

MIGRATION AND THE WELFARE STATE

POLITICAL-ECONOMY
POLICY FORMATION

ASSAF RAZIN, EFRAIM SADKA,
AND BENJARONG SUWANKIRI

Migration and the Welfare State

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Political-Economy Policy Formation

Assaf Razin, Efraim Sadka, and Benjarong Suwankiri

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To Iddo and Neeve Razin
David, Ella, and Ethan Sadka
We could not ask for more!
—A.R. and E.S.

To Trairong and Noot Suwankiri
My first teachers in economics and mathematics.
—B.S.

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Preface

Over the last three decades Europe's generous social benefits have encouraged a massive surge of "welfare migration," especially low-skilled workers. In the same period the United States has attracted a major portion of highly skilled immigrants, boosting its innovative edge.

The Nobel laureate economist Milton Friedman (2009) had it right, that one can't have free immigration and a generous welfare state: "It is one thing to have free immigration for jobs; it is another thing to have free immigration to welfare. And you cannot have both." That is, a generous welfare state would be under constant attack by the many would-be immigrants who yearn for its benefits. Under such a growing burden, sooner or later a political coalition would be formed that would either curtail the generosity of the state or restrict in-migration, or both. Open immigration cannot coexist with a strong safety net.

On the other hand, a welfare state, especially an aging welfare state, may welcome young and skilled migrants. Thus, the preferences of the native-born population toward immigration depend on the skill composition and age distribution of the would-be immigrants; and immigration policies may be tailored differently for various categories of potential immigrants. Also, within the welfare state there is typically no consensus with respect to immigration policies (as there is not a consensus with respect to how generous the welfare state should be).

The book explores the root causes of restrictions on migration, particularly how age- and skill-dependent restrictions are shaped by the political process. The book integrates elements from population, international, public, and political economics into a unified static and dynamic framework and provides the first empirical study of policy formation concerning migration and the welfare state. It is intended for graduate and advanced undergraduate students and scholars in the

fields of demography and population and international, public, and political economics.

Several chapters of this book are based on previous work by the authors and their co-authors. Chapter 2 is based on Cohen and Razin (2008) and Razin and Wahba (2011). Chapter 3 is based on Cohen, Razin, and Sadka (2009). Chapter 5 is based on Sand and Razin (2007), and Razin and Sand (2009). Chapter 7 is based on Razin, Sadka, and Suwankiri (2009). Chapter 8 draws on Razin and Sadka (1999; 2004). Chapter 9 is based on Razin and Sadka (2010). Chapter 10 is based on Razin and Sadka (2011).

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1 Issues and Scope

1.1 Introduction

Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!

These words from the sonnet by Emma Lazarus (1883), and engraved in bronze at the base of the Statue of Liberty, capture the spirit of the free-migration era in the nineteenth-century United States. The welfare state idea, still in embryonic form in Europe, had yet to be brought to U.S. shores.

Free migration has been the subject of extensive theoretical investigation, dating back to Adam Smith, who in *The Wealth of Nations* (1776), labeled the restriction on immigration as being just as debilitating as a restriction of capital movements. In his words,

Whatever obstructs the free circulation of labour from one employment to another, obstructs that of a stock likewise; the quantity of stock which can be employed in any branch of business depending very much upon that of the labour which can be employed in it.

Nevertheless, whereas free capital mobility is widespread, free migration is very rare in practice.

About a century later, the Nobel laureate Milton Friedman remarked that one cannot have free migration and a welfare state. That is, a welfare state with open borders might turn into a heaven for the poor and needy from all over the world, thereby draining its finances and bringing it down. This observation underscores the motivation for this book: to explore the root causes of restrictions on migration, particularly how age- and skill-dependent restrictions are shaped by the political-economy process.

As a backdrop, in ten of the European Union's twenty-seven member states, deaths are expected to outnumber births in 2010. As of 2015 the EU as a whole is expected to experience negative natural population growth. The European Union has attracted 26 million migrants in the past two decades, but most of the European countries attempt to protect native-born labor by shutting out foreign workers, which results in massive inflows of illegal migrants. Europe's generous social benefits encouraged a massive surge of "welfare migration." Consequently, Europe has ended up with 85 percent of all unskilled migrants to developed countries but only 5 percent of all highly skilled migrants.

As a consequence, public opinion in the developed economies, with their fairly generous welfare systems, favors putting, in one way or another, restrictions on migration.

Generally speaking, a skilled and young migrant may help the finances of the welfare state, whereas an unskilled and old migrant may inflict a burden on the welfare state. Of particular interest, therefore, are the skill and age components of these restrictive policies. A welfare state with an heterogeneous (e.g., by age, skill) population typically does not have a commonly accepted attitude toward migration.

For instance, a skilled (rich) and young native-born worker who expects to bear more than an average share of the cost of providing the benefits of the welfare state is likely to oppose admitting unskilled migrants on such grounds. On the other hand, the same native-born worker may favor unskilled migrants to the extent that a larger supply of unskilled workers boosts skilled workers' wages. A native-born old worker may favor migration, even low-skilled, on the grounds that it could help finance her old-age benefits. Chiswick and Hatton (2003) provided some figures describing the shift from uncontrolled migration in the period before World War I to selective policies afterward. Despite the dramatic decline in the cost of relocation to the migrants, rates of migration went down. For instance, the annual migration rate to the United States fell from 11.6 migrants per thousand population in the first decade of the twentieth century to 0.4 per thousand population in the 1940s, rising to 4.0 per thousand population in the 1990s. The post World War II migration rates are substantially below the pre-World War I rate.

Indeed, Canada decided to keep its borders open and even to speed up acceptance procedures for some highly skilled arrivals. While migrants have lost some ground, they are still twice as likely as native Canadians to hold doctorates or master's degrees. Sweden wasn't satisfied with merely implementing a new skills-based migration policy; it actually

upgraded its integration efforts, including language and vocational training for existing migrants, right in the middle of the financial crisis.

Since 2008, more people have been emigrating from Germany than flocking to it, reversing decades of migration inflows. Engineers, scientists, doctors, and other highly skilled workers make up a disproportionate share of the retreat. Germany's tough immigration laws have kept it from importing enough skilled labor to compensate.

The variety of effects of migration necessitates the use of a general equilibrium framework in order to study how migration policies affect native-born voters. Furthermore, there are conflicting interests among native-born voters concerning these policies. This book develops a framework to study how these many conflicts are resolved in a politico-economic setup.

The politico-economic setup features two aspects in policy formation: skilled (rich) versus unskilled (poor), and young versus old. Thus, the analysis consists of policies that resolve both the intra- and intergenerational conflicts.

1.2 Fiscal Aspects of Migration: Evidence

The European Union, both old (EU-15) and new (after the enlargement to EU-27), faces a severe aging problem. For instance, the ratio of the elderly population (aged 60+ years) to the working-age population (aged 15–59 years) in the EU-15 is projected to at least double from about 20 percent in the year 2000 to over 40 percent, in the year 2050. Official retirement ages have failed to keep up with life expectancy, making pensions and health care provisions increasingly unaffordable. "Many people in the rich-world OECD countries retire relatively early, which lets them enjoy, on average, some 19 years in retirement before death" (*Economist*, February 2, 2010). Years in retirement in Italy, Austria, and France are 23, 24, and 25, respectively. The aging process shakes the financial soundness of the welfare state, especially its old-age security and medical health components, because there are fewer workers to support increasing numbers of retirees. As put metaphorically by the *Economist* (March 15, 2003, 80), "The fiscal burden on the diminishing number of worker-bees will rise as more people turn into pensioner drones." The *Economist* (August 24, 2002) also looked at some of the dimensions of the financial burden: "On some estimates, by 2050, government debt could be equivalent to almost 100 percent of national income in America, 150 percent in the EU as a whole [EU-15] and over 250 percent in Germany and France." Nevertheless, note

that migration of young workers (as distinct from old ones), even when driven by the generosity of the welfare state, slows down the trend for the dependency ratio to increase. However, economic intuition suggests that even though unskilled migration improves the dependency ratio, it nevertheless burdens the welfare state. This is because low-skilled migrants are typically net beneficiaries of the generosity of the welfare state. In 1997 the U.S. National Research Council sponsored a study on the overall fiscal impact of migration into United States (see Smith and Edmonston 1997). The study looked comprehensively at all layers of government (federal, state, and local), all programs (benefits), and all types of taxes. For each cohort, defined by age of arrival to the United States, the benefits (cash or in kind) received by migrants over their own lifetimes and the lifetimes of their first-generation descendants were projected. These benefits include Medicare, Medicaid, Supplementary Security Income (SSI), Aid for Families with Dependent Children (AFDC), food stamps, Old Age, and Survivors, and Disability Insurance (OASDI). Similarly, taxes paid directly by migrants and the incidence on migrants of other taxes (such as corporate taxes) were also projected for the lifetimes of the migrants and their first-generation descendants. Accordingly, the net fiscal burden was projected and discounted to the present. In this way, the net fiscal burden for each age cohort of migrants was calculated in present value terms. Within each age cohort, these calculations were disaggregated according to three educational levels: less than high school education, high school education, and more than high school education. The findings suggested that migrants with less than high school education are typically a net fiscal burden that can reach as high as approximately \$100,000 in present value when the migrants' age on arrival is 20–30 years.

Following the enlargement of the European Union to twenty-seven countries, there were concerns that the EU-15 was likely to face a rise in welfare migration. Hans-Werner Sinn (*Financial Times*, July 12, 2004) made a somewhat alarming prediction:

There will be more migration in Europe, but it will be “bad” migration as well as “good.” “Good” migration is driven by wage and productivity difference. “Bad” migration is driven by the generosity of the welfare state.

Only three members of the EU-15 (United Kingdom, Sweden, and Ireland) allowed free access for residents of the accession countries to their national labor markets in the year of the first enlargement, 2004. The other members of the EU-15 took advantage of the clause that allows for restricted labor markets for a transitional period of up to seven years.

Focusing on the U.K. and the A8 countries,¹ Dustmann et al. (2009) brought evidence of no welfare migration. The average age of the A8 migrants during the period 2004–2008² was 25.8 years, considerably lower than the native U.K. average age (38.7 years). The A8 migrants were also better educated than the native-born. For instance, the percentage of those that left full-time education at the age of 21 years or later was 35.5 among the A8 migrants compared to only 17.1 among U.K. natives. Another indication that the migration was not predominantly driven by welfare motives is the higher employment rate of the A8 migrants (83.1%) relative to the U.K. natives (78.9%). Furthermore, for the same period, the contribution of the A8 migrants to government revenues far exceeded the government expenditures attributed to them. A study by Barbone et al. (2009), based on the 2006 European Union Survey on Income and Living Conditions, found that migrants from the accession countries constituted only 1–2 percent of the total population in the preenlargement EU countries (excluding Germany and Luxembourg); by comparison, about 6 percent of the population in these EU countries was born outside the enlarged EU. The small share of migrants from the accession countries is, of course, not surprising in view of the restrictions imposed on migration from the accession countries to the EU-15 before the enlargement and during the transition period after the enlargement. The study showed also that there was, as expected, a positive correlation between the net current taxes (that is, taxes paid less benefits received) of migrants from all source countries and their education levels.³

Indeed, the general public perceives unskilled migrants as a drain on the public finances. In the U.K. the *Daily Mirror* (July 24, 2006) put it in bread-and-butter terms: “Economic migrants need schools for their children. They need housing. They need medical care. They can even lose their jobs.”

Hainmueller and Hiscox (2010), using survey data from the United States, found two critical economic concerns that appeared to generate anti-migrant sentiment among voters: concerns about labor market competition and concerns about the fiscal burden on public services. Employing opinion surveys, Hanson et al. (2007) brought evidence that in the United States native-born residents of states that provide generous benefits to migrants also prefer to reduce the number of migrants. Furthermore, the opposition is stronger among higher-income groups. Hanson et al. (2009), again employing opinion surveys, found for the United States that native-born residents of states with a high share of unskilled migrants among the migrant population prefer to restrict in-migration, whereas native-born residents of states with a

high share of skilled migrants among the migrant population are less likely to favor restricting migration.⁴ Indeed, developed economies do attempt to sort out migrants by skills (see, e.g., Bhagwati and Hanson 2009). Australia and Canada employ a point system based on selected migrants' characteristics. The United States employs explicit preference for professional, technical, and kindred migrants under the so-called third-preference quota. Jasso and Rosenzweig (2009) found that both the Australian and the U.S. selection mechanisms are effective in sorting out the skilled migrants and produce essentially similar outcomes despite their different legal characteristics.

While Europe ended up in the last two decades with 85 percent of all unskilled migrants to developed countries, the United States retained its innovative edge by attracting 55 percent of the worlds educated migrants.

1.3 Road Map

Part I begins with a static analytical framework, useful with the interpretation of available cross-country data, which have very few time series observations. In such a framework the key aspect of the welfare state is the scope of its intragenerational redistribution, that is, from the rich (skilled) to the poor (unskilled). The skill composition of migration is therefore the focus of this part of the book.

Chapter 2 studies the effect of the generosity of the welfare state on the skill composition of migrants. This effect depends crucially on the policy regime, namely, whether migration is free or restricted. Chapter 2 first builds a parsimonious (static) model to analytically study how the effect differs across these policy regimes. In a free-migration regime, a typical welfare state with relatively abundant capital and high total factor productivity (implying relatively high wages for all skill levels) attracts unskilled and skilled migrants. In addition, the generosity of the welfare state attracts unskilled (poor) migrants because they expect to gain more from the benefits than what they expect to pay in taxes for these benefits; that is, they are net beneficiaries of the generous welfare state. In contrast, potential skilled (rich) migrants are deterred by the generosity of the welfare state. Thus, the latter tilts the skill composition of the migrants toward the unskilled. In the restricted-migration regime, these same considerations lead voters to open the door wide to skilled migration and slam the door shut on unskilled migration. Voters are motivated by two considerations: how migration affects their

wages and how it bears on the finances of the welfare state. Typically, unskilled migration depresses the unskilled wage and boosts the skilled wage. The opposite occurs with skilled migration. The effect of migration on the finances of the welfare state is common to all voters of all skills because skilled migrants are net contributors to the welfare state, whereas unskilled migrants are net beneficiaries. From a public finance point of view, native-born voters of all skills would therefore opt for the skilled to come in and the unskilled to stay out.

The EU-15 can serve as a laboratory for studying empirically the policy regime differential effect of the generosity of the welfare state on the skill composition of migration. Freedom of movement and the ability to reside and work anywhere within the EU are fundamental rights that member states of the EU are obligated to extend toward one another. In contrast, labor mobility into the EU-15 member states from non-EU-15 states is still restricted to various degrees by national policies. Chapter 2 utilizes this difference in policy regimes across EU-15 and non-EU-15 states in order to test the predictions of the model about key differences between free and policy-restricted migration concerning the effect of the welfare state on the skill composition of migrants.

The empirical analysis may be plagued with an endogeneity problem associated with reverse causality: the skill composition of migration itself influences the voters' attitude toward the generosity of the welfare state. The reverse causality mechanism is analyzed in chapter 3, which examines how the skill composition of migration shapes voters' decisions concerning the generosity of the welfare state. Since skilled migrants are typically net contributors to the welfare state, whereas unskilled migrants are net beneficiaries, voters in the host country are likely to boost its welfare system when absorbing high-skilled migration and to curtail it when absorbing low-skilled migration. This prediction is tested against evidence from EU countries. In doing so, we reckon with an endogeneity problem that arises because the skill composition is itself affected by the generosity of the welfare state.

Chapter 4 integrates the two directions of causality discussed in the two preceding chapters into a joint politico-economic-based determination of the generosity of the welfare state, the volume of migration, and its skill composition. This analysis is carried out for both policy regimes: free and restricted migration. We study analytically how productivity shocks in the host country and the skill composition of its native-born population affect its joint politico-economic determination of the generosity of the welfare system and the volume and skill

composition of migration. We also illustrate the joint determination of migration makeup and the generosity of the welfare state with numerical simulations.

Part II delves into the theoretical analysis of similar issues in dynamic overlapping-generations settings. In this framework there come to the fore intergenerational aspects of redistribution (that is, between young and old) in addition to the intragenerational features of redistribution. Chapter 5 begins with an analysis of pure intergenerational distribution, abstracting from intragenerational aspects. In other words, the welfare state offers only old-age social security, and populations have homogeneous skills. As we have pointed out, the welfare state faces a serious financial problem that is growing in severity because of the trend of a rising dependency ratio, which is in our setting measured by the number of retirees per worker. In particular, this old-young dependency ratio declines in the developed (migration-absorbing) countries because of higher longevity, declining fertility rates, and so on.

Indeed, chapter 5 plausibly assumes that migrants have higher birth rates than the native-born. We aim to highlight this demographic gap, so in order to isolate this effect, we assume that the birth rate is the only feature by which migrants differ from the native-born. The latter jointly determine in a political process the migration policy (that is, the number of migrants allowed in) and the size of a pay-as-you-go (PAYG) old-age social security system. An overlapping-generations model is employed, and voting about current migration and social security policy is jointly conducted each period (where people live for two periods). As is usual in the public economic literature, we employ a Markov equilibrium concept, which means that each young voter takes into account the effect of her vote on the evolution of the economy in the next period, which in turn affects the voting outcome in the next period, especially with respect to the social security benefit that she receives in the next period when she grows old. Voting in the next period is in turn influenced by the outcome of this voting on the voting outcome in the following period, and so on. The state variables that drive the dynamics are one-period lagged demographic characteristics of the economy.

We study how a more generous old-age social security system affects the migration flows (in analogy to chapter 2); how the volume of migration affects the generosity of the old-age security system chosen by the native-born (in analogy to chapter 3); and how the generosity of the old-age social security system and the migration flows are jointly determined by the native-born population (in analogy to chapter 4).

We next wish to analyze how the political process resolves both inter- and intragenerational conflicts. Chapter 6 provides the analytical tools that serve in the study conducted in chapter 7. The latter considers both inter- and intragenerational redistribution, that is, voting is conducted with respect to concurrent decisions on redistribution between the old and the young and between the rich (skilled) and the poor (unskilled). In this setup there arise many more than two voting groups. The skilled young no longer necessarily share the same interests as the unskilled young. Similarly, a conflict exists between the skilled old and the unskilled old. Of particular interest is the characterization of the coalitions that are decisive in the politico-economic equilibria for different demographic and skill distribution parameters.

Part III examines overall gains from (or the cost of) migration to the host country in view of the potential for fiscal burden from unskilled migration, and considers how the source and host countries change their fiscal policies in response to migration.

Chapter 8 presents some estimates of the net fiscal burden of migration in the United States and the EU. We examine whether the net fiscal burden imposed by migrants is a proper measure of the welfare cost of migration. It turns out that it might be a good measure in a static setup, but it may fail to capture the welfare benefit accorded by migration in a dynamic setup.

So far, the focus has been mainly on the host country. The source country played a passive role. It merely served as a reservoir of migrants for the host (destination) country. That is, it provided exogenously given, upward-sloping supply curves of unskilled and skilled would-be migrants to the host country.

Chapter 9 assigns an active role also to the source country. It models the source country in a stylistic way as an accession country of an economic union (e.g., the EU enlargement from fifteen to twenty-seven states) with its own welfare (tax-benefit) policy. Similarly, the host country is modeled stylistically as one of the welfare states of the core of an economic union (e.g., the EU-15). Recall that there is a grace period between 2004 and 2014 where an EU-15 member state can nationally regulate the migration flows from the accession countries. We let the host and source countries (different in terms of productivity) engage in fiscal and migration competition. The driving force behind migration is a productivity gap, so we first analyze the implications of the productivity gap for the design of migration and tax policies by using numerical simulations. Then we examine how the migration and tax

policies are shaped, how policies are affected by whether the skilled or the unskilled are in power, and the different effects on taxes across controlled-migration and free-migration regimes.

The literature on tax competition with free capital mobility cites several reasons for the race-to-the-bottom hypothesis in the sense that tax competition may yield significantly lower tax rates than tax coordination. With a fixed (exogenously given) population that can move from one fiscal jurisdiction to another, the Tiebout paradigm suggests that tax competition among these jurisdictions yields an efficient outcome, so that there are no gains from tax harmonization. Chapter 10 provides some support to the Tiebout hypothesis when a group of competing host countries faces an upward supply of immigrants. It refutes the race-to-the-bottom hypothesis. In chapter 10 we model the host countries stylistically as members of the core EU welfare states. The rest of the world is the pool of would-be immigrants. We allow competition (through the tax-cum-transfer system) among several host countries, treated as “perfect competitors.” The rest of the world provides exogenously upward sloping supply curves of unskilled and skilled would-be migrants. We address the issue of whether tax competition among host countries is inefficient, relative to tax coordination, in the presence of migration from within—and outside—an economic union.

We conclude the book with an epilogue, where we offer some perspectives on European migration issues and draw attention to some policy implications.

References

- Auerbach, Alan J., and Philip Oreopoulos. 1999. "Analyzing the Fiscal Impact of U.S. Immigration." *American Economic Review* 89 (2): 176–180.
- Barbone, Luca, Misha Bontch-Osmolovsky, and Salman Zaidi. 2009. "The Foreign-Born Population in the European Union and Its Contribution to National Tax and Benefit Systems." World Bank Policy Research Working Paper 4899.
- Barro, Robert J., and Jong-Wha Lee. 2000. "International Data on Educational Attainment: Updates and Implications." *Oxford Economic Papers* 53(3): 541–563.
- Benhabib, Jess. 1996. "On the Political Economy of Immigration." *European Economic Review* 40 (9): 1737–1743.
- Besley, Timothy, and Stephen Coate. 1997. "An Economic Model of Representative Democracy." *Quarterly Journal of Economics* 112 (1): 85–114.
- . 1998. "Sources of Inefficiency in a Representative Democracy: A Dynamic Approach." *American Economic Review* 88 (1): 139–156.
- Bhagwati, Jagdish, and Gordon Hanson, eds. 2009. *Skilled Immigration Today: Prospects, Problems, and Policies*. Oxford: Oxford University Press.
- Blank, Rebecca M. 1988. "The Effect of Welfare and Wage Levels on the Location Decisions of Female-Headed Households." *Journal of Urban Economics* 24 (2): 186–211.
- Boeri, Tito, Gordon Howard Hanson, and Barry McCormick, eds. 2002. *Immigration Policy and the Welfare System: A Report for the Fondazione Rodolfo De Benedetti*. Oxford: Oxford University Press.
- Bohn, Henning. 2005. "Will Social Security and Medicare Remain Viable as the U.S. Population Is Aging? An Update." In *Social Security Reform: Financial and Political Issues in International Perspective*, ed. Robin Brooks and Assaf Razin, 44–72. Cambridge: Cambridge University Press.
- Boldrin, Michele, and Aldo Rustichini. 2000. "Political Equilibria with Social Security." *Review of Economic Dynamics* 3 (1): 41–78.
- Borjas, George J. 1999. *Heaven's Door: Immigration Policy and the American Economy*. Princeton, N.J.: Princeton University Press.
- Bovenberg, Lans, Sijbern Cnossen, and Ruud de Mooij. 2003. "Introduction: Tax Coordination in the European Union." *International Tax and Public Finance* 10 (4): 619–624.

- Brücker, Herbert, Gil Epstein, Barry McCormick, Gilles Saint-Paul, Alessandra Venturini, and Klaus Zimmerman. 2001. "Managing Migration in the European Welfare State." Bonn, Germany: IZA. <http://www.frdb.org/upload/file/paper1_23jun01.pdf>.
- Bueckner, Jan. 2000. "Welfare Reform and the Race to the Bottom: Theory and Evidence." *Southern Economic Journal* 66 (3): 505–525.
- Casarico, Alessandra, and Carlo Devillanova. 2003. "Social Security and Migration with Endogenous Skill Upgrading." *Journal of Public Economics* 87 (3-4): 773–797.
- Chari, V. V., and Patrick J. Kehoe. 1990. "International Coordination of Fiscal Policy in Limiting Economies." *Journal of Political Economy* 98 (3): 617–636.
- Chau, Nancy H. 2003. "Concessional Amnesty and the Politics of Immigration Reforms." *Economics and Politics* 15 (2): 193–224.
- Chiswick, Barry R., and Timothy J. Hatton. 2003. "International Migration and the Integration of Labor Markets." In *Globalization in Historical Perspective*, ed. Michael D. Bordo, Alan M. Taylor, and Jeffrey G. Williamson, 65–120. Chicago: University of Chicago Press.
- Cohen, Alon, and Assaf Razin. 2008. "The Skill Composition of Immigrants and the Generosity of the Welfare State: Free versus Policy-Controlled Migration." NBER Working Paper 14459.
- Cohen, Alon, Assaf Razin, and Efraim Sadka. 2009. "The Skill Composition of Migration and the Generosity of the Welfare State." NBER Working Paper 14738.
- Cooley, Thomas F., and Jorge Soares. 1999. "A Positive Theory of Social Security Based on Reputation." *Journal of Political Economy* 107 (1): 135–160.
- De Giorgi, Giacomo, and Michele Pellizzari. 2006. "Welfare Migration in Europe and the Cost of a Harmonized Social Assistance." IZA Discussion Paper 2094.
- Docquier, Frédéric, Oliver Lohest, and Abdeslam Marfouk. 2006. "What Determines Migrants' Destination Choice?" Unpublished paper.
- Docquier, Frédéric, and Abdeslam Marfouk. 2006. "International Migration by Educational Attainment, 1990–2000." In *International Migration, Remittances, and the Brain Drain*, ed. Çağlar Ozden and Maurice Schiff. World Bank Trade and Development Series. New York: Palgrave Macmillan.
- Dolmas, Jim, and Gregory W. Huffman. 2004. "On the Political Economy of Immigration and Income Redistribution." *International Economic Review* 45 (4): 1129–1168.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.
- Drazen, Alan. 2000. *Political Economy in Macroeconomics*. Princeton, N.J.: Princeton University Press.
- Dustmann, Christian, Tommaso Frattini, and Caroline Halls. 2009. "Assessing the Fiscal Costs and Benefits of A8 Migration to the UK." Discussion Paper 18/09. Centre for Research and Analysis of Migration (CREAM), London.
- Enchautegui, Maria E. 1997. "Welfare Payments and Other Determinants of Female Migration." *Journal of Labor Economics* 15 (3): 529–554.
- Facchini, Giovanni, and Anna Maria Mayda. 2008. "From Individual Attitudes towards Migrants to Migration Policy Outcomes." *Economic Policy* 23 (56): 651–713.

- Facchini, Giovanni, Assaf Razin, and Gerald Willmann. 2004. "Welfare Leakage and Immigration Policy." *CESifo Economic Studies* 50 (4): 627–645.
- Facchini, Giovanni, and Gerald Willmann. 2005. "The Political Economy of International Factor Mobility." *Journal of International Economics* 67 (1): 201–219.
- Forni, Lorenzo. 2005. "Social Security as Markov Equilibrium in OLG Models." *Review of Economic Dynamics* 8 (1): 178–194.
- Frankel, Jeffrey A., and David Romer. 1999. "Does Trade Cause Growth?" *American Economic Review* 89 (2): 379–399.
- Friedman, Milton. 2009. *Illegal Immigration*. Part 1. Video. <<http://www.youtube.com/watch?v=3eyJlbSgdSE>>.
- Galasso, Vincenzo, and Paola Profeta. 2002. "The Political Economy of Social Security: A Survey." *European Journal of Political Economy* 18 (1): 1–29.
- Gelbach, Jonah B. 2000. "The Life-Cycle Welfare Migration Hypothesis: Evidence from the 1980 and 1990 Censuses." Working paper, Department of Economics, University of Maryland, College Park.
- Gramlich, Edward M., and Deborah S. Laren. 1984. "Migration and Income Redistribution Responsibilities." *Journal of Human Resources* 19 (4): 489–511.
- Grossman, Gene M., and Elhanan Helpman. 2002. *Interest Groups and Trade Policy*. Princeton, N.J.: Princeton University Press.
- Hainmueller, Jens, and Michael J. Hiscox. 2010. "Attitudes toward Highly Skilled and Low-Skilled Immigration: Evidence from a Survey Experiment." *American Political Science Review* 104 (1): 61–84.
- Hanson, Gordon H. 2008. "The Economic Consequences of the International Migration of Labor." NBER Working Paper 14490.
- Hanson, Gordon H., Kenneth Scheve, and Matthew J. Slaughter. 2007. "Public Finance and Individual Preferences over Globalization Strategies." *Economics and Politics* 19 (1): 1–33.
- . 2009. "Individual Preferences over High-Skilled Immigration in the United States." In *Skilled Immigration Today: Prospects, Problems, and Policies*, ed. Jagdish Bhagwati and Gordon Hanson. Oxford: Oxford University Press.
- Hanushek, Eric, and Ludger Woessmann. 2009. "Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, and Causation." NBER Working Papers 14728, 14633.
- Jasso, Guillermina, and Mark R. Rosenzweig. 2009. "Selection Criteria and the Skill Composition of Immigrants: A Comparative Analysis of Australian and U.S. Employment Immigration." In *Skilled Immigration Today: Prospects, Problems, and Policies*, ed. Jagdish Bhagwati and Gordon Hanson. Oxford: Oxford University Press.
- Khoudour-Castéras, David. 2008. "Welfare State and Labor Mobility: The Impact of Bismarck's Social Legislation on German Emigration before World War I." *Journal of Economic History* 68 (1): 211–243.
- Krieger, Tim. 2003. "Voting on Low-Skill Immigration under Different Pension Regimes." *Public Choice* 117: 51–78.

- . 2004. "Fertility Rates and Skill Distribution in Razin and Sadka's Migration-Pension Model: A Note." *Journal of Population Economics* 17 (1): 177–182.
- Krusell, Per, Vincenzo Quadrini, and José -Victor Ríos-Rull. 1997. "Politico-Economic Equilibrium and Economic Growth." *Journal of Economic Dynamics and Control* 21 (1): 243–272.
- Krusell, Per, and José -Victor Ríos-Rull. 1996. "Vested Interests in a Positive Theory of Stagnation and Growth." *Review of Economic Studies* 63 (2): 301–329.
- Lacomba, Juan A., and Francisco Lagos. 2010. "Immigration and Pension Benefits in the Host Country." *Economica* 77 (306): 283–295.
- Lee, Ronald, and Timothy Miller. 2000. "Immigration, Social Security, and Broader Fiscal Impacts." *American Economic Review* 90 (2): 350–354.
- Levine, Phillip B., and David J. Zimmerman. 1999. "An Empirical Analysis of the Welfare Magnet Debate Using the NLSY." *Journal of Population Economics* 12 (3): 391–409.
- Mateos-Planas, Xavier. 2010. "Demographics and the Politics of Capital Taxation in a Life-Cycle Economy." *American Economic Review* 100 (1): 337–363.
- Mayda, Anna Maria. 2006. "Who Is Against Immigration? A Cross-Country Investigation of Individual Attitudes toward Immigrants." *Review of Economics and Statistics* 88 (3): 510–530.
- McKinnish, Terra. 2005. "Importing the Poor: Welfare Magnetism and Cross-Border Welfare Migration." *Journal of Human Resources* 40 (1): 57–76.
- . 2007. "Welfare-Induced Migration at State Borders: New Evidence." *Micro-Data Journal of Public Economics* 91 (3–4): 437–450.
- Mendoza, Enrique G., and Linda L. Tesar. 2005. "Why Hasn't Tax Competition Triggered a Race to the Bottom? Some Quantitative Lessons from the EU." *Journal of Monetary Economics* 52 (1): 163–204.
- Menz, Georg. 2008. *The Political Economy of Managed Migration: Nonstate Actors, Europeanization, and the Politics of Designing Migration Policies*. Oxford: Oxford University Press.
- Meyer, Bruce D. 2000. "Do the Poor Move to Receive Higher Welfare Benefits?" <http://harrisschool.uchicago.edu/faculty/articles/meyer_do_the_poor.pdf>.
- Oates, Wallace E. 1972. *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.
- Ortega, Francesc. 2005. "Immigration Quotas and Skill Upgrading." *Journal of Public Economics* 89 (9–10): 1841–1863.
- Osborne, Martin J., and Al Slivinski. 1996. "A Model of Political Competition with Citizen-Candidates." *Quarterly Journal of Economics* 111 (1): 65–96.
- Péridy, Nicolas. 2006. "The European Union and Its New Neighbors: An Estimation of Migration Potentials." *Economics Bulletin* 6 (2): 1–11.
- Persson, Torsten, and Guido Tabellini. 2000. *Political Economics: Explaining Economic Policy*. Cambridge, Mass.: MIT Press.

- Razin, Assaf, and Efraim Sadka. 1991. "International Tax Competition and Gains from Tax Harmonization." *Economic Letters* 37: 69–76.
- . 1997. "International Migration and International Trade." In *Handbook of Population and Family Economics*, ed. Mark R. Rosenzweig and Oded Stark, vol. 1B, 851–887. Amsterdam: Elsevier Science.
- . 1999. "Migration and Pensions with International Capital Mobility." *Journal of Public Economics* 74 (1): 141–150.
- . 2000. "Unskilled Migration: A Burden or a Boon for the Welfare State?" *Scandinavian Journal of Economics* 102 (3): 463–479.
- . 2004. "Welfare Migration: Is the Net Fiscal Burden a Good Measure of Its Economic Impact on the Welfare of the Native-Born Population?" *CESifo Economic Studies* 50 (4): 709–716.
- . 2010. "Fiscal and Migration Competition." NBER Working Paper 16224.
- . 2011. "Tax Competition and Migration: The Race-to-the-Bottom Hypothesis Revisited." Mimeo, Tel Aviv University.
- Razin, Assaf, Efraim Sadka, and Benjarong Suwankiri. 2009. "Migration and the Welfare State: Dynamic Political-Economy Theory." NBER Working Paper 14784.
- Razin, Assaf, Efraim Sadka, and Phillip Swagel. 2002a. "The Aging Population and the Size of the Welfare State." *Journal of Political Economy* 110 (4): 900–918.
- . 2002b. "Tax Burden and Migration: A Political Economy Theory and Evidence." *Journal of Public Economics* 85 (2): 167–190.
- Razin, Assaf, and Edith Sand. 2009. "Migration-Regime Liberalization and Social Security: Political-Economy Effect." NBER Working Paper 15013.
- Razin, Assaf, and Jackline Wahba. 2011. "Free vs. Restricted Immigration: Bilateral Country Study." NBER Working Paper 16831.
- Samuelson, Paul A. 1958. "An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money." *Journal of Political Economy* 66 (6): 467–482.
- Sand, Edith, and Assaf Razin. 2007. "The Political-Economy Positive Role of Social Security in Sustaining Migration (But Not Vice Versa)." NBER Working Paper 13598.
- Scholten, U., and M. P. Thum. 1996. "Public Pensions and Immigration Policy in a Democracy." *Public Choice* 87 (3-4): 347–361.
- Sinn, Hans-Werner. 2001. "The Value of Children and Immigrants in a Pay-As-You-Go Pension System: A Proposal for a Transition to a Funded System." *Ifo Studien* 47 (1): 77–94.
- . 2003. "EU Enlargement, Migration, and Lessons from German Unification." *German Economic Review* 1 (3): 299–314.
- . 2004. "EU Enlargement, Migration and the New Constitution." *CESifo Economic Studies* 50 (4): 685–707.
- Sinn, Hans-Werner, Gebhard Flaig, Martin Werding, Sonja Munz, and Herbert Hofmann, with Nicola Düll. 2001. "EU Enlargement and Labour Mobility: Consequences of Labour Markets and Redistribution by the State in Germany." CESifo Research Report 2. Munich: Ifo Institute for Economic Research.

- Smith, James P., and Barry Edmonston, eds. 1997. *The New Americans: Economic, Demographic and Fiscal Effects of Immigration*. Washington, D.C.: National Academy Press.
- Sorenson, Peter Birch. 2004. "International Tax Coordination—Regionalism versus Globalism." *Journal of Public Economics* 88, 1187–1214.
- Southwick, Lawrence Jr. 1981. "Public Welfare Programs and Recipient Migration." *Growth and Change* 12 (4): 22–32.
- Storesletten, Kjetil. 2000. "Sustaining Fiscal Policy Through Immigration." *Journal of Political Economy* 108 (2): 300–323.
- Suwankiri, Benjarong. 2009. "Three Essays in Dynamic Political Economy: Migration, Welfare State, and Poverty." Ph.D. diss., Cornell University, Ithaca, New York.
- Tiebout, Charles M. 1956. "A Pure Theory of Local Expenditures." *The Journal of Political Economy* 64 (5): 416–424.
- Vaupel, James W. 2010. "Biodemography of Human Ageing." *Nature* 464 (March 25): 536–542.
- Walker, James. 1994. "Migration among Low-Income Households: Helping the Witch Doctors Reach Consensus." Discussion Paper 1031-94. Institute for Research on Poverty, University of Wisconsin, Madison.
- Wilson, John D. 1999. "Theories of Tax Competition." *National Tax Journal* 52(2): 269–304.