SURVEY OF IN-HOUSE TAX DEPARTMENTS IN UNITED KINGDOM CORPORATES

by

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ABSTRACT

Managing cash tax liabilities to gain maximum financial advantage should be a key corporate objective. However, this involves satisfying simultaneously the divergent, and increasingly demanding, requirements of tax compliance and tax planning work. It also raises questions as to how companies should organise their tax work. Benchmarks are a useful aid in answering such questions.

In order to facilitate establishing some benchmarks, information was sought from 434 major UK-based and inward investor corporates. Of the 156 (36%) useable responses, 134 (86%) were from organisations with in-house tax departments and 22 (14%) from those without. The responding companies represented all of the major industrial sectors and varied widely in size and profitability. In 1995 they paid a total of £8 billion in UK corporation tax and £6 billion in overseas tax.

The survey results provide information about, inter alia, *the incidence of in-house tax departments in major UK corporates; reasons for their establishment/non-establishment; the amount, cost and type of tax work performed by in-house and shadow tax departments and by external experts; the hardware and software used in in-house tax departments; and the potential for, attitudes to, and use made of positive tax planning techniques. The survey also identified ways - particularly in relation to information technology and the allocation of tax work between in-house and shadow tax departments - where the efficiency and effectiveness of corporate tax functions could be improved.*

INTRODUCTION

Shareholder value analysis is the single most useful technique for valuing and appraising a company. This was the finding of a survey of senior equity investment analysts in 52 of the largest fund management organisations in the United Kingdom (UK) (Plasschaert, 1994). The survey also found that one of the most important drivers of shareholder value is a company's cash tax rate (that is, tax paid compared to accounting profit as distinct from accounts tax charge compared to accounting profit). It follows from the survey's findings that managing cash tax liabilities to gain maximum financial advantage should be a key corporate objective. However, this presents a major challenge to corporate tax managers as managing cash tax liabilities has two major divergent components, namely, (i) ensuring that the company's compliance work is performed effectively but at minimum cost (compliance component) and (ii) ensuring that the company's affairs are arranged in such a way, within the existing legislation, as to secure the minimum levels of tax payment (planning - or value-added - component).

Not only are these components divergent, they are each gaining in significance as governments around the world seek to increase their tax revenue and decrease their collection costs. The burden of tax compliance costs is increasing as tax legislation (world-wide) increases in complexity and requires taxpayers to provide more information[1]. At the same time, as the revenue-raising net of governments is spread more widely and companies' (potential) tax liabilities are correspondingly expanded, so directors are motivated to seek ways to arrange their companies' affairs so as to exploit every legitimate opportunity to reduce their companies' tax burden.

Given the need to satisfy simultaneously tax compliance and tax advisory requirements, the question arises as to how a company should organise its tax work. For example, should it establish an in-house tax department[2] and, if so, should this department perform both the company's tax compliance and its tax advisory work? Is it more efficient for the compliance work to be undertaken by - say - the accounting function or even be outsourced? Should outside experts be employed to fulfill part or all of the advisory role? Do the answers to these and similar questions vary with the size, industry sector and/or multinational/national nature of the organisation?

Benchmarks[3] are a useful aid in formulating answers to such questions, and also for enabling tax managers to evaluate and improve their performance. However, in order to establish benchmarks, information on current practice is needed. In 1995, Price Waterhouse (1995) surveyed 50 major UK corporates [including 33 from the Financial Times (FT) Top 100 companies] with a view to collecting data to facilitate establishing some initial benchmarks for tax functions - and in-house tax departments in particular. As an outcome of that survey, a need for further information in respect of five key topics relating to the tax functions of major UK corporates was identified, namely:

i) the tax work performed by in-house and/or 'shadow' tax departments and/or by outside experts;
ii) factors encouraging/discouraging the establishment of in-house tax departments;
iii) the costs of maintaining in-house tax departments;
iv) the use of information technology by in-house tax departments;
v) attitudes to, and use made of, positive tax planning techniques.

In response to the identified need for information in these areas, in 1996 Price Waterhouse commissioned Cranfield School of Management to conduct a further survey. This paper reports the methodology and results of the 1996 survey.

RESEARCH METHODOLOGY

In order to ensure that sufficient information was gathered to enable reliable benchmarks to be established, and also to facilitate a comparison between UK-based and inward investor corporates, the 1996 survey included a larger and broader sample of companies than the 1995 survey. The survey sample included the largest 242 companies (by market capitalisation) in the FT Top 500 companies (FT cos) and the largest 192 companies quoted in Jordan's (1996) listing of inward investors (IIs)[4]. As is shown in Figure 1, 156 usable responses were received (an overall usable response rate of 36%). Of the 156 responding companies, 134 (86%) had in-house tax departments (104 of the FT cos and 30 of the IIs) and 22 did not (6 FT cos[5] and 16 IIs).

Figure 1: Groups included in the survey and their response rates

Survey Group	No. in Survey	Blank or unusable responses	No Response	Usable Responses No.	Usable Responses %	In-house tax department Yes	In-house tax department No
FT Companies	242	77	55	110	45	104	6
Inward Investors	192	48	98	46	24	30	16
Total No.	434	125	153	156		134	22
%	100	29	35		36	86	14

The tax managers[6] of the survey companies received a questionnaire containing five sections[7]. These were as follows:

1. The first section sought general information about the company - its industrial sector, size, reportable geographical sectors, tax payments, and the importance accorded to tax matters by the company's board of directors.

2. The second section applied only to companies *with* in-house tax departments. The tax managers of these companies were asked to provide information about:

- the perceived advantages and disadvantages of establishing in-house tax departments;
- the reportable geographical sectors (including the UK) in which the company had an in-house tax department and the tax work performed by these departments;
- the tax work performed in the UK by departments other than the in-house tax department (that is, by shadow tax departments);
- the estimated cost of, and tax work performed by, outside experts employed in the UK and in other reportable geographical sectors;
- the costs of maintaining in-house tax department(s) in the UK;
- evaluation of the in-house tax department's performance;
- whether or not the in-house tax department should be expanded - and reasons therefor;
- satisfaction (or otherwise) with work performed by outside experts;
- information technology used by the company's in-house tax department(s) in the UK.

3. Section three applied only to companies *without* in-house tax departments. The person responsible for tax matters in these companies was asked to indicate:

- whether their company had considered establishing an in-house tax department;
- the importance of factors encouraging or discouraging the establishment of such departments;
- the tax work performed in the UK by various departments within the organisation;

- the estimated cost of, and tax work performed by, outside experts employed in the UK and in other reportable geographical sectors;
- satisfaction (or otherwise) with work performed by these experts.

4. Section four, which all respondents were asked to complete, sought information regarding the company's potential for, attitude to, and use made of, positive tax planning techniques.
5. In the final section, respondents were asked to indicate any changes in the performance of tax work in their organisation they anticipated would occur within the following 12 months. They were also invited to add any further comments they wished in relation to the survey or to in-house tax departments in general.

The survey instrument was pilot-tested amongst six representatives of the survey sample - including both FT cos and IIs and companies with and without in-house tax departments. As a result of comments received the questionnaire underwent minor amendment, primarily to eliminate ambiguities in some of the questions asked. The questionnaire was mailed in July 1996 and was followed up by two further mailings to non-respondents in August and September 1996. As noted above, a usable response rate of 36% was achieved. Although this rate is relatively high for surveys of this type in the UK, it leaves open the possibility of non-response bias. However, as the responses received from the second and third mailings did not differ significantly from each other or from those received from the initial mailing, it seems reasonable to assume that the results obtained are generally representative of the population from which the survey sample was drawn.

The questionnaire data was collated and tested using SPSS. Pearson's r statistic was used to test for correlation between the presence/absence of an in-house tax department and company variables such as size and industrial sector; the Mann-Whitney test was used to test the significance of differences in the responses from the FT cos compared with those from the IIs, and between the responses from companies with and those without in-house tax departments. In each case a significance level of 0.05 was adopted.

PROFILE OF PARTICIPATING COMPANIES

As may be seen from Figure 2, the survey included companies from all of the major industrial sectors and covered a wide range of company sizes and profitability levels. Compared with the FT cos, the IIs had greater representation in the financial services sector but less in the manufacturing, retail and distribution, and utilities and media sectors. The IIs also tended to be smaller than the FT cos - about 46% of the IIs reported turnover and total assets of less than £500 million compared with about 15% of the FT cos; similarly, while 68% of the IIs reported either losses or profits of less than £100 million, only 29% of the FT cos did so.

Figure 2 also shows that the survey companies with in-house tax departments had greater representation in the manufacturing, utilities and media, and primary industries sectors than those without in-house tax departments but the latter were more represented in the retail and distribution and leisure sectors. Notwithstanding these observations, there is no discernible correlation between the presence/absence of an in-house tax department and a company's industrial sector (r = .03, p = .72). However, this does not apply to the presence/absence of an in-house tax department and company size. As Figure 2 indicates, larger companies are much more likely to have an in-house tax department than smaller companies. The factors are

Figure 2: Industrial sectors, size and profitability of respondent companies

	Total			**FT Cos**			**Inward Investors**		
		Tax Dept[1]			**Tax Dept[1]**			**Tax Dept[1]**	
	All	**Yes**	**No**	**All**	**Yes**	**No**	**All**	**Yes**	**No**
No. in respondent group	*156*	*134*	*22*	*110*	*104*	*6*	*46*	*30*	*16*

Industrial Sectors	%	%	%	%	%	%	%	%	%
Manufacturing	25	26	19	28	28	33	18	20	13
Retail and Distribution	23	19	38	24	22	50	18	10	33
Financial Services	19	19	19	13	14	0	33	37	27
Utilities and Media	19	21	10	21	22	0	15	17	13
Primary Industries[2]	5	6	0	5	5	0	7	10	0
Leisure	5	5	14	5	5	17	7	3	13
Property and Construction	4	4	0	5	4	0	2	3	0
Size - Turnover									
⇔£200 million	13	6	50	6	6	0	30	7	69
£201-500 million	11	9	27	9	6	50	17	17	19
£501 million - £1 billion	13	12	18	13	13	33	11	10	13
£1-2 billion	17	19	0	19	20	0	11	17	0
£2-5 billion	23	26	5	29	29	17	11	17	0
> $5 billion	23	27	0	25	26	0	20	31	0
Size - Total Assets									
⇔£200 million	15	6	64	5	4	17	37	10	81
£201-500 million	11	8	27	11	7	0	9	10	6
£501 million-£1 billion	19	21	5	21	22	83	13	17	6
£1-2 billion	15	18	5	16	18	0	13	17	6
£2-5 billion	18	21	0	23	24	0	7	10	0
>£5 billion	23	27	0	24	25	0	22	35	0
Size - Profits (Loss)									
(Losses)	7	6	5	6	5	0	9	11	6
⇔£100 million profit	33	23	91	23	20	83	59	37	94
£100-£200 million profit	19	22	5	23	25	17	7	11	0
£201-£500 million profit	19	23	0	22	24	0	11	19	0
£501 million-£1 billion profit	12	14	0	16	17	0	2	4	0
>£1 billion profit	10	12	0	10	10	0	12	18	0

1. In-house tax department
2. Includes mining and oil

correlated whether size is measured by turnover ($r = .37$, $p = .000$) or by total assets ($r = .40$, $p = .000$) and applies to both the FT cos and IIs.

The respondent companies are mostly multinational: 69% have reportable geographical sectors outside the UK - primarily in the USA, Europe and the Far East. The importance of overseas interests is also reflected in the overseas tax paid by the companies - a little more than £6.0 billion (FT cos £4.5 billion and IIs £1.5 billion). They also paid a total of just over £8.0 billion (FT cos £7.3 billion and IIs £0.76 billion) in UK tax. This represents about 45% of the total corporation tax paid in the UK in 1995 (Board of the Inland Revenue, 1996) and demonstrates the importance of the respondent companies in the UK tax arena.

As regards the importance of tax matters within the survey companies, 81% of the tax managers (85% of those in FT cos and 74% in IIs) reported that, in their opinion, tax considerations have ‘some’ or a ‘major’ effect on their Board of Directors’ business decisions. However, only 56% (62% in FT cos and 43% in IIs) believe that their company’s directors accord ‘considerable’ or ‘very great’ importance to minimising tax liabilities.

PERFORMANCE OF TAX WORK

In any organisation tax work may be performed by an in-house tax department and/or by one or more shadow tax department(s) (that is, tax work undertaken in accounts, personnel, legal or other departments) and/or by outside experts. As noted above, 134 of the 156 (86%) respondent companies had in-house tax departments. Of those without such departments, two tax managers (one each from an FT co and an II) reported that their companies planned to establish an in-house tax department within the next three years; a further 12 (two from FT cos, 10 from IIs) signified that their companies had considered but decided against establishing such a department.

Respondents (whether or not their organisation had an in-house tax department) were asked to indicate the relative importance of various factors in encouraging or discouraging the establishment of an in-house tax department. They were asked to signify their answers on a 4 point scale ranging from 1 ‘not important’ to 4 ‘very important’. Thus, the closer the mean of a survey group’s responses to 4.0 the more important the group considered the factor to be: conversely, the closer the mean is to 1.0, the less important the group adjudged the factor.

Although moving from an assessment of 'important' to 'unimportant is clearly a gradual process, for the purposes of the survey, 2.0 has been taken as the point of separation.

From Figure 3 it may be seen that each of the respondent groups considered all four of the 'encouraging factors' to be important (the means of their responses all exceed the important/not important cut-off by a significant margin). However, as might be expected, the respondents from companies with in-house tax departments were more agreed as to the factors' importance than were those from companies without such departments (the means of their responses are higher than those from companies without in-house tax departments). As regards the relative importance of the factors, the tax managers of the FT cos considered reducing the company's tax liabilities to be the most important: to the IIs' tax managers this was one of the two least important factors. For the latter group, in-house tax departments being more cost effective than the alternatives was the factor of prime importance. The disparity in the importance attributed to reducing tax liabilities by the FT cos' and IIs' tax managers is consistent with these managers' assessment (noted earlier) of the importance accorded this matter by their company's directors (62% of the FT cos' respondents believed their company's directors place 'considerable' or greater importance on reducing tax liabilities compared with 43% of the II's respondents).

Figure 3: Reasons for establishing/not establishing in-house tax departments

		Total			**FT cos**			**Inward Investors**	
No. of respondents in group		*156*			*110*			*46*	
Has an in-house tax department in UK		86%			95%			65%	
		Tax Dept			**Tax Dept**			**Tax Dept**	
Factors encouraging establishment of in-house tax departments	**All** mean[1]	**Yes** mean[1]	**No** mean[1]	**All** mean[1]	**Yes** mean[1]	**No** mean[1]	**All** mean[1]	**Yes** mean[1]	**No** mean[1]
Reduces company's tax liabilities	3.2	3.2	2.9	3.3	3.3	3.0	2.9	3.0	2.8
More cost effective than alternatives	3.1	3.2	3.0	3.1	3.1	3.0	3.2	3.2	3.0
Increases tax expertise in company	3.0	3.1	2.5	3.1	3.1	2.5	2.9	3.1	2.6
Reduces risk of non-compliance	3.0	3.1	2.6	3.0	3.1	2.5	3.0	3.1	2.7
Factors discouraging establishment of in-house tax departments									
Tax issues too complex for in-house	2.0	1.9	3.0	1.9	1.8	3.0	2.4	2.0	2.9

staff									
More efficient to purchase required tax expertise	2.0	1.9	3.0	1.9	1.9	3.2	2.2	1.8	3.0
Insufficient work to justify an in-house tax department	1.9	1.7	3.2	1.7	1.7	2.5	2.3	1.5	3.5

1 The closer the mean is to 4.0, the more important respondents considered the factor to be; the closer the mean is to 1.0, the less important respondents adjudged the factor.

Regarding the 'discouraging factors', Figure 3 reveals that each of the factors was adjudged to be of importance by respondents from companies without in-house tax departments but not so by those from companies with in-house tax departments. As for the 'encouraging factors', this result is as might be expected. However, the disparity in the importance accorded the factor 'insufficient work to justify establishing an in-house tax department' by the tax managers from IIs without in-house tax departments compared to their FT cos counterparts was not expected. To the IIs' tax managers this factor is of considerable importance (their responses have a mean of 3.5) but to the FT cos' managers it is the least important factor (their responses mean is 2.5). To the latter group, the main reason for not establishing an in-house tax department is the greater efficiency of buying in tax expertise as and when required. It is postulated that the disparity attaching to the "insufficient work" factor may be traced, at least in part, to the size of the IIs compared to that of the FT cos. As noted earlier (and shown in Figure 2) the IIs tend to be smaller than the FT cos and, as a consequence - to the extent that tax work is a factor of size - they have less tax work to do. Support for this proposition is provided by the results of tests for correlation between company size and the responses of tax managers from companies without in-house tax departments to the "insufficient work" factor (based on turnover, $r = -.53$, $p = .01$; based on total assets, $r = -.42$, $p = .05$). However, it is probable that the nature of the IIs compared to the FT cos is also a contributing factor. The IIs (as such) have parent companies (or head offices) outside the UK and it seems likely that some of the tax work (particularly the non-compliance component) is performed in the 'head office' - thus leaving less work to be completed in the UK.

Once an in-house tax department is established, it might be expected that its performance would be evaluated regularly. Yet, as Figure 4 shows, about 9% of these departments are never evaluated and a further 4% are evaluated bi-annually (10% in each case for the IIs). Nevertheless, about 91% of the FT cos' and 79% of the IIs' in-house tax departments are evaluated once or more times a year.

Figure 4: Evaluating the performance of in-house tax departments

	Total	**FT cos**	**IIs**
No. of respondents in group	*134*	*104*	*30*
Frequency of performance evaluation	%[1]	%[1]	%[1]
Monthly, quarterly or half-yearly	21	22	9
Half-yearly	14	11	17
Annually	64	58	53
Bi-annually	4	1	10
Never	9	8	10
Importance of factors in performance evaluation	mean[2]	mean[2]	mean[2]
'No surprises'	3.5	3.5	3.2
Achieving tax savings	3.4	3.4	3.3
Accounts tax rate	3.3	3.4	2.8
Achieving set objectives	3.2	3.1	3.3
Compliance work up to date	3.1	3.1	3.1
Minimising tax penalties	3.1	3.1	3.0
Cash tax paid	2.7	2.9	2.3
Adherence to budgeted costs	2.7	2.7	2.7

1 % of respondents in group responding to the question.

2 The closer the mean is to 4.0, the more important respondents considered the factor to be; the closer the mean is to 1.0, the less important respondents adjudged the factor.

In relation to evaluating in-house tax departments' performance, respondents were asked to indicate (on a 4 point scale) the relative importance of various factors in the evaluation. As may be seen from Figure 4, the two most important factors overall are 'no surprises' and 'achieving tax savings'. (These were considered to be of particular importance by FT cos' tax managers). Given the importance of reducing tax liabilities as a reason for establishing in-house tax departments (noted above), the importance of 'achieving tax savings' in the departments' performance evaluation is not unexpected. However, the relative importance of the 'accounts tax rate' (particularly in the FT cos) and the relative unimportance of 'cash tax paid' (particularly in the IIs) in the evaluation process is somewhat surprising. Given the significance of the cash tax rate to shareholder value and given the correlation between the accounts tax rate and pre-tax profit (and, hence, its susceptibility to discretionary factors such as choice of accounting policies), the ranking of the accounts and cash tax rates might have been expected to be reversed. A possible explanation for the relative lack of importance of the cash tax rate in evaluating the IIs' in-house tax departments may be found by considering this factor in conjunction with the relatively high level of importance placed on achieving set objectives and ensuring that compliance work is up to date, and taking due cognisance of the size and nature of the IIs. As noted earlier, these companies tend to be smaller than the FT cos and (as IIs) their parent companies (or head offices) are outside the UK (primarily in the USA). It is possible that much of the tax planning work is performed in the company's 'head office' in-house tax department and that emphasis in the UK is on compliance work and meeting set objectives.

As part of the survey tax managers from companies with in-house tax departments were asked to indicate whether their organisation's department should be expanded and to give reasons for their answer. Forty four respondents (36%) answered in the affirmative (34% of those from FT cos, 45% from IIs) and 78 respondents (64%) in the negative (66% and 55%, respectively, of respondents from the FT cos and IIs). The four main reasons cited in favour of expanding the in-house tax department were:

i) to exploit further tax savings opportunities (cited by 11 respondents: 8 from FT cos, 3 from IIs);

ii) to increase control over the company's tax affairs (8 respondents: 6 from FT cos, 2 from IIs);

iii) the expertise currently available is underutilised (7 respondents: 5 from FT cos, 2 from IIs);

iv) to reduce the need to buy in tax expertise (5 respondents: 2 from FT cos, 3 from IIs).

The main reasons provided by respondents who answered in the negative were:

i) the in-house tax department already deals with all tax related issues (26 respondents: 22 from FT cos, 4 from IIs);

ii) the tax team should concentrate on technical issues; routine compliance work should be devolved to other areas of the organisation (20 respondents: 19 from FT cos, 1 from an II);

iii) the current balance between in-house and external expertise is satisfactory (5 respondents: 4 from FT cos, 1 from an II).

Regarding the amount of tax work undertaken by in-house and shadow tax departments, Figure 5 indicates that more tax work is performed by in-house tax departments in the FT cos than in the IIs; while 64% of in-house tax departments in the FT cos spend between 3 and 10 man years on tax work, 62% of those in the IIs spend between 1 and 5 man years in this way. This difference may be the result of the IIs tending to be smaller than the FT cos (noted earlier). Nevertheless, it is surprising that in both the FT cos and IIs more tax work tends to

Figure 5: Performance of tax work by in-house tax departments

	All	**FT Cos**	**IIs**
No. of respondents in group	*134*	*104*	*30*
Time devoted to tax work in UK	%[1]	%[1]	%[1]
<1 man year	0	0	0
1-2 man years	26	21	41
3-5 man years	34	39	21
6-10 man years	26	25	28
>10 man years	14	15	10
Average % of total tax work time in UK devoted to:	%[1]	%[1]	%[1]
Corporate income tax - national	30	31	27
- foreign	3	2	5

Indirect taxes - national	13	13	12
- foreign	1	1	1
Stamp and capital taxes	1	1	2
Payroll and employer taxes	7	6	9
Planning transactions - national	14	15	12
- foreign	8	8	7
Planning reorganisations	6	5	8
General tax advice	10	10	11
Calculating annual tax charge	6	7	4
Industry specific taxes	1	1	2

1 % of respondents in group responding to the question..

be performed by shadow tax departments in companies with in-house tax departments than in those without. Intuitively, the reverse situation might be expected to apply. As may be seen from Figure 6a, although in some 60% of companies with an in-house tax department less than one man year is spent on tax work in shadow tax departments, in 21% of such companies more than 3 man years is spent on tax work in these departments. This compares with about 97% of companies without an in-house tax department in which one to two man years is spent on tax work in shadow tax departments.

Considering the relative importance of the various types of tax work performed in the FT cos and IIs by in-house tax departments, shadow tax departments and external experts, Figures 5 and 6 show that, overall, there is little significant difference between the two survey groups. The in-house tax departments of both the FT cos and IIs devote about 33% of their tax effort to corporate income tax (national and foreign) and a further 22% to indirect taxes (national and foreign). This work is essentially compliance in nature - as is stamp and capital taxes, payroll and employer taxes, and calculating the annual tax charge. Thus, some 61% of in-house tax department time is devoted to compliance work. This compares with about 38% of time spent on tax planning and advisory (value adding) activities (see Figure 5). Given the routine nature of much of the compliance work it would seem that the value of in-house tax departments could be increased if some (or most) of the compliance work was devolved to shadow tax departments and more in-house tax department time was spent on tax planning and advisory work.

As Figure 6a shows, the tax work of shadow tax departments in all of the survey groups is dominated by payroll and employer taxes. In many cases, 100% of time spent by personnel departments on tax work is devoted to these taxes and, overall, they account for about 43% of shadow tax department tax work time. The next most significant taxes in terms of shadow tax department time are corporate income tax-national, and indirect taxes-national. In each case, this work accounts for about 18% of shadow tax department time in the FT cos and 14% in the IIs. The importance of these and other taxes involving compliance work in shadow tax departments is to be expected.

Once a company has established an in-house tax department it might be expected that the tax planning and advisory work would be concentrated in this department and that the shadow tax departments would be primarily concerned with compliance work. This is reflected in the proportions of time spent on planning and advisory activities by shadow tax departments in companies with, as compared to those without, in-house tax departments. In FT cos with in-

Figure 6: Performance of tax work in shadow tax departments and by external experts

	Total			**FT cos**			**Inward Investors**		
		Tax Dept			**Tax Dept**			**Tax Dept**	
	All	**Yes**	**No**	**All**	**Yes**	**No**	**All**	**Yes**	**No**
No. of respondents in group	*156*	*134*	*22*	*110*	*104*	*6*	*46*	*30*	*16*
a) SHADOW TAX DEPARTMENTS	%[1]	%[1]	%[1]	%[1]	%[1]	%[1]	%[1]	%[1]	%[1]
Time devoted to tax work in UK									
<1 man year	49	60	0	53	56	0	44	69	0
1-2 man years	33	20	97	28	24	100	41	9	96
3-5 man years	9	10	0	10	10	0	7	11	0
6-10 man years	5	6	3	5	6	0	5	7	4
>10 man years	4	4	0	4	5	0	3	4	0
Average % of total tax work time in UK devoted to:									
Corporate income tax - national	17	17	16	19	19	15	14	12	16

- foreign	1	.5	3	.5	1	1	2	0	3
Indirect taxes - national	17	19	11	18	18	19	15	22	10
- foreign	1	1	1	.5	.5	0	1	2	1
Stamp and capital taxes	1	1	1	1	1	1	0	0	1
Payroll and employer taxes	43	44	39	43	43	40	42	45	39
Planning transactions - national	3	1	10	2	1	8	6	1	10
- foreign	2	.5	6	.5	0	4	4	1	6
Planning reorganisations	1	.5	2	.5	.5	3	1	0	2
General tax advice	3	3	5	2	2	6	5	5	5
Calculating annual tax charge	5	5.5	6	5	6	3	6	4	7
Industry specific taxes	6	8	0	8	8	0	4	8	0
b) EXTERNAL EXPERTS									
Average % of total tax work time in UK devoted to:									
Corporate income tax - national	15	12	32	12	11	37	22	16	31
- foreign	3	3	3	2	2	4	4	5	3
Indirect taxes - national	7	7	6	7	7	10	7	8	5
- foreign	1	1	1	1	1	3	1	1	0
Stamp and capital taxes	0	.5	1	0	0	1	1	1	1
Payroll and employer taxes	6	6	5	5	5	9	8	11	4
Planning transactions - national	27	30	14	31	32	8	20	23	16
- foreign	12	12	8	13	14	5	8	8	8
Planning reorganisations	10	11	2	10	10	2	10	14	3
General tax advice	14	14	13	15	15	11	11	10	13
Calculating annual charge	4	2	14	2	2	8	7	2	16
Industry specific taxes	1	1.5	1	2	1	2	1	1	0

1. % of respondents in group responding to the question

house tax departments about 3.5% of shadow tax department time is spent on tax planning and advisory work compared with about 21% of time in FT cos without in-house tax departments. (In the IIs the comparative proportions are 7% and 23%, respectively; see Figure 6a). However, contrary to expectations, significantly more time is devoted to corporate income tax-national in shadow tax departments in FT cos with in-house tax departments than in those without (19% compared to 15%). Similarly, the shadow tax departments of IIs with in-house tax departments spend a significantly greater proportion of their time on indirect taxes-national (22%) than their counterparts in IIs without in-house tax departments (10%). The former finding may result from the smallness of the sample of FT cos without in-house tax departments. The latter may reflect, in part, the nature of the IIs with in-house tax departments. As noted earlier, 37% of the IIs with in-house tax departments are in the financial services sector and these companies, almost certainly, encounter difficult problems relating to indirect taxes-national [that is, problems associated with partial exemption from value added tax (VAT)]. These problems are likely to be handled in the accounts, rather than in-house tax departments. However, detailed analysis of the survey results revealed that only about 30% of the time spent on indirect taxes-national in the shadow tax departments of IIs with in-house tax departments is accounted for by companies in the financial services sector - a further 35% is accounted for by companies in the utilities and media sectors.

The relative importance of the various types of tax work performed by external experts differs to some extent between the FT cos and IIs but varies quite markedly between companies with and without in-house tax departments. As may be seen from Figure 6b, the primary use of external experts in companies with in-house tax departments is for planning transactions (national and foreign), planning reorganisations, and general tax advice. These activities account for 71% and 55%, respectively, of external experts' time in FT cos and IIs with in-house tax departments. This finding seems counter-intuitive. It might be expected that if a company has an in-house tax department, that department would include tax experts who could perform the company's tax planning and advisory work. A possible explanation of the finding is that, as the companies with in-house tax departments tend to be larger than those without, they have more tax planning opportunities. Further, as these companies possess their own tax experts, they may be more aware (than those without such experts) of the advantages to be gained from careful tax planning.

In companies without in-house tax departments, external experts are used primarily to assist with corporate tax-national. (This accounts for 37% and 31%, respectively, of external experts' time in FT cos and IIs without in-house tax departments). It is suggested that this reflects the need for shadow tax departments in companies without in-house tax departments (and tax specialists) to rely on external experts to assist them when they encounter difficulties in complying with UK corporate income tax legislation.

As an element of the survey, respondents were asked to indicate whether they believed their organisation gets value for money when buying in tax expertise. The tax managers of companies with an in-house tax department were also asked to give reasons for their answer[8]. Overall, 87% of respondents (77% of those from FT cos and 59% from IIs) answered in the affirmative. The main reasons cited for believing the organisation gets value for money from the external experts were as follows:

i) expertise is bought in for specialist areas for which it is not cost-effective to maintain in-house expertise (28 respondents: 19 from FT cos, 9 from IIs);

ii) tax expertise is purchased for purposes which are carefully specified (17 respondents: 16 from FT cos, 1 from an II);

iii) value for money is obtained as a result of good co-operation and communication between the company's tax personnel and the external experts (16 respondents: 15 from FT cos, 1 from an II).

The chief reasons provided by the respondents who considered their organisation does not get value for money from their external experts were:

i) the lack of desire on the part of the supplier to be efficient (10 respondents: 5 from FT cos, 5 from IIs);

ii) the relatively high cost of external tax experts compared with that for other types of external expertise (8 respondents: 7 from FT cos, 1 from an II);

iii) the failure by the external advisors to understand the business (6 respondents: 2 from FT cos, 4 from IIs).

COSTS OF TAX WORK

Looking at the costs of tax work, Figure 7a shows that, on average, the cost of tax work in the survey companies in the UK in 1995 amounted to nearly £1million: £519,000 on maintaining in-house tax departments (£557,000 in the FT cos and £391,000 in the IIs); £225,000 on tax work in shadow tax departments (£233,000 in the FT cos and £209,000 in the IIs) and £224,000 on external expertise (£224,000 and £223,000 in the FT cos and IIs, respectively).[9] The difference between the FT cos' and IIs' in-house and shadow tax department costs corresponds with the greater amount of tax work effort (expressed in man years) in both of these departments in the FT cos compared to the IIs (noted earlier). Although the average cost of external expertise in the FT cos and IIs in 1995 was very similar, it differed significantly between companies with and without in-house tax departments: those with in-house tax departments spent an average of £244,000[10] on external experts compared with £113,000 spent by companies without such departments. Intuitively, the reverse finding might be expected. However, the finding could be a result of differences in the type of work

Figure 7: Costs of tax work in the survey companies

7a: Average cost of tax work in the survey companies in the UK in 1995

	In-house tax depts			**Shadow tax depts**			**External experts**		
	Total	**FT cos**	**IIs**	**Total**	**FT cos**	**IIs**	**Total**	**FT cos**	**IIs**
No. in respond. group	*134*	*104*	*30*	*156*	*110*	*46*	*156*	*110*	*46*
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Direct costs	355	383	262	-	-	-	-	-	-
Indirect costs	164	174	129	-	-	-	-	-	-
Total	519	557	391	225	233	209	224[1]	224[1]	223

7b: Analysis of indirect costs

	Total	**FT Cos**	**IIs**
No. in respond group	*134*	*104*	*30*
	%[2]	%[2]	%[2]
Travel expenses	21	23	18
Heat, light, rent	16	16	16
Support staff salaries	15	16	13
Books, publications, stationery	15	13	18
Computer related	14	14	13

expenses			
Technical training	11	11	12
Telephone, fax, courier etc	7	6	8
Penalty charges	1	1	2

1 Excludes single outlier of £200 million
2 % of respondents in group responding to the question.

performed by external experts in the two groups of companies. As noted earlier, in companies with in-house tax departments external experts are used more extensively for (more costly) tax planning and advisory activities: in companies without such departments, they are used mainly for (less costly) compliance work.

The ‘direct costs’ of in-house tax departments (which are more than double the ‘indirect costs’) are almost exclusively the remuneration of professional tax staff. Analysis of the ‘indirect costs’, which is provided in Figure 7b, shows that approximately 67% of these costs comprise travel expenses; heat, light and rent; support staff salaries; and books, publications and stationery. However, these results should be treated with caution as detailed analysis of the responses indicates that different respondents interpreted ‘indirect costs’ in different ways. Some included all or most of the costs shown in Figure 7b, others excluded overheads such as heat, light and rent, and telephone, fax and courier costs. As far as is known, other surveys of in-house tax departments have not sought to capture data on indirect costs and further investigation of this area is needed if reliable benchmarks are to be established.

INFORMATION TECHNOLOGY (IT) IN IN-HOUSE TAX DEPARTMENTS

Figure 8 indicates that the majority of respondents considered that the sophistication of the IT in their in-house tax department is fairly similar to (but edging towards being more advanced than) that of companies of similar size and other departments within their organisation.

However, they adjudged their IT to be rather less advanced than that available in the market. The survey results also indicate that IT in in-house tax departments tends to be more advanced in the FT cos' than in the IIs.

Regarding the survey companies' hardware and software, 79% of the tax managers reported that more than 75% of the computers used by their in-house tax department(s) are PCs - 486s or pentiums. Only 18% signified that more than 75% of their computers are PCs - 386s or lower. The survey also found that in-house tax departments use a wide variety of software - for both tax computations and other purposes. Some 18 different packages were reported as being used for tax computations. As Figure 8 shows, the most popular are Lotus 1-2-3, Excel and Taxsoft. Other software used includes PowerTax, Abacus and Taxmaster. Twenty packages were identified as being used for purposes other than tax computations. Twelve of

Figure 8: IT in in-house tax departments

No. in respondent group	**Total** *134*	**FT cos** *104*	**IIs** *30*
Level of IT compared with	%[1]	%[1]	%[1]
i) **companies of similar size**			
Significantly less advanced	2	1	7
Little less advanced	36	34	43
Little more advanced	41	43	36
Significantly more advanced	21	22	15
ii) **other departments within company**			
Significantly less advanced	5	2	14
Little less advanced	43	43	43
Little more advanced	39	42	32
Significantly more advanced	13	13	11
iii) **technology available in market**			
Significantly less advanced	13	8	25
Little less advanced	50	52	46
Little more advanced	31	33	25
Significantly more advanced	4	4	4
Significantly more advanced	6	6	4
Hardware and software used			
i) Proportion of hardware used:			
PCs 486 or pentium			
⇔50%	10	8	16
51-75%	12	14	8
76-100%	79	78	76
ii) Software used for computations			
Lotus 1-2-3	36	31	33
Taxsoft	33	36	13
Excel	33	32	20
In-house generated software	19	18	13
CD-Rom libraries	18	20	7
iii) Software used for other purposes			
Word	49	46	33
Lotus 1-2-3	47	49	20
Excel	45	44	27
CD-Rom libraries	45	40	36
Powerpoint	28	26	18
In-house generated software	21	20	13
AmiPro	21	21	11
Assistance with IT			
Less than readily available	23	17	38
Readily available	51	54	41
Very readily available	26	28	21
Collecting data for tax computations			
In-house tax dept. - manual analysis	68	67	68
- networked downloading	41	42	36
Accounts dept. - manual analysis	67	65	72
- networked downloading	42	38	56
Review of tax computations			
No review performed	2	0	7
Hardcopy reviewed	91	91	90
Reviewed on screen	7	8	3
Tax computations could be performed by less technically qualified staff	22	19	30
Software is used to link general accounting records with tax computations	13	14	10

1 % of respondents in group responding to the question

these coincided with those used for computations but 8 (including, for example, Access, Freelance and Croner's VAT Guide) were reported as being used only for 'other purposes'.

As may be seen from Figure 8, the most widely used 'other purposes' packages are Word, Lotus 1-2-3, Excel and CD-Rom libraries.

It is pertinent to note that Taxsoft, PowerTax, Abacus and Taxmaster are dedicated tax software, that is, they are designed to perform tax computations and they incorporate the elements of tax legislation and other relevant data required to do this. In contrast, spreadsheet packages such as Lotus 1-2-3 and Excel need to be specially set up to perform tax computations. Changes in tax legislation and/or regulations may necessitate changes to the spreadsheet and, if these are not effected by someone who has a thorough understanding of how the spreadsheet was set up initially, errors may occur. Given the frequency of changes in, and the increasing complexity of, tax legislation, it appears that companies relying on spreadsheet packages have opportunities to improve the effectiveness and/or efficiency of the performance of their tax computations by switching to dedicated tax software.

Given the reasonably high level of sophistication of computer hardware and the wide variety of software used in in-house tax departments, a surprising finding is that over two thirds of the survey companies rely on manual analysis (performed in either the in-house tax department and/or the accounts department) to collect data for tax computations. Similarly, in only 13% of the survey companies (14% of the FT cos and 10% of the IIs) is software used to link the general accounting records with tax computations. Further, in 91% of the companies (91% of the FT cos and 90% of the IIs) tax computations are reviewed on hard copy: in only 7% of cases (8% of the FT cos and 3% of the IIs) are they reviewed 'on screen'. However, possibly more surprising than the small proportion of reviews conducted on screen is the finding that in 2% of the companies (all IIs) no review of tax computations is undertaken.

Asked whether staff less technically qualified than those currently performing tax computations could be used for this task, 22% of the respondents (19% of those from FT cos and 30% of those from IIs) answered in the affirmative. This seems to signal an opportunity for cost savings in the tax functions of a significant minority of major UK corporates.

From the findings related to the use of IT, it appears that avenues are available for improving the performance of in-house tax departments in major UK corporates. In particular, the adoption of dedicated tax software in place of spreadsheets is likely to increase the accuracy and/or the efficiency of performing tax computations. Further, by applying ‘what if’ scenarios to this software, it is probable that more tax planning opportunities could be identified and used. Additionally, gains in the efficiency and effectiveness of tax work could be achieved through direct downloading of tax data from accounting to tax software. As noted above, at the time of the survey (1996) only 13% of the survey companies with in-house tax departments had this facility.

POSITIVE TAX PLANNING (PTP) TECHNIQUES

For the purposes of the survey, positive tax planning (PTP) was defined to mean:

> The deliberate use of techniques which may contravene the spirit but not the letter of the law, with a view to reducing the company’s tax liabilities. Positive tax planning is distinguished from ‘good housekeeping’.

The survey first sought to ascertain respondents' potential for using PTP. As Figure 9 shows, some 72% of respondents reported that they had unutilised tax losses, 53% that they were exempt or partially exempt from VAT, 50% that they had an ACT capacity problem, and

Figure 9: Positive Tax Planning (PTP)

No. of respondents in group	**Total** *156*	**FT cos** *110*	**IIs** *46*
Tax planning attributes	%[1]	%[1]	%[1]
Utilised tax losses	72	71	68
Exempt/partially exempt from VAT	53	47	61
ACT capacity problem	50	59	30
Trading losses brought forward	43	32	64
Unutilised management expenses	20	19	20
Attitudes to use of positive tax planning (PTP)			
Generally against using PTP techniques	23	18	33
Use PTP techniques occasionally	50	54	40
Use PTP techniques whenever possible	28	28	28
Probability of success required before using PTP			
≤50%	12	13	9
51-75%	27	30	21
76-90%	48	45	56
>90%	13	13	14
Popularity of PTP techniques	mean[2]	mean[2]	mean[2]
VAT mitigation	3.1	3.1	2.4
International restructuring			
a) Use of dividend "mixer" company	2.9	3.1	1.7
b) Use of offshore finance centre	2.7	2.8	1.9
Minimising tax on sale of subsidiaries			
a) Set up of base cost	2.7	3.0	1.5
b) Pre-sales dividend strip	2.7	2.9	1.7
c) "Envelope Scheme"	1.7	1.9	1.0
Selling ACT capacity	1.8	1.9	1.3
Buying ACT capacity	1.7	1.8	1.3
Buying surplus F11	1.6	1.7	1.2
Buying surplus management expenses	1.5	1.6	1.5
Selling capital losses	1.5	1.5	1.6
Buying capital losses	1.5	1.6	1.1
Selling surplus management expenses	1.4	1.4	1.4
Selling surplus F11	1.4	1.4	1.3

1 % of respondents in group responding to the question.
2 The closer the mean to 4.0 the more the technique has been considered and implemented: the closer the mean to 1.0 the less the technique has been considered.

43% that they had trading losses brought forward. It thus appears that, overall, the survey companies have ample opportunity for employing PTP techniques. However, the survey also found that, even in circumstances where "failure would result in little downside cost" (per the questionnaire), 61% of the respondents (58% of those from FT cos and 70% of those from

IIs) indicated that they required a minimum probability of success of 76% before they would employ PTP techniques. Similarly, 23% of the respondents (18% of those from FT cos and 33% of those from IIs) reported that they would ‘never consider’ using PTP techniques or they ‘might consider’ using them ‘in some circumstances’.

In order to ascertain which techniques are used most frequently, respondents were asked to indicate, for each of a list of possible techniques, whether they had implemented the technique, considered it in depth but not implemented it, considered it briefly but rejected it, or not considered it. By allocating numbers 4 to 1 to these four options, a mean was calculated for each technique. The closer the mean is to 4.0, the more it has been considered and implemented: the closer the mean to 1.0, the less it has been considered. The results are presented in Figure 9.

From Figure 9 it may be seen that the most widely considered and implemented technique is VAT mitigation followed by international restructuring techniques (use of an offshore finance centre and/or a dividend ‘mixer’ company) and minimising tax on the sale of subsidiaries (particularly through set up of base cost and/or pre-sale dividend strips). In general, these schemes were the most widely considered and implemented in both the FT cos and IIs. However, as was reflected in the findings relating to tax managers’ attitudes to the use of PTP and the required probability of success before employing the techniques, the means indicating the extent of PTP adoption suggest that tax managers in the IIs are more risk averse than their FT company counterparts.

FUTURE DEVELOPMENTS

In the final section of the questionnaire, respondents were asked to indicate any significant changes relating to tax work they believed were likely to occur in their organisation in the next 12 months. The five most commonly identified changes are shown in Figure 10.

Figure 10: Significant changes relating to tax work expected in the next 12 months

Expected changes	Total	FT Cos	IIs
	No.	No.	No.
Expansion of in-house tax department and tax work - in particular, increased compliance work resulting from self-assessment. Also, broadening of responsibilities to include treasury function.	28	16	12
Increased emphasis on (world-wide) tax planning; maximising tax benefits; forecasting, controlling and reducing the accounts tax rate (especially to improve EPS) and cash tax rate.	23	18	5
Acceleration/improvement of data collection and tax computations through increased use of IT, linking of tax and accounting software, and training of company personnel.	20	16	4
Reduction in size of in-house tax department as a result of increased outsourcing of tax compliance work, increased use of IT, and devolution of tax work (eg VAT and PAYE) to other departments. Also, a reduction in tax planning activities as a result of increased tax regulation (less opportunity for tax-reducing planning).	8	6	2
Increased work in the areas of EU taxation, transfer pricing, ACT mitigation, acquisitions and disposals, joint ventures, and specialist taxes such as landfill tax.	8	6	2

From Figure 10 it is evident that the respondents hold differing views on likely changes: some foresee an expansion of their in-house tax department - resulting, in particular, from increased compliance work and a general broadening of the tax function: others (albeit a smaller number) consider that a reduction in the size of their in-house tax department is more likely as the use of IT increases and compliance and other tax work is outsourced and/or devolved to other departments in the company.

Notwithstanding these opposing views, the respondents appear to be generally agreed that greater use of IT and an increase in compliance and other tax work are likely. It seems probable that, as IT is increasingly employed for ‘routine’ tax work, this work can be devolved to other departments (such as accounts and personnel) within the organisation. This should free up resources within in-house tax departments and enable the company’s tax specialists to focus on tax planning (with a view to maximising tax benefits and minimising tax liabilities) and giving general tax advice within the organisation.

CONCLUSION

Noting the importance of companies managing their cash tax liabilities to gain maximum financial advantage, and recognising that this involves satisfying simultaneously the divergent - and increasingly demanding - requirements of tax compliance and tax advisory and planning work, a survey of the tax functions of some of the UK’s largest companies was conducted. With usable responses from 156 major corporates, the survey has provided information about the incidence of in-house tax departments in such organisations, reasons for their establishment/non-establishment, and the frequency and basis of their performance evaluation. It has also provided insight into the amount, cost and type of tax work performed by in-house and shadow tax departments and by external experts in major UK companies, the hardware and software used in their in-house tax departments, and their potential for, attitudes to, and use made of positive tax planning techniques. However, most importantly, the survey has identified ways - particularly in the IT arena and in the allocation of tax work between in-house and shadow tax departments - where the efficiency and effectiveness of corporate tax functions could be improved.

NOTES

1. For example, in the UK, with the move to Pay and File and Self-assessment.

2. For definition, see Appendix 1.

3. For the purposes of this paper, benchmarks are defined as convenient points of reference, such as the average value, in the range of values reported by a number of companies for one aspect of their size or performance.

4. The names and addresses of these companies - and, in most cases, the names of their tax managers - were supplied to the Cranfield researchers by Price Waterhouse.

5. As a consequence of the small size of this survey group, percentages or means (as applicable) shown for this group in Figures 2, 3 and 6 should be treated with caution.

6. The term ‘tax managers’ is used in this paper to mean the managers of in-house tax departments and the person responsible for tax matters in those companies without such departments.

7. For definitions provided in the questionnaire of ‘in-house tax department’, ‘reportable geographical sector’, ‘tax’ and ‘tax work’, see Appendix 1.

8. Omitting to ask those responsible for tax matters in companies without in-house tax departments to provide reasons for their answer was an oversight in the questionnaire design.

9. Information on the cost of maintaining in-house tax departments and using external expertise was directly requested in the questionnaire. The cost of shadow tax departments was derived indirectly. The total of the direct costs of all companies with in-house tax departments was divided by the total number of tax specialists (expressed in man years) employed in these departments. This generated a notional cost per tax specialist. An estimated cost of tax work performed by shadow tax departments was obtained by multiplying the notional cost per tax expert by the number of persons employed (expressed in man years) on tax work in the shadow tax departments.

10. Excluding a single outlier of £200 million.

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APPENDIX 1

Terms defined in the questionnaire

(i) ***In-house tax department***: A unit of at least one staff member who is employed full-time within your organisation on tax matters. Such a staff member is referred to as a **tax specialist**.

(ii) ***Reportable geographical sector***: A geographical area comprising one or more countries in which the company operates, or to which it supplies products or services, for which financial information is required (by accounting standards) to be disclosed in the company's annual financial statements.

(iii) ***Tax***: Corporate income tax, value added tax, sales tax, customs duty, payroll taxes and stamp duties.

(iv) ***Tax work***: All work related to the preparation and submission of tax returns and planning the organisation's tax liabilities.