Union Decline in a Neoliberal Age: Globalization, Financialization, European Integration, and Union Density in 18 Affluent Democracies

Todd E. Vachon¹, Michael Wallace¹, and Allen Hyde¹

Abstract
This paper examines the long-run effects of globalization, financialization, and European integration on union density in 18 affluent capitalist democracies between 1981 and 2010. After appropriate controls, imports from developing and advanced countries and financialization negatively affect, and capital mobility positively affects, unionization. Immigration has no consistent effect on unionization. Also, European integration—measured as logged years of membership in the European Union (EU)—negatively affects unionization. Interactions of EU membership with globalization and financialization variables reveal a complicated pattern with distinctive effects for EU and non-EU countries. Overall, our findings contribute to the ongoing stream of scholarly research about the causes of union decline among affluent democratic countries in the neoliberal period.

Keywords
globalization, financialization, European Union, unionization

Introduction
The era of neoliberalism has created tremendous challenges for workers throughout the world, including those in the most affluent capitalist democracies. Unionized and non-unionized workers alike are confronted by competition within new, globalized markets that extend the logic of comparative advantage to include differences in wages and working conditions. A prominent concern for workers in many countries is globalization’s potential erosion of the strength of workers’ organizations and ultimately the political power and economic standing of the working class. It has been well documented that union density—the percentage of the labor force that belongs to unions—has been declining since the 1980s in most affluent democratic countries (Wallerstein and Western 2000). This decrease of union density combined with the increasing centralization and concentration of capital on a global scale has threatened the uneasy balance of power that existed between capital and labor throughout much of the post–World War II period (Harvey 2011).

Despite widespread evidence of union decline, there is little agreement about the mechanisms eroding workers’ power. The unionization literature has focused on a variety of explanations, including fluctuations in the business cycle (Ashenfelter and Penceval 1969; Bain and Elsheikh 1976; Fiorito and Greer 1982; Hirsch and Addison 1986), variations in labor market institutions (Griffin, McCammon, and Botsko 1990; Western 1993, 1995, 1997; Ebbinghaus and Visser 1999; Scruggs and Lange 2002; Brady 2007), and to a lesser extent specific aspects of globalization (Brady and Wallace 2000; Scruggs and Lange 2002; Lee 2005). The past couple decades have witnessed conspicuous levels of union decline, even in labor strongholds such as Germany and Sweden. These declines have corresponded with a growing trend toward the decentralization of wage bargaining, the ongoing globalization of national economies, and a shift of traditionally left political parties to more centrist positions regarding markets and the welfare state. Further, many of the world’s affluent democracies have been undergoing a process of regional integration—both political and economic—within the European Union (EU). Considering

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the extent and magnitude of these recent and ongoing changes, an updated and comprehensive study of union decline is warranted.

At the center of these political-economic shifts are the dual processes of globalization and financialization. The expansion and intensification of globalization—understood as the flow of commodities, capital, and workers across national borders—is widely recognized, but its effects on unionization are the subject of great debate. The effects of financialization—understood as the increasing role of finance and financial actors in national economies—on unionization have not been previously examined. As for globalization, supporters of convergence theory suggest that globalization will push national economies into a “race to the bottom,” the results of which would be negative for the working class everywhere (Stiglitz 2002; Rodrik 2011). Others embrace a “varieties of capitalism” perspective that contends that developed democracies will build upon their established institutional strengths, thus having divergent rather than convergent responses to globalization (Hall and Soskice 2001; Thelen 2001). Still others identify an emerging form of international embeddedness—particularly in the European context—which may either moderate or exacerbate the effects of globalization (Beckfield 2006, 2009).

The ongoing project of European integration can be seen as a particular form of regionalization, which, following Perkmann and Sum (2002), we view as the creation of a relatively homogeneous economic space accompanied by a high degree of transnational coordination and governance, all within a defined geographic region. As the world’s most fully developed regional economy, the EU provides an ideal context for examining how this specific instance of regional integration affects unionization, a topic that has not yet been systematically analyzed. On one hand, European integration may serve to buffer unions from the competition of low-wage workers in the developing world; on the other hand, it may represent a neoliberal project that exacerbates the presumably negative effects of globalization and financialization on unions.

This research spans what is commonly acknowledged as the era of neoliberalism, which was ushered in by the elections of Margaret Thatcher and Ronald Reagan and has emerged as the dominant economic ideology for the past three and a half decades (Harvey 2005, 2011). We acknowledge that neoliberalism is not a monolithic process; rather, it plays out differently in different national contexts, is differentially embraced and articulated by national political elites, and is highly contingent on a variety of domestic pressures and external shocks (Tickell and Peck 2003; Birch and Mykhnenko 2009). Yet, neoliberalism is the master frame organizing economic policy in the advanced capitalist economies. Focusing on this unique historical period allows us to examine to what extent union decline results from the expanding market liberalism that characterizes contemporary capitalism.

Thus, the purpose of this paper is threefold: First, we systematically analyze the effects of globalization on unionization in 18 affluent democratic countries between 1981 and 2010. Second, we explore how unionization has been affected by the ongoing financialization of national economies. Third, we seek to disentangle the effects of globalization, financialization, and European integration on union density. Each of these topics has received insufficient scholarly attention. Understanding these dynamic sources of union decline is important since they have a bearing on unions’ capacity to secure industrial democracy, economic equality, and political power for the working class (Shaley and Korpi 1980; Przeworski 1985; Wallerstein 1999; Kristal 2010; Brady, Baker, and Finnigan 2013).

Globalization and Union Density

We focus on the effects of economic globalization—the flow of commodities, capital, and workers across national borders (cf. Brady, Beckfield, and Zhao 2005)—as distinguished from the various other dimensions of globalization because it is the most relevant aspect of globalization for a study of unionization. Specifically, we identify four distinct but interconnected globalization processes that have affected the economies of affluent democratic countries and are likely to cause changes in union density: (1) imports from developing countries, (2) imports from advanced countries, (3) capital mobility, and (4) immigration. While most scholars argue that globalization has predominately negative effects on worker outcomes (Scheve and Slaughter 2001), others contend that the effects of different globalization dimensions may be cross-cutting (see Wallace, Gauchat, and Fullerton 2011; Vachon and Wallace 2013). The theorized relationship between each of the four dimensions of globalization and union density is developed below and, as we will show, there are competing arguments as to how these effects might turn out. Ultimately, the exact nature of the relationship between different dimensions of globalization and unionization is an empirical question that we will address in the analysis.

First, trade openness is often considered harmful to unions in advanced economies because it places domestic workers in direct competition with workers from other parts of the world (Wood 1995; Adamson and Partridge 1997; Alderson 1999). Workers in the developing world are often not protected by legislation guaranteeing safe working conditions, the right to organize unions, minimum wage standards, and environmental protection measures (Mosely and Uno 2007; Mosely 2011)—all factors that create comparative disadvantages for workers in affluent countries (Moody 1997). The penetration of cheap manufactured goods into the markets of the advanced democracies imposes significant competitive pressure on domestic enterprises that are required by law or union contract to pay livable wages. This pressure may force employers in the traditionally unionized manufacturing sector to either close shop, move to less unionized areas, or...
move parts of their operations to other countries in search of lower labor costs. All else equal, most employers in affluent countries are compelled to reduce labor costs in order not to lose ground with competitors. In countries where labor is weak, employers actively seek to undermine union strength or prevent unions from forming at all (Bronfenbrenner and Juravich 1998; Dundon 2002; Cooper et al. 2009). In countries where labor is strong, employers may still be inclined to reduce costs but may form more collaborative relationships with unions that mitigate these tendencies.

Empirical studies of the effects of increased trade openness on unionization yield mixed results. Lee (2005) finds no significant effect of import penetration from the global South on union density in 16 affluent democracies between 1962 and 1997. Piazza (2005) finds that increased trade has a negative effect on labor militancy—measured as strike frequency—in countries with low union density. Scruggs and Lange (2002) find a positive effect of change in trade openness on change in union density, but the effect varies by institutional arrangements within each country. For example, unions in more corporatist economies (e.g., Sweden, Finland, Norway) benefited less from increased trade than those in more market-oriented societies (e.g., Canada, the United States, the United Kingdom), while in countries where unions had greater access to the workplace unions benefited more from trade. However, the increased pressures of foreign competition can lead to labor market decentralization and the erosion of institutions that support high levels of unionization (Rose and Chaison 2001), potentially making unions in highly centralized labor markets more vulnerable to the ill effects of trade openness than those in already decentralized markets. Although some research explicitly implicates trade with developing countries (Lee 2005), most of the literature does not distinguish between imports from developing and advanced countries. Thus, we offer the following two hypotheses:

**Hypothesis 1:** Imports from developing countries will negatively affect union density.

**Hypothesis 2:** Imports from advanced countries will negatively affect union density.

Having said this, there is good reason to expect that trade with advanced countries will have less negative effects on unionization than trade with developing countries, although we could find no study that specifically examines this possibility. Since the comparative advantage gained by exploitative working conditions in other advanced countries is smaller than in developing countries, we suspect trade with advanced countries may have less harmful effects on union prosperity. Indeed, trade within protected markets among countries with similar degrees of affluence may actually allow unions to prosper and grow (a possibility we will examine in the analyses below). We thus posit a more nuanced hypothesis about the impact of imports on union growth:

**Hypothesis 2a:** Imports from advanced countries will less negatively affect union density than imports from developing countries.

The rise of international free trade agreements and trade blocs, the use of floating exchange rates, and the ascendance of international organizations such as the World Bank and the International Monetary Fund have contributed to a global economic order that is no longer constrained by national borders (Arndt 1998; Wallace and Brady 2010). This has resulted in increased concern about a second dimension of globalization, capital mobility. Capital mobility is typically measured as foreign direct investment (FDI) and can include either inward or outward flows of FDI. Generally, capital mobility is believed to undermine organized labor in three ways (Brady and Wallace 2000). First, the strength of labor vis-à-vis capital is reduced by the increased geographic and social distance between the two. This distancing of the capital-labor relationship may diminish workers’ capacity to utilize national or local labor organizations to effectively influence pay and benefits, working conditions, or discipline. Second, due to the spatial disconnection of workers, it becomes increasingly difficult to maintain solidarity among workers—a key component of collective action (Fantasia 1988). Finally, the position of workers is weakened relative to capitalists because of neoliberal trade policies that have made capital highly mobile while regulating the flow of labor. This increased capital mobility has freed transnational corporations from their “home” countries and reduced the pressure on them to remain loyal to their domestic workforce, especially when more profitable options are available elsewhere.

Despite the sway of theoretical arguments supporting a negative relationship between capital mobility and unionization, empirical studies have yielded mixed results for the effects of FDI on unionization. For example, Lee (2005) found that FDI outflows had a significant, negative relationship with union density in 16 affluent democracies. Brady and Wallace (2000) found that increased levels of inward FDI had negative effects on several labor outcomes in the United States, including union density. Scruggs and Lange (2002), however, examining the same countries as Lee (2005), found that total FDI—inflows plus outflows—affected union density differently in countries with different institutional arrangements. Specifically, total direct investment flows were negatively related to density in countries where unions were institutionally strongest and positively for countries where unions were weakest. Finally, Sano and Williamson (2008) found that FDI had no significant effect on unionization in affluent countries with high, medium, or low levels of union density. On balance, these findings lead us to expect a negative association between capital mobility and union density, but the effect may be mediated by country-specific or regional institutional arrangements. Nevertheless, on balance, we formulate our third hypothesis as follows:
The term financialization refers to the increasing role of finance and financial actors in national economies or, more specifically, “the tendency for profit making in the economy to occur increasingly through financial channels rather than productive activities” (Krippner 2011:4; see also Arrighi 1994). Since the 1970s, the advanced economies have experienced growing financialization as evidenced by increased deregulation of financial markets, growing concentration of banks and financial enterprises, increased size and clout of institutional investors, and the ideological ascendance of the neoliberal model. In addition, nonfinancial firms have begun to rely more on the financial sector for access to capital and have increased their investments in financial assets and subsidiaries (Orhangazi 2008). Lin and Tomaskovic-Devey (2013) find financialization to have increased income inequality in the United States during the neoliberal era (see also Volscho and Kelly 2012). Zalewski and Whalen (2010) find an increase of financialization is accompanied by an increase in inequality in 18 affluent countries. The nature of the relationship between financialization and unionization has not been theorized in the literature, but we can identify at least two processes by which financialization could potentially harm unions.

First, as finance occupies a greater share of the national product, progrowth government policies tend to favor this sector over the interests of other sectors. In short, making profits by the manipulation of financial instruments—what Reich (1983) calls “paper entrepreneurship”—takes precedence over industrial productivity. This has given rise to the “shareholder society,” in which corporate mergers, corporate restructuring, investment in labor-saving technology, and mass layoffs represent opportunities to increase short-term profits for investors (Fligstein 2001; Fligstein and Shin 2004). Financialization exacerbates the worst tendencies in low-road capitalism whereby capitalists, investors, and financial interests emphasize short time horizons to maximize profits to the detriment of unions’ interests in producing a safe, sustainable work culture with high-quality jobs and dignified, meaningful work (Wright and Rogers 2011). Hence, financialization compels owners of capitalist firms to resist workers’ efforts to unionize. Second, the rise of the financial sector has been accompanied by a shift in employment from manufacturing to the provision of specialized services (Sassen 2001; Moller and Rubin 2008). In most advanced democracies, the unionization rate of service workers in general, and finance workers specifically, is significantly lower than that of their counterparts in the manufacturing and public sectors.1 For these reasons, we anticipate financialization of national economies to have mostly negative consequences for union density in advanced capitalist economies.2 Thus, we hypothesize the following:

Hypothesis 4: Immigration will negatively affect union density.

European Integration and Union Density

Recent scholarly work has focused on the effects of regional economic and political integration, particularly in the context of Europe, on various social and economic outcomes (Sapir...
1992; Henrekson, Torstensson, and Torstensson 1997; Fligstein and Merand 2002; Bornschier, Herkenrath, and Ziltener 2004; Beckfield 2006, 2009; Fligstein 2008). We view European integration as a specific and historically unique instance of regional integration but explore the broader literature on regionalization as a theoretical frame for informing our hypotheses. Beckfield (2006:964) describes regionalization as “the construction of international economy and polity within negotiated regions.” Much like globalization, regional integration represents a compression of time and space that facilitates increased frequency and intensity of international economic exchange. The most highly integrated region in the world economy currently is the EU. The forerunner of the EU, the European Coal and Steel Community, was founded in 1952 by six countries (Germany, France, Italy, the Netherlands, Belgium, and Luxembourg) in an effort to promote lasting European peace in the wake of two bloody world wars. Through a series of enlargements, the EU had grown to 28 countries by 2013 and currently encompasses most of central and western Europe. The social, political, and economic integration has been augmented by a variety of EU-sponsored institutional structures such as the European Commission, the Council of the European Union, the Court of Justice of the European Union, the European Central Bank, and the European Parliament. A series of agreements among EU countries has facilitated freer movement of workers, goods, and services across borders, and in 2002 the EU adopted a single currency, the euro, to facilitate economic exchange.

According to Beckfield (2006), regionalization as embodied in the EU differs from globalization in three fundamental ways. First, regionalization is geographically bounded, whereas globalization encompasses exchange throughout the world. Second, regionalization is more institutionally embedded than globalization because of regional trade and currency agreements, regional agencies and courts, and regional polities. Third, regionalization, in terms of economic and political integration, has generally progressed further than globalization—in fact, much of what is considered globalization could be more accurately defined as regionalization. Moreover, we expect that the influence of regionalization in the European context has grown over the years as the EU has become more institutionally embedded and has encompassed more European economies and as individual countries have become more integrated into the web of relationships engendered by EU membership.

With regard to the effects of European integration on unionization, we consider the direct effects of EU membership and the interaction effects of EU membership with the globalization and financialization variables. There is not much previous research on the direct effects of EU membership on unionization, but Beckfield (2006) identifies the decline of unions as the potential mechanism by which countries with higher levels of integration in the EU have experienced higher levels of income inequality. Thus, we posit the following:

Hypothesis 6: European integration will negatively affect union density.

With regard to interaction effects, two obvious opposing hypotheses about European integration emerge. First, European integration might be viewed as exacerbating the adverse effects of globalization by which increased trade, capital mobility, immigration, and financialization work mainly against the collective interests of workers. From this perspective, EU membership may intensify the negative effects of global exchange on union density (Hyman 2001). Beckfield (2006) suggests a mechanism by which this might occur. By deferring key economic and political decisions to agencies above the level of the nation state, locally and nationally negotiated union-management agreements may be superseded by transnational obligations. Much like the convergence thesis in the globalization literature, this line of reasoning would suggest that regional convergence can apply pressure on welfare states to liberalize their economies, thus hurting the position of labor. Considering these aspects of regionalization, we test the following hypothesis:

Hypothesis 7a: European integration will exacerbate the negative effects of globalization and financialization on union density.

On the other hand, European integration may be seen as moderating the negative effects of globalization. Increased exchange and investment between economically similar countries within a region may serve to protect workers from direct competition with low-wage workers in the developing world. Unionized workers may hold a strategic position to negotiate regional policies favorable to their interests in the EU. Unionized workers may hold a strategic position to negotiate regional policies favorable to their interests in the Social Protocol, which grants unions rights to participate in EU policy making (Falkner 1998). Most EU member states have a strong history of industrial democracy and in many cases tripartite, corporatist governance in which labor, capital, and the state have equal voices in the construction of social policy (Traxler 1999). This historically determined position of labor might secure a voice for unions in the formation of regional institutions. Strong labor movements within EU member countries can pressure national governments to construct and support regional policies and institutions that protect or benefit the interests of labor. These same unions can also form alliances across national borders to press for regionalized pattern bargaining (Traxler 2002). Perhaps the best known example of this is the European Metalworkers’ Federation, which has forged agreements of its member unions with numerous employers across Europe on various bargaining principles and demands, including minimum standards on working time and the formation of cross-border networks to help coordinate bargaining (Gollbach and Schulten 2000). Taking into account these aspects of European integration, we advance the following hypothesis:
Hypothesis 7b: European integration will moderate the negative effects of globalization and financialization on union density.

We can also envision a third scenario whereby European integration neither advantages nor disadvantages unions. This “third road” alternative suggests that European integration might have cross-cutting effects on globalization resulting in no net effects. Ultimately, it is a question of to what extent the EU is a neoliberal institutional project advancing free market principals or a social-economic project embracing shared governance with workers and capitalists. Considering the counterbalancing positive and negative effects of regional integration outlined above, it is plausible that those advanced capitalist democracies engaged in regional integration via the EU will experience cross-cutting, but generally more negative, effects of globalization on unionization than their non-EU counterparts. Further, we suspect that these effects are likely to change over time as the EU becomes either more or less free market oriented.

Data and Methods

This study utilizes the Comparative Welfare States data set, compiled by Huber, Ragin, and Stephens (1997), updated through 2008 by David Brady and colleagues, with further additions and updates by the authors. We examine the effects of globalization, financialization, and European integration on union density between 1981 and 2010 in 18 affluent democratic countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States. The analysis runs from 1981 to 2010 for both empirical and theoretical reasons. Empirically, some of the data for lagged variables were not available prior to 1980. Theoretically, this period is widely acknowledged as the neoliberal period of capitalist development, which emphasizes unfettered free markets, privatization, deregulation, free trade, and a reduced role of the state in business and the provision of social services. The starting point of the analysis, 1981, is commonly viewed as the beginning of the neoliberal era (Tomaskovic-Devey and Lin 2011), and the end point, 2010, encompasses the Great Recession—making this period an ideal time frame for analyzing the effects of neoliberal globalization on union density. Our research thus guards against what Isaac and Griffin (1989) call “ahistoricism in time series analysis” by ensuring that the quantitative analyses are historically grounded and appropriately periodized.

Dependent Variable

The dependent variable in this paper is union density, which is the percentage of all wage and salary workers that belong to unions. The union density data are taken from Visser’s (2013) Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 34 countries between 1960 and 2012. Details and sources of this and other variables used in the analysis are reported in Appendix A.

Globalization and Financialization Variables

We identify four dimensions of economic globalization and one aspect of financialization that may affect union density. First, we derive two measures of trade openness that tap the extent of trade activity with developing and advanced countries, respectively, relative to the size of the economy. Imports from developing countries is calculated by dividing the value of imports from developing countries by gross domestic product (GDP); imports from advanced countries is calculated by dividing the value of imports from advanced countries by GDP. The third indicator of globalization is capital mobility, operationalized as outward FDI stock as a percentage of GDP. The fourth measure of globalization is immigration, measured as the percentage of the population that is foreign born for each country-year.

The final measure, financialization, is the percentage of civilian employment that is employed in the finance, insurance, and real estate (FIRE) sector. An alternative measure—like the percentage of value added or GDP derived from the financial sector—might have been preferable, but such measures do not exist for all countries and years in our study. However, for six countries with complete data on percentage of value added in the financial sector (Austria, Denmark, Finland, Italy, the Netherlands, and Norway), this measure is correlated, on average, .91 with the employment-based measure we use. Moreover, when we replicated our analyses below for these six countries and nine others for which we had partial data, the percentage value-added measure yielded results very similar to FIRE employment. This gives us confidence in FIRE employment as a serviceable measure of financialization.

European Integration and Interaction Variables

To capture the effects of European integration, we created a logged count variable called EU membership. We first created a simple count of the years of EU membership that is summarized in Table 1. This measure starts at 1 for a country’s year of entry into the EU and adds 1 for each subsequent year. Countries receive scores of 0 for years in which they were not members of the EU (including both European and non-European countries). Next, we transformed this count measure into a natural logarithm to capture the gradual trajectory of institutional change we expect to result from EU membership over time (Hall and Thelan 2009). That is, we expect the integrative aspects of EU membership to be larger in a country’s early years of EU membership and to increase at a diminishing rate over time, a pattern consistent with the
natural logarithm function. The EU membership variable is used to compute interaction effects with each of the globalization and financialization variables to examine how the effects of these variables change with deeper levels of European integration.

We experimented with alternative measures of EU membership and found results largely consistent with those reported below. These results are reported in Appendix B.

Control Variables
Following previous studies of unionization, we control for several variables that have been shown to influence union density. First, we use two measures of labor market structure: industrial employment and government employment. Next, we include several measures of the business cycle: inflation, economic growth, and unemployment. Based upon previous studies of unionization, unemployment is examined separately for countries with and without a Ghent union-administered unemployment insurance system. Ghent systems have been shown to significantly reduce the typically negative effects of unemployment on union membership by keeping workers connected to trade unions even when unemployed (Western 1997; Scruggs 2002). To capture this effect we create two dummy slope variables, one for unemployment in Ghent countries and one for unemployment in non-Ghent countries, by multiplying the unemployment rate, which is the percentage of the labor force that is unemployed, by a dummy variable representing either the presence or the absence of a Ghent system, respectively. This procedure splits unemployment into two variables, one for Ghent countries and one for non-Ghent countries. Finally, as in previous comparative studies of unionization, we control for the political climate and labor market centralization with a measure for left seats and a measure for wage coordination.

Methods
This study utilizes a cross-sectional, time-series design for 18 countries during 30 years (1981–2010) or 540 country-years. We examine the effects of globalization, financialization, and EU membership on union density with single-equation error correction models (ECMs; see Beck 1991; De Boef and Keele 2008). Because of their flexibility in modeling instantaneous, short-run, and long-run effects of covariates and their ability to accommodate both stationary and integrated variables, ECMs have become increasingly popular in sociological research utilizing single time-series (Volscho and Kelley 2012) and cross-sectional, time-series data (Kristal 2010; Lin and Tomaskovic-Devey 2013). De Boef and Keele (2008) identify a variety of specifications of ECMs suitable to different theoretical expectations. Because we anticipate that instantaneous effects of our covariates on union density are implausible, we estimate what De Boef and Keele (2008) call a “dead start” model, which estimates only short-run effects and long-run equilibrium relationships. We focus primarily on the long-run effects that are consistent with our theoretical expectations that globalization alters the long-term trends in unionization. This procedure is consistent with Lin and Tomaskovic-Devey’s (2013) research, which focused on the long-run effects of financialization of the U.S. economy on several indicators of income inequality using dead start models to analyze cross-sectional, time-series data at the industry level.

<table>
<thead>
<tr>
<th>Country Name</th>
<th>Year Entered European Union</th>
<th>Value in 1981</th>
<th>Value in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>na</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Austria</td>
<td>1995</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Belgium</td>
<td>1952</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td>Canada</td>
<td>na</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Denmark</td>
<td>1973</td>
<td>9</td>
<td>38</td>
</tr>
<tr>
<td>Finland</td>
<td>1995</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>France</td>
<td>1952</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td>Germany</td>
<td>1952</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td>Ireland</td>
<td>1973</td>
<td>9</td>
<td>38</td>
</tr>
<tr>
<td>Italy</td>
<td>1952</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td>Japan</td>
<td>na</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1952</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td>New Zealand</td>
<td>na</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Norway</td>
<td>na</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Sweden</td>
<td>1995</td>
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<td>16</td>
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<tr>
<td>Switzerland</td>
<td>na</td>
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</tr>
<tr>
<td>United Kingdom</td>
<td>1973</td>
<td>9</td>
<td>38</td>
</tr>
<tr>
<td>United States</td>
<td>na</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: na = not applicable.
In our models, we include a set of fixed effects terms for countries to account for time-invariant, country-specific patterns. This procedure ensures that the estimates are derived from within-country variance in the rate of change instead of unobserved between-country differences. In order to control for cross-country time trends and to detrend the data, we include a linear trend for time. To correct for serial- and year-clustered heteroskedasticity, we employ panel-corrected standard errors (see Beck and Katz 1995) and a panel-specific, first-order autoregressive correction. We directly estimate the long-run effect of each globalization measure and its standard error by estimating the Bewley transformed model with the predicted change in union density (Bewley 1979).

The single-equation, dead start ECMs in our analyses are specified as follows:

$$\Delta Y_{it} = \alpha_{it} + t - \beta_1 Y_{it-1} + \beta_2 X_{it-1} + \varepsilon_{it},$$

where $\Delta Y_t$ represents the first difference $Y_t - Y_{t-1}$, $\alpha_{it}$ represents the country-specific deviation in change, $t$ represents the time trend, $\beta_1$ represents the adjustment or error correction rate of $Y_t$ and $\beta_2$ represents the direct effect of $X_{it-1}$ on $\Delta Y_t$. The model indicates that net of other covariates, a unit increase in $Y_{t-1}$ leads to a $\beta_1$ unit decrease in $\Delta Y_t$ and therefore a 1-$\beta_1$ unit increase in $Y_t$. Therefore, the long-run cumulative effect of a unit increase of $X$ on $Y$ is the sum of an infinite geometric series:

$$\sum_{k=0}^{\infty} = \beta_2 \left(1 - \beta_1\right)^k,$$

where $k$ represents the number of discrete time units following the direct effect. This geometric series converges into $\beta_1^{-1} \beta_2$. We utilize the Bewley (1979) model with the predicted $\Delta Y$ in order to directly estimate the long-run effect of $X$ and its standard error:

$$Y_{it} = \beta_1^{-1} \alpha_{it} + t - \beta_1^{-1} \left(1 - \beta_1\right) \Delta Y_{it} + \beta_1^{-1} \beta_2 X_{it-1} + \varepsilon_{it}.$$

Finally, in order to estimate whether regionalization affects the findings, we estimate models that include interaction effects between the EU membership count variable and the globalization and financialization variables. These interaction models compare the long-run effects of globalization and financialization for EU and non-EU countries and allow us to determine whether regional integration exacerbates or buffers the effects of globalization on union density. We use two-tailed tests of significance for all analyses. Due to the relatively small number of cases, a significance level of .10 is used in addition to the conventional levels of .05, .01, and .001.

**Results**

**Descriptive Statistics**

Before proceeding to the multivariate analyses, we display trends in union density among the 18 countries in the analysis in Figure 1. Most countries experience patterns of steady decline in union strength although the steepness of decline varies. The rate of decline in countries like Canada, France, and Norway is relatively small, whereas the rate of decline in Australia, Ireland, and New Zealand is quite severe. The sharpest decline in New Zealand is due largely to the Employment Contracts Act of 1991, which decentralized collective bargaining and eliminated traditional forms of union protection in favor of an industrial relations system that favored “freedom of association and contracting” (Cown 1993). Two exceptions to the pattern of steady decline, Sweden and Finland, show increases in union density during the first half of the period followed by decreases in the second half, resulting in a modest net loss in union strength in Sweden and a slight gain in Finland. Union density in Belgium also departs from the norm to some extent, holding steady until about 1997 before suffering a modest decline.

In Table 2, we report descriptive statistics for all variables in the analysis. Union density has a mean of 40.03 percent with a high of 87.44 percent (Sweden, 1994) and a low of 7.58 percent (France, 2007). At the beginning of the neoliberal era in 1981, union density ranged from a low of 17.8 percent (France) to a high of 79.9 percent (Denmark). In the last year of the analysis in 2010, union density ranged from a low of 7.9 percent (France) to a high of 70.0 percent (Finland). All 18 countries except Finland experience lower levels of union density in 2010 than in 1981, with an average percentage decline of 33.6 percent during the period.

Turning to the globalization measures, we see that overall globalization has increased in the affluent capitalist democracies. With the exception of France, all countries experienced an increase in imports from the developing world, with an average percentage change of 73.9 percent, and all except Australia, Japan, New Zealand, and Norway experienced an increase of imports from advanced countries, with an average percentage change of 10.3 percent. Every country experienced a significant increase in capital mobility during this period, with an average percentage increase of 2152.8 percent. With the exception of Belgium and France, all countries experienced an increase in immigration with an average percentage increase of 116.2 percent during the period. Finally, every country experienced an increase in financialization during this period with an average percentage increase of 141.7 percent. The EU membership measure (before logging) ranges from a low of 0 years for the countries that never joined (Norway, Switzerland) or were never eligible to join (Australia, Canada, Japan, New Zealand, and the United States) the EU to a high of 59 years for the five founding countries in our analysis (Belgium, France, Germany, Italy, and the Netherlands).

**ECMs Estimating Long-run Effects on Union Density**

The full model in Table 3 presents the long-run effects of the covariates on union density in 18 affluent democracies derived from dead start, single-equation ECMs (De Boeuf and
Figure 1. Union density in 18 affluent democracies, 1981–2010.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Union density</td>
<td>40.03</td>
<td>20.79</td>
<td>7.58 (France, 2007)</td>
<td>87.44 (Sweden, 1994)</td>
</tr>
<tr>
<td>Δ union density †</td>
<td>-0.51</td>
<td>1.10</td>
<td>-6.93 (New Zealand, 1992)</td>
<td>4.77 (Germany, 1991)</td>
</tr>
<tr>
<td><strong>Labor market structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial employment</td>
<td>27.39</td>
<td>5.15</td>
<td>15.95 (Netherlands, 2010)</td>
<td>42.96 (Germany, 1981)</td>
</tr>
<tr>
<td>Government employment</td>
<td>17.02</td>
<td>6.68</td>
<td>5.34 (Japan, 2010)</td>
<td>31.78 (Sweden, 1993)</td>
</tr>
<tr>
<td><strong>Business cycle</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation</td>
<td>3.35</td>
<td>3.11</td>
<td>-4.48 (Ireland, 2009)</td>
<td>20.34 (Ireland, 1981)</td>
</tr>
<tr>
<td>Economic growth</td>
<td>2.32</td>
<td>2.29</td>
<td>-8.54 (Finland, 2009)</td>
<td>10.92 (Ireland, 1997)</td>
</tr>
<tr>
<td>Unemployment in non-Ghent countries</td>
<td>5.13</td>
<td>3.96</td>
<td>0.00 (all non-Ghent countries)</td>
<td>17.15 (Ireland, 1987)</td>
</tr>
<tr>
<td>Unemployment in Ghent countries</td>
<td>1.72</td>
<td>3.57</td>
<td>0.00 (all Ghent countries)</td>
<td>16.63 (Finland, 1995)</td>
</tr>
<tr>
<td><strong>Political climate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left seats</td>
<td>36.34</td>
<td>16.52</td>
<td>0.00 (United States, all years)</td>
<td>65.00 (France, 1982–1985)</td>
</tr>
<tr>
<td><strong>Labor market centralization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage coordination</td>
<td>3.09</td>
<td>1.37</td>
<td>1.00 (various countries/years)</td>
<td>5.00 (various countries/years)</td>
</tr>
<tr>
<td><strong>European integration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU membership</td>
<td>17.03</td>
<td>19.86</td>
<td>0.00 (see Table 1)</td>
<td>59.00 (see Table 1)</td>
</tr>
<tr>
<td><strong>Globalization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports from developing countries</td>
<td>-0.525</td>
<td><strong>-0.584</strong>*</td>
<td>New Zealand</td>
<td>-0.327***</td>
</tr>
<tr>
<td>(0.026)</td>
<td>(0.026)</td>
<td></td>
<td></td>
<td>(0.028)</td>
</tr>
<tr>
<td>Imports from advanced countries</td>
<td>-0.200</td>
<td><strong>-0.211</strong>*</td>
<td>Germany</td>
<td>-0.064***</td>
</tr>
<tr>
<td>(0.017)</td>
<td>(0.016)</td>
<td></td>
<td></td>
<td>(0.018)</td>
</tr>
<tr>
<td>Capital mobility</td>
<td>0.069 **</td>
<td><strong>0.019</strong>*</td>
<td>Ireland</td>
<td>0.072***</td>
</tr>
<tr>
<td>(0.003)</td>
<td>(0.003)</td>
<td></td>
<td></td>
<td>(0.003)</td>
</tr>
<tr>
<td>Immigration</td>
<td>0.041</td>
<td><strong>-0.287</strong>*</td>
<td>Australia</td>
<td>0.544***</td>
</tr>
<tr>
<td>(0.048)</td>
<td>(0.053)</td>
<td></td>
<td></td>
<td>(0.052)</td>
</tr>
<tr>
<td><strong>Financialization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRE employment</td>
<td>-0.211 **</td>
<td><strong>-1.012</strong>*</td>
<td>Italy</td>
<td>-0.040</td>
</tr>
<tr>
<td>(0.047)</td>
<td>(0.057)</td>
<td></td>
<td></td>
<td>(0.052)</td>
</tr>
<tr>
<td><strong>European integration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU membership</td>
<td>-2.154 **</td>
<td><strong>-3.584</strong>*</td>
<td>Austria</td>
<td>1.093***</td>
</tr>
<tr>
<td>(0.127)</td>
<td>(0.180)</td>
<td></td>
<td></td>
<td>(0.112)</td>
</tr>
</tbody>
</table>

Note: EU = European Union; FIRE = finance, insurance, and real estate.
†Δ union density uses 1980 data to create the first value for 1981.

Table 3. Error Correction Models Predicting Union Density in 18 Affluent Democracies, 1981–2010, Long-run Effects (N = 540). a,b,c

<table>
<thead>
<tr>
<th>Globalization</th>
<th>Full Model</th>
<th>Jackknife Low</th>
<th>Jackknife High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Country</td>
<td>Coefficient</td>
</tr>
<tr>
<td>Imports from</td>
<td>-0.525***</td>
<td>New Zealand</td>
<td>-0.327***</td>
</tr>
<tr>
<td>developing countries</td>
<td>(0.026)</td>
<td>(0.028)</td>
<td></td>
</tr>
<tr>
<td>Imports from</td>
<td>-0.200***</td>
<td>Germany</td>
<td>-0.064***</td>
</tr>
<tr>
<td>advanced countries</td>
<td>(0.017)</td>
<td>(0.018)</td>
<td></td>
</tr>
<tr>
<td>Capital mobility</td>
<td>0.069***</td>
<td>Ireland</td>
<td>0.072***</td>
</tr>
<tr>
<td>(0.003)</td>
<td>(0.003)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immigration</td>
<td>0.041</td>
<td>Australia</td>
<td>0.544***</td>
</tr>
<tr>
<td>(0.048)</td>
<td>(0.053)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financialization</td>
<td>FIRE employment</td>
<td>-0.211***</td>
<td>Italy</td>
</tr>
<tr>
<td>(0.047)</td>
<td>(0.057)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European integration</td>
<td>EU membership</td>
<td>-2.154***</td>
<td>Austria</td>
</tr>
<tr>
<td>(0.127)</td>
<td>(0.180)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: FIRE = finance, insurance, and real estate; EU = European Union. $R^2 = .324$; error correction rate = -0.090.

Long-run coefficients (panel-corrected standard errors in parentheses).
Additional variables included in the model but not shown are fixed effects for country, time trend, industrial employment, government employment, inflation, economic growth, unemployment in Ghent countries, unemployment in non-Ghent countries, left seats, and wage coordination.
Models correct for panel-specific, first-order autocorrelation.
Coefficients of the two imports measures are significantly different from each other as indicated by a Wald test ($\chi^2 = 143.35, p < .001$).
***p < .001 (two-tailed test).
Keele 2008); we show unstandardized regression coefficients with panel-corrected standard errors in parentheses. These models control for country-specific fixed effects, labor market structure, the business cycle, the political climate, and labor market centralization (which are not shown).12

Considering the globalization measures, we find negative and significant effects for imports from both developing and advanced countries on union density, which supports hypotheses 1 and 2. However, using a Wald test, we determined that the negative effect of imports from advanced countries is significantly less negative than the effect of imports from developing countries, thus confirming hypothesis 2a ($\chi^2 = 74.57$, $p < .001$). Both results support Wood’s (1995) finding that import penetration is harmful to unions in affluent capitalist democracies. Cheaply produced commodities imported from overseas apply significant pressure on domestic producers to reduce their prices and remain competitive, but the magnitude of this effect is stronger for imports from developing countries.

Capital mobility shows a positive and significant effect on union density, which does not support our prediction in hypothesis 3. This finding may seem counterintuitive, but it is not out of line with the mixed results of past research. Indeed, this result may be consistent with a more nuanced interpretation of capital mobility’s effects in these 18 affluent democracies in the neoliberal period. While past research implicates capital mobility as a major factor in the loss of manufacturing jobs (Bluestone and Harrison 1982; Alderson 1999; Brady and Denniston 2006), lower-skilled, nonunionized jobs are more vulnerable to outsourcing than are high-skilled jobs in the unionized sector, particularly in high-road capitalist countries with strong, centralized labor relations systems. This effect will be explored further when we investigate European integration interaction effects in later models. The effect for immigration is positive but nonsignificant, so hypothesis 4 is not supported. One possible explanation for this result is that immigration has distinctive effects for EU and non-EU countries that are masked in the aggregate analysis. These processes will be explored more in the analyses below.

The financialization measure has a negative and significant effect on union density, as expected by hypothesis 5. Thus, the rise of neoliberal economic policies and the ascendancy of financialization undermine the strength of unions. Finally, we find that the EU membership measure is negative and significant, which supports hypothesis 6. This confirms the speculation by Beckfield (2009) that European integration contributes to the decline of unions, which in turn is responsible for greater income inequality. The $R^2$ value for the model is .324. The error correction rate of $-.090$ indicates that the long-run effects of globalization, financialization, and regionalization on union density tend to dissipate slowly over time.

As a robustness check on the results thus far, we conducted 18 jackknife analyses in which we reestimated the model excluding one country at a time. This permits us to detect countries that might be influencing the results. Full results for the jackknife analyses for the five key independent variables in the model—imports from developing countries, imports from advanced countries, capital mobility, immigration, and FIRE employment—are shown graphically in Appendix C. However, the results are summarized in Table 3, where we show the jackknife low (the model that achieves the lowest coefficient) and the jackknife high (the model that achieves the highest coefficient). For the most part, the jackknife results reveal that the findings are relatively robust. All 18 jackknife models confirm significant negative effects of imports from developing countries and imports from advanced countries and the positive effect of capital mobility. These results thus reinforce the strong support for hypotheses 1 and 2 and the findings contradicting hypothesis 3. Hypothesis 4 about the negative effect of immigration was not confirmed in the original model, and the jackknife results show that the effect varies widely from $-.287$ when Australia is excluded to $+.544$ when Germany is excluded. These results underscore the nonsignificant effects of immigration on union density and suggest that immigration’s impact is highly contingent on the character of immigration and national context.

The FIRE employment effect on union density is less robust as 2 out of 18 jackknife models fail to confirm the negative, significant effect. Excluding either the Netherlands or Sweden causes the effect to turn nonsignificant although the sign remains negative. At a minimum, this result suggests that a different measure of financialization like percentage value added from the FIRE sector might yield more robust results (but we noted above that such a measure is not available for all countries and years in our analysis). Alternatively, it might suggest a variety of neoliberalism perspective whereby neoliberalism does not play itself out in exactly the same way in all capitalist democracies (Birch and Mykhnenko 2009). This result suggests the need for further research in general to explore conditions under which financialization affects union decline and specifically the characteristics of finance in these two countries that make them so influential.13 So support for hypothesis 5 is strong, but slightly less robust than support for hypotheses 1 through 3.14

**EU-specific Effects**

In Table 4, we estimate additional models to examine the long-term interaction effects of European integration with globalization and financialization measures on union density. We estimate separate models to obtain conservative estimates of each interaction. The goal is to determine whether the effects found in Table 3 are different for EU versus non-EU countries and to explore whether longer tenure in the EU either increases or decreases the effect of each measure. For each model, we show just the main effect of each globalization and financialization measure and its interaction with EU
Table 4. Error Correction Models Predicting Union Density in EU versus Non-EU Countries, 1981–2010, Long-run Effects (N = 540).ab,c

<table>
<thead>
<tr>
<th>Imports from</th>
<th>Developing Countries</th>
<th>Advanced Countries</th>
<th>Capital Mobility</th>
<th>Immigration</th>
<th>Financialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main effectab,c</td>
<td>-0.491***</td>
<td>-0.478***</td>
<td>0.017***</td>
<td>-0.090</td>
<td>-0.374***</td>
</tr>
<tr>
<td>(0.036)</td>
<td>(0.024)</td>
<td></td>
<td>(0.003)</td>
<td>(0.070)</td>
<td>(0.047)</td>
</tr>
<tr>
<td>EU interaction effect</td>
<td>-0.008</td>
<td>0.134***</td>
<td>0.014***</td>
<td>-0.031†</td>
<td>0.006</td>
</tr>
<tr>
<td>(0.010)</td>
<td>(0.008)</td>
<td></td>
<td>(0.001)</td>
<td>(0.017)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Error correction rate</td>
<td>-0.085***</td>
<td>-0.089***</td>
<td>-0.092***</td>
<td>-0.092***</td>
<td>-0.087***</td>
</tr>
<tr>
<td>(0.019)</td>
<td>(0.020)</td>
<td></td>
<td>(0.021)</td>
<td>(0.020)</td>
<td>(0.019)</td>
</tr>
<tr>
<td>R²</td>
<td>.325</td>
<td>.308</td>
<td>.305</td>
<td>.313</td>
<td>.310</td>
</tr>
</tbody>
</table>

Note: EU = European Union.
abAdditional variables included in the model but not shown are fixed effects for country, time trend, industrial and government employment, inflation, economic growth, unemployment in Ghent countries and non-Ghent countries, left seats, wage coordination, and EU membership.
acModels correct for panel-specific, first-order autocorrelation.
*p < .05. **p < .01. ***p < .001. †p < .10 (two-tailed tests).

... membership. The $R^2$ and error correction rates are of similar magnitude across the five models.

Starting with imports from developing countries, we see that the long-run effect on union density is negative and significant for non-EU countries, but the EU × Imports from Developing Countries is not significant. This suggests that the negative effect of imports is of similar magnitude for EU and non-EU countries. However, we interpret the interaction effect with caution as the alternative models in Appendix B show fairly strong evidence that this effect is positive. We find a different pattern for imports from advanced countries. Here the long-run effect is negative and significant for non-EU countries, but the EU × Imports from Advanced Countries interaction is positive and significant. This suggests that European integration moderates the negative effects of trade with advanced countries and that this negative effect weakens as the length of tenure in the EU increases.

With regard to capital mobility, we find that the long-run effect on union density is positive and significant for non-EU countries, and the EU × Capital Mobility effect is also positive and significant. This suggests that the beneficial effect of capital mobility on unionization that we found in Table 3 is enhanced for EU countries. It further indicates that the EU may actually augment union density in EU host countries that outsource part of their production facilities to other countries. On the face of it, this finding seems counterintuitive because it suggests that unions in EU countries can exert their power to compel employers to recognize unions in outsourced production facilities in other countries. This would negate the conventional employer advantage of outsourcing for undermining unions in the host country.

One highly publicized example lends support to this scenario. IG Metall, the German union representing Volkswagen workers across Europe, has pressured Volkswagen to recognize the United Auto Workers (UAW) union as the legitimate bargaining agent for VW workers in its Chattanooga, Tennessee, plant. German labor law requires all German-owned plants worldwide to be governed by a works council with equal representation of business and labor. Volkswagen has indicated support for a works council at the Chattanooga plant, but in February 2014 a virulent antiunion campaign by Republican politicians and Washington-based antiunion groups resulted in a 53 percent to 47 percent loss in a UAW representation vote among 1,550 hourly workers at the plant (Schelzig 2014). Subsequently, IG Metall and UAW announced an initiative to implement German-style “co-determination” between management and employees including works councils to promote bargaining about job security and working conditions at the Chattanooga plant. In December 2015, this effort culminated in a 71 percent to 29 percent vote in favor of union representation for the 165 skilled trade workers, giving the union a foothold in the plant from which to launch a new effort to unionize the plant’s unskilled workers. The final chapter of the VW-Chattanooga case has not been written, but its ultimate resolution could have far-reaching implications because the German law requiring labor representation applies to other German automakers with factories in the U.S. South, like BMW and Mercedes parent Daimler.

Looking next at immigration, we find that the long-run effect on union density in non-EU countries is nonsignificant, and the interaction effect for EU countries is negative and marginally significant at $p < .10$. This is not severely out of line with the results in Table 3 and suggests that immigration might have slightly more negative effects on unionization in EU countries. We note that the evidence from alternate models in Appendix B is mixed but mainly supportive of this finding. Nevertheless, we interpret the
immigration results with caution based on the nonsignificant findings for immigration in Table 3.

We find that financialization has a negative significant effect for non-EU countries, and the interaction with EU membership is not significant. This suggests that the negative effect we found for financialization in Table 3 applies fairly evenly across both non-EU and EU countries regardless of length of EU membership. Again, however, the results from alternate models in Appendix B for the interaction effect are mixed, so we interpret this result with caution. Finally, we note that the main effect for the EU membership variable retains the negative significant effect we found in Table 3 across all models in Table 4 (not shown).

Taken together, the results suggest that EU membership has mixed effects on union density. The negative direct effect of EU membership partially explains why union membership has declined even in traditional European labor strongholds. On the other hand, the EU interactions with imports from advanced countries and capital mobility show significantly more positive effects on unionization for EU countries, which supports hypothesis 7b. Also, although we find the interaction effect for EU × Imports from Developing Countries is nonsignificant, alternative models in Appendix B suggest it might also align with hypothesis 7b. The only evidence we find to support hypothesis 7a that EU membership leads to more negative effects is the marginally significant negative effect for the EU × Immigration effect. Finally, the EU × Financialization interaction shows no significant effect on unionization, which is consistent with the “third road” hypothesis that EU membership neither exacerbates nor moderates financialization’s negative effect on union density.

Discussion and Conclusions

Unionization reached unprecedented levels in many affluent democracies in the first three decades after World War II, but the neoliberal era has brought retrenchment and decline in union membership. Past research has primarily examined economic and institutional explanations for the divergence in union density among countries. More recently, some scholars have turned their attention to the effects of globalization on union density, but until now a comprehensive examination of the effects of different dimensions of economic globalization on union density has not been conducted. In addition, financialization has been shown to affect levels of economic inequality in previous research, but its effects on unionization have not yet been examined. Further, the effects of European integration have largely been ignored in cross-national studies of unionization. We have addressed these gaps in the literature in three ways. First, we incorporate four diverse dimensions of economic globalization—imports from developing and advanced countries, capital mobility, and immigration—into a longitudinal analysis of union density during the neoliberal era. Second, we examine the relationship between financialization and unionization. Finally, we provide a systematic examination of the effects of European integration on union density in affluent countries by examining both the main effects of EU membership and the interaction effects between EU membership and each globalization and financialization dimension.

Our analysis finds that globalization has mixed effects on union density. Imports from developing countries and financialization appear to be of comparable magnitude in EU and non-EU countries. Capital mobility, on the other hand, shows a positive relationship with unionization—in part because it disproportionately outsources low-skill, non-unionized jobs, leaving behind high-skilled, unionized jobs (for some evidence of this, see Feenstra 1998). Financialization is also shown to have a negative effect on unionization, supporting the notion that the rise of the shareholder society has put the interests of capital above those of workers. On the other hand, the effects for immigration are more mixed and show no consistent pattern, undermining our confidence in their generalizability. Finally, we see a statistically negative effect of EU membership on union density, supporting the notion that to some degree European integration has served as a neoliberal project to advance the interests of capitalists. This in part accounts for why union strength has declined even in some of the traditional union stronghold countries in the EU. Aside from immigration, we have strong confidence in these findings from Table 3 as they are overwhelmingly corroborated by the robustness checks we conducted throughout the analysis as well as the alternative analyses shown in Appendix B.

When considering the relationship between European integration and each of our globalization and financialization measures, we uncover a somewhat different pattern for EU membership. In general, we find strong evidence that several key variables have statistically different effects on unionization in EU and non-EU countries. In particular, we find that European integration moderates the negative effects of imports from advanced countries and enhances the positive effects of capital mobility. Based on the results of our alternate models in Appendix B, we could also claim that the effect of imports from developing countries on unionization is moderated by EU integration. On the other hand, immigration’s effect on union density is more negative for EU countries. Finally, based on results in Table 4, the negative effects of imports from developing countries and financialization appear to be of comparable magnitude in EU and non-EU countries. Some of these findings are contingent on model specification as indicated in Appendix B, so they warrant close attention in future research.

Taken together, our findings offer some support for the notion that European integration has been part of a larger
neoliberal project designed to undercut workers’ power and unleash the forces of the free market. EU membership during the past three decades has been shown in recent research to contribute significantly to rising levels of income inequality (Beckfield 2006), and here we show that it has also had significant negative effects on unionization. However, we also find evidence that European integration has some aspect of a social-economic project that has buffered unions in EU nations from some of the ill effects of globalization and financialization. This somewhat contradictory finding begs for future research to explore the complex dynamics of European integration and how they interact with workers’ ability to organize and fight for increased compensation and workplace protections.

Considering the findings of this study, we point out some limitations and suggest that future research on these topics should proceed along several avenues. First, this study has contributed to the long-standing interest in the causes of union growth and decline in affluent democratic countries, but our analyses have been constrained to some extent by data considerations, both availability of data and our own choices with regard to alternative measures. For instance, ideally we would prefer to measure financialization with percentage of profits or value added from the FIRE sector. While such data are available for some countries or for limited time periods, they are not available for the 540 country-years in our analysis. While we showed that our measure of FIRE employment was highly correlated with FIRE value added for the years for which the latter exists, we would prefer more complete FIRE value-added data. In a similar vein, we chose to use percentage foreign-born as our measure of immigration instead of a net migration measure, which is preferred by some. We contend that since net migration is a flow measure, it can miss the influence of large stocks of foreign-born persons that have been in the country for years. A potential problem with both measures, however, is that they are based on yearly interpolation between five-year intervals. While interpolation is unlikely to produce estimates with large amounts of measurement error for this particular variable, the situation is not optimal. Future research should explore alternative measures of this important variable. Similarly, alternative measures might be considered for our other key variables: imports/GDP (vs. exports) as a measure of trade and outward FDI (vs. inward FDI) as a measure of capital mobility. Ultimately, we believe our choices on these measures are defensible, but we encourage future research to consider a broader range of alternative measures.

Second, the measure we used to capture EU integration, the logged count measure of years of EU membership, deserves attention. In Appendix B, we outlined the alternative measures of EU membership we considered, our rationale for choosing the one we did, and the difference it makes in the results, so we will not repeat that discussion here. However, future research should consider whether there might be better alternatives. In his research investigating the impact of European integration on income inequality among EU members between 1973 and 1997, Beckfield (2006) utilized two measures of EU integration: political integration measured as the number of legal cases referred from national courts to the European Court of Justice, and economic integration measured as percentage of trade with EU countries. While these measures were well suited to tap the degree of integration among countries that were exclusively members of the EU, we felt they were less suited for a mixed group of EU and non-EU countries. However, scholars might consider these and other measures as possible alternatives to the count measures we considered.

Third, in order to be in dialogue with a broad set of studies that focused on unionization in affluent capitalist democracies, we intentionally focused on the 18 countries that are universally considered to be in this group. This meant that we excluded from consideration a number of EU member countries and non-EU countries of relatively comparable levels of development. However, to the extent data availability permits, future research should broaden the scope of this analysis to include a larger set of 40 to 50 developed countries including countries like Spain, Portugal, and Greece as well as the newer central European members of the EU. Such an extension would present new challenges but also new opportunities, for example, the opportunity to examine the influence of these processes in former communist countries like Poland, Hungary, and the Czech Republic. Exploring these processes in a broader range of countries would allow us to better observe the interplay of globalization and regionalization in the modern world.

Finally, this study has focused on the EU, the most well-established regional economy in the world, which limits the generalizability of our findings. The EU’s level of economic, political, legal, and cultural institutional development is unmatched, but other parts of the world are developing regional trade agreements and nascent institutions that approximate regional economies. While trade pacts like the North American Free Trade Agreement, for example, and others in Asia and South America, focus primarily on trade and lack many of the more advanced forms of regionalization such as unified currencies and open borders, they nonetheless represent a significant economic commitment on the part of a regionally defined set of countries to engage in high levels of economic exchange. Future research, perhaps in the form of case studies of single countries or small clusters of similarly situated countries, should test the differential effects of regional integration on unionization within emerging regional economies as they become more established. Regional integration of institutionally weaker countries in other parts of the world might result in different effects of these processes on unionization. Thus, whether regionalization in other national and historical contexts can protect unions from the ill effects of globalization and financialization remains an unsettled question.
## Appendix A

### Table A.1. Variables, Descriptions, and Sources.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Union density</td>
<td>Union membership as a percentage of wage and salary workers</td>
<td>Visser (2013)</td>
</tr>
<tr>
<td><strong>Labor market structure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial employment</td>
<td>Industrial employment as a percentage of total civilian employment (includes mining and quarrying, manufacturing, construction, and public utilities)</td>
<td>International Labour Organization’s Key Indicators of the Labor Market, main statistics (annual), <a href="http://laborsta.ilo.org">http://laborsta.ilo.org</a></td>
</tr>
<tr>
<td>Government employment</td>
<td>Civilian government employment as a percentage of total civilian employment</td>
<td>Cusack (2004). Original sources for these data are various OECD publications</td>
</tr>
<tr>
<td><strong>Business cycle</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation</td>
<td>Percentage change in the consumer price index from its prior year value</td>
<td>International Monetary Fund, <em>International Financial Statistics Database</em>, <a href="http://elibrary-data.imf.org">http://elibrary-data.imf.org</a></td>
</tr>
<tr>
<td>Unemployment in non-Ghent countries</td>
<td>Dummy slope variable equal to the unemployment rate for non-Ghent countries, 0 for Ghent countries</td>
<td>Western (1997) for Ghent; OECD, <em>Main Economic Indicators for unemployment rate</em>, <a href="http://stats.oecd.org">http://stats.oecd.org</a></td>
</tr>
<tr>
<td>Unemployment in Ghent countries</td>
<td>Dummy slope variable equal to the unemployment rate for Ghent countries, 0 for non-Ghent countries</td>
<td>Western (1997) for Ghent; OECD, <em>Main Economic Indicators for unemployment rate</em>, <a href="http://stats.oecd.org">http://stats.oecd.org</a></td>
</tr>
<tr>
<td><strong>Political climate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left seats</td>
<td>Percentage of seats in national legislature held by left parties</td>
<td>Swank (2012)</td>
</tr>
<tr>
<td><strong>Labor market centralization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage coordination</td>
<td>Level at which collective bargaining occurs (1 = fragmented wage bargaining, confined largely to individual firms or plants; 2 = bargaining mainly at the industry level with little or no pattern setting; 3 = bargaining at the industry level with reasonably strong pattern setting but only moderate union concentration; 4 = centralized bargaining by confederation(s) or government imposition of wage schedule/freeze, a high degree of union concentration, extensive, regularized pattern setting, and tacit coordination of bargaining by employer organizations; 5 adds a peace obligation, extremely high degree of union concentration and extensive coordination of bargaining by employer organizations with extensive pattern setting)</td>
<td>Visser (2013), Kenworthy (2001)</td>
</tr>
<tr>
<td><strong>Globalization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports from developing countries</td>
<td>Imports of goods and services from developing countries as a percentage of GDP</td>
<td>International Monetary Fund, <em>Direction of Trade Statistics</em>, <a href="http://elibrary-data.imf.org/">http://elibrary-data.imf.org/</a></td>
</tr>
<tr>
<td>Imports from advanced countries</td>
<td>Imports of goods and services from advanced countries as a percentage of GDP</td>
<td>International Monetary Fund, <em>Direction of Trade Statistics</em>, <a href="http://elibrary-data.imf.org/">http://elibrary-data.imf.org/</a></td>
</tr>
<tr>
<td>Immigration</td>
<td>Percentage of population that is foreign born (original measure is only available in five-year intervals, so the intervening years were interpolated)</td>
<td>World Bank, <em>World Development Indicators</em>, <a href="http://data.worldbank.org/indicator/SM.POP.TOTL">http://data.worldbank.org/indicator/SM.POP.TOTL</a></td>
</tr>
<tr>
<td><strong>Financialization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRE employment</td>
<td>Employment in FIRE industries as a percentage of total civilian employment</td>
<td>International Labour Organization, <em>Key Indicators of the Labor Market</em>, main statistics (annual), <a href="http://laborsta.ilo.org">http://laborsta.ilo.org</a></td>
</tr>
<tr>
<td><strong>European integration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU membership</td>
<td>Years of membership in the EU; EU countries range from 1 to 59 years, non-EU countries = 0—the logged value is used for the analysis</td>
<td>EU, <a href="http://europa.eu/about-eu/countries">http://europa.eu/about-eu/countries</a></td>
</tr>
</tbody>
</table>

Note: OECD = Organisation for Economic Co-operation and Development; GDP = gross domestic product; FDI = foreign direct investment; FIRE = finance, insurance, and real estate; EU = European Union.
Appendix B. Robustness Checks

We conducted several robustness checks of the results in this paper that centered primarily on alternative operationalizations of the European Union (EU) membership variable and an alternative modeling technique. In this appendix, we summarize the results of these robustness checks.

One obvious alternative measure of EU membership, the use of a simple dummy variable for EU members, was not practical in this analysis because 15 of our 18 countries did not change their EU membership status during the period of the analysis. This means that the effect of this variable would be contained in the country fixed effects and thus not be detectable. Thus, the “effect” of such a dummy variable would only capture effects that were relevant for the three countries whose EU status did change.

This led us to consider four alternatives. The first two attempt to capture the experience of a country as it enters the EU. We anticipate a process of adjustment and eventual integration that takes place over time. So the first measure of EU membership is a simple count variable, which starts at 1 for the first year of membership and adds 1 with each additional year of membership (non-EU countries receive a score of 0). This measure perhaps overstates the marginal effect of an additional year of membership once countries have been in the EU for more than a decade or so. Thus, the second measure is the natural logarithm of the count variable, which is simply the natural logarithm of the first measure. This measure assumes that the effect of entry into the EU is large in the early years and increases at a diminishing rate in subsequent years. This alternative seemed to best capture the trajectory of integration into the EU over time that we envisioned, so it is the one we used in the main analysis of the paper.

The other two alternatives are based on a different assumption about what is meant by “integration.” For these two measures, we assign values to EU countries based on the stage of development of the EU itself. The first of these, EU Count 52, starts at the value of 1 for the first year of the EU (i.e., 1952) and adds 1 for each successive year of membership. Thus, for the years of our analysis, this measure takes on the values of 1981 = 30, 1982 = 31, and so on until 2010 = 59. In other words, all countries that were EU members in 1981 received a score of 30, and all EU members in 2010 received a score of 59. Countries that were not members of the EU in a particular year received a score of 0. Finally, the fourth measure is the natural logarithm of the EU count 52 measure, which assumes the effect of EU membership has a more gradual trajectory. Both of these measures have some merit, but their assumption that a country in its first year of membership should have the same value as a long-standing member seems questionable.

The analyses in this paper use error correction models with country fixed effects. As an alternative modeling strategy, we also considered error correction models with two-way fixed effects, that is, fixed effects for countries and years. This provides the most stringent control for both country-specific and time-varying factors, which might provide alternative explanations for our results. With four different specifications of the EU membership variable and two different modeling techniques, this provides eight alternative model specifications.

Table B.1 shows the results of replicating the main analyses in Tables 3 and 4 using the eight model specifications identified above. To facilitate comparison with the other seven models, we highlight in gray the model used in our main analysis (i.e., Model 3 using the logged count variable with country fixed effects). We use a series of + and – signs to indicate the level of statistical significance of each variable in the models (see the note for Table B.1 for precise definitions).

The top panel of the table shows the results of replicating Table 3. This panel shows that the other seven alternative specifications support the findings in Model 3 for four key variables—negative effects for imports from developing countries, imports from advanced countries and FIRE employment, and positive effects for capital mobility. In addition, the nonsignificant findings for immigration are confirmed in five of seven other models. On balance, these results strongly reinforce our decisions regarding hypotheses 1 through 5. In addition, the negative effect of EU membership is confirmed for five of the seven alternative models (not shown), which reinforces support for hypothesis 6.

The bottom panel shows the results of replicating Table 4. Here the support for our findings is strong but more mixed than for Table 3. First, all seven alternative models confirm the results in Model 3 for the negative effect of imports from developing countries, but only one other model supports the negative effect for the EU interaction with this variable. The other six models suggest the interaction effect should be positive, so our finding in Model 3 for this effect is called into question. Second, all seven alternative models also confirm the Model 3 results for the negative effect of imports from advanced countries and the positive effect for the EU interaction with this variable. Third, our results in Model 3 for the positive effect of capital mobility and the positive effect of its interaction with EU are supported in five of seven models. Fourth, the results for immigration across the eight models are mixed. Five of seven models confirm the nonsignificance of the main effect for immigration in Model 3, and there is moderate support (four out of seven models) for the negative interaction effect. Fifth, support for our findings in Model 3 for FIRE employment is partially supported. All seven alternative models support the negative effect for FIRE employment, but none support the nonsignificant effect of the EU interaction with this variable. The main divide in the findings...
between models using variations of the EU count variable (Models 1–4) versus variations of the EU count 52 variable (Models 5–8). Models 1 through 4 show a tendency for the EU interaction with FIRE employment to be positive (although the interaction effect is nonsignificant in Model 3). Models 5 through 8 show an opposite tendency for this interaction effect to be negative. Overall, this boils down to a matter of which measure of EU integration is most plausible.

On the whole, these alternative models strongly support our findings in Model 3. The main points of caution are the nonsignificant EU interaction effects with imports from developing countries and FIRE employment, which alternative models suggest should be positive. Both of these amendments to our basic findings would in fact lend stronger support to our basic claim for distinctly different effects of globalization/financialization variables in EU and non-EU countries. Indeed, these amended findings would suggest that in many respects the EU serves to moderate some of the more negative effects of globalization and financialization.
Appendix C

Figure C.1. $t$-values for five key independent variables from jackknife analyses.
Notes

1. The Scandinavian nations are an exception to this as their labor movements have made tremendous inroads in organizing white-collar and service-sector workers into unions.

2. It is worth noting that these two distinctive avenues by which financialization can weaken union movements suggest quite different counterstrategies by unions. If financialization mainly undermines unions by growing sectors of employment that have typically been less unionized (i.e., the compositional effect), then unions simply need to redirect their efforts to organize those workers. But if financialization mainly undermines unions by fundamentally restructuring the economy through shareholder capitalism, outsourcing, and takeover threats that make it incompatible with unions (i.e., the structural effect), then unions need a more radical approach to reverse the decline.

3. We limit our analysis to the 18 most affluent countries in the world, so it does not include European Union (EU) members such as Spain, Portugal, and Greece, and it does not include any of the countries of central Europe that joined the EU since 2004.

4. Both imports measures are derived from the International Monetary Fund’s Direction of Trade Statistics whose classification of “industrial countries” is the basis for the countries we label “advanced.” These countries include the 18 countries in this analysis plus Cyprus, Greece, Iceland, Luxembourg, Malta, Portugal, Slovenia, and Spain. All other countries in the world are classified as “developing.”

5. One ongoing trend throughout this period is the growing share of outward foreign direct investment (FDI) from the countries in our sample relative to inward FDI. We thus focused on outward FDI as having potentially the greatest impact on unionized workers.

6. Data on foreign-born populations are only available in five-year intervals between 1960 and 2010; we used linear interpolation to estimate values for the intervening years.

7. Two European countries in our analysis, Switzerland and Norway, are eligible for membership in the EU but never joined. As a robustness check, we included a separate dummy variable for these two countries and found that this variable did not affect any of the analyses reported below.

8. Four countries had Ghent systems during the entire period of this study: Belgium, Denmark, Finland, and Sweden.

9. An examination of the variable inflation factors (VIFs) indicates that multicollinearity is not a problem with this group of variables. None of the variables had a VIF greater than 10, and only financialization had a VIF greater than 4 (5.39).

10. A Hausman test was conducted to determine the appropriateness of using fixed versus random effects estimators, and the null hypothesis of no difference was rejected ($\chi^2 = 849.83$, $p < .001$), indicating that fixed effects are appropriate for these models.

11. As a robustness check, we reran our final models with a dummy variable accounting for this transformation, and the findings were unchanged.

12. A complete table showing effects of all variables is available from the authors upon request.

13. Zalewski and Whalen (2010) had a similar finding for the Nordic countries when examining the relationship between financialization and income inequality in 19 Organisation for Economic Co-operation and Development countries.

14. We also considered the possibility that there might be outliers by year, so we estimated 31 additional jackknife models removing one year at a time from the analysis. Our significant findings for imports from developing countries, imports from advanced countries, and capital mobility were confirmed in all 31 jackknife models, and the significant findings for finance, insurance, and real estate employment remained significant in all but one jackknife model.

15. Recall that these effects speak to outward FDI only. They do not speak to the potential negative effects found by some for inward FDI on union strength (Brady and Wallace 2000).

16. We note that EU immigration policy is complex and encompasses EU nationals who can migrate freely from one EU country to another as well as “third country nationals” whose country of origin is outside the EU. This complexity is poorly captured by aggregate models in this analysis and would probably be best explored by country-specific case studies of the effect of immigration on unionization.

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Author Biographies

Todd E. Vachon is a doctoral candidate in the Department of Sociology at the University of Connecticut, where his research and teaching interests include labor and social movements, the sociology of work, the sociology of education, and social stratification. His previously published work has explored a variety of labor-related issues, including the relationship between teacher unionization and high school student achievement, the relationship between unionization and workers’ attitudes on environmental issues, and the effect of globalization and labor market transformation on union density in U.S. metropolitan areas. His dissertation explores the goals, tactics, and effectiveness of environmental activists within the American Labor Movement. Todd is currently serving as the first president of the recently organized UConn Graduate Employee Union, UAW Local 6950.

Michael Wallace is a professor of sociology and a Roper Center Fellow at the University of Connecticut. He has published extensively in the fields of social stratification and inequality, sociology of work, the labor movement and industrial conflict, the political economy of capitalism, the impact of immigration on stratification processes, sources of urban inequality, and religious-based inequality. His current research focuses on the political economy of U.S. military spending, determinants of union decline in the U.S. states in the neoliberal period, the roots of U.S. earnings inequality in the post–World War II period, and the structural underpinnings of the wildcat strike movement in U.S. manufacturing in the 1960s and 1970s. Most of his current work involves employing dynamic, longitudinal modeling techniques to develop an understanding of macro-level, structural processes of inequality in contemporary and historical U.S. capitalism.

Allen Hyde is a doctoral candidate in the Department of Sociology at the University of Connecticut and will take a new position as assistant professor in the School of History and Sociology at the Georgia Institute of Technology in the fall of 2016. His main research areas are stratification and inequality, urban sociology, work and occupations, and immigration. His published research explores the relationship between immigration and earnings inequality in small U.S. towns as well as religious-based discrimination in job hiring. His dissertation examines the relationship between neoliberalism, financialization, and income inequality in 18 affluent nations from 1981 to 2011. He has several papers under way examining spatial inequalities in American urban areas, particularly related to race, immigration status, homeownership, and neighborhood quality.