

Research into Barriers and Incentives for Businesses Filing Returns Online

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Introduction

1. This short paper, to accompany the forthcoming VFM study on the filing of VAT and Company tax returns, looks at the barriers to businesses filing complete and accurate VAT and Company Tax returns on time and the range of incentives HM Revenue & Customs (HMRC) might use to encourage better compliance. First, it identifies potential barriers to e-filing of taxes; barriers to e-government, those that might be specific to tax, those that might be specific to business. Second, it identifies those barriers that might be specific or particularly pertinent to the UK tax agency, putting the UK case in comparative perspective. Third, it identifies a range of possible ways to use incentives to overcome these barriers to maximizing the benefits of electronic taxation. In light of the recommendations of the Carter review and the commitment of HMRC to mandate all businesses to file electronically in a phased programme of mandation for businesses up to 2012, it looks across the world for examples of best practice, where countries have managed to achieve higher take-up rates than the UK, using both compulsion and other forms of incentivization, and explores whether such evidence can provide any useful lessons for the UK tax agency.
2. This report aims to build on rather than to duplicate the work carried out for the Carter Review (2006) and previous work conducted for the NAO on barriers to e-government (Margetts and Dunleavy, 2002) and incentivization of e-filing for business (Margetts and Yared, 2003, which is extensively quoted in OECD, 2005: 93-94). It uses the four basic categories of resources defined by Margetts and Yared (2003) that are at the disposal of a tax agency to drive up usage of e-filing – money (financial incentivization), authority (mandation), information and expertise ('value added' of online services) and organizational capacity (reducing the transaction costs for business taxpayers). But in light of the recommendations of the Carter review and its acceptance by HMRC, the superior data sources on electronic filing of taxes and internet-mediated interactions more generally that have become available during the three years since that report was produced (laid out below) and the far greater experience of e-filing across governments in OECD countries, this 2006 report draws mainly on the experiences of other tax agencies in developing online filing

systems (rather than private sector experience and in particular the banking industry, as used by Margetts and Yared, 2003). The key sources for this study were as follows:

- Extensive research on tax administration carried out by the OECD Forum on Tax Administration (in particular OECD, 2004; 2005; 2006).
- Research commissioned by the European Commission, including Cap Gemini (2006) and two MODINIS research projects - *Breaking Barriers to eGovernment* (Oxford Internet Institute) and the *eGovernment Good Practice Framework* (Bearing Point). In particular, data on barriers to e-government identified in a survey of 1,000 experts (for the former) and around 150 examples of good practice (for the latter) have been analysed to identify the most commonly perceived barriers to e-government development
- Eurostat data produced by the European Commission and available at <http://epp.eurostat.ec.eu.int/portal/>
- Work on tax administration and large IT contracts in seven countries for the forthcoming book *Digital Era Governance: IT corporations, E-government and the State* by Patrick Dunleavy, Helen Margetts, Simon Bastow and Jane Tinkler (Oxford University Press).
- An extensive review of sources on tax administration carried out by Helen Margetts and Hala Yared for the NAO in 2004 (*A Diagnostic Toolkit for Auditing Tax Administration*).
- Reports produced for the European Commission DG Information Society which cover electronic filing (in particular, Booz Allen Hamilton, 2006 and Ramboll, 2004).

Benefits of Online filing

3. It is an assumption of this study, as in others (the Carter review, for example) that maximizing e-filing will further the aims of HMRC to encourage businesses to file complete and accurate VAT and Company Tax returns on time and to encourage better compliance. For example, in a study of e-government across Europe, Booz Allen Hamilton identified that 'tangible impact has been measured of e-taxation initiatives'. Italy report annual cost savings of €90m, Sweden €2.7m, USA US\$132m (€110m) and Canada CAN\$12m (€8.5m). Automation of back office processes has also dramatically speeded up service delivery in many countries. Error and fraud detection have been significantly improved by automation (Booz Allen Hamilton, 2005).

4. In Europe, a survey carried out for the European Commission (Ramboll, 2004: 21) found that Denmark with an online filing rate for VAT of 45 per cent estimated savings of €4.7 million from the introduction of the service, while Norway with a take-up of 20 per cent had saved €2.4million and Finland with a take up of 16 per cent had saved €5 million. Even with a take-up of 5 per cent, Belgium estimated savings at 1.6 million. These savings are not necessarily derived from the displacement of users from other, more expensive channels. In Denmark, for example, where significant benefits for users have been identified (see below) the savings have come from back office integration; the tax payment system ensures that tax collection is initiated automatically as soon as the user has reported their tax online.
(Ramboll, 2004: 23)
5. To check this assumption about the benefits of e-filing, we carried out some analysis of the available OECD data on the costs of tax administration, IT costs and the take-up of e-filing for VAT and corporation tax. The most significant relationship we identified was between the cost of collection and the e-filing rate for VAT, for which the correlation was -0.329. That is, the higher the e-filing rate, the lower the cost of collection. While it is important to apply many health warnings to data of this kind, due to the varying functionality (in terms of different taxes collected, compliance of population etc.) of different tax administrations, this figure goes some way to confirm the tangible benefits of maximizing e-filing rates in terms of productivity.

Barriers to e-filing of taxes

6. This section examines the distinctive nature of e-filing of taxes in the UK context, by examining the distinctive nature of tax agencies and their IT systems; consideration of barriers to e-government in general and the taxation sector in particular.

Tax agencies are special

7. Tax agencies are distinctive from other government bureaucracies. They tend to have a somewhat 'closed-in' character, reflecting a perception of the strong need for their independence. They have a legalistic, strong-regulatory approach, with authority as the key 'tool' at their disposal. They tend to be strongly hierarchical. They have a distinctive organizational structure (with, in the terms of Mintzberg, 1995, a large operating core, developed middle-line management, strong strategic apex and extensive technostructure). There is a wide variation in function mix, with some countries undertaking customs in

addition to VAT and interacting with a high proportion of all citizens and businesses in any jurisdiction. Finally, they tend to be huge operations, rivalling the staff numbers of multi-national corporations. Table 1 shows that even New Zealand with a population of just under 4.2 million has a tax agency employing around 4,500 staff

Table 1. Size of Tax Bureaucracies

Country	Staff numbers
US	100,200
UK	81,900
Japan	56,300
Canada	38,400
Netherlands	25,400
Australia	19,200
New Zealand	4,500

(Source: OECD, 2004)

Taxation Agencies' IT is Special

8. Taxation agencies tend to have been among the earliest to develop IT systems (Margetts, 1999; Dunleavy et al, 2006). Developed early on in the history of government IT, by huge and complex organizations, these systems are 'too massive to change and too mission critical to lose' (Dunleavy et al, 2006). For larger countries with the oldest systems, just keeping the millions of lines of code working consumes vast resources in patching and mending. Preoccupation with legacy systems and how to manage them is therefore a key activity for tax administrations.
9. The IT required to deliver e-taxation, therefore, is a major investment for any tax agency. Table 2 below shows that expenditure on IT is a major proportion of tax agencies' administration costs, but varies significantly across countries.

Table 2. IT costs as a proportion of administrative costs for tax agencies in Eight Countries

	IT costs/admin costs 2005 %	Taxpayers (citizens+business) per TAE (2004)
Netherlands	25	320
USA	19	1,445
Australia	18	512
Denmark	18	348
UK HMCE	18	360
UK IRD	14	360
Sweden	14	494
Canada	12	425
OECD average	14	:

(Source: OECD, 2004; 2005; Dunleavy et al, 2006: labour productivity figure is combined for IRD and HMCE and excludes Customs

Note that USA Internal Revenue Service does not administrate sales tax which is dealt with at State level)

Specific Barriers to e-taxation?

10. Such distinctive organizational context suggests that there might be specific barriers to e-taxation, as opposed to other forms of service delivery. To investigate this question, we first investigated barriers in general, through a survey of 1,000 experts from over 60 countries who were asked to rate the importance of 30 barriers to e-government, falling into five main categories: financial and economic, technical and design, legal, organizational and administrative; access, skill and usage. For both the survey as a whole and European respondents in particular, we found that co-ordination across different levels of government (83% for Europe), resistance to change by government officials (80%) and lack of interoperability between IT systems (79%) were the top barriers identified, with the next most cited (low levels of internet usage among certain groups) identified by only 70% of respondents.

11. We then looked at these barriers for taxation projects in particular. We analyzed the barriers identified to achieving success in around 150 projects across Europe and separated out those identified for taxation projects in particular. Table 3 shows that in general, tax agencies encounter similar problems to other agencies, but it is noticeable that more legal and technical barriers have been identified in the tax field, while there are less human resource, cultural or cost issues. Co-ordination, identified above as the 'number one' barrier across e-government in general, is a particular problem for taxation.

Table 3. Top 6 barriers to e-government in Europe, tax agencies compared with the whole sample.

Barriers	All %	Taxation %
Organisational culture	17	14
Co-ordination	14	18
Authentication	14	14
Legal	12	16
Privacy	11	12
Technical	8	10
Human resources	6	6
Other	18	10

Source: Analysis of data collected from European Commission, Good Practice Framework, 2006. Note, data is derived from around 150 projects but barriers were not identified for all projects while more than one were identified for others, making a total of 181 barriers.

The lack of barriers relating to cost for e-filing in tax is substantiated by the variation in cost as a proportion of administrative costs across countries. There does not seem to be any direct correlation with success in VAT filing and cost of information technology. Both Australia and Canada appear among the leaders in take-up rates, but Australia spends 4 per cent more than the OECD average and Canada spends 6 per cent less.

Specific Barriers to Business e-Taxation?

12. Available research evidence suggests that it is particularly difficult to drive up usage for e-taxation for business: for VAT & corporate income tax e-government is ‘considerably less advanced’ than for personal taxation (OECD, 2005: paragraph 30). Dealing with businesses engenders specific problems for e-government, mirrored in the banking sector where take up of e-banking for business lags behind e-banking on personal accounts (Margetts and Yared, 2003). However, a small number of countries show that very high take-up (>50%) can be achieved. For example, across 25 OECD countries:

3/25	take-up > 50%
3/25	take-up 25-50%
5/25	take-up 10-25 %
14/25	take-up < 10%

Clearly, in this context the UK e-filing rates place the UK in the lower half of OECD countries.

Characterising the UK Environment

13. In the light of these barriers specific to driving up usage to e-filing of taxation identified above, to which are UK taxation agencies likely to be most vulnerable? This section identifies the distinctive features of the UK environment and combines these with the evidence of the previous section to identify the most important barriers to e-filing in the UK.

UK Tax IT Systems

14. In line with other tax agencies Table 1 above shows clearly that HMRC is a huge organisation likely to face the same barriers as any of the largest tax organisations. Table 2 shows that it is reasonably productive, although seemingly considerably less so than Australia or the US. Turning to business taxation specifically, if we take the figure for the taxation part of the former HMCE, it seems that for VAT, around 18 per cent of administrative costs are spent on information technology – above average for the OECD as a whole.

15. A distinctive feature of UK government IT in general is the pattern of IT contracts and outsourcing relationships between government and the IT sector, with far larger contracts (in timescale and contract value) than most other countries (see Dunleavy et al, 2006). From 2004, the taxation agency has exemplified this trend, with major contracts between the Inland Revenue and EDS (later re-tendered and awarded to Cap Gemini) and HMCE and ICL/Fujitsu. The contract which has replaced these between the newly merged HMRC and Cap Gemini (with Fujitsu as a sub-contractor) is probably almost unique in the world in terms of contract value (around £3 billion).
16. Carter (2006) observed that business users did not think that use of online services would cause them significant difficulty or expense, provided that software and systems were 'fully available and robust' (paragraph 5.7). There is some evidence to suggest that the perception of online tax systems in the UK is that they do not always fulfil these requirements. Furthermore, Carter noted criticism of the HMRC web site for being 'difficult to navigate', with a poorly functioning search engine, out of date material and broken links, problems that the HMRC are working to review and revise.

The business environment: is it online?

17. On the one hand, the business environment in the UK seems conducive for a tax agency wishing to interact with businesses online. Across Europe, the UK is joint leader with Sweden for take-up of e-commerce, with 36 per cent of citizens having ordered or bought goods or services online in 2004. In line with the general picture in Europe in 2004, the UK has a high percentage of medium-sized businesses (50-249 staff) having internet access (97%, as for EU 25). In contrast, the proportion of small enterprises (10-49 staff) having internet access is 84 per cent, below the European average of 87 per cent for the EU 25 (Eurostat, 2004).

Government-business online interactions in the UK

18. In contrast to this evidence of an online business community (apart from the smallest enterprises), the UK lags severely behind other EU countries in terms of businesses interacting with government online in general, as shown in Table 4. This table shows the percentage of businesses that have interacted with government agencies at all online, including using a web site for information retrieval.

Table 4. Percentage of enterprises which use the Internet for interaction with public authorities

	2003	2004	2005
	<i>%</i>	<i>%</i>	<i>%</i>
<i>EU (25 countries)</i>	<i>:</i>	<i>52</i>	<i>57</i>
Iceland	97	:	:
Finland	89	91	91
Denmark	75	85	87
Norway	65	69	84
Greece	:	77	81
Sweden	89	92	80
Czech Republic	:	75	79
Ireland	:	69	76
Austria	81	74	75
Italy	:	65	73
Lithuania	:	65	72
Slovenia	:	47	72
Estonia	:	84	70
Malta	:	:	68
Hungary	:	35	67
Poland	:	74	64
Belgium	:	60	61
Portugal	:	57	58
Netherlands	41	47	57
Slovakia	:	47	57
Spain	44	50	55
Germany	35	36	44
Cyprus	:	35	40
UK	29	33	39

Source: Eurostat

These figures show the UK performing considerably worse than for government-to-citizen interactions, where the UK attains 24 per cent, below the leaders of Scandinavia, the Netherlands, Germany, Estonia, Austria and Slovakia but above Slovenia, Hungary, Belgium and the laggard group of Italy, Ireland, Portugal, Latvia, Poland, Cyprus, Lithuania, Greece, Czech Republic, Turkey, Bulgaria who all come in at below 15 per cent.

Usage of e-taxation

19. When it comes to e-filing specifically, the following OECD countries have attained take-up of e-filing VAT > 20 per cent: Australia; Austria; Denmark; Greece; Italy; Korea; Norway; Portugal. In addition, Chile has attained extremely high levels of e-taxation in general and is identified as a potential example of best practice.
20. For Corporation tax, take-up rates are also below those for personal income tax, but 4/21 revenue authorities across OECD countries have achieved take-up rates in excess of 50 per

cent (Australia, Iceland, Italy and Mexico) and 3 have take-up rates of between 25 and 50 per cent (France, Ireland and Norway). Spain achieves 10 per cent and Portugal 5 per cent, while the remainder (including the UK) have less than 5 per cent.

21. From both public and private sectors, there is substantial evidence to suggest that patterns of general information seeking online are strongly related to trends in transactional usage. If businesses turn to the tax agency's web site as the first 'port-of-call' for finding things out on the internet, they are more likely to use online services as they become available. Table 5 below shows that usage of the UK tax agencies' (the data is collected before they were merged) web sites for any information seeking is somewhat below that of Canada, Australia, New Zealand and the Netherlands, all of which have attained higher rates of e-filing of VAT.

Table 5. The level of use of tax agency Web sites and the size of these sites in 2004

Source: from Dunleavy et al (2006) calculated from OECD 2005, Table 12; OECD, 2004, Table 21. Note:

Country	Page requests per registered taxpayer (individual and business)	Page requests for last year (in millions)	Size of Website (thousands of pages)
Australia	12.4	153	357
New Zealand	9.4	51	3
Canada	8.1	209	51
Netherlands	3.4	31	30
United States	3.3	463	21
UK	2.1	65	85
Japan	0.6	15	36

UK numbers are for Inland Revenue and HM Customs and Excise combined. The Australia number given by OECD covered only 11 months so the rate was pro-rata-ed to give a twelve month number, shown here.

22. Further evidence of under usage of the HMRC web site comes from comparison with other sectors. The Oxford Internet Survey (2005) included the question ‘where would you go first to find out.....’ a range of issues, including the ‘name of your MP if you didn’t know it’, ‘how to book a journey or plan a holiday’ or ‘information on your taxes’, with a range of options offered (for example, a visit to a location such as a library, telephone, the internet). The responses to these were as follows:

	% of internet users who would go to Internet first to
	%
Plan a journey or book a holiday	70
Find the name of your MP	52
Find information on your taxes	38

The proportion of internet users who would go to the internet first to find information on their taxes, only just over half that of those who would use it to plan a journey, suggests a somewhat negative perception of information on taxes likely to be available on government web sites.

23. In summary, this characterisation suggests a number of specific barriers to e-taxation in the UK environment.
- A huge and expensive IT operation, with complex legacy systems (particularly post-merger) and a major contract relationship of unparalleled size. The resulting systems appear to deliver lower than average productivity, have reputational problems in the business community and, given low e-filing rates, cost savings are hard to attain.

Specific problems have been identified with the tax web site (in general the least expensive part of any electronic operation), which has less than average usage.

- b. A comparatively low base of businesses who are accustomed to interact with government online.
- c. A business community which in general seems conducive to online filing, apart from a 'tail' of small enterprises with lower than average levels of internet penetration
- d. An extremely low starting point of e-filing for business compared across OECD countries

The next section explores how these barriers might be overcome, using examples from taxation agencies across OECD countries.

Overcoming Barriers to E-Taxation

24. This section uses the four resources of government that might be used to incentivize the use of electronic transactions identified and used by Margetts and Yared (2003), drawing on Hood (1983). These are:

Authority: mandation of online channels

Money: direct financial incentives or payment flexibility

Information and Expertise: providing enhanced information and expert advice through the web site

Organisational Capacity: packaging up and adding value to online services so that they save users time through reduced transaction costs

Research suggests that 'revenue bodies that have achieved a relatively high take-up of electronic services typically have a multi-faceted set of strategies to promote usage by taxpayers' (OECD, 2006: 4). The remainder of this section deals with each of these in turn, looking at where the various incentives have been used and in what combinations.

Using Authority: Strengthening Mandation

25. HMRC have accepted Carter's recommendations for a phased programme of mandation up to 2012, based partly on the experience of overseas governments. It could be however, that there are additional elements of mandation that have proved successful, such as compulsory electronic payment for example. Most of those countries with the highest rates of e-filing of business taxes used some kind of mandation for online filing by businesses. But they vary in the timing of the mandation and the strength of the criteria.

26. There is some evidence to suggest that the earlier mandation is introduced, the more effect it has. For VAT, of the five countries that have successfully used mandation to drive up usage above 20 per cent, three introduced it before 2002 (data from OECD, 2005). For Corporation Tax, the following countries have or are introducing mandatory filing requirements:

Austria	2004	For all companies with Internet access and annual turnover > €100,000
France	2002	All companies with turnover > €15 million per annum
Hungary	1999	Largest 10,000 taxpayers
Italy	1998	Compulsory for all companies/employers and tax intermediaries
Mexico	2003	All companies
Netherlands	2005	All businesses with computers
Spain	1999	Taxpayers with annual sales > €6million per annum
US	2006	Corporations (assets>\$50 million)

Of these countries (as noted above), Italy and Mexico have e-filing rates for corporation tax of over 50 per cent and France an e-filing rate of between 25 and 50 per cent. It may be that, particularly when combined with some of the strategies outlined below, the earlier mandation is introduced the better.

27. A key strategy used by countries with high e-filing rates to mitigate early compulsion is to give waivers in the first year of implementation to give taxpayers more time to prepare for new requirements. Others indicated that while progress was being achieved in automating the corporate tax return per se, this was achieved with an ‘abbreviated’ set of arrangements, for example an electronic return without important financial statements such as balance sheets and profit and loss statements. Austria allowed a year of ‘tolerance’ before mandation really came into force, in which mandatory requirements by law were not enforced (OECD, 2006: 7).

28. In **Chile**, an early mandation for businesses in 1999 brought strong compliance. Since that time, however, the system developed by the Internal Revenue Service (Servicio de Impuestos Internos) in Chile for Income Declaration (Operación Renta) in Chile has attracted worldwide attention, because of the high filing rates achieved. In 2005, more than 95 per cent of taxpayers declared income and taxes online. The system was first introduced in 1999 with basic functionality and has been substantially developed from that time. From the initial complaint, users have since moved into a general acknowledgement of the advantages of the

system. The introduction of the electronic declaration has generated important reductions in transaction costs for the IRS, a significant increase in government efficiency and increased compliance, with a reduction of tax evasion rates. IRS personnel costs and other resources involved in the process have decreased as well.

29. Another way to move towards mandation of electronic filing is to withdraw or weaken other channels. In the **United States** where business taxation is largely managed at State Level, eighteen states have mandated electronic filing for sales tax or withholding tax filings (Federation of Tax Administrators, 2005). To solidify business filing mandates, many states have stopped mailing out certain paper forms, thereby implementing a de facto mandate since a paper alternative is not easily available. States hope that these efforts will lead taxpayers to not only accept electronic filing, but depend on it as standard. In total eighteen states have introduced mandates for business taxation.
30. Finally, a key way to widen the scope of mandation is to include tax professionals at an early point, as in **Austria** and **Italy**, both with e-filing rates of greater than 50 per cent. OECD (2006) found that in several countries tax professionals submitting monthly VAT and annual income tax, corporate tax and VAT returns are typically required to file electronically. Austria is an example of a country which has implemented a 'strong' mandatory requirement for electronic filing of VAT, with all companies with an annual turnover of more than 100,000 euros and internet access being required to file the monthly preliminary tax statement and the annual Corporate Tax and VAT return electronically. Mandation is extended to all tax professionals. The Austrian tax agency directly attributes to this mandate an increase of the e-filing usage rate for the monthly preliminary VAT statement from 10 per cent in 2003 to 75 per cent in 2005. The e-filing usage rate for the annual Income Tax, Corporate Tax and VAT return is now 50 per cent (Source: OECD, 2006)

Financial Incentivization: sweetening mandation

31. What combinations of other incentives have been used and proved successful in 'sweetening' mandation for businesses? First we look at financial incentives. The table below shows for those countries which have used mandation for electronic filing of VAT the monetary incentives (in which we include faster refunds, longer filing as well as tax credits and direct monetary incentives) that have been used in addition.

	<i>Faster refunds</i>	<i>Longer filing</i>	<i>Monetary incentives/ tax credits</i>
Australia		Y	
Austria		Y	
France			
Germany			
Greece		Y	
Hungary			
Ireland	Y		
Italy			
Mexico	Y		Y
Netherlands			
Norway	Y	Y	
Spain	Y		

Source: OECD, 2005: Table 20

Of the twelve countries which have implemented mandation, only Mexico has used direct monetary incentives in addition. Longer filing and faster refunds have been used in some countries, but only Norway has used both. A similar picture emerges for e-filing of corporation tax. Australia has used both longer filing and faster refunds, France and Ireland have used longer filing periods, Spain and the US have used faster refunds. But none of the countries which have used mandation have used direct monetary incentives and none have used both longer filing and faster refunds.

Incentivization using Information and Expertise

There are a number of ways in which online services can provide information and expertise to taxpayers in a more intelligent, comprehensive and immediately available way than can be provided on paper or even via the telephone.

Pre-population of forms

32. Pre-population of forms with information held by the tax agency has shown to be a particularly important way to use the dissemination of information to add value to online filing. In **Denmark, Finland Norway and Sweden**, the vast majority of personal income tax payers receive a pre-populated return that details all known income sources and deduction items that significantly reduce the amount of effort required to complete their return filing obligations (OECD, 2005). In **Iceland**, taxpayers are able to obtain via the internet a digitally-signed certified copy of their tax returns for personal use. In **Korea**, the advance tax notice includes an estimated tax amount in addition to a pre-populated service

for small scale businessmen. E-filing take up rates are 68 per cent for VAT and 97 per cent for corporate tax. Another example of pro-activity is a new improved online tax service in **France**, where tax declarations are filled in by the tax authorities and after verification of the information, citizens simply have to sign and return them. With the electronic tax declaration form, taxpayers will be able to modify or add information online. This service will go live at the beginning of May (Cap Gemini, 2006). In **Chile**, process time and complexity have been greatly reduced by the technical advantages of the online service described above. Currently, the online income declaration system offers a predefined (pre-populated) proposal declaration to over 50 per cent of all taxpayers and the user is able to accept, modify or refuse the given proposal. In 2005, 34.6 per cent of these taxpayers accepted the online income declaration proposal made by IRS systems, a further 12.1 per cent modified and complemented it and a further 35.6 per cent used the provided online forms and its incorporated arithmetic tools. The remainder of taxpayers use authorised software, SMS services via mobile phone network or partially completed forms provided by the IRS. Most citizens and smaller businesses no longer have to hire an accountant (as was common before the electronic system was introduced) for calculating the taxes they will have to pay or how much they will get back (Provided to author by senior Chilean government official in March 2006).

Prioritising the Web site

33. As noted above, quality of online services seems to be key to increasing take-up. Carter (2006: 17) suggested that other countries appear to be offering 'better performing, more resilient services' than HMRC. When large organisations with complex legacy systems are involved in major rationalisations of their IT systems, particularly 'post-merger' as is the case with HMRC, the web site may be neglected as a relatively small scale and unimportant part of online service delivery. However, if interactions are to move online the web site will be the main window on government, the main part of government that businesses actually do interact with and therefore of crucial importance. As noted above, if a business starts using a tax agency web site for general information purposes, they are far more likely to consider using it when it offers electronic services. Across OECD countries, relatively few revenue authorities were able to isolate the aggregate cost of internet and other e-services and call centre operations; revenue authorities reporting this expenditure reported amounts in the range 5-15 per cent of total IT expenditure (OECD, 2005: paragraph 22). The wide variation suggests that any revenue authority should review their expenditure on this aspect of taxation IT systems.

34. It is clear that those countries with highest levels of VAT filing employ a number of strategies to increase Internet usage. In **Norway**, for example, the tax agency web site was given an award for being the most useful website in Norway in 2002 and the most useful government web site in 2004. Marketing activities are deployed especially to the use of the web site. OECD (2006) observed a number of strategies to drive up web site usage in countries with high rates of online filing, in particular site optimization for external search engines and seasonal rotating messages on the homepage and electronic subscriptions were suggested. Canada, Denmark and the USA also used internal websites for promotion, marketing and electronic services information to employees.
35. Usage of the web site is one key indicator of success. Table 6 below shows that in terms of page requests, at 45 million the UK tax website is distinctly underused in comparison with the larger countries achieving the highest levels of electronic filing of VAT:

Table 6 Number of page requests for tax agency websites

<i>Country</i>	<i>Page requests</i>
Australia	153
Austria	120
Canada	209
Italy	175

Source : OECD, 2005: 64

Were these figures to be normalized for the internet population of the country, the UK figure would be even lower in comparison. In contrast, the highly successful website of the IRS in Chile described above is one of the most used web sites in the country.

36. A key way to increase usage of a web site is to carefully monitor trends in existing usage, to see which areas are used and which are not. Those countries with the highest levels of e-filing collect extremely comprehensive web metrics for planning and monitoring on a daily or even hourly basis. **Australia** collects comprehensive usage statistics – hits, page requests, average requests per visit, visit duration, top 10 per cent of first request pages, bottom 10 per cent of last 10 per cent pages, daily visit trends visits by day of the week, hour of day, average number of daily visits, operation system and browser version, daily bandwidth consumption (OECD, 2005: 64). **Canada** conducts analysis of web logs using web analysis products, link usage on key navigational pages, visits to particular areas of site, paths for

specific content and surveys of selected clients for real time assessment. **Italy** collects hits, pages, time on the site, document downloads, number of emails among a range of other statistics. Several of the leading countries use strategies to optimise the link structure of the web site for search engine rankings. In contrast, in 2005 HMCE could provide no details of web metrics gathered for planning and monitoring to the OECD.

37. A final way to add value to web-based services is to make them enjoyable to use. From **Iceland**, delegates to the OECD report on strategies for improving take-up (OECD, 2006: 9) claimed that filing electronically is very popular – ‘almost fun’: ‘Happy taxpayers are more likely to be compliant taxpayers’, for example when a helpdesk facility can be called as needed.

Organisational Capacity: Reducing Transaction Costs

A final way in which tax agencies can incentivize businesses to use e-filing is to provide some kind of additional facility or application.

Providing Internet Access

38. Perhaps the simplest way in which an agency can use organisational capacity to drive up usage rates of e-filing is to pro-actively target those businesses which do not use the internet and offer them help to get online. Carter (2006) noted the lower internet penetration of SMEs as a particular barrier for businesses with turnover of less than £100,000, which is why mandation for these organisations has been delayed until 2012. Margetts and Dunleavy (2002) also identified digital divides as a key demand side barrier to the usage of online services. As noted above, the UK has below average internet penetration among smaller businesses.
39. Providing internet access and tax advice to those businesses without internet access, in the same way as provided for citizens in many countries can have excellent pay-offs. In **Chile**, the extraordinary rate of e-filing has in part been attributed to public provision of internet access specifically for tax filing, of particular relevance for SMEs. The IRS established a national public-private network of more than 880 centres, providing up to 3,000 connectivity points. Taxpayers were able to do their online income declaration from these centres either free of charge or at a symbolic cost, with the help of trained staff. In **Iceland**, the development team for tax returns on the web takes part in Helpdesk activities to get the feelings for ‘problems’ first hand. The tax agency follows the principle that ‘happy taxpayers

are more likely to be compliant taxpayers when a helpdesk can be called as needed' (OECD, 2006: 9). In the **Republic of Korea**, taxpayers were shown and coached on how to use e-filing by installing a Helpdesk in the tax office.

40. In some countries, the superiority of the e-filing application (and associated business change processes) means that users clearly save transaction costs through using it. In **Denmark**, the time saved for users of the e-filing service for VAT in 2003 was 34 minutes on average (Ramboll, 2004: 23). The savings to the Danish business community specifically relating to online filing of VAT in that year is estimated at E5.6 million (calculated from the number of online transactions on this service and the average salary in Denmark). In a user survey of around 28,000 Danish users, the main benefits were identified as saving time and flexibility, with around half also 'feel more in control' and almost half feeling that they had saved money. In **France**, an additional advantage of the online declaration is that no supporting documents are needed and you are told immediately how much tax you will have to pay (Cap Gemini, 2006). Where online services have such clear benefits to users, monetary incentives are not necessary. In Denmark, a small monetary incentive was introduced, but only between 2 and 6 Euros which is unlikely to have had any very significant incentivization effect. 90 per cent of users claimed that they were 'very satisfied' with the online service.

Working with intermediaries

41. Research suggests that intermediaries may be another way of driving up usage of online services by non-internet users (16 per cent of small enterprises, as noted above). The Oxford Internet Survey of 2005 suggested that 70 per cent of users could 'probably' or 'definitely' get someone else to use the internet on their behalf, should they need to (OXIS, 2005: 31). To work effectively with such intermediary, a tax agency needs to have a clear idea of who they are and what services they require and devote organisational resources to ensuring that they are provided. Countries which successfully identify intermediaries seem to have had success in increasing significant chunks of usage. The OECD (2006: 10) found that for the most part, those countries investing time in building relationships with third parties found it 'time consuming but very useful in order to create a demand-oriented e-filing system. Third parties are definitely good allies'.
42. Another obvious third party in this area are banks, particularly with the rise of business banking (see Margetts and Yared, 2003 for a full discussion of this issue). It is noticeable that

Austria, Greece, Italy, Mexico, Portugal – all countries with greater than 20 per cent take up of e-filing of VAT – all reported close collaboration with banking institutions, particularly over the issue of electronic payments (OECD, 2005: Table 2), whereas the UK HMCE did not.

Segmentation

43. Segmentation is a key way to target organisational capacity at non-users of electronic services. Research specifically into mandates for business taxation at **State level in the US** found that ‘the single most important guideline offered is that taxpayers must be provided optional methods of filing electronically.....Web-based e-file applications work well for large numbers of businesses but they create significant issues for larger multi-state taxpayers.....State taxing authorities should recognize the needs of various groups of taxpayers and offer filing solutions to meet these needs’. In **Italy** the taxation agency has developed two online services for taxation. Fisco online provides services to citizens and SMEs, while Entratel provides services to medium to large businesses and intermediaries (such as tax consultants, banks, post offices). Offering citizen-focused services to SMEs in this way – whose difficulties are quite likely to be more similar to those of citizens - can be a useful form of customer segmentation.
44. The OECD (2005) found that over one half of revenue authorities have identified tax professionals as a critical service delivery stakeholder and provide a range of tailored services in recognition. Carter (2006) also noted that countries with high take-up of online services attributing a large degree of success to working with agents. With respect to corporation tax, tax professionals prepare a significant proportion of returns in many OECD countries (OECD, 2005) and would appear to present considerable potential to leverage increased take-up rates. In the UK, 85 per cent of corporate tax returns are prepared by tax professionals (OECD, 2005; Table 9), on a par with the countries that have used this strategy successfully (although no figure was given for VAT).
45. In **Australia**, organisational capacity has been targeted at the community of tax professionals through the delivery of a specific service for tax consultants. The Australian Tax Office launched a Tax Agents Portal in 2002, in response to popular demand from registered tax agents, with four further releases by the end of 2003. Agents can access their clients account details – balance, interest charges, penalties, due dates, registration details as well as update functions for address, obligations/role and account details where refunds would be

deposited. The access provided was real time access to the ATO's core systems. So, if a transaction is updated – a monthly or quarterly return for Goods and Services tax, for example, they can enquire on that information and see that it had been updated – immediately. There are 21,000 registered tax agents in Australia – 9,000 (42 per cent) of these use the portal on a weekly basis. There are 600,000 unique log-ins per month, more than 1 million page hits per week and 96 per cent of tax agents rate the Tax Agent Portal as useful or very useful. The web site has now replaced the telephone as the main channel for interaction with ATO. There has been a constant decline (a reduction of 10 per cent during peak periods in 2003/4) in call volumes from Tax Agents, following the introduction of the portal; together with the business portal, overall staff reduction in call centres is estimated at approximately 40 full time staff. (Source: OECD (2005; 2006).

Packaging up services

46. Another way that reductions in organisational effort can incentivize use of e-filing is to package up services in one place. The Carter Review has the same programme for making electronic payments mandatory as for e-filing. But the OECD noted considerable growth in the provision of automated payment capabilities for taxpayers: 22/31 revenue authorities now offer automated arrangements for the payment of taxes. In particular, the direct crediting of electronic means of refunds of overpaid taxes is a widely used mechanism, with 25 out of 30 (83 per cent) using it for VAT and 24/30 (80 per cent) for Corporation Tax. Of these, 8 countries make it compulsory for VAT and 7 for Corporation Tax. A number of countries (13) had integrated reporting of tax return and payment data electronically.

47. With respect to organisational capacity in particular, but relevant to all the incentives outlined above, the ability of a tax agency to introduce e-filing applications that are easy to use, robust and reliable and can be proved to save users time is key. Government agencies can struggle to meet all these criteria, particularly where (as noted above) large proportions of their IT effort has been outsourced. There is evidence to suggest that those agencies which have long prioritised the importance of IT have had successful e-filing initiatives. In **Canada**, the Canadian Customs and Revenue Agency has a strong record in prioritising the importance of IT, with many issues dealt with in-house. Three consecutive Chief Executive Officers have pointed to the fact that 'IT is a core competency of the agency' (Dunleavy et al, 2006). Even for Canada, where levels of government outsourcing are generally low, CCRA had distinctively low levels of outsourcing. IT staff are brought right to the top of the business; even in 1993, the head of IT was moved to a more senior level than all other

assistant commissioners, reporting directly to the CEO. Perhaps for these reasons, the agency first started thinking about e-filing in 1986 and was early with the internet. By 2003, 43 per cent of individuals filed tax online, up 15 per cent on the previous year. During 2004, the CCRA targeted e-service more at businesses, improving information provision, an internet-based filing service and a direct payment option using electronic banking. This success has not been (relatively speaking) expensive: IT costs as a percentage of administrative costs are lower than the Netherlands, US, New Zealand, Australia and UK (OECD, 2005; Table 31).

Conclusion

48. This report has identified a range of barriers to the e-filing for businesses in the UK context and a range of incentivization strategies that have been used with effect in one or more of the OECD countries. We end by making a number of recommendations:
- *Mandation:* HMRC are committed to a phased introduction of mandation up to 2012, by which time it is planned that all businesses will file taxes online. Evidence suggests that:
 - HMRC might consider bringing forward the planned programme of mandation, at least with a year of 'tolerance' as in Austria or skeletal requirements as in several of the countries with the highest rates of e-filing.
 - The specific mandation of e-filing for tax professionals, combined with some of the other targeted incentives below, has been shown to be extremely effective in several countries and could be applied to the UK case, particularly with respect to Corporation Tax.
 - *Monetary incentives:* It is worth noting that few countries retain or introduce direct financial incentives in combination with mandation. Longer filing deadlines and faster refunds are used, but not to a very high degree and not (usually) in combination with each other. Carter (2006) has already recommended the continuation of the extra 7 calendar days to submit electronic VAT returns currently allowed by HMRC. Evidence from overseas suggests that additional monetary incentives are unlikely to have high pay-offs.
 - *Information and expertise* provided via a web site are an excellent (and relatively cheap) way to draw businesses into electronic services:

- The web site should be prioritised and HMRC should monitor and consider increasing the resources put into the web site as a proportion of overall IT cost
 - Everything possible should be done to maximise pre-population of electronic versions of tax forms, as done by all those countries with the highest rates for e-filing
 - Comprehensive usage statistics should be collected for the web site and usage should be monitored on a similar basis to other European countries, with specific strategies geared at driving up usage (in addition to any strategies for transactional services), such as optimisation for search engine listings.
- The use of *organisational capacity* to reduce transaction costs for certain user groups is another key strategy widely used by those countries with the highest e-filing rates. HMRC should consider:
- Developing applications and services specifically geared at intermediaries and segments of the business population. While initially costly, such a strategy can have dramatic pay-offs in terms of encouraging businesses online and ensuring that they realise the benefits of e-filing.
 - In particular, targeting tax professionals with dedicated online services
 - Working with banks to streamline electronic payment facilities (also recommended by Carter and a clear differentiator between HMRC and the leading tax agencies in terms of e-filing), including encouraging online banking sites to signpost HMRC as a payee and advertising VAT services from online banking sites and other sites commonly used by intermediaries

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