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#### Abstract

Multinational enterprises are often accused to have a preference for investing in countries in which the working populations' civil and political rights are largely disregarded. This paper presents an empirical investigation of the popular "political repression boosts FDI" hypothesis and arrives at the conclusion that the hypothesis is not supported. On the contrary, multinational enterprises rather appear to be attracted by countries in which civil and political freedom is respected.

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#### 1 Introduction

The globalization of the economy is an issue which continues to attract a great deal of attention in the political arena. The exchange of opinion, unfortunately, quite often does not follow civilized patterns but is articulated in street riots. The third ministerial conference of the World Trade Organization in November/December 1999, for example, gave rise to the by now legendary "battle of Seattle" and the 55th Annual Meeting of the International Monetary Fund and the World Bank Group which took place in September 2000 in Prague was also accompanied by violent demonstrations.

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The arguments of the demonstrating opponents of economic globalization, be they peaceful or violent, appear to follow a standard pattern. One of the groups demonstrating in Prague, for example, described its objectives as follows: "We will be exposing the links between the IMF/WB, the WTO and transnational corporations and the ways how they work to maximize private profits and limit the power of people to protect the environment, determine their economic destiny, and safeguard their human rights. ... Our goal is to give the proper name to what the policies of the IMF/WB really cause in the South as well as in the Central and Eastern Europe. We will be demanding an immediate suspension of these practices leading to environmental destruction, growing social inequality and poverty and curtailing of peoples rights." In short, globalization is interpreted as a devious maneuver undertaken by multinational firms who, on the one hand, relocate production in order to undermine the tax and regulation policies of democratic nation states and, on the other hand, exploit the politically and economically repressed workers in third world autocracies: "Essentially, the WTO, and the "new" Global Economy, hurt the environment, exploit workers, and disregard civil society's concerns. The only beneficiaries of globalisation are the largest, richest, multi-national corporations."2

It would be wrong to denigrate these statements as mere battle cries of street fighters because similar patterns of argumentation can be found in the extensive popular literature on globalization. The reproach that multinational enterprises have a special liking for autocratic countries in which workers are not allowed to organize themselves with the result that the wage rates do not reflect their productivity, can be found, for example, in William Greider's 1998 bestseller One World, Ready or Not: The Manic Logic of Global Capitalism. Greider in particular argues against the hypothesis that FDI may have a liberalizing effect in these countries: "The promise of a democratic evolution requires skepticism if the theory is being promoted by economic players who actually benefit from the opposite condition - the enterprises doing business in low-cost labor markets where the absence of democratic rights makes it much easier to suppress wages. A corporation that has made strategic investments based on the cost advantages offered by repressive societies can hardly be expected to advocate their abolition" (p. 38). Greider understands, of course, that FDI decisions are influenced by balancing labor cost advantages against losses of labor productivity. However, he writes in this context: "The general presumption that low-cost workers in backward countries were crudely unproductive was simply not true. In fact, dollar for dollar, the cheaper

<sup>&</sup>lt;sup>1</sup>http://southcom.homestead.com/prague.html

<sup>&</sup>lt;sup>2</sup>http://www.s11.org/s11-dynamic.html and http://www.s11.org/wef.html

workers often represented a better buy for employers than the more skillful workers who were replaced. Their productivity was lower but it also improved rapidly - much faster than their wages. In order to attract foreign capital, their governments often made certain this was the case" (p. 74).<sup>3</sup>

Given the heated conflicts instigated by such arguments, it is surprising that there is almost no systematic analysis of the relationship between globalization and the respect for human rights.<sup>4</sup> Do civil and political repression really boost foreign direct investments, or does the anecdotal evidence provided by Greider rather represent the exception than the norm? And are multinational firms attracted by countries in which workers' rights are curtailed, or do they prefer societies in which an organized labor force is able to pursue its interests? In this paper we try to answer these questions by systematically examining the hypothesis that multinational enterprises preferably invest in countries in which the working populations' civil and political rights are disregarded.

We find that indices of political rights and civil liberties have a significant influence on foreign direct investment per capita and that this influence is *positive*. This result emerges both from a cross section analysis that considers average values for the early to mid-nineties and from panel estimations that exploit the time series variation of the data. Moreover, a greater degree of unionization among workers seems to attract, rather than deter foreign investors. The results of our study thus not only support the view that the location decisions of multinational firms are influenced by the host country's political system, they also contradict the widespread perception that international investors are attracted by societies in which political rights are repressed and workers' representation is curtailed.

The rest of the paper is structured as follows: the following section presents our data set and performs a cross-section regression using average data for the early and mid-1990s. Section 2.2 exploits the time-series dimension of our data set by

<sup>&</sup>lt;sup>3</sup>To support his claims, Greider frequently refers to anecdotal evidence, for example to an interview with an American manager of the Chinese Boeing branch who reports that workers were shot for sloppy work: "In these and other ways, the People's Republic instructed its citizens on the importance of discipline and quality. The great multinationals, in their eagerness for new markets, looked the other way, pretending that the brutality of their new partners was not their business" (p. 156).

<sup>&</sup>lt;sup>4</sup>The literature on "social dumping" does, however, make some headway in this direction, especially in areas in which the absence of basic social policy regulations comes close to the violation of human rights (child labor, etc.)

<sup>&</sup>lt;sup>5</sup>In a recent study focusing on foreign aid, Alesina and Dollar (2000) find no significant effect of freedom on FDI as a share of GNP. However, this result may be driven by the fact that both foreign investment and aggregate income are affected by democracy, while the ratio of the two magnitudes seems not to depend on the political system.

performing a fixed-effects panel regression. Finally, section 2.3 applies a two-step procedure, first identifying the factors that cause the time-series variation in FDI and then checking whether measures of democracy influence the time-invariant "country fixed effects". Section 3 summarizes and concludes.

### 2 Democracy and FDI: an empirical analysis

#### 2.1 Cross section analysis

To investigate whether there is a significant effect of a country's political system on the volume of FDI inflows, we start by considering the relationship between average FDI and a measure of political and economic liberties. Our sample consists of 62 developing and emerging market countries and covers the period between 1989 and 1997.<sup>6</sup>

Annual data on FDI inflows for a large number of developing countries are assembled by the World Bank and published in *Global Development Finance* (World Bank 2000). In order to control for country size, we divide the total volume of FDI by population size. The mean of this ratio for the years 1989 through 1997 is our dependent variable AVFDIPC – the average level of per-capita FDI.

To characterize a country's political regime we use indices developed by Raymond Gastil and published on an annual basis by Freedom House (2000). The first of these indices measures the extent of political rights, that is, the people's ability to "participate freely in the political process" (Freedom House 2000). It ranges from one to seven, with a value of seven reflecting a maximum of political repression. By taking the average of this index for the years 1989 through 1997 we compute the regressor AVPOL.

The second index provided by Freedom House measures the extent of *civil liberties*, that is, the "freedom to develop views, institutions, and personal autonomy apart from the state" (Freedom House 2000). Like the political rights index, this measure is defined on the interval between 1 and 7, and the average value for the years 1989 through 1997 is the variable *AVCIVIL*.

Finally, Freedom House uses the mean of the two measures in order to classify

<sup>&</sup>lt;sup>6</sup>Our choice of this period was determined both by limited data availability and by the fact that many developing countries attracted almost no direct investment during the 1980s. If we had included the "lost decade" in our estimations the lack of variation in the data would have blurred the factors that influenced the surge of FDI in the 1990s. Note, finally, that our short time frame makes it unlikely that our results are affected by endogeneity, i.e. the possibility that the volume of direct investment affects the political regime.

countries as "free", "partly free", or "not free". The average of this composite index for the years 1989 through 1997 is our third regressor AVDEMO.

The scatterplot in Figure 1 provides a first impression of the correlation between the composite freedom index (AVDEMO) and average FDI per capita between 1989 and 1997: although the data points in this plot are affected by various other factors which we will control for in the following more systematic analysis, there clearly seems to be a negative relationship; that is, FDI per capita is lower for the more repressed countries. This impression is confirmed by the result of a univariate regression given in the first column of Table 1: The coefficient of AVDEMO is negative and the t-statistic indicates a highly significant effect of this variable on AVFDIPC.

To be sure that this result is not just due to the omission of other determinants of FDI, we introduce a number of control variables which we believe to have a significant effect on AVFDIPC: first, we use the illiteracy rate in 1990 (ILLIT) in order to account for the notion that a higher level of education raises the productivity of capital and thus increases a country's attractiveness for foreign investors.<sup>8</sup> Our second control variable is the dummy OIL which is one whenever a country was a net-exporter of oil throughout the nineties and zero otherwise. Since we conjecture that resource-abundant countries attract a higher volume of FDI we expect the coefficient of this variable to be positive. We also use a measure of "political risk" (AVRISK) which is based on the International Country Risk Guide's assessment of the likelihood of expropriation, exchange controls and contract repudiation by a host country's government (see Political Risk Services (1997) and previous issues). As detailed in Harms (2000), AVRISK may take values between 0 and 30, with a higher value reflecting a lower degree of political risk. To account for the notion that macroeconomic mismanagement deters foreign investors, we also include the average inflation rate between 1989 and 1997 (AVINFLA). Moreover, we use a

<sup>&</sup>lt;sup>7</sup>Our choice of control variables is inspired by a number of earlier studies on the determinants of FDI, namely Schneider and Frey (1985), Wheeler and Mody (1992), and Jun and Singh (1996). Moreover, we have tried to find a reasonable balance between the number of regressors and the size of our sample, neglecting potential determinants of FDI whenever reliable data were only available for a small number of countries. A detailed description of all variables and their sources is given in the Appendix.

<sup>&</sup>lt;sup>8</sup>Since the illiteracy rate as a measure of a country's human capital stock exhibits a strong negative correlation with per capita income, this variable also accounts for the fact that richer economies are better locations for market-seeking FDI. Note that illiteracy rates are not available for Zaire and Madagascar, which shrinks our sample size to 60 countries.

 $<sup>^9</sup>$ Since existing investment barriers are also captured by AVRISK, this variable also accounts for the fact that many repressive states severely restricted the inflow of foreign capital until the early nineties.

standard measure of openness to international trade (AVTRADE), namely the sum of a country's exports and imports divided by its gross national product. We conjecture that a higher value of AVTRADE not only reflects a more liberal trade regime but that it may also be considered a proxy of the general extent of distortions in an economy. Hence, we expect that a higher value of AVTRADE should be correlated with more FDI.<sup>10</sup> Our last control variable captures the quality of the "business environment" by measuring corruption in government, the quality of the bureaucracy, and a country's law-and-order tradition. Like AVRISK, this index is the sum of three subindices published in the International Country Risk Guide. Each individual subindex ranges from zero to six, with a value of six reflecting a minimum of corruption, an efficient and transparent bureaucracy, and a mature law-and-order tradition, respectively. Computing the average of this sum for the years 1989 through 1997 yields the variable AVBUSCL. A number of recent contributions (Wei, 2000; Smarzynska and Wei, 2000) have demonstrated that, at least at the firm level, greater corruption lowers the incentive to invest in a given country. Hence, we expect AVBUSCL to have a positive influence on AVFDIPC.

Using these control variables we estimate the following equation by OLS:

$$AVFDIPC_{i} = \beta_{0} + \beta_{1}Democracy_{i} + \beta_{2}ILLIT_{i} + \beta_{3}OIL_{i} + \beta_{4}AVRISK_{i} + \beta_{5}AVINFLA_{i} + \beta_{6}AVTRADE_{i} + \beta_{7}AVBUSCL_{i} + \epsilon_{i},$$
(1)

where  $Democracy_i$  stands for one of the indices  $AVDEMO_i$ ,  $AVPOL_i$  or  $AVCIVIL_i$ . As shown in the second column of Table 1, the negative effect of our freedom index "survives" the inclusion of the control variables described above. The sign of the coefficient is still negative, and although the t-statistic has decreased, it is still above the critical value for a 95 percent level of significance.

With the exception of AVINFLA, the control variables have the expected sign, but none of them seems to have a significant influence on AVFDIPC. While multicollinearity among the regressors may have contributed to this result, the third column of Table 1 demonstrates that the fit of the model can be substantially improved if we use the natural logarithm of AVFDIPC as the dependent variable.<sup>11</sup>

<sup>&</sup>lt;sup>10</sup>Note, however, that a less liberal trade regime may also *raise* the volume of FDI by encouraging "tariff-hopping" (see Jun and Singh, 1996).

<sup>&</sup>lt;sup>11</sup>The table in section 5.3 shows that the partial correlations among the regressors are not very large. Moreover, the estimated coefficients do not vary by much if we remove some randomly selected observations from our sample. Hence, we do not believe that our results are seriously

Moreover, it is apparent from the fourth and the fifth column of the table that the two elements of the composite index differ substantially in their effect: AVCIVIL has both a higher coefficient (in absolute value), and its t-statistic is higher than the corresponding value for AVPOL, which suggests that international investors put a greater weight on the guarantee of civil liberties than on the extent of political participation.

Columns 3 – 5 of Table 1 show that in the estimation of the semilog version of equation (1), AVINFLA has a significantly positive effect on average per-capita FDI. This result points at a major shortcoming of the approach we followed so far: using averages over a longer time period neglects the fact that in some countries the regressors have changed dramatically during the period under consideration. A striking example is Argentina whose inflation rate decreased from 3,080 percent in 1989 to less than 1 percent in 1997. Despite this formidable improvement, Argentina's average inflation rate for the entire time period is still very high (623 percent). On the other hand, Argentina has attracted huge volumes of FDI in the mid-nineties. Without knowing the evolution of the time series, one might naively interpret these numbers as evidence of a positive relationship between inflation and FDI. But, of course, this is just a consequence of using averages. This discussion emphasizes the importance of accounting for the time series variation of the variables. In the following section we will therefore exploit both the cross section and the time series dimension of our data.

However, before doing this, it is worthwile to consider another variable that plays an important role in the reasoning of globalization opponents: as Greider (1998) emphasizes, the postulated positive effect of political repression on FDI is due to a curtailment of workers' rights and representation. To verify whether this line of argument is supported by the empirical evidence, we add a measure of trade union density (UNION) to the semilog version of equation (1).<sup>13</sup>

The first column of Table 2 shows that the coefficient of UNION has a positive sign, but at a low level of significance. This result is not surprising since a high degree of union membership does not automatically reflect a strong repre-

affected by collinearity. The superiority of the semilog specification is confirmed by an appropriate Box-Cox test. Note that, since the values of AVFDIPC for Cameroon and Gabon are negative, the natural logarithm cannot be computed for these countries, and our sample size shrinks to 58. However, the improved fit of the model is not due to the exclusion of these data points.

<sup>&</sup>lt;sup>12</sup>The value of AVFDIPC for Argentina is 116 US dollars per capita.

<sup>&</sup>lt;sup>13</sup>UNION is the percentage share of union-members among workers in a country's non-agricultural sector in 1995, as given by the International Labour Office (ILO 1998). Note that, due to limited data availability, the inclusion of this variable in our regression reduces our sample to 46 observations.

sentation of workers' interests: in a repressive regime, unions are rather used to control workers and to enforce the government's decisions. In order to account for this effect, we have generated two interactive measures of "effective unionization": UNIONEFF1 is computed by dividing UNION by the index of civil liberties AVCIVIL.  $^{14}$  UNIONEFF2 results from calculating  $UNION \cdot (8-AVCIVIL)$ . Both measures are admittedly crude, but it is striking that, as shown by the second and third columns in Table 2, both have a significant positive effect on FDIPC. Hence, our cross section analysis does not support the notion that a repressed working force is helpful to attract foreign investors. In fact, the opposite seems to be the case.

#### 2.2 Panel data estimation

We now turn to a specification of the empirical model that also takes into account the time series variation of the data. Table 3 presents the result of estimating the following equation

$$FDIPC_{it} = \alpha_i + \lambda_t + \beta_1 Democracy_{it} + \beta_2 RISK_{it} + \beta_3 INFLA_{it} + \beta_4 TRADE_{it} + \beta_5 BUSCL_{it} + \epsilon_{it}.$$
(2)

In (2),  $FDIPC_{it}$  is per-capita FDI in country i in the year t.<sup>15</sup>  $\alpha_i$  is a country-specific "fixed effect" and  $\lambda_t$  is a dummy that is used to capture time-varying factors which affect all countries.  $Democracy_{it}$  stands for one of the indices  $DEMO_{it}$ ,  $POL_{it}$ , or  $CIVIL_{it}$ . Finally,  $RISK_{it}$ ,  $INFLA_{it}$ ,  $TRADE_{it}$  and  $BUSCL_{it}$  are the measures of political risk, inflation, trade openness, and business climate for country i in the year t.<sup>16</sup> We omit ILLIT and OIL in equation (2) since the fixed effects approach requires that there is at least some within-group variation of the regressors.<sup>17</sup>

 $<sup>^{14}</sup>$ Recall that a higher value of AVCIVIL reflects a stronger restriction of civil liberties. We chose AVCIVIL to compute effective unionization since the civil-liberties index explicitly depends on the existence of free trade unions.

<sup>&</sup>lt;sup>15</sup>As demonstrated in the preceding subsection, a semilog version of this equation would be preferable. However, this alternative is not feasible since a large number of observations on annual FDI is negative.

 $<sup>^{16}</sup>$ The restriction of imposing a common intercept on all countries is clearly rejected by an appropriate F-test. Moreover, the result of a Hausman (1978) test prevents us from using the random effects model.

<sup>&</sup>lt;sup>17</sup>As detailed in Hsiao (1986) and Baltagi (1995), the fixed effects approach amounts to re-

The first column in Table 3 shows that changes in the extent of political risk as measured by our variable RISK had a significant effect on FDI per capita. Moreover, INFLA has the correct sign, though at a low level of significance. The poor performance of INFLA is mainly due to the inclusion of Zaire, which went through a dramatic hyperinflation in the mid-nineties. Column 2 of Table 3 shows that if we drop Zaire from the sample, the coefficient of INFLA becomes -0.006 and the t-statistic is -2.62. Changes in trade openness and business climate as measured by TRADE and BUSCL have no significant effect on FDI per capita, but the time dummies for the years 1994 onward (not reported in the table) have positive and highly significant coefficients. This seems to capture the overall emerging markets frenzy that characterized the mid-nineties and that was rather triggered by changing perceptions of international investors than by changing conditions in individual host countries.

The composite freedom index (DEMO) still has the correct sign, but the tstatistic is just slightly above the critical value for a 90-percent level of significance. Foreign investors seem to have honored the democratization that took place in many emerging markets in the early nineties, but we cannot confidently reject the hypothesis that there is no real relationship between the two magnitudes. In particular, if – apart from Zaire – we drop the former socialist countries Hungary, Poland, and Romania where DEMO decreased substantially during the 1990s the t-statistic drops to a value of -0,90 (see the third column in Table 3). When we use the individual measures of political rights and civil liberties, it turns out that, for the entire sample (less Zaire), POL has a strong effect, while the coefficient of CIVIL is much lower in absolute value and not significantly different from zero. This confirms our conjecture that the result in the second column of Table 3 is predominantly driven by the substantial transformation of the political regimes in the three former socialist countries and explains why the coefficient of our democracy measure becomes insignificant once we drop these countries from the sample: while for some countries the measure of freedom varied substantially during the period under consideration, there are many cases where this variation was negligible or completely absent. The most striking example is China which witnessed a huge increase of FDI inflows in the 1990s, but where the freedom index did not change at all and remained at a value of seven (indicating a maximum level of political repression) throughout this period. Hence, while time-varying regressors caused gressing deviations from the within-group mean of the dependent variable on deviations from the within-group means of the regressors. However, the oil dummy evidently does not change over time, and since the UNESCO provides illiteracy rates on a five-year basis only, there are simply

not enough data points to include ILLIT in the regression.

trouble in the preceding subsection, our results are now blurred by a *lack* of time series variation.<sup>18</sup> The following section presents an approach that is able to cope with this dilemma.

#### 2.3 A Two-step procedure

In this section, we will follow the two-step procedure applied, e.g., by Dickens and Katz (1987) and Olson et al. (2000): to account for the time series variation of our regressors, we start by estimating equation (2), however by omitting the democracy index and our measure of the business climate. Apart from a vector of coefficients this yields an estimate of the fixed effect  $\hat{\alpha}_i$  for each country. These fixed effects reflect the influence of time-invariant factors on the volume of FDI per capita in country i.

In a second step, we estimate the equation

$$\hat{\alpha}_i = \beta_0 + \beta_1 Democracy_i + \beta_2 ILLIT_i + \beta_3 OIL_i + \beta_4 AVBUSCL_i + \epsilon_i.$$
 (3)

The results of this regression are given in Table 4: both AVDEMO and ILLIT have the expected sign and are significant, while OIL and AVBUSCL do not exert a significant influence on FDI inflows. Similar results emerge when we use AVPOL and AVCIVIL instead of the composite index. As in Table 1, the measure of civil liberties has both a larger coefficient (in absolute value) and a higher t-statistic than the index of political rights. Hence,  $ceteris\ paribus$ , a greater extent of repression, in particular a restriction of civil liberties, seems to reduce rather than increase a country's attractiveness for foreign investors.

Column 4 in Table 4 indicates that at least our first measure of "effective unionization" has a significantly positive effect on AVFDIPC. As in section 1, this suggests that, instead of deterring multinational firms, a stronger representation of workers' interests induces more foreign direct investment.

 $<sup>^{18}</sup>$ We believe that the low t-statistic of BUSCL is also due to a lack of time-series variation: while many countries witnessed massive improvements of their political risk ratings during the nineties, the level of corruption, the quality of the bureaucracy, and the rule of law turned out to be much more persistent, and values of BUSCL hardly changed over time.

<sup>&</sup>lt;sup>19</sup>Table 1 has shown that *OIL* has a significantly positive effect once a semilog specification is used. Hence, the low *t*-statistic of the dummy in Table 4 should be interpreted with caution.

### 3 Summary and conclusions

The often heard claim that multinational enterprises, in choosing host countries for their FDI, have a preference for undemocratic regimes which deny their citizens basic human rights and suppress worker representation is not supported by our empirical investigation. On the contrary, individual freedom rather appears to attract FDI.

This conclusion may not come as a great surprise; after all it is very much in harmony with the existing inquiries into the other two main lines of attack which the opponents of globalization usually resort to, namely the claims that economic integration destroys the environment and debilitates democratic public decision-making processes. Surveying the extensive theoretical and empirical literature on international environmental economics and on welfare state policies in integrated economies, one is led to conclude that the globaphobic world view is simply not supported by comprehensive scholarly investigations into these two complex issues.<sup>20</sup>

A second strand of literature which relates to our study consists of the empirical investigations into the relationship between freedom and economic performance. Benabou (1996), Brunetti (1997), Drazen (2000), and de Haan and Sturm (2000) provide recent surveys of this literature. From a theoretical point of view, individual freedom can, in principle, have a positive or a negative influence on economic growth, depending on whether the negative effect working through increased political contestability of income and wealth outweighs the positive effect working through more efficient monitoring of politicians, bureaucrats, and rent-seekers (see, for example, Keech (1995) and Scully (1992), respectively). This theoretical ambiguity appears to be reflected in the unclear picture given by the results of the available empirical studies. Whatever the final word on the relationship between freedom and economic performance may be, our investigation adds to the existing studies an international dimension,<sup>21</sup> and gives to understand that international economic integration may generate more economic advantages for countries respecting civil and political rights than for repressive autocracies.

<sup>&</sup>lt;sup>20</sup> See, for example, Schulze and Ursprung (2001) and Schulze and Ursprung (1999), respectively.

<sup>&</sup>lt;sup>21</sup>Another empirical study elaborating on the open-economy implications of political regimes is to be found in Quinn (2000) who considers the interdependence between democratization and financial liberalization.

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## 5 Appendix: data description

#### 5.1 Definitions and sources

AVX: Average value of variable X between 1989 and 1997.

**FDIPC**: Foreign direct investment in U.S. dollar per capita. Source: World Bank (2000) and IMF (2000).

CIVIL: Gastil index of civil liberties. Scale: 1-7 (maximal repression). Source: Freedom House (2000) and previous issues.

**POL**: Gastil index of political rights. Scale: 1-7 (maximal repression). Source: Freedom House (2000) and previous issues.

**DEMO**: Gastil composite index of political rights and civil liberties (DEMO = (CIVIL + POL)/2. Source: Freedom House (2000) and previous issues.

ILLIT: Illiteracy rate in 1990 in percent. Source: UNESCO (1999).

**OIL**: Dummy variable: 1, if oil exports throughout 1990s greater than imports; 0 otherwise. Source: United Nations (1998).

**RISK**: Measure for likelihood of expropriations, exchange controls, and default on government contracts. Scale: 0-30 (minimal risk). Source: Political Risk Services (1996) and previous issues (For a given year, the value in the December issue of the previous year is used).

BUSCL: Measure for corruption, quality of bureaucracy, and law-and-order tradi-

tion (annual averages). Scale: 0 - 18 (optimal business climate). Source: Political Risk Services (1999).

**INFLA**: Annual inflation rate in percent. Source: IMF (2000).

**TRADE**: (Exports + imports)/GNP. Source: World Bank (2000).

**UNION**: Percentage share of unionized workers in non-agricultural sectors. Source: ILO (1997).

UNIONEFF1: UNION/AVCIVIL.

**UNIONEFF2**:  $UNION \cdot (8 - AVCIVIL)$ .

#### 5.2 Countries in the sample

Argentina, Algeria, Bangladesh\*, Bolivia, Botswana, Brazil, Burkina Faso\*, Cameroon, Chile, China, Democratic Republic of Congo (Zaire)\*, Costa Rica, Cote d'Ivoire, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Gabon, Ghana, Guatemala, Haiti\*, Honduras, Hungary, India, Indonesia, Jamaica\*, Jordan, Kenya, Korea, Madagascar\*, Malawi\*, Mali, Malaysia, Mexico, Morocco, Mozambique\*, Nicaragua, Niger\*, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Romania, Senegal, Sierra Leone\*, Sri Lanka\*, Sudan\*, Syria\*, Tanzania, Thailand, Togo\*, Tunisia, Turkey, Uganda, Uruguay, Venezuela, Zambia, Zimbabwe.

<sup>\*:</sup> For countries that are marked with an asterisk no unionization data are available.

## 5.3 Descriptive statistics and correlations

AVFDIPC Mean: 26.88

Std. Deviation: 44.98

	AVDEMO	AVPOL	AVCIVIL	ILLIT	OIL	AVRISK
Mean	4.09	4.05	4.13	33.91	0.25	18.99
Std. Dev.	1.43	1.66	1.25	24.18	0.44	3.74
AVDEMO	1.00	0.99	0.98	0.54	0.24	-0.47
AVPOL		1.00	0.93	0.54	0.24	-0.44
AVCIVIL			1.00	0.53	0.24	-0.49
ILLIT				1.00	-0.13	-0.67
OIL					1.00	0.29
AVRISK						1.00
AVINF.	-0.12	-0.14	-0.09	-0.14	-0.08	0.05
AVTRADE	-0.17	-0.11	-0.23	-0.23	0.00	0.22
AVBUS.	-0.31	-0.28	-0.33	-0.47	0.06	0.67
UNION	0.04	0.03	0.05	-0.30	0.17	0.17
UN.E.1	-0.41	-0.38	-0.42	-0.46	-0.01	0.31
UN.E.2	-0.42	-0.40	-0.44	-0.44	-0.03	0.27

	AVINF.	AVTRADE	AVBUS.	UNION	UN.E.1	UN.E.2
Mean	102.64	0.75	8.86	16.66	4.86	68.58
Std. Dev.	311.57	0.42	2.21	11.97	4.17	54.22
AVINF.	1.00	-0.09	0.08	0.14	0.11	0.17
AVTRADE		1.00	0.14	-0.03	0.02	0.04
AVBUS.			1.00	0.43	0.55	0.48
UNION				1.00	0.82	0.80
UN.E.1					1.00	0.97
UN.E.2						1.00

Annotation: Descriptive statistics and correlations refer to the reduced sample (without Zaire and Madagascar) that is used for the regressions in columns 3-5 of Table 1 and in Table 2.

# 6 Figures and Tables

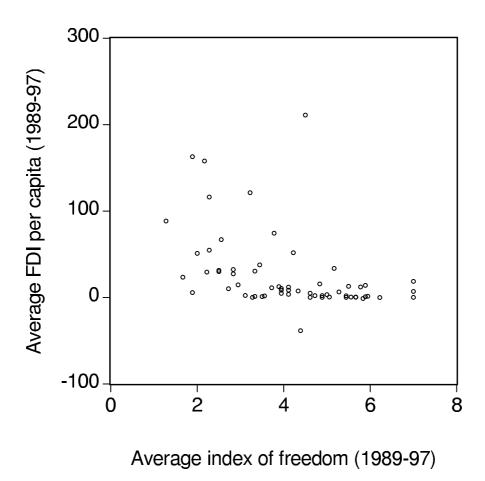


Figure 1: Freedom and FDI between 1989 and 1997.

Table 1: Results of the cross section analysis

Dependent variable:	AVFD	IPC	ln(AVFDIPC)		
Constant	81.35***	5.56	1.00	0.51	1.54
	(4.79)	(0.11)	(0.85)	(0.45)	(1.23)
AVDEMO	-13.44***	-7.76**	-0.32***		
	(-3.96)	(-2.16)	(-2.83)		
AVPOL				-0.25**	
				(-2.48)	
AVCIVIL					-0.39***
					(-3.11)
ILLIT		-0.37	-0.03***	-0.03***	-0.03***
		(-1.63)	(-3.63)	(-3.62)	(-3.75)
OIL		17.15	1.18***	1.12***	1.23***
		(1.20)	(3.34)	(3.20)	(3.40)
AVRISK		0.98	0.09*	0.10*	0.09
		(0.44)	(1.77)	(1.95)	(1.59)
AVINFLA		0.006	0.001*	0.001*	0.001*
		(0.37)	(1.84)	(1.82)	(1.91)
AVTRADE		25.77	1.01***	1.06***	0.94***
		(1.27)	(3.60)	(3.71)	(3.41)
AVBUSCL		2.56	0.05	0.05	0.05
		(0.82)	(0.72)	(0.71)	(0.68)
Number of obs.	62	60	58	58	58
$ \overline{R}^2 $	0.18	0.34	0.69	0.68	0.69

Annotations: t-statistics are based on White's (1980) heteroscedasticity-consistent covarianc-matrix. \*\*\*, \*\*, \*: significance levels of 99, 95, 90 percent.

Table 2: Cross section results with unionization data

Dependent variable	:	ln(AVFDIP	C)
Constant	-0.24	-1.37	-1.46
	(-0.18)	(-1.09)	(-1.14)
AVDEMO	-0.29**		
	(-2.13)		
ILLIT90	-0.02*	-0.02**	-0.02**
	(-1.95)	(-2.63)	(-2.68)
OIL	1.14***	0.93***	0.94***
	(4.90)	(4.18)	(4.34)
AVRISK	0.16***	0.19***	0.19***
	(2.77)	(3.04)	(2.98)
AVINFLA	0.001	0.001	0.001
	(1.41)	(1.59)	(1.44)
AVTRADE	1.07***	1.07***	1.04***
	(3.30)	(3.64)	(3.44)
AVBUSCL	-0.01	-0.08	-0.06
	(-0.18)	(-0.96)	(-0.77)
UNION	0.02		
	(1.52)		
UNIONEFF1		0.09***	
		(3.11)	
UNIONEFF2		·	0.006***
			(2.81)
Number of obs.	46	46	46
$\overline{R}^2$	0.69	0.69	0.69

Annotations: t-statistics are based on White's (1980) heteroscedasticity-consistent covarianc-matrix. \*\*\*, \*\*, \*: significance levels of 99, 95, 90 percent.

Table 3: Results of the fixed effects regressions

Dependent			FDIPC		
variable:					
DEMO	-3.54*	-3.69*	-1.91		
	(-1.71)	(-1.76)	(-0.90)		
POL				-3.75**	
				(-2.03)	
CIVIL					-1.22
					(-0.66)
RISK	1.50**	1.18*	1.11	1.25*	0.96
	(2.32)	(1.76)	(1.61)	(1.84)	(1.52)
INFLA	-0.001	-0.006***	-0.007***	-0.007***	-0.006**
	(-1.10)	(-2.62)	(-2.73)	(-2.68)	(-2.52)
TRADE	-10.30	-12.59	-9.72	-13.33	-10.89
	(-0.79)	(-0.92)	(-0.73)	(-0.97)	(-0.80)
BUSCL	-0.17	0.10	-0.12	0.03	0.32
	(-0.16)	(0.10)	(-0.12)	(0.03)	(0.31)
Time-	yes	yes	yes	yes	yes
Dummies					
Number of	558	549	522	549	549
obs					
$\overline{R}^2$	0.60	0.60	0.62	0.60	0.60

Annotations: t-statistics are based on White's (1980) heteroscedasticity-consistent covarianc-matrix. \*\*\*, \*\*, \*: significance levels of 99, 95, 90 percent. Column 1: entire sample. Columns 2, 4, and 5: sample without Zaire. Column 3: sample without Zaire, Hungary, Poland, Romania.

Table 4: Determinants of country-specific fixed effects

Dep. variable:	$\widehat{\alpha}_i$ (country fixed effect)					
Constant	29.20	20.54	39.65	13.00	7.43	
	(0.84)	(0.61)	(1.06)	(0.29)	(0.17)	
AVDEMO	-7.63**					
	(-2.41)					
AVPOL		-5.60**				
		(-2.13)				
AVCIVIL		,	-9.68**			
			(-2.50)			
ILLIT	-0.52**	-0.55**	-0.51**	-0.78**	-0.79**	
	(-2.30)	(-2.28)	(-2.46)	(-2.62)	(-2.63)	
OIL	13.04	11.77	13.72	11.94	12.29	
	(0.87)	(0.78)	(0.92)	(0.68)	(0.71)	
AVBUSCL	2.37	2.55	2.12	0.95	1.63	
	(0.72)	(0.77)	(0.65)	(0.20)	(0.37)	
UNIONEFF1	()	()	()	3.51*	()	
31/101/211				(1.72)		
UNIONEFF2				(±··•=)	0.24	
					(1.64)	
					(1.01)	
Number of obs.	60	60	60	48	48	
$\overline{R}^2$	0.23	0.22	0.24	0.25	0.24	

Annotations: t-statistics are based on White's (1980) heteroscedasticity-consistent covarianc-matrix. \*\*\*, \*\*, \*: significance levels of 99, 95, 90 percent.