

# **Import Competition and Policy Diffusion\***

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## **Abstract**

The existing literature often assumes that the target of global interstate economic competition is the overseas market, that is, the markets in third, export-destination countries. However, in many countries, domestic industries compete fiercely for domestic market share with imports from other countries. Such import competition creates policy diffusion between a country and its import-competitor countries. Such policy diffusion can be observed in policy areas that affect production costs of domestic industries. We focus on import competition's effect on social welfare policies in developing countries and test our theory in two broad types of policies: social insurance spending and progressive social spending. We find strong evidence for import-competition-induced policy diffusion in both policy areas. Moreover, in the case of social insurance, the effect of policy diffusion is mediated by the strength of labor, suggesting that strong labor is more capable of blocking welfare retrenchment policies.

## **Keywords**

import competition, welfare state, social policies, policy diffusion, developing countries.

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Recent policy diffusion literature views decisions about policy changes as interdependent decisions that are taken within a group of countries. Lately, scholars have made important efforts to engage in general theoretical discussion of the mechanisms of policy diffusion.<sup>1</sup> For instance, Elkins and Simmons identify two types of diffusion mechanisms: first, adaptation to altered conditions, that is, those for which another's adoption alters the value of the practice; second, learning, that is, those for which another's adoption provides information.<sup>2</sup> Simmons, Dobbin, and Garrett further elaborate on causal mechanisms and emphasize coercion, competition, learning, and emulation among states as channels of policy diffusion.<sup>3</sup> Franzese and Hays include migration wherein components of some units move directly into others and generate direct and mechanical interdependence.<sup>4</sup>

In this paper, we focus on a particular type of competition mechanism that has been overlooked by the existing literature, which often assumes that the target of global competition among states is the overseas market, that is, markets in third, export-destination countries. We posit that in many countries, domestic industries also compete fiercely for domestic market share with imports from other countries. Such import competition creates policy interdependence between a country and its import-competitor countries. Our conceptualization of import competition differs from that of the existing literature, which measures levels of import competition as the amount of foreign imports. Instead we focus on the concept of structural similarity, the idea that two countries are in competition if they sell same products to the same market. According to our conceptualization, a country  $i$ 's import-competitor country  $j$  is one whose firms directly compete for domestic market in country  $i$  across a portfolio of market sectors. Structural similarity between country  $i$  and  $j$  makes them competitors, because from the perspective of buyers in country  $i$ 's market, they are substitutable.

We posit that this import-competition-induced policy diffusion might be observed in policy areas that directly affect production costs of domestic industries, such as social protection and welfare spending. One country's policy change aiming at improving competitiveness is likely to be reciprocated thanks to this competition mechanism. Theoretically, we focus on key actors' policy preferences across both factor and sector lines to analyze cleavages around social protection policies. Empirically, we test our theory by examining two broad types of policies: social insurance spending and progressive social spending (health, education, and housing).

Using a panel of sixty-seven developing countries between 1977 and 2004, we find strong evidence for import-competition-induced policy diffusion in both types of spending. This finding makes an important contribution to the existing literature as it shows that international trade can be conceptualized not only as a given amount of commercial flows and exposure to income risks,<sup>5</sup> but also as a channel for the diffusion of social policy. Spending in social protection in a given country is a direct consequence of its import competitors' social spending choices. It is interesting that in the case of social insurance, the effect of policy diffusion is mediated by the strength of labor: the effect of policy diffusion disappears when labor power is high enough. We suspect that this is because strong labor is capable of blocking welfare retrenchment policies. An important implication from this result is perhaps that deeply entrenched labor organizations are able to insulate domestic social protection from global trends of welfare retrenchment.

## An Overlooked Competition Mechanism of Policy Diffusion

Approaches to the diffusion of traditional forms of social protection and welfare policies have looked at a wide variety of mechanisms such as coercion, learning, and emulation.<sup>6</sup> Social policy changes in developing countries, such as the historical emergence of social security programs,<sup>7</sup> pension privatization,<sup>8</sup> and the newer adoption of conditional cash transfers,<sup>9</sup> are all found to follow robust geographic patterns of diffusion among countries. Our research complements the extant literature by looking at social security and welfare policy diffusion resulting from a particular form of the trade competition.

Indeed, for many, competition in the global market is one of the most important factors driving domestic policies today.<sup>10</sup> How to capture the effects of such competition is not, however, an easy question. The field has come a long way, from simply using trade openness

### *From Trade Openness to Trade Competition for External Markets*

Studies that focus on globalization and its implications are now legion. To gauge the extent to which a country is subject to the pressure of globalization, the first step has been to incorporate variables from the international level to models of domestic political and economic processes.<sup>11</sup> It is a common practice in the literature to summarize the economic forces of globalization by an estimate of a country's overall trade exposure to the global market. Trade exposure is conceptually important because it reflects the actual and perceived economic conditions and levels of insecurities associated with the vagaries of the global market that, in turn, affect chances to unleash changes through domestic political processes.

However, this is also an undifferentiated way to conceptualize the forces of globalization. It misinterprets one key aspect of global competition faced by nation states: governments do not merely examine indicators of overall trade exposure and adjust policies accordingly; they are often also sensitive to their specific export markets and key competitors in the global market. From the perspective of South Asian countries, such as India and Pakistan, for example, the lifting of textile-import quotas in Europe and America at the beginning of 2005 brought less opportunity than potential loss of market share to a newly unfettered competitor, China.<sup>12</sup> For developing countries the textile and clothing industries are important, and competition among them is fierce. China, India, Pakistan, and other textile/clothing-exporting countries are often engaging in a “race.” These states closely watch one another, and any policy effort in one country to reduce production costs, thereby increasing competitiveness, is likely to trigger similar moves in other countries.

Recent studies in international relations have discovered the logic of externalities of national economic policymaking. One country's policy decision alters the costs and benefits of the policy for others, either materially through direct economic competition or ideationally through the subjective pressures of prevailing global norms. From this perspective, the behavior of each country is defined or influenced by a subset of countries to which it is most closely related. Competition is a key mechanism driving the diffusion of norms, rules, and organizational practices.<sup>13</sup> Competition here refers to policy interdependence stemming from peer pressures between countries competing with each other.<sup>14</sup> Simmons and Elkins, discussing the globalization of liberalization, argue that governments' liberalization policies will be influenced by the policies of their most important foreign economic competitors.<sup>15</sup> When competing in the international market, countries targeting the same sources of foreign investment and the same overseas markets are facing a collective action problem, as they each desire to be

competitive—actually more competitive than their major contenders. States often have strong incentives to adopt efficiency-mandated economic policies and institutions to gain advantages over competitors. Other countries respond by going even further in that direction.<sup>16</sup>

### *Competition for Domestic Markets and Policy Diffusion*

Trade competition is often conceptualized as most likely among countries targeting the same overseas markets.<sup>17</sup> In the previous example of trade competition in the textile industry, trade competitor countries are defined precisely by the extent to which they all target overseas markets in Europe and North America.<sup>18</sup> Export competition, that is, the conceptualization of trade competition as one for external markets, is important because with globalization, more and more countries become outward-looking and compete globally. However, this conceptualization overlooks the fact that in many countries, domestic markets are the key to the success of many domestic firms. In addition to export competition, import competition, that is, the competition with foreign firms for domestic markets, should also play an important role in businesses' daily life and related domestic politics.

**Table 1.** Export and Import Competitions.

		Country B	
		Import-Competing Firms	Exporting Firms
Country A	Import-competing firms	No competition	Import competition
	Exporting firms	Import competition	Export competition

In order to illustrate the difference between export and import competition, we choose a very simple setting with two countries, A and B; each country has two types of firms: import-competing (which mainly sell products in the domestic market) and export-oriented (those targeting overseas markets). Interactions between these industries in two countries are summarized in Table 1. Previous policy diffusion literature has mainly focused on the lower-right cell of the table, that is, export competition between export-oriented firms from both countries (for markets in other countries). However, it is easy to see that competition could also occur in the lower-left and upper-right cells of the table in which one country's export-oriented firms enter the other country and compete directly with that country's import-competing firms. This is what we call “import competition,” and we argue it is a competition mechanism that potentially causes policy diffusion between countries.

Our conceptualization (and therefore variable operationalization) of import competition is different from those in the existing literature. How foreign imports affect various aspects of domestic economy has been a major question for students of international trade. For instance, Autor, Dorn, and Hanson, studying effects of Chinese imports on the U.S. market, find that rising imports from China cause higher unemployment, lower labor-force participation, and reduced wages in local labor markets that are home to import-competing manufacturing industries.<sup>19</sup> Ex post measures of import competition are often used for such recent studies of import competition: these are various measures of domestic shares of foreign goods. Iacovone, Keller, and Rauch, for example, use the actual market share gains of Chinese exporters between 1998 and 2004 to capture import competition from China.<sup>20</sup>

Such measures and conceptualizations of import competition are important. However, they overlook the potential policy interdependence of import competition. For instance, if the Chinese government and exporting firms reduce production costs by cutting social wages for Chinese labor, one result might be an increased level of import competition from China as reflected in increased market shares of Chinese products in such countries as Mexico. Note that this increase in market shares will be captured by ex post types of import competition measures. However, this change in market share might not happen if the Mexican government and firms react to such policy changes in China fast enough. The government might observe Chinese policy changes and make preemptive policy responses, for example, following suit by social welfare retrenchment in Mexico. Import competition happens in this case, but we might not observe market share gains by Chinese exporters thanks to preemptive measures by the Mexican government. The ex post types of import competition measures simply cannot pick up such interdependent policymaking processes.

Our conceptualization of import competition aims exactly at capturing such strategic interactions. For a given country  $i$ , we identify its import-competitor countries by looking at those countries that directly compete with country  $i$ 's domestic, import-competing firms. We focus on the concept of structural similarity, the idea that two countries are competitors if they sell same products to the same market. According to our conceptualization, a country  $i$ 's import-competitor country  $j$  is a country whose firms directly compete for domestic market at  $i$  across a portfolio of market sectors. Structural similarity between country  $i$  and  $j$  makes them competitors, because from the perspective of buyers in country  $i$ 's market, they are substitutable. Our conceptualization of import competition, therefore, can be referred to as import competition by structural similarity. The ex post measures can be referred to as import competition by volume. In the rest of the paper, for simplicity, we use the term import competition generally to represent import competition by structural similarity.

### *Import Competition and Social Policies*

Domestic firms targeting domestic markets are sensitive to import-competitor countries' policy changes that might enhance rival foreign firms' competitiveness. Note that the first response from the import-competing sector often is for the government to use tariffs or nontariff barriers to protect the domestic market from foreign competition. Such protection policies benefit domestic-oriented firms as they secure their market shares. However, the costs of implementing those policies are often prohibitive. First, foreign firms might lobby their government to retaliate. Second, in a globalized economy, tariffs and nontariff barriers become more and more costly, both economically and politically, especially for developing countries that rely on the global market for capital and technologies. Third, for GATT/WTO member states, such protection measures are often simply unjustifiable under the norm of free trade and can trigger sanctions from the free trade regime. On the other hand, policy changes in social welfare policies might be another way to respond to enhanced foreign competition. Welfare retrenchment in other countries can provide a strong justification for domestic business interest groups to lobby for similar policy changes. It is likely that one country's social welfare policies are affected by those of its import-competitor countries.<sup>21</sup>

Note that two logics of social policy diffusion due to import competition may be at play. First, market actors may have specific knowledge of the labor cost in their import-competitor

countries. After having observed welfare retrenchment in competitor countries, they could demand domestic policy change accordingly. Alternatively, policy diffusion may result from a market-based mechanism rather than direct observation. For instance, an import-competitor country implements retrenchment and becomes more competitive in one country's domestic market. As a result, domestic firms from that country lose their shares of the domestic market, which might incentivize them to pressure the government to retrench the welfare state in order to stay competitive. However, both logics suggest the same underlying story: import competition is a channel for the international diffusion of social policy.

We assume, for simplicity, that government aggregates societal interests as well as the preferences and strength of relevant interest groups determine policy outcomes. Table 2 shows the relevant actors in our model and their preferences toward two different types of policy response to import competition. Note that we label various policy instruments (e.g., tariffs, nontariff barriers, and subsidies) aiming at direct trade protection as protectionist policies and those that reduce social provisions (in order to reduce production costs) as welfare retrenchment policies. We distinguish two sectors of the economy: exporting and import-competing. We consider the preferences of the labor and the capital in both sectors.

**Table 2.** Preferences of Labor and Capital across Two Sectors.

	Labor	Capital
Exporting	Against protectionist policies	Against protectionist policies
	Against welfare retrenchment policies	Welcome welfare retrenchment policies
Import competing	Prefer protectionist policies	Prefer protectionist policies
	Against welfare retrenchment policies	Welcome welfare retrenchment policies

Traditional economic theories make different predictions about the trade policy preferences of different groups. The choice is often between a factor- and a sector-based model. Stolper-Samuelson theorem implies that capital comprises a single, class-based interest group opposing labor. Preferences toward free trade depend on factor endowments of the economy with the abundant factor of production preferring free trade and the scarce factor opposing it.<sup>22</sup> A competing model of trade preferences, the Ricardo-Viner model, assumes that factors of production are immobile within a country and cannot shift from a losing to a winning sector, so that both labor and capital within an industry either gain or lose jointly as a result of a changing level of trade openness. Business and labor in the import-competing sector together tend to oppose opening, while both actors within the export sector generally support further liberalization.

Note, however, that in these economic theories of trade preferences, the actors' choice is whether or not to welcome free trade. Our research question is different: we explore the preferences of labor and capital in both the exporting and import-competing sectors of the economy with regard to different policy instruments when facing import competition. The import-competing sector is directly affected by import competition as its firms lose market shares to foreign firms. The exporting sector is also involved because of the potential effects of different policy instruments. Protectionist policies, for example, benefit import-competing firms but might hurt exporting firms, as foreign countries targeted by such protectionist policies are

likely to retaliate. Here, we expect a sectoral difference in the preferences toward protectionist policies. Moreover, as protectionist policies become less viable given potential retaliation and WTO rules, other options to deal with import competition become more important. Some domestic actors might have preferences toward reducing production costs, including reducing social wages and labor social welfare. Indeed, it is likely that capital in both import-competing and exporting sectors prefers such policy changes while labor in both sectors opposes them.

If a sector-based model characterizes political coalitions facing import competition, we expect to see conflict between import-competing and exporting sectors. Note here that within both sectors, labor and capital disagree on welfare state retrenchment as a policy response to import competition, because such policies in general hurt labor while benefiting capital. Therefore, it is unlikely that a unified capital-labor coalition in either the import-competing or the exporting sector would agree to cut welfare spending. Preferences toward trade protectionist policies of capital and labor in the same sector, on the other hand, are the same. The capital-labor unified coalition in the exporting sector is against trade protectionist policies, while the coalition in the import-competing sector supports such policies. If a sector-based model applies, even though other countries' changes in welfare policy increase their competitiveness and import competition with country  $i$ , we would not be able to observe policy interdependence in social welfare policies between country  $i$  and its import-competitor countries, because in country  $i$ , responses in social policies introduce disagreements between capital and labor within the same sector of the economy.<sup>23</sup>

On the other hand, if a class-based model characterizes political coalitions facing import completion, we observe classical labor-capital conflicts: capital in the exporting sector is against protectionist policies but welcomes welfare retrenchment policies; capital in the import-competing sector prefers protectionist policies but also welcomes welfare retrenchment policies. The common ground for capital in both sectors is welfare retrenchment. The preference aggregation process for labor is more complicated. Labor in exporting sectors, fearing retaliation from other countries, is against protectionist policies, and, as described above, also against welfare state retrenchment. Likewise, labor in import-competing sectors opposes welfare state retrenchment but favors protectionist policies. In other words, to the extent that labor as a political coalition is not completely dominated by members of the import-competing sector, protectionist policies are unlikely to be a preferred policy response for labor in both sectors. At the same time, labor would oppose any attempt by capital to reduce welfare provisions. Whether such opposition from labor would succeed, so that we would be unable to observe policy interdependence caused by import competition in social policies, is, we argue, a function of the relative strength of labor.

Whether a sector-based or a class-based model captures potential political coalitions better is both a theoretical and an empirical question. In essence, the complication for us is that the distributive effects of social welfare policies are added into the equation. Both sector- and class-based models consider the distributive effects of free trade only as they affect the preferences of actors.<sup>24</sup> On the other hand, most political economy models of welfare state retrenchment implicitly assume that conflicts between labor and capital follow class-based models. As we discussed earlier, for a number of reasons, protectionist policies have become less and less viable for actors in developing countries to pursue. Therefore, to the extent that social welfare policy instruments have become more and more salient in response to import competition (in other words, to the extent that the factor-based model applies here), we argue that:

1. One country's social welfare policies are positively associated with those of its import-competitor countries; and
2. Such policy diffusion is conditional on the relative strength of labor in the country because labor is against using welfare retrenchment as the policy response to import competition.

If, on the other hand, a sector-based model captures reality better, we should observe no policy diffusion in social policies as a function of import competition. In other words, we would be unable to observe 1 and 2 from the empirical analysis. Note that our theoretical preferences toward a factor-based model arise from our observations that sector-based, trade protectionist policies (e.g., tariffs and nontariff barriers) have become less viable in the overall trend of economic liberalization. In an extreme case in which trade protectionist policies are ruled out by an open-economy assumption, our model would predict 1 and 2 directly.

Moreover, to the extent that the applicability of a factor-based versus a class-based model is also a function of factor mobility in the economy, as illustrated by early research,<sup>25</sup> we should be more likely to observe 1 (import-competition-induced policy diffusion in social protection) and 2 (such diffusion conditioned by labor power, as predicted by a class-based model) when factor mobility is high.

Finally, we expect that our theory holds for developing country contexts only. Unlike “varieties of capitalism” accounts,<sup>26</sup> we assume that the welfare state provides no competitive advantage. Furthermore, our argument predicts positive welfare state interdependence, meaning a race to the *bottom* in developing countries. While we assume workers’ preferences are identical in both LDCs and OECD countries (demand for compensation to trade and welfare benefits), we also assume that capital is different from one region to another. Developing countries compete in low-wage, low-production costs and business sectors do not see a productive benefit from social policy. In this regard, social spending may harm external competitiveness in developing countries, in both import-substituting economies and low-wage producers. Even if the welfare state has positive effects on competitiveness, these effects are dominated by the incentives of price competition. Unlike capital in developed countries, capital in LDCs finds welfare states less attractive because the benefits from the productive features of social policy are less pronounced.<sup>27</sup> Thus, capital and labor have opposite preferences toward social policy in developing countries.<sup>28</sup> In the LDC context, we assume that welfare state retrenchment (not expansion) is, for capital, an alternative to protectionism in response to the harm of import competition. In other words, our theory assumes *capital against welfare* in LDCs.<sup>29</sup> Therefore pooling all developed and developing countries would confound different causal mechanisms regarding social protection interdependence through import competition.<sup>30</sup>

## **Data and Methods**

### *Social Insurance and Progressive Social Spending*

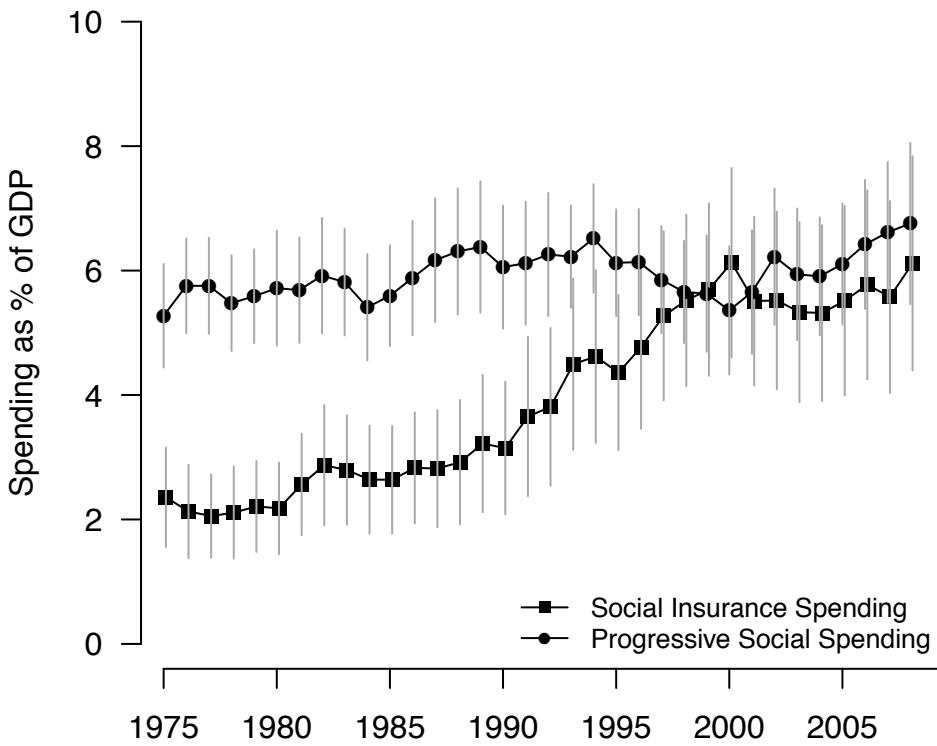
We test the import competition hypothesis in a panel of sixty-seven developing countries between 1977 and 2004. In this paper we focus on two different welfare-state-related dependent variables: *social insurance spending* and *progressive social spending*, both as a percentage of

GDP. Social insurance covers government spending allocated to social security and welfare programs.<sup>31</sup> A common criticism of using expenditure-based measures of the welfare state is that they do not capture questions of policy design that are politically salient and distributionally divisive.<sup>32</sup> For the purposes of our study, however, it is the economic burden of social insurance that may play an important role in import competition. Our results are comparable with previous contributions in the study of economic globalization and social spending in developing countries employing expenditure-based measures as dependent variables.<sup>33</sup> The great bulk of social insurance spending in developing countries comes from contributory-based programs, where workers' benefits are tied to contributions from the part of capital and labor.

Our second dependent variable is what Albertus and Menaldo have called "progressive social spending."<sup>34</sup> The measure aggregates government expenditures on education, health, and housing as a percentage of GDP. In their words,

social spending on education, health, and housing is progressive because it involves (1) the transfer of social resources to alter inequality induced by market outcomes and (2) the attempt to equalize the life chances of poorer individuals via investments in human capital. Increased social spending narrows market inequality by boosting the income and quality of life of the poor majority. Social spending is therefore redistributive in nature.<sup>35</sup>

Figure 1 describes the trends in social insurance and progressive social spending in LDCs. In stark contrast to the OECD, social insurance spending remained at very low levels during the process of trade liberalization between the 1970s and 1980s. Only after the 1990s it is possible to observe an increase in social security spending. Progressive social spending (education, health, and housing) has been relatively stable over the period analyzed, although it experienced important declines during the 1990s.



**Figure 1:** Trends of Social Insurance and Progressive Social Spending in LDCs.

**Note:** Vertical lines depict the 95 percent confidence intervals for the level of *social insurance* and *progressive social spending* in LDCs.

### Measuring Import Competition

In order to measure import competition among countries, we calculate pairwise equivalences between the domestic-oriented manufacturing profile in a given country  $i$  and the imports profile of that country from every other country  $j$  ( $j \neq i$ ). A given country's "domestic production profile" is composed of  $k = 28$  manufacturing sectors. It is to be compared with the country's "imports profile" corresponding to each of the  $n - 1$  import's origin countries, where  $n$  is the total number countries. Thus, connectivity between countries  $j$  and  $i$  is modeled as the similarity between the domestically oriented manufacturing production in country  $i$  and the manufacturing imports coming from country  $j$  to  $i$ . We conceptualize this similarity as the channel of influence of country  $j$  over country  $i$  through import competition: if domestically oriented manufacturing firms of country  $i$  and exporting firms in country  $j$  are competing for the same sectors of the domestic market of country  $i$ , we would see high level of similarity between country  $i$ 's domestic production profile and its import profile from country  $j$ . Policies enacted in country  $j$  may exert an influence over policies in country  $i$  as long as such policy changes might increase the competitiveness of country  $j$ 's export oriented firms in country  $i$ 's domestic market.

Equivalences between import and domestic production profiles are computed using two different types of data assembled in the Nicita and Olarreaga's Trade, Production, and Protection

Database, 1976–2004.<sup>36</sup> The data are disaggregated into twenty-eight manufacturing sectors, corresponding to the three-digit level of the International Standard Industrial Classification (ISIC), Revision 2.<sup>37</sup> The source of domestic production profile is the United Nations Industrial Development Organization (UNIDO). We build countries' domestic production profiles using production data of the Industrial Statistics Database, which, for each of the manufacturing sectors, provides information on variables such as output, value added, and gross fixed capital formation. We use the total output reported in U.S. dollars for each sector. First, we complete and update Nicita and Olarreaga's production data to reduce the amount of missing information with the available UNIDO data. Second, as we only consider the inward-oriented manufacturing output, namely, the industrial production commercialized in the domestic market, we subtract the exported output in each sector from the total production output. The sectoral export data are also available in Nicita and Olarreaga.<sup>38</sup>

Imports profiles result from the bilateral trade data disaggregated in the same twenty-eight manufacturing sectors. Whereas the original data come from the United Nations' COMTRADE database, using the Standard International Trade Classification, Revision 2, Nicita and Olarreaga convert the data into the ISIC Revision 2 classification using a concordance table.<sup>39</sup> This allows us to compare international trade and domestic production sector by sector. The trade data contain exports and imports information and are reported at both aggregate and bilateral levels. Following Feenstra et al., we use mirrored trade data to fill in missing information,<sup>40</sup> completing reported imports with reported exports, provided the former data have been omitted by the importing country.

The *equivalences* between production and import profiles are then calculated by taking the correlation between a country's domestic production profile (across twenty-eight sectors) and its imports profile from each import-competitor country. All pairwise correlations are stacked into a matrix to capture the connectivity between each country and its import-competitor countries within its domestic market. Hence, the correlation capturing the equivalence between domestic production in country  $i$  and imports from country  $j$  in a given year  $t$  has a theoretical range equals  $-1 < \text{imp.comp}_{i,j,t} < 1$ , with 1 representing a perfect equivalence of domestic production of  $i$  and imports from  $j$ . That is,  $i$  produces and sells within its geographical boundaries the same types of products that it imports from  $j$  across the twenty-eight sectors considered. Put simply,  $-1 < \text{imp.comp}_{i,j,t} < 1$  reflects the strength of imports competition coming from country  $j$ . We assume that import-induced competitive pressures come only from countries with a positive structural equivalence score.

Each equivalence (similarity) score, a typical element  $\text{imp.comp}_{i,j,t}$ , is a component of a row-standardized matrix  $\mathbf{W}_t^{\text{imp.comp}}$ . The  $i$ th row of the matrix is the country  $i$ 's vector of standardized equivalence scores  $\text{imp.comp}_{i,j,t} / \sum_{j \neq i}^n \text{imp.comp}_{i,j,t}$ .<sup>41</sup> Then competition in welfare policies should be reflected in country  $i$ 's decisions to change the levels of spending given the changes in the levels of spending in its key import-competitor countries. The expectation is that  $i$ 's levels of spending depend on a weighted average of the spending levels of all  $i$ 's import-competitor countries. We use the standardized equivalences to weight spending in country  $i$ 's competitor countries  $(\text{imp.comp}_{i,j,t} / \sum_{j \neq i}^n \text{imp.comp}_{i,j,t}) \times y_{j,t}$ . Hence, the vector resulting from the product  $\mathbf{W}_t^{\text{imp.comp}} \times \mathbf{y}_t$  contains all the weighted averages for every  $i$ 's import-competitor country's spending in a given year. This vector is equivalent to a spatial lag variable and is not defined by geographical distance as in a typical spatial model. Instead, we model connectivity

between countries by considering the similarities between what a country produces and what that country imports from another specific country. Hence, connectivity between countries is a theoretically defined continuous measure of *import competition* taking place in domestic—not international—markets for country  $i$ .<sup>42</sup>

To account for the different forms of policy diffusion due to trade competition (export and import competition), we also include a spatial lag of export competition in our estimations. Following Cao and Prakash<sup>43</sup> and Ward and Cao,<sup>44</sup> we calculate export competition using pairwise structural equivalences of countries' export profiles. Again, the *structural equivalence* is calculated by taking the correlation between two countries' exports profiles (at both bilateral and sector levels).<sup>45</sup> To see the difference between import and export competing countries, we use the example of Mexico. Note that the top ten import-competitor countries for Mexico in 1996 are Argentina, Poland, Lithuania, New Zealand, Greece, Guatemala, Uruguay, Australia, Iceland, and Costa Rica. Equivalence scores between domestic production in Mexico and imports from these countries range between 0.45 and 0.67. The top ten of Mexico's export competitor countries for the same year are Canada, Japan, Philippines, Singapore, Republic of Korea, Taiwan, Malaysia, Israel, Thailand, and the United Kingdom.<sup>46</sup> Equivalences in export profiles between Mexico and its top export competitors range between 0.50 and 0.95.<sup>47</sup>

### *Labor Power and Factors Mobility*

Using a political mobilization argument—consisting of evaluating the implications of the Hecksher-Olin model for the power resources theory of the welfare state<sup>48</sup>—Rudra emphasizes the low bargaining power of labor to demand welfare efforts against the pressures of globalization.<sup>49</sup> In her account, globalization increases the demand for low-skilled and informal workers in labor-abundant countries, and labor's collective power declines because these groups are difficult to organize. This result would explain why Rogowski's factorial model of politics cannot be simply applied to LDCs, since openness operates by reducing the power of labor vis-à-vis that of capital.<sup>50</sup> Because unionization rates data are not available for most LDCs, we assess the impact of using Rudra's "potential labor power" (PLP) variable. Rudra's labor power index is calculated as the ratio between the number of skilled and nonskilled workers in the industrial sector, weighted by the size of the surplus labor force.<sup>51</sup> In particular, we are interested in the mediating effects of labor power. Our expectation is that with increasing difficulty to apply protectionist policies, a class-based model better captures cleavages when domestic actors respond to import competition. Capital in general prefers welfare retrenchment while labor opposes it. Policy diffusion in social welfare policies through the import competition mechanism is likely to be observed when labor is weak.<sup>52</sup>

We have posited that if a sectoral model of trade applies, welfare retrenchment due to enhanced import competition is not an option for protecting import-competing actors because it divides interests between capital and labor within the same sector. Whether factors are specific to sectors is ultimately an empirical question. In other words, medium and high levels of industrial factor mobility are a necessary condition for our theory to apply. Following previous literature,<sup>53</sup> we use a measure of interindustry labor mobility calculated by the coefficient of variation of wages across industries. Measures of interindustry labor mobility were offered by Zhou using data on industrial wages and employment from the United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database at the three-digit industry level of ISIC

code (Revision 2).<sup>54</sup> Although the data cover only manufacturing workers and wages classified in twenty-nine sectors, it is precisely the horizontal mobility options for manufacturing workers in the import-competing sector that matter for our argument. We first control for the reallocation costs of industrial workers and show that, on average, our argument is supported by the data in the entire sample. When then further investigate whether this assumption of the theory is in fact needed and find that interindustry mobility makes a big difference for social insurance spending.

### *Control Variables*

Trade exposure alters the relative political power of the different factors (or sectors) in the economy. Kaufman and Segura-Ubiergo argue that the power of business sectors exposed to international competition prevails in curbing social insurance spending in Latin America.<sup>55</sup> Wibbels claims that efficiency concerns in tradable sectors exert powerful downward pressures in social security and welfare spending.<sup>56</sup> Openness may be an undefined way of looking at economic globalization pressures as it confounds many different mechanisms. In our view, preferences of business for welfare cuts may crucially depend on the specific challenges that imports competition present to domestic firms. Nonetheless, the negative effects of trade exposure on welfare states in developing countries have been extensively documented. We therefore include trade openness ([imports + exports]/GDP) as a control variable in our estimations.<sup>57</sup>

A number of different contributions focus on the association between social policy regimes and different postwar development strategies.<sup>58</sup> In this respect, the distinction between import-substitution industrialization (ISI) and export-led growth seems to have a major effect on spending regimes.<sup>59</sup> To account for this variation, we control for an ISI variable used by Wibbels and Ahlquist measured as the total manufacturing output not exported.<sup>60</sup> ISI should be highly correlated with the size of the inward-oriented manufacturing sector. This is precisely the economic sector through which we model import competition interdependence between countries.<sup>61</sup>

We also control for autocracy-democracy levels using the “polity2” variable from the Polity IV database.<sup>62</sup> This accounts for the relationship between democratization and the provision of public goods and services such as health, education, and social insurance.<sup>63</sup> Demographics are considered by including the dependency ratio, the total population size (log), and urbanization.<sup>64</sup> The log of the GDP per capita controls for the Wagner’s law, which holds that the size of government increases with the size of the economy. Finally, as our dependent variables are either spending categories or the structure of government revenue, total government spending levels are also considered.<sup>65</sup>

### *Estimation Strategy and Empirical Results*

Modeling interdependence requires an explicit specification of the diffusion of social policy channeled by imports competition. In a spatial lag model the dependent variable of one unit is affected by the values taken by dependent variable in other units. Given the presence of strong autoregressive processes in government spending categories we also include the temporal lag dependent variable in the right hand side of the equation. As a result, we estimate a number of spatiotemporal autoregressive models,

$$y_t = \varphi y_{t-1} + \rho_{\text{imp.comp.}} W_{t-1}^{\text{imp.comp.}} y_{t-1} + \rho_{\text{exp.comp.}} W_{t-1}^{\text{exp.comp.}} y_{t-1} + X_{t-1}\beta + T_t + C_i + \epsilon_t \quad (1)$$

where  $y$  is an  $NT \times 1$  vector of observations ( $N$  units,  $T$  time period per unit),  $\varphi$  captures the effect of the temporally lagged dependent variable  $y_{t-1}$ , and the  $\rho_{\text{imp.comp.}}$  and  $\rho_{\text{exp.comp.}}$  are estimates of the amount of strategic interdependence measured by the temporally lagged spatial lag variables  $W_{t-1}^{\text{imp.comp.}} y_{t-1}$  and  $W_{t-1}^{\text{exp.comp.}} y_{t-1}$ , respectively. Each  $W$  is a matrix of dimensions  $NT \times NT$  with  $T N \times N$  submatrices along the block diagonal, and elements  $w_{i,j}$  capturing the influence from unit  $j$  to  $i$  at time  $t$ . In other words,  $\rho_{\text{imp.comp.}}$  and  $\rho_{\text{exp.comp.}}$  estimate the domestic government reaction in spending due to a change in spending in import and export competitor countries. We temporally lag the spatial lags by one year, which helps mitigate simultaneity bias in spatial models, and is a feasible solution that allows estimation of parameters simply by least squares, provided that the disturbances are not serially correlated.<sup>66</sup> Then  $X_{t-1}$  is a battery of one-year lagged independent variables, and  $T_t$  and  $C_i$  are controls for contemporaneous and country specific effects, respectively.

We first analyze import competition interdependence with respect to social insurance spending. Table 3 reports both standard regression coefficients and the long-run multipliers (LRM).<sup>67</sup> Empirical results support our argument: the weighted average of social insurance in import-competitor countries seems to exert a powerful effect. The estimated coefficients for the spatial lag  $W_{t-1}^{\text{imp.comp.}} y_{t-1}$  in Table 3 are all positive, highly significant, and robust to the exclusion and inclusion of control variables.<sup>68</sup> Models 1–3 in Table 3 suggest a sizable diffusion effect due to import competition, whereas export competition has no effect on social insurance. A one-point GDP change in social insurance spending among relevant competitors with the internally oriented manufacturing sector is followed by between 0.2 and 0.4 points of GDP change of the same sign in domestic social insurance spending if we look at the long term effects (LRM). An economically relevant amount of resources is thus induced by policy interdependence due to import competition. Furthermore, notice that the diffusion effect due to import competition is not affected by the inclusion of trade openness.<sup>69</sup> We confirm once again that total trade exposure negatively affects social security and welfare spending in developing countries. At the same time, our diffusion variable captures a different impact of international trade on social insurance: governments seem to react strategically to the spending patterns of competing countries in their own domestic market, even when they also cut social security and welfare spending as openness mounts.

**Table 3.** Imports Competition and Social Insurance in LDCs.

	Model 1	LRM	Model 2	LRM	Model 3	LRM
LDV	0.754 (0.024)***		0.749 (0.024)***		0.778 (0.027)***	
Spatial lag $W_{t-1}^{imp.comp} y_{t-1}$	0.062 (0.024)***	0.254 (0.100)**	0.060 (0.024)**	0.239 (0.098)**	0.094 (0.029)***	0.426 (0.139)***
Spatial lag $W_{t-1}^{exp.comp} y_{t-1}$	0.037 (0.055)	0.150 (0.222)	0.053 (0.056)	0.212 (0.220)	0.033 (0.068)	0.149 (0.308)
Openness $t_{-1}$			-0.003 (0.002)	-0.012 (0.008)	-0.007 (0.003)***	-0.031 (0.011)***
Potential labor power $t_{-1}$					-0.070 (0.235)	-0.315 (1.063)
Polity score $t_{-1}$					-0.007 (0.010)	-0.032 (0.043)
ISI $t_{-1}$					-0.006 (0.006)	-0.026 (0.026)
Wage covariance $t_{-1}$					0.073 (0.119)	0.331 (0.542)
Dependency ratio $t_{-1}$					0.001 (0.008)	0.004 (0.037)
Urbanization $t_{-1}$					0.025 (0.014)*	0.111 (0.065)*
Population (log) $t_{-1}$					-0.591 (0.645)	-2.668 (2.868)
Real GDP per capita (log) $t_{-1}$	-0.047 (0.173)	-0.191 (0.701)	-0.030 (0.173)	-0.118 (0.687)	-0.086 (0.248)	-0.387 (1.110)
Spending $t_{-1}$	0.006 (0.006)	0.025 (0.025)	0.007 (0.006)	0.028 (0.024)	0.004 (0.007)	0.017 (0.031)
Adj. R squared	0.538		0.538		0.573	
Number of observations	1016		1016		739	
Number of countries	69		69		58	
Country dummies	Yes		Yes		Yes	
Year dummies	Yes		Yes		Yes	

**Note:** LRM (long-run multipliers) calculated from the Bewley transformation of error-correction model. Countries: Algeria, Argentina, Azerbaijan, Bangladesh, Benin, Bolivia, Brazil, Bulgaria, Cameroon, Chile, China, Colombia, Costa Rica, Cote d'Ivoire, Cyprus, Czech Republic, Ecuador, Egypt, El Salvador, Ethiopia, Ghana, Guatemala, Hungary, India, Indonesia, Iran, Israel, Jordan, Kenya, Republic of Korea, Kuwait, Latvia,

Lithuania, Macao, Malawi, Malaysia, Malta, Mauritius, Mexico, Moldova, Mongolia, Morocco, Myanmar, Nepal, Nigeria, Oman, Pakistan, Panama, Peru, Philippines, Poland, Romania, Russian Federation, Senegal, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Uruguay, and Venezuela.

Standard errors in parenthesis.

\*\*\*p<0.01, \*\* p<0.05, \*p<0.1.

We now turn to an analysis of social spending that encompasses health, education, and housing benefits. These are human-capital-related policies; hence the social spending variable captures the most progressive welfare state programs in developing countries. Empirical results are presented in Table 4. The estimated long-run effects of interdependence due to import competition are again positive and highly significant, but stronger than in the case of social insurance. As the relevant competing countries in the internal market retrench social spending by one point of GDP, the domestic government is also expected to do so by an amount between 0.8 and 1.0 points of GDP in the long run. Such effects indicate that human-capital-related programs, like those included in the social spending variable, are even more vulnerable to social policy interdependence due to import competition than social insurance spending. Furthermore, while trade openness seems less harmful for social spending, as it does not reach significance in any of the three models in Table 4, the diffusion effects due to import competition are clearly magnified.<sup>70</sup> On the other hand, policy interdependence due to export competition exerts no effect on social spending, as the estimated coefficients are insignificant and close to zero (with negative and positive sign depending on controls and sample size).

**Table 4:** Import Competition and Progressive Spending (Health, Housing, and Education) in LDCs.

	Model 1	LRM	Model 2	LRM	Model 3	LRM
LDV	0.831 (0.024)***		0.825 (0.024)***		0.804 (0.029)***	
Spatial lag $W_{t-1}^{imp,comp} y_{t-1}$	0.169 (0.052)***	1.005 (0.337)***	0.163 (0.052)***	0.934 (0.324)***	0.162 (0.064)**	0.829 (0.354)**
Spatial lag $W_{t-1}^{exp,comp} y_{t-1}$	-0.090 (0.136)	-0.533 (0.821)	-0.068 (0.137)	-0.389 (0.793)	0.017 (0.167)	0.088 (0.849)
Openness $t_{-1}$			-0.004 (0.003)	-0.025 (0.017)	-0.004 (0.004)	-0.022 (0.019)
Potential labor power $t_{-1}$					-0.163 (0.330)	-0.832 (1.690)
Polity score $t_{-1}$					0.011 (0.016)	0.056 (0.079)
ISI $t_{-1}$					0.011 (0.008)	0.054 (0.044)
Wage covariance $t_{-1}$					-0.036 (0.174)	-0.182 (0.890)
Dependency ratio $t_{-1}$					0.011 (0.012)	0.055 (0.060)
Urbanization $t_{-1}$					-0.014 (0.021)	-0.070 (0.108)
Population (log) $t_{-1}$					0.225 (0.974)	1.148 (4.966)
Real GDP per capita (log) $t_{-1}$	0.213 (0.240)	1.266 (1.457)	0.230 (0.240)	1.318 (1.406)	0.057 (0.365)	0.289 (1.872)
Spending $t_{-1}$	-0.019 (0.008)**	-0.112 (0.054)**	-0.018 (0.008)**	-0.100 (0.051)*	-0.011 (0.010)	-0.055 (0.052)
Adj. R squared	0.561		0.561		0.533	
Number of observations	895		895		678	
Number of countries	61		61		55	
Country dummies	Yes		Yes		Yes	
Year dummies	Yes		Yes		Yes	

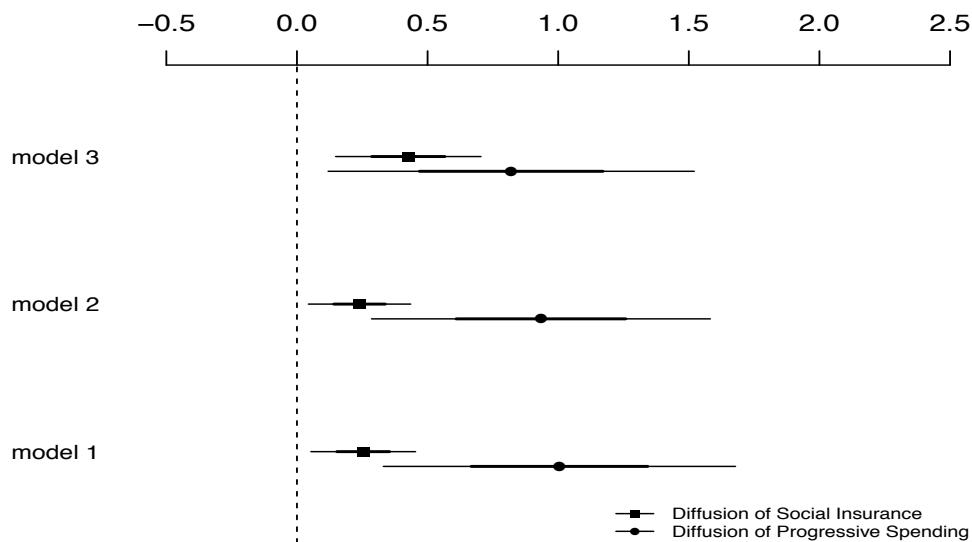
**Note:** LRM (long-run multipliers) calculated from the Bewley transformation of error-correction model. Countries: Algeria, Argentina, Bangladesh, Benin, Bolivia, Brazil, Bulgaria, Cameroon, Chile, China, Colombia, Costa Rica, Cyprus, Czech Republic, Egypt, El Salvador, Ethiopia, Ghana, Guatemala, Hungary, India, Indonesia, Iran, Israel, Jordan, Kenya, Republic of Korea, Kuwait, Kyrgyzstan, Latvia, Lithuania,

Malawi, Malaysia, Mauritius, Mexico, Moldova, Mongolia, Morocco, Myanmar, Nepal, Nigeria, Oman, Pakistan, Panama, Philippines, Poland, Romania, Russia, Senegal, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Uruguay, and Venezuela.

Standard errors in parenthesis.

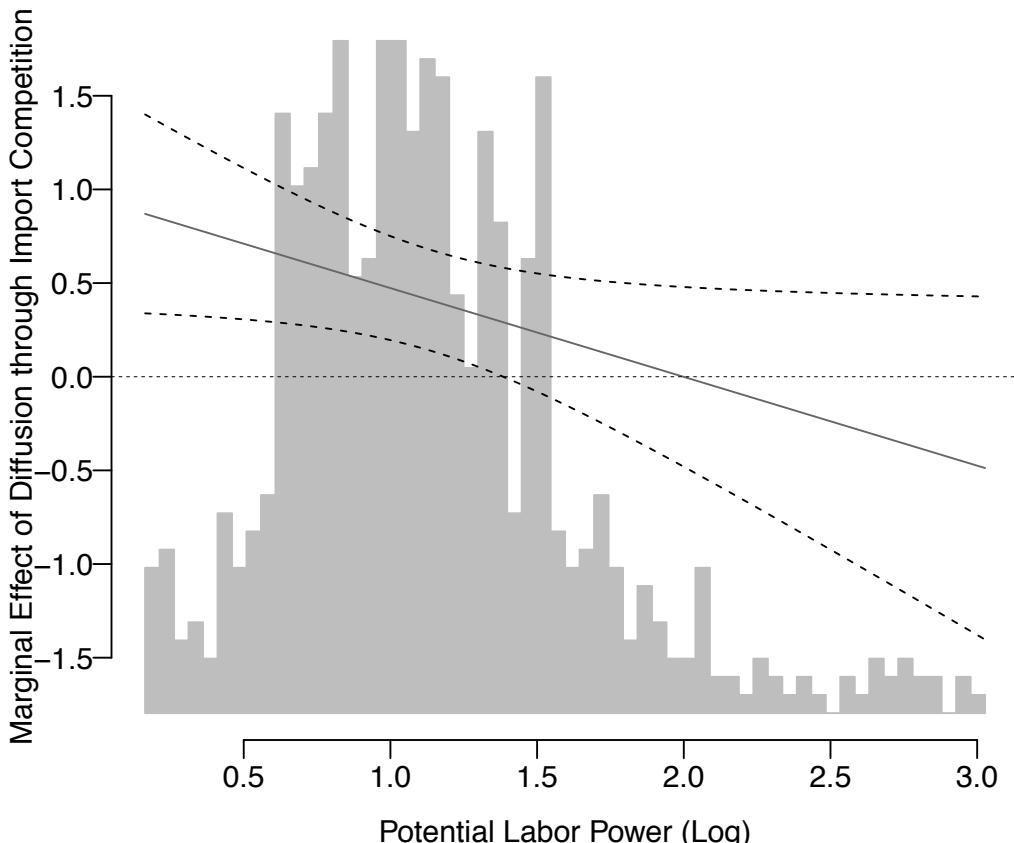
\*\*\*p<0.01, \*\* p<0.05, \*p<0.1.

Comparative long-run multipliers for the two dependent variables considered are plotted in Figure 2. The plot shows the estimated long-run effects and 95 percent confidence intervals of policy diffusion due to import competition for social insurance and progressive social spending. References to Models 1–3 refer to different sets of control variables shown in each table. First, the largest diffusion effects due to import competition correspond to what we refer to as progressive social spending (health, education, and housing). We also find robust and significant import competition effects in social insurance spending.



**Figure 2.** Diffusion Effects in Social Insurance and Progressive Social Spending.

**Note:** Dots and lines depict LRM and 95 percent confidence intervals for import competition interdependence in *social insurance spending* (models from Table 3) and *progressive social spending* (models from Table 4).



**Figure 3.** Marginal Long-Run Effects of Diffusion through Import Competition on Social Insurance Conditional on Potential Labor Power (Logged).

Finally, we analyze how domestic conditions affect policy interdependence induced by import competition. Specifically, we analyze the ability of labor to protect welfare programs in developing countries. In Table 5 we interact our spatial lag variable with “potential labor power.” The negative and significant sign in the interaction term in the model of social insurance indicates that as labor power increases the effect of imports competition decreases. The estimated marginal effects and associated uncertainty are plotted across the values of the PLP variable in Figure 3. We have conducted the same test for the progressive social spending (see Table 5).

**Table 5.** Conditional Imports Competition and Policy Interdependence in LDCs.

	Social Insurance	LRM	Progressive Spending	LRM
LDV	0.777 (0.027)***		0.805 (0.029)***	
Spatial lag $W_{t-1}^{imp.comp} y_{t-1}$	0.211 (0.064)***	0.947 (0.305)***	0.062 (0.125)	0.316 (0.642)
Spatial lag $W_{t-1}^{exp.comp} y_{t-1}$	0.040 (0.068)	0.179 (0.305)	0.026 (0.167)	0.132 (0.850)
Potential labor power (log) <sub>t-1</sub>	0.647 (0.423)	2.907 (1.915)	-0.584 (0.563)	-2.986 (2.937)
Spatial lag $W_{t-1}^{imp.comp} y_{t-1} * PLP$	-0.106 (0.052)**	-0.474 (0.238)**	0.096 (0.103)	0.492 (0.535)
Openness <sub>t-1</sub>	-0.007 (0.003)***	-0.032 (0.011)***	-0.005 (0.004)	-0.023 (0.019)
Polity score <sub>t-1</sub>	-0.008 (0.010)	-0.037 (0.043)	0.012 (0.016)	0.060 (0.079)
ISI <sub>t-1</sub>	-0.005 (0.006)	-0.025 (0.026)	0.010 (0.008)	0.050 (0.044)
Wage covariance <sub>t-1</sub>	0.001 (0.002)	0.004 (0.007)	-0.001 (0.002)	-0.006 (0.013)
Dependency ratio <sub>t-1</sub>	0.000 (0.008)	0.000 (0.036)	0.011 (0.012)	0.057 (0.061)
Urbanization <sub>t-1</sub>	0.027 (0.014)*	0.120 (0.065)*	-0.012 (0.021)	-0.063 (0.108)
Population (log) <sub>t-1</sub>	-0.543 (0.638)	-2.440 (2.822)	0.090 (0.963)	0.458 (4.926)
Real GDP per capita (log) <sub>t-1</sub>	0.005 (0.249)	0.023 (1.117)	0.003 (0.361)	0.014 (1.846)
Spending <sub>t-1</sub>	0.003 (0.007)	0.014 (0.031)	-0.012 (0.010)	-0.059 (0.053)
Adj. R squared	0.574		0.532	
Number of observations	739		678	
Number of countries	58		55	
Country dummies	Yes		Yes	
Year dummies	Yes		Yes	

**Note:** LRM (long-run multipliers) calculated from the Bewley transformation of error-correction model.

Countries: Algeria, Argentina, Azerbaijan, Bangladesh, Bolivia, Brazil, Bulgaria, Cameroon, Chile, Colombia, Costa Rica, Cote d'Ivoire, Cyprus, Czech Republic, Ecuador, Egypt, El Salvador, Ethiopia, Ghana, Guatemala, Hungary, India, Indonesia, Iran, Israel, Jordan, Kenya, Korea, Kuwait, Latvia, Lithuania, Malawi, Malaysia, Mauritius, Mexico, Morocco, Nigeria, Oman, Pakistan, Panama, Peru, Philippines, Poland, Romania, Russian Federation, Senegal, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Uruguay, and Venezuela.

Standard errors in parenthesis.

\*\*\*p<0.01, \*\* p<0.05, \*p<0.1.

Our findings suggest that labor power weakens the import competition mechanism only with respect to social insurance. In the case of progressive social spending, the interaction is slightly positive and statistically insignificant. Hence, as workers become more able to organize and overcome collective action problems, diffusion through imports competition tends to disappear in the case of social insurance. This mediating effect of potential labor power holds for contributory social policies, namely, social security and welfare benefits. Since we analyze policy interdependence due to domestic business interests in the manufacturing sector, this conditional finding is consistent with the fact that industrial labor is the key constituency of social insurance spending in the developing world.<sup>71</sup>

A last but important point is further analysis of our argument under different levels of interindustry labor mobility. A harder test of the argument requires evaluating the interplay between import competition interdependence and labor power across different contexts of factor mobility. We have argued that if labor mobility is low and therefore a sectoral model better describes the alignment of interests, no diffusion takes place. If labor mobility is medium or high, we should observe diffusion effects that decrease with the levels of potential labor power. Here we report results only for the social insurance variable, as this is the case where policy interdependence depends on labor power. Results are displayed in Table 6 and plotted in Figure 4. First, the triple interaction is highly significant across different control variables. To better interpret these results, we run a simple simulation of the long run predicted levels of social spending across the values of insurance spending in import-competing countries, the values of potential labor power, and two hypothetical levels of labor mobility (percentiles 10 and 90 in wage covariance). All other control variables are held at their sample means, including country and year fixed effects.

**Table 6.** Imports Competition and Social Insurance in LDCs Conditioned by PLP and Interindustry Labor Mobility.

	Model 1	LRM	Model 2	LRM	Model 3	LRM
LDV	0.772 (0.025)***		0.771 (0.026)***		0.774 (0.027)***	
Spatial lag $W_{t-1}^{imp,comp} y_{t-1}$	1.008 (0.427)**	4.427 (1.905)**	1.413 (0.458)***	6.177 (2.051)***	1.415 (0.619)**	6.261 (2.731)**
Potential labor power (log) $t_{-1}$	5.767 (2.705)**	25.330 (12.045)**	7.873 (2.830)***	34.428 (12.573)***	7.458 (3.516)**	33.003 (15.473)**
Wage covariance (log) $t_{-1}$	1.678 (0.780)**	7.368 (3.487)**	2.262 (0.818)***	9.891 (3.662)***	2.084 (1.061)**	9.224 (4.684)**
Wage Covariance * PLP	-1.466 (0.703)**	-6.439 (3.132)**	-1.980 (0.734)***	-8.660 (3.261)***	-1.845 (0.927)**	-8.165 (4.076)**
Spatial lag $W_{t-1}^{imp,comp} y_{t-1} * PLP$	-0.843 (0.387)**	-3.704 (1.718)**	-1.203 (0.410)***	-5.261 (1.824)***	-1.181 (0.532)**	-5.224 (2.340)**
Spatial lag $W_{t-1}^{imp,comp} y_{t-1} * \text{Wage Cov.}$	-0.255 (0.112)**	-1.118 (0.500)**	-0.356 (0.120)***	-1.556 (0.535)***	-0.341 (0.165)**	-1.508 (0.728)**
Spatial lag $W_{t-1}^{imp,comp} y_{t-1} * PLP * \text{Wage Cov.}$	0.225 (0.103)**	0.990 (0.457)**	0.313 (0.109)***	1.370 (0.483)***	0.299 (0.143)**	1.323 (0.630)**
Spatial lag $W_{t-1}^{exp,comp} y_{t-1}$			-0.009 (0.062)	-0.039 (0.271)	0.015 (0.067)	0.066 (0.298)
Openness $t_{-1}$			-0.005 (0.002)**	-0.024 (0.009)***	-0.007 (0.002)***	-0.032 (0.011)***
Polity score $t_{-1}$			-0.001 (0.009)	-0.006 (0.038)	-0.007 (0.009)	-0.033 (0.041)
ISI $t_{-1}$			-0.006 (0.007)	-0.025 (0.030)	0.001 (0.008)	0.005 (0.034)
Urbanization $t_{-1}$			0.024 (0.013)*	0.107 (0.055)*	0.034 (0.014)**	0.149 (0.061)**
Population (log) $t_{-1}$			-0.532 (0.549)	-2.324 (2.375)	-0.901 (0.620)	-3.987 (2.693)
Dependency ratio $t_{-1}$					-0.003 (0.006)	-0.012 (0.025)
Real GDP per capita (log) $t_{-1}$	-0.159 (0.194)	-0.696 (0.841)	0.006 (0.219)	0.025 (0.958)	-0.083 (0.240)	-0.368 (1.054)
Spending $t_{-1}$	0.008 (0.006)	0.034 (0.026)	0.006 (0.006)	0.028 (0.027)	0.004 (0.007)	0.017 (0.029)

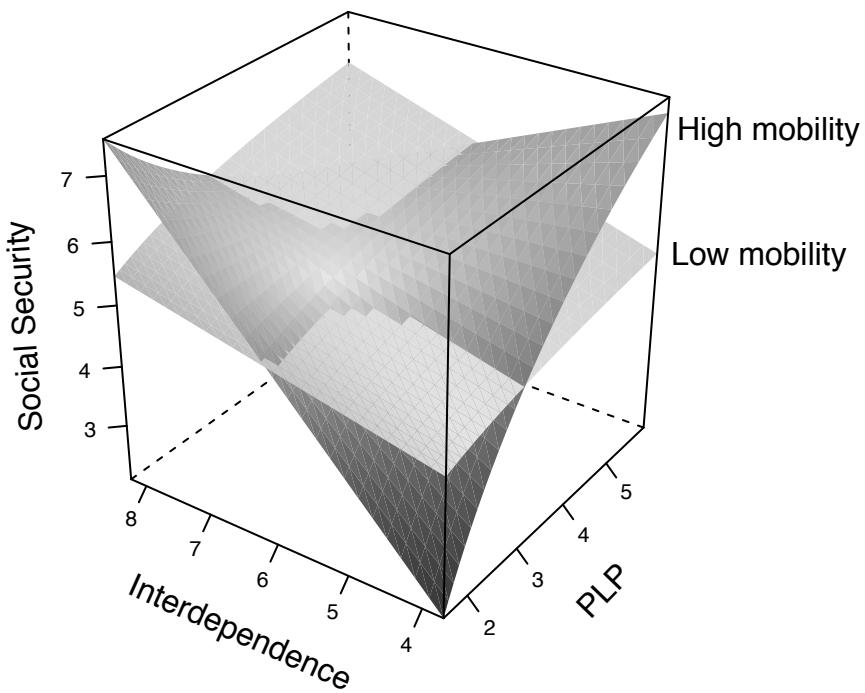
Adj. R squared	0.571	0.572	0.576
Number of observations	861	841	768
Number of countries	62	61	58
Country dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes

**Note:** LRM (long-run multipliers) calculated from the Bewley transformation of error-correction model. Countries: Algeria, Argentina, Bangladesh, Benin, Bolivia, Brazil, Bulgaria, Cameroon, Chile, China, Colombia, Costa Rica, Cyprus, Czech Republic, Egypt, El Salvador, Ethiopia, Ghana, Guatemala, Hungary, India, Indonesia, Iran, Israel, Jordan, Kenya, Republic of Korea, Kuwait, Kyrgyzstan, Latvia, Lithuania, Malawi, Malaysia, Mauritius, Mexico, Moldova, Mongolia, Morocco, Myanmar, Nepal, Nigeria, Oman, Pakistan, Panama, Philippines, Poland, Romania, Russia, Senegal, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Uruguay, and Venezuela.

Standard errors in parenthesis.

\*\*\*p<0.01, \*\* p<0.05, \*p<0.1.

The simulation based on Model 3 in Table 6 suggests a number of important results. First, when labor mobility is low—as captured by large interindustry wage differentials—social insurance spending changes very little because of diffusion and labor power. This can be seen in the flat surface from Figure 4. However, when mobility is high, social insurance seems to depend heavily on import competitors' insurance spending and the domestic mobilization capacity of labor. Note that when domestic labor power is at its minimum, social insurance spending decreases dramatically when import-competing countries retrench the welfare states (“interdependence” axis in Figure 4). This strong negative effect becomes reduced as we move upward across the levels of PLP.



**Figure 4.** Simulated Long-Run Levels of Social Insurance Spending Conditional on Import Competition Interdependence, Potential Labor Power, and Interindustry Wage Variation.

For instance, enhanced import competition may be more costly for labor in the import-competing sector under low factor mobility because the market provides fewer reallocation opportunities. In this scenario, low labor mobility may work as a substitute of PLP because workers in the import-competing sector may organize themselves and protect social insurance. High interindustry mobility signals more exit options for displaced workers due to import competition. Unless labor power is high, import competition may undermine social insurance because displaced workers, first, can move to another sector and, second, are collectively unable to stop capital from retrenching the welfare state.

## **Conclusion and Discussion**

In this paper, we focus on policy diffusion induced by competition for domestic market shares. For many developing countries, domestic industries compete fiercely for domestic market shares with imports from other countries in the world. Such import competition creates policy interdependence, and we argue that such policy interdependence might be observed in policy areas that directly affect production costs of domestic industries, such as social insurance and social welfare spending. We test our theory in two broad types of policies: social insurance spending and progressive social spending (health, education, and housing). We find strong evidence for import-competition-induced policy interdependence in both policy areas. Moreover, in the case of social insurance, we find that the effect of policy interdependence is mediated by the strength of labor: the effect of policy independence disappears when labor power is high enough. We argue that this because stronger labor is more capable of blocking welfare retrenchment policies.

As far as we know, this is the first study to look at the effects of import competition from a policy diffusion perspective. Our empirical analysis lends strong support to the existence of such policy interdependence in social spending in a developing country context. Moreover, we have provided a theory on the underlying causal mechanism that accounts for such policy interdependence, especially regarding the preferences of actors and how the political game is played out. Facing import competition, other policy choices such as increasing tariffs and nontariff barriers often directly serve the interests of both labor and capital in domestic oriented firms and industries. If such policies are viable and sufficient to address the issue of import competition, we would not observe policy interdependence in social welfare policies. The fact that we find strong empirical evidence for policy interdependence in social insurance and progressive social spending supports our early suspicion that with increasing level of global economic integration, trade protectionist policies have become less viable policy instruments to deal with import competition.

What we find in this paper seems to suggest that welfare retrenchment has become an important policy instrument. However, welfare retrenchment is also a dividing issue between labor and capital, with the former strongly opposing any attempt to reduce welfare benefits. We therefore further theorized and tested the conditional effects of labor power. The analysis revealed that the effect of import-competition-induced policy interdependence is stronger in countries with weak labor power in the case of social insurance; we found no such conditional effect in progressive social spending. Future research could yield a better understanding of how domestic conditions of policy interdependence are triggered by import competition. Why, for instance, does potential labor power mediate policy responses in social insurance but not in progressive social spending? One potential explanation might be that social insurance much more directly affects workers' life while social spending, basically in education, health, and housing, benefits a much larger segment of the society. Finally, we have limited our empirical analysis to social insurance and social spending. The logic of import competition, however, could be also applied to other policy areas, such as various taxation schemes and even active labor market programs. We believe that there is much more to be done in the emerging political economy literature of policy diffusion and the welfare state in the context of developing countries. We hope this study adds to this line of research and stimulates further examination.

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There is no conflict in interests.

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## Notes

<sup>1</sup> David Dolowitz and David Marsh, “Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making,” *Governance* 13, no. 1 (2000): 5–24; David Levi-Faur, “The Global Diffusion of Regulatory Capitalism,” *Annals of the American Academy of Political and Social Science* 598, no. 1 (2005): 12–32; Covadonga Meseguer, “What Role for Learning? The Diffusion of Privatization in OECD and Latin American Countries,” *Journal of Public Policy* 24, no. 3 (2004): 299–325; Covadonga Meseguer, “Policy Learning, Policy Diffusion, and the Making of a New Order,” *Annals of the American Academy of Political and Social Science* 598, no. 1 (2005): 67–82; Katharina Holzinger and Christoph Knill, “Causes and Conditions of Cross-National Policy Convergence,” *Journal of European Public Policy* 12, no. 5 (2005): 775–96.

<sup>2</sup> Zachary Elkins and Beth Simmons, “On Waves, Clusters, and Diffusion: A Conceptual Framework,” *Annals of the American Academy of Political and Social Science* 598, no. 1 (2005): 33–51.

<sup>3</sup> Beth Simmons, Frank Dobbin, and Geoffrey Garrett, “Introduction: The International Diffusion of Liberalism,” *International Organization* 60, no. 4 (2006): 781–810.

<sup>4</sup> Robert Franzese and Jude Hays, “Interdependence in Comparative Politics: Sub-stance, Theory, Empirics, Substance,” *Comparative Political Studies* 41, no. 4/5 (2008): 742–80.

<sup>5</sup> Nita Rudra, “Globalization and the Decline of the Welfare State in Less-Developed Countries,” *International Organization* 56, no. 2 (2002): 411–45; Erik Wibbels, “Dependency Revisited: International Markets, Business Cycles, and Social Spending in the Developing World,” *International Organization* 60, no. 2 (2006): 433–68; Robert Kaufman and Alex Segura-Ubiergo, “Globalization, Domestic Politics, and Social Spending in Latin America: A Time-Series Cross-Section Analysis, 1973–97,” *World Politics* 53, no. 4 (2001): 553–87; Alicia Adserà and Carles Boix, “Trade, Democracy, and the Size of the Public Sector: The Political Underpinnings of Openness,” *International Organization* 56, no. 2 (2002): 229–62.

<sup>6</sup> Victoria Murillo and Andrew Schrank, “With a Little Help from My Friends: Partisan Politics, Transnational Alliances, and Labor Rights in Latin America,” *Comparative Political Studies* 38, no. 8 (2005): 971–99; Kurt Weyland, “Theories of Policy Diffusion: Lessons from Latin American Pension Reform,” *World Politics* 57, no. 2 (2005): 262–95; Layna Mosley and Saika Uno, “Racing to the Bottom or Climbing to the Top? Economic Globalization and Collective

Labor Rights," *Comparative Political Studies* 40, no. 8 (2007): 923–48.

<sup>7</sup> Hanna Lierse, Herbert Obinger, Carina Schmitt, and Laura Seelkopf, "The Global Emergence of the Welfare State: Explaining Social Policy Legislation 1820–2013" (paper presented at the workshop "Welfare State Diffusion around the World: Shapes and Challenges in the 21st Century," Bremen, Germany, July–August 2014).

<sup>8</sup> Sarah Brooks, "Interdependent and Domestic Foundations of Policy Change: The Diffusion of Pension Privatization around the World," *International Studies Quarterly* 49, no. 2 (2005): 273–94; Sarah Brooks, "When Does Diffusion Matter? Explaining the Spread of Structural Pension Reforms across Nations," *Journal of Politics* 69, no. 3 (2007): 701–15.

<sup>9</sup> Sarah Brooks, "Social Protection for the Poorest: The Adoption of Antipoverty Cash Transfer Programs in the Global South" (paper presented at the workshop "Welfare State Diffusion around the World: Shapes and Challenges in the 21st Century," Bremen, Germany, July–August 2014).

<sup>10</sup> Thomas Friedman, *The Lexus and the Olive Tree* (New York: Anchor Books, 2000).

<sup>11</sup> David Cameron, "The Expansion of the Public Economy," *American Political Science Review* 72, no. 4 (1978): 1243–61; Geoffrey Garrett and Deborah Mitchell, "Globalization and the Welfare State," *European Journal of Political Research* 39, no. 2 (2001): 145–77; Brian Burgoon, "Globalization and Welfare Compensation: Disentangling the Ties that Bind," *International Organization* 55, no. 3 (2001): 509–51; Layna Mosley, "Room to Move: International Financial Markets and National Welfare States," *International Organization* 54, no. 4 (2000): 737–73; Erik Wibbels and Moisés Arce, "Globalization, Taxation, and Burden-Shifting in Latin America," *International Organization* 57, no. 4 (2003): 111–36; Scott Basinger and Mark Hallerberg, "Remodeling the Competition for Capital: How Domestic Politics Erase the Race to the Bottom," *American Political Science Review* 98, no. 2 (2004): 361–76.

<sup>12</sup> "Asia: On the Sidelines; South Asia Textiles," *Economist* 375, no. 8429 (2005): 67.

<sup>13</sup> Paul DiMaggio and Walter Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields," *American Sociological Review* 48, no. 2 (1983): 147–60; Ronald Burt, "Social Contagion and Innovation: Cohesion versus Structural Equivalence," *American Journal of Sociology* 92, no. 6 (1987): 1287–1335.

<sup>14</sup> Simmons, Dobbin, and Garrett, "The International Diffusion of Liberalism."

<sup>15</sup> Simmons and Elkins, "The Globalization of Liberalization."

<sup>16</sup> In theory, facing competition, reducing production costs (e.g., by reducing social spending) is not the only option. For countries competing in labor-intensive product markets, upgrading is another option; for countries competing in high-end production, further investments in research and development might also be an alternative to a "race to the bottom." However, for developing countries, moving up the production chain is difficult, if not impossible. Moreover, recent study of developing countries shows a negative correlation between social spending and exposure to the global market, suggesting that, facing competition in the global market, most choose a downward move rather than upgrading. See Rudra, "Globalization and the Decline of the Welfare State."

<sup>17</sup> Simmons and Elkins, "The Globalization of Liberalization"; Xun Cao and Aseem Prakash, "Trade Competition and Domestic Pollution: A Panel Study, 1980–2003," *International Organization* 64, no. 3 (2010): 481–503.

<sup>18</sup> More specifically, Simmons and Elkins, "The Globalization of Liberalization," use the correlation between countries' export profiles, that is, bilateral trade flows going to

export-destination countries, to measure the extent of trade competition between countries. Cao, “Networks as Channels of Policy Diffusion,” further refines this approach by considering the commodity components of bilateral export flows.

<sup>19</sup> David Autor, David Dorn, and Gordon Hanson, “The China Syndrome: Local Labor Market Effects of Import Competition in the United States,” *American Economic Review* 103, no. 6 (2013): 2121–68.

<sup>20</sup> Leonardo Iacovone, Wolfgang Keller, and Ferdinand Rauch, “Innovation Responses to Import Competition” (working paper, 2011; online at [www.princeton.edu/~ies/Spring11/KellerPaper.pdf](http://www.princeton.edu/~ies/Spring11/KellerPaper.pdf)).

<sup>21</sup> Some have also argued that trade protection and social protection can be seen as substitutable redistributive tools. However, for the three reasons mentioned, we assume that governments are increasingly constrained to offer trade protection; hence they use social protection to satisfy the demands of some economic groups negatively affected by import competition.

<sup>22</sup> Divisions within both business and the labor movement suggest that the assumptions of this theory may be unrealistic in some cases.

<sup>23</sup> The assumption that labor is always against welfare retrenchment and capital is always against increasing labor’s social welfare is not shared by all. For instance, the “varieties of capitalism” literature argues in favor of business interests toward social policies. See Peter Hall and David Soskice, *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, (London: Oxford University Press, 2001). When firms rely on specialized production, both capital and labor confront the need to make risky investments to survive. Interests of different factors would then converge around the productive and insurance features of social policy. See Isabela Mares, “The Sources of Business Interest in Social Insurance: Sectoral versus National Differences,” *World Politics* 55, no. 2 (2003): 229–58. Yet specialization and upgrading are less frequent in developing countries. Ultimately, developing countries can be hardly classified into “liberal” and “coordinated” market economies, and the institutional complementarities to market arrangements are less associated with social policy than in the OECD context: e.g., social security and welfare programs are normally contributory systems that add costs directly to the wage bill. Hence, new import competition from countries with lower levels of social spending than the existing domestic levels may posit strong pressures from capital to demand retrenchment. On the other hand, these are the precise policies that labor would demand when displaced due to import competition.

<sup>24</sup> The key difference in assumptions is factor mobility: the Stolper-Samuelson model assumes that factors of production move freely across sectors of the economy (leading to class-based coalitions) while the Ricardo-Viner model assumes that labor and capital are locked in specific sectors (sector-based models). See Michael Hiscox, “Interindustry Factor Mobility and Technological Change: Evidence on Wage and Profit Dispersion across U.S. Industries, 1820–1990,” *Journal of Economic History* 62, no. 2 (2002): 383–416.

<sup>25</sup> Michael Hiscox, “Class versus Industry Cleavages: Inter-Industry Factor Mobility and the Politics of Trade,” *International Organization* 55, no. 1 (2001): 1–46; Hiscox, “Interindustry Factor Mobility.”

<sup>26</sup> Hall and Soskice, *Varieties of Capitalism*.

<sup>27</sup> See, e.g., Mares, “The Sources of Business Interest in Social Insurance.” We acknowledge the possibility that welfare states may play an important role in trade competition, as suggested by the varieties of capitalisms account for OECD countries. First, education and health may have competitiveness-enhancing effects because they increase human capital. Second, unemployment schemes help to secure the existence of high-quality labor for firms in countries with pronounced

business cycles. Our assumption of capital against welfare is justified on different grounds, though. Human capital investment takes a long time to trigger changes in production and requires firms with long time horizons. However, our story is precisely about more immediate demands from firms struggling to survive import competition. Moreover, varieties of capitalisms theory emphasizes that the types of firms willing to support public human capital investment are those that specialize in niches of production, normally oriented to the international markets. We suspect that most firms and industries fighting for domestic market shares in developing countries operate in sectors where price dominates quality.

<sup>28</sup> For instance, Adrian Wood, “Openness and Wage Inequality in Developing Countries: The Latin American Challenge to East Asian Conventional Wisdom,” *World Bank Economic Review* 11, no. 1 (1997): 33–57, shows that nations with high levels of low-skilled labor follow the principle of comparative advantage and place more emphasis on labor-intensive manufactured goods.

<sup>29</sup> Our theory is more similar to the power politics thesis than to the compensation hypothesis. The latter often associates globalization with higher levels of social spending, because with increased instability (actual or perceived) associated with the global market, governments are assumed to face higher pressures to compensate the losers through social spending programs. See Cameron, “The Expansion of the Public Economy.” We include the trade openness variable to control for this effect in the empirical analysis. We have also included imports as a percentage of GDP and exports as a percentage of GDP in our robustness checks (see Table A1 of the online appendix): they are not statistically associated with welfare efforts. We further tested the effects of import and export *change* variables measured as the first difference between imports (exports) of year  $t$  and  $t - 1$ . We find statistically significant effects associated with changes in imports and exports (Table A1 in online appendix). However, the inclusion of these variables does not change the point estimate of the import competition policy interdependence variable.

<sup>30</sup> Empirically, using a sample of only OECD countries we get similar, but insignificant, coefficients for import competition. Also, pooling LDCs and OECD renders the same results. Methodologically, the decision whether to study only developing or developed countries is always close to selecting on the dependent variable. Our cutoff here is correlated with the development of welfare states.

<sup>31</sup> Data are from the International Monetary Fund, Government Finance Statistics (GFS) and International Finance Statistics, various years. The GFS has limited coverage and measurement instability. We supplemented information based on the IMF’s GFS manual and relied on data from the Economic Commission for Latin America and the Caribbean, and the OECD Social Expenditure Database. The major categories covered in this variable are sickness and disability, old age, survivors’ benefits, family and children allowances, and unemployment benefits. In developing countries, the overwhelming share of these programs is contributory in nature, being social security the largest one in most countries.

<sup>32</sup> See Gösta Esping-Andersen, *The Three Worlds of Welfare Capitalism* (Princeton, NJ: Princeton University Press, 1990); Isabela Mares, “Social Protection around The World,” *Comparative Political Studies* 38, no. 6 (2005): 623; James P. Allan and Lyle Scruggs, “Political Partisanship and Welfare State Reform in Advanced Industrial Societies,” *American Journal of Political Science* 48, no. 3 (2004): 496–512.

<sup>33</sup> George Avelino, David Brown, and Wendy Hunter, “The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending in Latin America, 1980–1999,” *American Journal of*

*Political Science* 49, no. 3 (2005): 625–41; Alex Segura-Ubiergo, *The Political Economy of the Welfare State in Latin America: Globalization, Democracy, and Development* (Cambridge: Cambridge University Press, 2007); Rudra, “Globalization and the Decline of the Welfare State”; Nita Rudra and Stephan Haggard, “Globalization, Democracy, and Effective Welfare Spending in the Developing World,” *Comparative Political Studies* 38, no. 9 (2005): 1015–49; Irfan Nooruddin and Joel W. Simmons, “Openness, Uncertainty, and Social Spending: Implications for the Globalization-Welfare State Debate,” *International Studies Quarterly* 53, no. 3 (2009): 841–66; Wibbels, “Dependency Revisited.” Exceptions to these findings are Mares, “Social Protection around the World,” and Brooks, “Interdependent and Domestic Foundations of Policy Change.”

<sup>34</sup> The data are taken from Michael Albertus and Victor Menaldo, “Gaming Democracy: Elite Dominance during Transition and the Prospects for Redistribution,” *British Journal of Political Science* 44, no. 3 (2014): 575–603.

<sup>35</sup> Ibid., 586.

<sup>36</sup> Alessandro Nicita and Marcelo Olarreaga, “Trade, Production, and Protection Database, 1976–2004,” *World Bank Economic Review* 21, no. 1 (2007): 165–71.

<sup>37</sup> Ibid.; the twenty-eight sectors are: (311) Food products, (313) Beverages, (314) Tobacco, (321) Textiles, (322) Wearing apparel, except footwear, (323) Leather products, (324) Footwear, except rubber or plastic, (331) Wood products, except furniture, (332) Furniture, except metal, (341) Paper and products, (342) Printing and publishing, (351) Industrial chemicals, (352) Other chemicals, (353) Petroleum refineries, (354) Misc. petroleum and coal products, (355) Rubber products, (356) Plastic products, (361) Pottery, china, earthenware, (362) Glass and products, (369) Other non-metallic mineral products, (371) Iron and steel, (372) Non-ferrous metals, (381) Fabricated metal products, (382) Machinery, except electrical, (383) Machinery, electric, (384) Transport equipment, (385) Professional and scientific equipment, (390) Other manufactured products.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

<sup>40</sup> Robert Feenstra, Robert Lipsey, Haiyan Deng, Alyson Ma, and Mengyong Mo, “World Trade Flows: 1962–2000,” NBER Working Paper 11040 (Cambridge, MA: NBER, January 2005; online at <http://www.nber.org/papers/w11040>).

<sup>41</sup> Every influence from a competing country  $j$  in year  $t$  in setting levels of spending in country  $i$  is weighted by the sum of the total competitive pressure faced by country  $i$ . Standardized

$$\text{equivalences are } \mathbf{W}_t^{\text{imp.comp.}} = \sum_{j \neq i}^n \left( \frac{\text{imp.comp}_{i,j,t}}{\sum_{j \neq i}^n \text{imp.comp}_{i,j,t}} \right).$$

<sup>42</sup> Production chains and vertical type of intraindustry trade may induce higher values in our structural equivalences. But even if this type of trade exists, it also creates the type of import competition we want to capture. For example, domestic car industries importing car parts from other countries for assembly will create competition. If no domestic car parts firm exists, we observe no competition. So we capture these examples both theoretically and empirically. Also, intraindustry trade is less than 30 percent of total world trade in average. From Lionel Fontagné, Michael Freudenberg, and Guillaume Gaulier, “A Systematic Decomposition of World Trade into Horizontal and Vertical IIT,” *Review of World Economics* 142, no. 3 (2006): 459–75. For a horizontal type of intraindustry trade, however, the same company might be competing with imports and

exporting markets at the same time. Horizontal intraindustry trade means that imports are then exported after some value-added process. Like many trade models, we assume there are import-competing and exporting sectors. Yet we first control for export competition in the empirical analysis. Second, our empirical strategy does not include domestically produced goods oriented to the external markets: to construct the import-competition data we take the correlation between a vector of imports values and a vector of domestic production *not* exported.

<sup>43</sup> Cao and Prakash, “Trade Competition and Domestic Pollution.”

<sup>44</sup> Hugh Ward and Xun Cao, “Domestic and International Influences on Green Taxation,” *Comparative Political Studies* 45, no. 9 (2012): 1075–1103.

<sup>45</sup> Data are from the United Nations’ Comtrade database.

<sup>46</sup> There is a potential weakness of relational measures such as structural equivalence in assessing the level of competitive pressure between countries. Lithuania's exports to Mexico, e.g., are highly similar to Mexican domestic production (yielding a high equivalence score between them), but such exports are so small in number or value as to be trivial. Is Lithuania truly a competitor country of Mexico? We think this both an empirical and a conceptual question. Conceptually, consider the situation in which Lithuania's exports to Mexico and Mexican production have a correlation of 1—the highest level in terms of similarity (structural equivalence) which would make the two countries top competitor for each other—but Lithuanian exports to Mexico is only 10 percent of Mexican productions across all commodity groups: Would Mexico still consider Lithuania its competitor? Maybe yes, because, given that these are substitutable products, 10 percent can easily become 20–30 percent tomorrow if Lithuanian exports become cheaper.

<sup>47</sup> We thank the editors for raising the concern that structurally equivalent exporters who do not actually export substantial quantities into the country in question are not import competitors in the same sense as a country that is actually exporting a lot. We have experimented with various alternative specifications that discount the similarity approach by weighting the structural equivalence measure by measures of the level of actual import flows. For instance, we weight the structural equivalence measure by import volume of country  $i$  from  $j$  so this also captures the importance of  $j$  to  $i$  as a competitor for  $i$ 's domestic market measured by the level of import flows. We have also tried with the average of the total manufacturing imports from  $j$  to  $i$  by sector as a percentage of the domestic output in the same sector. None of the discounted structural similarity measures above is statistically associated with either measures of welfare spending (key results are summarized in Tables A4 and A5 of the online appendix). Moreover, we have also tested spatial lags defined solely by levels of bilateral imports (pure import flows). We find no effect associated with the new spatial lags (Tables A4 and A5 of the online appendix). We think this suggests the fact that trade flows involve a lot of intrafirm and intraindustry trade; therefore, they cannot capture policy interdependence due to import competition.

<sup>48</sup> See, e.g., Evelyne Huber and John Stephens, *Development and Crisis of the Welfare State: Parties and Policies in Global Markets* (Chicago: University of Chicago Press, 2001); and Walter Korpi, “Power, Politics, and State Autonomy in the Development of Social Citizenship: Social Rights during Sickness in Eighteen OECD Countries since 1930,” *American Sociological Review* 54, no. 3 (1989): 309–28.

<sup>49</sup> Rudra, “Globalization and the Decline of the Welfare State.”

<sup>50</sup> Ronald Rogowski, *Commerce and Coalitions: How Trade Affects Domestic Political Alignments*

(Princeton, N.J.: Princeton University Press, 1989).

<sup>51</sup> We are grateful to Nita Rudra for sharing her PLP data. This variable was initially calculated for LDCs until 1997. Our updated PLP variable correlates 0.94 with that of Rudra's.

<sup>52</sup> PLP measures only potential labor power but it really is the measure with the least missing data relative to other measures, such as those on unions. Moreover, the skilled/unskilled distinction used by PLP captures the size of wealthier, more privileged members of labor population, who have more resources for lobbying politicians, particularly in developing countries. To address the concern that skill/no-skill ratio may get at only one aspect of collective action problems, and that the receptiveness of the state to labor demands also matters for welfare policies, we have tried to include a partisanship measure of the left-right dimension of government in our robustness checks (see Table A2 of the online appendix). We use data from Thorsten Beck, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh, "New Tools in Comparative Political Economy: The Database of Political Institutions," *World Bank Economic Review* 15, no. 1 (2001): 165–76. They provide a three-category measure coding the head of the executive party as ideologically to the left (3), right (1) or center (2). We find that partisanship affects social insurance but not progressive spending. However, we find no statistically significant conditional effect when we interact the partisanship variable with the important competition variable. We have also tried with other measures, such as the cumulative number of years the left has been in power since 1975 and its logged form. We found no conditional effect associated with these alternative operationalizations of the partisanship variable either. We suspect that left parties' lack of effect results because there is no "left" partisanship in the developing world, outside Latin America: most parties are considered left by traditional ideological definition or are ethnically based. Even where left parties commit to pro-poor redistribution, social insurance policy is ill equipped to achieve that end because it targets only labor market insiders.

<sup>53</sup> Hiscox, "Class versus Industry Cleavages"; Hiscox, "Interindustry Factor Mobility"; John Hill and Jose Mendez, "Factor Mobility and the General Equilibrium Model of Production," *Journal of International Economics* 15, no. 1 (1983): 19–26.

<sup>54</sup> Qiang Zhou, "Interindustry Labor Mobility: A Measure and Its Applications" (working paper, 2010).

<sup>55</sup> Kaufman and Segura-Ubiergo, "Globalization, Domestic Politics, and Social Spending."

<sup>56</sup> Wibbels, "Dependency Revisited."

<sup>57</sup> Data are from the World Bank, World Development Indicators.

<sup>58</sup> Stephan Haggard and Robert Kaufman, *Development, Democracy, and Welfare States: Latin America, East Asia, and Eastern Europe* (Princeton, NJ: Princeton University Press, 2008); Nita Rudra "Welfare States in Developing Countries: Unique or Universal?," *Journal of Politics* 69, no. 2 (2007): 378–96.

<sup>59</sup> Erik Wibbels and John Ahlquist, "Development, Trade, and Social Insurance," *International Studies Quarterly* 55, no. 1 (2011): 125–49.

<sup>60</sup> Ibid; also see Bela Balassa, *The Newly Industrializing Countries in the World Economy* (New York: Pergamon, 1981). Data are from the World Bank, World Development Indicators.

<sup>61</sup> There are alternative, often OECD-based, explanations of welfare state such as power politics, deindustrialization, and varieties of capitalism. For the power politics thesis in the developing country context, it is hard to get comprehensive data on union density and level of wage bargaining. We followed Rudra, "Globalization and the Decline of the Welfare State," and used

her potential labor power (PLP) variable. For the deindustrialization thesis, we use a variable that captures the importance of service sector in the economy:  $(100 - [\text{industrial and agricultural \% GDP}])$ . We find no still is at the very early stage for most of the developing countries. Finally, for varieties of capitalism argument, we think the wage covariance variable is a good measure of asset specificity, which captures the basic idea of social insurance and cooperatist arrangement as a function of asset specificity of the economy.

<sup>62</sup> Monty Marshall, Ted Gurr, and Keith Jagers, “Polity IV Project Dataset Users’ Manual” (Severn, MD: Center for Systemic Peace, 2010).

<sup>63</sup> Ben Ansell, “Traders, Teachers, and Tyrants: Democracy, Globalization, and Public Investment in Education,” *International Organization* 62, no. 2 (2008): 289–322; Rudra and Haggard, “Globalization, Democracy, and Effective Welfare Spending”; David Brown and Wendy Hunter, “Democracy and Social Spending in Latin America, 1980–92,” *American Political Science Review* 93, no. 4 (1999): 779–90; David Brown and Wendy Hunter, “Democracy and Human Capital Formation,” *Comparative Political Studies* 37, no. 7 (2004): 842–64; Kaufman and Segura-Ubiergo, “Globalization, Domestic Politics, and Social Spending.”

<sup>64</sup> Data are from the World Bank, World Development Indicators.

<sup>65</sup> Data are from the IMF, Government Finance Statistics, various years.

<sup>66</sup> Alternatives are spatial maximum likelihood approach and spatial two-stage least-squares instrumental variable approach.

<sup>67</sup> Given the equivalence between error-correction models (ECM) and autoregressive distributed lag (ADL) models, we follow the standard Bewley transformation of ECM to calculate the long-run multipliers. See Suzanna De Boef and Luke Keele, “Taking Time Seriously,” *American Journal of Political Science* 52, no. 1 (2008): 184–200. Long-run effect for an ADL model can be calculated by dividing the coefficient of interest by one minus the coefficient of the lag

$$\frac{\beta}{(1-\varphi)}$$

dependent variable,  $\frac{\beta}{(1-\varphi)}$ . Yet neither ECM nor ADL provides a direct estimate of the standard error for the long-run multiplier. One alternative is to calculate the variance of the long-run multiplier with the formula for the approximation of the variance of a ratio of coefficients with known variances:  $\text{Var}\left(\frac{a}{b}\right) = \left(\frac{1}{b^2}\right)\text{Var}(a) + \left(\frac{a^2}{b^2}\right)\text{Var}(b) - 2\left(\frac{a}{b^3}\right)\text{Cov}(a,b)$ .

Alternatively, the Bewley transformation allows to directly estimating the long-run multipliers and their standard errors. Suppose a simple model  $Y_t = \alpha + \varphi Y_{t-1} + \beta X_t + \epsilon_t$ , the transformation consist of a regression with the following form:  $Y_t = \gamma + \omega Y_t + \psi X_t + \mu_t$ , where  $\gamma = \eta\alpha$ ,  $\omega = \eta\varphi$ ,  $\psi = \eta\beta$ ,

$$\eta = \frac{1}{\varphi}$$

$\mu = \eta\epsilon_t$ , and  $\gamma = \frac{1}{\varphi}$ . This requires instrumental variables regression to obtain consistent estimates because the inclusion of  $\Delta Y_t$  implies contemporaneous values of  $Y_t$  on the right-hand side of the equation. So we first regress changes in the dependent variable on its lagged levels and all other right-hand side variables in the model, and then take the predicted values to be included in the included Bewley model:  $Y_t = \gamma + \omega \Delta Y_t + \psi \eta$ . The long-run multiplier is estimated

$$\omega = \frac{\beta}{(1-\varphi)} = \eta(\beta) \quad \eta = \frac{1}{\varphi}$$

directly as the coefficient on  $X_t$ , where  $\eta = \frac{1}{\varphi}$ , and it provides an estimate of the variance associated with the LRM.

<sup>68</sup> The fact that the spatial lag has a positive effect on the dependent variable suggests that

countries either increase or decrease spending in social insurance by converging toward what relevant competitor countries do. If the inward-oriented manufacturing sector faces competition from manufactured goods produced in countries with low social insurance spending, the expected domestic reaction is reducing the cost of social security and welfare programs. On the contrary, the expansion of public social insurance programs in developing countries may be more likely when domestically oriented industries face competition from countries with more generous social insurance schemes.

<sup>69</sup> We acknowledge that openness may be a limited way of testing compensation arguments. Results remain unchanged when we estimate the models controlling for both import flows and export flows (in their lagged levels and first-differences) instead of the total trade openness variable.

<sup>70</sup> Again, levels and first-differences of import and export flows do not affect this result (see Table A1 in the online appendix).

<sup>71</sup> Avelino, Brown, and Hunter, “The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending”; Kaufman and Segura-Ubiergo, “Globalization, Domestic Politics, and Social Spending”; Wibbels, “Dependency Revisited.”

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