Employment Protection Legislation and International Trade

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Abstract

Analyzing the impact of domestic labor regulations on international trade is relevant, in part, because (i) trade negotiations may increasingly constrain countries' ability to implement trade policies and (ii) concerns over international competition driving countries towards a 'race to the bottom' in labor standards are rampant. However, identification of this causal effect is challenging due to the potential endogeneity of regulations attributable to crucial unobservables and measurement error. In this light, we use data from more than 30 countries across 21 manufacturing sectors over the period 2001-2009 and examine the impact of employment protection legislation (EPL) on industry-level trade. While a difference-in-differences type approach controls for several potential confounders, we also employ an instrumental variables (IV) strategy. Across all specifications, EPL is found to significantly encourage imports in relatively labor-intensive industries. Further, the IV estimates uncover a more pronounced effect and find concerns over endogeneity to be relevant.

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1 Introduction

The relationship between international trade and labor market regulation is complex and often the subject of intense debate among policymakers (e.g., Brown 2001). In this context, an issue of considerable interest is the effect of domestic labor policy on trade. Such regulations may impact trade flows in at least three ways. First, labor market flexibility is likely to influence foreign direct investment (FDI) and thereby trade. Typically, reduced stringency is expected to attract FDI (e.g., Bellak and Leibrecht 2011; Gross and Ryan 2008; Javorcik and Spatareanu 2005; Olney 2013). However, due to concerns over reputation, multinational enterprises may also prefer host countries with improved labor rights (Busse et al. 2011). Second, labor standards may impact productivity and thus trade performance. For instance, Bonnal (2010, p. 53) considers stringency to be productivity-enhancing and states that "countries with better labor standards and institutions do trade more." Contrarily, Bassanini et al. (2009, p. 392) contend that "layoff restrictions have a negative impact on aggregate labour productivity growth." Finally, international differences in labor regulations may be a source of comparative advantage and thus trade (e.g., Cuñat and Melitz 2012; Egger et al. 2015).

Hence, as discussed in Bonnal (2010, p. 54), "labor issues are intimately linked to international trade" and "observing the impact that labor standards might have on trade is critical." Here, our objective is to examine the effect of labor market flexibility, as measured by the OECD's employment protection legislation (EPL) indicators, on trade.[1]

Identification of this effect is important due to a number of reasons. First, the issue is of current relevance. In recent years, OECD countries have not only engaged in greater trade but also opted for more flexible labor markets. For example, over the last decade, OECD merchandise imports have increased from roughly \$7.5 trillion in 2005 to about \$11 trillion in 2014 in nominal terms.[2] Further, between 2008 and 2013, more than one-third OECD countries have reduced the strictness of employment protection (OECD 2013).

Second, over the last two decades, the share of developing countries' exports has increased from 26% to 44% (WTO 2015). During this time, the proportion of developed economies' exports has decreased from 70% to 52%. To the extent that such trends are attributable to weaker regulations in developing countries, Bagwell and Staiger's (2001a, p. 520) concerns over a 'race to the bottom' in labor standards are warranted.[3] According to the authors, "labor ... standards of the industrialized world might be

[1] As discussed below, the employment protection measures are based on regulations pertaining to the hiring and firing of workers. The indicators lie between zero and six with higher values denoting greater stringency.

[2] See http://www.oecd.org/std.

[3] Note, in case of FDI, Olney (2013) finds evidence in favor of such a 'race to the bottom.' In other words, countries are

compromised in the name of international competitiveness."

Finally, if labor market policies alter international trade patterns, countries may need to incorporate the role of such regulations in trade negotiations. In fact, such policies may need to be brought under the World Trade Organization's (WTO's) purview (Brown 2001; Bagwell and Staiger 2001a, 2001b).[4]

However, identification of the causal effect of employment protection regulations on trade is challenging due to the potential endogeneity of such policies attributable to three factors. First, reverse causation is a concern. For example, globalization may encourage governments to opt for lax regulation in order to attract domestic and foreign investment (e.g., Potrafke 2010, 2013). Similarly, trade may induce economic growth and thereby a demand for labor standards (Busse 2004; Mosley and Uno 2007). Second, unobserved factors such as lobbying pressure are likely to be correlated with trade as well as employment protection policies (Bassanini et al. 2009). Third, the issue of measurement error is relevant. As discussed in Calcagnini et al. (2014, p. 659), "[l]abor market institutions are difficult to measure and, therefore, there is no general consensus among scholars on which indicator is the most appropriate one to utilize in empirical analyses." While the authors consider it customary to measure labor market institutions using the EPL indicators, according to Leibrecht and Scharler (2009, p. 284-285), "even if a country ranks high in labour protection according to the OECD indicator[s], that is, *de jure*, it actually may have weak *de facto* regulation due to weak enforcement of regulations."[5] Also, for a bounded measure of employment protection, the error is likely to be non-classical due to its correlation with the true value (e.g., Millimet 2011).

Prior to proceeding, given the focus of our study, some discussion on the existing empirical literature examining the trade implications of employment protection is warranted. However, to our knowledge, the direct impact of EPL on trade is yet to be assessed.[6] Accordingly, we focus on analyses examining the effect of such legislation on FDI. For example, Gross and Ryan (2008) find EPL to adversely impact Japanese investment in Western European countries during the late 1980s and late 1990s. Contrarily, while focusing on bilateral FDI flows from seven home countries into seven Central and Eastern European host nations over the period 1995-2004, Leibrecht and Scharler (2009, p. 294) do not find host-country EPL to have a significant impact on foreign investment. However, the authors state that an "interesting avenue for future research is the analysis of the link ... at less aggregated levels." They add that "one would expect strict employment protection to matter more in [labor]-intensive industries." Next, Dewit et al. (2009) utilize

found to undercut each other's labor regulations in order to attract investment.

[4] In case of environmental policy, Millimet and Roy (2015, 2016), among others, allude to a similar concern.

[5] See Ochel (2005) for a discussion on the pros and cons of the EPL indicators.

[6] Note that several related studies analyze how trade is influenced by policies pertaining to unionization, labor rights, labor standards, and labor market rigidity (e.g., Bonnal 2010; Busse et al. 2011; Cuñat and Melitz 2012; Egger et al. 2011; Egger et al. 2015; Görg 2005).

data on bilateral FDI stocks in OECD countries from 1986-1995 and find greater employment protection in host nations relative to home countries to discourage outward investment from the latter.

More recently, Bellak and Leibrecht (2011) assess the effect of EPL on FDI stocks by relying on data from eleven OECD countries across ten manufacturing sectors over 1995-2005. Although the authors find labor market rigidity to hinder inward foreign investment, the impact is more pronounced in case of low-skill-intensive industries. Finally, while analyzing whether countries engage in a 'race to the bottom' in labor standards, Olney (2013) examines how EPL in 26 foreign countries affects U.S. outward FDI. The author uncovers a negative impact of employment protection on foreign affiliate sales of U.S. multinationals particularly in case of labor-intensive industries; the industry-level analysis involves thirteen industries over 1998-2007. In keeping with Leibrecht and Scharler's (2009) expectations, Olney (2013, p. 201) finds that "FDI in labor intensive industries, such as machinery manufacturing and professional services, is quite sensitive to employment protection rules, while FDI in labor unintensive industries, such as food manufacturing and chemical manufacturing, is unaffected by employment protection rules."

Now, despite the existing evidence pertaining to the impact of employment protection policies on FDI, the issue of endogeneity of EPL merits greater attention. For instance, most studies that rely on country-level panel data primarily account for unobservables that are invariant over time. While Leibrecht and Scharler (2009) also discuss a Hausman and Taylor (1981) approach, the latter is unlikely to address the nature of endogeneity discussed above. Similarly, although Dewit et al. (2009) resort to an instrumental variables (IV) strategy and use lagged employment protection to instrument for contemporaneous EPL, this requires any measurement error in employment protection to be serially uncorrelated.[7] That said, Olney (2013) relies on host country characteristics such as unionization density and political ideology of the ruling party as instruments for EPL.[8] Next, studies that utilize industry-level data across countries do not incorporate the role of crucial unobserved factors that vary across both country and time or along sector and time. Although Bellak and Leibrecht (2011) estimate a dynamic panel model and employ lagged EPL as one of the instruments, the industry-level estimates in Olney (2013) are obtained via Ordinary Least Squares (OLS).

In this light, we utilize data from more than 30 countries across 21 industries over the period 2001-2009 and contribute to the literature assessing the trade implications of employment protection regulations. While existing studies examine the impact of EPL on foreign investment, we explicitly analyze the former's effect on trade. Moreover, due to concerns over endogeneity of EPL, we rely on a difference-in-differences

[7] Note that the overidentification test in Dewit et al. (2009) supports the validity of the instruments.

[8] Note, while some of the estimates in Olney (2013) are based on a dynamic panel specification, in the remaining models, the instruments often fail the Hansen overidentification test at the $p < 0.10$ level of confidence.

type strategy combined with IV to identify the impact of employment protection on trade in relatively labor-intensive sectors. Apart from aiding in identification, the focus on labor intensity is in consonance with the claims in Bellak and Leibrecht (2011) and Olney (2013). The IV approach based on Generalized Method of Moments (GMM) instruments for EPL and lends further credibility to our analysis. Across all specifications, in keeping with the logic of comparative advantage, employment protection is found to significantly encourage imports in sectors with relatively greater labor intensity. Also, the IV estimates find the effect to be more pronounced and the concerns over endogeneity to be relevant.

The rest of the paper is organized as follows. Section 2 describes the empirical methodology. Section 3 discusses the data. Section 4 presents the results. Section 5 concludes.

2 Empirical Methodology

To analyze the impact of EPL on trade, our estimating equation is given by

$$\ln M_{cit} = \beta_1 EPL_{ct} \times LI_{cit} + \beta_2 LI_{cit} + S_{cit}\theta + \gamma_{ct} + \delta_{it} + \psi_{ci} + \varepsilon_{cit} \tag{1}$$

where c represents country, i indicates industry, t denotes year, M is the value of imports, EPL is a measure of employment protection, LI captures labor intensity, and S is a vector of observable attributes.[9] S includes capital intensity by itself and interacted with (log) capital abundance, material intensity's interaction with (log) material abundance, and human capital intensity interacted with skill abundance. γ_{ct}, δ_{it}, and ψ_{ci} are country-by-time, industry-by-year, and country-by-sector fixed effects, respectively.[10,11] The unobservables are denoted by ε and consist of all remaining factors affecting imports.[12]

The dummy variables in (1) control for several crucial determinants of imports that are likely to be correlated with employment protection. For instance, the country-by-year dummies control for time-varying country-specific factors such as the degree of unionization, minimum wage, contracting environment, and

[9] Note, data on imports are generally considered to be more reliable than export data.

[10] Note, a similar difference-in-differences type specification is adopted by Romalis (2004), Nunn (2007), and Chung (2014), among others. For example, Nunn (2007) examines whether countries with good contract enforcement tend to specialize in goods that require relationship-specific investments. Similarly, Chung (2014) assesses whether countries with lax environmental regulation favor specialization in polluting goods.

[11] Given the definitions of the variables below, the labor, capital, and material intensity variables are not absorbed by the industry-by-time dummies. Nonetheless, material intensity is dropped due to perfect collinearity with labor and capital intensities. Moreover, the industry dummy variables capture human capital intensity. Also, the country-by-time fixed effects account for capital, material, and skill abundance, as well as EPL.

[12] Note that we also controlled for average Most Favored Nation (MFN) tariffs at the country-industry-year level using tariff data available at the World Integrated Trade Solution (WITS). While the inclusion of tariffs does not qualitatively alter the results, we omit them due to concerns over endogeneity. Nonetheless, the corresponding estimates are available upon request.

economy-wide shocks (e.g., Egger et al. 2015; Nunn 2007; Potrafke 2013). Similarly, δ_{it} captures time-varying industry characteristics such as volatility, financial dependence, and sector-specific shocks (e.g., Cuñat and Melitz 2012; Levchenko 2007). Moreover, the country-by-industry fixed effects control for unobservables such as time-invariant sources of comparative advantage as well as sector-specific trade and investment policies that may vary across countries (e.g., Harding and Javorcik 2011). Here, it is worth noting that the specifications in studies such as Bellak and Leibrecht (2011) and Olney (2013) include fewer fixed effects.

Now, although γ_{ct}, δ_{it}, and ψ_{ci} control for various potential confounders, given the discussion above, further concerns over the endogeneity of EPL are warranted. Accordingly, we adopt a GMM approach and instrument for employment protection. The first-stage equation for EPL interacted with labor intensity is specified as

$$EPL_{ct} \times LI_{cit} = W_{cit}\lambda + \phi_{cit} \tag{2}$$

where W is comprised of the attributes included in S above, the country-by-year, sector-by-time, and country-by-industry dummies, as well as additional exclusion restrictions; ϕ represents the unobservables.

As discussed below, the excluded instruments include interactions between labor intensity and three country-by-time characteristics: polity score, strength of legal rights index, and the proportion of workers who are self-employed. Moreover, these variables are motivated by existing studies related to employment protection. For instance, polity score (i.e., a measure of the extent of democracy) is likely to be related to labor standards (Palley 2005). Next, self-employment is plausibly associated with employment protection (Román et al. 2013). Similarly, strength of legal rights index (i.e., an indicator of the degree of access to credit) is potentially correlated with employment and thus EPL (Pagano and Pica 2012). Further, given the set of controls in (1), it seems plausible that such measures qualify as valid exclusion restrictions. In other words, one might be concerned that country-level characteristics such as democracy and institutional quality are related to trade (e.g., Levchenko 2007; Yu 2010). However, after incorporating the various fixed effects, such attributes (interacted with labor intensity) are unlikely to be relevant explanatory variables in (1). Below, we discuss the validity of our instruments in light of the usual specification tests.

3 Data

The data are obtained from a number of sources. First, the information on EPL indicators come from *OECD.Stat*, the OECD's statistical online platform.[13] These measures are based on 21 items that can be classified into three categories: (i) restrictions protecting regular workers from individual dismissal,

[13] See http://stats.oecd.org/.

(ii) regulation of temporary employment, and (iii) additional constraints on collective dismissals.[14] Using information on these items, the OECD constructs indicators of employment protection that vary between zero and six with higher values indicative of greater stringency. Here, we employ two such EPL measures, referred to as Version 1 and Version 2 by the OECD. While both pertain to workers with regular contracts, the latter includes additional provisions for collective dismissals.[15]

Next, the import data are obtained from the OECD's *STAN Bilateral Trade Database by Industry and End-use*. For each country, we examine sector-level manufacturing imports from the rest of the world with industries defined at the two-digit level of the International Standard Industrial Classification of All Economic Activities, Revision 3 (ISIC Rev.3).[16] Further, we rely on the *World Development Indicators* (WDI) to calculate material, skill, and capital abundance. While a nation's material abundance is defined as the ratio of land area to total labor force, the share of labor force with tertiary education represents skill abundance. Similarly, capital intensity is computed as capital stock divided by total labor force.[17]

To construct the factor intensity measures, we primarily rely on the OECD's *STAN Database for Structural Analysis* and utilize two-digit industry-level data based on the ISIC Rev.3 classification. In keeping with studies such as Levchenko (2007) and Chung (2014), material intensity is defined as the value of intermediate inputs to the value of production. Further, while labor intensity is calculated as the ratio of total compensation to the value of output, capital intensity is measured as (1 − share of compensation in value added) multiplied by (1 − material intensity). Moreover, the human capital intensity values are obtained from Manova (2008).[18]

For the excluded instruments, information on the share of self-employed workers and strength of legal rights index are provided by the WDI. In addition, the data on polity score come from the *Quality of Government Dataset* which in turn relies on the *Polity IV Project* (Marshall et al. 2013). While the legal rights index varies between 0 and 12 with higher values depicting stronger laws that facilitate lending,

[14] See http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection-methodology.htm.

[15] Note, studies such as Calcagnini et al. (2009, 2014) and Bellak and Leibrecht (2011) also use Versions 1 or 2 (or both). For more recent years, the OECD reports a third version as well.

[16] The US gross domestic product (GDP) deflator, obtained from the World Bank's *World Development Indicators*, is used to express imports in 2005 dollars.

[17] Here, capital stock is estimated using the perpetual inventory method (e.g., Chung 2014). If $GFCF_t$ and K_t denote gross fixed capital formation (in 2005 dollars) and capital stock in year t, respectively, K_{2001} is first calculated as $5 \times (GFCF_{2000} + GFCF_{2001})$. For subsequent years, we assume an annual depreciation of 7% and compute K_t as $0.93 \times K_{t-1} + GFCF_t$.

[18] See http://www.stanford.edu/~manova/research.html. Also, note that Manova (2008) alludes to Braun (2003) and calculates human capital intensity of an industry as the median value of that industry's mean wage relative to that of the whole U.S. manufacturing over 1986-1995. Since Manova (2008) analyzes three-digit ISIC data, the values are averaged to obtain the corresponding two-digit measures.

polity score ranges from -10 to 10 (i.e., from strongly autocratic to strongly democratic).

Our data across 21 industries over the period 2001 to 2009 include more than 30 countries and the summary statistics are presented in Table 1. Prior to proceeding, it is worth noting that (real) imports are negatively correlated with EPL Version 1 ($\rho = -0.29,\ p < 0.01$); in case of Version 2, the correlation is slightly weaker ($\rho = -0.21,\ p < 0.01$). Although both correlations are more negative for sectors with labor intensities below the sample mean, we refrain from putting too much stock in the summary statistics.

4 Results

The results are presented in Tables 2 and 3. While the estimates in Table 2 are based on Version 1 of the EPL indicators, those in Table 3 pertain to Version 2.[19,20] Across both tables, we first display the OLS results followed by the coefficient estimates that rely on GMM. For the IV approach, we utilize four sets of instruments referred to as IV Set #1, IV Set #2, IV Set #3, and IV Set #4 in the two tables.[21]

IV Set #1 relies on labor intensity's interactions with the share of self-employed workers and strength of legal rights index as exclusion restrictions. Similarly, the second set includes interactions between labor intensity and each of polity score as well as the proportion of self-employed as excluded instruments. Next, labor intensity's interactions with polity score and strength of legal rights index feature in IV Set #3. Further, the exclusion restrictions in the fourth set consist of interactions between labor intensity and each of three country-level characteristics: the share of self-employed, the strength of legal rights, and polity score. Thus, the four combinations of instruments lead to overidentified models.

Focusing on the OLS results, regardless of the employment protection measure utilized, EPL is found to be associated with greater industry-level imports for relatively labor-intensive sectors. For instance, an increase in EPL (Version 1) by one standard deviation from the sample average corresponds to a rise in imports by roughly 3.4% for a sector whose labor intensity is one standard deviation above the mean.[22] Thus, during 2009, an increase in Finland's labor market stringency to Germany's level is likely to encourage imports of wood and associated products by a similar magnitude. From Table 3, the OLS estimate pertaining to EPL's interaction with labor intensity paints a similar picture. For a sector whose

[19] For brevity, we only report the coefficient estimates involving interactions between country-level characteristics such as EPL and measures such as labor intensity that vary across industries. Although the estimates pertaining to the other controls are not displayed, they are available upon request.

[20] Note that while we report heteroskedasticity-robust standard errors, a country-sector combination may face import shocks that are correlated over time. Thus, we also obtained standard errors clustered at the country-by-industry level. The results are qualitatively similar and available upon request.

[21] For the IV strategy, we do not report the first-stage results but they are available upon request.

[22] The average and standard deviation values are displayed in Table 1.

labor intensity is a standard deviation above the average, a one standard deviation rise in labor market stringency (i.e., EPL Version 2) from the mean is associated with additional imports to the tune of 4.2%. Also, both the coefficient estimates are statistically significant at the $p < 0.05$ level of confidence.

Turning to the GMM estimates across Tables 2 and 3, our instrument sets fare well in terms of the usual IV specification tests. In other words, the Kleibergen-Paap (2006) rk statistic always rejects the null of underidentification and the Kleibergen-Paap F-statistic is typically large. Moreover, Hansen's J-test supports the validity of our instruments. Also, the exogeneity of EPL's interaction with labor intensity is always rejected at conventional levels of significance. In addition, the Anderson and Rubin (1949) test (robust to weak instruments) confirms the endogenous regressor to be significant at the $p < 0.01$ level of confidence.

For both EPL indicators, the IV estimates pertaining to our coefficient of interest are strikingly greater than the corresponding OLS values. In Table 2, across the four sets of instruments, a rise in employment protection by one standard deviation results in an increase in imports by roughly between 15% and 18% for an industry whose labor intensity is one standard deviation above the mean. For a similar exercise, the estimates in Table 3 indicate even greater impacts. In case of a sector with comparable labor intensity, an identical increase in EPL leads to additional imports to the tune of about 20%. Moreover, for both EPL measures, all our IV estimates are significant at the $p < 0.01$ level of confidence.

Turning to the remaining regressors, the signs on the coefficient estimates displayed in Tables 2 and 3 make intuitive sense. For example, country-level skill abundance is found to reduce imports of goods that are relatively human capital-intensive. Across the OLS and IV estimates in Tables 2 and 3, a rise in skill abundance by one standard deviation from the mean discourages imports by roughly between 6% and 10% for a sector whose skill intensity is a standard deviation above the average. Again, all the coefficient estimates are significant at the $p < 0.01$ level. Similarly, the remaining estimates are also consistent with the logic of comparative advantage. An increase in countries' capital (material) abundance is found to reduce imports in industries characterized by greater capital (material) intensity.

Before proceeding, it is worth noting that Tables A1 and A2, in the appendix, correspond to Versions 1 and 2 of the EPL indicator, respectively, and shed further light on instrument validity. To be more precise, the availability of three excluded instruments allows us to re-estimate the models utilizing two exclusion restrictions at a time with the third measure included as an explanatory variable in the second-stage equation. Intuitively, to the extent that our exclusion restrictions are valid, they are unlikely to be statistically significant in the second-stage of the corresponding IV specifications (e.g., Murray 2006). Thus, across both tables, in case of IV Set #1, we include the interaction between labor intensity and polity score as an additional regressor in (1). Similarly, for IV Set #2 (IV Set #3), we consider the interaction between

labor intensity and the strength of legal rights (the share of self-employed) as an included explanatory variable. Strikingly, the statistical insignificance of these additional variables in the second-stage further supports the validity of our excluded instruments. Moreover, the results displayed in Tables A1 and A2, in the appendix, are qualitatively similar to those reported in Tables 2 and 3, respectively.

5 Conclusion

In the complex relationship between domestic labor regulations and international trade, an issue of significant policy relevance is the causal effect of labor standards on trade. For instance, as countries increasingly participate in international trade negotiations that constrain their ability to implement trade policies, it is worth analyzing whether domestic regulations influence trade (e.g., Ederington and Minier 2003). Similarly, amidst concerns over international competition driving countries towards a 'race to the bottom' in labor standards, an examination of the trade implications of labor market stringency is warranted. However, identification of this causal effect is not trivial due to the potential endogeneity of labor standards attributable to crucial unobservables and measurement error.

In this light, we assess the impact of the OECD's EPL indicators on industry-level imports and complement the existing literature analyzing the effect of employment protection on FDI. For our purpose, we rely on data from more than 30 countries across 21 manufacturing sectors over the period 2001-2009. Due to concerns over endogeneity of EPL, we employ a difference-in-differences type approach and identify the impact of EPL on trade in relatively labor-intensive industries. Moreover, we resort to an IV strategy that lends further credibility to our analysis. Strikingly, across all specifications, EPL is found to significantly encourage imports in sectors with relatively greater labor intensity. In addition, the GMM estimates uncover a more pronounced impact and find the concerns over endogeneity to be relevant.

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Table 1. Summary Statistics.

Variable	N	Mean	SD
Imports	5946	8310918.000	16600000.000
Employment Protection Legislation Indicators			
Version 1	5078	2.160	0.752
Version 2	5078	2.415	0.607
Material Abundance	5946	0.081	0.160
Skill Abundance (% of labor force)	5538	26.760	8.411
Capital Abundance	5946	147947.800	72608.060
Labor Intensity	4723	0.190	0.079
Material Intensity	4985	0.682	0.103
Human Capital Intensity	5946	1.015	0.160
Capital Intensity	4619	0.130	0.082
Strength of Legal Rights Index	3831	6.626	1.881
Share of Self-employed (% of employed)	5946	16.635	8.112
Polity	5757	9.717	0.621

Table 2. Impact of Employment Protection Legislation (Version 1) on Import Flows.

	OLS	IV Set #1	IV Set #2	IV Set #3	IV Set #4
EPL × Labor Intensity	0.569†	2.558*	2.573*	2.968*	2.774*
	(0.230)	(0.776)	(0.648)	(0.850)	(0.750)
log(Material Abundance) × Material Intensity	-0.333*	-0.167	-0.314*	-0.080	-0.086
	(0.097)	(0.112)	(0.099)	(0.140)	(0.139)
log(Capital Abundance) × Capital Intensity	-0.756†	-0.431‡	-0.810*	-0.353	-0.370
	(0.335)	(0.260)	(0.287)	(0.260)	(0.258)
Skill Abundance × Human Capital Intensity	-0.047*	-0.074*	-0.045*	-0.080*	-0.076*
	(0.014)	(0.025)	(0.012)	(0.026)	(0.025)
Underid Test		0.000	0.000	0.000	0.000
F-stat		214.430	137.827	56.753	144.515
Overid Test		0.527	0.433	0.773	0.853
Endogeneity		0.045	0.001	0.029	0.027
Sign. Endog.	0.013	0.004	0.000	0.003	0.004
N	3801	2377	3767	2343	2343

‡ p<0.10, † p<0.05, * p<0.01. Standard errors in parentheses are heteroskedasticity-robust. EPL × labor intensity is instrumented for using variables such as proportion of self-employed × labor intensity, strength of legal rights index × labor intensity, and polity score × labor intensity. Underid Test reports the p-value of the Kleibergen-Paap (2006) rk statistic with rejection implying identification. F-stat reports the Kleibergen-Paap F statistic for weak identification. Overid Test displays the p-value of Hansen J statistic with rejection implying invalid instruments. Endogeneity reports the pvalue of endogeneity test of the endogenous regressors. Sign. Endog. displays the p-value of Anderson-Rubin (1949) chi-square test of an endogenous regressor. Other covariates include: capital intensity, labor intensity, and country-industry, country-year, and industry-year dummies. See text for further details.

Table 3. Impact of Employment Protection Legislation (Version 2) on Import Flows.

	OLS	IV Set #1	IV Set #2	IV Set #3	IV Set #4
EPL × Labor Intensity	0.865*	3.153*	3.417*	3.314*	3.408*
	(0.308)	(0.974)	(0.935)	(0.959)	(0.944)
log(Material Abundance) × Material Intensity	-0.355*	-0.261†	-0.427*	-0.243‡	-0.244‡
	(0.097)	(0.113)	(0.098)	(0.138)	(0.138)
log(Capital Abundance) × Capital Intensity	-0.770†	-0.451‡	-0.856*	-0.427	-0.403
	(0.336)	(0.262)	(0.295)	(0.263)	(0.259)
Skill Abundance × Human Capital Intensity	-0.047*	-0.078*	-0.048*	-0.076*	-0.080*
	(0.014)	(0.024)	(0.012)	(0.025)	(0.024)
Underid Test		0.000	0.000	0.000	0.000
F-stat		142.287	115.226	70.104	97.672
Overid Test		0.640	0.115	0.811	0.831
Endogeneity		0.074	0.004	0.061	0.045
Sign. Endog.	0.005	0.004	0.000	0.003	0.004
N	3801	2377	3767	2343	2343

‡ p<0.10, † p<0.05, * p<0.01. Standard errors in parentheses are heteroskedasticity-robust. EPL × labor intensity is instrumented for using variables such as proportion of self-employed × labor intensity, strength of legal rights index × labor intensity, and polity score × labor intensity. Underid Test reports the p-value of the Kleibergen-Paap (2006) rk statistic with rejection implying identification. F-stat reports the Kleibergen-Paap F statistic for weak identification. Overid Test displays the p-value of Hansen J statistic with rejection implying invalid instruments. Endogeneity reports the pvalue of endogeneity test of the endogenous regressors. Sign. Endog. displays the p-value of Anderson-Rubin (1949) chi-square test of an endogenous regressor. Other covariates include: capital intensity, labor intensity, and country-industry, country-year, and industry-year dummies. See text for further details.

Table A1. Impact of Employment Protection Legislation (Version 1) on Import Flows: Additional Tests of Instrument Validity.

	IV Set #1	IV Set #2	IV Set #3
EPL × Labor Intensity	2.852*	2.311†	3.408‡
	(0.824)	(1.116)	(1.756)
log(Material Abundance) × Material Intensity	-0.091	-0.103	-0.069
	(0.141)	(0.142)	(0.145)
log(Capital Abundance) × Capital Intensity	-0.379	-0.366	-0.338
	(0.261)	(0.258)	(0.270)
Skill Abundance × Human Capital Intensity	-0.076*	-0.079*	-0.079*
	(0.025)	(0.025)	(0.026)
Polity Score × Labor Intensity	-0.031		
	(0.138)		
Strength of Legal Rights Index × Labor Intensity		-0.067	
		(0.118)	
Proportion of Self-employed × Labor Intensity			-0.015
			(0.036)
Underid Test	0.000	0.000	0.000
F-stat	196.506	57.750	14.915
Overid Test	0.606	0.972	0.697
Endogeneity	0.037	0.258	0.155
Sign. Endog.	0.003	0.128	0.130
N	2343	2343	2343

‡ $p<0.10$, † $p<0.05$, * $p<0.01$. Standard errors in parentheses are heteroskedasticity-robust. EPL × labor intensity is instrumented for using variables such as proportion of self-employed × labor intensity, strength of legal rights index × labor intensity, and polity score × labor intensity. Underid Test reports the p-value of the Kleibergen-Paap (2006) rk statistic with rejection implying identification. F-stat reports the Kleibergen-Paap F statistic for weak identification. Overid Test displays the p-value of Hansen J statistic with rejection implying invalid instruments. Endogeneity reports the pvalue of endogeneity test of the endogenous regressors. Sign. Endog. displays the p-value of Anderson-Rubin (1949) chi-square test of an endogenous regressor. Other covariates include: capital intensity, labor intensity, and country-industry, country-year, and industry-year dummies. See text for further details.

Table A2. Impact of Employment Protection Legislation (Version 2) on Import Flows: Additional Tests of Instrument Validity.

	IV Set #1	IV Set #2	IV Set #3
EPL × Labor Intensity	3.332*	4.684†	2.822†
	(0.994)	(2.308)	(1.399)
log(Material Abundance) × Material Intensity	-0.235‡	-0.267‡	-0.229
	(0.143)	(0.142)	(0.140)
log(Capital Abundance) × Capital Intensity	-0.394	-0.436‡	-0.432
	(0.262)	(0.264)	(0.263)
Skill Abundance × Human Capital Intensity	-0.079*	-0.077*	-0.077*
	(0.024)	(0.024)	(0.025)
Polity Score × Labor Intensity	0.032		
	(0.131)		
Strength of Legal Rights Index × Labor Intensity		0.120	
		(0.200)	
Proportion of Self-employed × Labor Intensity			0.013
			(0.024)
Underid Test	0.000	0.000	0.000
F-stat	132.293	22.144	24.881
Overid Test	0.577	0.996	0.808
Endogeneity	0.074	0.131	0.260
Sign. Endog.	0.003	0.128	0.130
N	2343	2343	2343

‡ $p<0.10$, † $p<0.05$, * $p<0.01$. Standard errors in parentheses are heteroskedasticity-robust. EPL × labor intensity is instrumented for using variables such as proportion of self-employed × labor intensity, strength of legal rights index × labor intensity, and polity score × labor intensity. Underid Test reports the p-value of the Kleibergen-Paap (2006) rk statistic with rejection implying identification. F-stat reports the Kleibergen-Paap F statistic for weak identification. Overid Test displays the p-value of Hansen J statistic with rejection implying invalid instruments. Endogeneity reports the pvalue of endogeneity test of the endogenous regressors. Sign. Endog. displays the p-value of Anderson-Rubin (1949) chi-square test of an endogenous regressor. Other covariates include: capital intensity, labor intensity, and country-industry, country-year, and industry-year dummies. See text for further details.