



EAST-WEST
CENTER

APPENDIX

Women, Leadership, and Asian Economic Performance

SOYOUNG HAN AND MARCUS NOLAND

Analysis from the East-West Center

Asia Pacific Issues No. 142

January 2020

Data Collection and Cleaning

The final data set for this Issues paper includes industrial firms that are publicly listed, have officers, directors, and financial data, and have headquarters in countries that had at least 100 firms from 1997 to 2017 (aggregate count of firms throughout the period). Approximately 62,000 firms in 58 countries were studied, including about 25,000 in Asia. We compiled our data from the General Officers, and Directors, and Standardized Financials databases of Refinitiv.

The countries covered are as follows, with Asian countries in bold: Argentina, Australia, Austria, Belgium, Bulgaria, Bermuda, Brazil, Canada, Switzerland, Chile, **China**, Colombia, Cyprus, Germany, Denmark, Egypt, Spain, Finland, France, United Kingdom, Guernsey, Greece, **Hong Kong**, Croatia, **Indonesia**, **India**, Ireland, Israel, Italy, Jordan, **Japan**, **South Korea**, Kuwait, **Sri Lanka**, Luxembourg, Mexico, **Malaysia**, Nigeria, Netherlands, Norway, **New Zealand**, Oman, **Pakistan**, Peru, **Philippines**, Poland, Romania, Russia, Saudi Arabia, **Singapore**, Sweden, **Thailand**, Turkey, **Taiwan**, Ukraine, United States, **Vietnam**, and South Africa.

For each firm, we collected the headquarters location, country and date of incorporation, Thomson Reuters Business Classification (TRBC), and type of company (the most recent status), if provided. We used locations of headquarters to associate a firm with a country, instead of countries of incorporation, considering tax evasion purposes.

Refinitiv conveniently classifies each individual as an executive officer or a member of the board of directors. For each of these individuals, we compiled information on name, gender, start/end date of tenure, and position title. Identifying the gender of each officer or director was a crucial step in order to compute the yearly share of female officers or directors for each firm.

Refinitiv did not identify the gender of approximately 8.5 percent of the people listed, however. In these cases, we determined gender based on first names using the GenderAPI database. We were able to identify the gender of 94 percent of the people for whom this information was missing. At the end, less than 1 percent of officers or directors did not have gender data. We dropped the firms associated with these individuals from our data set.

Having both start and end dates of tenure made it possible to calculate the share of female officers and directors on an annual basis. Unfortunately, there were a large number of instances where either the start or end date of tenure was missing—approximately 38 percent of officers and 31 percent of directors. In these cases, we predicted the length of tenure based on the gender of the officer, the location of the firm's headquarters, the industry classification (TRBC 3-digit code) of the firm, and the average tenure lengths of officers or directors in that specific firm, if available. With the predicted tenure length, we were able to estimate the end date of tenure from the start date or vice versa. Approximately 3 percent of individuals were missing both start and end dates,

making it impossible to identify the period of their tenure. Firms with these individuals were dropped from our data set.

Although Refinitiv made it easy to identify executive officers and board members, the titles of specific positions were inconsistent, making it difficult to identify top-level executives or board chairpersons. We categorized “Chairman-Management,” “Chief Executive Officer (CEO),” “Director General,” “General Director,” “President,” and “Managing Director” as top-level executive positions and “Chairman” and “Chairman-Supervisory” as board chairperson positions. Refinitiv provided information on either the CEO or board chairperson for at least one of the 20 years included in the study for approximately 75 percent of the firms covered. For 57 percent of the firms, Refinitiv provided information on both the CEO and the board chairperson for at least one year. In attributing gender, we did not include firms where both a man and a woman were designated in a specific top-level executive position or board chairmanship in the same year.

Our data set only includes industrial firms that are not utility or insurance firms. Banks are also excluded from the data set. Because firms delist and relist and Refinitiv has a separate time-series of the status of firms, we determined the yearly status of firms, whether public or private, by the company type, the date of initial public offering, the date the firm went public, and the date of delisting, if provided. There were instances when multiple income statements/balance sheets were provided for a firm

in the same year for reasons such as changes in year-end statements and dual listings.

When multiple financial statements were provided for the same year due to changes in year-end statements, we used the most updated figures from the statement that covered the longest period within the year. In cases of dual listings, we selected financial statements from the primary issue as identified by Refinitiv.

In the end, we only kept firms that were in both Refinitiv's Officers and Directors and Standardized Financials databases. We also dropped countries with a total of less than 100 firms.

Additional Data

Table 1. Percentage share of female executive officers and directors in Asia by country (2017).

	Share of Female Executive Officers	Share of Female Directors
Australia	15.7	9.3
China	17.5	13.1
Hong Kong	22.7	13.6
India	16.0	16.1
Indonesia	17.5	13.4
Japan	2.2	3.2
Malaysia	35.6	13.0
New Zealand	18.6	17.4
Pakistan	2.7	8.6
Philippines	34.6	15.2
Singapore	29.3	10.6
South Korea	6.1	7.0
Sri Lanka	13.5	8.8
Taiwan	25.6	18.4
Thailand	32.2	19.9
Vietnam	21.4	15.4
World	15.5	12.6

Source: Refinitiv and authors' calculation.

Table 2. Percentage share of female executive officers and directors by industry (2017).

Industry	World		Asia	
	Share of Female Executive Officers	Share of Female Directors	Share of Female Executive Officers	Share of Female Directors
Energy	13.0	9.6	16.0	9.5
Basic Materials	14.3	10.7	14.7	10.8
Industrials	13.8	12.1	13.2	10.1
Consumer Cyclical	16.9	13.9	16.7	12.0
Consumer Non-Cyclical	16.6	14.2	16.7	12.6
Financials	18.7	14.1	20.7	13.1
Healthcare	17.6	13.3	18.2	12.8
Technology	12.8	11.4	13.4	10.0
Telecommunications Services	15.8	13.3	18.1	11.2
Utilities	17.6	15.3	15.2	11.9

Source: Refinitiv and authors' calculation.