The Hidden Costs of Being Public:
Evidence from Multinational Firms operating in an Emerging Market

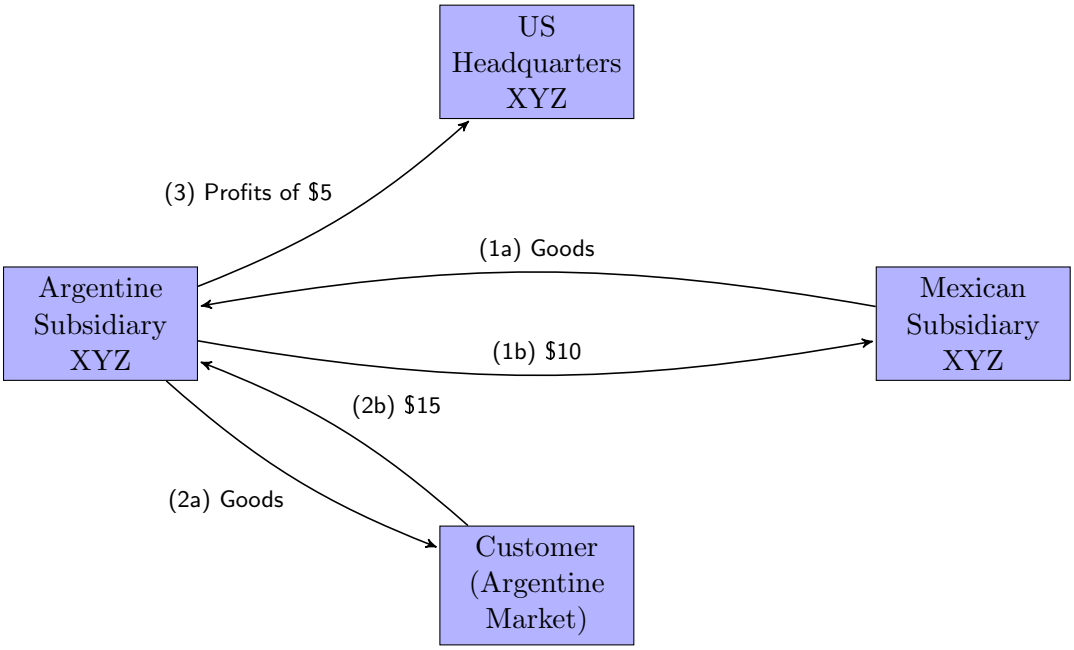
Online appendix

This appendix has four subsections. The first one provides a graphical representation of a transfer mispricing transaction. The second and third subsections provide the results of robustness tests for the section on compliance rates across firms. The fourth presents additional details on the industries used in the section on mergers and acquisitions (M&A) transactions.

A.1. Transfer mispricing mechanism

In this subsection, I provide an example of the transfer mispricing mechanism. Consider a multinational company (MNC) firm headquartered in the US with subsidiaries in Argentina and Mexico. Before the introduction of the regulation, the Argentine subsidiary could import goods from the Mexican subsidiary for \$10 (transactions 1a and 1b), sell them in the local market for \$15 (transactions 2a and 2b), and transfer the profit of \$5 to the headquarters (transaction 3), as shown in Fig. A1a. Facing the ban on international transfers, companies might partake in transfer mispricing, a practice that takes the form illustrated in Fig. A1b. In this example the Argentine subsidiary pays a higher price for the imported good to the Mexican subsidiary (transactions 1a and 1b) and makes no profit in Argentina when selling the product at the same price it was being sold before (transactions 2a and 2b), and the profit is transferred from the Mexican subsidiary to the headquarters, thereby bypassing the effects of the regulation.

(a) Flow before regulation



(b) Flow after regulation

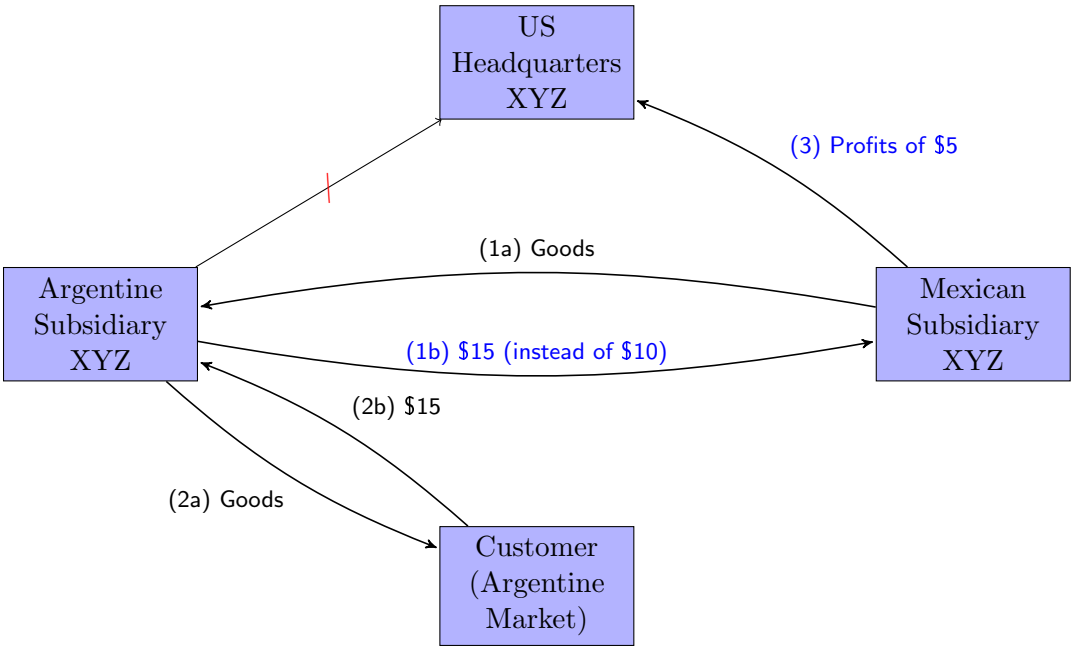


Figure A1: Flows before and after regulation

A.2. Difference in difference in differences

To facilitate interpretation, the main body of the paper presents the results of the analysis of compliance rates across firms in a Difference-in-Differences setting. Here, on Table A1, I present the results in a Difference-in-Differences-in-Differences setting for robustness, where I find similar results to those found in the main body of the paper.

A.3. Listing stock exchange

For robustness, I test whether the results are driven by firms listed in one specific market. For this, I repeat the main analysis excluding observations for firms on different stock exchanges one at a time. Each column reports the results excluding imports from firms listed in the stock market referenced in the column name. For instance, results in the first column exclude imports made by firms listed in Börse Berlin. The results in Table A2 show that the differences are not driven by firms listed in any one stock exchange.

A.4. Industries

In the analysis of M&A transactions, I use the 18 industry categories that the Central Bank of Argentina uses to report information on repatriation of earnings and royalties. Table A3 lists those industries and their rank in terms of exposure to the regulation for years 2009-2011.

Table A1: Transfer Mispricing Mechanism

	Price	Price
Post	0.0504***	0.0505***
	(0.0103)	(0.0103)
Related	–0.0981**	–0.0979**
	(0.0442)	(0.0442)
Post × Related	–0.0284**	–0.0288**
	(0.0117)	(0.0115)
Private	–0.0120	–0.0114
	(0.0183)	(0.0182)
Post × Private	–0.0450**	–0.0456**
	(0.0212)	(0.0211)
Related × Private	0.0427	0.0407
	(0.0490)	(0.0487)
Post × Related × Private	0.127***	0.127***
	(0.0320)	(0.0318)
Product FE	Yes	Yes
Month FE (Jan-Dec)	No	Yes
N	846,685	846,685
R-squared	0.005	0.006

This table presents the import prices in a Difference-in-Difference-in-Differences setting. The sample consists of imported goods belonging to Harmonized System codes 84.07 (Spark-ignition reciprocating or rotary internal combustion piston engines), 84.08 (Compression-ignition internal combustion piston engines (diesel or semi-diesel engines)) and 84.09 (Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08) and represent the period between January 2010 and September 2014. The dependent variable is the import price normalized by the mean price of that product, which is done to give equal consideration to products at different price levels. *Post* is a dummy indicator for import transactions that occurred after Rule A5264. $Related_{jk}$ is a dummy indicator for transactions between importers and exporters that belong to the same MNC. *Private* is a dummy indicator for firms that are subsidiaries of private MNC. Standard errors are clustered at the importer-exporter pair level and are in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Table A2: Transfer Mispricing Mechanism - Excluding one Stock Market at a time

	Berlin	Korea	Milan	NYSE	Paris	Stockholm	Tokio	Toronto	Xetra
Post	0.00853	0.00857	0.00844	0.00695	0.00885	0.00851	0.00845	-0.00377	0.00889
	(0.0167)	(0.0166)	(0.0167)	(0.0180)	(0.0167)	(0.0167)	(0.0166)	(0.0188)	(0.0167)
Related	-0.103**	-0.0895**	-0.0972**	-0.0778*	-0.0870**	-0.0488**	-0.0905**	-0.0952**	-0.103**
	(0.0519)	(0.0396)	(0.0414)	(0.0468)	(0.0394)	(0.0240)	(0.0395)	(0.0398)	(0.0449)
Post x Related	0.0120	0.0132	0.0148	0.0325	0.0120	0.00981	0.0140	0.0257	0.0127
	(0.0175)	(0.0174)	(0.0176)	(0.0217)	(0.0175)	(0.0169)	(0.0175)	(0.0195)	(0.0174)
Product FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	762,233	783,692	767,854	541,103	757,180	763645	768,241	745,045	783,487
R-Squared	0.005	0.004	0.004	0.018	0.006	0.008	0.004	0.005	0.004

This table presents the import prices in a DiD setting excluding imports from firms listed on different stock exchanges, one stock exchange at at time. The sample consists of imported goods belonging to Harmonized System codes 84.07 (Spark-ignition reciprocating or rotary internal combustion piston engines), 84.08 (Compression-ignition internal combustion piston engines (diesel or semi-diesel engines)) and 84.09 (Parts suitable for use solely or principally with the engines of heading 84.07 or 84.08) and represent the period between January 2010 and September 2014. The dependent variable is the import price normalized by the mean price of that product, which is done to give equal consideration to products at different price levels. *Post* is a dummy indicator for import transactions that occurred after Rule A5264. $Related_{jk}$ is a dummy indicator for transactions between importers and exporters that belong to the same MNC. The label on each column indicates that firms listed on that stock exchange are excluded. Standard errors are clustered at the importer-exporter pair level and are in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Table A3: Industries

Industry	Rank 2009	Rank 2010	Rank 2011
Agriculture, Forestry, Fishing and Hunting	16	18	16
Arts, Entertainment, and Recreation	11	10	9
Construction	15	16	17
Financial Institutions	3	3	8
Food, Beverage and Tobacco Product Manufacturing	9	9	6
Grain and Oilseed Milling	5	2	3
Machinery Manufacturing	10	11	10
Mining	18	13	18
Motor Vehicle Manufacturing	6	4	5
Nonmetallic Mineral Mining and Quarrying	8	8	11
Oil and Gas Extraction	1	1	1
Other sectors	14	14	12
Plastics and Rubber Products Manufacturing	7	6	4
Primary Metal Manufacturing	4	7	2
Retail Trade	17	17	14
Telecommunications	2	5	7
Textile	12	12	15
Transportation	13	15	13

This table presents the list of the 18 industries used in the study of M&A activity in Argentina. The categories are the ones used by the Central Bank of Argentina to report data on value added and repatriation of earnings and royalties. For each industry, I report its ranking in terms of exposure to the ban on profits repatriation, as measured by the percentage of value added that is repatriated. I report the ranking for each one of the three years before the passage of the regulation.