Supplemental materials to accompany the article titled: "Foreign independent directors and the quality of legal institutions"

Miletkov, M., Poulsen, A. & Wintoki, M.B. Foreign independent directors and the quality of legal institutions. *Journal of International Business Studies* 48, 267–292 (2017). https://doi.org/10.1057/s41267-016-0033-0

## Abstract:

Foreign directors can affect firm value through their advising and monitoring functions. However, the demand for these directors, as well as their effect on firm performance is likely to be influenced by firm- and country-level characteristics. In a large sample of non-US firms, we find that foreign directors are more likely to be associated with firms that have more foreign operations and an international shareholder base, and firms that are located in countries with a limited supply of potentially qualified domestic directors – countries with a smaller, less well educated populace and lower levels of capital market development. We also find that the association between foreign directors and firm performance is more positive in countries with lower quality legal institutions, and when the director comes from a country with higher quality legal institutions than the firm's host country. Our study highlights the importance of considering national demographic factors and levels of capital market development when modeling the supply and demand for foreign directors, and also underscores the importance of institutional quality in the foreign director's home and host country when assessing the effect of that director on firm performance.

## **Supplemental Information:**

Our data does not use any proprietary data. All our data is publicly available and is available either by purchase from the data provider as described below or is freely available at the links provided below.

Table 1 in the published version of the manuscript provides definitions and primary sources for all the variables used in the paper. Detailed information is also available in the "DATA AND SAMPLE SELECTION" section of the manuscript. In the sections below, we provide further information that clarifies the sample construction and variable creation process.

## 1) Supplemental Information Regarding the Sample Construction Process

At the time of writing of the manuscript, the time-series firm-level data from the OSIRIS database, which is the main source for the majority of the variables used in our empirical analysis, was only available via annual CD-ROMs available for purchase from Bureau van

Dijk Electronic Publishing.<sup>1</sup> After purchasing the annual CD-ROMs for the period from 2001 to 2011, we downloaded and combined all of the firm-level financial, board of directors, ownership, and other relevant data into a single dataset. Our final regression sample, which excludes companies for which we do not have data on the full set of control variables, consists of 62,066 firm-year observations from 80 countries.

## 2) Supplemental Information Regarding the Creation of the Foreign Independent Director Variable

The OSISRIS database provides detailed information on the titles of corporate board members as well as the country where board members are domiciled (i.e. their country of residence). We combine this information to create our *foreign independent director* variable which indicates the presence of non-executive board members (i.e., directors who do not work directly for the firm or its subsidiaries) who are based outside of the firm's country of incorporation. Identifying directors who reside outside of the firm's country of incorporation is fairly straightforward by comparing the country of domicile of the directors and the firm's country of incorporation.<sup>2</sup> Identifying independent directors is less straightforward because we have to rely on the director titles which are reported in the OSIRIS database. We define independent directors as those whose titles contain the terms "independent", "non-executive", or variations thereof such as "NON EXEC. CHAIRMAN". In the empirical analysis, we use both an indicator variable that takes the value of one if the firm has at least one foreign independent director and zero otherwise, and a continuous variable that reflects the percentage of foreign independent directors on the companies' boards.

- 3) Worldscope and Thomson One Banker can be purchased from LSEG (formerly Refinitiv/Thomson) and accessed through WRDS (Wharton Research Data Services).
- 4) The Legal Structure and Security of Property Rights Index (Legal Index) from 2007 can be downloaded at <a href="https://www.efotw.org/research/economic-freedom-of-the-world-2007-annual-report">https://www.efotw.org/research/economic-freedom-of-the-world-2007-annual-report</a>
- 5) The World Bank Development Indicators can be downloaded at <a href="https://data.worldbank.org/indicator">https://data.worldbank.org/indicator</a>

<sup>&</sup>lt;sup>1</sup> The OSIRIS database along with other Bureau van Dijk datasets like AMADEUS and ORBIS, can now be purchased and accessed directly through WRDS (Wharton Research Data Services).

<sup>&</sup>lt;sup>2</sup> Since some multinational firms are incorporated in a country other than the one from which they operate (often due to tax considerations), we also require that foreign directors reside outside of the firm's main country of operation as reported in the OSIRIS database.

6) Variable names from combined database (as of March 2014) and suggested code can be found at: <u>Variable Names Code</u> .	