checked.

Both high- and low-skilled immigrants decrease the optimal share of spending on transfers, because the marginal net gain from immigration is lower for spending on transfers than for

spending on public goods. Immigrants increase the number of taxpayers, but they also diminish the utility of natives derived from spending on transfers, while they do not diminish utility derived from spending on public goods.

The median voter gains by increasing g with both high- and low-skilled immigration for any given share of transfer spending σ, if (1.14) is fulfilled. This is because if (1.14) is fulfilled, then (1.13) is fulfilled too, since $y_l < y_h$. In addition, she gains by reducing the spending on transfers, with additional immigrants co-financing public goods. Since natives value public goods more than transfers ($\beta > \alpha$), the optimal response to immigration for natives is to increase public spending g.

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Proposition 4. *Both high- and low-skilled immigration decreases total public spending and the share of spending on transfers, if natives prefer spending on transfers to spending on public goods ($\alpha > \beta$) and income inequality is sufficiently high such that condition (1.13) above is not fulfilled.*

According to the proof to Proposition 2, S and G are upward-sloping in (σ, g)-space, if $\alpha > \beta$. Further, according to the proof to Proposition 1, if S and G are upward-sloping, then G is cutting S from below. Therefore, both high- and low-skilled immigration decreases the equilibrium value of total public spending, if it causes a leftward-shift of G and (or) a downward-shift of S - see Figure 2. Note that, if (1.13) is not fulfilled, then (1.14) is not either, since $y_l < y_h$.

Figure 2. Effect of immigration on equilibrium public spending g and share of spending on transfers σ, for $\alpha > \beta$.
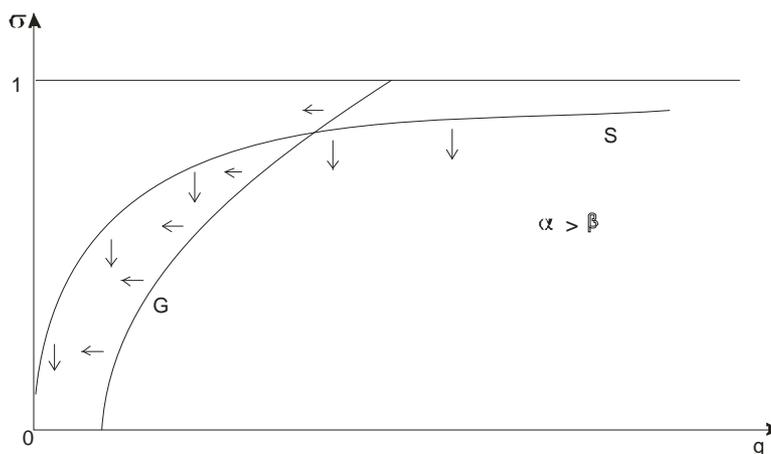
In this case, G shifts left because the decrease in the marginal cost of g due to high-skilled and low-skilled immigrants is smaller than the decrease in marginal utility caused by immigrants' transfer recipiency. S shifts down for the same reason as before. As a result, immigration decreases total public spending as well as spending on transfers.

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Propositions 3 and 4 show that high- and low-skilled immigration can have the same effect on public spending, in contrast to most results in the existing literature. However, their effect can also be different. As $y_l < y_h$, it is possible that condition (1.13) is fulfilled but (1.14) is not. Then, high-skilled immigration could increase total spending, while low-skilled immigration decreases it, for both $\alpha > \beta$ and $\alpha < \beta$. The opposite, however, is not possible.

5. Extension: endogenous preferences

According to the findings above the effect of immigration depends not only on the ratio of (marginal) immigrant income to mean income as derived in the literature so far[13], but also on the native median voter's relative preference for transfer spending versus spending on public goods. Now a large and growing literature suggests that high levels of ethnic diversity may lead to low levels of public goods provision due to ethnic tastes (Becker 1957, Alesina, Baqir

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[13] Compare, for example, Razin et al. (2002) where public spending is entirely on transfers, which corresponds to the special case in our model when $\sigma = 1$.

and Easterly 1999, Vigdor 2004, Alesina and LaFerrara 2005).[14] [15] Therefore, it is interesting to consider an extension of the model where spending preferences themselves are endogenous and the native median voter's spending 'taste' for public goods decreases with immigration.

A decrease in the spending 'taste' for public goods can be implemented in the model via a negative effect of immigration on the parameter β in the utility function (1.1): [16]

$$U_i = g^\alpha (\frac{\sigma}{m+n})^\alpha + g^\beta (1-\sigma)^\beta + z(y_i - s_i g), \quad i = h, l,$$

where $\dfrac{\partial \beta}{\partial m_h} < 0$ and $\dfrac{\partial \beta}{\partial m_l} < 0$

and $\qquad\qquad\qquad\qquad \beta = \dfrac{\Lambda}{m_h + m_l}$, where $0 < \Lambda < m_h + m_l$. $\qquad\qquad\qquad$ (1.16)

As natives value public goods less when immigration increases, the marginal utility of public spending increases to a smaller extent as immigration increases. Public spending g is therefore more likely to decrease for any given σ than before – shifting the G function to left in Figure 1.[17] Further, immigration reduces the marginal utility of spending on public goods relative to that of spending on transfers.[18] Immigration is then more likely to increase the share of spending on transfers σ for any given g than before – shifting the S function up in Figure 1.[19] In equilibrium, this means that if natives care more about public goods than about transfers ($\beta > \alpha$), total public spending is more likely to decrease with immigration in

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[14] Hillmann and Weiss (1999) suggest considering so-called cultural preferences as a determinant of immigration policies.

[15] Zwane and Sunding (2004) provide empirical evidence for a negative effect of immigration on spending on public goods in California in the wake of the Immigration Reform and Control Act (IRCA) in 1986.

[16] Note that in (1.17), I assume that the effect of high-skilled and low-skilled immigration on the preference for the public good is the same. Alternatively, it could be assumed that it is greater for the high-skilled or the low-skilled. Then, any extra effect of immigration on public spending would be greater for high-skilled immigration or low-skilled immigration.

[17] More precisely, (1.13) and (1.14) become

$z \dfrac{y_i}{y} \dfrac{y_{med}}{\sum y_i} > \alpha^2 g^{-1+\alpha} (\dfrac{\sigma}{m+n})^\alpha - \dfrac{\partial \beta}{\partial m_i} \left[g^{-1+\beta} (1-\sigma)^\beta \left(1 - \beta(1-\beta)g^{-1} + \beta^2 (1-\sigma)^{-1} \right) \right], \quad i = h, l.$

[18] This is true for a size of the public good large enough such that $g(1-\sigma) > \beta(1-\beta)$.

[19] More precisely, (1.15) becomes

$-\alpha^2 \sigma^{-1+\alpha} g^\alpha (m+n)^{1-\alpha} - \dfrac{\partial \beta}{\partial m_i} \left[g^\beta (1-\sigma)^{-1+\beta} \left(1 - \beta(1-\beta)(1-\sigma)^{-1} + \beta^2 g^{-1} \right) \right] < 0, \quad i = h, l.$

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the case with ethnic tastes compared to the case without. If natives care more about transfers ($\alpha > \beta$), the extra effect of ethnic preferences on public spending could be positive or negative, depending on parameter values. This is because in this case, total spending increases, as the share of spending on transfers increases and the S function shifts up in Figure 2.

6. Empirical implications

In the model above, I analyze the effects of immigration on the political economy outcome on public spending when natives can vote both on the level and on the composition of public spending. I find that immigration – regardless of immigrants' skills – increases total spending, if natives value public goods more than transfers and income inequality is low. Immigration decreases spending, if natives value transfers more than public goods and income inequality is high. I also find that high-skilled immigration can increase total spending, while low-skilled immigration decreases it, but the opposite is not possible. Finally, I show that total public spending and the share of spending on transfers will move in opposite (the same) directions, if natives value public goods more (less) than transfers. As relative spending preferences are crucial for the signs of effects, it is interesting to have some idea about their potential size. We can gain some information about this from Proposition 2, according to which there is a systematic positive correlation between total public spending and the share of spending on transfers, if natives prefer spending on transfers to spending on public goods, and a negative correlation otherwise. The scatter plot in Figure 3 shows data on total public spending (in per cent of GDP) and the share of spending on transfers for 22 OECD countries during 1980 and 2010.[21] The correlation between total spending and the share of spending on transfers is negative, suggesting a relative preference for spending on public goods and, therefore, different signs for the effects of immigration on total spending and the share of this spending on transfers. Empirically testing for the effects of immigration as hypothesized above more generally would be an interesting avenue for future research. However, the required data on

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[21] The countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Sweden, South Korea, Portugal, Spain, Switzerland, the United Kingdom and the USA.

public spending that distinguish clearly between spending on rival and on non-rival goods and services are not available so far. The distinction between spending on transfers and spending on non-transfers is a feasible first approximation of such data, but corresponds only imperfectly to the distinction in the model.

Figure 3: Total public spending and share of spending on transfers, N=203.
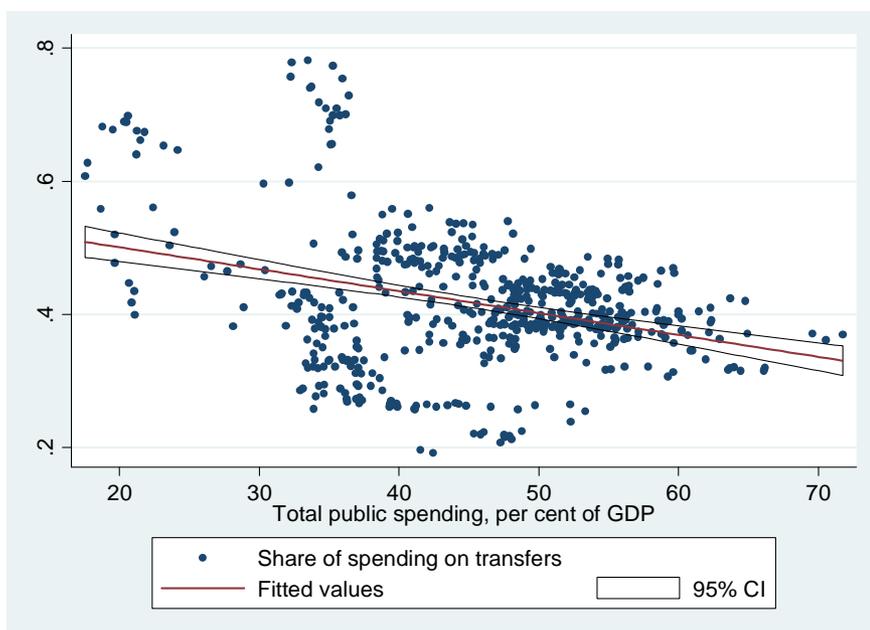
7. Conclusion

This paper contributes to the political economy literature on immigration and the public budget by analyzing the outcome of native majority voting on both the overall size as well as the composition of public spending, thereby distinguishing between spending on rival and on non-rival goods. This permits further insights into the potential links between immigration and welfare state provision including the provision of public goods, and helps qualify the effects that have been identified in the literature so far.

According to my model, the effect of immigration on public spending crucially depends on native preferences for the different types of spending. In particular, I find that immigration of both high- and low-skilled immigrants can increase public spending, if natives value (non-rival) public goods more than (rival) transfers, and it can decrease public spending otherwise.

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For given spending preferences, high-skilled immigration is more likely to increase public spending compared to low-skilled immigration. Immigration policies that favor high-skilled immigrants, as they are in place for example in the U.S. and in many European countries, should therefore be more likely to prevent a run down of welfare state provisions. Of course, immigration itself might change relative preferences for spending on public goods and on transfers. This could, at least to some extent, explain why the U.S., which are relatively ethnically diverse, choose to redistribute fewer resources than the ethnically more homogeneous[22] European societies. With endogenous preferences, the effect of immigration on redistribution policies in Europe could change as ethnic heterogeneity increases.

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[22] As measured by the ethnic fractionalization index in Alesina et al. (2003).

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