Immigration, Globalization, and Unemployment Benefits in Developed EU States

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At a time of mounting concern about how traditional welfare states will react to globalization, there has been increasing interest in specifying how global economic forces affect welfare policies in industrialized states. Building on theories from the political economy and comparative institutional literatures, we analyze the influence of an important aspect of globalization—the flow of immigration. Focusing on states in the European Union, we present a theoretical model that illustrates the interactive relationships between immigration, EU labor market integration, and domestic institutions. Our findings highlight how immigration in conjunction with domestic political institutions affects unemployment provisions, while labor market integrative forces remain in the background. The story of immigration and unemployment compensation in the EU is less about the opening of borders and the market forces of integration and more about the domestic political pressures.

Immigration has become a crucial issue for European welfare states. The economic integration process has loosened border controls among most European Union member states, generating large flows of immigrants looking for employment (Nannestad 2007). Not surprisingly, a substantial body of literature on labor immigration and Western welfare states argues that immigration tends to be a disadvantage for recipient states while an advantage for immigrants themselves (Banting 2000; Hunger 2000; Nannestad 2007). Immigrants can find new jobs, but existing labor markets may strain under the burden of additional workers, adding to the pressure on welfare budgets.

In both the comparative welfare policy and globalization literatures, researchers have overlooked how this movement of workers may affect governments’ unemployment policies. Rather than viewing globalization as a capital-led enterprise, we theorize about it from the standpoint of labor, emphasizing the intertwining of labor markets across EU states. By starting from a neoliberal scenario of a perfect labor market and distorting the market with integrative and political institutions, we balance the literatures’ typical foci on capital-driven theories by focusing on the integration of labor markets.

We are interested in uncovering whether immigration, combined with integration, influences unemployment provisions. Our theory is that the influence of immigration depends on the economic pressures caused by the globalizing effects of integrating the EU labor market, so the effect of immigration is constrained by institutional arrangements that can affect the supply-demand relationship in labor markets. We argue that both cross-state pressures (i.e., EU labor market integration) and domestic political institutions are important factors for understanding how economic pressures are transferred into policy changes. In both cases, they alter the expected outcome of the labor market, causing changes in unemployment benefits.

Using pooled time-series data for 15 developed EU states, we systematically assess how the effects of immigration on unemployment provisions are filtered by EU labor market integration and domestic institutional arrangements. In countries less integrated into the EU labor market, increased immigration rates lead to more...
unemployment provisions, while the same relationship in more integrated countries is less strong. The influence of immigration comes largely through the domestic institutions: higher immigration rates are associated with larger benefit levels when left parties hold a larger proportion of parliamentary seats and when labor unions are stronger.

**Immigrants, Open Labor Markets, and Welfare States**

Explaining the relationship between globalization, EU economic integration, and welfare states in advanced industrialized countries has been a central aim for both political economists and policy makers. For countries in Europe, the economic integration process mirrors the global economic trend in that it increases capital mobility, trade liberalization, and labor mobility (Rhodes 1995). One direct effect of economic integration is that the establishment of an economic and monetary union has led to rapid growth of capital mobility and the expansion of the financial market (Cameron 2001). Another macroeconomic impact of EU integration is trade liberalization, removing trade barriers and facilitating the free movement of commodities across states (Hall 2001). The extensive literature on globalization has focused on these two aspects rather than on the mobility of labor. Some argue that integration and globalization are destabilizing welfare states by affecting wage formation through labor market competition and increased job mobility (Palier and Sykes 2001), while others view this as a way to enforce labor market flexibility (Haldrup, Anderson, and Sorensen 2000). Still, others say it signals an erosion of social standards and welfare support (Halfmann 2000; Lundborg and Segerstrom 2002).

How integration affects countries’ welfare policies remains a debatable issue. There have been fears that as the EU develops its labor market integration agenda eastwards, a more integrated labor market could reduce the ability of states to implement or maintain generous social insurance and redistributive policies (Huber and Stephens 2001; Lundborg and Segerstrom 2002; Peridy 2007; Razin and Sadka 2000). Scholars who argue for this idea of welfare reduction believe that labor immigration can lead to a negative self-selection process; better job opportunities and more generous social welfare motivate workers to migrate (Borjas, Freeman, and Katz 1996; Brooks 2002, 2007; Favell and Hansen 2002; Geddes 2003; Kahler 1992; Walz 1997). Opening the labor market to less developed EU states allows cheap labor to flow toward states with more generous welfare provisions.¹ In order to maintain economic competitiveness, domestic employers may pressure governments to reduce welfare compensation. Furthermore, countries with generous welfare policies will face pressures when they compete with countries that do not have high levels of social provisions in terms of attracting capital investment (Clarke 2004; Rhodes 2001).

Alternatively, the effect of labor integration may depend on a country’s economic and political environments. First, whether immigrants are assets or burdens to a country may depend on the demand in a country's labor market. If a country desires foreign workers and they do not directly threaten job opportunities for native workers, then labor immigration could be mutually beneficial to both immigrants and natives and would not add to the fiscal burden of maintaining generous social welfare (Zimmermann 1995). Second, the extensive comparative political economy literature points to a long tradition of egalitarian policymaking in highly open and internationally competitive economies (Scheve and Slaughter 2006). The core argument is that economic globalization may displace native workers, causing an increase in political demands on social insurance and redistributive policies (Cusack 1999; Iversen and Cusack 2000; Pierson 1994).

The existing literature on immigration, economic integration, and welfare policies reaches no conclusions on how these global pressures affect domestic policy. Many scholars conceptualize immigration and integration as global economic shocks, but provide opposing predictions in terms of how globalizing economic forces lead to welfare policy changes.² In addition, the relationship between immigration, integration, and welfare change is viewed as unidirectional. We contend that this thinking might oversimplify the complex causal mechanism in terms of how global economic shocks are translated

¹ This “push and pull” literature on international immigration asserts that immigrants react to economic incentives created by income gaps (Borjas 1995). Immigrants move from low-income countries to high-income countries with social welfare policies acting as a possible “pulling” mechanism (Marques 2010). Empirical evidence for this classic “pull” argument has been somewhat lacking, with Castles and Miller (2003) and Feld (2005) finding that immigrants respond more directly to labor market demands, rather than welfare provisions. In fact, they do not necessarily flow from the poor areas into the rich areas.

² We find predictions for both welfare reduction and expansion in the empirical literature. Scholars of neoliberal reform of social welfare policies—e.g., cutting benefits, tightening eligibility, etc.—have focused their concerns on whether economic globalization has played a significant role in fostering these reforms (Bommes and Geddes 2000; Favell and Hansen 2002; Kivst 2004; Rhodes 1995). Scholars who focus on domestic institutions find evidence, instead, of welfare expansion (Basinger and Hallerberg 2004; Cusack 1999; Ha 2008; Iversen and Cusack 2000; Pierson 1994; Swank 2005).
into policy changes. Instead, we argue that how EU welfare states incorporate immigrants into their systems may be determined by the institutional context of the recipient states. By omitting the link between global economic forces and a variety of institutional settings, one cannot gain a comprehensive understanding of the relationship between immigration and welfare states.

An Interactive Model of Welfare Change

In our theoretical approach, we focus on the interactive relationship between immigration, integration, and domestic political institutions. Our argument focuses on the effect of immigration and how it will depend on the context of the country—how integrated it is in the EU and the state’s domestic political situation. We transcend previous research on economic globalization by theorizing about the labor aspect of the globalizing process.¹ We argue that labor immigration is an important aspect of global economic forces. Without considering the impact of immigration, we cannot have a comprehensive understanding of the relationship between globalization and domestic welfare policies.

We contend that immigration is a force that constrains welfare changes. More specifically, we rely on a neoliberal theoretical understanding of economic forces to inform our argument concerning international labor pressures. In a competitive labor market, workers’ incomes are determined by the supply-demand relationship of the labor market. Unemployment provisions, as a major source of wage compensation, are also determined by market mechanisms. In a pure market-driven scenario, an increase in immigrants will inflate the labor supply in domestic markets and thus generate pressures for reducing wage rates and wage compensations (Borjas, Freeman, and Katz 1996). Under this theory, the relationship would be: Immigration → Welfare.

When we consider institutional factors that can affect labor supply and demand in domestic markets, however, the relationship between immigration and unemployment provisions becomes less obvious. Various institutional arrangements may influence this supply-demand relationship, as well as market competition. Therefore, in our theoretical framework, we consider three institutions that can affect labor market competition and thus shape the relationship between labor immigration and welfare entitlements. Thus, under our theory, the relationship would be: Immigration × Institutions → Welfare.

First, we argue that the influence of immigration depends on how integrated a country is in the EU’s labor market structure. When a country moves toward more EU integration, there are fewer domestic restrictions on immigrants and less protection for the residential workers. Relaxing domestic protections could bring challenges for a country to maintain a high level of redistribution, because domestic workers in such an open economy have fewer comparative advantages when faced with immigrant labor than those workers in a more closed economic situation (Bhagwati 1982; Kemnitz 2005). With less of a comparative advantage, workers faced with this competition will find their wages reduced, and countries will see their taxes from net income decrease. Countries with more open labor markets may not be able to maintain high redistribution levels. Therefore, the impact of immigration on welfare policy may be particularly strong when there are very few protections for domestic workers (Baur and Zimmermann 1997; Boeri and Terrell 2002; Ireland 2004; Kivist 2004). When a country moves away from EU integration, it can implement more restrictive labor market policies that can buffer the shocks brought by immigration, culminating in fewer competitive pressures on welfare reduction. Therefore, we contend that net immigration exhibits a negative impact on welfare policies in countries that are moving toward integration than countries moving away from integration (Brucker, Frick, and Wagner 2006; Rhodes 1995).

EU labor market integration, however, is not the only institutional factor that can affect how immigration alters a perfect labor market scenario. We argue that domestic political pressures and institutions also interplay with the market mechanism and affect the resilience of welfare policies. Overall, depending on the political influence of a welfare policy’s supporters, a policy may find a reprieve from the threat of retrenchment (Pierson 1994). For example, when groups of misplaced native workers are large, democratic governments may respond to their demands by maintaining high levels of unemployment compensation. Prior studies demonstrate that two specific institutions often play essential roles in affecting wage-bargaining and protecting domestic workers: left-wing political parties and labor unions.

¹ Previous scholars have focused primarily on the capital side of globalization. For example, some scholars used indicators for trade volume (Hicks and Swank 1992; Huber, Ragin, and Stephens 1993; Rodrik 1998), while others focused on capital flows. Garrett and Mitchell (1997) use import penetration from low-wage countries and financial market integration to construct their measures for globalization. In more recent studies, scholars focused on international trade exposure (Castles 2001), policy restrictions on capital mobility (Ha 2008; Quinn 1997), and tax rate interdependency (Sanz and Velazquez 2001).
Traditionally, workers are the core constituency of left-wing political parties. When increased labor market competition leads to more market risks for domestic workers, left-wing parties may respond to their constituents’ needs by providing more generous welfare provisions. Research finds that countries governed by left and social democratic parties tend to have higher levels of welfare provisions (Huber and Stephens 2001; Swank 2000). When facing pressures for welfare policy changes, governments must resolve the trade-offs between making the domestic market more attractive to capital investment and sacrificing domestic workers’ interests by cutting welfare benefits (Basinger and Hallerberg 2004). Reducing unemployment entitlements may be costly if it hurts the left parties’ constituents’ interests; therefore, left-wing parties may have few political incentives to reduce entitlement levels.

Labor unions can have a significant influence during the wage-setting process. The collective labor-capital bargaining systems may play an intervening role by buffering policies from economic shocks brought by liberal market forces (Basinger and Hallerberg 2004; Streeck 1993; Swank 2002). In countries where union density is high, labor markets become less competitive for domestic citizens. The existence of organized labor unions can help to sustain higher levels of wage compensation and social protection for domestic workers, because bargaining mechanisms block the economic forces that might reduce the level of social protections in a more competitive market.

Therefore, the challenges brought by economic openness combined with a strong left-labor power context (i.e., left parties and labor unions) can produce a compensation strategy that retains a generous welfare state (Cusack 1999; Hall and Soskice 2004; Iversen and Cusack 2000). According to Iversen and Cusack (2000), economic openness and the integration process can become forces for welfare expansion instead of retrenchment. This highlights how the relationship between economic pressures (i.e., inflow of immigrant workers) and welfare changes may be contingent upon the configuration of the political system. Depending on a country’s mix of political institutions, a government may choose to compensate workers and citizens for market pressures or failures.

To this end, our theoretical argument is built on the interplay between economic shocks (brought by immigration) and two types of institutional arrangements: EU labor market integration and domestic institutions. When combined with increased immigration, EU integration should expand the competition in the labor market, ultimately causing a decline in unemployment provisions. Immigration should not have a retrenching effect, however, in countries with a “compensating” domestic institution—left-wing parliaments or stronger labor unions. We argue that in order to buffer the domestic labor market and shore up their support base, these political actors will either stabilize or increase welfare benefits, rather than retrench their assistance.

**Research Design**

According to a neoliberal theoretical approach, the economic shocks brought by immigrants will produce pressures for governments to reduce their welfare provisions. But the relationship between immigrant workers and domestic welfare changes may be more complex than this. Our more comprehensive theoretical model alters these general expectations, and we argue that these market-based expectations are distorted by EU labor market integration forces and domestic political institutions.

**Hypotheses**

Therefore, our theoretical expectations are that (1) integrative forces at the EU level will condition the effects of increased immigration as an economic shock on unemployment provisions; (2) domestic political institutions will mediate the effects of economic pressures. (2a) when immigration increases in states with parliaments having a larger percentage of left political party seats, we would not expect to observe benefit retrenchment, (2b) when increasing immigration into states with larger unionized workforces, we also would not expect to find decreasing unemployment benefits. From these expectations, we derive the following set of hypotheses:

**H1:** Increased immigration into states moving toward EU labor market integration will have a negative effect on unemployment provisions.

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4 Rudra and Haggard (2005) extend the debate by providing an empirical analysis of developing countries and show that when facing economic pressures brought by globalization, welfare states would have different reactions. They find that authoritarian regimes tend to react more by cutting their welfare benefits than democratized states.

5 The literature on both of these domestic institutions offers additive hypotheses that expect them to have positive effects on unemployment provisions. Although we agree with these theoretical expectations and they inform our own expectations, in this article, we are concerned with their interactive effects when combined with immigration.
H2a: Increased immigration into states with a larger percentage of left party seats in parliament will have a nonnegative effect on unemployment provisions.

H2b: Increased immigration into states with a larger percentage of unionized workers will have a nonnegative effect on unemployment provisions.

Data, Measures, and Method

To test our hypotheses, we pool data on labor immigration, EU labor market integration, domestic institutions, and macroeconomic conditions for 15 European states from 1971 to 2007. This period includes the major waves of EU enlargement in 1973, 1981, 1986, and 1995.6

Unemployment Entitlements. For our dependent variable, we use unemployment benefits measured as replacement rates. This OECD summary measure of average unemployment entitlement is defined as the average of the gross unemployment benefit replacement rate. The OECD calculates this measure based on cash replacement rates for two earnings levels, three family situations, and three durations of unemployment (Martin 1996; OECD 1994, 2007).7

Immigration. To measure labor immigration, we use data from the OECD’s International Migration Statistics website. In our empirical models, we measure immigration by the net migration rate for each country in a given year.8 We compute it using the following equation:

$$ \text{Net Migration Rate} = \frac{\text{Inflow of Immigrants} - \text{Outflow of Immigrants}}{1,000 \text{ Inhabitants}} $$ (1)

Globalization. We include three indicators of globalization to reflect the international flow of labor, capital, and commodities: EU labor market integration, foreign direct investment (FDI), and foreign trade.

EU Labor Market Integration. Labor market integration reflects the international flow of labor. The existing empirical literature provides various ways to measure integration of the capital market in the EU; yet it provides little information on how to measure labor market integration. Scholars who study the labor market and integration in the EU generally rely on enlargement treaties and domestic labor market restrictions as indicators of labor market openness. Commonly, they quantify integration treaties or domestic policies by creating a set of dummy variables that distinguish which countries participated in a particular EU treaty or adopted a particular labor market restriction policy (Ha 2008; Hansson and Olofsson 2008). While both EU treaties and domestic labor market restrictions reflect important policy dimensions of labor market integration, these variables are relatively static measures that reflect little variation in the level of labor market integration across countries and time. To construct our integration measure of EU labor markets, we rely on the rule of “one price” for an integrated market. In the presence of a competitive market structure and in the absence of transport costs and other barriers to trade, prices of homogenous products sold in different markets would converge to “one price” because of market forces (Baele et al. 2004; Funke and Kosse 2008; Goldberg and Verboven 2005; Sarno and Taylor 2002). The rule of one price implies that if assets in spatially separated markets have sufficiently comparable characteristics and are evaluated by the same set of market rules, “cross-market prices or yield differentials over time constitute a measure . . . of time-varying integration” (Baele et al. 2004, 510). More specifically, in a fully integrated labor market, the price of labor in different countries would converge toward the same market equilibrium over the long run. If a particular labor market segment (i.e., the labor market in one country) is less integrated into the common market, then the price for labor in that market segment would be more dispersed from the market equilibrium. Based on this concept of price convergence, we construct a labor-price-based measure for EU labor market integration using the OECD annual

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6 We include 14 EU member states (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom) and Norway in our study. Ideally, we should include all 27 EU member states and analyze all (six) waves of EU enlargement. Due to data availability, we include 15 countries in this article. Although Norway is not an EU member state, it signed the Agreement on the European Economic Area (EEA) and participates in the Schengen/Dublin Agreement. Therefore, we include Norway as one of our country cases.

7 Data are accessed through the following webpage: http://www.oecd.org/dataoecd/52/9/42625593.xls. Biannual data from 1971 to 2007 are available for the entitlement measure. To obtain annual data for our panel analysis, we interpolate the data by using the average values for the year before and after the missing data point (e.g., Blanchard 1998; Blanchard and Wolfers 2000).

8 A more direct measure of labor immigration would be an indicator constructed by counting the stock of foreign workers flowing from less developed countries to EU member states. Unfortunately, data for employed foreign workers by country of origin are only available from 1990 to 2007 in the OECD migration database. A comparison of the two measures for the period when both are available yields a pairwise correlation of .9774.
data for the cost of an average unit of labor in each country (OECD 2009). The integration measure is calculated based on the following equation:

\[ EU Integration_{it} = 1 - \frac{X_{it}}{M_t} \]  

(2)

where:

\[ X_{it} |EU Average Unit Labor Cost_{it} - Unit Labor Cost_{it}| \]

(3)

\[ M_t = \max_i(X_{it}) \]

(4)

In equation (2), the numerator is the EU average unit labor cost at time \( t \) minus the unit labor cost in country \( i \) at time \( t \) (equation 3), and the denominator is the maximum difference between these two costs for every country \( i \) and year \( t \) (equation 4).9

Figure 1 is a plot of the integration measure for each country. The measure ranges from 0 to 1 with a “1” representing the perfect integration scenario, whereby the domestic labor price is the same as the EU average labor price.10 Overall, the ratio measure shows variation across countries and years with more dispersion from 1 in the earlier years. The Nice Treaty witnessed a movement in the ratio measure toward 1, with countries’ labor markets becoming more integrated into the EU market. Comparing across countries, the founding states’ domestic labor markets are more integrated into the EU than member states that entered after the SEA.

**FDI and Foreign Trade.** We use foreign direct investment as an indicator of capital mobility and measure it as a share of GDP. We measure foreign trade as total imports and exports as a share of GDP to reflect international flows of goods and commodities. Both of these measures of economic openness are drawn from the Penn World Tables (Heston, Summers, and Aten 2009).11

**Domestic Political Institutions.** As discussed above, we include indicators for two domestic political institutions: (1) left-wing parliamentary seats and (2) the effective power of labor unions. We rely on a measure of left parliamentary seats from Swank (2002) that is calculated based on left party legislative seats as a share of all legislative seats.12 Following the work of Wallerstein, Golden, and Lange (1997), our indicator of union density is net union membership as a share of wage and salary earners in employment. This indicator reflects the state of the domestic wage bargaining system and industrial relations.13

**Economic Controls.** To isolate the relationship between immigration, integration, and unemployment entitlements, we include two economic control variables that are commonly used in empirical models investigating the political economy of welfare policy. First, we include per capita GDP as a control for the domestic economy, which we expect to be positively associated with unemployment entitlements.14 Second, we include the unemployment rate as a control for the domestic labor market, which we expect to be positively associated with unemployment provisions.15

**Method and Model Specification**

We construct the dataset for our empirical analyses by pooling data for 15 EU states from 1971 to 2007. A common practice for analyzing panel data for comparative political economy models is to use a lagged dependent variable with country fixed effects and panel-corrected standard errors based on Beck and Katz’s (1995)
recommendation. But if a nonstationary dependent variable is used and if random effects are present across country-year cases, then this model will produce biased results (Baltagi 2008). When testing our dependent variable for a panel unit root, we find our variable stationary using a Phillips-Perron test ($\chi^2 = 51.39, p = .01$).

The second methodological consideration concerns the error structure in our panel data. Beck and Katz
(1995) argue that if data have panel-level heteroskedasticity and only spatial autocorrelation is present, using a lagged dependent variable with panel-corrected standard errors is more efficient. In addition, because our interest is in a public policy, we assume a path-dependent process whereby the lagged dependent variable controls for the level of entitlements in the previous year. However, we also need to consider the problem of autocorrelation when using a lagged dependent variable (Baltagi 2008), especially since we find both panel-wise heteroskedasticity and first-order autocorrelation. In addition to the lagged dependent variable in our model, we implement an AR(1) correction for the autocorrelated error structure. Based on our theory and statistical diagnostics, we use ordinary least squares (OLS) with a lagged dependent variable and country fixed effects, as well as panel-corrected standard errors (PCSE) and an AR(1) correction.

In order to test our hypotheses, we specify an interactive model to decipher how immigration, along with integration and domestic institutions, shapes unemployment benefits. The model includes interaction terms between immigration and integration, as well as immigration and domestic institutions—with each other, it is best to use statistical inference tools. Because we model immigration and integration as economic shocks, we treat them in the same way as the other economic and international variables and use their differences in our model. We contend that the changes in immigration and integration, not their absolute values, influence unemployment entitlements. Following in the footsteps of welfare spending models, we lag our domestic political institutions by one year. Although policy benefits and policy spending levels denote different parts of the policy process, political actions can take time to affect policy outcomes in the same way as spending levels. Taking these theoretical arguments into consideration, we specify the following model, noting that $i$ and $t$ index countries and years studied:

$$
Entitlement_{it} = \alpha_i + \phi \Delta Entitlement_{it-1} + \beta_1 \Delta Immigration_{it} + \beta_N \Delta Integration_{it} + \beta_L \Delta Left Parties_{it-1} + \beta_U \Delta Unions_{it-1} + \beta_{IN} \Delta Immigration_{it} \times \Delta Integration_{it} + \beta_{IL} \Delta Immigration_{it} \times \Delta Left Parties_{it-1} + \beta_{IU} \Delta Immigration_{it} \times \Delta Unions_{it-1} + \beta_E \Delta Economic Controls + \epsilon_{it}
$$

Table 1 shows the results from our model. Note that we performed robustness checks on our results in the form of jackknifing them for each country and year and found no substantive differences between the results.

### Results of Pooled Time-Series Regression Analysis

Our argument focuses on how the movement of immigrant labor shapes unemployment benefits; however, it does not hinge on the independent effects of immigration, integration, or domestic institutions affecting entitlements. We contend that immigration plays an intervening role in influencing unemployment entitlements, with the domestic or integrative context of a country affecting how immigration shapes unemployment provisions. Table 1 shows the results from our model. Because we interact our variables of interest—immigration, integration, and domestic political institutions—with each other, it is best to use statistical

### Table 1 Effects of Immigration, Integration, and Domestic Institutions on the Level of Unemployment Entitlement in Developed EU Welfare States, 1971–2007

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (PCSEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\Delta Immigration$</td>
<td>-0.250 (0.169)</td>
</tr>
<tr>
<td>$\Delta Integration$</td>
<td>1.921 (1.984)</td>
</tr>
<tr>
<td>$\Delta\text{Union Density}_{t-1}$</td>
<td>-2.612 (1.653)</td>
</tr>
<tr>
<td>$\Delta\text{Left Seats}_{t-1}$</td>
<td>0.010 (0.012)</td>
</tr>
<tr>
<td>$\Delta Immigration \times \Delta Integration$</td>
<td>-0.417 (0.941)</td>
</tr>
<tr>
<td>$\Delta Immigration \times \Delta\text{Union Density}_{t-1}$</td>
<td>0.385 (0.260)</td>
</tr>
<tr>
<td>$\Delta Immigration \times \Delta\text{Left Seats}_{t-1}$</td>
<td>0.004* (0.002)</td>
</tr>
<tr>
<td>$\Delta GDP$</td>
<td>-0.0001 (0.0002)</td>
</tr>
<tr>
<td>$\Delta Unemployment$</td>
<td>-0.125 (0.083)</td>
</tr>
<tr>
<td>$\Delta Trade$</td>
<td>0.004 (0.014)</td>
</tr>
<tr>
<td>$\Delta FDI$</td>
<td>-0.071* (0.043)</td>
</tr>
<tr>
<td>$\Delta Entitlement_{t-1}$</td>
<td>0.890** (0.019)</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.988** (1.100)</td>
</tr>
<tr>
<td>$N$</td>
<td>496</td>
</tr>
<tr>
<td>$p$</td>
<td>0.414</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.961</td>
</tr>
</tbody>
</table>

Notes: Dependent variable is the level of unemployment entitlements. Coefficients for country dummies not reported.

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16 Using the White Test, we detect group-wise heteroskedasticity, and the Arellano and Bond Test (Arellano and Bond 1991) shows first-order autocorrelation.

17 Our index of integration is not stationary, but the first differences are. The chi-square statistic based on the Fisher Test is 32.9182, $p = 0.3261$ (Maddala and Wu 1999).

18 To test for a possible reversed causality issue in our analysis, we regressed lagged unemployment benefits on immigration but found no statistically significant relationship (details in the Supplemental Information).

19 Note that we performed robustness checks on our results in the form of jackknifing them for each country and year and found no substantive differences between the results.
simulations to gauge both the substantive and statistical significance of marginal changes in our variables (Brambor, Clark, and Golder 2006; Kam and Franzese 2007). Our figures rely on the creation of scenarios where we set one variable of interest to two values (i.e., the values at the 10th and 90th percentiles) while allowing another variable of interest to vary across its observed range of values. For clarity, we create one graph to correspond with each of the two values, and for comparison purposes, show them side-by-side. Note that we hold all other variables in the model constant at their mean levels. For the simulated values of the two interacted variables, we calculate the 95% confidence intervals for unemployment entitlement and show those along with the predicted levels of unemployment entitlement. Note that for each pair of graphs we are interested in two relationships: (1) if there are significant differences in the dependent variable’s level between the two sets of values—so between the graphs, and (2) if there are significant differences in the dependent variable’s level across the values of the second variable—so within each graph. From these, we can make inferences about the impact of each interactive relationship on the level of unemployment entitlement.

Figure 2 presents the predicted level of unemployment entitlement across the range of observed values of change in immigration for low and high levels of the change in integration (the 10th and 90th percentiles in our data). First, when comparing across the right and left graphs, we can see that the two integration scenarios overlap, indicating that the predicted level of entitlement is not statistically different when comparing low and high levels of change in integration across the same changes in the immigration rate. This result runs contrary to Hypothesis 1. Second, to assess the impact of changes in immigration, we need to compare across the confidence intervals for each figure. In the figure on the left, for the low level of change in integration, the confidence interval on the left side of the figure does not overlap that on the right side, illustrating that the influence of immigration on unemployment benefits depends on the level of change in integration. In instances where change in integration is low, the level of entitlements can range from 23% to 35% depending on the change in immigration. But this same relationship does not hold for a high level of change in integration (in the right figure), where the confidence intervals barely overlap at the lower and higher levels of immigration change. Therefore, we can see that changes in immigration do have a statistically significant effect on unemployment entitlement when change in integration is at a lower level.

By allowing change in integration to vary across its observed values and setting the change in immigration at low and high levels, in Figure 3 we see another version of this relationship that reinforces the findings from Figure 2. First, by analyzing the two graphs in Figure 3 together, we find overlap of the confidence intervals and therefore, no statistically significant differences between the low and high levels of change in immigration on the impact of change in integration on unemployment benefits. Regardless of the level of the change in immigration, changes in integration have no influence on the level of unemployment entitlements. Second, when analyzing the immigration scenario in each graph, the confidence intervals overlap from less to more change in integration in both cases, indicating that there is not a statistically significant relationship between change in integration and unemployment benefits regardless of immigration change. Therefore, we find no support for Hypothesis 1.

When changes in immigration interact with different domestic political contexts, does this lead to varying levels of unemployment entitlement? In other words, can the domestic arrangements influence whether or not immigration has an effect on benefits? Beginning with government institutions, Figure 4 shows the results from scenarios illustrating the differences in benefit levels between low and high levels of left parliamentary seats (10th and 90th percentiles—28% and 56%) when allowing the change in immigration rates to vary across its observed range of values. We can see how these political scenarios lead to different benefit outcomes. First, when comparing the right and left graphs, there is no discernible statistical difference between the two scenarios, because the confidence intervals for the two left party scenarios overlap as change in immigration moves from lower to higher levels. Secondly, when looking within each figure, there are statistically significant differences in the level of benefits as the change in immigration varies but only when left parties control a majority of parliamentary seats (the right figure). The confidence intervals for the scenario in the right figure do not overlap when comparing them at the lower and higher levels of immigration change. This same relationship does not hold for the figure on the left, when left party seats are at a low level. Therefore, larger changes in immigration combined with strong left party support in parliament lead to more generous unemployment provisions, offering support for Hypothesis 2a. But we find no corresponding relationship when left parties control only 28% of parliamentary seats.

20 One figure that includes the two overlapping figures is available for all scenarios in the Supplemental Information.

21 We use STATA 11 for all statistical work and the Clarify program for the figures (Tomz, Wittenberg, and King 2003).
**FIGURE 2** Levels of Change in Integration Across the Range of Change in Immigration
• All other variables are held at their mean values.

**FIGURE 3** Levels of Change in Immigration Across the Range of Change in Integration
• All other variables are held at their mean values.
**Figure 4** Levels of Left Party Seats Across the Range of Change in Immigration
- All other variables are held at their mean values.

**Figure 5** Levels of Change in Immigration Across the Range of Left Party Seats
- All other variables are held at their mean values.
To flesh out this relationship further, in Figure 5 we can see a more nuanced picture of how change in immigration and government ideology interact to alter unemployment entitlements. The two graphs show scenarios for low and high levels of immigration when left party seats vary, and a comparison of the two illustrates that a majority of left party seats is not necessary for statistically significant changes in benefit levels. When immigration increases substantially from the previous year and the left holds at least 40% of the parliamentary seats, then unemployment entitlements are significantly more than when the change in immigration is low. These findings provide further support for Hypothesis 2a. When analyzing each figure separately, we find that the confidence intervals overlap for each scenario in both figures, indicating no statistical significant relationship between left party seats and unemployment provisions regardless of the change in immigration. Since we have a directional hypothesis, we take another look at this relationship using 90% confidence intervals and find that for a high level of immigration, there is a significant statistical relationship between left party seats and unemployment provisions, while this relationship does not hold for a low level of immigration.22

Next, we turn to how changes in the immigration rate and the power of labor unions interact to affect unemployment entitlements. The two graphs in Figure 6 illustrate the relationship between low and high levels of union density across change in immigration. First, a comparison of the two graphs shows no significant differences between the levels of entitlement for low and high levels of union density; the confidence intervals overlap across the range of observed values for immigration change. Second, when comparing within each union density figure, we find overlap of the confidence intervals within both scenarios, indicating that there is no statistically significant relationship between changes in immigration and unemployment provisions regardless of the level of union density. When analyzing the relationship using 90% confidence intervals for our directional hypothesis, we find a statistically significant relationship, indicating that when union density is high, immigration has a positive effect on unemployment provisions.23 The results from this scenario offer support for Hypothesis 2b, which posited that increased immigration into states with substantial labor union power would result in higher unemployment entitlements. In Figure 7, with two graphs for low and high levels of immigration change across the range of union

22 This figure is available in the Supplemental Information.

23 This figure is available in the Supplemental Information.
density, we find no statistically significant differences in unemployment entitlements across the two immigration scenarios. When looking within each figure, we find overlap of the confidence intervals for low to high union density for each one, indicating that the different rates of immigration change do not significantly vary across the percentage of unionization.

Thus far we have concentrated on the estimated impact of changes in immigration with integrative and domestic institutions on unemployment entitlement in a single year. One of the attractive aspects of models with a lagged dependent variable is that they allow us to estimate these short-run effects together with long-run effects (de Boef and Keele 2008). In these models, the short-run effects of an independent variable $X$ are captured by the parameter estimate for that variable ($\hat{\beta}$), while the long-run effects are captured by $\frac{1}{1-\phi} \hat{\phi}$, where $\phi$ is the parameter estimate for the lagged dependent variable.

In our model, the variables in which we are most interested (integration, left party seats, and union density) are each interacted with change in immigration. This specification means that a change in immigration will work through all three of these variables to influence unemployment entitlement in both the short run and the long run. In order to obtain estimates of the short-run and long-run impacts of change in immigration contingent on these conditions, we conducted a series of simulations, which are presented in Table 2. In each of these scenarios, our institutional measures are held constant at either their 10% or 90% level and immigration change is moved from 0 to 2.76 (one standard deviation) to simulate a positive shock of immigrant workers. At the top of Table 2, we can see that under these circumstances a nation with a strong left and strong unions that was moving away from integration would react by increasing unemployment entitlements by almost .78 in the first year. The long-term effect of this labor shock would be an increase in entitlements of 7.09. Both of these effects are statistically significant at conventionally accepted levels ($p < .05$). As we move further down Table 2, we can see that both the short-run and long-run impacts of this immigration shock, though slightly reduced in magnitude, are positive and significant in a nation with a strong left and strong unions that is moving toward integration. In the case where there is a weak left, strong unions, and movement away from integration, the impact of a positive immigration shock is increases in entitlements over both the short run (.46) and long run (4.18) that are borderline in terms of statistical significance ($p < .10$). In none of

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**Figure 7: Levels of Change in Immigration Across the Range of Union Density**

- All other variables are held at their mean values.
TABLE 2 Short- and Long-Run Effects of Institutional Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Short-Run Effects</th>
<th>Long-Run Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Left Party, Strong Union Density, Negatively Integrating</td>
<td>0.78**</td>
<td>7.09**</td>
</tr>
<tr>
<td>Strong Left Party, Strong Union Density, Positively Integrating</td>
<td>0.71**</td>
<td>6.45**</td>
</tr>
<tr>
<td>Weak Left Party, Strong Union Density, Negatively Integrating</td>
<td>0.46*</td>
<td>4.18*</td>
</tr>
<tr>
<td>Weak Left Party, Strong Union Density, Positively Integrating</td>
<td>0.39</td>
<td>3.55</td>
</tr>
<tr>
<td>Strong Left Party, Weak Union Density, Negatively Integrating</td>
<td>0.16</td>
<td>1.45</td>
</tr>
<tr>
<td>Strong Left Party, Weak Union Density, Positively Integrating</td>
<td>0.08</td>
<td>0.73</td>
</tr>
<tr>
<td>Weak Left Party, Weak Union Density, Negatively Integrating</td>
<td>-0.16</td>
<td>-1.45</td>
</tr>
<tr>
<td>Weak Left Party, Weak Union Density, Positively Integrating</td>
<td>-0.24</td>
<td>-2.18</td>
</tr>
</tbody>
</table>

*p < .10, two-tailed test.

Turning to how the movement of immigrant labor interacts with different institutional mechanisms, our empirical results suggest that EU integrative forces demonstrate less of an impact on unemployment entitlements than domestic political forces. The effect of changes in immigration on unemployment benefits is the same regardless of a nation’s integration into the common EU labor market. Allowing for varying immigration levels, countries becoming more open to the market are neither more likely nor decrease nor increase their unemployment benefits.

We argue that one reason why the effect of immigration depends on domestic politics is because left parties and labor unions directly represent domestic workers’ policy preferences. To make decisions on unemployment entitlements, governments need to balance the economic interests of capital and labor (Basinger and Hallerberg 2004). As long-term policy provisions for compensating job market risks, unemployment entitlements are determined by both domestic workers’ demands and whether there are policymaking institutions that can translate these demands into policies (Burgoon 2001; Iversen and Cusack 2000). As the long-term effects from our model indicate, with rising immigration rates, substantial left party strength or labor union strength will have more salient impacts in sustaining high levels of unemployment entitlements. Corresponding with others’ conclusions (Huber and Stephens 2001; Swank 2002), we find that when immigration rates increase and left parties have a sizeable percentage in parliament, these parties are able to translate their constituents’ preferences into rising unemployment benefits. Similar results appear for the strength of unions, where a high level of union density combined with greater changes in immigration results in significantly higher levels of unemployment benefits. We find in both cases that as the share of left party seats in parliament and the extent of unionization reach...
substantial levels, the generosity of unemployment entitlements is greater than under other domestic contexts. Therefore, we find evidence in line with the literature in terms of the impact of domestic institutions in conditioning the effects of immigration on unemployment entitlements.

Under certain conditions, labor market openness and welfare policy may be able to reinforce each other. Our findings suggest the importance of considering various aspects of globalization in order to further disentangle the connections between economic integration, openness, and welfare policy (Burgoon 2001). Domestic policy changes, meanwhile, could vary across time due to different immigration scenarios. The varying policy responses to globalizing forces might generate very different compensation politics and benefit different labor groups in EU member states. Further disaggregating both welfare policy efforts and immigration patterns would contribute to the understanding of the complex dynamics of welfare compensation.

Conclusion

In this article, we argue that immigration, integration, and domestic politics combine to determine unemployment policies. Our theoretical focus on labor integration extends the literature on globalization beyond its focus on capital and links it with the multiplying forces of immigration. Modeling immigration as an economic shock to unemployment benefits, we show that focusing on the capital side of globalization may limit our understanding of how countries adjust their welfare policies under global economic pressures. By including the influences of both capital and labor in our model of welfare policy, we show that open labor markets and free labor movement can create pressures for welfare states to maintain generous levels of unemployment benefits.

The impact of immigrants on unemployment compensation is filtered through domestic political institutions. By viewing these political pressures as compensating forces, we transcend previous institutional arguments by emphasizing the complex and interactive nature of the relationships between immigration and institutions in shaping welfare provisions. Our empirical findings demonstrate that the EU labor market integration mechanism has less of an impact on welfare changes than domestic political institutions. As global economic forces have generated a more open and interdependent world, changes in labor demographics and relevant welfare policies will be an important arena to further the investigation of the relationship between growth, development, and inequality. The story of immigration and unemployment compensation in the EU is less about the opening of borders and the movement of labor than it is about the domestic political makeup; in a world of narrowing borders, domestic politics still matters.

References


**Supporting Information**

Additional Supporting Information may be found in the online version of this article:

**Table 1:** Effects of Lagged Unemployment Benefits on Immigration

**Table 2:** Including the Years of EU Treaty Enactments on the Level of Unemployment Entitlement in Developed EU Welfare State: 1971–2007

**Table 3:** Variance Inflation Factor (VIF) for Variables

**Table 4:** Correlations Between Explanatory Variables

**Figure 1:** Levels of Change in Immigration Across the Range of Left Party Seats

**Figure 2:** Levels of Union Density Across the Range of Change in Immigration

**Figure 3:** Levels of Integration Across the Range of Immigration

**Figure 4:** Levels of Immigration Across the Range of Integration

**Figure 5:** Levels of Left Party Seats Across the Range of Immigration
Figure 6: Levels of Immigration Across the Range of Left Party Seats

Figure 7: Levels of Union Density Across the Range of Immigration

Figure 8: Levels of Immigration Across the Range of Union Density

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