Chapter 3

Were East Asian Policies Particularly Outward Biased? Evidence from the World Business Environment Survey

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CHAPTER 3

Were East Asian Policies Particularly Outward Biased? Evidence from the World Business Environment Survey

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East Asia is often held up as the prime example of export-led growth, and it has become a truism to say that East Asian policies over the past few decades have been "export promoting" and "outward oriented". A pertinent, but neglected, question in the enormous literature on the East Asian miracle is whether their policies were any more outward oriented than those of other countries. Evidence from the World Business Environment Survey suggests that while East Asian governments provided a generally good business environment, they did not emphasise trade or inward foreign investment any more than governments in other regions. Thus, we find no evidence of trade-related distortions that contribute to an excessive build-up of current accounts, though there is some evidence of favorable treatment of outward-investing firms. This finding is of particular interest given the ongoing academic and public debate over the causes and consequences of global investment imbalances and the need for more "balanced growth" in East Asia.

Keywords: East Asia, balanced growth, export promotion, policy

JEL Classifications: O53, F4, F13

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1. Introduction

The East Asian growth miracle and the role of exports in that miracle have been the subject of an enormous literature over the past three decades. It is standard in this literature to claim that East Asian governments were "export promoting" and "outward oriented". Remarkably though, the literature appears to lack objective, quantitative evidence that East Asian governments were any *more* outward oriented than governments in other parts of the world. This omission might be attributable to the well-documented difficulty of comparing policies across countries (see, for example, Harrison, 1996; Pritchett, 1996; Rodriguez and Rodrik, 2001). His current paper attempts to fill this gap by utilizing a major World Bank survey of firm perceptions of their business environment.

The World Business Environment Survey (WBES) was conducted for the World Bank across 80 countries in 1999 and 2000. Firm managers were asked an extensive set of questions about their operating environment, especially those aspects influenced or directly determined by government. The questions of relevance to the current paper included firms' perceptions of the degree of corruption, influence over government policies, and regulatory obstacles. Regulatory obstacles were assessed for eight different areas, including foreign exchange and the country's customs and trade regulations. The survey also collected information about the firm, including exporting behavior, foreign ownership, and operations or holdings in another country.

There is a range of ways in which governments may seek to achieve "outward orientation". This paper thus uses the WBES to shed light on a number of related sub-questions and helps build a picture of the nature and extent of outward orientation of East Asian policy at the turn of the century. The first question is whether East Asian government performance was particularly strong in outward-oriented policy areas. To answer this, we compare the relative performance of East Asian governments (as measured by firm managers' perceptions) in areas related to trade with that in other policy areas, ranging from control of corruption to inflation.

A second possibility is that East Asian governments sought to achieve outward orientation through industrial policy that favoured the tradable sector. To answer this,

we test whether perceptions of East Asian government performance across a broad range of important indicators were relatively high in manufacturing and agriculture compared with the less-traded sectors (services, construction and 'other').

Finally, it is possible that East Asian governments used microeconomic policy to systematically support outward-oriented firms. We use exporting, foreign ownership, and multinational operations as indicators of firms' outward orientation, and ask whether these firm characteristics are associated with higher perceptions of East Asian government performance (relative to governments in other regions).

2. Data

The World Business Environment Survey (WBES) is a survey of more than 10,000 firms in 80 countries and one territory conducted in 1999–2000. The survey was conducted through face-to-face interviews with firm managers and owners and covers a large range of questions concerning the firms' relationship with the government, including perceptions of regulations, corruption, influence, macroeconomic policies, competition, and infrastructure.[2] Although the surveys were very similar in all countries, there were some regional variations in wording and choice of questions. We use data for all regions except "Middle-East and North Africa" and "Africa" as there were data compatibility issues for these two regions. The remaining sample has more than 7,100 firms.

2.1. Dependent Variables

We make use of the richness of the WBES data by utilizing 15 different indicators of the government–firm relationship as dependent variables in separate regressions. Each of these variables is described below.

[2] Permanent url: http://go.worldbank.org/RV060VBJU0

2.1.1. Government is Helpful

The WBES asked managers to respond for both local and national governments, now and three years ago:

> Please rate your overall perception of the relation between government and/or bureaucracy and private firms on the following scale. All in all, for doing business I perceive the state as: Very helpful, mildly helpful, neutral, mildly unhelpful, very unhelpful.

We use the responses for the current national government. For the full sample there were 7,894 responses, distributed as: very helpful (9 percent), mildly helpful (22 percent), neutral (27 percent), mildy unhelpful (19 percent), very unhelpful (23 percent). For our regressions, we use a dependent variable, "Helpful Government", which is coded 1 if the government scored "Neutral" or better.[3]

2.1.2. Influence Over Government

The WBES asked managers for each of the executive, legislature, ministry and regulatory agencies of the national government of the country in which they were operating:

> When a new law, rule, regulation, or decree is being discussed that could have a substantial impact on your business, how much influence does your firm typically have at the national level of government on the content of that law, rule, regulation or decree? Would you say "very influential", "frequently influential", "influential", "seldom influential" or "never influential"?

Summary statistics reported in Table 1 show that for all four branches of government most firms feel that they are "never" influential. The four branches of government appear to have very similar levels of susceptibility to influence.

[3] Missing values in the original data remain missing.

Table 1. Influence Data Summary: Percentage of firms in each category and total observations

	Never %	Seldom %	Sometimes %	Often %	Always %	Obs
Influence executive	61	21	10	4	3	6,095
Influence legislature	63	21	9	4	3	6,104
Influence ministry	62	21	10	5	3	6,094
Influence regulator	60	21	12	5	3	5,971

A high degree of colinearity between the four measures of influence in Table 1[4] suggests that treating them as four separate dependent variables would amount to duplication and limit the space available for other analysis and robustness checks. The ordinal nature of the variables, however, means that creating a composite variable by averaging or adding them is not appropriate. Additionally, we have no means by which to judge which of the four measures of influence is the most important for any given firm, since the most important branch of government over which to exert influence is likely to vary by firm and country of operation. Thus, we create and use a "maximum-influence" variable that is equal to the maximum reported influence over any branch of government for each firm.[5]

2.1.3. Receipt of Subsidies

Managers were asked:

> Does your enterprise receive subsidies (including tolerance of tax arrears) from local or national government?

Responses were coded 1 (Yes), 2 (No), 3 (Don't know), 4 (Refused). We created a binary variable by recoding 1 (Yes), 0 (No) and treating all other responses as missing. Of the 7,014 non-missing responses, 11 percent were 'Yes' and 89 percent 'No'.

2.1.4. General Constraints

Many of our measures of government–firm relationships were all sub-questions to the one main question about "general constraints", which was worded:

[4] Pair-wise correlations for the four influence variables range from 0.77 to 0.83.

[5] For example, if a firm reports influence scores of 1, 1, 2 and 3 for the executive, regulator, legislature and ministry respectively, the maximum-influence variable takes a value of 3 for that firm.

> Please judge on a four-point scale how problematic are the following factors for the operation and growth of your business: No Obstacle, Minor Obstacle, Moderate Obstacle, Major Obstacle.

The factors the managers had to score were labeled: financing; infrastructure (e.g., telephone, electricity, water, roads, land); taxes and regulations; policy instability/uncertainty; inflation; exchange rate;[6] functioning of the judiciary; corruption; street crime/theft/disorder; organized crime/mafia; anti-competitive practices by government or private enterprises; other (specify constraint). Summary statistics for the factors used in this analysis are presented in Table 2.

Table 2. Constraint Data Summary: Percentage of firms reporting each level of obstacle and total observations (median response in bold and modal response in italics)

	No %	Minor %	Moderate %	Major %	Obs
Exchange rate	26	20	**23**	*32*	7,544
Taxes & regulations	11	18	**32**	*39*	7,875
Financing	20	17	**26**	*37*	7,795
Infrastructure	*34*	**28**	33	15	7,704
Inflation	16	21	**26**	*36*	7,692
Policy instability/uncertainty	16	20	**27**	*37*	7,671
Corruption	29	23	**21**	*28*	6,940
Anti-competitive practices	*31*	**24**	24	22	7,027
Functioning of judiciary	*35*	**30**	21	14	7,108

2.1.5. Trade-Related Regulatory Constraints

Two of our trade-related measures of government performance were sub-questions to a bigger question about "regulatory constraints", which was worded:

> Please judge on a four-point scale how problematic are these different regulatory areas for the operation and growth of your business… Environmental Regulations, Business Licensing, Customs/Foreign Trade Regulations in your country, Labour Regulations, Foreign Currency/Exchange Regulations, Fire & Safety Regulations, Tax Regulations/Administration, High Taxes.

[6] Unfortunately, the wording of this question in the survey (reproduced exactly above) was not specific about whether the firms perceived the exchange rate to be too high or too low.

Possible responses for each regulatory area were: 1 (no obstacle); 2 (minor obstacle); 3 (moderate obstacle); or 4 (major obstacle). Table 3 shows that most firms considered the trade-related constraints to be at most minor constraints.

Table 3. Trade-Related Regulatory Constraint Data Summary: Percentage of firms in each category, mean and total observations (median response for each variable shown in bold)

	No %	Minor %	Moderate %	Major %	Mean	Obs
Foreign exchange regulations	48	**23**	17	11	1.91	7,237
Customs, trade regulations	37	**23**	26	14	2.18	6,882

2.1.6. Import Days

Our final measure of trade-related government performance is import days—reported in answering the question:

> If you import, how long does it typically take from the time your goods arrive in their point of entry (e.g., port, airport) until the time you can claim them from customs?

The mean response in the sample of 5,102 respondent (i.e., importing) firms was 11.4 days. The standard deviation of 24 days suggests substantial variation in government performance on this measure.

2.2. Explanatory Variables and Empirical Approach

The WBES data contain a number of firm characteristics that we might expect to be associated with a firm's perception of its operating environment. Given that the distribution of firm types might vary systematically across countries, it is important to control for firm characteristics in order to correctly identify the regional variables. Thus, the variables on the right-hand side in our base regressions are:

- exporter: coded 1 if firms export some product, 0 otherwise;
- foreign: coded 1 if firms report at least 10 percent foreign ownership, 0 otherwise;

- multi-country: coded 1 if firms report having operations or holdings in other countries, 0 otherwise;
- size: coded 1 for small (5–50 employees), 2 for medium (51–500 employees) and 3 for large (> 500 employees);
- government: coded 1 if firms reported having any share of government ownership, 0 otherwise;
- age: coded 1 for 0–5 years, 2 for 6–20 years, and 3 for more than 20 years firm age;
- sector: manufacturing, services, agriculture, construction, and other; and
- region of operation of respondent firm.

Since the variables are categorical they are summarized as their component binary variables in Table 4, where the mean value is the fraction of reporting firms that are in that category. Countries included in the analysis are listed in Table A1 (in the Appendix). Table 4 shows that sample size and proportion in each category are sufficient for identification of regression coefficients. In some cases—for example, foreign firms—this is the result of intentional over-sampling in the survey design.

Table 4. Summary of Binary Explanatory Variables: Mean value is the fraction of reporting firms that are in that category; N represents the number of non-missing values for each variable

	Mean	N
Exporter	0.327	7,996
Foreign	0.148	8,081
Multi-country	0.158	8,072
Small	0.414	8,132
Medium	0.420	8,132
Large	0.166	8,132
Government	0.125	8,057
Young	0.311	7,956
Middle-aged	0.332	7,956
Old	0.357	7,956
Manufacturing	0.380	7,611
Services	0.462	7,611
Other sectors	0.158	7,611

Obviously, our list of explanatory variables does not include every variable from the WBES that might possibly affect firms' perceptions of their business environment. Concentration of ownership of the firm and legal organization of the firm, for example, have been used by other papers using the same or similar data for examiner questions about firm influence (Campos and Giovannoni, 2007; Chong and Gradstein, 2007; Desai and Olofsgard, 2008). These and other robustness checks are considered in a related paper by Aisbett and McAusland (2011). Since none of the specification changes was found to qualitatively affect the results, they are not discussed here.

The results presented in the body of this paper are discrete effects from binary probit models. Aisbett and McAusland (2011) also considered a range of alternative models, including ordered probit, logit, partial proportional odds, heterogeneous logit, and probit with a Heckman correction for selection bias. They found that all of the alternative estimators had substantively the same qualitative results, and chose the binary probit model used here as it allowed the most straightforward calculation and interpretation of effects.

For the purposes of presentation and discussion in the remainder of the paper, the regression results for the different dependent variables were grouped as trade-related, general, economic, or political and legal indicators, as per Table 5.

Table 5. Dependent Variables by Group

General indicators	Trade-related constraints	Economic constraints	Political & legal constraints
Helpful government	Exchange rate	Financing	Policy uncertainty
Influence over government	Trade regulations	Infrastructure	Corruption
Constraint from taxes and regulations	Currency regulations	Inflation	Anti-competitive practices Judiciary

3. Did East Asian Governments Focus on Outward-Oriented Policy Areas?

We address this first question by regressing all our 15 dependent policy-perception variables on firm characteristics and region dummies. Our results suggest that although East Asian governments generally perform well across a broad range of policy areas, they actually performed relatively less well in trade-related areas.[7] Table A2 shows that East Asia was the third-best performing region on all of our four trade-related measures. The top two performing regions were the Organization for Economic Cooperation and Development (OECD) and Central and Eastern Europe (CEE), except for "exchange rate constraint", where South Asia performed better than both East Asia and CEE.

In contrast, Table A3 shows that East Asia was the single top-performing region in the three "general" measures (influence over government; helpfulness of government; general tax and regulatory constraints). Meanwhile, Tables A4 and A5 show that East Asia was the second-best performing region—after the OECD—on all but two of the "economic" and "political and legal" measures. The exceptions were infrastructure and anti-competitive practices, for which East Asia ranked third behind the OECD and CEE. Thus, our results suggest that, rather than placing particular emphasis on policies to facilitate trade, East Asian governments aimed for a broadly conducive business environment. We thus turn to our next question.

4. Did East Asian Governments Focus on Tradable Sectors?

It is often claimed that industrial policy played an important role in the development of export industries in many East Asian economies. To see whether we find evidence of this in the WBES data, we add region-by-sector interactions to the regressions used in Section 3. If East Asian governments especially favoured the key export sectors (manufacturing and agriculture) over less export-intensive sectors (services,

[7] In all cases "performance" is from the perspective of the individual firms, not necessarily society as a whole.

construction, and other), we might see evidence of this in the marginal effects for the region–sector interaction terms. The marginal effects are reported in Tables A6–A8. We see no systematic evidence that East Asian governments treated manufacturing or agricultural firms relatively better compared with other sectors and regions.

It is possible that the reason we do not find evidence of East Asian special treatment of manufacturing or agricultural firms is that the data are insufficient for such purposes. We do note, however, that there are some systematic patterns evident in the data, which—while not obvious *ex ante*—do seem to make sense. For example, column 2 of Table A7 shows that the relative lack of infrastructure in other regions compared with the OECD is most keenly felt in the agricultural sector. Similarly, column 3 of Table A8 shows that the negative impacts of the more extensive anti-competitive practices in other regions compared with the OECD are felt least in manufacturing. Since manufacturing is the most heavily traded sector, this result is entirely consistent with the broadly held belief that one of the key benefits of trade is to increase competition. Another interesting pattern—worthy of further investigation—is apparent in column 3 of Table A7. There we see that the negative impacts of higher inflation outside the OECD are also felt least keenly in the manufacturing sector.

5. Did East Asian Governments Focus on Outward-Oriented Firms?

To examine whether East Asian governments systematically favoured outward-oriented firms, we added interactions between the region dummies and firm outward orientation (i.e., export status, foreign ownership and ownership of foreign assets or holdings) to the regression used in Section 4. The marginal effects for the interaction terms are reported in Tables A9–A11. Since there are a large number of regressions and interaction terms, the results are summarized in Table 6. While it is difficult to make any absolute claims on the basis of the results in Table 6, it is clear that outward-investing firms (i.e., those with foreign assets or holdings, labeled "Owns-foreign" in Table 6) are relatively better treated in East Asia. For example, the top row of Table 6 shows that outward-investing firms reported better treatment in East Asia than in the

OECD for three of our measures, while the corresponding numbers for exporters and foreign-owned firms were 1 and zero respectively. Similarly, the bottom row of Table 6 shows that outward-investing firms did not prefer a different non-OECD region to East Asia on any measure, whereas exporters and foreign-owned firms both preferred other regions on five different measures.

Table 6. Summary of Results for Interactions Between Outward Orientation and Region ("Better than OECD" indicates statistically significant marginal effect on East Asia interaction term in a direction favouring firms; "Worse than OECD" indicates statistically significant marginal effect of opposite sign; similarly for comparisons with non-OECD regions)

	Exporter	Foreign-owned	Owns-foreign
Better than OECD	1	0	3
Same as OECD	10	10	8
Worse than OECD	0	1	0
Single best non-OECD	0	0	2
Equal best non-OECD	6	6	9
Not best non-OECD	5	5	0

6. Conclusion

This paper has considered the question of whether East Asian government policies are particularly outward biased compared with those of governments in other regions. We considered three different possible dimensions of outward policy orientation: emphasis on trade-related policies, emphasis on tradable sectors, and favourable treatment of outward-oriented firms. Contrary to our expectations, we did not find evidence of particular emphasis on trade-related policies, tradable sectors, or exporting firms. Instead, the survey evidence suggests that the overall business environment in East Asia was very good—second only to the OECD. This is good news for East Asia's long-term growth prospects as it suggests that the growth over the past decades has been largely based on good fundamentals and not on an export bias in policy.

There was, however, one dimension in which East Asian policy appeared to be systematically outward biased: our results suggest that East Asian governments do give more preferential treatment to outward-investing firms than do governments in other regions. This finding is of particular interest given the ongoing academic and public debate over the causes and consequences of global investment imbalances and the need for more "balanced growth" in East Asia.

The results in this paper—interesting as they are—need to be considered in light of the limitations of the WBES data. In particular, the lack of evidence of export bias might be due to small sample size at the country level and incomplete country coverage, combined with substantial country-level heterogeneity. Panel data with larger samples and better country coverage would significantly enhance our ability to ask questions such as ours for East Asia. Such data are already available from the World Bank for Central and Eastern Europe. It could be worthwhile to encourage a similar regional survey in East Asia, in conjunction with the World Bank, to allow a more detailed understanding of the current policy emphasis and areas for improvements.

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Appendix

Table A1. Countries with Data Included in the Base Regression (by World Bank Region)

Region	Country
Transition Europe	Albania, Armenia, Azerbaijan, Belarus, Bosnia, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgizstan, Lithuania, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Turkey, Ukraine, Uzbekistan
East Asia	China, Malaysia, Indonesia, Singapore
South Asia	India
Latin America	Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Peru, Trinidad & Tobago, Uruguay, Venezuela
OECD	Canada, France, Germany, Italy, Portugal, Spain, Sweden, United Kingdom, United States

Table A2. Impediments to Trade: Column 1 OLS regression coefficients; columns 2 and 3 probit regressions to predict probability regulatory obstacle greater than minor; average discrete effects for change in dummy variables from 0 to 1 reported; dummies for size, sector, age category and government ownership included but results not reported; excluded region is OECD

	Import days	For. ex. regs constraint	Trade regs constraint	Exchange rate constraint
EAsia	–2.545	0.129**	0.0658**	0.304**
	(1.396)	(0.0225)	(0.0247)	(0.0242)
CEE	–7.202**	0.0732**	0.0950**	0.318**
	(1.182)	(0.0213)	(0.0231)	(0.0210)
LatAm	0.710	0.131**	0.265**	0.354**
	(1.264)	(0.0212)	(0.0224)	(0.0212)
SAsia	4.492*	0.221**	0.302**	0.300**
	(1.877)	(0.0309)	(0.0339)	(0.0347)
Exporter	1.734	0.0366**	0.0838**	0.00306
	(0.889)	(0.0133)	(0.0143)	(0.0145)
Foreign	–0.223	0.00916	0.00536	0.0149
	(1.027)	(0.0168)	(0.0184)	(0.0188)
Multi-country	1.783	–0.000658	0.0300	–0.0238
	(1.025)	(0.0168)	(0.0183)	(0.0189)
Observations	4,330	6,323	6,006	6,611

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A3. General Indicators of Firm–Government Relationship: Probit regressions with average discrete effects for change in dummy variables from 0 to 1 reported; dummies for size, sector, age category and government ownership included but results not reported; excluded region is OECD; column 1 reports probability influence greater than "none"; column 2 probability national government is not unhelpful; column 3 probability tax and regulatory obstacle is greater than minor

	Influence gov.	Gov. helpful	Tax & reg. constraint
EAsia	0.218**	0.315**	–0.104**
	(0.0286)	(0.0234)	(0.0193)
CEE	–0.0904**	–0.129**	0.198**
	(0.0208)	(0.0196)	(0.0176)
LatAm	–0.0284	–0.0307	0.0939**
	(0.0205)	(0.0201)	(0.0178)
SAsia	0.142*	0.0898**	–0.0566*
	(0.0563)	(0.0323)	(0.0285)
Exporter	0.0709**	–0.00268	–0.0253*
	(0.0153)	(0.0137)	(0.0127)
Foreign	0.00299	0.0177	–0.0235
	(0.0205)	(0.0182)	(0.0162)
Multi-country	0.0689**	0.0537**	–0.0393*
	(0.0198)	(0.0180)	(0.0158)
Observations	5,456	6,940	6,906

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A4. Government-Influenced Economic Constraints and Receipt of Subsidies: Columns 1–3 are probit regressions to predict probability general constraint greater than "minor"; average discrete effects for change in dummy variables from 0 to 1 reported; dummies for size, sector, age category and government ownership included but results not reported; excluded region is OECD

	Finance Constraint	Infrastructure Constraint	Inflation Constraint	Rec. subsidy Y/N
EAsia	0.102**	0.179**	0.175**	–0.0461**
	(0.0218)	(0.0241)	(0.0227)	(0.0164)
CEE	0.238**	0.102**	0.311**	–0.0871**
	(0.0187)	(0.0214)	(0.0186)	(0.0122)
LatAm	0.223**	0.244**	0.232**	–0.0889**
	(0.0191)	(0.0208)	(0.0193)	(0.0125)
SAsia	0.177**	0.423**	0.308**	–0.0104
	(0.0315)	(0.0344)	(0.0316)	(0.0313)
Exporter	0.0126	–0.0278*	–0.0934**	0.0251**
	(0.0136)	(0.0141)	(0.0135)	(0.00883)
Foreign	–0.114**	0.0323	–0.0248	–0.0130
	(0.0173)	(0.0183)	(0.0178)	(0.0123)
Multi-country	–0.0693**	–0.0202	–0.0496**	–0.00690
	(0.0170)	(0.0182)	(0.0176)	(0.0118)
Observations	6,835	6,747	6,735	6,161

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A5. Political and Legal Constraints: Probit regressions to predict probability general constraint greater than "minor"; average discrete effects for change in dummy variables from 0 to 1 reported; dummies for size, sector, age category and government ownership included but results not reported; excluded region is OECD

	Polit. instab. constraint	Corruption constraint	Anti-compet. constraint	Judiciary constraint
EAsia	0.197**	0.279**	0.186**	0.0592*
	(0.0223)	(0.0276)	(0.0254)	(0.0260)
CEE	0.304**	0.303**	0.145**	0.156**
	(0.0188)	(0.0220)	(0.0219)	(0.0214)
LatAm	0.306**	0.403**	0.178**	0.245**
	(0.0191)	(0.0214)	(0.0221)	(0.0209)
SAsia	0.343**	0.556**	0.271**	0.198**
	(0.0324)	(0.0337)	(0.0482)	(0.0332)
Exporter	–0.0421**	–0.0572**	–0.0351*	–0.00577
	(0.0138)	(0.0150)	(0.0154)	(0.0145)
Foreign	–0.0212	–0.0246	–0.0232	0.0188
	(0.0179)	(0.0198)	(0.0205)	(0.0187)
Multi-country	–0.0136	–0.00143	–0.0302	0.0104
	(0.0177)	(0.0194)	(0.0200)	(0.0184)
Observations	6,710	6,069	6,148	6,205

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A6. General Indicators of Government–Firm Relationship: Sector–region interaction effects; dummies for region, size, sector, age category, export status, ownership of foreign assets, foreign ownership and government ownership included but results not reported; excluded region is OECD and excluded sector is manufacturing; probit regressions with average discrete effects for change in dummy variables from 0 to 1 reported; column 1 reports probability influence greater than "none"; column 2 probability national government is not unhelpful; column 3 probability tax and regulatory obstacle is greater than "minor"

	Influence gov.	Gov. helpful	Tax & reg. constraint
Manu_EAsia	–0.0350	0.0511	–0.0764
	(0.0602)	(0.0501)	(0.0410)
Manu_CEE	0.0600	0.0186	–0.0273
	(0.0416)	(0.0404)	(0.0367)
Manu_LatAm	–0.0133	–0.0266	–0.00817
	(0.0436)	(0.0433)	(0.0387)
Manu_SAsia	–0.202	–0.0228	–0.195**
	(0.115)	(0.0694)	(0.0612)
Agri_EAsia	0.264	0.207	–0.348*
	(0.285)	(0.181)	(0.175)
Agri_CEE	0.0932	0.189	–0.191
	(0.163)	(0.148)	(0.153)
Agri_LatAm	0.119	0.125	–0.191
	(0.180)	(0.166)	(0.167)
Agri_SAsia	.	0.151	–0.313
	.	(0.221)	(0.246)
Observations	5,455	6,940	6,906

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A7. Economic Indicators: Sector–region interaction effects; dummies for region, size, sector, age category, export status, ownership of foreign assets, foreign ownership and government ownership included but results not reported; excluded region is OECD and excluded sector is manufacturing; columns 1–3 are probit regressions to predict probability general constraint greater than "minor"; average discrete effects for change in dummy variables from 0 to 1 reported

	Finance Constraint	Infrastructure Constraint	Inflation Constraint	Rec. Subsidy Y/N
Manu_EAsia	–0.0200	–0.108*	–0.0888	0.00528
	(0.0461)	(0.0503)	(0.0479)	(0.0338)
Manu_CEE	0.0521	–0.0765	–0.0996*	–0.0273
	(0.0399)	(0.0432)	(0.0401)	(0.0237)
Manu_LatAm	0.0177	–0.0166	–0.114**	–0.00822
	(0.0423)	(0.0455)	(0.0426)	(0.0259)
Manu_SAsia	–0.143*	–0.121	–0.152*	0.0668
	(0.0684)	(0.0761)	(0.0696)	(0.0663)
Agri_EAsia	–0.0138	1.335**	0.116	0.0137
	(0.175)	(0.106)	(0.186)	(0.113)
Agri_CEE	0.0384	1.585**	0.106	0.0259
	(0.148)	(0.0458)	(0.159)	(0.0773)
Agri_LatAm	–0.0213	1.550**	–0.142	–0.0541
	(0.167)	(0.0881)	(0.174)	(0.0878)
Agri_SAsia	–0.113	1.216**	0.0565	.
	(0.238)	(0.321)	(0.270)	.
Observations	6,835	6,747	6,735	6,160

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A8. Political and Legal Constraints: Sector–region interaction effects; dummies for region, size, sector, age category, export status, ownership of foreign assets, foreign ownership and government ownership included but results not reported; excluded region is OECD and excluded sector is manufacturing; probit regressions to predict probability general constraint greater than "minor"; average discrete effects for change in dummy variables from 0 to 1 reported

	Polit. instab. constraint	Corruption constraint	Anti-compet. constraint	Judiciary constraint
Manu_EAsia	–0.0703	0.00989	–0.143**	–0.119*
	(0.0473)	(0.0606)	(0.0532)	(0.0543)
Manu_CEE	0.00759	0.0342	–0.134**	–0.0226
	(0.0402)	(0.0484)	(0.0448)	(0.0439)
Manu_LatAm	–0.0466	0.0265	–0.115*	–0.0620
	(0.0432)	(0.0508)	(0.0477)	(0.0460)
Manu_SAsia	–0.181*	-0.0974	–0.147	–0.0408
	(0.0736)	(0.0787)	(0.0997)	(0.0710)
Agri_EAsia	–0.194	–0.337	–0.151	–0.0463
	(0.180)	(0.247)	(0.203)	(0.203)
Agri_CEE	–0.199	–0.287	–0.0678	–0.0198
	(0.153)	(0.169)	(0.171)	(0.170)
Agri_LatAm	–0.508**	–0.415*	–0.127	–0.0696
	(0.169)	(0.186)	(0.189)	(0.185)
Agri_SAsia	–0.471	.	–0.0318	0.0820
	(0.249)	.	(0.340)	(0.287)
Observations	6,710	6,061	6,148	6,205

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A9. General Indicators: "Firm outward orientation"–region interaction effects; dummies for region, size, sector, age category, export status, ownership of foreign assets, foreign ownership and government ownership included but results not reported; excluded region is OECD and excluded sector is manufacturing; probit regressions with average discrete effects for change in dummy variables from 0 to 1 reported; column 1 reports probability influence greater than "none"; column 2 probability national government is not unhelpful; column 3 probability tax and regulatory obstacle is greater than "minor"

	Influence gov.	Gov. helpful	Tax & reg. constraint
Export_EAsia	–0.00402	0.120*	0.0576
	(0.0700)	(0.0575)	(0.0453)
Export_CEE	0.0991*	0.119**	–0.0772*
	(0.0443)	(0.0425)	(0.0378)
Export_LatAm	0.0516	0.00232	–0.0649
	(0.0472)	(0.0464)	(0.0407)
Export_SAsia	0.224	0.131	–0.0991
	(0.149)	(0.0717)	(0.0627)
Foreign_EAsia	0.00141	–0.0603	0.0963
	(0.0774)	(0.0647)	(0.0521)
Foreign_CEE	0.0913	0.100	–0.104*
	(0.0595)	(0.0565)	(0.0493)
Foreign_LatAm	0.122*	–0.0101	–0.0566
	(0.0564)	(0.0557)	(0.0483)
Foreign_SAsia	–0.0419	0.270**	–0.0698
	(0.152)	(0.0944)	(0.0730)
MultNat_EAsia	–0.0128	–0.0390	–0.108*
	(0.0799)	(0.0657)	(0.0520)
MultNat_CEE	–0.0455	–0.0198	0.0159
	(0.0579)	(0.0542)	(0.0477)
MultNat_LatAm	–0.0820	–0.0529	0.0682
	(0.0528)	(0.0519)	(0.0455)
MultNat_SAsia	–0.0699	0.00551	0.0485
	(0.132)	(0.0889)	(0.0704)
Observations	5,455	6,940	6,906

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A10. Economic Constraints: "Firm outward orientation"–region interaction effects; dummies for region, size, sector, age category, export status, ownership of foreign assets, foreign ownership and government ownership included but results not reported; excluded region is OECD and excluded sector is manufacturing; columns 1–3 are probit regressions to predict probability general constraint greater than "minor"; average discrete effects for change in dummy variables from 0 to 1 reported

	Finance Constraint	Infrastructure Constraint	Inflation Cconstraint	Rec. subsidy Y/N
Export_EAsia	–0.0753	–0.00296	0.0359	–0.00454
	(0.0514)	(0.0589)	(0.0547)	(0.0371)
Export_CEE	–0.160**	–0.0814	–0.0843*	–0.0190
	(0.0417)	(0.0481)	(0.0425)	(0.0240)
Export_LatAm	–0.121**	0.0354	–0.0524	0.0126
	(0.0451)	(0.0509)	(0.0458)	(0.0265)
Export_SAsia	–0.123	0.159*	0.0619	–0.125
	(0.0700)	(0.0791)	(0.0704)	(0.0790)
Foreign_EAsia	0.0981	0.0335	0.0726	–0.0449
	(0.0609)	(0.0666)	(0.0629)	(0.0437)
Foreign_CEE	–0.0869	0.0420	0.0252	–0.0262
	(0.0554)	(0.0614)	(0.0562)	(0.0361)
Foreign_LatAm	–0.0356	–0.0418	–0.0251	0.0250
	(0.0544)	(0.0600)	(0.0549)	(0.0328)
Foreign_SAsia	–0.0192	–0.0673	0.123	–0.0509
	(0.0821)	(0.0891)	(0.0846)	(0.0868)
MultNat_EAsia	–0.0473	0.0241	–0.176**	0.0477
	(0.0604)	(0.0677)	(0.0612)	(0.0411)
MultNat_CEE	0.127*	0.133*	–0.0975	–0.0601
	(0.0535)	(0.0608)	(0.0531)	(0.0346)
MultNat_LatAm	0.0690	0.126*	–0.0471	–0.00457
	(0.0508)	(0.0578)	(0.0510)	(0.0309)
MultNat_SAsia	0.152	0.303**	–0.154	0.0480
	(0.0811)	(0.0954)	(0.0800)	(0.0709)
Observations	6,835	6,747	6,735	6,160

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table A11. Political and Legal Constraints: "Firm outward orientation"–region interaction effects; dummies for region, size, sector, age category, export status, ownership of foreign assets, foreign ownership and government ownership included but results not reported; excluded region is OECD and excluded sector is manufacturing; probit regressions to predict probability general constraint greater than "minor"; average discrete effects for change in dummy variables from 0 to 1 reported

	Polit. instab. constraint	Corruption Constraint	Anti-compet. Constraint	Judiciary Constraint
Export_EAsia	0.0315	–0.0517	–0.00900	–0.103
	(0.0535)	(0.0675)	(0.0612)	(0.0652)
Export_CEE	–0.0678	–0.133**	–0.0380	0.0317
	(0.0425)	(0.0506)	(0.0481)	(0.0475)
Export_LatAm	–0.0120	–0.122*	–0.0786	–0.0147
	(0.0463)	(0.0539)	(0.0520)	(0.0504)
Export_SAsia	0.00149	–0.0873	–0.226	–0.106
	(0.0747)	(0.0814)	(0.115)	(0.0737)
Foreign_EAsia	0.142*	0.0236	–0.0955	0.115
	(0.0616)	(0.0767)	(0.0707)	(0.0739)
Foreign_CEE	–0.00942	–0.0453	–0.129*	0.110
	(0.0565)	(0.0667)	(0.0633)	(0.0635)
Foreign_LatAm	0.00417	–0.0276	–0.152*	0.135*
	(0.0557)	(0.0654)	(0.0616)	(0.0618)
Foreign_SAsia	0.0454	–0.215*	–0.212	0.113
	(0.0843)	(0.0933)	(0.152)	(0.0882)
MultNat_EAsia	–0.168**	–0.0529	0.0354	0.0572
	(0.0593)	(0.0747)	(0.0710)	(0.0708)
MultNat_CEE	–0.0190	0.0756	0.0915	0.01000
	(0.0536)	(0.0633)	(0.0617)	(0.0590)
MultNat_LatAm	–0.0517	0.0167	0.0764	–0.00334
	(0.0516)	(0.0607)	(0.0590)	(0.0561)
MultNat_SAsia	–0.192*	0.0876	0.239	–0.0407
	(0.0818)	(0.0947)	(0.127)	(0.0840)
Observations	6,710	6,061	6,148	6,205

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.