

Determinants of Long-Run Effective Tax Rate of China Publicly Listed Companies

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Introduction

The effective tax rate (ETR) on companies is a subject of considerable interest and discussion in the US and around the world. There has seemed to be some competition among countries to lower their ETRs in order to attract companies, and thus to improve their economies. The US seems to be losing this competition. According to PricewaterhouseCoopers LLP (2011), Forbes Global 2000 companies headquartered in the US had an average corporate ETR of 27.7% for tax years 2006-2009. Similar companies headquartered in other countries had an average ETR of only 19.5%. In addition, the same article found that the US statutory corporate tax rate was 5% higher than the average of the other 28 countries in the Organization for Economic Co-operation and Development (OECD). According to the Wall Street Journal (McKinnon and Thurm, 8/28/2012), more US companies are changing their official incorporation location to other countries, largely due to the lower effective tax rates offered abroad. One company estimates that changing their official incorporation location will decrease their ETR from 28% to 23%, which will increase profits by \$100 million per year.

Although China is not a current OECD member, many companies have an interest in exploring investments and partnerships in China. The ways in which Chinese companies are taxed and the effective corporate tax rate on Chinese companies are important factors in analyzing these potential investments. In the next section, we explain the basic types of taxes levied on Chinese companies. The purpose of this paper is to analyze the factors that influence the long-run sales tax and addition ETRs and corporate income tax ETRs of Chinese companies, with and without, foreign investment. This paper uses data from China publicly listed companies.

There is considerable literature that examines the relationship of ETR to firm size, industry, firm leverage, asset mix, political connections and ownership structure in various countries. This study exams the influence of firm size, industry, year, firm leverage, asset mix, ownership structure, and auditors on ETR. Data were collected for all companies listed on the two major Chinese stock exchanges over the 5 year period from 2007 through 2011. All financial information for this period was prepared based on International Financial Reporting Standards (IFRS), which were adopted in China as of January 1, 2007. These data include information from over 1000 publicly listed companies, and over 4000 company years. We included all industries in our data collection.

China Tax System

China imposes three major taxes: sales tax and addition, value added tax, and income tax. The tax system has gone through major reform, and the new tax system in effect in 2011

eliminated many favorable tax treatments to international companies. Even before that, in 2007, China streamlined the corporate income tax for domestic and international funded companies to level the playground. (Ministry of Finance of People's Republic of China, 2009) Thus, theoretically, our research time period (2007-2011) should show little evidence of favorable tax treatment to companies with international ownership.

Corporate income tax. The basic corporate tax rate currently is 25%. Eligible small business has a lower tax rate of 20%. Eligible high-tech companies enjoy a tax rate of 15%. The tax rate preference for international companies was reduced starting in 2007 and has been eliminated as of 2011. Currently, corporate income tax revenue is shared by local and federal government with local government retaining 40%.

Sales tax and addition. The sales tax rate varies from 3% to 20% depending on the industry. Sales tax in China is included in the sales price and is remitted to the government by the seller. The current sales tax rate is 3% for transportation, construction, post and telecommunications, culture and sports. It is 5% for other industries except entertainment. The entertainment industry sales tax rate can be as high as 20%, though the local government has the authority to lower it. For example, starting 7/1/2012, Tianjin province has lowered its sales tax rate for the entertainment industry from 20% to 5%.

In addition to sales tax, the company also bears a consumption tax. Consumption tax also is included in sales price and remitted by the seller to the taxing authority. Consumption tax is designed to regulate the consumption structure. Most commodities do not have consumption tax. For commodities that have consumption tax, the rate depends on the commodity. It can vary from 1% to 56% of the value of the commodity, or it can be a fixed amount. The highest consumption tax is imposed on cigarettes, and varies from 30% to 56%. Consumption tax for cosmetic products is 30%. It is 5 to 25% for alcoholic beverages.

In addition to the consumption tax, sales tax and addition includes resource tax, education tax, land appreciation tax, city development tax, etc. Currently, sales tax and addition provides revenue to the local government.

Value added tax. The basic value added tax rate is 13% for domestic products, 17% for imported products, and 0% for exported products. There are exceptions to the basic value added tax rate. For example, China does not encourage crude oil exporting. Thus, crude oil exporting does not enjoy a favorable value added tax rate. Value added tax revenue is currently shared between the local and federal government. Local government retains 25%. Value added tax is not included in the sales price. It is separately paid by the consumer and is not reported by the publicly listed companies, thus we cannot obtain value added tax information from company financial reports. Therefore, this paper only analyzes the sales tax and addition and income tax obligations of publicly listed companies. The above is only a summary of the China tax laws. Please refer to China State Administration of Taxation publications for details.

Literature Review

There have been a great many studies on the impact of various factors on ETR. Most studies address the factors used in this paper. A review of some of the studies most relevant to this paper follows.

Company Size and Industry

The relationship of effective tax rate and firm size has been extensively researched. Heshmati, Johansson, and Bjuggren (2010) analyzed the effects of ETRs on the size distribution of Swedish firms from 1973 – 2002. Time and industry effects were considered. They found that ETRs differ by firm size, industry and over time. Smaller firms had a higher ETR than larger firms, and there was inequality in mean and variance of ETRs between industrial sectors. They conclude that ETRs affect the size distribution of firms as well as the composition of industries, and that the Swedish tax system favors capital-intensive sectors and firms.

Sebastian (2010) wanted to determine whether the ETR that Romanian companies actually experienced agreed with statutory tax rate cuts that took place. He found that ETR was consistently less than the statutory rate and, that, by industry, general commerce had the lowest ETR while the energy sector had the highest ETR.

Olhoft (1999) obtained data from Compustat for the years 1990 through 1997 for both U.S. multinational and U.S. domestic only corporations. Olhoft examined which variables affect firms that are most successful in avoiding income taxation, resulting in lower ETR (defined as the ratio of current income tax expense to pre-tax accounting income). Holding income constant, larger firms by total net sales pay more tax per dollar of income than smaller firms do. However, firms with greater income pay a lower percentage of tax than do firms with less income. Higher income is associated with income tax avoidance, larger firm size is not. Multinational firms have a much stronger negative relationship between income and ETRs, suggesting that multinational companies avoid more tax per dollar of income than U.S. domestic-only companies do. Other studies that have considered size or industry or both include Stickney and McGee (1982); Liu and Cao (2007); Noor, Mastuki, and Bardai (2008); Wu, Wang, Luo and Gillis (2012).

Ownership Structure

Wu, Wang, Luo and Gillis (2012) examined all non-financial public companies listed in China's A-share market between 1998 and 2006 to determine how state ownership, tax status, and firm size affect ETR. They found that privately controlled firms have a higher ETR than state-controlled firms.

Capital Intensity/Asset Mix

Liu and Cao (2007) studied determinants of ETR for 425 listed companies in China's stock market for the seven-year period 1998–2004. They considered firm size, leverage, asset mix, profitability, ownership structure, and overemployment. They found that firm size and capital intensity have no significant effect on ETR, leverage has a negative impact, and ETR tends to be smaller for firms with overemployment of labor. This last finding seems to be caused by government to promote employment. They define ETR as (Tax expense – deferred tax

provision)/ EBIT. They also found that the larger the share of ownership by the largest shareholder, the larger the ETR.

Stickney and McGee (1982) used data from Compustat for 1978 and 1980 for U.S. companies. They defined ETR as total income taxes payable divided by book income before taxes adjusted for the effect of timing differences. They found that lower ETRs tend to be related to firms that are heavily capital intensive, highly leveraged and in natural resource industries. Foreign operations and firm size were less important indicators of lower ETR. Capital intensity was measured by a combination of factors. Foreign operations were determined by foreign sales. Natural resource involvement included mineral, petroleum, timber, and similar activities. Size was measured by sales and assets. Leverage was calculated based on long-term debt divided by stockholders' equity and long-term debt divided by total equities.

Hsieh (2012) used data from the Taiwan Economic Journal data base, which lists companies in the two largest stock markets in China, the Shanghai Security Exchange, and the Shenzhen Security Exchange. Data was collected from 1998 through 2001. ETR was defined as tax expenses less deferred tax expense divided by profit before interest and tax paid. Variables included leverage (total liabilities divided by total assets), capital intensity (net fixed assets divided by total assets) return on assets (pre-tax profits divided by total assets) and firm size (total assets). They found that firm size is not an indicator of lower ETR, and that ETR is sensitive to return on assets (pre-tax profits divided by total assets), capital intensity (net fixed assets divided by total assets), inventory intensity (inventory divided by total assets), and leverage (total liabilities divided by total assets).

Auditor and Company Management

McGuire, Omer and Wang (2012) used data from an intersection of Compustat and Audit Analytics for 2002 to 2009 for U.S. firms. The analysis used four proxies for a firms' tax avoidance, 1) book effective tax rate (total tax expense divided by pre-tax book income), 2) cash effective tax rate (cash taxes paid divided by pre-tax book income), 3) total book-tax differences (permanent and temporary differences between financial statement income and taxable income), 4) measure of discretionary permanent book-tax differences (residual of a regression of permanent book-tax differences of various non-tax-planning determinants) . McGuire, Omer and Wang found that tax-specific industry expertise of the external audit firm plays a significant role in its clients' tax avoidance, or lowering its ETR.

Dyreng, Hanlon, Maydew (2010) tracked the movement of 908 executives across 1,138 US firms during the years 1992 to 2006. They found that individual executives play a significant role in determining ETR. The difference between the top and bottom quartiles showed an 11 percent difference in GAAP ETR.

Liquidity and Leverage

Stanfield (2011) used data from Compustat for the years 1992 to 2009 for U.S. firms. He found greater tax avoidance or lower ETR (cash taxes paid divided by pretax income) for firms with insufficient cash, that is, an inverse relationship with liquidity and tax avoidance. Cash or

liquidity is measured by the quick ratio, free cash flows, and insufficient cash holdings. Stanfield also found an increase in tax avoidance for firms that meet or just beat the consensus cash flow forecast.

Noor, Mastuki, and Bardai (2008) studied a sample of 294 large Malaysian companies (1470 firm-years) for the years 2000 to 2004. They found that real estate, trading and services and construction companies had higher ETRs and that lower ETRs were associated with highly leveraged companies and those with greater investments in fixed assets and extensive foreign operations.

Long-Run ETRs

Dyreng, Hanlon, Maydew (2008) used the long-run cash ETR to examine (1) the extent to which some firms are able to avoid taxes over periods as long as ten years, and (2) how predictive one-year tax rates are for long-run tax avoidance. In their sample of 2,077 US firms, they found considerable variation in tax avoidance. For example, approximately one-fourth of the sample firms had long-run cash ETRs below 20 percent, while the sample mean tax rate was about 30 percent. They also reported that annual cash ETRs were not good predictors of long-run cash ETRs and, thus, not accurate proxies for long-run tax avoidance. To overcome the limitations of GAAP ETRs, they make two key modifications. They calculated long run ETR over periods as long as ten years by summing the total cash taxes paid over a ten-year period and dividing by the sum of the firm's total pretax income over the same ten-year period. This produces an ETR that more closely tracks the firm's tax costs over the long run. They found that companies use many methods to achieve low long-run cash ETRs. Some are firm-specific, while others are related to firm industry or other factors.

Methodology

Long-Run ETRs

We manually collected data from sina.com.cn. This website provides financial information for China publicly listed companies. We are aware of various databases available, but for the purpose of this study, we needed some specific information that the current databases cannot provide. We use the long-run ETR defined by Dyreng, Hanlon, and Maydew (2008). We sum a firm's total cash taxes paid over a 5-year period (2007-1011) and divide that by the sum of its total pretax income.

Long-Run Income Tax ETRs and Determinants

Since long-run ETR is more representative of a firm's cash tax expense over time, we investigate the relationship of long-run income tax ETR to firm size, industry, leverage, asset mix, ownership structure and type of auditor (big four versus none big four). We adopted these variables based on previous research as explained in the following paragraphs.

The relationship of ETR and size (proxied by log of sales) were extensively researched (Heshmati, Johansson, and Bjuggren 2010; Zimmerman 1983; Rego 2003; Liu and Cao 2007).

Industry and ETR also have been well studied (Sebastian 2010; Heshmati, Johansson, and Bjuggren 2010; Noor, Mastuki, and Bardai 2008). Firm leverage (proxied by total liability/total asset) could have an effect on effective tax rate since interest is tax deductible (Liu and Cao 2007; Noor, Mastuki, and Bardai 2008).

Asset mix (proxied by long term assets/total asset, long term assets include fixed and intangible assets) could influence ETR since, the more capital intense the company is, the more depreciable assets the company will have (Liu and Cao 2007; Noor, Mastuki, and Bardai 2008). Asset mix can be viewed as one of the various measures of capital intensity. Please note that, in this study, firm size, leverage, and asset mix are all average numbers over a 5 year period (2007-2011). We used weighted average, just as we did for long-run ETRs.

Ownership structure could affect ETR. Derashid and Zhang (2003) studied the effect of state ownership on effective tax rates in Malaysia with no significant findings. Liu and Cao (2007) documented that the higher the biggest shareholder's ownership percentage, the higher the ETR. Dyreng, Hanlon, and Maydew (2010) documented that individual executives have significant influence on ETR. We suspect the unique ownership structure of a company could influence ETR of a company for the same reason. We identify state-ownership (defined as more than 50% state owned), and international-ownership (any international ownership). Of course, a company can be both state owned or privately owned and also have international ownership. Thus, we will investigate the interaction of state and international ownership. We include these different categories because different ownership structures could result in different corporate cultures and thus, different levels of aggressiveness of tax avoidance.

In order to attract international investment, China gave tax incentives to companies with sole or partial international investment prior to 2007. Since then, China has streamlined corporate income taxation for domestic and international funded companies. China further eliminated favorable tax treatment at the federal level for companies with international ownership in 2011. However, local governments are still permitted to provide various incentives for international investment. The tax benefits are rather complicated and inconsistent from year to year and from region to region.

State owned shares could not be transferred freely in the stock market before 2005. China started major reform in 2005 to make state ownership transferable (China Securities Regulatory Commission, etc, 2005). After the reform, separate state ownership percentage information is no longer available. We have decided to look at the historical ownership structure of a company. If historical state ownership has been over 50% in a company, we will consider it under control of the state and code the state ownership variable as 1.

For international ownership, we divide the companies into two groups, companies with international ownership and companies without international ownership. We have tried to plot the international ownership against long-run ETR and sales tax and addition and did not find a natural break point. Thus, we do not believe the percentage of international ownership significantly affects the tax benefits companies might be receiving.

Auditors of the company could potentially affect the tax rate of the company. McGuire, Omer and Wang (2012) concluded that companies engage in greater tax avoidance when their external audit firm is a tax expert. Reviewing the auditor information of the publicly listed companies reveals that the big four accounting firms are the auditors for about 11% of all the observations. The remaining observations are companies that are audited by domestic auditing firms. Although there is no previous research on this subject of which we are aware, we believe the big four auditing firms might have different corporate cultures than the domestic auditing firms, and thus might provide different tax strategies to their audit clients compared with domestic auditing firms.

Long-Run Sales Tax and Addition ETRs

Long-run sales tax and addition ETR is calculated following the same method as long-run income tax ETR. And we use the same factors we identified for long-run income tax ETR to analyze long-run sales tax and addition ETR.

Results

Descriptive Statistics

After deleting extreme observations, our final dataset consists of 1204 observations from 1204 companies. Each company's data across five years (2007-2011) were taken and long-run ETRs and other variables were calculated using the method described above. Each company's five year data will create only one observation after the above process. We consider negative long-run ETRs as extreme. We also consider long-run ETRs above 100% as extreme. The above situations did happen in our observations due to various reasons.

We list the mean and median for long-run sales tax and addition effective tax rate (STA ETR), and long-run income tax ETR in Table 1. As we discussed previously, the basic sales tax rate is 3-20%. Then there are other taxes included in sales tax and addition. However, the actual rate of long-run STA ETR is amazingly low. The median is only 0.72%, with a mean of 2.72%. This is inconsistent with the tax code.

Currently, sales tax and addition is collected and retained by the local government. The federal government does not share it. The amazingly low rate of the actual sales tax and addition might be due to the various favorable tax rates the local government offers to attract companies. To put the low rates we found into perspective, the US has an average sales tax rate of about 9.6% (Barrett, 2012) for jurisdictions within states that have a sales tax, which include all but 5 US states.

The long-run corporate income tax ETR has a mean of 18.66% and a median is 16.22%. As we mentioned earlier, the basic income tax rate is 25% with favorable rates for qualified companies. The actual rates agree reasonably well with the tax code rate. As we mentioned earlier, Forbes Global 2000 companies headquartered in the US had an average corporate income tax ETR of 27.7% for tax years 2006-2009, which is considerably higher than what we documented for Chinese listed companies.

The listed companies have a balanced approach in regard to financing. They rely equally on borrowing and self-financing. Table 1 lists the number of observations for state controlled firms, for companies with international ownership, and for companies with big four firms as auditors. Table 1 also gives the number of observations by industry. Over half of the listed

	Mean	Median
Long-run STA ETRs*	2.72%	0.72%
Long-run income tax ETRs**	18.66%	16.22%
Leverage	50.68%	52.30%
Asset Mix	24.01%	21.16%

companies are in the manufacturing industry. About 11% of the listed companies are audited by big four firms. 38% of the observations are state controlled companies.

Table 1: Descriptive Statistics

Auditors	Big four clients	Other
	127 observations	1077 observations
Ownership	State-controlled	Private
State-controlled/Private	462 observations	742 observations
Ownership	With international ownership	Domestic
International ownership/Domestic	84 observations	1120 observations

*Long-run sales tax and addition effective tax rates.

**Long-run corporate income tax effective tax rates.

Industry Breakdown: Number of observations per industry

Agriculture	13
Mining	31
Manufacturing	618
Utilities	53
Construction	18
Transportation & Storage	58
Technology & Telecommunications	60
Wholesale & Retail	136
Financials	16
Real Estate	137
Service	36

Media	9
Multi-Industry	19
Total Observations	1204

Long-Run Sales Tax and Addition ETRs

We have investigated the dual presence of state control and international ownership on long-run sales tax and addition and long-run income tax ETR and did not document any significant findings. Therefore, the following results do not include the interaction of state control and international ownership as a factor.

Despite the surprisingly low STA ETRs, the overall model explained about 20% of the long-run STA ETRs (Table 2). In the long-run, bigger firms have significantly higher sales tax and addition rates. The financial & real estate sectors have significantly higher sales tax and addition rates as well. State controlled firms enjoy a significantly lower rate in the long run compared with other firms.

Table 2: Long-run sales tax and addition ETRs

Overall model: $p < 0.0001$; Adjusted $R^2 = 0.1966$

Independent Variable	Estimate	t Value	Pr > t
Intercept	-0.06469	-3.23	0.0013
Big Four Auditor	0.00364	0.80	0.4239
Size	0.00409	4.60	<0.0001
Agriculture	-0.01263	-0.73	0.4627
Mining	-0.00322	-0.23	0.8192
Manufacturing	-0.00230	-0.21	0.8371
Utility	0.00673	0.52	0.6055
Construction	0.01361	0.85	0.3933
Transportation & Storage	0.01713	1.32	0.1860
Technology & Telecommunication	0.00216	0.17	0.8634
Wholesale & Retail	-0.00564	-0.48	0.6301
Financials	0.08641	5.32	<0.0001
Real Estate	0.06671	5.73	<0.0001
Service	0.01883	1.37	0.1711
Media	0.01071	0.53	0.5947
Leverage	0.00111	0.20	0.8418
Asset Mix	0.00022148	0.03	0.9788
State Controlled	-0.00637	-2.16	0.0312
International Ownership	-0.00385	-0.69	0.4900

Long-Run Income Tax ETRs

The overall model explained about 10% of long-run income tax ETRs. In the long-run, bigger firms have significantly higher income tax ETRs. The real estate sector has a significantly higher income tax ETR as well in the long-run. The more concentrated the capital of a firm, the higher the long-run income tax ETR. This is contrary to our prediction. We predicted that capital intensity will decrease ETR because of more depreciation.

Liu and Cao (2007) studied determinants of ETR for 425 listed companies in China's stock market for the seven-year period 1998–2004. They found that firm size and capital intensity have no significant effect on ETR. Their study was done in a different time period than ours (2007-2011). This might have contributed to the differences in conclusions.

Table 3: Long-run corporate income tax ETRs

Overall model: $p < 0.0001$; Adjusted $R^2 = 0.0966$

Independent Variable	Estimate	t Value	Pr > t
Intercept	-0.21861	-3.37	0.0008
Big Four Auditor	0.00207	0.14	0.8881
Size	0.01616	5.62	<0.0001
Agriculture	-0.06195	-1.11	0.2653
Mining	-0.01410	-0.31	0.7571
Manufacturing	0.01290	0.36	0.7216
Utility	0.07372	1.75	0.0804
Construction	-0.05474	-1.06	0.2882
Transportation & Storage	-0.00675	-0.16	0.8717
Technology & Telecommunication	0.01629	0.40	0.6878
Wholesale & Retail	0.04822	1.27	0.2026
Financials	0.04458	0.85	0.3959
Real Estate	0.08099	2.15	0.0315
Service	0.03395	0.76	0.4450
Media	-0.01523	-0.23	0.8150
Leverage	0.00983	0.55	0.5843
Asset Mix	0.14419	5.35	<0.0001
State Controlled	0.01248	1.31	0.1914
International Ownership	-0.01801	-1.00	0.3174

Conclusions

We conclude that size is significantly positively related to both long-run income tax ETRs and long-run STA ETRs. The real estate sector has significantly higher rates for both long-run ETR and long-run STA ETR.

State controlled companies enjoy significantly lower long-run STA ETRs. However, state ownership does not play a role in long-run income tax ETRs. Sales tax and addition is a local tax. We suspect state controlled companies might have more influence at the local level compared with other companies, which may allow them to obtain lower rates for sales tax and addition. Income tax is shared between the local and federal government. Apparently the state controlled firms have less influence when the federal government gets part of the tax revenue.

Firms with heavy capital concentration pay higher income tax ETRs, but long-run STA ETR is not affected by capital concentration. We do not document any influences of big four auditors on long-run income tax ETRs or long-run STA ETRs. This is somewhat surprising. Given the world-wide reputation of the big four auditing firms, we were expecting them to have significant influence on their clients in many ways. But as far as tax goes, we are unable to find any evidence of influence.

International ownership does not impact long-run income tax ETRs or long-run STA ETRs. International investors who are seeking favorable tax treatment need to consider the industry they are going to invest in since the real estate sector has the highest income tax and STA ETRs. Partnering with state companies might help international investors with relationship building and thus provide somewhat more favorable STA ETRs.

References

Barrett, W. P. (2012). Average U.S. sales tax rate drops--a little. *Forbes*, 2/2/2012.

China Securities Regulatory Commission, the State-owned Assets Supervision and Administration Commission, Ministry of Finance, the People's Bank of China, Ministry of Commerce. (2005). Guidance on share reforms of listed companies. Retrieved from http://news.xinhuanet.com/stock/2005-08/24/content_3394626.htm

Derashid, C., & Zhang, H. (2003). Effective tax rates and the "industrial policy" hypothesis: evidence from Malaysia. *Journal of International Accounting, Auditing & Taxation*, 12(1), 45-62.

Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *The Accounting Review*, 85(4), 1163-1189.

Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. *The Accounting Review*, 83(1), 61-82.

Hsieh, Y.-C., (2012). New evidence on determinants of corporate effective tax rates. *African Journal of Business Management*, 6(3), 1177-1180.

Heshmati, A., Johansson, D., & Bjuggren, C. M. (2010). Effective corporate tax rates and the size distribution of firms. *Journal of Industry, Competition and Trade*, 10, 297-317.

- Liu, X., & Cao, S. (2007). Determinants of corporate effective tax rates. *The Chinese Economy*, 40(6), 49-67.
- McGuire, S. T., Omer, T. C., & Wang, D. (2012). Tax avoidance: does tax-specific industry expertise make a difference? *The Accounting Review*, 87(3), 975-1003.
- McKinnon, J. D., & Thurm, S. (2012). U.S. firms move abroad; despite 2004 law, companies reincorporate overseas, saving big sums on taxes. *Wall Street Journal*, 8/28/2012.
- Ministry of Finance of People's Republic of China. (2009). With east wind, comes spring. Retrieved from http://jgdw.mof.gov.cn/caizhenggaigesanshinian/gongzuochengjiu/200811/t20081105_87875.html
- Noor, R. M., Mastuki, N., & Bardai, B. (2008). Corporate effective tax rates: a study on Malaysian public listed companies. *Malaysian Accounting Review*, 7(1), 1-20.
- Olhoft, S. L. (1999). Tax avoidance activities of U.S. multinational corporations. Dissertation paper. The University of Michigan.
- Rego, S.O. (2003). Tax-avoidance activities of U.S. multinational corporations. *Contemporary Accounting Research* 20(4), 805-833.
- Sebastian, L. (2010). CNCSIS-UEFISCSU, project no. PN-II-RU-PD, code 340/2010.
- Stanfield, J. W. (2011). Cash liquidity, holdings, and performance as determinants of corporate tax avoidance. Dissertation paper. Purdue University.
- Stickney, C. P., & McGee, V. E. (1982). Effective corporate tax rates, the effect of size, capital intensity, leverage, and other factors. *Journal of Accounting and Public Policy*, 1(3), 23-45.
- PricewaterhouseCoopers LLP (2011). Global effective tax rates. Retrieved from http://businessroundtable.org/uploads/studies-reports/downloads/Effective_Tax_Rate_Study.pdf
- Wu, L., Wang, Y., Luo, W., & Gillis, P. (2012). State ownership, tax status and size effect of effective tax rate in China. *Accounting & Business Research*, 42(2), 97-114.
- Zimmerman, J. (1983). Taxes and firm size. *Journal of Accounting and Economics*, 5, 119-149