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ABSTRACT

The question of whether a country's corporate tax regime has a significant influence on the level of foreign direct investment into that country is an important consideration in the design of national tax policy. This is especially true today in view of the recent increase in the global mobility of capital and subsequent increase in the importance of FDI to nations' economies. However, research to date on this question has so far yielded inconclusive results.

By obtaining evaluations from taxation experts of the various attributes of the tax systems of selected countries, this study constructs indices of corporate tax attractiveness for those countries. It then analyses the relationship between those indices and data concerning the flow of foreign direct investment into those countries.

No statistically significant relationship was found to exist between the indices and the various measures of capital inflows. However, a significant relationship was found between one of the attributes, the availability and extent of tax incentives, and the measures of FDI, suggesting avenues for further research.

PART 1 - PREAMBLE

At a time when other distortions to the free flow of international investment, such as capital controls and foreign exchange restrictions, are being removed, corporate taxation has been seen to assume an increasingly important role in determining the level and destination of foreign direct investment (FDI).

This perception, and the fact that the recently enhanced global mobility of capital has lead to the increased importance of FDI to the economic health of nations, has encouraged many national governments to be more aggressive in using tax policy to attract overseas investment. This in turn has been viewed as resulting in a process that can be described as "corporate tax competition", whereby governments seek to "outbid" each other in offering a tax-friendly environment for foreign investors. The question of whether governments are correct in believing that they can affect the flow and direction of FDI through manipulating tax policy is therefore of significance in the current international investment climate.

This paper seeks to answer this question by identifying whether a relationship exists between the "attractiveness" of countries' corporate tax regimes and their ability to attract investment to their shores, an ability manifested in measures of the inward flow of international investment. The methodology chosen involves firstly establishing a comprehensive measure of the attractiveness to investors of the corporate tax regimes of selected countries. This is accomplished through the construction of indices of corporate tax attractiveness (CTA indices). The indices are constructed from data obtained from the results of surveys of the opinions of international investors (represented by multinational corporations) and tax experts in the selected countries. Following this, the strength of relationship between those countries' indices and various measures of the inflows of FDI into those countries is statistically examined.

Even if the recent developments in international investment mentioned above had not occurred, one would intuitively expect the corporate tax regime of a potential host country to have an important influence on the decisions of foreign corporations as to whether to locate investment there. Corporate taxation is normally a significant expense to business enterprises, with a consequent effect on their projected returns from their investment overseas. However, it is important to point out here that both the country hosting the investment and the home country of the investor will normally seek to tax investment returns. Several "home" countries (including the three most important capital exporters of recent years, the U.S., Japan and the U.K.) nevertheless will normally allow the tax paid in the host country to be credited against the tax payable in the home country. In such cases, taxation in the host country becomes of relevance to the investment location decision only if it is greater than that in the home country. Thus, the extent of a corporation's liability to corporate tax is likely to depend not only on the tax regime of the host country, but also (and possibly exclusively) on that of the home country. It may therefore be the case that the influence of the tax regime of the host country alone on investors' FDI location decisions may be considerably less than one might originally suppose.[1] Since individual governments have direct control only over the tax system of their own country, it is important to obtain an understanding of the extent of that influence.

The remainder of this paper is divided as follows: Part 2 considers previous research in this area, Part 3 discusses the methodology used in the study, Part 4 sets down the findings and analyses the results, while Part 5 concludes and suggests avenues for further research.

PART 2 - PREVIOUS RESEARCH

The first part of this study involves a comparison of selected countries' corporate tax regimes through the construction of CTA indices. Several prior studies have been undertaken concerning comparisons of countries' corporate tax systems. The scope of these studies has been either global or concerned with particular trading blocs, such as the European Union. Some of these comparative studies have focused on particular aspects of tax systems, such as the statutory rates of tax (see, for example, Owens, 1993; Weichenrieder, 1995; Simmons 1997) while others have chosen to comprehensively detail all aspects of the systems under review (Cnossen, 1996). Other researchers have attempted to make international comparisons by using measures of tax which use both tax rates and tax base in their formulation, such as marginal effective tax rates (see, for example, Devereux and Pearson, 1989; Ruding, 1992; Chennells and Griffith, 1997). Commonly, these studies have been produced with the intention of examining the extent of current corporate tax differentials amongst countries and/or the changes in these differentials over time.

[1] See the author's first paper on this topic (Simmons, unpublished) for a fuller description of the conceptual issues involved here.

There has been a considerable amount of quantitative research on the effect of corporate taxation on the level and direction of FDI. Prior research was reviewed by the Ruding Committee (Ruding, 1992), which also conducted its own simulation exercise (and an empirical study: see below). Its conclusion was that corporate taxation is indeed influential in investment location decisions. Since then, further research has reinforced the conclusion that an increase in a country's level of corporate taxation leads to a decrease in inward FDI (see, for example Devereux and Freeman, 1995; Cummins and Hubbard, 1995; Devereux and Griffith, 1996).

However, not all research has lead to the same conclusion. The counter-intuitive proposition that increases in a country's corporate taxes may in fact lead to higher, rather than lower, inward foreign investment was put forward by Swenson (1994). Swenson examined direct investment into the United States during the 1980's. Citing Scholes and Wolfson (1990), who showed that an increase in host country taxes would simply reallocate the respective amounts paid to home and host treasuries, she concluded that the 1986 U.S. reforms, which *raised* taxes, nevertheless were linked to the subsequent *higher* foreign investment in the U.S.

In addition to quantitative studies, surveys have been used to obtain the views of investors as to whether corporate taxation is important in investment location decisions. These surveys have produced inconsistent results. The findings of two major surveys of recent years, those of Devereux and Pearson (1989) who surveyed U.K. multinationals, and the Ruding Committee itself (Ruding, 1992) which surveyed companies in 17 European countries, suggested that corporate taxation is commonly influential in those decisions. It is important to point out here that these surveys tended to look at taxation of profits in general without attempting to make a distinction between host and home country corporate taxation.

However, several surveys that have compared the importance of a variety of factors (including corporate taxation) in those decisions have tended to downplay the significance of corporate taxation in comparison with, for example, labour costs and the size of the host country market (e.g. Ernst and Young, 1995). Simmons (unpublished), in a global survey of multinational executives, found that, in a comprehensive list of potential factors affecting investment location decisions, taxation of profits was ranked in ninth place, behind such factors as political stability and the size of the local market. The conclusion that can be drawn from these surveys is that although corporate taxation is an important factor, it is only one of many, and usually not the most important one, in the investment location decision.

Thus the results of previous research can, taken together, be seen as inconclusive and some times conflicting, suggesting that further study using a new approach to the question would be useful. A further limitation of the prior quantitative studies is that they have commonly only focused on the level of the tax burden or those attributes of corporate tax systems, such as the statutory rates of tax, which directly affect the level of the tax burdens in the countries under review. Other attributes, such as those concerning overall qualities of the corporate tax system, for example its transparency or predictability, or those concerning its administration, such as the ease and costs of compliance, or the effectiveness of tax collection, have been in general ignored. However, it is quite possible, even likely, that investors would take these attributes into account when considering the attractiveness of a country's corporate tax system as a whole.

By constructing indices which take into account all aspects of a country's corporate tax system, this study therefore aims to provide a more comprehensive basis for investigating the relationship between corporate taxation and FDI.[2]

PART 3 - METHODOLOGY

The attractiveness of a country's tax system to potential foreign investors is a concept that is difficult to define in terms other than its consequences. One reason for this is that the concept of "tax attractiveness" is derived from various distinct attributes of a tax system. In order to determine whether a relationship exists between a country's tax attractiveness and the flows of direct investment into that country, it is thus particularly useful to construct a

[2] Foreign Direct investment (FDI) is defined here as the forming of a new business establishment overseas and the subsequent investment in that establishment's assets, or the purchase of a controlling interest in existing overseas corporations. As in the author's previous investigation into corporate taxation and foreign investment (Simmons, unpublished), only *direct* investment is considered here. Direct investment and indirect investment (portfolio investment) are affected by different factors, and so the significance of the effect of corporate taxation can be expected to

single measure of the former variable. An index, formed from evaluations of the various attributes of a country's corporate tax system, weighted as to the estimated importance of those attributes to investors in their evaluation of the corporate tax system as a whole, would constitute such a single measure.

The construction of such indices initially requires a determination of the comparative degree of importance attached by investors to each of the listed attributes of the tax system. These determinations can be used to formulate the weightings that can then be applied to the evaluations of the attributes to produce the indices.

The determinations were obtained from the results of a prior survey of executives of the world's largest multinational corporations, undertaken by the author in February 1999. In that survey, the executives were asked to evaluate, from their experience in the last five years, and on a scale of 1 (not at all important) to 10 (extremely important), the importance of listed attributes of a country's corporate tax system to their overall evaluation of that system as part of their decision whether to make a direct investment there. The comprehensiveness of the list of attributes was ensured through a review of the literature, including established texts on international investment and recently published research.[3]

A total of thirteen attributes, covering all major aspects of corporate tax systems, were included in the survey. Six of these directly concerned the level of the total tax burden (tax rate, tax base, withholding tax rate, double tax relief and the availability and extent of both loss relief and special tax incentives). Four concerned the administration of the tax (tax collection, anti-avoidance legislation, dispute resolution through tax treaties, and costs of compliance), and three concerned overall systemic qualities (transparency of the system, the stability of the system, and the predictability of tax judgements).

Thus, in that earlier study, a mean score for each attribute was ascertained.[4] For the

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differ with respect to the two forms of investment.

[3] The comprehensiveness of the list of attributes was also ensured by the inclusion of an open item for the respondent to include additional attributes if he/she considered them relevant. No additional attribute was considered necessary by any of the respondents.

[4] The respondents to the earlier survey were also asked to evaluate, on the same scale, the importance of various factors, including the taxation of

purposes of the present study, the weighting to be applied to the evaluation of each attribute was found by dividing the mean score by the sum of the mean scores for all the attributes. The mean responses from that survey and the corresponding weightings of the attributes are shown in Table 1 below.

Table 1

Importance of Corporate Tax System Attributes to the Evaluation of the Attractiveness of Corporate Tax Systems

(Mean Scores and Weightings per Attribute)

Attribute of Corporate Tax System	Mean	Weighting
1.Predictability of the tax system (in terms of future stability of rates, allowances, etc.)	7.91	0.089
2.Transparency of the tax system (i.e. preciseness of law enabling confident interpretations)	7.85	0.088
3.Predictability and consistency of tax judgements and interpretations by the courts	7.52	0.085
4.Availability and extent of relief for double taxation (through tax treaties or otherwise)	7.63	0.086
5.Other benefits from existence of relevant tax treaties (e.g. provision of a framework for the resolution of disputes)	6.63	0.075
6.Effectiveness of tax collection	5.43	0.061
7.Ease and cost of complying with tax legislation	6.08	0.068
8.Comprehensiveness and effectiveness of anti-avoidance legislation	5.59	0.063
9.Statutory corporate tax rate (include local taxes on profits, e.g. state tax, if applicable)	7.78	0.088
10.Rate of withholding tax on repatriated profit	7.53	0.085
11.Availability and size of allowances, deductions,		

profits, to their investment location decisions. The respondents' evaluations of the importance of the taxation of profits were used to weight the individual scores for the attributes in the calculation of the mean values shown in Table 1.

etc. e.g. depreciation allowances (ignore special tax incentive schemes for investment)	6.60	0.074
12.Availability and extent of loss relief	5.96	0.067
13.Special tax incentives for investment (e.g. tax holidays)	6.31	0.071
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	88.80	1.000
	====	====

Source: Simmons (Unpublished)

Having ascertained the weightings to be used in the construction of the CTA indices, the second part of the methodological procedure was to obtain an evaluation of the attractiveness of the individual corporate tax system attributes for each of the selected countries. However, since evaluations of certain attributes of countries' tax systems, especially those concerning broad qualities of the system, are difficult to perform objectively, the evaluations were therefore ascertained by surveying those who have expert knowledge and experience of the tax systems of the selected countries.

A questionnaire was drawn up, in the English language, and was sent to a sample of tax professionals in selected countries, requesting their evaluations of the various attributes of the tax systems with which they are most or very familiar. The seven selected countries were Hong Kong, Singapore, the People's Republic of China, Australia, Canada, the U.K. and the U.S.A. These countries were selected because of the diverse features of their corporate tax systems, and because of the potential ease of data collection due to the choice of sample frame (see below).

It was necessary to choose a sample frame that would provide representative responses concerning the corporate tax systems of each of the seven selected countries. The sample frame chosen was the membership listings of the Taxation Institute of Hong Kong (TIHK) and the Hong Kong Society of Accountants (HKSA). This choice was made for administrative convenience (the author is a member of both societies), but more importantly because the two societies' membership rolls contain significant numbers of tax professionals resident in all the selected countries and thus potentially expert in the tax systems of those countries. In the case of the TIHK, all members, resident both in Hong Kong and overseas, were surveyed. In the case of the HKSA, the sample frame consisted only of members resident in the selected countries other than Hong Kong. For each country in turn, the names of members resident in that country were first extracted from the full membership list and then were randomly selected according to the position of the name in the extracted list. Additionally, responses were sought from tax academics and professionals known to the author in Hong Kong and overseas.[5]

The questionnaire was divided into two parts. The first part contained four questions concerning the respondent: the nature of the business of the organisation for whom he/she worked, respondent's position within the organisation, number of years' experience in the taxation field, and main qualifications. These questions were asked in order to ascertain the authoritativeness of the responses.

The second part of the questionnaire concerned the respondents' evaluations. It commenced with a fifth question asking the respondents to identify the country or countries with whose tax system they were most or very familiar. The respondents were prompted to identify more than one country if they so chose. The sixth and seventh questions were then related to that country or countries.

These two questions asked the respondents to evaluate the attributes of the corporate tax system of the country they had identified. The attributes covered in the survey were the same as the ones in the earlier survey mentioned above, thereby ensuring the comprehensiveness of the list of attributes.

In the sixth question, the evaluation of the attractiveness of the attributes was achieved by requesting respondents to indicate their level of agreement/non-agreement, on a scale of 1 to 10, with statements concerning the attribute under consideration. In the seventh question, respondents were asked to indicate, on the same scale, the level of attractiveness to potential investors from overseas of listed attributes.

[5] This part of the selection process was then clearly not performed on a random basis. Nevertheless, as the number of survey requests made through this method was comparatively small, it was felt that overall the sample chosen was sufficiently randomly chosen to justify the use of statistical techniques in the analysis.

Lastly, the questionnaire asked the respondents if they would be willing to be interviewed, or if they would like to receive a copy of the summarised results, and if so, to provide contact details. This was done in order to improve the response rate and, if necessary, to enable further details or clarifications to the responses to be sought.

A small pilot study was undertaken, after which some minor adjustments were made to the questionnaire. The questionnaires were then posted, e-mailed, or delivered personally by hand to the sample. In the case of a posted questionnaire, a return envelope was enclosed, stamped if the respondent's address was in Hong Kong. In all cases, a covering letter was also attached, requesting the information, explaining the reason for the request, and assuring confidentiality for the replies.

A total of one thousand one hundred and eighty seven questionnaires were distributed to tax experts in the selected countries between April and June 1999. In the case of the TIHK, the full membership list is not made available to individual members or non-members; therefore, the questionnaires, covering letters and return envelopes were delivered to the TIHK and were then sent out by the Institute through its normal membership mailings.

The evaluations of the corporate tax system attributes ascertained from the present survey then had the weightings found earlier applied to them to form a CTA index. Thus, for each country:

$$\text{CTA Index} = \frac{1}{10}\sum_{i=1}^{13} a_i.w_i$$

where a_i is the ith attribute for the country and w_i is the corresponding weighting for that attribute.

This calculation produces CTA indices with a value between zero (not at all attractive) and 1 (extremely attractive).[6]

[6] Since the mean evaluations have a value from 1 to 10, a division by 10 is included in the CTA calculation to get the desired range of values for these indices.

Regression analysis was then used to determine whether a statistical relationship exists between the CTA indices of the selected countries' corporate tax regimes and measures of the inward FDI flows to those countries.

PART 4 – RESULTS

A total of 287 questionnaires were returned, representing a response rate of 24.2%. Several respondents gave sets of opinions on more than one tax system, giving a total of 322 sets of opinions.

Of these 322 opinion sets, 318 were given by respondents who described the nature of their organisation. 144 of those 318 opinion sets (45.3%) were given by respondents who owned or were employed by CPA firms, 24 (7.5%) were employed by consultancy firms, 14 (4.4%) by law firms, 104 (32.7%) by commercial firms, 22 (6.9%) by educational establishments, and 6 (1.9%) by government. 4 (1.3%) were from respondents who had retired.

314 of the sets of opinions received were given by those respondents who offered details of their position within the organisation for which they worked. Of these, 40 sets of opinions (12.7%) were given by CPAs operating as sole practitioners, 63 (20.1%) by partners of CPA, consultancy or law firms, and 105 (33.4%) by employees of such firms. 87 sets (27.7%) were given by managers or executives of commercial firms, and 19 (6.1%) by academics.

317 sets of opinions were returned by respondents who offered details of their main qualifications. All respondents who gave these details indicated that they held either an academic or a professional qualification. 147 (46.4%) of the sets of opinions were given by those who indicated that their main qualifications were professional ones, 13 (4.1%) academic ones while 157 (49.5%) indicated both professional and academic qualifications. It was likely that this last statistic was undervalued, as some respondents may have considered that only one qualification (i.e. either academic or professional) was required. Academic

qualifications indicated were at least a bachelor's degree, with a master's degree commonly being held, and, in a few cases, a Ph.D.

283 opinion sets were given by those respondents who indicated their number of years of experience in the taxation field. The mean value of the years of experience was 12.39 years.

Of the 322 opinion sets returned, 314 concerned the seven countries that were planned to be included in the analysis. 148 opinion sets were on Hong Kong's corporate tax system, 29 on Singapore's, 21 on China's, 36 on Australia's, 18 on Canada's, and 31 on each of the corporate tax systems of the U.K. and the U.S.[7]

The responses to questions 6 and 7 for the seven selected countries are given in Tables 2 and 3 below:

[7] The other eight sets of opinions concerned the corporate tax systems of countries not included in the analysis (two on New Zealand's and one on each of Sri Lanka's, Guernsey's, the Philippines', Thailand's, Russia's and Malaysia's).

Table 2

Responses to Question 6

<Question 6>
On a scale of 1 to 10 (1 = strongly disagree, 10 = strongly agree, X = don’ t know), please state your opinion on the following aspects of the current corporate tax system of the country or countries named above.

Attribute of Corporate Tax System	Evaluations						
	H.K.	Sing.	China	Aus.	Canada	U.K.	U.S.
1.The corporate tax system is predictable (in terms of future stability of rates, allowances, etc.)	8.07	8.14	4.19	7.39	7.22	7.52	7.15
2.The corporate tax system is transparent (i.e. the law is precise, enabling confident interpretations)	7.69	8.14	3.38	6.29	7.33	6.81	7.08
3.Judgements and interpretations of corporate tax law by the courts are predictable and consistent	7.09	7.32	2.71	6.48	6.88	6.63	6.84
4.The corporate tax system successfully relieves double taxation of income (through tax treaties or otherwise)	5.88	7.42	5.40	6.91	7.11	7.66	7.05
5.There is a broad system of tax treaties, through which disputes can be resolved, etc.	4.86	7.00	5.76	7.44	7.25	7.39	7.43
6.Tax collection is effective	7.82	8.69	3.95	7.43	7.55	7.74	7.84
7.Complying with the corporate tax system is easy and inexpensive	7.80	7.48	4.05	4.38	4.22	4.90	4.17
8.Anti-avoidance legislation is comprehensive and effective	6.46	7.52	3.79	6.72	5.56	6.57	6.98

Table 3

Responses to Question 7

<Question7>
Please rate the following aspects of the current corporate tax system of the country or countries named above in terms of their attractiveness, in your view, to foreigners considering making a direct investment there. Please rate on a scale of 1 to 10 (1 = not at all attractive compared to other countries, 10 = very attractive, X = don't know).

Attribute	Evaluations						
	H.K.	Sing.	China	Aus.	Canada	U.K.	U.S.
9.The corporate tax rate (include local taxes on profits, e.g. state tax, if applicable)	8.74	6.90	4.95	3.80	2.61	6.57	4.76
10.The rate(s) of withholding tax on profit which is repatriated overseas	8.38	7.00	5.67	5.19	3.56	6.00	4.91
11.The availability and size of allowances and deductions e.g. depreciation allowances (ignore special incentive schemes for nvestment)	7.62	6.92	4.80	5.51	5.65	6.17	6.18
12.The availability and extent of loss relief	7.06	6.88	4.84	6.06	6.59	6.86	6.84
13.The availability and extent of special tax incentives for investment (e.g. tax holidays)	4.75	7.71	6.60	4.33	3.60	4.47	5.29

As the description of the sample frame in Part 3 suggested would be the case, most of the replies came from respondents resident in the country in whose corporate tax system they were expert. However, some responses (in the event, a much smaller number) came from tax experts not resident in the country of their tax expertise. The responses of the two groups were compared to discover if the residence of the respondent had any influence (because of cultural differences or other reasons) on the evaluations submitted. For all seven countries, an analysis of the mean evaluation scores for all attributes showed no statistically significant differences between the two groups.

A CTA index for each of the selected countries was then constructed using the weightings in Table 1 and the mean scores for the attributes listed in Tables 2 and 3. The higher a country's CTA index, the more attractive is that country's corporate tax system to foreign investors.[8]

The CTA indices together with the figures for inward flows of FDI into each country are shown in Table 4 below.

Table 4

CTA Indices and Inward Flows of FDI for the Selected Countries

Country	CTA Index	FDI Inflows* (US$ billions)
Hong Kong	0.674	7.00
Singapore	0.682	8.63
P.R. China	0.502	44.24
Australia	0.560	8.74
Canada	0.552	7.13
U.K.	0.617	37.01
U.S.	0.586	93.45

*Source: United Nations (1999)

[8] In both questions 6 and 7, the statements were in most cases, designed so that the greater the perceived attractiveness of the attribute, the greater the score which the respondent would record. However, in order to avoid a potential demand effect, in some cases (referring to the effectiveness of tax collection and the anti-avoidance legislation) the statements were designed so that the reverse would be the case, i.e. the *less* attractive the attribute the higher the score. In these cases, the mean scores were adjusted before being entered into the calculation of the indices. The necessary adjustment was to reverse the direction of the scale (achieved by subtracting the mean score from 11).

The relationship between the CTA indices and the FDI inflows into the selected countries was then analysed using linear regression. It was found that no statistically significant relationship exists between these two sets of variables.

The analysis was repeated using other measures of FDI inflows for the selected countries. These were FDI inflows as a percentage of GDP, and FDI inflows as a percentage of world FDI inflows. Further, as the volatility of year-to-year country FDI inflows was considered high, the analysis was also repeated using three-year averages for the above measures of FDI. No significant relationship was observed between the CTA indices and the above measures.

Regression analysis was also used to determine whether a relationship exists between the CTA indices and each of the thirteen individual tax system attributes. A statistically significant relationship (at a five percent level of significance) was found between one of these attributes, the thirteenth, pertaining to the availability and extent of special tax incentives for investment, and FDI as a percentage of GDP for 1998 ($p = 0.031$, adjusted $R^2 = 0.569$, standardised Beta coefficient = 0.8). A significant relationship was also found between this attribute and the average of that percentage for the period 1996 and 1998 ($p = 0.007$, adjusted $R^2 = 0.748$, standardised Beta coefficient = 0.889).

Thus, from the above analysis, there is no evidence that the overall attractiveness of a country's corporate tax system has a significant observable effect on the inflows of direct investment into that country. However, some evidence exists of a connection between the availability and extent of tax incentives offered by the selected countries and certain measures of the FDI flows into those countries.[9]

[9] This result may be contrasted with the results of the previous survey, where this attribute is perceived to be comparatively unimportant (see Table 1). The conflicting results suggest a disparity between investors' perceptions of the importance of tax incentives, and its importance in reality as shown by the regression analysis. Why this disparity exists might form the subject of future research.

Finally, factor analysis was used to detect any factors underlying the response data. The analysis revealed that an important underlying factor is one consisting of the attributes concerned with tax treaties.[10]

PART 5 – CONCLUSIONS AND FURTHER RESEARCH

This study constructs indices of corporate tax attractiveness for selected countries and then examines the relationship between those countries' indices and measures of the flow of FDI into those countries.

Countries were originally selected on the basis of the wide variety in their corporate tax systems, and this was reflected in the large differences that were found between countries in the mean scores for the individual attributes. However, when the CTA indices were calculated for the different countries, it was notable that the indices fell within a narrow range. For example, in Hong Kong, the corporate tax system's attractiveness to investors lies in its simplicity, stability and low rates of tax, while offering few specific tax incentives. However, it has a CTA index that is almost identical to that of Singapore, a country that has a significantly higher statutory rate of corporate tax and a multitude of specific tax incentives to appeal to investors.

A possible explanation for such a result is that, in a global environment where capital is mobile and where FDI is becoming increasingly important to the economic growth of individual countries, tax competition amongst nations for such investment would tend to

[10] A principal components analysis of the thirteen attributes was conducted, and Varimax rotation of these principal components was used to help create factors which could be identified with one or more of the original attributes. Three factors were found to explain roughly seventy percent of the variation. After discarding five attributes (6, 7, 11, 12 and 13), the factors had reasonable and meaningful interpretations. Factor 1 is a combination of attributes 1, 2 and 3, factor 2 is a combination of attributes 8, 9 and 10, while factor 3 is a combination of attributes 4 and 5. Factors 1, 2 and 3 were therefore named "systemic factor, "tax burden factor" and "tax treaty factor" respectively. Factor scores were then calculated and Pearson correlation coefficients between these scores and the measures of FDI were ascertained. No significant correlation was found between factor 1 and the measures of FDI, and between factor 2 and the measures of FDI. However, factor 3 was significantly correlated with all measures of FDI, indicating that the attributes concerning tax treaties (attributes 4 and 5) were important attributes in the relationship between

reduce differences between countries' corporate taxes (see, for example York, 1993). However, if governments view investors as rationally considering all attributes of a country's tax system in their investment decisions, this convergence would likely occur with respect to *overall* levels of corporate tax attractiveness, rather than with respect to each individual attribute of the tax systems. Thus such a process could take place while leaving large differences amongst the individual attributes of the countries' tax systems. Future research might therefore be aimed at finding evidence of whether comprehensive measures of countries' tax attractiveness, such as their CTA indices, converge over time.

The results of the regression analysis show no significant relationship between overall corporate tax attractiveness (as reflected by the CTA indices) and measures of FDI, thus providing no evidence that host country corporate taxation influences the size of FDI inflows. An initial conclusion from this finding might be that if governments wish to help their countries attract foreign investment, they should use means other than the corporate tax system to do so. However, one individual tax attribute, the availability and extent of specific tax incentives, showed a significant relationship with certain measures of FDI. This relationship could be the result of statistical chance. It could, however, be argued that the "headline" characteristic of such incentives (by their nature, they are likely to be heavily advertised overseas), and their potential impact on the taxation of investment returns (they can, for example, mean that tax is not chargeable on those returns for several years), make FDI inflows particularly sensitive to their existence. However, this finding contrasts with the reports of several countries in the OECD and Eastern Europe that tax incentives have been ineffective in attracting international investors (see OECD, 1995). It also conflicts with the findings of the author's earlier survey, which found a comparatively low level of importance attached to specific tax incentives by international investors (see Table 1 above).

Nevertheless, these preliminary results suggest that the above relationship is worthy of further research. Also, from the results of the factor analysis, it appears that further study into the relationship between countries' tax treaty attributes and their inward FDI flows might be useful.

Certain limitations of the above analysis should be noted. Due to resource constraints, the corporate tax systems of only seven countries were included in the research. Thus, due to

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corporate taxation and the measures of FDI.

the small number of countries involved in the study, the analysis of the results of the regression analysis can only be considered as exploratory. Future research that collects data from a larger number of countries may be necessary to confirm the nature of the relationships investigated here.

A further limitation concerns the FDI data, whose volatility over time has already been noted. Research that uses FDI data faces the additional problem that the definition of what constitutes FDI is not consistent across countries, or even, in the case of some countries, through time. An example of such inconsistency is that for some countries, retained earnings by overseas subsidiaries are included in the definition of FDI, while in others it is not. Therefore, although all efforts are made to be consistent in data selection, problems of data comparability inevitably remain.[11]

Also, one would ideally wish to compare the CTA indices with FDI data of the same year. However, the latest FDI data currently available is that pertaining to 1998 while the CTA indices are compiled from 1999 data. Therefore, the analysis requires an assumption that no significant changes were made to the attributes of the countries' tax systems between 1998 and 1999, and thus the indices adequately reflect the tax systems' attractiveness in 1998. A review of changes to the tax systems of the seven selected countries between 1998 and 1999 suggests that this assumption is a reasonable one.

This study is also subject to the usual limitations imposed by the survey approach, including the possibility of unrepresentative replies, and also by the use of a numerical scale that may be interpreted differently by the respondents even though they might possess identical opinions.

[11] See the United Nations (1999) for more information on the comparability of the data compiled in its yearbooks. See also Chennells and Griffith (1997) for a discussion of the problems associated with the comparability of recorded FDI data.

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