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## Importing corruption norms from overseas: evidence from corporate tax evasion in the U.S.

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## *Abstract*

Are foreign controlled corporations from corrupt countries more likely to evade U.S. taxes? Using a new panel on IRS audit results and country-level corruption measures, this paper seeks to identify the impact of cultures of corruption on corporate tax evasion. Audit results provide a natural experiment which allows one to identify the influence of cultural norms on corporate behavior. Our paper extends the methodology used in Hanlon, Mills and Slemrod (2007) to an examination of the effect of cultural norms on tax evasion. For this, we start with data from the IRS's Audit Information Management System. These data contain the results of all IRS corporate audits from 1996 through 2007. To the audit data, we merge information from two additional sources. We find that the level of corruption in the owner's country is positively related to the firm's tax evasion in the U.S. If the level of corruption increases by one point on the scale of Corruption Perception Index, adjustment to tax liability following audits increases from $90,000 to $180,000 for a firm with the mean level of assets or total income. In other words, the culture of corruption from overseas influences the tax evading behavior of firms operating in the U.S. through foreign ownership.

# Importing Corruption Norms from Overseas:
## Evidence from Corporate Tax Evasion in the U.S.

Are foreign controlled corporations from corrupt countries more likely to evade U.S. taxes?  Using a new panel on IRS audit results and country-level corruption measures, this paper seeks to identify the impact of cultures of corruption on corporate tax evasion.  Audit results provide a natural experiment which allows one to identify the influence of cultural norms on corporate behavior.

Tax evasion is an illicit activity where the risk of detection is small, but the penalties may be large. Each year approximately 5% of U.S. corporations are audited by the IRS.  If caught, tax evasion in the U.S. is punishable by both civil and criminal penalties.

Corporations engage in tax evasion around the world, but at different scales in different countries., A conventional economic framework may be able to explain much of this difference by appealing to different economic costs and benefits of such illegal activities [Becker (1968), Allingham and Sandmo (1972), Crocker and Slemrod (2005)].  However, some recent behavioral work has suggested that additional factors can affect individual tax compliance, including feelings of "civic virtue" [Levi (1998)], perceptions of fairness of the tax system, and how much citizens trust the government to act wisely [Andreoni, Erard, and Feinstein (1998), Torgler (2003), Slemrod (2003), Hanousek and Palda (2004)].  At the corporate level, however, Slemrod (2004) argues that a principal-agent framework is necessary to correctly understand tax evasion.

A handful of papers have empirically examined the determinants of corporate tax evasion, and have found that managerial preferences, corporate governance, firm size, foreign control, multinational operations, and being privately held all appear to impact coproate tax noncompliance.  [Joulfaian (2000), Desai and Dharmapala (2006), Hanlon, Mills and Slemrod (2007)].

At the same time, a number of recent papers have examined the effect of cultural background on a variety of individual behaviors: Borjas (2000) examines economic achievement, Maggi (2000) studies employee misbehavior, and Fernandez and Fogli (2006) analyze fertility.  In addition, a recent paper suggests that cultural norms may also influence individual propensity to engage in illegal activities. Fisman and Miguel (2007) show that diplomats from more corrupt countries had significantly more parking violations in New York City.  To date, however, there has not been any empirical evidence showing the impact of corruption norms on corporate behavior.

Our paper extends the methodology used in Hanlon, Mills and Slemrod (2007) to an examination of the effect of cultural norms on tax evasion.   For this, we start with data from the IRS's Audit Information Management System.  These data contain the results of all IRS corporate audits from 1996 through 2007.  To the audit data, we merge information from two additional sources.  First, we merge corporate tax return data from a sample of corporations that is compiled annually by the Statistics of Income Division of the IRS.  Using these data, we can identify the whether a company has a foreign owner with at least a 25% ownership share (and which country the owner(s) is (are) from) using information from Schedule K of Form 1120 for all firms in each year's sample.  From these data we drop S corporations (which do not pay tax at the entity level), regulated investment companies (RICs), and real estate investment trusts (REITs).  Second, we merge information from the Compustat North America and Compustat Global databases, which enables us to identify publicly traded firms.  Finally, for each foreign controlled firm, we assign the measure of corruption

of the owner's home country using the Corruption Perception Index published by Transparency International.  Table 1 presents summary statistics for the variables used in our regression analysis.  The corporate samples contain 15,940 firm-year observations of foreign controlled C corporations who underwent an audit between 1996 and 2007.  Adjustments to tax liabilities following audits include interest and penalties as well as restatements of taxable income.   Note that we truncate these values at zero.  Thereexist firms who realize decreases in tax liability following an audit, but we choose to treat them as having no adjustment since they likely had a reporting error against their favor.  Adjustments average about $350,000 and range between zero and $7.5 million.  Total assets are taken from Item D on the front page of the 1120 and total income is line 11 on the front page of the 1120.  All dollar values are in thousands of 2009 dollars (adjusted using the CPI-U).  Approximately 35% of these firms have multinational operations (indicated by claiming a foreign tax credit or ownership of a controlled foreign corporation on Form 5471) and approximately 4% are publicly traded corporations.  Manufacturing and wholesale trade form the two largest industries in our sample, followed by finance.

[Table 1 about here]

Following Hanlon, Mills, and Slemrod (2007), we then run regressions of the form:

$$(\text{Deficiency}/\text{Scale})*100 = \alpha \, \text{CorruptionMeasure} + \beta X + \varepsilon$$

where Deficiency measures the change in tax liability following an audit (including any interest or penalties), scale is total income or total assets, CorruptionMeasure is the measure of corruption in the foreign owner's home country, X contains other characteristics of the company such as the log of total income or assets, industry classification, and indicator variables for public or multinational status, and $\varepsilon$ is an error term.  In some specifications, X will contain firm fixed effects, so that the effect of corruption will be identified off of changes in corruption that result from changes in ownership of the company.

[Table 2 about here]

We find that the level of corruption in the owner's country is positively related to the firm's tax evasion in the U.S.  If the level of corruption increases by one point on the scale of Corruption Perception Index, adjustment to tax liability following audits increases from $90,000 to $180,000 for a firm with the mean level of assets or total income. In other words, the culture of corruption from overseas influences the tax evading behavior of firms operating in the U.S. through foreign ownership.

Currently, we are extending this analysis in two directions. First, we are collecting and matching data on merger-and-acquisition deals between U.S. and foreign corporations with audit data. This will allow us to study the change in tax evasion propensity of the same firm before and after a foreign (or domestic) ownership takeover. Second, we are setting up a dataset on corporate income tax for foreign countries. This dataset will allow us to study how firms with different norms react differently to changes in the incentive to evade tax in the U.S., created by changes in the corporate tax in the owner's country.

Table 1. Summary Statistics for Variables Used in Audit Regressions

| Variable | Mean | Std Dev |
|---|---|---|
| Audit Adjustment to Taxable Income | 357 | 1,081 |
| Audit Adjustment/Total Assets | 0.002 | 0.008 |
| Audit Adjustment/Total Income | 0.005 | 0.022 |
| Total Assets | 1,055,425 | 2,145,702 |
| Total Income | 250,160 | 466,403 |
| | | |
| Corruption Index | 2.422 | 1.481 |
| Public | 0.040 | 0.195 |
| Multinational | 0.351 | 0.477 |
| | | |
| Agriculture | 0.004 | 0.062 |
| Mining | 0.019 | 0.135 |
| Utilities | 0.006 | 0.079 |
| Construction | 0.016 | 0.126 |
| Manufacturing | 0.290 | 0.454 |
| Wholesale | 0.202 | 0.401 |
| Retail | 0.027 | 0.163 |
| Transport | 0.019 | 0.135 |
| Information | 0.029 | 0.167 |
| Finance | 0.099 | 0.298 |
| Real Estate | 0.040 | 0.195 |
| Professional Services | 0.044 | 0.205 |
| Administrative Services | 0.013 | 0.115 |
| Education | 0.002 | 0.040 |
| Health Care | 0.004 | 0.064 |
| Entertainment | 0.005 | 0.072 |
| Hospitality | 0.010 | 0.100 |
| Other Services | 0.005 | 0.068 |

Notes: Data from 1996-2007 Panel of Corporate Audits of foreign-owned firms. Dollar values are in 1000s of 2009$. Corruption Index is the Corruptions Perception Index in the reversed scale, published annually by Transparency International.

Table 2. Estimation of Relationship Between Corruption Index and Scaled Audit Adjustment

| | Audit Adjustment/Total Assets | Audit Adjustment/Total Income |
|---|---|---|
| | (1) | (2) |
| Corruption Index, Country | 0.017*** | 0.036** |
| of Owner | (0.006) | (0.016) |
| ln(Total Income) | -0.021*** | |
| | (0.005) | |
| ln(Total Assets) | | -0.044*** |
| | | (0.014) |
| Public | -0.094* | -0.153 |
| | (0.051) | (0.138) |
| Multinational | 0.013 | -0.007 |
| | (0.021) | (0.056) |
| Industry Dummies | Yes | Yes |
| Year Dummies | Yes | Yes |
| R-squared | 0.012 | 0.014 |
| N | 7897 | 7986 |

Notes: Data from 1996-2007 Panel of Corporate Audits of foreign-owned firms. Standard errors are in parentheses. * $p<0.10$, ** $p<0.05$, *** $p<.01$