Suppliers, Investors, and Equity Market Liberalizations

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Abstract

There is a well-established case for equity liberalizations helping firms dependent on external investors by providing access to foreign capital and improving public and corporate governance. This paper stresses the impact of foreign equity flows on firms' relationship with another crucial stakeholder – the suppliers. A buyer backed by foreign capital means smaller probability of contract failure due to default. Improved public and corporate governance lowers the risk of possible breach of contract. Foreign equity flows can thus reassure upstream firms, disproportionately promoting industries dependent on the full trust of their suppliers. Results from panel data and event-study approach confirm this hypothesis, establishing a novel channel from financial globalization to real economy.

Keywords: equity liberalizations, finance and product markets
JEL classification: G15, F36, F43

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1 Introduction

Financial globalization remains a controversial topic, despite a growing body of academic literature about its costs and benefits. One of the most persuasive parts of this broad research agenda is arguably the existing work on equity liberalization. There is a strong empirical evidence for the overall beneficial effect of cross-border equity flows on economic growth in the recipient countries (Bekaert et al. 2005). Moreover, this effect seems to work via an economically intuitive channel of lowering the costs of external capital to the financially constrained firms (Gupta and Yuan 2009; Levchenko et al. 2009). Equity liberalization directly lowers the financing costs as it provides access to foreign capital and thus extends the pool of accessible funding (Bekaert et al. 2005; Henry 2000). There is also an important indirect effect, as the foreign investors successfully press for a better public and corporate governance increasing the incentives for domestic investors to provide additional funding (Stulz 2005; Doidge et al. 2007). Given a plausible theoretical motivation and supporting empirical evidence, a broad consensus has emerged. Equity liberalization improves relationship between firm and external investors. It is therefore particularly beneficial for those firms that require a lot of external finance for their operations.

This paper stresses that the above effects of equity liberalization equally benefit another crucial stakeholder of a firm – its suppliers. The direct effect of accessing a foreign source of external funding makes a firm more financially robust. A buyer backed by foreign capital usually means smaller probability of contract failure due to default. The indirect effect of improved public and corporate governance also benefits the suppliers as it lowers the risk of possible breach of contract. Equity liberalization can thus help to reassure suppliers who might otherwise doubt the financial and contractual reliability of the buyer. Consequently, it benefits particularly those firms that notably depend on the full trust of their suppliers.

I confirm this hypothesis using the methodology of Rajan and Zingales

(1998) in the context of equity liberalization. Following Gupta and Yuan (2009) and Levchenko et al. (2009) I interact the dummy of equity liberalization for country c in year t with the dependence of given industry on external finance. These authors find a positive and significant effect of this interaction on economic growth confirming the disproportionate impact of equity liberalization on industries requiring lot of external finance. Furthermore, I interact equity liberalization dummy with the proxy measuring the importance of smooth and trusting relationships with the suppliers for given industry. The proxy comes from Nunn 2007 (recomputed by Levchenko 2008 for 3-digit ISIC industries) and is based on the classification by Rauch (1999). It measures for every industry the proportion of intermediate inputs that cannot be sold on organized exchange, nor are they reference priced in trade publications. In the absence of organized exchange or reference price the supplier would find it difficult the sell the product at the original price if the initial buyer turned out to be unable or unwilling to pay. Consequently, a forward-looking supplier would be reluctant to provide the necessary input if she were not fully convinced about reliability of the buyer. In this case the insufficient trust of a potential business partner would have adverse economic impact on the downstream firm.

Both panel data estimation and event studies approach confirm that equity liberalization promotes particularly those industries that depend on the trust of their suppliers. This effect seems even to dominate the traditional story about financial liberalization promoting industries dependent on external investors. When both interactions enter the regressions, only the term capturing the beneficial effect of equity liberalization on supplier-dependent industries remains significant.

These results establish a novel channel from financial globalization to the real economy. So far the research on equity liberalization has focused on the relation between firms and their investors. This is in line with the whole finance-growth literature emphasizing the interactions between agents

and institutions of the financial sector (individual investors, financial intermediaries, capital markets) and the subjects from the real economy (firms, households). This paper shows that equity liberalization can have equally strong impact on the interplay of agents within the realm of real economy. This is a potentially important contribution, especially against the backdrop of the recent public discussions about the relative costs and benefits of financial globalization. One of the main critiques one often hears is that international capital flows help only the "financial speculators" and have little or even negative impact on the real economy. Results showing that financial liberalization can help to smooth and strengthen relationships between upstream and downstream firms are a direct answer to this critique.

The rest of the paper is structured as follows. The next section explains the empirical strategy using both panel data estimations and the event study approach. Section 3 describes the data. Section 4 reports the empirical results. Section 5 provides some concluding remarks.

2 Methodology

2.1 Panel Data Specifications

In order to identify the differential impact of equity market liberalizations across industries, I interact a liberalization dummy (EL_{ct}) with variables capturing the technological dependence of given industry on suppliers (S_i) and external investors (I_i). I examine these two channels first separately, but ultimately allow both interaction terms to enter simultaneously the following specification:

$$G_{ict} = \alpha + \beta_0 EL_{ct} + \beta_1 EL_{ct} * S_i + \beta_2 EL_{ct} * I_i + \gamma Share_{ict} + \delta_{ic} + \mu_t + \varepsilon_{ict}, \quad (1)$$

where the dependent variable is economic growth in industry i and country c at time t. Coefficient β_0 captures the direct effect of equity market liber-

alization on economic growth. The specification also includes initial share of industry i in overall output of country c at the beginning of period t. This variable ($Share_{ict}$) controls for the fact that more mature industries usually exhibit lower growth rates. Full sets of industry-country (δ_{ic}) and time (μ_t) fixed effects control for a wide range of omitted variables. Industry-country dummies (δ_{ic}) also absorb the direct effects of industry characteristics S_i and I_i.

The main variable of interest is $EL_{ct} * S_i$. It captures the main contribution of this paper based on the following line of argument. Equity liberalizations provide additional funding from abroad, increasing the financial stability of domestic firms. Foreign investors also press for improvements in public and corporate governance, decreasing the probability of deliberate breach of contract. Lower probability of financial problems and opportunistic behaviour on the part of buyers makes suppliers more willing to provide the requested intermediate products. Consequently, equity liberalizations benefit especially those industries that heavily depend on trust of their suppliers. This is the main hypothesis of the paper and a positive coefficient β_1 would confirm it. Similarly, a positive coefficient β_2 would mean that equity liberalizations disproportionately promote growth of industries dependent on external investors. Gupta and Yuan (2009) already provided empirical support for this traditional channel in a similar specification.

In Equation (1), country characteristics that change over time could bias the coefficients of included variables. One way to address this issue would be to include the "usual suspects" into the regression. In this regard, Gupta and Yuan (2009) control for openness to trade, GDP per capita, human capital, and domestic financial development. However, some less obvious country-specific factors might still shape the complex relationship between equity liberalizations and economic growth. This argument applies especially in the context of this paper. In particular, Equation (1) tests a novel hypothesis ($EL_{ct} * S_i$), while at the same time controlling for a quite different channel

from the existing literature ($EL_{ct} * I_i$). For this reason I also estimate the following specification:

$$G_{ict} = \alpha + \beta_1 EL_{ct} * S_i + \beta_2 EL_{ct} * I_i + \gamma Share_{ict} + \delta_{ic} + \eta_{ct} + \varepsilon_{ict}, \quad (2)$$

where a full set of country-time fixed effects (η_{ct}) replaces time dummies from equation (1). This stringent specification thus controls for all possible time-varying country characteristics that could in more or less obvious ways affect economic growth. The direct effect of equity liberalizations (EL_{ct}) is also captured by η_{ct}.

2.2 Event-Study Approach

Event-study approach offers another way to account for various factors that might obfuscate transmission channels from equity liberalizations to economic growth. This methodology has gained broad popularity in the empirical trade literature, going back to the seminal paper by Trefler (2004). For instance, Manova (2008) uses event-study approach to examine impact of equity liberalizations on international trade flows. The main idea consists in first-differencing Equation (1):

$$\Delta G_{ict} = G_{ic1} - G_{ic0} = \beta_0 \Delta EL_{ct} + \beta_1 \Delta EL_{ct} * S_i + \beta_2 \Delta EL_c * I_i + \gamma \Delta Share_{ict} + \mu_T + \Delta \varepsilon_{ict}, \quad (3)$$

where $t = 0$ ($t = 1$) refers to the time before (after) equity liberalization takes place. In particular, G_{ic0} (G_{ic1}) corresponds to average growth in three years before (after) the liberalization event. Consequently, a positive value of ΔG_{ict} would document an acceleration in economic growth due to such event. First-differencing also removes country-industry fixed effects (δ_{ic}) from the regression, providing a cleaner estimate of a causal impact of equity liberalizations (Manova 2008, p. 41). The stringent event-study specification places high requirements on data to reveal any significant impact of liberalization

events. The number of data points available for identification is much lower than in standard panel data estimation, as Equation (3) uses only one observation for every country-industry pair. The specification also controls for the year in which the liberalization event took place (μ_T).

Finally, the dummy character of the liberalization variable (EL_{ct}) implies $\Delta EL_{ct} = EL_{c1} - EL_{c0} = 1$. Equation (3) thus simplifies to:

$$\Delta G_{ict} = \beta_0 + \beta_1 S_i + \beta_2 I_i + \gamma \Delta Share_{ict} + \mu_T + \Delta \varepsilon_{ic}, \tag{4}$$

with EL_{ct} not directly entering the specification. Nevertheless, the economic interpretation of main coefficients remains unchanged. Positive estimated coefficients β_1 and β_2 would still imply a disproportionately beneficial impact of equity liberalizations on industries highly dependent on suppliers (S_i) and external investors (I_i), respectively. Coefficient on the constant term, β_0, captures the direct effect of EL_{ct}.

3 Data

The industrial output data for economic growth (G_{ict}) and initial industry share ($Share_{ict}$) come from the Trade, Production, and Protection Database by Nicita and Olarreaga (2007), based on the 3-digit ISIC Revision 2 classification. The ultimate source of production data in this database is United Nations Industrial Development Organization (UNIDO). I transform data from current U.S. dollars into constant international dollars using GDP deflator from Penn World Table (Heston, Summers, and Aten, 2002).

An important issue in the outlined identification strategy is to find suitable proxies for industrial characteristics (S_i) and (I_i). This paper utilizes the notion of relationship-specific investment to capture the importance of suppliers' trust for given industry (S_i). A supplier often needs to make investments in order to customize intermediate products for specific needs of a particular buyer. After such specific investment is sunk, the buyer can refuse

to pay the agreed price and try to renegotiate. Furthermore, even if the buyer would be willing to pay for a product at the agreed price, she might be not able to do so due to liquidity or solvency problems. A supplier of standardized products can always find another buyer if the original customer is either not able or not willing to honour her commitment. A supplier of relationship-specific products would be in a much worse position. She already adjusted the product for the needs of one specific purchaser and would thus not be able to achieve the original price with a different customer. Consequently, forward-looking sellers suspecting opportunistic behavior or financial instability on the part of their business partners would refuse to execute the required product adjustments in the first place, hurting the downstream firms with negative ramifications for aggregate growth.

The most prominent measure of relationship-specific investment was arguably introduced by Nunn (2007), following the classification of Rauch (1999). In particular, Nunn (2007) computes for every industry the proportion of intermediate inputs that cannot be sold on an organized exchange, nor are they reference-priced in trade publications. The non-existence of an organized exchange or reference price suggests some non-standard features and necessity of buyer-specific adjustments to the product. Product specificity combined with the absence of organized exchange or reference price in turn implies that the supplier would struggle to secure the original price if the initial buyer were unable or unwilling to pay. Consequently, only sellers convinced about financial stability and contractual reliability of their business partners would consent to engage in production of these intermediate products.

The chosen measure thus conceptually captures the importance of suppliers' trust for given industry (S_i). Moreover, existing empirical literature confirms the proxy's relevance in the context of the two channels from equity liberalizations to economic growth examined in this paper. Nunn (2007) documents the importance of contract reliability for industries using a high

share of inputs that are not reference-priced and cannot be obtained on an organized exchange. Strieborny and Kukenova (2011) provide evidence for the financial stability channel. The original measure in Nunn (2007) is reported in the US input-otput classification. The direct source of data for (S_i) in this paper is Levchenko (2008) who recomputes Nunn's measure for the 3-digit ISIC Revision 2 classification.

Finding an variable appropriately capturing the importance of external investors in given industry is a more straightforward task. The natural measure in this context is the external finance dependence introduced by Rajan and Zingales (1998). It is defined as capital expenditure minus cash flow divided by capital expenditure. The original variable from Rajan and Zingales (1998) is calculated for a mix of three-digit and four-digit ISIC industries. The source of data for (I_i) in this paper is Laeven et al. (2002) who follow the 3-digit ISIC Revision 2 classification.

Data on equity liberalization dates come from Bekaert et al. (2005). Conceptually, equity liberalization refers to the year when a given country opens to foreign equity flows. Bekaert et al. (2005) use two indicator variables. Official equity market liberalization corresponds to the date of a formal legal change allowing foreign investors to acquire domestic equities. First sign equity market liberalization is the earliest of the following three dates: official liberalization, first American Depository Receipt (ADR) or first country fund launch. Both official and first sign indicator variables take value one in the year of liberalization and thereafter, and zero otherwise. In all specifications, I alternatively use both dummies as measure of equity liberalizations (EL_{ct}).

The paper combines data from all above sources, but drops the observations from the United States, as the industry characteristics (S_i) and (I_i) are computed from the US data. The resulting sample includes data for 28 manufacturing industries in 68 countries for the period between 1980 and 1997.

Appendices A1 and A2 report the lists of developed and developing coun-

tries, respectively. If equity liberalization occurred between 1980 and 1997, the name of country is in bold. The other countries remained either closed or open to foreign equity capital during the whole sample period.

4 Empirical Results

Table 1 reports the regression results from the full panel of 68 countries. In the first column I test for the main hypothesis of the paper. The positive and significant estimated coefficient for the interaction term $EL_{ct} * S_i$ confirms that equity liberalizations benefit especially industries dependent on trust of their suppliers. The initial industry share ($Share_{ict}$) has the expected negative sign. Industries usually exhibit slower growth rates if their production already accounts for a high share in the country's overall output. The negative direct effect of EL_{ct} is somewhat surprising, but following tables related to more stringent specifications will address this issue.

The second column of the Table 1 tests for the traditional channel of equity liberalizations disproportionately helping the industries dependent on external investors. The coefficient on the corresponding interaction term $EL_{ct} * I_i$ is indeed positive and significant. The third column reports the estimation results for specification (1). Both interaction terms enter the regression with positive signs, but only the one capturing the suppliers' importance ($EL_{ct} * S_i$) is significant. The first three columns use official liberalization dates to construct the indicator variable EL_{ct}. The last three columns mirror the specifications from columns (1) to (3), but use the dates of first liberalization sign instead. The results are qualitatively the same.

Table 2 reports the results of the more stringent specification (2). Country-time fixed effects (η_{ct}) now capture all observable and unobservable country characteristics that change over time. This includes also the direct effect of equity liberalizations (EL_{ct}). The first three columns report the results based on the official dates of equity liberalizations. Column (1) presents

the regression result from the full sample of countries. Columns (2) and (3) rely on subsamples of developing and developed countries, respectively. Broadly speaking, developed countries are non-transition and non-emerging economies among the OECD members. Appendices A1 and A2 provide the details. Columns (4) to (6) repeat the estimations from the first three columns, while using the dates of first liberalization signs to construct liberalization dummy (EL_{ct}).

Overall, Table 2 confirms the patterns from the previous table. Equity liberalizations disproportionately benefit industries heavily dependent either on their suppliers or external investors, as captured by positive estimated coefficients for $EL_{ct} * S_i$ and $EL_{ct} * I_i$, respectively. In five out of six cases, the effect is significant for the suppliers-dependent sectors, but not for the investor-dependent ones. This pattern reverses only in the last column, reporting the effect of first liberalization signs in the sample of developed countries.

The results in Tables 1 and 2 might be partially driven by some underlying differences between countries that remain open or closed to foreign equity flows during the whole sample period. I therefore restrict the sample in Tables 3 and 4 to countries that actually did experience equity liberalizations between 1980 and 1997. The focus on these "liberalizers" does not fully remove the cross-sectional variation, as countries open themselves to foreign equity flows at different times. Nevertheless, the identification comes in this case mostly from the within-country variation over time. One could thus view results from Tables 3 and 4 as an intermediate step between the full panel and the event-study analysis (Manova 2008, p. 40).

Table 3 re-estimates the specifications from Table 1 using the restricted sample of liberalizing countries. The results remain qualitatively the same. Equity liberalizations still seem to benefit particularly industries dependent on the trust of their suppliers ($EL_{ct} * S_i$). The positive impact of equity liberalizations on industries relying on external investors is stronger in the

group of liberalizing countries than in the whole sample. Positive and significant estimated coefficient on the interaction term $EL_{ct} * I_i$ is now more in accordance with the results reported in Gupta and Yuan (2009). This is not surprising, as their sample consists mostly of the liberalizers. In particular, 27 out of 31 countries examined in Gupta and Yuan (2009) liberalized equity flows during their sample period. Nevertheless, once both interaction terms are allowed to enter regressions in columns (3) and (6), only the variable capturing the suppliers' importance ($EL_{ct} * S_i$) maintains significance. Focusing on liberalizing countries also provides more intuitive results for the overall effect of equity liberalizations. The direct effect of EL_{ct} is less negative than in Table 1. Importantly, the overall liberalization effect is positive.[1]

Table 4 verifies the estimations of the stringent specification (2) in the sample of liberalizing countries. The results broadly confirm the patterns found in Table 2. The single qualitative deviation relates to subsample of liberalizing developed countries in columns (3) and (6). Contrary to Table 2, none of the two interaction terms is significant. However, the specification might simply ask too much from data in this case. Appendix A1 shows that only few developed countries implemented equity liberalizations between 1980 and 1997. Most of them were open to foreign equity flows during the whole sample period.

Finally, Table 5 reports the results from estimating Equation (4). This event-study approach places arguably the highest data requirements on the search for a possible impact of equity liberalizations. Columns (1) and (4) use data from all liberalizing countries, while columns (2) and (5) rely on subsample of developing countries. In these four specifications, the main variable of interest ($EL_{ct} * S_i$) is positive and significant. The direct effect of equity liberalizations (EL_{ct}) is either positive or insignificant and the

[1] The overall effect of equity liberalizations can be computed from the estimated coefficients for variables containing the liberalization dummy and from mean values of industry characteristics. For example, the overall liberalization effect in column (3) of Table 3 is captured by $\widehat{\beta_0} + \widehat{\beta_1}\overline{S_i} + \widehat{\beta_2}\overline{I_i}$ = -0.043 + 0.099*0.487 + 0.019*0.269 = 0.010324

overall liberalization effect is clearly beneficial for the output growth. Positive impact of equity liberalizations on suppliers-dependent industries seems to disappear when applying the event-study approach in case of developed countries (columns three and six). Similarly to Table 4, this result might reflect the small number of liberalizers among the developed countries rather than a smaller impact of foreign equity flows at higher stages of economic development.

5 Conclusions

Existing finance literature traditionally emphasizes positive effects of equity liberalizations on relationship between capital-stripped firms and external investors. This paper has examined how equity liberalizations shape the firms' relationship with another crucial stakeholder – the suppliers. Firstly, a buyer backed by foreign capital is less likely to experience liquidity problems or even default. Secondly, the liberalization-driven improvements in public and corporate governance lower the risk of a deliberate contract breach. Foreign equity flows can thus reassure suppliers doubting the financial and contractual reliability of the buyers. Results from panel data and event-study approach confirm this intuition, establishing a novel transmission channel from financial globalization to real economy. International equity flows thus seem to play an important role in interactions between agents in the real economy, rather than exclusively benefiting agents from the financial sector.

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Appendix A1: Developed Countries

Countries in bold implemented equity liberalizations during the sample period 1980-1997. Japan (in italics) experienced official liberalization in 1983, but issued the first ADR prior to the sample period.

Australia, Austria, Canada, Denmark, Finland, France, Germany, **Greece**, **Iceland**, Ireland, Italy, *Japan*, Netherlands, **New Zealand**, Norway, **Portugal**, **Spain**, Sweden, Switzerland, United Kingdom

Appendix A2: Developing and Emerging Countries

Countries in bold implemented equity liberalizations during the sample period 1980-1997.

Algeria, **Argentina**, **Bangladesh**, Benin, **Botswana**, **Brazil**, Cameroon, **Chile**, **Colombia**, Costa Rica, **Cote d'Ivoire**, **Ecuador**, **Egypt**, El Salvador, Gabon, **Ghana**, Guatemala, Honduras, **India**, **Indonesia**, Iran, **Israel**, **Jordan**, **Kenya**, **Korea (Republic of)**, Kuwait, Malawi, **Malaysia**, **Malta**, **Mauritius**, **Mexico**, **Morocco**, Nepal, **Nigeria**, **Oman**, **Pakistan**, **Peru**, **Philippines**, Senegal, Singapore, **South Africa**, **Sri Lanka**, **Thailand**, **Trinidad and Tobago**, **Tunisia**, **Turkey**, Uruguay, **Venezuela**

Table 1: Full Panel - Main Results

	(1)	(2)	(3)	(4)	(5)	(6)
	Official Liberalization			First Sign of Liberalization		
Equity Liberalization (EL_{ct})	-0.074***	-0.036**	-0.073***	-0.064***	-0.026	-0.064***
	(0.021)	(0.017)	(0.021)	(0.020)	(0.016)	(0.020)
Equity Liberalization	0.092***		0.084***	0.093***		0.086***
x Suppliers (EL_{ct}*S_i)	(0.030)		(0.026)	(0.032)		(0.030)
Equity Liberalization		0.030*	0.014		0.029	0.012
x Investors (EL_{ct}*I_i)		(0.017)	(0.016)		(0.018)	(0.017)
Industry Share ($Share_{ict}$)	-1.650**	-1.632**	-1.655**	-1.647**	-1.631**	-1.650**
	(0.799)	(0.795)	(0.802)	(0.797)	(0.794)	(0.799)
Constant	0.110***	0.109***	0.110***	0.101***	0.101***	0.101***
	(0.038)	(0.038)	(0.038)	(0.037)	(0.037)	(0.037)
Observations	23,062	23,062	23,062	23,062	23,062	23,062
R-squared	0.081	0.080	0.081	0.080	0.080	0.080

Robust standard errors clustered at country level are in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 2: Full Panel - Additional Results

	(1)	(2)	(3)	(4)	(5)	(6)
	Official Liberalization			First Sign of Liberalization		
Equity Liberalization	0.103***	0.100***	0.104*	0.108***	0.103***	0.115
x Suppliers (EL_{ct}*S_i)	(0.026)	(0.029)	(0.059)	(0.032)	(0.036)	(0.067)
Equity Liberalization	0.023	0.024	0.025	0.021	0.020	0.032*
x Investors (EL_{ct}*I_i)	(0.016)	(0.020)	(0.017)	(0.017)	(0.021)	(0.017)
Industry Share ($Share_{ict}$)	-2.730***	-2.865***	-1.689***	-2.724***	-2.857***	-1.692***
	(0.460)	(0.522)	(0.518)	(0.458)	(0.521)	(0.508)
Constant	0.170***	0.209***	0.074***	0.171***	0.212***	0.064***
	(0.022)	(0.026)	(0.020)	(0.022)	(0.027)	(0.020)
Observations	23,062	15,327	7,735	23,062	15,327	7,735
R-squared	0.323	0.325	0.267	0.323	0.325	0.267

Robust standard errors clustered at country level are in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 3: Liberalizers - Main Results

	(1)	(2)	(3)	(4)	(5)	(6)
	Official Liberalization			First Sign of Liberalization		
Equity Liberalization (EL_{ct})	-0.044**	0.001	-0.043**	-0.038*	0.007	-0.037*
	(0.020)	(0.017)	(0.020)	(0.020)	(0.017)	(0.019)
Equity Liberalization	0.110***		0.099***	0.111***		0.101***
x Suppliers (EL_{ct}*S_i)	(0.028)		(0.025)	(0.031)		(0.030)
Equity Liberalization		0.038**	0.019		0.036**	0.017
x Investors (EL_{ct}*I_i)		(0.017)	(0.016)		(0.018)	(0.017)
Industry Share ($Share_{ict}$)	-2.324***	-2.290***	-2.333***	-2.312***	-2.282***	-2.319***
	(0.600)	(0.595)	(0.603)	(0.600)	(0.596)	(0.602)
Constant	0.135***	0.134***	0.135***	0.137***	0.136***	0.137***
	(0.037)	(0.037)	(0.038)	(0.038)	(0.038)	(0.038)
Observations	13,806	13,806	13,806	13,335	13,335	13,335
R-squared	0.102	0.101	0.102	0.101	0.101	0.101

Robust standard errors clustered at country level are in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 4: Liberalizers - Additional Results

	(1)	(2)	(3)	(4)	(5)	(6)
	Official Liberalization			First Sign of Liberalization		
Equity Liberalization	0.102***	0.099***	0.095	0.107***	0.103***	0.102
x Suppliers (EL_{ct}*S_i)	(0.027)	(0.029)	(0.062)	(0.033)	(0.036)	(0.073)
Equity Liberalization	0.023	0.023	0.025	0.021	0.020	0.033
x Investors (EL_{ct}*I_i)	(0.017)	(0.020)	(0.019)	(0.018)	(0.021)	(0.018)
Industry Share ($Share_{ict}$)	-2.712***	-2.848***	-1.237	-2.705***	-2.837***	-1.171
	(0.592)	(0.646)	(0.763)	(0.592)	(0.643)	(0.773)
Constant	0.102***	0.119***	0.044	0.116***	0.126***	0.032
	(0.024)	(0.026)	(0.029)	(0.025)	(0.027)	(0.031)
Observations	13,806	11,302	2,504	13,335	11,302	2,033
R-squared	0.244	0.241	0.291	0.244	0.241	0.287

Robust standard errors clustered at country level are in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5: Event Studies

	(1)	(2)	(3)	(4)	(5)	(6)
	Official Liberalization			First Sign of Liberalization		
Constant (ΔEL_{ct})	0.026	0.038**	-0.077*	-0.025	0.019	-0.078
	(0.016)	(0.017)	(0.029)	(0.017)	(0.020)	(0.035)
Suppliers (S_i)	0.098***	0.096**	0.111	0.106**	0.105**	0.107
	(0.034)	(0.040)	(0.064)	(0.039)	(0.046)	(0.079)
Investors (I_i)	0.024	0.026	0.018	0.009	0.003	0.033
	(0.021)	(0.027)	(0.016)	(0.021)	(0.026)	(0.015)
Diff. Industry Share ($\Delta Share_{ict}$)	-2.881***	-2.853***	-3.422***	-3.010***	-2.991***	-3.257***
	(0.732)	(0.773)	(0.538)	(0.786)	(0.837)	(0.525)
Observations	576	455	121	542	437	105
R-squared	0.181	0.180	0.197	0.180	0.194	0.175

Robust standard errors clustered at country level are in parentheses

*** p<0.01, ** p<0.05, * p<0.1