

Article

A Potential Risk of Increasing Cross-National Distance: Evidence from Less Sustainable Tax Policies

Junjian Gu

Faculty of Business Sciences, University of Tsukuba, Tokyo 112-0012, Japan; gu.junjian.fw@u.tsukuba.ac.jp

Received: 8 April 2019; Accepted: 29 April 2019; Published: 8 May 2019



Abstract: This study explores a possible risk of overseas investment in long cross-national distance host countries using the foreign direct investment (FDI) data in Japan. We expect that increasing cross-national distance would relate to the less sustainable tax policies by increasing the differences in economic, political, administrative, cultural, demographic, knowledge, and geographic perspectives, which enhance the motivation of tax aggressiveness and the likelihood of earnings management. Consistent with our expectations, we find that firms with longer cross-national distance are less likely to adopt sustainable tax policies. After some robust tests, our main findings remain unchanged. In additional analysis, we find the above relation is weakened when firms invest in a tax-haven country or have a high proportion of foreign ownership, while it is strengthened when firms meet an earnings benchmark. Overall, our results suggest the one risk of increasing cross-national distance between host country and home country is less sustainable tax policies.

Keywords: cross-national distance; sustainable tax policy; foreign direct investment

1. Introduction

Many taxation studies discuss the outcomes of book-tax difference, a proxy to represent the tax aggressive policy, from several aspects [1–6]. We define that sustainable tax policies focus on maintaining less difference between book income and taxable income over time. Sustainable tax policies are essential for the long-term business sustainability, especially for the multinational firms that engage more complicate business activities, like foreign direct investment (FDI). However, few studies pay attention to the relationship between sustainable tax policies and cross-national distance of FDI. In this study, we are motivated to explore the empirical association between country-level characteristics and sustainable tax policies from cross-national distances perspectives.

Based on the theory of tax competition, local governments create a comparative advantage to attract FDI by making tax policy more attractive to foreign companies. Chan and Mo [7] find the export-oriented firms have significantly greater book-tax-conforming audit adjustments due to the reason that those firms have more opportunities and incentives for tax noncompliance. In addition, the level of economic, political and regional diffusion has effect on the tax policy change. Omer and Shelley [8] find that due to the geographic isolation and difference economic features some states can remain stable when other states change their tax policy. Thus, we can assume that, for the country level, two countries with great difference in some country characteristics (e.g., economic, political, cultural, knowledge, and geographic, etc.) may lead to more opportunities for firms to make the trade-off between the high book income and low tax expense. Accordingly, we expect that increasing cross-national distance between host countries and home country can lead to less sustainable tax policies by increasing the difference in country characters, which enhance the motivation of tax aggressiveness and earnings management opportunities.

The existing literature demonstrates that the extent as well as the consistency of book-tax difference has important effects on the business outcomes. In this study, we apply a dummy variable to represent

the adoption of a sustainable tax policy. Sustainable tax policy refers to the case where the firm has a low level of book-tax difference as well as a low level of standard deviation of book-tax difference for the three-year period. Along with prior studies [9,10] book-tax difference is measured as pre-tax accounting income less taxable income, scaled by lagged total assets.

Considering that different portfolios of FDI may represent different cross-country distance, we obtain foreign investment details of all listed firms in Japan from Toyo Keizai's Overseas Japanese Companies database—by County (hereafter referred to as “OJC database”). In addition, we use Mahalanobis distance to calculate cross-national distances between Japan and host countries. Based on the international business literature [11,12], this study discusses cross-national distance with seven multidimensional measures. We estimate that the greater the cross-national distances between host countries and home country, the less likely it has a sustainable tax policy.

The Japanese data set provides an ideal opportunity to measure the cross-national distance of FDI for a firm-year level. We can access the information on how many and what countries are invested by each firm and by each year from the OJC database. Based on the World Factbook of the Central Intelligence Agency (CIA), World Development Indicators (WDI), World Trade Organization (WTO), Political Constraint Index (POLCON), La Porta et al. [13], Hofstede et al. [14], United States Patent and Trademark Office (USPTO), and Scientific Journal Rankings (SJR), we gather country level component variables from the economic, political, administrative, cultural, demographic, knowledge, and geographical perspectives. By doing so, we could analyze cross-national distance effects on the sustainability of tax policies based on a firm-year level data set.

Using 9036 firm-years sample data from year 2006 to 2014, the archival evidence shows that firms with longer cross-national distances (from the economic, political, administrative, cultural, demographic, knowledge, and geographical perspectives) between parent and host countries exhibit less sustainable tax policies. A further robust test shows that our findings of hypothesis still hold based on the subsample with the FDI sample only. Moreover, considering the potential problem of self-selection bias, we adopt a two-stage Heckman model to mitigate the endogeneity issue and the results remain unchanged. Our findings suggest that country characteristics affect tax practices.

We also provide some additional tests for interest. First, we examine whether tax avoidance incentive affects sustainable tax policies in multinationals. We find FDI in a tax haven country causes a decreasing effect on the relation between cross-national distances and sustainable tax policies, which indicates that a tax haven country investment may be substituted in terms of factors contributing to less sustainable tax policies. Second, we further investigate the impact of earnings management incentive on the effects of cross-national distances and sustainable tax policies. We find that meeting an earnings benchmark (represented as a high possibility of engaging earnings management) has a positive moderate effect on the relationship between cross-national distance and the sustainable tax policies. Third, we try to explore whether different ownership structures affect our results. We find that foreigner investors' interests (characteristic with a high proportion of foreign ownership) have a negative moderate effect on our main results. The findings of this study contribute to the literature and business practice by exploring how cross-national distances affect the likelihood of the adoption for sustainable tax policies.

The remaining parts of this paper are as follows: Section 2 discusses the literature review and hypothesis development. Section 3 describes the empirical methods about regression models and sample selection. Section 4 presents descriptive statistics and correlations of the sample, explains the multivariate results, and describes some robustness tests on the main results. Section 5 discusses further analysis. Section 6 provides conclusions and discussion.

2. Literature Review and Hypothesis Development

Prior studies test the relationship between tax incentive and location decision of overseas investment. Most of this research mentions that host countries' tax rates affect firms' location decision, and a lower tax rate is associated with more investment [15–17]. However, few research discusses

whether and how country characteristic, as the cross-country distance between host countries and home country, could reflect the sustainable tax policies. This study adds to a stream of research providing evidence of a potential risk of less sustainable tax policies when increasing the cross-national distance of FDI.

2.1. Book-Tax Difference and Sustainable Tax Policies

Blaylock et al. [18] summarizes three possible reasons that lead to greater book-tax differences. That is tax-planning strategy, deferred tax expense, and earnings management. It means different characteristics of book-tax differences can reflect different tax policies.

Prior studies attribute the findings to book-tax difference having a negative effect on the reporting quality in the long run. A high level of book-tax difference implicates a less persistent earnings performance as well as a poor expectation of future earnings persistence [19]. Moreover, Comprix et al. [20] argue that great book-tax differences implicate an aggressive financial accounting and tax reporting practice based on the archival evidence. Besides, book-tax differences also regarded as a measure of compliance risk [21,22]. Specifically, Mills [22] shows that there exists a positive relationship between book-tax differences and audit adjustments, since auditors spent more effort making a balance on tax saving, costs of tax examination, and audit quality when firms had greater book-tax differences. In the tax avoidance literature, book-tax difference is used as a proxy to represent tax avoidance activity. Based on prior studies, higher value of book-tax difference reflects an increased level of tax avoidance [9,10,23,24].

In addition, existing literatures also suggest that the change of book-tax differences is related with firm performance, financial distress, and default risk [25,26]. Ayers et al [25] investigate the relation between changes in book-tax differences and credit rating changes. They suppose that credit ratings agencies may use large changes in book-tax differences as indicators for decreased earnings quality or increased off-balance-sheet financing. The results support their hypotheses and suggest that large changes in book-tax differences (both positive and negative) are negatively related with favorable rating changes. Noga and Schnader [26] demonstrate that large abnormal changes in book-tax difference can be utilized as an indicator of high risk for bankruptcy. They find firms with larger changes in book-tax difference compared to their counterparts have an increased likelihood of experiencing bankruptcy in the coming five-year period.

Considering both extent and consistency of book-tax difference have important effects on the business sustainability, in this study, we define that sustainable tax policies focus on maintaining a low level of differences between book income and taxable income over time. Consistent low book-tax difference enables firms to become more sustainable and less uncertain. However, less sustainable tax policies bear some negative effects on reporting quality, auditing adjustments, as well as tax practice. It will be helpful to investigate what and how cross-national distances of FDI affect the likelihood of adopting a sustainable tax policy.

2.2. Cross-National Distance of FDI and Sustainable Tax Policies

Based on the tax competition theory, governments attract foreign direct investment through changing the tax policy (e.g., mining tax rate, offer special tax preferences, etc.), which creates a comparative advantage. Some policies encourage local firms to engage foreign direct investment by offering some taxational benefits or supports [7]. Thus, firms engaging foreign direct investment have more opportunities and incentive for book tax noncompliance.

Additionally, Buettner and Ruf [16] show that location decisions of FDI are affected by the tax incentives, market size, and labor cost. In other words, the different host countries decisions may reflect different levels of tax incentives and strategies. Furthermore, Omer and Shelley [8] show the evidence from the state level that tax policy affected by the level of economic, political and regional diffusion. Similarly, from the country level perspective, we expect that those firms who invest in host

countries with greater cross-national distance to home country are more likely to have a different or unique tax environment, they may have more opportunities to engage tax manipulative practices.

Considering these prior studies, we expect that increasing cross-national distance between host countries and home country can threaten the sustainability of tax policies by increasing the difference in economic, political, administrative, cultural, demographic, knowledge, and geographical perspectives, which enhance the motivation of tax aggressiveness and the likelihood of earnings management. Therefore, we propose the following hypothesis:

Hypothesis 1. *Ceteris paribus, firms with greater cross-national distances between host countries and home country are less likely to adopt sustainable tax policies.*

3. Empirical Method

3.1. Regression Model

Following prior studies, we use the following regression model to test our hypothesis:

$$\begin{aligned} STP = & a_0 + a_1MDIS + a_2FOREIGN + a_3CASH + a_4INTANG + a_5LEV + a_6RD \\ & + a_7EQLNE + a_8NOL + a_9LOSSINT + a_{10}CFO + a_{11}SIZE + a_{12}DISC + a_{13}THAV \\ & + a_{14}EM + a_{15}EMP + a_{16}SALE + a_{17}INVINT + a_{18}TAGG + Yd + Id + \varepsilon \end{aligned} \quad (1)$$

where all variables are defined in Table 1. The dependent variable (*STP*) is measured as a dummy variable that equals 1 if a firm has a sustainable tax policy, and 0 otherwise. Sustainable tax policy refers to the case where the firm has a low level of *BTAX* as well as a low level of standard deviation of *BTAX* for the three-year period (both lower than the median). *BTAX* is pre-tax accounting income less taxable income (where taxable income is computed as income tax expense divided by the statutory corporate tax rate) divided by lagged total assets. Taxable income is computed as tax expense divided by the corporate statutory tax rate [9,10].

To examine our hypothesis, we analyze the coefficient on *MDIS*. *MDIS* represents the sum of administrative distances (*ADM*), cultural distances (*CUL*), demographic distances (*DEM*), economic distances (*ECO*), geographical distances (*GEO*), knowledge distances (*KNO*), and political distances (*POL*) between Japan and host countries, respectively. We expect a positive association between *MDIS* and *STP*.

Besides geographical distance, we use multiple dimensions to represent other types of cross-national distances. For the international business studies, many researchers shed light on the value of Mahalanobis distance calculation method for calculating the cross-national distance [11,12,27,28]. Considering the advantages of Mahalanobis method, we use it to calculate each type of cross-national distance between Japan and host countries. The formula of Mahalanobis distance between Japan and each host country is calculated as follow:

$$d(a, b) = \sqrt{(a - b)C^{-1}(a - b)^T} \quad (2)$$

where, for each type of cross-national distance, *a* and *b* represent a vector for *n* distance dimensions of Japan and host country respectively; *C* is a *n*-by-*n* covariance matrix with element *C_{ij}* equal to the sample covariance of indicator *i* and *j* in the country-indicator matrix of the given year. The definitions about dimensions of each type of cross-national distance are provided in Appendix A, Table A1.

We control for other determinants of firms' tax positions by including variables that are common in the prior studies that capture profitability (*NOL*, *LOSSINT*, and *EQLNE*), and opportunities (*SIZE*, *LEV*, *RD*, and *INTANG*) to engage in tax issues [9,10,24,29–36]. Meanwhile, we include variables (*CASH* and *CFO*) to control for liquidity that could potentially affect tax measure [24,34].

Also, we control for the geographic earnings disclosure (*DISC*) because Hope et al. [32] mention that a firm opting to discontinue disclosure of geographic earnings in their financial

reports has lower worldwide effective tax rates. Furthermore, we consider the tax haven utilization (*THAV*) because several researchers argue that tax haven utilization is significantly associated with tax avoidance [10,37,38]. In addition, we control for the incentives to manage earnings (*EM*) as Frank et al. [30] use in their research. Besides, we create five variables to capture foreign investors' interests (*FOREIGN*) [39], the number of employees (*EMP*) [31], growth opportunity (Δ *SALE*) [24], inventory intensity (*INVINT*) [10], and tax aggressive (*TAGG*) [40,41]. Finally, we include industry dummy and year dummy because prior study considers that tax practice varies by industry and by year.

Table 1. Definitions and measurements of the variables.

Variables	Definitions
Dependent variables	
<i>STP</i>	A dummy variable that equals 1 if a firm has a sustainable tax policy, and 0 otherwise. Sustainable tax policy refers to the case where the firm has a low level of <i>BTAX</i> as well as a low level of standard deviation of <i>BTAX</i> for the three-year period (both lower than the median). Where <i>BTAX</i> is pre-tax accounting income less taxable income (where taxable income is computed as income tax expense divided by the statutory corporate tax rate) divided by lagged total assets;
Test variables	
<i>ADM</i>	Sum of the administrative distances (Mahalanobis distances) between Japan and host countries;
<i>CUL</i>	Sum of the cultural distances (Mahalanobis distances) between Japan and host countries;
<i>DEM</i>	Sum of the demographic distances (Mahalanobis distances) between Japan and host countries;
<i>ECO</i>	Sum of the economic distances (Mahalanobis distances) between Japan and host countries;
<i>GEO</i>	Sum of the total great circle distances, in 1000 km, between Japan and host countries according to the coordinates of the geographic center of the countries;
<i>KNO</i>	Sum of the knowledge distances (Mahalanobis distances) between Japan and host countries;
<i>POL</i>	Sum of the political distances (Mahalanobis distances) between Japan and host countries;
Control variables	
Δ <i>SALE</i>	Changes in sales/lagged net sales;
<i>CASH</i>	Cash and marketable securities/lagged total assets;
<i>CFO</i>	Cash flow from operations/lagged total assets;
<i>DISC</i>	A dummy variable that equals 1 if a firm disclose geographic overseas sales, and 0 otherwise;
<i>EM</i>	A dummy variable that equal 1 if the change in net income from year <i>t</i> –1 to year <i>t</i> /the market value at year <i>t</i> –2, is greater than 0 and less than or equal to 0.01, and 0 otherwise;
<i>EMP</i>	The natural logarithm of the number of employees;
<i>EQLNE</i>	Equity income/lagged total assets;
<i>FOREIGN</i>	A dummy variable that equals 1 if the proportion of a firm's foreign ownership is highest, and 0 otherwise;
<i>INTANG</i>	Intangible asset/lagged total assets;
<i>INVINT</i>	Inventory/lagged total assets;
<i>LEV</i>	Total debt/lagged total assets;
<i>LOSSINT</i>	Loss intensity over the previous four-year period defined as the number of years a firm has negative pre-tax income from year <i>t</i> –4 to year <i>t</i> –1 scaled to range between 0 and 1;
<i>NOL</i>	A dummy variable that equals 1 if loss carry-forward is negative at the beginning of year, and 0 otherwise;
<i>RD</i>	Research and development expense/lagged total assets;
<i>SIZE</i>	Natural logarithm of the total assets;
<i>TAGG</i>	A dummy variable that equals 1 if a firm is tax aggressive, and 0 otherwise. Tax aggressiveness is defined as a firm with either a <i>CAS_ETR</i> or <i>CUR_ETR</i> in the lowest quintile by year and industry membership. Where <i>CAS_ETR</i> is cash effective tax rate of the six-year sum of cash taxes paid to the six-year sum of pre-tax book income. <i>CUR_ETR</i> is current effective tax rate of the six-year sum of current tax expense to the six-year sum of pre-tax book income. <i>CAS_ETR</i> and <i>CUR_ETR</i> are truncated to the range (0,1);
<i>THAV</i>	A dummy variable that equals 1 if a firm has at least one subsidiary firm incorporated in a tax haven, and 0 otherwise;
<i>Id</i>	Industry dummy variable that equals 1 if the firm is represented in the specific TSE New Industry Code category, and 0 otherwise;
<i>Yd</i>	Year dummy variable that equals 1 if the year falls within the specific year category, and 0 otherwise;
Variables added in robust tests	
<i>ADV</i>	Advertisement expenditure/net sales;
<i>CAP</i>	Ownership equity/lagged total assets;
<i>INTEREST</i>	Interest expense/total debt;
<i>QUICTR</i>	Liquid assets/current liabilities;
<i>ROA</i>	Net income/lagged total assets.

3.2. Sample Selection

Table 2 presents information on the sample selection process. For estimating the regression model, we used firm-year data from fiscal year 2006 to 2014. Information about taxation data and financial data was obtained from the Nikkei Economic Electronic Database System (NEEDS) Financial Quest database. Information about Japanese firms' overseas investment was obtained from the OJC database. After restricting our sample to firms with fiscal year ended as of March 31, and excluding financial companies and missing data, our full available sample consisted of 9036 firm-years.

Table 2. Sample selection process.

Listed companies for fiscal years 2006 to 2014	16,993 *
(less) Banks and financial institutions	−1013
(less) Taxation data unavailable	−5340 **
(less) Financial data unavailable	−1604
Full available sample	9036

* Data from NEEDS Database using the criteria: Accounting year-end at the end of March. ** According to prior research, we truncate the cash effective tax rate (*CAS_ETR*) and the current effective tax rate (*CUR_ETR*) to the range (0,1).

4. Results

4.1. Descriptive Statistics and Correlations

Table 3 presents the descriptive statistics. For the dependent variables, the mean value of *STP* in the full sample was 0.302. For the test variables, the mean value of *ECO*, *POL*, *ADM*, *CUL*, *DEM*, *KNO*, and *GEO* was 44.09, 23.06, 79.18, 75.68, 53.86, 113.80, and 28.14, respectively. Table 3 also compares the mean differences between the subsample of the FDI group and non-FDI group, using t-tests. In general, companies engaging in FDI activities were more likely to adopt less sustainable tax policies (i.e., low value of *STP*).

Table 3. Descriptive statistics.

Variable	Full Sample (n = 9036)					FDI (n = 6295)			
	Mean	Std. Dev.	Q1	Median	Q3	0	1	diff.	t-Statistic
<i>STP</i>	0.302	0.459	0.000	0.000	1.000	0.381	0.267	0.114	10.944 ***
<i>ECO</i>	44.091	59.518	0.000	15.076	71.450	0.000	63.289	−63.289	−53.263 ***
<i>POL</i>	23.057	33.246	0.000	9.852	33.998	0.000	33.097	−33.097	−48.924 ***
<i>ADM</i>	79.182	118.275	0.000	30.709	111.922	0.000	113.660	−113.660	−46.806 ***
<i>CUL</i>	75.683	101.517	0.000	38.109	109.000	0.000	108.638	−108.638	−53.710 ***
<i>DEM</i>	53.861	72.695	0.000	28.445	78.957	0.000	77.314	−77.314	−53.274 ***
<i>KNO</i>	113.796	180.270	0.000	45.140	147.796	0.000	163.346	−163.346	−43.552 ***
<i>GEO</i>	28.144	45.302	0.000	11.075	36.916	0.000	40.399	−40.399	−42.722 ***
<i>FOREIGN</i>	0.043	0.202	0.000	0.000	0.000	0.024	0.051	−0.026	−5.650 ***
<i>CASH</i>	0.303	0.157	0.202	0.279	0.374	0.290	0.308	−0.018	−5.101 ***
<i>INTANG</i>	0.024	0.048	0.004	0.010	0.023	0.021	0.025	−0.004	−4.070 ***
<i>LEV</i>	0.512	0.206	0.361	0.511	0.655	0.540	0.500	0.040	8.459 ***
<i>RD</i>	0.016	0.025	0.000	0.006	0.022	0.007	0.019	−0.012	−21.647 ***
<i>EQLNE</i>	0.001	0.005	0.000	0.000	0.001	0.001	0.002	−0.001	−8.332 ***
<i>NOL</i>	0.050	0.218	0.000	0.000	0.000	0.049	0.050	−0.001	−0.190
<i>LOSSINT</i>	0.125	0.201	0.000	0.000	0.250	0.127	0.124	0.003	0.714
<i>CFO</i>	0.067	0.059	0.038	0.065	0.094	0.063	0.068	−0.005	−3.883 ***
<i>MV</i>	4.920	0.615	4.493	4.842	5.289	4.700	5.015	−0.316	−23.106 ***
<i>DISC</i>	0.460	0.498	0.000	0.000	1.000	0.084	0.623	−0.539	−54.452 ***
<i>THAV</i>	0.179	0.383	0.000	0.000	0.000	0.018	0.248	−0.231	−27.378 ***
<i>EM</i>	0.165	0.371	0.000	0.000	0.000	0.177	0.160	0.017	2.040 **
<i>EMP</i>	3.271	0.603	2.846	3.214	3.655	2.993	3.392	−0.399	−30.372 ***
<i>ΔSALE</i>	0.044	0.183	−0.014	0.034	0.094	0.039	0.046	−0.007	−1.590
<i>INVINT</i>	0.118	0.098	0.052	0.105	0.158	0.107	0.123	−0.016	−7.222 ***
<i>TAGG</i>	0.359	0.480	0.000	0.000	1.000	0.354	0.362	−0.008	−0.732

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 level.

Table 4 presents the pairwise Pearson (lower) and Spearman (upper) correlations. Based on the results of Pearson and Spearman correlations, *STP* was negatively associated with independent variable *ECO*, *POL*, *ADM*, *CUL*, *DEM*, *KNO*, and *GEO*, respectively. In general, the results of the correlation tests do not show excessively strong correlations between variables. Considering some correlations exceed 0.5, we checked for multicollinearity by calculating the variance inflation factor (VIF). We found that all the values were less than 6.1, and the average VIF of the variables (without intercept) was less than 1.82 for each regression test.

Table 4. Correlation coefficients between variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1. STP		−0.12	−0.13	−0.13	−0.14	−0.13	−0.13	−0.14	−0.05	−0.29	−0.11	0.27	−0.20	0.00	0.09	0.13	−0.32	0.05	−0.16	−0.05	0.05	−0.01	−0.15	−0.03	0.04
2. ECO	−0.08		0.90	0.95	0.95	0.97	0.93	0.91	0.11	0.10	0.14	−0.04	0.37	0.26	0.00	−0.01	0.07	0.39	0.61	0.38	−0.01	0.47	0.09	0.20	0.01
3. POL	−0.10	0.85		0.93	0.93	0.93	0.93	0.92	0.12	0.09	0.17	−0.04	0.42	0.26	0.00	−0.01	0.10	0.41	0.62	0.31	0.00	0.50	0.07	0.21	0.00
4. ADM	−0.09	0.88	0.92		0.99	0.98	0.96	0.97	0.12	0.11	0.17	−0.03	0.43	0.29	0.00	−0.01	0.10	0.44	0.65	0.34	−0.01	0.53	0.08	0.22	0.01
5. CUL	−0.11	0.89	0.94	0.98		0.98	0.97	0.99	0.12	0.11	0.17	−0.04	0.44	0.29	0.00	−0.02	0.10	0.45	0.66	0.34	−0.01	0.54	0.08	0.23	0.01
6. DEM	−0.09	0.91	0.90	0.96	0.96		0.96	0.95	0.12	0.11	0.15	−0.04	0.41	0.28	−0.01	−0.02	0.09	0.42	0.64	0.34	−0.02	0.51	0.08	0.22	0.00
7. KNO	−0.09	0.78	0.89	0.92	0.93	0.88		0.96	0.11	0.09	0.16	−0.04	0.43	0.28	−0.01	−0.02	0.09	0.43	0.63	0.34	−0.01	0.51	0.07	0.22	0.00
8. GEO	−0.10	0.81	0.90	0.96	0.97	0.92	0.93		0.11	0.12	0.18	−0.04	0.46	0.29	0.00	−0.02	0.11	0.46	0.67	0.33	−0.01	0.54	0.08	0.24	0.01
9. FOREIGN	−0.05	0.14	0.16	0.16	0.16	0.14	0.16	0.16		0.09	0.04	−0.08	0.08	0.05	0.00	−0.06	0.04	0.07	0.09	0.02	0.02	0.08	0.00	0.02	0.01
10. CASH	−0.26	0.05	0.03	0.05	0.05	0.05	0.02	0.05	0.07		0.07	−0.44	0.16	0.07	−0.06	−0.07	0.48	−0.08	0.10	0.02	0.04	−0.04	0.08	−0.21	−0.02
11. INTANG	−0.11	0.11	0.14	0.14	0.15	0.12	0.14	0.17	0.04	0.12		0.02	0.08	0.06	−0.03	−0.05	0.19	0.19	0.04	0.03	0.04	0.32	0.11	−0.05	−0.04
12. LEV	0.25	0.02	0.03	0.03	0.02	0.03	0.02	0.03	−0.08	−0.36	0.07		−0.24	0.08	0.09	0.20	−0.19	0.17	−0.08	0.02	−0.08	0.14	0.18	0.16	0.11
13. RD	−0.17	0.19	0.26	0.25	0.27	0.22	0.26	0.29	0.06	0.12	0.13	−0.18		0.09	0.01	0.01	0.17	0.14	0.49	0.15	−0.02	0.26	0.00	0.31	0.00
14. EQLNE	−0.06	0.08	0.10	0.10	0.11	0.11	0.09	0.10	0.06	0.15	0.01	−0.02	0.00		−0.02	−0.03	0.02	0.33	0.16	0.11	0.00	0.30	0.02	−0.02	0.08
15. NOL	0.09	−0.01	0.00	0.00	0.00	−0.01	−0.01	0.00	0.00	−0.06	−0.02	0.08	0.01	−0.01		0.06	−0.06	−0.03	0.02	−0.01	−0.10	−0.01	−0.08	0.03	0.12
16. LOSSINT	0.12	−0.02	−0.05	−0.03	−0.04	−0.03	−0.04	−0.03	−0.05	−0.04	−0.02	0.17	0.00	−0.01	0.05		−0.11	−0.14	0.04	−0.01	−0.09	−0.11	0.04	0.13	0.19
17. CFO	−0.25	0.04	0.07	0.07	0.07	0.06	0.06	0.08	0.03	0.58	0.20	−0.18	0.12	0.05	−0.05	−0.07		0.06	0.10	0.00	0.06	0.15	0.11	−0.14	0.00
18. MV	0.07	0.43	0.47	0.50	0.51	0.47	0.47	0.50	0.07	−0.10	0.12	0.18	0.10	0.11	−0.03	−0.16	0.04		0.23	0.12	0.07	0.84	0.02	0.07	−0.01
19. DISC	−0.16	0.51	0.51	0.51	0.54	0.52	0.47	0.49	0.09	0.06	0.03	−0.08	0.35	0.09	0.02	0.03	0.06	0.22		0.25	−0.04	0.29	0.07	0.31	0.04
20. THAV	−0.05	0.28	0.23	0.22	0.25	0.25	0.21	0.21	0.02	0.01	0.01	0.02	0.12	0.07	−0.01	−0.01	−0.01	0.13	0.25		−0.02	0.13	0.02	0.10	0.03
21. EM	0.05	0.01	0.01	0.00	0.00	−0.01	0.00	0.00	0.02	0.05	0.04	−0.08	0.00	−0.02	−0.10	−0.08	0.05	0.07	−0.04	−0.02		0.05	0.03	−0.06	−0.04
22. EMP	0.00	0.50	0.55	0.57	0.58	0.55	0.54	0.56	0.09	−0.06	0.17	0.14	0.18	0.08	−0.01	−0.11	0.12	0.85	0.30	0.13	0.04		0.05	0.06	−0.03
23. ΔSALE	−0.08	0.05	0.02	0.03	0.03	0.03	0.02	0.03	0.00	0.17	0.12	0.26	0.05	0.03	−0.06	0.02	0.12	0.01	0.01	0.00	0.01	0.03		0.10	0.01
24. INVINT	−0.04	0.07	0.07	0.07	0.08	0.07	0.07	0.09	0.01	−0.24	−0.06	0.23	0.13	−0.03	0.02	0.09	−0.27	0.02	0.18	0.05	−0.06	−0.02	0.15		0.07
25. TAGG	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	−0.01	−0.03	0.11	0.03	0.10	0.12	0.20	0.02	−0.01	0.04	0.03	−0.04	−0.03	0.02	0.05	

Correlations are based on 9036 firm-year observations. Pearson (Spearman) correlations in the lower (upper) diagonal. Correlation coefficients in bold are statistically significant at the 10 percent level.

4.2. Multivariate Results

Table 5 presents the logit regression results for seven different types of cross-national distance that affect sustainability of tax policies. In all alternative cross-national distances of Table 5, the coefficients of the cross-national distance (i.e., *ECO*, *POL*, *ADM*, *CUL*, *DEM*, *KNO*, and *GEO*) were significant and negative.

For the results of Equation (A), the coefficient on *ECO* had a value of -0.0016 and was significant at the 95% level. This shows that firms with greater economic distances between host countries and home country are more likely to adopt less sustainable tax policies. This effect was economically significant—a one standard deviation increase in economic distances led to an 8.8 percent decrease (odds ratio is $e^{(-0.0016 \times 59.518)} - 1$) in the likelihood of adopting sustainable tax policies. For the results of Equation (B), the coefficient on *POL* had a value of -0.0038 and was significant at the 99% level. This shows that firms with greater political distances between host countries and home country are more likely to adopt less sustainable tax policies. This effect was economically significant—a one standard deviation increase in political distances led to an 11.8 percent decrease (odds ratio is $e^{(-0.0038 \times 33.246)} - 1$) in the likelihood of adopting sustainable tax policies. For the results of Equation (C), the coefficient on *ADM* had a value of -0.0008 and was significant at the 95% level. This shows that firms with greater administrative distances between host countries and home country are more likely to adopt less sustainable tax policies. This effect was economically significant—a one standard deviation increase in administrative distances led to an 9.4 percent decrease (odds ratio is $e^{(-0.0008 \times 118.275)} - 1$) in the likelihood of adopting sustainable tax policies.

For the results of Equation (D), the coefficient on *CUL* had a value of -0.0013 and was significant at the 99% level. This shows that firms with greater cultural distances between host countries and home country are more likely to adopt less sustainable tax policies. This effect was economically significant—a one standard deviation increase in cultural distances led to a 12.1 percent decrease (odds ratio is $e^{(-0.0013 \times 101.517)} - 1$) in the likelihood of adopting sustainable tax policies. For the results of Equation (E), the coefficient on *DEM* had a value of -0.0013 and was significant at the 95% level. This shows that firms with greater demographical distances between host countries and home country are more likely to adopt less sustainable tax policies. This effect was economically significant—a one standard deviation increase in demographical distances led to an 9.0 percent decrease (odds ratio is $e^{(-0.0013 \times 72.695)} - 1$) in the likelihood of adopting sustainable tax policies. For the results of Equation (F), the coefficient on *KNO* had a value of -0.0005 and was significant at the 95% level. This shows that firms with greater knowledge distances between host countries and home country are more likely to adopt less sustainable tax policies. This effect was economically significant—a one standard deviation increase in knowledge distances led to an 9.0 percent decrease (odds ratio is $e^{(-0.0005 \times 180.270)} - 1$) in the likelihood of adopting sustainable tax policies. For the results of Equation (G), the coefficient on *GEO* had a value of -0.0016 and was significant at the 90% level. This shows that firms with greater geographical distances between host countries and home country are more likely to adopt less sustainable tax policies. This effect was economically significant—a one standard deviation increase in geographical distances led to a 6.9 percent decrease (odds ratio is $e^{(-0.0016 \times 45.302)} - 1$) in the likelihood of adopting sustainable tax policies.

Overall, all seven results abovementioned support our hypothesis from both statistical and economic sense, which indicates that firms with longer cross-national distances (from the economic, political, administrative, cultural, demographic, knowledge, and geographical perspectives) between parent and host countries exhibit less sustainable tax policies.

Table 5. Cross-national distance and sustainable tax policies.

	Dependent Variable as STP													
	(A) ECO		(B) POL		(C) ADM		(D) CUL		(E) DEM		(F) KNO		(G) GEO	
	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic
Test variables														
MDIS	−0.0016	−2.45 **	−0.0038	−3.24 ***	−0.0008	−2.48 **	−0.0013	−3.08 ***	−0.0013	−2.45 **	−0.0005	−2.39 **	−0.0016	−1.79 *
Control variables														
FOREIGN	−0.0573	−0.38	−0.0447	−0.30	−0.0483	−0.32	−0.0439	−0.29	−0.0507	−0.34	−0.0533	−0.36	−0.0585	−0.39
CASH	−2.0592	−7.22 ***	−2.0521	−7.20 ***	−2.0453	−7.16 ***	−2.0364	−7.14 ***	−2.0548	−7.20 ***	−2.0588	−7.21 ***	−2.0616	−7.21 ***
INTANG	−4.5300	−4.88 ***	−4.4255	−4.78 ***	−4.4639	−4.82 ***	−4.3716	−4.72 ***	−4.5265	−4.89 ***	−4.4617	−4.81 ***	−4.4809	−4.81 ***
LEV	1.9775	11.66 ***	1.9993	11.78 ***	1.9981	11.77 ***	1.9900	11.73 ***	1.9917	11.74 ***	1.9937	11.75 ***	1.9938	11.75 ***
RD	−5.9017	−2.61 ***	−5.4513	−2.42 **	−5.4611	−2.42 **	−5.3101	−2.36 **	−5.6412	−2.50 **	−5.3988	−2.39 **	−5.4092	−2.39 **
EQLNE	−37.7528	−3.78 ***	−36.5221	−3.68 ***	−36.9489	−3.71 ***	−36.7507	−3.70 ***	−36.8856	−3.71 ***	−37.0901	−3.73 ***	−37.2339	−3.73 ***
NOL	0.8179	7.06 ***	0.8189	7.07 ***	0.8183	7.07 ***	0.8189	7.07 ***	0.8155	7.05 ***	0.8182	7.07 ***	0.8202	7.09 ***
LOSSINT	1.4772	10.54 ***	1.4738	10.52 ***	1.4793	10.56 ***	1.4816	10.57 ***	1.4763	10.54 ***	1.4754	10.54 ***	1.4793	10.56 ***
CFO	−7.9952	−11.35 ***	−8.0010	−11.37 ***	−8.0012	−11.36 ***	−8.0139	−11.38 ***	−8.0011	−11.36 ***	−7.9866	−11.34 ***	−7.9573	−11.31 ***
MV	0.6391	6.22 ***	0.6447	6.27 ***	0.6476	6.30 ***	0.6543	6.36 ***	0.6437	6.26 ***	0.6481	6.30 ***	0.6510	6.32 ***
DISC	−0.3043	−4.13 ***	−0.2925	−4.02 ***	−0.3114	−4.29 ***	−0.2871	−3.89 ***	−0.3080	−4.21 ***	−0.3179	−4.41 ***	−0.3319	−4.62 ***
THAV	0.0036	0.05	−0.0048	−0.06	−0.0116	−0.16	−0.0024	−0.03	−0.0073	−0.10	−0.0126	−0.17	−0.0183	−0.24
EM	0.5922	8.21 ***	0.5925	8.21 ***	0.5908	8.19 ***	0.5919	8.20 ***	0.5907	8.19 ***	0.5917	8.20 ***	0.5902	8.18 ***
EMP	−0.2888	−2.58 **	−0.2679	−2.39 **	−0.2860	−2.55 **	−0.2689	−2.40 **	−0.2872	−2.56 **	−0.2947	−2.64 ***	−0.3122	−2.81 ***
ΔSALE	−1.5661	−7.82 ***	−1.5858	−7.91 ***	−1.5789	−7.88 ***	−1.5825	−7.90 ***	−1.5748	−7.87 ***	−1.5873	−7.92 ***	−1.5820	−7.90 ***
INVINT	−2.9199	−8.42 ***	−2.9278	−8.44 ***	−2.9156	−8.41 ***	−2.9079	−8.38 ***	−2.9202	−8.42 ***	−2.9100	−8.39 ***	−2.9077	−8.39 ***
TAGG	0.0323	0.56	0.0312	0.54	0.0311	0.54	0.0304	0.52	0.0310	0.54	0.0304	0.53	0.0306	0.53
Yd	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Id	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Intercept	−2.5807	−7.99 ***	−2.6741	−8.22 ***	−2.6482	−8.03 ***	−2.7202	−8.22 ***	−2.6213	−8.02 ***	−2.6271	−8.00 ***	−2.5828	−7.81 ***
Pseudo R ²	0.2110		0.2114		0.2110		0.2113		0.2110		0.2110		0.2107	
No. Obs.	9036		9036		9036		9036		9036		9036		9036	

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 level.

4.3. Robustness Checks

4.3.1. Subsample Analysis

In case our main results are driven by the difference between FDI and non-FDI firms, we dropped the non-FDI sample and then ran the regression models within the FDI sample (6295 firm-year observations) only. Table 6 presents regression results on the independent variables (i.e., *ECO*, *POL*, *ADM*, *CUL*, *DEM*, *KNO*, and *GEO*) with the FDI sample only. The coefficients of *ECO*, *POL*, *ADM*, *CUL*, *DEM*, *KNO*, and *GEO* are consistent with our main findings. This suggests that the relations documented in our main tests also exist in a continuous pattern within multinationals with FDIs. In other words, our findings of hypothesis not only exist between firms operating domestically and those expanding overseas, but also hold among multinational investing across different countries. Multinationals investing in long cross-national distance countries display less sustainable tax policies than those investing in short cross-national distance countries.

4.3.2. Endogeneity

Furthermore, it is possible that our results are driven by the self-selection of multinationals. For example, firms expanding overseas may be genetically of higher quality. Firms who choose to invest overseas are those with less financial constraints, higher market demand, and more optimal corporate strategies, etc. Given the possibility that firms who engage in FDI may be inherently different from their counterparts (i.e., firms who do not engage in FDI), we used Heckman's two-stage approach. At the first stage, based on prior studies [42,43], we estimated a Logit model that included *CAP*, *ADV*, *RD*, *INTEREST*, *INTANG*, *QUICTR*, *SIZE* and *ROA* as independent variables (year dummy, and industry dummy included as well); these variables are defined in Table 1. The results of the first stage indicate that *CAP*, *RD*, and *SIZE* were significant at the 99% level, and the Pseudo- R^2 is 0.236. In the second stage regression, we included the inverse Mills ratio (mean value of mills ratio was 0.305, and its standard deviation was 0.424) from the first stage in Model (1).

Table 7 shows the results from using Heckman's two-stage regression model. The results are robust and similar to our baseline results, which suggests that our main results were not driven by the endogeneity concern of self-selection bias out of firms conducting FDIs.

Table 6. Regression test on the relationship between cross-national distance and sustainable tax policies with the FDI sample only.

	Dependent Variable as STP													
	(A) ECO		(B) POL		(C) ADM		(D) CUL		(E) DEM		(F) KNO		(G) GEO	
	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic
Test variables														
MDIS	−0.0015	−2.11 **	−0.0039	−2.93 ***	−0.0010	−2.53 **	−0.0014	−2.93 ***	−0.0014	−2.38 **	−0.0006	−2.43 **	−0.0019	−1.93 *
Control variables														
FOREIGN	0.0182	0.11	0.0352	0.21	0.0333	0.19	0.0363	0.21	0.0299	0.18	0.0271	0.16	0.0218	0.13
CASH	−1.2654	−3.42 ***	−1.2534	−3.39 ***	−1.2306	−3.32 ***	−1.2228	−3.31 ***	−1.2543	−3.39 ***	−1.2498	−3.38 ***	−1.2523	−3.38 ***
INTANG	−3.3991	−3.44 ***	−3.3150	−3.37 ***	−3.3202	−3.38 ***	−3.2398	−3.31 ***	−3.4055	−3.46 ***	−3.3119	−3.36 ***	−3.3114	−3.35 ***
LEV	2.5429	11.56 ***	2.5799	11.70 ***	2.5782	11.69 ***	2.5712	11.67 ***	2.5682	11.66 ***	2.5731	11.67 ***	2.5669	11.65 ***
RD	−5.7843	−2.25 **	−5.3094	−2.07 **	−5.2261	−2.04 **	−5.0691	−1.98 **	−5.4617	−2.13 **	−5.1420	−2.00 **	−5.1049	−1.98 **
EQLNE	−43.4393	−3.61 ***	−41.8385	−3.50 ***	−42.1531	−3.52 ***	−42.1210	−3.52 ***	−42.0899	−3.51 ***	−42.3500	−3.54 ***	−42.3967	−3.53 ***
NOL	0.8123	5.71 ***	0.8104	5.69 ***	0.8090	5.69 ***	0.8092	5.69 ***	0.8058	5.66 ***	0.8107	5.70 ***	0.8136	5.72 ***
LOSSINT	1.7843	10.03 ***	1.7786	10.00 ***	1.7869	10.05 ***	1.7872	10.05 ***	1.7819	10.02 ***	1.7813	10.02 ***	1.7904	10.07 ***
CFO	−11.8795	−12.50 ***	−11.9075	−12.55 ***	−11.9303	−12.55 ***	−11.9374	−12.57 ***	−11.9104	−12.53 ***	−11.8990	−12.53 ***	−11.8516	−12.49 ***
MV	0.6529	4.69 ***	0.6607	4.74 ***	0.6668	4.79 ***	0.6792	4.87 ***	0.6608	4.74 ***	0.6702	4.81 ***	0.6759	4.84 ***
DISC	−0.2709	−3.21 ***	−0.2589	−3.09 ***	−0.2681	−3.20 ***	−0.2499	−2.95 ***	−0.2687	−3.20 ***	−0.2744	−3.29 ***	−0.2846	−3.42 ***
THAV	0.0425	0.53	0.0323	0.40	0.0289	0.36	0.0343	0.43	0.0321	0.40	0.0293	0.37	0.0251	0.32
EM	0.6207	6.88 ***	0.6203	6.88 ***	0.6185	6.86 ***	0.6192	6.87 ***	0.6180	6.85 ***	0.6200	6.88 ***	0.6184	6.86 ***
EMP	−0.2737	−1.78 *	−0.2420	−1.58	−0.2544	−1.65 *	−0.2408	−1.57	−0.2626	−1.71 *	−0.2712	−1.78 *	−0.2946	−1.94 *
ΔSALE	−2.0796	−8.13 ***	−2.1034	−8.21 ***	−2.0979	−8.18 ***	−2.1016	−8.20 ***	−2.0909	−8.16 ***	−2.1067	−8.21 ***	−2.1041	−8.21 ***
INVINT	−2.5449	−4.95 ***	−2.5845	−5.02 ***	−2.5499	−4.96 ***	−2.5456	−4.95 ***	−2.5632	−4.98 ***	−2.5378	−4.93 ***	−2.5182	−4.90 ***
TAGG	−0.0408	−0.57	−0.0429	−0.60	−0.0424	−0.59	−0.0443	−0.62	−0.0424	−0.59	−0.0431	−0.60	−0.0429	−0.60
Yd	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Id	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Intercept	−3.3268	−7.93 ***	−3.4657	−8.19 ***	−3.4837	−8.05 ***	−3.5661	−8.19 ***	−3.4186	−8.02 ***	−3.4540	−8.03 ***	−3.4007	−7.82 ***
Pseudo R ²	0.2169		0.2175		0.2171		0.2175		0.2170		0.2171		0.2168	
No. Obs.	6295		6295		6295		6295		6295		6295		6295	

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 level.

Table 7. Regression test on the relationship between cross-national distance and sustainable tax policies based on the Heckman's two-stage approaches.

	Dependent Variable as STP													
	(A) ECO		(B) POL		(C) ADM		(D) CUL		(E) DEM		(F) KNO		(G) GEO	
	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic
Test variables														
MDIS	−0.0017	−2.29 **	−0.0041	−2.98 ***	−0.0010	−2.55 **	−0.0015	−3.02 ***	−0.0015	−2.46 **	−0.0006	−2.50 **	−0.0021	−2.08 **
Control variables														
FOREIGN	0.0429	0.25	0.0601	0.34	0.0565	0.32	0.0612	0.35	0.0540	0.31	0.0519	0.30	0.0452	0.26
CASH	−1.5615	−3.92 ***	−1.5434	−3.88 ***	−1.5264	−3.82 ***	−1.5117	−3.79 ***	−1.5510	−3.89 ***	−1.5484	−3.88 ***	−1.5470	−3.87 ***
INTANG	−3.4333	−3.42 ***	−3.3378	−3.34 ***	−3.3461	−3.36 ***	−3.2516	−3.27 ***	−3.4390	−3.44 ***	−3.3356	−3.33 ***	−3.3238	−3.32 ***
LEV	2.3009	9.67 ***	2.3310	9.80 ***	2.3253	9.78 ***	2.3118	9.72 ***	2.3206	9.76 ***	2.3231	9.77 ***	2.3146	9.74 ***
RD	−4.4439	−1.71 *	−3.9103	−1.50	−3.8572	−1.48	−3.6449	−1.40	−4.0989	−1.58	−3.7606	−1.44	−3.6942	−1.41
EQLNE	−43.5555	−3.54 ***	−42.0518	−3.44 ***	−42.4080	−3.46 ***	−42.4238	−3.47 ***	−42.2548	−3.45 ***	−42.5828	−3.47 ***	−42.5565	−3.46 ***
NOL	0.8295	5.73 ***	0.8269	5.71 ***	0.8266	5.71 ***	0.8266	5.71 ***	0.8230	5.68 ***	0.8283	5.72 ***	0.8313	5.74 ***
LOSSINT	1.7823	9.68 ***	1.7685	9.60 ***	1.7818	9.68 ***	1.7808	9.67 ***	1.7776	9.65 ***	1.7765	9.65 ***	1.7868	9.71 ***
CFO	−11.1816	−11.43 ***	−11.2163	−11.48 ***	−11.2323	−11.47 ***	−11.2502	−11.50 ***	−11.2110	−11.45 ***	−11.1970	−11.45 ***	−11.1539	−11.41 ***
MV	0.8268	5.00 ***	0.8518	5.13 ***	0.8587	5.16 ***	0.8817	5.27 ***	0.8453	5.09 ***	0.8570	5.15 ***	0.8660	5.16 ***
DISC	−0.2534	−2.91 ***	−0.2427	−2.81 ***	−0.2546	−2.95 ***	−0.2336	−2.68 ***	−0.2543	−2.94 ***	−0.2600	−3.03 ***	−0.2691	−3.14 ***
THAV	0.0250	0.30	0.0128	0.16	0.0087	0.11	0.0148	0.18	0.0127	0.16	0.0091	0.11	0.0045	0.05
EM	0.6195	6.68 ***	0.6173	6.65 ***	0.6169	6.65 ***	0.6174	6.65 ***	0.6163	6.64 ***	0.6181	6.66 ***	0.6170	6.65 ***
EMP	−0.3538	−2.23 **	−0.3289	−2.08 **	−0.3434	−2.17 **	−0.3270	−2.07 **	−0.3502	−2.21 **	−0.3583	−2.28 **	−0.3800	−2.43 **
ΔSALE	−2.0468	−7.83 ***	−2.0724	−7.92 ***	−2.0628	−7.88 ***	−2.0651	−7.89 ***	−2.0569	−7.86 ***	−2.0726	−7.91 ***	−2.0688	−7.91 ***
INVINT	−2.2724	−4.35 ***	−2.3035	−4.40 ***	−2.2708	−4.34 ***	−2.2603	−4.32 ***	−2.2912	−4.38 ***	−2.2601	−4.32 ***	−2.2401	−4.29 ***
TAGG	−0.0643	−0.88	−0.0662	−0.90	−0.0653	−0.89	−0.0672	−0.91	−0.0656	−0.89	−0.0663	−0.90	−0.0660	−0.90
Mills ratio	0.2512	1.79 *	0.2722	1.93 *	0.2635	1.88 *	0.2638	1.88 *	0.2641	1.88 *	0.2826	2.01 **	0.2632	1.87 *
Yd	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Id	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Intercept	−3.9194	−6.33 ***	−4.1385	−6.58 ***	−4.1503	−6.45 ***	−4.3017	−6.64 ***	−4.0473	−6.41 ***	−4.0989	−6.43 ***	−4.0668	−6.24 ***
Pseudo R ²	0.2130		0.2136		0.2132		0.2136		0.2131		0.2132		0.2129	
No. Obs.	5850		5850		5850		5850		5850		5850		5850	

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 level.

5. Further Analysis

5.1. FDI in Tax Haven Countries

The role of tax haven countries investment is discussed by prior studies. Desai et al. [44] investigated the relation between tax havens and firm behavior and reported that firms avoid foreign and domestic tax liabilities by engaging tax haven activities. Harris et al. [45] found that American firms with tax haven subsidiaries took relatively lower tax liabilities. These findings implicated that tax havens provide opportunities for tax avoidance by multinational firms. In this section, we further discuss the effect of tax avoidance incentive on the results.

FDI in tax haven countries may be substitutes in terms of factors contributing to increased tax avoidance incentive (i.e., increased book-tax difference). To some extent, if the FDI in tax haven countries and FDI in long multinational countries are substitutes, then the role played by FDI in long cross-national distance between the home and host countries in threatening the sustainability of tax policies may be less pronounced in the case of FDI in tax haven countries. To examine whether tax haven affects the results, we further analyzed the coefficient of $ECO \times THAV$, $POL \times THAV$, $ADM \times THAV$, $CUL \times THAV$, $DEM \times THAV$, $KNO \times THAV$, and $GEO \times THAV$. We expected a positive association between each interaction.

Table 8 presents regression results on the incentive interaction variables. The coefficients of all seven interactions were positive and significant. These results predict that FDI in tax haven countries negatively moderated the relationship between cross-national distances (from the economic, political, administrative, cultural, demographic, knowledge, and geographical perspectives) and sustainable tax policies.

5.2. Meeting Earnings Benchmark

Prior literature provides evidence on the relation between earnings management and tax incentives. Guenther [46] found the reduction of tax rate had a negative effect on the current accruals of next period. Dhaliwal et al. [47] asserted that firms can manage earnings by changing effective tax rates because tax expense affects final reported earnings. Badertscher et al. [48] found that earnings management had an effect on book-tax difference, and the direction of the relation was related to the firm-specific characteristics. Beuselinck and Deloof [49] argued that group firms were more likely to manage earnings to achieve taxation purposes (i.e., marginal tax rate). In this section, considering the relation between tax planning and earnings management, we further discuss the effect of meeting an earnings benchmark on the results.

Unlike in the case of FDI in tax haven countries, meeting an earnings benchmark may appear not only in international but also domestic business. Meeting an earnings benchmark may not be a substitute for risk arising from FDI. If so, then the effects of FDI in long cross-national distance host country with respect to increasing risk (i.e., less sustainable tax policies) may be greater when firms meet earnings benchmark. To examine whether meeting earnings benchmark affected the results, we further analyzed the coefficient of $ECO \times EM$, $POL \times EM$, $ADM \times EM$, $CUL \times EM$, $DEM \times EM$, $KNO \times EM$, and $GEO \times EM$. We expected a negative association between each interaction.

Table 9 presents regression results on the incentive interaction variables. The coefficients of all seven interactions were negative and significant. These results predicted that meeting an earnings benchmark positively moderated the relationship between cross-national distances (from the economic, political, administrative, cultural, demographic, knowledge, and geographical perspectives) and sustainability of tax policies.

Table 8. Tax avoidance incentive effect on the relationship between cross-national distance and sustainable tax policies.

	Dependent Variable as STP													
	(A) ECO		(B) POL		(C) ADM		(D) CUL		(E) DEM		(F) KNO		(G) GEO	
	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic
Test variables														
<i>MDIS</i>	−0.0021	−3.15 ***	−0.0051	−3.85 ***	−0.0012	−3.16 ***	−0.0017	−3.63 ***	−0.0017	−2.97 ***	−0.0008	−3.03 ***	−0.0023	−2.35 **
<i>MDIS × THAV</i>	0.0042	2.89 ***	0.0050	2.33 **	0.0014	2.36 **	0.0016	2.20 **	0.0019	1.94 *	0.0009	2.21 **	0.0028	1.86 *
Control variables														
<i>FOREIGN</i>	−0.0702	−0.47	−0.0592	−0.39	−0.0552	−0.37	−0.0522	−0.35	−0.0555	−0.37	−0.0580	−0.39	−0.0635	−0.42
<i>CASH</i>	−2.0747	−7.26 ***	−2.0644	−7.24 ***	−2.0647	−7.22 ***	−2.0519	−7.19 ***	−2.0701	−7.25 ***	−2.0740	−7.26 ***	−2.0781	−7.27 ***
<i>INTANG</i>	−4.4693	−4.79 ***	−4.3905	−4.74 ***	−4.3571	−4.70 ***	−4.3211	−4.67 ***	−4.4609	−4.80 ***	−4.3958	−4.74 ***	−4.4160	−4.75 ***
<i>LEV</i>	1.9627	11.56 ***	1.9888	11.71 ***	1.9825	11.67 ***	1.9746	11.63 ***	1.9783	11.65 ***	1.9771	11.64 ***	1.9799	11.66 ***
<i>RD</i>	−6.1340	−2.70 ***	−5.6469	−2.49 **	−5.6448	−2.49 **	−5.5331	−2.44 **	−5.8438	−2.58 **	−5.6369	−2.48 **	−5.6388	−2.48 **
<i>EQLNE</i>	−38.9451	−3.88 ***	−37.2268	−3.74 ***	−37.5061	−3.76 ***	−37.3582	−3.75 ***	−37.3067	−3.74 ***	−37.4855	−3.76 ***	−37.6175	−3.76 ***
<i>NOL</i>	0.8191	7.07 ***	0.8247	7.11 ***	0.8217	7.10 ***	0.8224	7.10 ***	0.8178	7.06 ***	0.8199	7.08 ***	0.8233	7.11 ***
<i>LOSSINT</i>	1.4660	10.46 ***	1.4648	10.46 ***	1.4694	10.49 ***	1.4722	10.50 ***	1.4685	10.48 ***	1.4686	10.49 ***	1.4703	10.49 ***
<i>CFO</i>	−7.9999	−11.34 ***	−7.9957	−11.35 ***	−7.9887	−11.34 ***	−8.0052	−11.36 ***	−7.9936	−11.34 ***	−7.9837	−11.33 ***	−7.9431	−11.28 ***
<i>MV</i>	0.6363	6.18 ***	0.6395	6.21 ***	0.6428	6.24 ***	0.6482	6.29 ***	0.6390	6.21 ***	0.6430	6.24 ***	0.6460	6.27 ***
<i>DISC</i>	−0.2863	−3.87 ***	−0.2704	−3.69 ***	−0.2889	−3.94 ***	−0.2651	−3.56 ***	−0.2889	−3.91 ***	−0.2964	−4.07 ***	−0.3151	−4.35 ***
<i>THAV</i>	−0.3084	−2.32 **	−0.1772	−1.67 *	−0.1800	−1.73 *	−0.1778	−1.61	−0.1624	−1.48	−0.1561	−1.57	−0.1337	−1.37
<i>EM</i>	0.5967	8.26 ***	0.5953	8.25 ***	0.5935	8.22 ***	0.5947	8.24 ***	0.5930	8.22 ***	0.5937	8.23 ***	0.5920	8.20 ***
<i>EMP</i>	−0.2925	−2.60 ***	−0.2585	−2.30 **	−0.2814	−2.50 **	−0.2620	−2.33 **	−0.2820	−2.51 **	−0.2872	−2.57 **	−0.3068	−2.75 ***
<i>ΔSALE</i>	−1.5605	−7.79 ***	−1.5762	−7.86 ***	−1.5709	−7.84 ***	−1.5748	−7.86 ***	−1.5677	−7.83 ***	−1.5788	−7.87 ***	−1.5768	−7.87 ***
<i>INVINT</i>	−2.9170	−8.41 ***	−2.9339	−8.45 ***	−2.9152	−8.40 ***	−2.9084	−8.38 ***	−2.9154	−8.41 ***	−2.9117	−8.39 ***	−2.9059	−8.38 ***
<i>TAGG</i>	0.0363	0.63	0.0349	0.60	0.0348	0.60	0.0337	0.58	0.0340	0.59	0.0340	0.59	0.0336	0.58
<i>Yd</i>	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
<i>Id</i>	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Intercept	−2.5342	−7.83 ***	−2.6560	−8.16 ***	−2.6148	−7.92 ***	−2.6853	−8.1 ***	−2.5917	−7.92 ***	−2.5996	−7.91 ***	−2.5525	−7.71 ***
Pseudo R²	0.2117		0.2119		0.2115		0.2117		0.2113		0.2114		0.2110	
No. Obs.	9036		9036		9036		9036		9036		9036		9036	

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 level.

Table 9. Meeting earnings benchmark effect on the relationship between cross-national distance and sustainable tax policies.

	Dependent Variable as STP													
	(A) ECO		(B) POL		(C) ADM		(D) CUL		(E) DEM		(F) KNO		(G) GEO	
	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic
Test variables														
MDIS	−0.0009	−1.39	−0.0026	−2.17 **	−0.0005	−1.53	−0.0009	−2.07 **	−0.0008	−1.42	−0.0003	−1.38	−0.0008	−0.93
MDIS × EM	−0.0043	−3.44 ***	−0.0085	−3.51 ***	−0.0025	−3.60 ***	−0.0030	−3.78 ***	−0.0048	−4.23 ***	−0.0017	−3.55 ***	−0.0062	−3.28 ***
Control variables														
FOREIGN	−0.0400	−0.27	−0.0244	−0.16	−0.0256	−0.17	−0.0218	−0.15	−0.0230	−0.15	−0.0331	−0.22	−0.0402	−0.27
CASH	−2.0630	−7.22 ***	−2.0762	−7.27 ***	−2.0572	−7.19 ***	−2.0506	−7.18 ***	−2.0703	−7.24 ***	−2.0747	−7.26 ***	−2.0720	−7.24 ***
INTANG	−4.4366	−4.78 ***	−4.3037	−4.63 ***	−4.3601	−4.69 ***	−4.2555	−4.58 ***	−4.4228	−4.76 ***	−4.3568	−4.67 ***	−4.3633	−4.66 ***
LEV	1.9728	11.62 ***	1.9866	11.69 ***	1.9917	11.72 ***	1.9831	11.68 ***	1.9848	11.69 ***	1.9878	11.70 ***	1.9923	11.73 ***
RD	−5.9119	−2.61 ***	−5.4779	−2.43 **	−5.4937	−2.44 **	−5.3384	−2.37 **	−5.7158	−2.53 **	−5.3981	−2.39 **	−5.3721	−2.37 **
EQLNE	−37.6464	−3.78 ***	−36.3029	−3.66 ***	−36.6995	−3.70 ***	−36.5508	−3.69 ***	−36.7049	−3.70 ***	−36.9458	−3.71 ***	−37.0425	−3.72 ***
NOL	0.8169	7.06 ***	0.8148	7.05 ***	0.8154	7.05 ***	0.8154	7.06 ***	0.8145	7.05 ***	0.8166	7.06 ***	0.8161	7.06 ***
LOSSINT	1.4771	10.54 ***	1.4761	10.54 ***	1.4782	10.55 ***	1.4799	10.56 ***	1.4765	10.54 ***	1.4752	10.54 ***	1.4763	10.54 ***
CFO	−8.0041	−11.36 ***	−7.9988	−11.36 ***	−8.0135	−11.37 ***	−8.0308	−11.40 ***	−8.0232	−11.38 ***	−7.9924	−11.35 ***	−7.9750	−11.33 ***
MV	0.6394	6.22 ***	0.6474	6.29 ***	0.6498	6.31 ***	0.6560	6.37 ***	0.6439	6.25 ***	0.6504	6.32 ***	0.6528	6.33 ***
DISC	−0.2990	−4.06 ***	−0.2819	−3.87 ***	−0.2978	−4.10 ***	−0.2746	−3.72 ***	−0.2915	−3.98 ***	−0.3078	−4.27 ***	−0.3187	−4.43 ***
THAV	−0.0016	−0.02	−0.0096	−0.13	−0.0148	−0.20	−0.0070	−0.09	−0.0101	−0.14	−0.0165	−0.22	−0.0218	−0.29
EM	0.7716	8.71 ***	0.7692	8.79 ***	0.7680	8.85 ***	0.7977	8.89 ***	0.8236	9.15 ***	0.7602	8.88 ***	0.7426	8.72 ***
EMP	−0.2825	−2.52 **	−0.2661	−2.37 **	−0.2799	−2.49 **	−0.2627	−2.34 **	−0.2745	−2.45 **	−0.2908	−2.60 ***	−0.3071	−2.76 ***
ΔSALE	−1.5824	−7.91 ***	−1.5966	−7.97 ***	−1.5929	−7.96 ***	−1.5966	−7.98 ***	−1.5924	−7.96 ***	−1.5957	−7.97 ***	−1.5937	−7.96 ***
INVINT	−2.9236	−8.42 ***	−2.9236	−8.41 ***	−2.9197	−8.40 ***	−2.9108	−8.37 ***	−2.9230	−8.41 ***	−2.9114	−8.38 ***	−2.9144	−8.39 ***
TAGG	0.0318	0.55	0.0321	0.55	0.0327	0.56	0.0318	0.55	0.0330	0.57	0.0313	0.54	0.0326	0.56
Yd		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Id		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Intercept	−2.6258	−8.11 ***	−2.7055	−8.30 ***	−2.6952	−8.15 ***	−2.7677	−8.34 ***	−2.6849	−8.19 ***	−2.6688	−8.11 ***	−2.6210	−7.91 ***
Pseudo R ²		0.2121		0.2126		0.2122		0.2127		0.2127		0.2122		0.2118
No. Obs.		9036		9036		9036		9036		9036		9036		9036

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 level.

5.3. Foreign Ownership

In the taxation research, ownership structure is also an important part [50]. Ownership patterns can have an important effect on tax avoidance, which is demonstrated by several researchers [9,36,39,51,52]. In this section, we focus on the foreign firm ownership, because foreign firm ownership is highly relative to FDI practice [53,54].

Douma et al. [55] suggested that foreign shareholders were more likely to perform an effective monitoring role and found a foreign corporate ownership positively affected firm performance (i.e., high ROA and Q ratio. Where ROA = operating earnings before interest, depreciation, and taxes/assets; Q ratio = (market value of equity + book value of debt)/book value of assets). In addition, prior studies proved that firms with a high level of foreign ownership were positively associated with the degree of collaboration, knowledge transfer, and resource sharing [56–59]. Along with the empirical findings that there exists a positive relationship between foreign ownership and firm performance, we consider this shareholder characteristic (i.e., high proportion of foreign ownership) may have a negative moderate effect on the relationship between long cross-national distance and sustainable tax policies. Therefore, we further analyzed the coefficient of $ECO \times FOREIGN$, $POL \times FOREIGN$, $ADM \times FOREIGN$, $CUL \times FOREIGN$, $DEM \times FOREIGN$, $KNO \times FOREIGN$, and $GEO \times FOREIGN$. We expected a positive association between each interaction.

Table 10 presents regression results on the incentive interaction variables. The coefficients of $ECO \times FOREIGN$, $ADM \times FOREIGN$, and $DEM \times FOREIGN$ were positive and significant. These results predict that foreign ownership negatively moderate the relationship between cross-national distances (from the economic, administrative, and demographic perspectives) and sustainable tax policies.

Table 10. Foreigner investors' interests effect on the relationship between cross-national distance and sustainable tax policies.

	Dependent Variable as STP													
	(A) ECO		(B) POL		(C) ADM		(D) CUL		(E) DEM		(F) KNO		(G) GEO	
	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic	Coef.	Z-Statistic
Test variables														
MDIS	−0.0018	−2.75 ***	−0.0042	−3.46 ***	−0.0010	−2.83 ***	−0.0014	−3.31 ***	−0.0015	−2.79 ***	−0.0006	−2.55 **	−0.0018	−1.99 **
MDIS × FOREIGN	0.0033	1.79 *	0.0045	1.45	0.0014	1.75 *	0.0014	1.42	0.0022	1.68 *	0.0005	0.94	0.0020	1.00
Control variables														
FOREIGN	−0.3121	−1.47	−0.2297	−1.14	−0.2538	−1.31	−0.2303	−1.14	−0.2604	−1.32	−0.1545	−0.83	−0.1643	−0.89
CASH	−2.0639	−7.23 ***	−2.0531	−7.20 ***	−2.0400	−7.14 ***	−2.0342	−7.13 ***	−2.0499	−7.18 ***	−2.0572	−7.21 ***	−2.0571	−7.20 ***
INTANG	−4.5261	−4.88 ***	−4.4084	−4.76 ***	−4.4160	−4.77 ***	−4.3394	−4.69 ***	−4.4907	−4.85 ***	−4.4301	−4.77 ***	−4.4449	−4.78 ***
LEV	1.9720	11.62 ***	1.9941	11.74 ***	1.9947	11.75 ***	1.9854	11.70 ***	1.9874	11.71 ***	1.9921	11.74 ***	1.9915	11.74 ***
RD	−5.9691	−2.64 ***	−5.5600	−2.46 **	−5.5584	−2.46 **	−5.4035	−2.39 **	−5.7300	−2.53 **	−5.4587	−2.41 **	−5.4645	−2.41 **
EQLNE	−37.4549	−3.74 ***	−36.3572	−3.66 ***	−36.4827	−3.66 ***	−36.4160	−3.66 ***	−36.6020	−3.67 ***	−36.8859	−3.70 ***	−36.9514	−3.70 ***
NOL	0.8185	7.06 ***	0.8190	7.07 ***	0.8185	7.07 ***	0.8187	7.07 ***	0.8164	7.05 ***	0.8185	7.07 ***	0.8200	7.08 ***
LOSSINT	1.4849	10.58 ***	1.4785	10.55 ***	1.4843	10.58 ***	1.4863	10.59 ***	1.4801	10.55 ***	1.4778	10.55 ***	1.4823	10.57 ***
CFO	−7.9952	−11.34 ***	−8.0040	−11.37 ***	−8.0080	−11.36 ***	−8.0178	−11.38 ***	−8.0066	−11.36 ***	−7.9903	−11.35 ***	−7.9615	−11.31 ***
MV	0.6357	6.18 ***	0.6432	6.25 ***	0.6442	6.26 ***	0.6519	6.33 ***	0.6389	6.21 ***	0.6464	6.28 ***	0.6492	6.31 ***
DISC	−0.3008	−4.08 ***	−0.2876	−3.95 ***	−0.3029	−4.16 ***	−0.2802	−3.79 ***	−0.2999	−4.09 ***	−0.3132	−4.34 ***	−0.3264	−4.53 ***
THAV	0.0083	0.11	−0.0044	−0.06	−0.0083	−0.11	−0.0001	0.00	−0.0033	−0.04	−0.0110	−0.15	−0.0168	−0.23
EM	0.5899	8.17 ***	0.5907	8.18 ***	0.5892	8.16 ***	0.5903	8.18 ***	0.5888	8.16 ***	0.5909	8.19 ***	0.5893	8.17 ***
EMP	−0.2859	−2.55 **	−0.2665	−2.38 **	−0.2807	−2.50 **	−0.2654	−2.36 **	−0.2802	−2.50 **	−0.2919	−2.61 ***	−0.3089	−2.78 ***
ΔSALE	−1.5623	−7.80 ***	−1.5815	−7.89 ***	−1.5749	−7.86 ***	−1.5785	−7.87 ***	−1.5702	−7.84 ***	−1.5856	−7.90 ***	−1.5801	−7.89 ***
INVINT	−2.9274	−8.44 ***	−2.9298	−8.44 ***	−2.9136	−8.40 ***	−2.9070	−8.38 ***	−2.9185	−8.41 ***	−2.9100	−8.39 ***	−2.9058	−8.38 ***
TAGG	0.0302	0.52	0.0302	0.52	0.0296	0.51	0.0290	0.50	0.0293	0.51	0.0296	0.51	0.0298	0.51
Yd	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Id	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Intercept	−2.5649	−7.94 ***	−2.6648	−8.19 ***	−2.6453	−8.02 ***	−2.7144	−8.20 ***	−2.6148	−8.00 ***	−2.6257	−8.00 ***	−2.5832	−7.81 ***
Pseudo R ²	0.2113		0.2116		0.2113		0.2115		0.2112		0.2110		0.2108	
No. Obs.	9036		9036		9036		9036		9036		9036		9036	

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 level.

6. Conclusions and Discussion

The tax issue of international business in multinationals has attracted increasing attention from academics, tax policy makers, government, and corporations. In this study, we try to investigate whether and how cross-national distances of FDI affect sustainability of tax policies using the FDI data in Japan. We measure cross-national distances based on the Mahalanobis method from the economic, political, administrative, cultural, demographic, knowledge, and geographical perspectives.

Using a unique data source from the OJC database, we obtained foreign investment details of all listed firms in Japan. We predicted and found that longer cross-national distances led to less likelihood of the adoption for sustainable tax policies. This relation was significant in both statistical and economic senses. We further employed the Heckman method to mitigate the potential sample selection bias and the findings remained the same. In additional analysis, we found the above relation was weakened when firms invest in tax haven countries or have a high proportion of foreign investor ownership, while it was strengthened when firms met an earnings benchmark. These results suggest the one risk of increasing cross-national distance between host country and home country is less sustainable tax policies.

Comparing with existing studies, this study has several contributions. First, it is one of the few, if not the first, research to provide detailed empirical evidence on the relationship between cross-national distances and sustainability of tax policies with a sample of Japanese listed firms. This study extends the book-tax difference studies [1–7,20,22,25,26] and cross-national distance studies [11,12,27,28] by providing evidence that multidimensional cross-national distance dimensions may lead to a negative effect on the sustainability of tax policies. Second, the dimensions of cross-national distance of FDI (i.e., perspectives from economic, political, administrative, cultural, demographic, knowledge, and geographical distance) and the indicator variable of sustainable tax policies provide a methodological contribution on enriching both international business and environmental studies of country characteristics and business sustainability. Third, this study adds to the literature on tax avoidance, earnings management, and corporate governance [44,45,47–49,53–59]. It extends these areas by showing that the relation between cross-national distances and sustainable tax policies can be positively moderated by meeting an earnings benchmark and negatively moderated by tax haven country investment and foreign investors' interests, respectively.

Our study has implications for the business practice. Given the concern of the complicated tax issues of multinational firms, the findings may help policy makers to improve tax policy. Specifically, policy makers may improve firms' likelihood of the adoption for sustainable tax policies by adding or refining the rules on the issue of cross-national distance of FDI. Also, this study's evidence may be useful to managers, investors, shareholders, or others interested in measuring the business sustainability as it suggests that the cross-national distances between FDI host country and home country are important factors that affect the likelihood of the adoption for sustainable tax policies.

This study has its limitations. As discussed in former sections, we define that sustainable tax policies focus on maintaining less difference between book income and taxable income over time. Sustainable tax policy refers to the case where the firm has a low level of *BTAX* as well as a low level of standard deviation of *BTAX* for the three-year period. There exist some alternative definitions of the sustainable tax policies [60–62] that are not tested in this study. In addition, we could not eliminate the possibility that other host country characteristics [63–66] influenced the likelihood of the adoption for sustainable tax policies. It will be helpful to investigate other types of country characteristics and how they affect business activities.

Funding: This research received no external funding.

Acknowledgments: I am grateful to the editor, anonymous reviewers, Bok Baik, Yu-Lin Chen, Mei-Juh Huang, Shu-Hsing Li, Katsuhiko Kokubu, Tokuei Sugimoto, Keishi Fujiyama, and other participants at the 2018 Korean Accounting Association Summer International Conference for their helpful comments and suggestions. This study was supported by the Grant-in-Aid for Early-Career Scientists, KAKENHI 19K13847.

Conflicts of Interest: The author declares no conflict of interest.

Appendix A

Table A1. Dimension of cross-national distances.

Dimension	Component Variables	Source	Years Available	# of Countries	Literature *			
					[11]	[12]	[27]	[28]
Administrative Distance (ADM)					○	○	×	△
Colonizer-colonized link	Whether dyad shares a colonial tie	CIA Factbook	constant	198				
Common language	% population that speak the same language in the dyad	CIA Factbook	constant	198				
Common religion	% population that share the same religion in the dyad	CIA Factbook	constant	198				
Legal system	Whether dyad shares the same legal system	La Porta et al. [13]	constant	198				
Cultural Distance (CUL)					○	○	×	×
Power distance	The degree to which the members accept that power is distributed unequally	Hofstede et al. [14]	constant	102				
Individualism	Individuals are expected to take care of only themselves and their immediate families	Hofstede et al. [14]	constant	102				
Masculinity	A preference for achievement, heroism, assertiveness, and material rewards for success	Hofstede et al. [14]	constant	102				
Uncertainty avoidance	The degree to which the members feel uncomfortable with uncertainty and ambiguity	Hofstede et al. [14]	constant	102				
Long term orientation	The connection of the past with the current and future actions or challenges	Hofstede et al. [14]	constant	86				
Indulgence	A society that allows relatively free gratification of basic	Hofstede et al. [14]	constant	81				
Demographic Distance (DEM)					○	○	×	×
Life expectancy	Life expectancy at birth, total (years)	WDI	2004–2014	249				
Birth rate	Birth rate, crude (per 1000 people)	WDI	2004–2014	256				
Population under 14	Population ages 0–14 (% of total)	WDI	2004–2014	240				
Population under 65	Population ages 65 and above (% of total)	WDI	2004–2014	240				
Economic Distance (ECO)					○	○	○	×
Income	GDP per capita (constant 2010 US\$)	WDI	2004–2014	249				
Inflation	GDP deflator (base year varies by country)	WDI	2004–2014	205				
Exports	Exports of goods and services (% of GDP)	WDI	2004–2014	242				
Imports	Imports of goods and services (% of GDP)	WDI	2004–2014	242				
Geographic Distance (GEO)					○	○	×	×
Grate circle distance	Distance between two countries according to the geographic center of the countries	CIA Factbook	constant	196				
Knowledge Distance (KNO)					○	○	×	×
Patents	Number of patents per one million population	WDI and USPTO	2004–2014	171				
Scientific articles	Number of scientific articles per one million population	WDI and SJR	2004–2014	210				
Political Distance (POL)					○	○	×	△
Political stability	Measured by considering independent institutional actors with veto power	POLCON	2004–2014	187				
Size of the state	General government final consumption expenditure (% of GDP)	WDI	2004–2014	233				
WTO member	Membership in WTO (GATT before 1993)	WTO	2004–2015	163				
Regional trade agreement	Number of RTAs in force	WTO	2004–2015	213				

* “○”, “△”, and “×” indicate same variables, similar variables, and no used variables, respectively.

References

1. Chan, K.H.; Lin, K.Z.; Tang, F. Tax Effects of Book-Tax Conformity, Financial Reporting Incentives, and Firm Size. *J. Int. Account. Res.* **2013**, *12*, 1–25. [\[CrossRef\]](#)
2. Chen, L.H.; Dhaliwal, D.S.; Trombley, M.A. Consistency of Book-Tax Differences and the Information Content of Earnings. *J. Am. Tax. Assoc.* **2012**, *34*, 93–116. [\[CrossRef\]](#)
3. Chi, S.S.; Pincus, M.; Teoh, S.H. Mispricing of Book-Tax Differences and the Trading Behavior of Short Sellers and Insiders. *Account. Rev.* **2013**, *89*, 511–543. [\[CrossRef\]](#)
4. Donohoe, M.P.; McGill, G.A. The Effects of Increased Book-Tax Difference Tax Return Disclosures on Firm Valuation and Behavior. *J. Am. Tax. Assoc.* **2011**, *33*, 35–65. [\[CrossRef\]](#)
5. Jackson, M. Book-Tax Differences and Future Earnings Changes. *J. Am. Tax. Assoc.* **2015**, *37*, 49–73. [\[CrossRef\]](#)
6. Abernathy, J.L.; Kubick, T.R.; Masli, A. General Counsel Prominence and Corporate Tax Policy. *J. Am. Tax. Assoc.* **2016**, *38*, 39–56. [\[CrossRef\]](#)
7. Chan, K.H.; Mo, P.L.L. The Impact of Firm Characteristics on Book-Tax-Conforming and Book-Tax-Difference Audit Adjustments. *J. Am. Tax. Assoc.* **2002**, *24*, 18–34. [\[CrossRef\]](#)
8. Omer, T.C.; Shelley, M.K. Competitive, Political, and Economic Factors Influencing State Tax Policy Changes. *J. Am. Tax. Assoc.* **2004**, *26*, 103–126. [\[CrossRef\]](#)
9. Chen, S.; Chen, X.; Cheng, Q.; Shevlin, T. Are Family Firms more Tax Aggressive than Non-family Firms? *J. Financ. Econ.* **2010**, *95*, 41–61. [\[CrossRef\]](#)
10. Taylor, G.; Richardson, G. International Corporate Tax Avoidance Practices: Evidence from Australian Firms. *Int. J. Account.* **2012**, *47*, 469–496. [\[CrossRef\]](#)
11. Berry, H.; Guillén, M.F.; Zhou, N. An Institutional Approach to Cross-national Distance. *J. Int. Bus. Stud.* **2010**, *41*, 1460–1480. [\[CrossRef\]](#)
12. Kang, J.; Lee, J.Y.; Ghauri, P.N. The Interplay of Mahalanobis Distance and Firm Capabilities on MNC Subsidiary Exits from Host Countries. *Manag. Int. Rev.* **2017**, *57*, 379–409. [\[CrossRef\]](#)
13. La Porta, R.; López de Silanes, F.; Shleifer, A.; Vishny, R. Law and Finance. *J. Political Econ.* **1998**, *106*, 1113–1155. [\[CrossRef\]](#)
14. Hofstede, G.; Hofstede, G.J.; Minkov, M. *Cultures and Organizations: Software of the Mind*, 3rd ed.; McGraw-Hill Education: New York, NY, USA, 2010.
15. Rohlin, S.; Rosenthal, S.S.; Ross, A. Tax Avoidance and Business Location in a State Border Model. *J. Urban Econ.* **2014**, *83*, 34–49. [\[CrossRef\]](#)
16. Buettnner, T.; Ruf, M. Tax Incentives and the Location of FDI: Evidence from a Panel of German Multinationals. *Int. Tax. Public Financ.* **2007**, *14*, 151–164. [\[CrossRef\]](#)
17. Grubert, H.; Mutti, J. Do Taxes Influence Where U.S. Corporations Invest? *Natl. Tax. J.* **2000**, *53*, 825–839. [\[CrossRef\]](#)
18. Blaylock, B.; Shevlin, T.; Wilson, R.J. Tax Avoidance, Large Positive Temporary Book-Tax Differences, and Earnings Persistence. *Account. Rev.* **2012**, *87*, 91–120. [\[CrossRef\]](#)
19. Hanlon, M. The Persistence and Pricing of Earnings, Accruals, and Cash Flows When Firms Have Large Book-Tax Differences. *Account. Rev.* **2005**, *80*, 137–166. [\[CrossRef\]](#)
20. Comprix, J.; Graham, R.C.; Moore, J.A. Empirical Evidence on the Impact of Book-Tax Differences on Divergence of Opinion among Investors. *J. Am. Tax. Assoc.* **2011**, *33*, 51–78. [\[CrossRef\]](#)
21. Lisowsky, P. Inferring U.S. Tax Liability from Financial Statement Information. *J. Am. Tax. Assoc.* **2009**, *31*, 29–63. [\[CrossRef\]](#)
22. Mills, L.F. Book-Tax Differences and Internal Revenue Service Adjustments. *J. Account. Res.* **1998**, *36*, 343–356. [\[CrossRef\]](#)
23. Goh, B.W.; Lee, J.; Lim, C.Y.; Shevlin, T. The Effect of Corporate Tax Avoidance on the Cost of Equity. *Account. Rev.* **2016**, *91*, 1647–1670. [\[CrossRef\]](#)
24. Hoi, C.K.; Wu, Q.; Zhang, H. Is Corporate Social Responsibility (CSR) Associated with Tax Avoidance? Evidence from Irresponsible CSR Activities. *Account. Rev.* **2013**, *88*, 2025–2059. [\[CrossRef\]](#)
25. Ayers, B.C.; Laplante, S.K.; McGuire, S.T. Credit Ratings and Taxes: The Effect of Book-Tax Differences on Ratings Changes. *Contemp. Account. Res.* **2010**, *27*, 359–402. [\[CrossRef\]](#)
26. Noga, T.J.; Schnader, A.L. Book-Tax Differences as an Indicator of Financial Distress. *Account. Horiz.* **2013**, *27*, 469–489. [\[CrossRef\]](#)

27. Cui, L.; He, X. Expanding near the Home Base or Venture Far? The Influence of Home Country State on the Economic Distance of Foreign Direct Investments. *J. Bus. Res.* **2017**, *75*, 95–107. [\[CrossRef\]](#)
28. Van Hoorn, A.; Maseland, R. How Institutions Matter for International Business: Institutional Distance Effects vs Institutional Profile Effects. *J. Int. Bus. Stud.* **2016**, *47*, 374–381. [\[CrossRef\]](#)
29. Rego, S.O. Tax-Avoidance Activities of U.S. Multinational Corporations. *Contemp. Account. Res.* **2003**, *20*, 805–833. [\[CrossRef\]](#)
30. Frank, M.M.; Lynch, L.J.; Rego, S.O. Tax Reporting Aggressiveness and Its Relation to Aggressive Financial Reporting. *Account. Rev.* **2009**, *84*, 467–496. [\[CrossRef\]](#)
31. Rego, S.O.; Wilson, R. Equity Risk Incentives and Corporate Tax Aggressiveness. *J. Account. Res.* **2012**, *50*, 775–810. [\[CrossRef\]](#)
32. Hope, O.-K.; Ma, M.S.; Thomas, W.B. Tax Avoidance and Geographic Earnings Disclosure. *J. Account. Econ.* **2013**, *56*, 170–189. [\[CrossRef\]](#)
33. McGuire, S.T.; Wang, D.; Wilson, R.J. Dual Class Ownership and Tax Avoidance. *Account. Rev.* **2014**, *89*, 1487–1516. [\[CrossRef\]](#)
34. Armstrong, C.S.; Blouin, J.L.; Jagolinzer, A.D.; Larcker, D.F. Corporate Governance, Incentives, and Tax Avoidance. *J. Account. Econ.* **2015**, *60*, 1–17. [\[CrossRef\]](#)
35. Kubick, T.R.; Lynch, D.P.; Mayberry, M.A.; Omer, T.C. Product Market Power and Tax Avoidance: Market Leaders, Mimicking Strategies, and Stock Returns. *Account. Rev.* **2015**, *90*, 675–702. [\[CrossRef\]](#)
36. Salihu, I.A.; Annuar, H.A.; Obid, S.N.S. Foreign Investors' Interests and Corporate Tax Avoidance: Evidence from an Emerging Economy. *J. Contemp. Account. Econ.* **2015**, *11*, 138–147. [\[CrossRef\]](#)
37. Dharmapala, D. What Problems and Opportunities are Created by Tax Havens? *Oxf. Rev. Econ. Pol.* **2008**, *24*, 661–679. [\[CrossRef\]](#)
38. Dyreng, S.D.; Lindsey, B.P. Using Financial Accounting Data to Examine the Effect of Foreign Operations Located in Tax Havens and Other Countries on U.S. Multinational Firms' Tax Rates. *J. Account. Res.* **2009**, *47*, 1283–1316. [\[CrossRef\]](#)
39. Fuest, C.; Hemmelgarn, T. Corporate Tax Policy, Foreign Firm Ownership and Thin Capitalization. *Reg. Sci. Urban Econ.* **2005**, *35*, 508–526. [\[CrossRef\]](#)
40. Donohoe, M.P.; Knechel, W.R. Does Corporate Tax Aggressiveness Influence Audit Pricing? *Contemp. Account. Res.* **2014**, *31*, 284–308. [\[CrossRef\]](#)
41. Lanis, R.; Richardson, G. Corporate Social Responsibility and Tax Aggressiveness: An Empirical Analysis. *J. Account. Public Pol.* **2012**, *31*, 86–108. [\[CrossRef\]](#)
42. Gu, J.; Semba, H.D. Can Overseas Investment Improve Earnings Quality? *J. Dev. Areas* **2016**, *50*, 27–40. [\[CrossRef\]](#)
43. Horaguchi, H. *Foreign Direct Investment of Japanese Firms: Investment and Disinvestment in Asia*; Tokyo University Press: Tokyo, Japan, 1998. (In Japanese)
44. Desai, M.A.; Foley, C.F.; Hines, J.R. The Demand for Tax Haven Operations. *J. Public Econ.* **2006**, *90*, 513–531. [\[CrossRef\]](#)
45. Harris, D.; Morck, R.; Slemrod, J.; Yeung, B. Income Shifting in U.S. Multinational Corporations. In *Studies in International Taxation*; Giovannini, A., Hubbard, R.G., Slemrod, J., Eds.; The University of Chicago Press: Chicago, IL, USA, 1993; pp. 277–307.
46. Guenther, D.A. Earnings Management in Response to Corporate Tax Rate Changes: Evidence from the 1986 Tax Reform Act. *Account. Rev.* **1994**, *69*, 230–243.
47. Dhaliwal, D.S.; Gleason, C.A.; Mills, L.F. Last-Chance Earnings Management: Using the Tax Expense to Meet Analysts' Forecasts. *Contemp. Account. Res.* **2004**, *21*, 431–459. [\[CrossRef\]](#)
48. Badertscher, B.A.; Phillips, J.D.; Pincus, M.; Rego, S.O. Earnings Management Strategies and the Trade-Off between Tax Benefits and Detection Risk: To Conform or Not to Conform? *Account. Rev.* **2009**, *84*, 63–97. [\[CrossRef\]](#)
49. Beuselinck, C.; Deloof, M. Earnings Management in Business Groups: Tax Incentives or Expropriation Concealment? *Int. J. Account.* **2014**, *49*, 27–52. [\[CrossRef\]](#)
50. Hanlon, M.; Heitzman, S. A Review of Tax Research. *J. Account. Econ.* **2010**, *50*, 127–178. [\[CrossRef\]](#)
51. Khurana, I.K.; Moser, W.J. Institutional Shareholders' Investment Horizons and Tax Avoidance. *J. Am. Tax. Assoc.* **2012**, *35*, 111–134. [\[CrossRef\]](#)

52. Badertscher, B.A.; Katz, S.P.; Rego, S.O. The Separation of Ownership and Control and Corporate Tax Avoidance. *J. Account. Econ.* **2013**, *56*, 228–250. [\[CrossRef\]](#)
53. Asiedu, E.; Esfahani, H.S. Ownership Structure in Foreign Direct Investment Projects. *Rev. Econ. Stat.* **2001**, *83*, 647–662. [\[CrossRef\]](#)
54. Yudaeva, K.; Kozlov, K.; Melentjeva, N.; Ponomareva, N. Does Foreign Ownership Matter? *Econ. Transit.* **2003**, *11*, 383–409. [\[CrossRef\]](#)
55. Douma, S.; George, R.; Kabir, R. Foreign and Domestic Ownership, Business Groups, and Firm Performance: Evidence from a Large Emerging Market. *Strat. Manag. J.* **2006**, *27*, 637–657. [\[CrossRef\]](#)
56. Chhibber, P.K.; Majumdar, S.K. Foreign Ownership and Profitability: Property Rights, Control, and the Performance of Firms in Indian Industry. *J. Law Econ.* **1999**, *42*, 209–238. [\[CrossRef\]](#)
57. Ciftci, I.; Tatoglu, E.; Wood, G.; Demirbag, M.; Zaim, S. Corporate Governance and Firm Performance in Emerging Markets: Evidence from Turkey. *Int. Bus. Rev.* **2019**, *28*, 90–103. [\[CrossRef\]](#)
58. Oxelheim, L.; Randøy, T. The Impact of Foreign Board Membership on Firm Value. *J. Bank. Financ.* **2003**, *27*, 2369–2392. [\[CrossRef\]](#)
59. Wang, J.; Wang, X. Benefits of Foreign Ownership: Evidence from Foreign Direct Investment in China. *J. Int. Econ.* **2015**, *97*, 325–338. [\[CrossRef\]](#)
60. Ayers, B.C.; Jiang, J.; Laplante, S.K. Taxable Income as a Performance Measure: The Effects of Tax Planning and Earnings Quality. *Contemp. Account. Res.* **2009**, *26*, 15–54. [\[CrossRef\]](#)
61. McGuire, S.T.; Neuman, S.S.; Omer, T.C. *Sustainable Tax Strategies and Earnings Persistence*; Working Paper; Texas A&M University: College Station, TX, USA, 2013.
62. Higgins, D.; Omer, T.C.; Phillips, J.D. The Influence of a Firm's Business Strategy on its Tax Aggressiveness. *Contemp. Account. Res.* **2015**, *32*, 674–702. [\[CrossRef\]](#)
63. Aguilera-Caracuel, J.; Fedriani, E.M.; Delgado-Márquez, B.L. Institutional Distance among Country Influences and Environmental Performance Standardization in Multinational Enterprises. *J. Bus. Res.* **2014**, *67*, 2385–2392. [\[CrossRef\]](#)
64. Cuypers, I.R.P.; Ertug, G.; Hennart, J.-F. The Effects of Linguistic Distance and Lingua Franca Proficiency on the Stake Taken by Acquirers in Cross-Border Acquisitions. *J. Int. Bus. Stud.* **2015**, *46*, 429–442. [\[CrossRef\]](#)
65. Swoboda, B.; Huber, C.; Schuster, T.; Hirschmann, J. Corporate Reputation Effects Across Nations: The Impact of Country Distances and Firm-Specific Resources. *Manag. Int. Rev.* **2017**, *57*, 717–748. [\[CrossRef\]](#)
66. Yildiz, H.E.; Fey, C.F. Are the Extent and Effect of Psychic Distance Perceptions Symmetrical in Cross-Border M&As? Evidence from a Two-Country Study. *J. Int. Bus. Stud.* **2016**, *47*, 830–857.



© 2019 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).