Does Strict Employment Protection Legislation Deter FDI?

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Abstract

While popular sentiment suggests that strict employment protection legislation will tend to weaken the attractiveness of a country as a location for FDI, theoretical predictions on this issue are mixed. In this study, we report empirical evidence on this issue, using panel data for a sample of OECD countries. Overall, our findings support the view that increases in the strictness of regulations governing employment contracts may have a deterrent effect on FDI. However, we find evidence for a non-linear effect, such that very high levels of employment protection may actually help to make an economy a more attractive location for FDI.

1. Introduction

What are the factors that help to make a country a more – or less – attractive location for foreign direct investment (FDI)? The substantial increase in global flows of FDI that has occurred in recent years has prompted a renewed interest in this question both from academics and policy-makers. In response, a vast literature, featuring both theoretical and empirical contributions, has emerged; the main findings of which, are surveyed admirably in a recent book by Moosa (2002).

A view that seems to have gained popularity amongst policy-makers - in Anglo-Saxon economies, at least - is that greater labour market flexibility helps to make a country a more attractive location for FDI.[1] A corollary of this is that a strict regime of employment protection legislation, which is often held to inhibit labour market flexibility, will tend to diminish a country's attractiveness as a location for FDI. Recent theoretical analysis has lent some support to this view. In two recent theoretical contributions, Haaland and Wooton (2001, 2002) observe that in an environment of uncertainty multinational enterprises will want to take account of future exit costs when deciding on the location of a new investment. Employment protection legislation – e.g. in the form of statutory redundancy payments – will tend to add to the scale of future exit costs. Countries with relatively strict employment protection legislation will therefore tend to be less attractive locations for FDI, other things equal, than countries with relatively weak employment protection regimes.

Theoretical analysis does not present unambiguous predictions concerning the effect of employment protection legislation, however. Dewit et al (2003) show that if firms act strategically there may be circumstances in which it would be advantageous to locate in a country with a strict employment protection regime. The explanation is

that strict employment protection raises the costs of adjustment for firms that change the scale of their production. Therefore, if a firm wishes to commit to maintaining a particular output level it may be in its interests to locate in a country with a strict employment protection regime.

To date, there appears to have been only one empirical study that has attempted to address the issue of the influence of employment protection legislation on FDI. The study by Cooke (1997) presents a cross-section econometric analysis of the determinants of the location decisions by U.S. multinational enterprises in a number of industries. Based on a classification of the strictness of the employment protection regime in different countries due to Emerson (1988), Cooke finds that, other things equal, investment by U.S. multinationals is significantly lower in the six countries (France, Greece, Italy, the Netherlands, Portugal, and Spain) that have the tightest restrictions on the ability of firms to lay off redundant workers.

Cooke's study is limited in that he focuses on the investment decisions of multinational companies of a single country (albeit that U.S. firms are important contributors to global flows of FDI), using data for a single point in time (the early 1990s), and in that the dummy variable he uses represents a relatively crude measure of the effects of employment protection. In the light of these limitations, there is scope for a more extensive examination of the relationship between the strictness of employment protection legislation and the direction of international flows of FDI.

The present paper aims to test the hypothesis that strict employment protection legislation helps to deter FDI. The study therefore contributes to the growing literature that examines the effect of employment protection legislation (EPL) on economic performance. Most of the existing literature has focused on the labour

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[1] This view has been expressed by the United Kingdom government, for example. See HM

market effects of EPL. In particular, studies have examined the impact of EPL on the rate and structure of unemployment (see for example: Bertola, 1990; Gregg and Manning, 1997; and Nickell, 1997), the pattern of worker and job flows (Schettkat, 1997; Boeri, 1999), and the structure of employment (OECD, 1999; Bertola et al, 2002; Robson, 2003). On the whole, the evidence from these studies is rather mixed. While stricter EPL appears to influence both the duration and demographic composition of employment and unemployment, there is little evidence to suggest that it has a significant impact on either the average rate of unemployment or the employment-population ratio. In spite of this rather mixed evidence on the effects of EPL, the view appears to have taken hold in policy-making circles that strict employment protection legislation is detrimental to economic performance, and is a significant factor in explaining the recent sluggish performance of many European economies relative to that of the United States (see for example OECD, 1994).

In order to examine the effects of employment protection legislation on FDI we make use of an indicator of the strictness of EPL constructed by Blanchard and Wolfers (2000). This indicator, which is developed from previous work carried out by the OECD (OECD, 1999) and Lazear (1990), covers a number of OECD countries and is available for a sequence of five -year periods from 1960-4 through to the mid-1990s. We make use of a subset of the data, corresponding to the figures that we have available for FDI. We estimate panel data regressions of aggregate inflows of FDI on employment protection and a set of additional explanatory variables that have been found in previous studies to have a significant effect on FDI flows.

Overall, our results are supportive of the notion that strict employment protection legislation may help to reduce the attractiveness of a country as a location

Government (1996).

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for FDI. In particular, our results suggest that FDI is particularly attracted to countries with very weak EPL. At higher levels of EPL, however, the effect of further restrictions on hiring and firing becomes relatively weak and may indeed become positive.

The outline of the remainder of the paper is as follows. In section 2, we discuss the data and the specification of our basic empirical model. Section 3 reports the results, while section 4 provides concluding comments.

2. Data and Empirical Specification

The measure of the strictness of employment protection legislation we use for this study is the indicator constructed by Blanchard and Wolfers (2000) for their investigation of the role of shocks and institutions in the determination of OECD unemployment. The Blanchard and Wolfers measure is a summary indicator of the overall strictness of EPL that builds on previous work carried out by the OECD (OECD, 1999) and Lazear (1990). The indicator is scaled to lie between a minimum value of 0 (corresponding to very weak employment protection) and a maximum of 6 (corresponding to very strict protection). The data is available for a number of OECD countries, in the form of five-year average values over the period from 1960 through to the mid-1990s, though in this study we use data only from 1965-9 onwards, corresponding to the availability of data on FDI flows.[2]

The Blanchard-Wolfers measure embraces a wide range of restrictions on the use of labour, including regulations governing the use of fixed term contracts and the activities of temporary work agencies. In contrast, the model put forward by Haaland and Wooton (2001, 2002) suggests that the influence of employment protection on FDI is likely to come through its effect on the scale of exit costs. These are most likely to be related to regulations relating to the cost of dismissals, in particular collective dismissals - for example, regulations governing the size of severance payments and periods of advanced notice of dismissal. These are the focus of the measures constructed by Lazear (1990) (which are used by Blanchard and Wolfers in the construction of their indicator). However, the Lazear measures are only available up to 1984, which limits their usefulness for an analysis of the determinants of FDI. Of the several measures of the strictness of EPL that have appeared in the literature,

the Blanchard-Wolfers indicator offers the most extensive coverage and despite its limitations is therefore the one that we use in our analysis.[3]

Table 1 shows selected values of the Blanchard-Wolfers indicator of the strictness of EPL for the countries in our data sample. The data indicate that the overall strictness of EPL tends to be highest in the southern European countries – Greece, Italy and Spain – and weakest in the USA, Canada and the United Kingdom. A number of countries – Belgium, Denmark and Sweden among them – appear to have introduced measures to relax the strictness of EPL in their economies during the 1990s. The main exception to this trend was in France, where the 1990s saw further tightening of the employment protection regime through the imposition of tighter restrictions on the maximum cumulative duration of fixed term contracts and tighter limits on the scope of the activities of temporary work agencies.[4]

We have two sets of data on FDI; one measured at the aggregate level, the other disaggregated by sector. At the aggregate level, we use the data on inflows of FDI published in the IMF *International Financial Statistics Yearbook*. The data, which are expressed in national currencies, are converted into U.S. dollars using current exchange rates and deflated by the U.S. GDP deflator. The sectoral data is taken from the OECD's *International Direct Investment Statistics Yearbook* (OECD, 1999b). The sectors for which data is available are listed in the Data Appendix.

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[2] Note that the final observation for each country included in the data series is a three-year average for the period 1995-7. See the Appendix to Blanchard and Wolfers (2000) for details of the construction of the data series. The Appendix is available at http://econ-www.mit.edu/faculty/blanchar/papers.htm .

[3] Other studies that have attempted to construct comparative measures of the strictness of EPL across different countries include Emerson (1988), Bertola (1990), Grubb and Wells (1993) and OECD (1999a).

[4] Further discussion of recent developments in employment protection legislation in OECD countries is contained in OECD (1999a).

Figure 1 provides a cross-plot of observations on the natural log of real aggregate FDI flows and the Blanchard-Wolfers indicator of the strictness of EPL.[5] The cross-plot provides preliminary evidence in support of a negative relationship between the two series, although the relationship is subject to significant dispersion. Closer inspection suggests the possibility that there may be non-linearities in the relationship between EPL and FDI. In particular, the relationship appears to exhibit something of an s-shaped pattern, such that there appears to be a relatively strong effect of EPL on FDI for countries with either very weak or very strong employment protection but a relatively weak effect for countries in between in these extremes.[6] We investigate this issue more fully in our more formal empirical analysis below.

In order to test the hypothesis of a negative relationship between the strictness of employment protection legislation and inflows of FDI more thoroughly, we need to control for the presence of other potential influences on FDI. We therefore include as additional explanatory variables in our regressions a list of variables that have been found in other studies to have a significant effect on the attractiveness of a country as a location for FDI. These are: the level and growth of real GDP, the productivity adjusted real wage, openness to trade, the real exchange rate (more specifically, we include a measure of real exchange rate depreciation), corporate taxes as a percentage of GDP, and the host country unemployment rate. The level of real GDP is included as a measure of the market size of the host country and is expected to have a positive effect on inflows of FDI (see Moore, 1993; Bajo-Rubio and Sosvilla-Rivero, 1994; Wang and Swain, 1995; Billington, 1999; and Cleeve and Ndhlovu, 2001, amongst others, for evidence in support of this), as is the rate of growth of real GDP. The

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[5] Note that this cross-plot includes observations for a number of countries – Iceland, Korea, Luxembourg, Mexico, Portugal and Turkey – that are excluded from the sample used in our regression analysis as we do not have complete data for these countries on the full set of explanatory variables used in our analysis.

evidence on the effects of the other variables is mixed, with some studies finding positive effects; others negative effects; and others still, no significant effect.[7]

The variables listed above, plus a time trend to capture the general increase in FDI flows over time, form the set of control variables we use in our regression analysis to investigate the issue of whether strict employment protection legislation serves to deter FDI.

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[6] We are grateful to Jonathan Wildman for this observation.

[7] Recent studies on the effects of real wage costs include Moore (1993), Pain (1993), Bajo-Rubio and Sosvilla-Rivero (1994), Wang and Swain (1995), Love and Lage-Hidalgo (2000), Billington (1999) and Wheeler and Mody (1992). Evidence on the effects of trade openness may be found in Kravis and Lipsey (1982), Edwards (1990) and Yang et al (2000). For evidence on exchange rate effects see Caves (1988), Froot and Stein (1991), Blonigen (1997), Görg and Wakelin (2001) and Yang et al (2000). Grubert and Mutti (1991), Wheeler and Mody (1992), Hines and Rice (1994), Swenson (1994), Jackson and Markowski (1995), Loree and Guisinger (1995), Mudambi (1995), Porcano and Price (1996), Cassou (1997), Kemsley (1998), Billington (1999) are among a host of studies that have examined the effect of corporate tax rates on multinational enterprise location decisions. Finally, the effects of the host country unemployment rate in the have been studied by Billington (1999) and Cassou (1997).

3. Empirical Analysis

Table 2 reports the results of our initial panel data regression analysis. Three sets of results are shown. Columns (1) and (2) show the results from regressions using data on aggregate FDI flows. For these regressions, we have an unbalanced panel of 108 observations as data on FDI and/or one or more explanatory variables are missing for some time periods. The countries for which data are used are listed in the Data Appendix.

The estimates in column (1) are obtained using Feasible GLS estimation, with allowance for heteroskedasticity and autocorrelation in the equation disturbances[8]. They show a strong negative effect of EPL on inflows of foreign direct investment, with significant effects also for the level and growth of real GDP, real exchange rate depreciation, and the host country unemployment rate. Insignificant effects are found for the corporate tax burden, openness and the productivity-adjusted real wage.

The positive sign for the coefficient of the log of real GDP supports the common finding that market size is an important influence on the attractiveness of a country as a location for FDI, while the positive coefficient for real GDP growth suggests that FDI is attracted to growing markets. The positive sign for the coefficient on the host country unemployment rate suggests that the availability of labour may be an important factor in the location decisions of multinational enterprises. Alternatively, it may be the case that the governments of countries with relatively high rates of unemployment are willing to offer higher subsidies in order to attract multinational enterprise investment. Finally, the negative coefficient for the depreciation of the real exchange rate is consistent with the notion that FDI may be a substitute for trade. In addition, it is possible that the currency depreciation variable

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[8] All results are obtained using version 7.0 of Stata.

may be picking up the effects of exchange rate volatility on the incentives for FDI (Campa, 1993).

The second column of Table 2 shows the results from a random effects specification that allows for the presence of unobserved country-specific effects on FDI inflows. These unobserved effects include the effects of persistent characteristics, such as geographical proximity to markets, language spoken, etc., that may make countries more or less attractive locations for FDI. The results show that although rather weaker, the negative effect of EPL remains statistically significant at the 10% level (5% on a one-tailed test).[9]

In column (3), we report the results of estimating our equation using sectorally disaggregated data on FDI flows[10]. The regression equation includes sectoral dummies and the coefficient standard errors are adjusted to allow for the 'clustering' of observations due to the fact that the explanatory variables are measured at the aggregate level (Moulton, 1986). The magnitude of the coefficient for EPL is much smaller than in the equations estimated using aggregate data, but once again it is statistically well determined.[11] Overall then, the evidence we have presented so far provides support for the notion that a strict regime of employment protection legislation may serve to deter FDI.

Are There Non-linearities in the Relationship Between EPL and FDI?

In Section 2, we raised the possibility, based on an examination of the data in Figure 1, that there may be non-linearities in the relationship between EPL and FDI.

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[9] We have also estimated fixed effects specifications. In these, the effect of employment protection legislation remains reasonably strong, particularly when the equation is estimated by Feasible GLS. However, the results of a Hausman specification test show that the results of the Random effects specification are narrowly preferred (the significance level for the test of the null hypothesis of random effects is 0.085). Moreover, it is worth noting that some of our explanatory variables exhibit relatively little time series variation. In such circumstances, fixed effects methods can lead to imprecise estimates and random effects estimation may therefore be preferable (Wooldridge, 2002).

To investigate this, we experimented with estimating a variety of non-linear functional forms, including quadratic, cubic and piecewise linear specifications. Of these, the quadratic specification appears to work best, both in terms of goodness of fit and in terms of providing a model with intuitively interpretable coefficients. The results are reported in Table 3.

The quadratic term in the employment protection index is insignificant in the random effects specification but strongly significant in the equation estimated by Feasible GLS and in the equation estimated using sectorally disaggregated data. The coefficient estimates suggest that starting from a position of very weak employment protection legislation there is a strong deterrent effect on inward FDI as the strictness of employment protection legislation is increased. However, this deterrent effect tails off quite rapidly and in fact seems to disappear at intermediate levels of employment protection, corresponding to a value of the employment protection index of just below three. Beyond this, the effect of stricter employment protection legislation appears, if anything, to be positive.

The apparent non-linearity in the relationship between employment protection legislation and inward FDI suggests that for multinational enterprises seeking mobile investment opportunities employment protection legislation may be perceived as imposing a potential fixed cost on their operations, which they are keen to avoid. FDI is therefore particularly attracted to countries with very weak employment protection legislation. This is supported by the results of an alternative specification in which we include a dummy variable for countries with values of the employment protection index below 1.5 (results available from the authors on request). Alternatively, the finding of a quadratic relationship could be consistent with the work of Dewit et al

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[10] Details of the sectors included are given in the Data appendix.

(2003), who show that while in general increases in the strictness of employment protection legislation may be expected to have a deterrent effect on inward FDI, strategic motives may in some circumstances lead firms to locate in countries with relatively strict regimes of employment protection legislation.

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[11] The coefficient for the log of real GDP is likewise reduced in magnitude.

4. Conclusions

In this study, we have set out to examine the hypothesis that a strict employment protection regime reduces the attractiveness of a country as a location for FDI. This view, which seems to have gained popularity with policy makers and other commentators, has received theoretical support in two recent papers by Haaland and Wooton (2001, 2002). Further work by Dewit et al (2003), however, shows that if firms act strategically there may be some circumstances in which firms may find it in their best interests to locate in countries with relatively strict employment protection.

In examining the relationship between the strictness of employment protection and FDI, we have made use of a summary indicator of the strictness of employment protection legislation in a number of OECD countries, constructed by Blanchard and Wolfers (2000). We have estimated panel data regressions using five-year average values of aggregate and sectorally disaggregated data for the period from the 1970s through to the mid-1990s. The results from this analysis are largely supportive of the hypothesis that a strict regime of employment protection serves to deter inward investment by multinational enterprises. They may therefore be seen as reinforcing and supplementing the earlier empirical findings of Cooke (1997).

The effect of employment protection legislation is found to be quantitatively as well as statistically significant. There is some variation in the estimated effect of EPL depending on the data used and the specification chosen. However, using the semi-log specification in Table 2, our most conservative estimate (from column (3)) suggests that other things equal a one unit decrease in the value of the indicator of the strictness of EPL (equivalent, for example, to the difference in the value of the indicator between Italy and the Netherlands in 1995-7) is associated with an increase

in the real value of inflows of FDI of six percent; comparable to the effect of a one percent increase in the log of real GDP.

These results may therefore be seen as lending support to the position of those governments and commentators who have advocated the merits of flexible labour markets as a means of attracting internationally mobile FDI. However, the evidence we have found for a quadratic relationship between employment protection and FDI suggests that matters may not be this straightforward. The latter suggests that while countries with relatively few restrictions on hiring and firing may gain benefits in terms of attracting inflows of FDI from a further relaxation of legislation in this area, countries with relatively strict regimes of employment protection may gain from a further tightening of regulations. Such a policy prescription runs counter to much previous thinking on this issue and while it may in principle be defended on theoretical grounds as well as being supported by the empirical evidence, we would not necessarily want to press this claim too strenuously. The quadratic specification on which it is based should perhaps be seen as an approximation to a more complex non-linear relationship. Where we are confident, however, is in stating the finding that the deterrent effect of stricter employment protection legislation on FDI becomes weaker as the severity of restrictions on hiring and firing is increased.

All in all, our results are consistent with the notion that strict employment protection legislation may - up to a point at least - reduce the attractiveness of a country to FDI. As such, they support the proposition that a relaxation of the strictness of employment protection regulations may be a potentially powerful policy instrument for governments seeking to make their economies more attractive locations for multinational enterprise investment. However, insofar as the result may be believed, the finding that a very strict employment protection regime may actually help to make

an economy a more attractive location for FDI may serve to allay fears that competition between governments keen to attract internationally mobile investment may lead them into a 'race to the bottom' in labour standards relating to employment protection.

Table 1. Selected Values of the Blanchard-Wolfers Index of the Strictness of Employment Protection Legislation

Country	1965-9	1985-9	1995-7
Australia	1	1	1
Belgium	2.21	3.1	2.2
Canada	0.6	0.6	0.6
Denmark	1.8	2.2	1.3
Finland	2.4	2.4	2.1
France	1.02	2.6	3.1
Germany	1.44	3.3	2.7
Greece	3.7	3.7	3.7
Ireland	0.25	1	1.1
Italy	4	4	3.4
Japan	2.8	2.8	2.8
Netherlands	2.7	2.7	2.4
New Zealand	1.6	1.6	1.6
Norway	3.1	3.1	2.7
Spain	4	3.8	3.1
Sweden	0	3.6	2.4
Switzerland	1.1	1.1	1.1
United Kingdom	0.33	0.7	0.7
USA	0.2	0.2	0.2

Source: Appendix to Blanchard and Wolfers (2000), available at http://web.mit.edu/blanchar/www/articles.html

Table 2. Determinants of FDI Inflows

The Dependent variable is the log of real inflows of FDI in U.S. dollars.

Estimation Method	(1) Feasible GLS	(2) Random Effects GLS	(3) OLS
log [real GDP]	0.6788***	0.4295**	0.0627***
	(0.0961)	(0.1815)	(0.0171)
Real GDP growth	0.1859***	0.1408***	0.0111
	(0.0333)	(0.0508)	(0.0175)
Employment protection	-0.3501***	-0.2556*	-0.0613***
	(0.084)	(0.1501)	(0.0153)
log [productivity-adjusted real wage]	-0.0140	0.2132	-0.0076
	(0.0820)	(0.1573)	(0.0120)
Unemployment rate	6.3257***	3.7681	0.0273
	(2.2875	(3.2682)	(0.3896)
Real exchange rate depreciation	-0.0073**	-0.0205**	0.0029
	(0.0029)	(0.0222)	(0.0037)
Openness	0.0072	-0.0016	0.0003
	(0.0046)	(0.0077)	(0.0010)
Corporate taxes/GDP	-0.0431	-0.0557	-0.0306
	(0.0561)	(0.0990)	(0.0701)
Trend	0.1982***	0.3773***	0.0315**
	(0.0595)	(0.0852)	(0.0125)
Constant	-2.2128	-1.8074	7.7672***
	(1.2590)	(2.3751)	(0.2376)
Number of observations	108	108	455
R^2		0.5276	0.4717
Log likelihood	-82.3319		

Coefficient standard errors in parentheses. In column (3) the standard errors are robust to the effects of clustering of the observations by country.
*, **, *** denote statistical significance at the 10%, 5% and 1% significance levels, respectively.

Sectoral dummies are included in the equation reported in column (3).

See the Data Appendix for a list of the countries (and sectors) included in the estimation sample.

Table 3. Testing for Non-linear Effects of EPL

The Dependent variable is the log of real inflows of FDI in U.S. dollars

| Estimation Method	(1) Feasible GLS	(2) Random Effects GLS	(3) OLS
log [real GDP]	0.5395***	0.3983**	0.0471***
	(0.1107)	(0.1828)	(0.0152)
Real GDP growth	0.1788***	0.1367***	0.0104
	(0.0326)	(0.0506)	(0.0154)
Employment protection	-1.4598***	-1.1820*	-0.2128***
	(0.4603)	(0.6983)	(0.0120)
EPL squared	0.2496**	0.2063	0.0386***
	(0.1032)	(0.1518)	(0.0120)
log [productivity-adjusted real wage]	0.0349	0.2265	0.0040
	(0.0808)	(0.1574)	(0.0087)
Unemployment rate	6.6337***	4.0089	-0.1038
	(2.2123)	(3.2625)	(0.3005)
Real exchange rate depreciation	-0.03909***	-0.0254	0.0040
	(0.0142)	(0.0223)	(0.0041)
Openness	0.0101**	0.0011	0.0007
	(0.0050)	(0.0079)	(0.0009)
Corporate taxes/GDP	-0.0318	-0.0324	-0.0265
	(0.0575)	(1.0000)	(0.0157)
Trend	0.2408***	0.3926***	0.0413***
	(0.0649)	(0.0855)	(0.0118)
Constant	-0.5506	-1.0841	7.9145***
	(1.3703)	(2.4309)	(0.2208)
Number of observations	108	108	455
R^2		0.5693	0.4923
Log likelihood	-79.42879		

Coefficient standard errors in parentheses. In column (3) the standard errors are robust to the effects of clustering of the observations by country.

*, **, *** denote statistical significance at the 10%, 5% and 1% significance levels, respectively.

Sectoral dummies are included in the equations reported in column (3).

See the Data Appendix for a list of the countries (and sectors) included in the estimation sample.

Figure 1. FDI Flows and the Strictness of Employment Protection Legislation
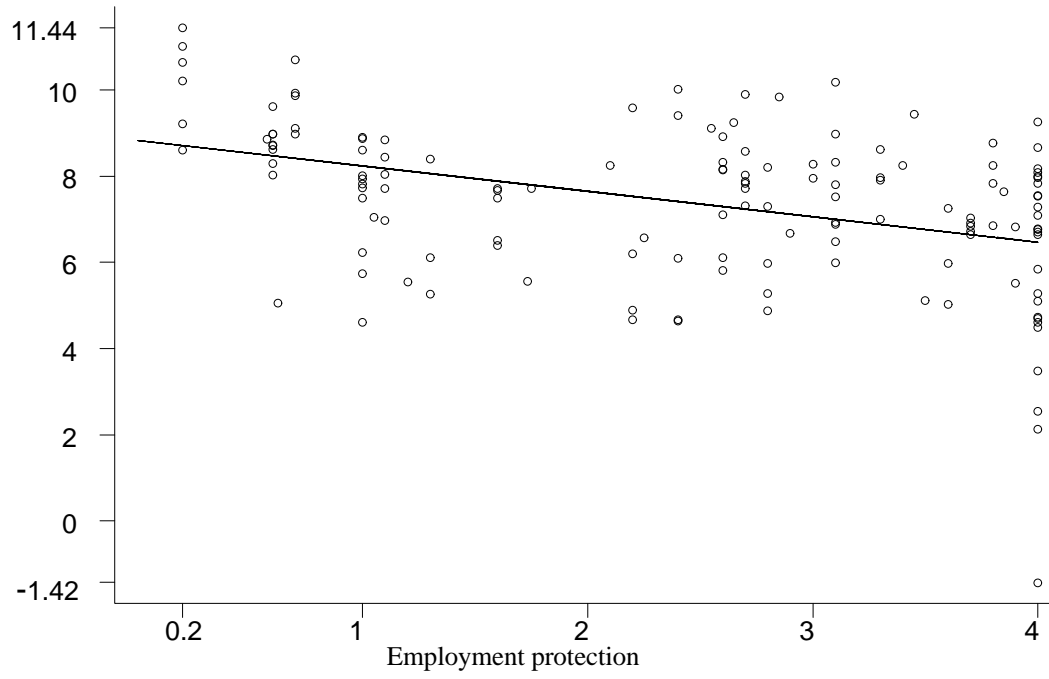
Data Appendix

The countries included in the data sample used for the panel data regressions are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, the Netherlands, Norway, New Zealand, Spain, Sweden, Switzerland, the UK, and the USA. Figure 1 features in addition data from Iceland, Korea, Luxembourg, Mexico, Portugal, and Turkey. These countries are excluded from the data sample used for the panel estimations because data for corporate taxes and/or wages are missing.

FDI Inflows
For the aggregate data analysis, figures for inflows of foreign direct investment in national currencies dollars are compiled from the *International Financial Statistics Yearbook* of the IMF. These are converted into U.S. dollars using current exchange rates and then deflated using the U.S. GDP deflator.

For the sectoral analysis, we have data for the following sectors: mining and quarrying; agriculture and fishing; food production; textiles and wood production; petroleum, chemicals, rubber and plastic; metallic and mechanical products; machinery, RTV, computers and communications; vehicles and transport equipment; construction; trade and repairs; hotels and restaurants; land, sea and air transport; and financial intermediation. The data are taken from the OECD's *International Direct Investment Statistics Yearbook*.

Employment Protection
As stated in the text, we use the summary indicator of the strictness of employment protection legislation compiled by Blanchard and Wolfers (2000). Details of the methods used to construct values of the indicator may be found in the Appendix to Blanchard and Wolfers' paper, located at http://econ-www.mit.edu/faculty/blanchar/papers.htm

Real GDP and Real GDP Growth
Nominal GDP figures in national currencies are obtained from the *International Financial Statistics Yearbook*. These are converted to U.S. dollars using current exchange rates. Real values are then obtained by dividing by the U.S. GDP price deflator. The growth series is calculated as the percentage change from the previous year's real GDP figure.

Productivity-adjusted Real Wage
The figures are obtained from the data set used by Blanchard and Wolfers (2000). See the Appendix to their paper for details of the method used to calculate the figures.

Unemployment Rate
Standardised unemployment rates are obtained from the Blanchard-Wolfers database.

Real Depreciation
The percentage change in the real exchange rate from the previous year (a positive value means a depreciation). Real exchange rates are calculated by multiplying the nominal exchange rate by the ratio of the U.S. GDP deflator to the GDP deflator of

the home country. The source for all series is the *International Financial Statistics Yearbook*.

Openness
This is defined as the sum of exports plus imports as a percentage of GDP. The component series are obtained from the *International Financial Statistics Yearbook*.

Corporate Taxes/GDP
Income from corporate taxes as a percentage of GDP. The data are published in various editions of *Revenue Statistics of OECD Countries*. We are grateful to John Ashworth for supplying us with the data.

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