NATIONAL AUDIT OFFICE

Inland Revenue

Petroleum Revenue Tax

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
HC 5 Session 2000-2001: 14 December 2000

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John Bourn
Comptroller and Auditor General

National Audit Office
22 November 2000

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1 Oil and gas are two of the United Kingdom's most important natural resources, with significant reserves having been discovered on the continental shelf within the last fifty years. The government's main objective for the exploitation of these reserves has been to maximise the benefits to the nation. It has sought to achieve this by charging economic rent and by securing a fair share of the profits, whilst offering stable, attractive and economically sound investment conditions for the industry.

2 The oil and gas industry makes a substantial contribution to the economy. Since 1965, it has generated operating surpluses of £250 billion and some £91 billion direct revenue has been paid to the Exchequer. The industry is estimated to support, directly and indirectly, over 200,000 workers and production in 1999 was valued at around £15 billion, of which two thirds comprised oil and one third gas. Some 60 per cent of oil production was exported in 1999, contributing £4 billion to the balance of payments.

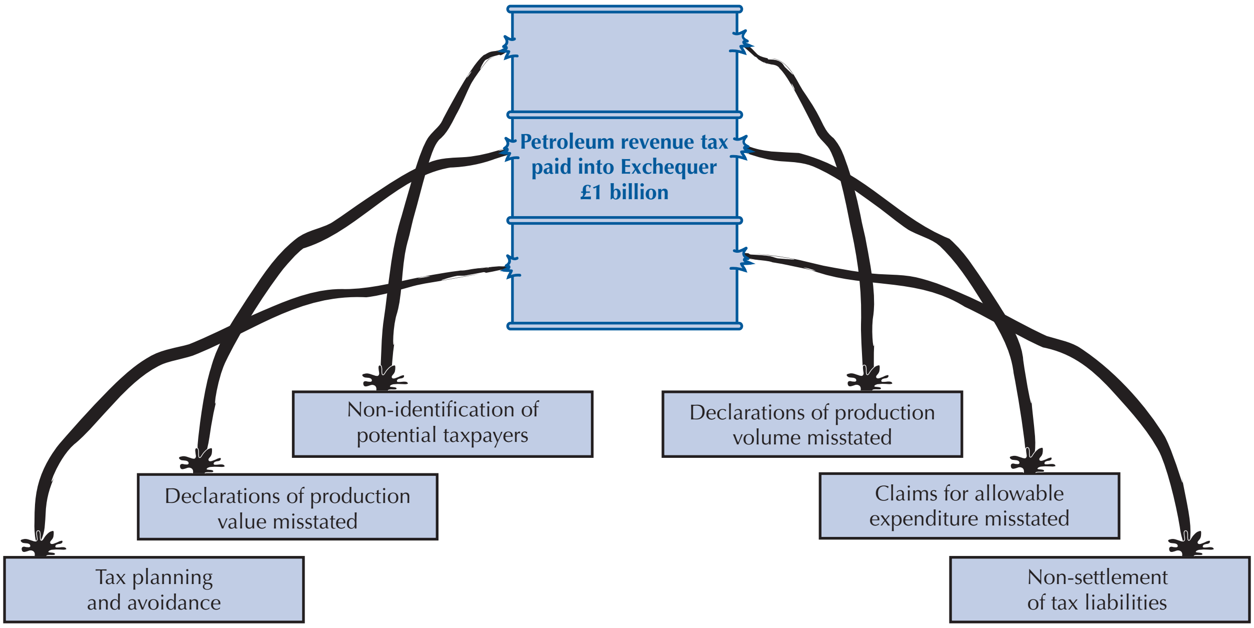
3 There remain substantial reserves of oil and gas and the oil industry predicts that the majority of fields will continue in production until after 2010. Production is estimated to be maintained until 2010 at the equivalent of three million barrels of oil per day. Eventual decommissioning costs for the oil and gas fields have been estimated to be in the region of £8.5 billion, most of which will be allowable for tax purposes.

4 Various direct taxes are levied on production. Of these, petroleum revenue tax has produced almost £42 billion for the Exchequer since it was introduced in 1975. The tax is administered by the Inland Revenue's Oil Taxation Office. It is currently charged at a rate of 50 per cent on the net profit of sales of North Sea crude oil and gas after taking account of associated expenditure. Oil companies are required to make regular payments on account and send in returns of their production and expenditure every six months. The Oil Taxation Office examines these returns and then issues formal assessments of the amount of petroleum revenue tax due. Some £1 billion tax was collected in 1999-00. Receipts are expected to increase over the next three years, although forecasts are sensitive to changes in oil and gas prices.

5 Risk management is the key to the effective administration of tax. The main types of risk are shown in **Figure 1**.

6 The National Audit Office examination focused on how the Oil Taxation Office manages risk and what assurance is provided to the Chairman of the Board of Inland Revenue on its work.

1 Risks associated with the administration of petroleum revenue tax



Source: *National Audit Office*

Production returns

7 The main risks attached to the valuation of oil and gas production are that the volume or value of production could be understated, leading to an under-recovery of petroleum revenue tax. There are particular risks because many contracts are between related parties. In such cases, the petroleum revenue tax liability is assessed on the basis of the estimated open market value for the product rather than the declared contract price.

8 We found that the Oil Taxation Office was managing the risks effectively through its examination of production returns. It takes some assurance from the work of the Department of Trade and Industry's Metering Inspectorate, which carries out independent checks on metering arrangements, although our review indicated that there is scope for the Office to work more closely with them. For example, the Inland Revenue should consider securing access to returns made to the Department of Trade and Industry of deliveries by pipeline to assist it in the validation of the production returns provided for petroleum revenue tax purposes.

9 As regards the valuation of production, we confirmed that the Oil Taxation Office's management of the risks associated with the identification and valuation of oil production sold under non arm's-length contracts was effective and that its work to estimate open market prices to be applied to such contracts had been carried out in accordance with the statutory requirements laid down by Parliament. However, we question whether the statistical basis prescribed in the legislation used to estimate open market values for crude oil is the most appropriate one to use in circumstances where there are often very few transactions on a particular day. We also consider that there is scope for the Department to improve the methodology by which it currently estimates open market values for butane and propane. We therefore recommend that the Oil Taxation Office reviews its approaches.

Expenditure claims

10 Companies can offset certain expenditure against their petroleum revenue tax liabilities. The Oil Taxation Office carries out work to obtain assurance that the expenditure falls within the terms of the legislation governing the tax. The Department has traditionally taken assurance from reviews of companies' accounting and internal control systems, from examinations of claims, and from reconciliations of claims with audited accounts, but it has recently refocused its approach towards a more formal analysis and prioritisation of risk and is targeting its compliance work accordingly.

11 The Oil Taxation Office was addressing the main risks in its examination of claims, but there was scope to improve the way this work was recorded. And although the Department had made progress in addressing delays by companies in submitting reconciliations between expenditure claims and their accounts, there remains a backlog of outstanding reconciliations, dating as far back as 1991. This backlog, and the fact that the reconciliations are usually with accounting information taken from companies' ledgers rather than with their audited financial statements, has limited the assurance available to the Office from this check.

12 We therefore recommend that the Oil Taxation Office examines the merits of alternative sources of assurance. In the short term, the recent integration of its work with that of the Department of Trade and Industry's Oil and Gas Royalties Office should be used to identify opportunities to develop the way in which the Oil Taxation Office manages the risks attached to expenditure claims. The Inland Revenue should also consider, as a longer-term option, the costs and benefits of requiring companies to provide returns certified by their external auditors, which is a requirement in Norway and for royalty returns.

Collection of tax

13 The Inland Revenue is managing collection risks effectively. The petroleum revenue tax system minimises the risk of non-collection by requiring monthly instalments of tax, with a balancing payment when tax returns are filed. Some 96 per cent of the tax due is collected on account. At the last year end, the Department had collected over 99.75 per cent of the tax assessed to be due.

Quality of compliance work

14 While the Department has succeeded in collecting assessed tax liabilities, it is also important to ensure that tax assessments are accurate. The quality of work undertaken is crucial to the effective management of risk. The Oil Taxation Office builds in quality through its staff selection procedures, and training and development activity. It has also been exploring how to assess the quality of its work as part of the Inland Revenue's Compliance Quality Initiative. It has introduced quality monitoring arrangements for its corporation tax work but it has made slower progress on petroleum revenue tax, due to the complexity of the tax, limited staff resources, and difficulties in identifying external assessors with the skills required to carry out reviews. It carried out an initial round of reviews in summer 2000. In view of the importance of quality assurance, we recommend that it builds on this initial work to develop its approach.

Performance measurement and reporting

15 The Oil Taxation Office is accountable to the Chairman of the Board of Inland Revenue through the Director of the Department's International Division. The Office makes formal reports on progress each quarter, concluding with an annual report. These arrangements are supplemented by regular meetings and contacts on important issues. Its key performance targets include clearing correspondence and assessments within defined timescales.

16 The Oil Taxation Office's business aims are the prompt and accurate assessment and collection, or repayment, of revenues properly due. Its key performance targets do not currently address some of its business aims, for example the accurate assessment of tax; and primary responsibility for the prompt collection of sums due lies with one of the Inland Revenue's Accounts Offices. We recommend that the Department examines how targets could be expanded to provide a more comprehensive view of performance in administering petroleum revenue tax.

Overall summary

17 Our examination of the Oil Taxation Office's administration of petroleum revenue tax has provided assurance that the Inland Revenue is managing the risks associated with this tax, and the work the Department is carrying out to develop its approach to risk assessment should help ensure that resources are directed at areas of higher risk. The Department should use the opportunities offered by the assimilation of the work of the Oil and Gas Royalties Office and explore the scope for closer working with the Department of Trade and Industry's Metering Inspectorate in developing its approach.

18 There are clear reporting lines through which the Oil Taxation Office provides Inland Revenue senior management with regular accounts of progress against targets. The Department should build on these arrangements to obtain assurance on the Office's performance against all its key business aims, including the quality of work carried out on petroleum revenue tax.

Part 1

Introduction

This part of the report describes the main features of oil and gas production on the UK continental shelf, Departmental responsibilities for regulation and taxation, how petroleum revenue tax operates, and the scope of the study.

1.1 Oil and gas are two of the United Kingdom's most important natural resources, significant reserves having been discovered on the continental shelf within the last fifty years. The government's main objective for the exploitation of these reserves, which are primarily in the North Sea (Appendix 1), has been to maximise the benefits to the nation. It has sought to achieve this by charging economic rent and by securing a fair share of the profits, whilst offering stable, attractive and economically sound investment conditions for the oil and gas industry.

1.2 To date, the government has issued around 1,000 production licences to oil companies operating on the continental shelf. Since the start of major development in 1965, the industry has generated operating surpluses of £250 billion and some £91 billion direct revenue has been paid to the Exchequer.

1.3 Oil and gas production represents about 2 per cent of the United Kingdom's gross domestic product and the industry employs over 30,000 workers, with another 175,000 involved in supporting activity. Some 60 per cent of oil production and 10 per cent of gas production was exported in 1999, making a £4 billion net contribution to the balance of payments. There remain substantial reserves of oil and gas and the oil industry predicts that the majority of fields will continue in production until after 2010. Production is estimated to be maintained until 2010 at the equivalent of three million barrels of oil per day. Eventual decommissioning costs for the oil and gas fields have been estimated to be in the region of £8.5 billion, most of which will be allowable for tax purposes.

1.4 There are currently around 200 oil and gas fields in production. Just over half of these fields produce oil, with the remainder producing gas or condensate. The estimated total value of production in 1999 was around £15 billion. Sales of oil and natural gas liquids amounted to £10 billion, with the balance being accounted for by sales of gas.

1.5 The oil and gas industry comprises five main elements:

- exploration
- production and marketing of unrefined products
- refining
- marketing and distribution of refined products, and
- retailing.

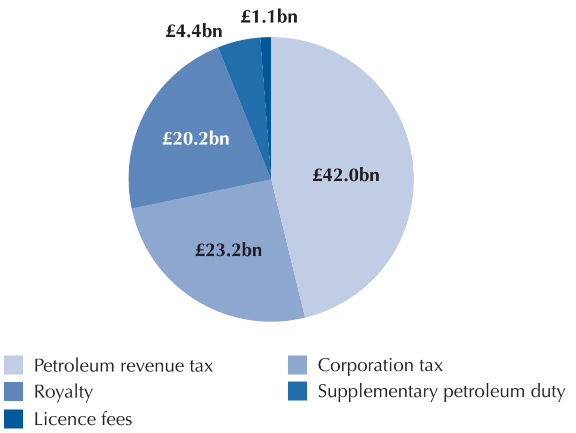
The first two elements are generally referred to as "upstream" activities while the other three are "downstream" activities.

Regulation and taxation

1.6 The Department of Trade and Industry is responsible for regulation of the oil and gas industry and for certain aspects of taxation, but the main taxation responsibilities lie with the Inland Revenue and Customs and Excise Departments. **Figure 2** shows the main sources of tax revenue on upstream activity since 1964.

1.7 The Inland Revenue's Oil Taxation Office is responsible for administering petroleum revenue tax and corporation tax. Until recently, the Department of Trade and Industry's Oil and Gas Royalties Office collected royalties, but from April 2000, the tax and royalty functions were merged and the Oil Taxation Office took over responsibility for the work of the Oil and Gas Royalties Office as the agent of the Department of Trade and Industry. As a result, the former Royalties Office in Aberdeen is now a branch of the Oil Taxation Office. The Department of Trade and Industry continues to collect licence fees and to be responsible for royalty policy.

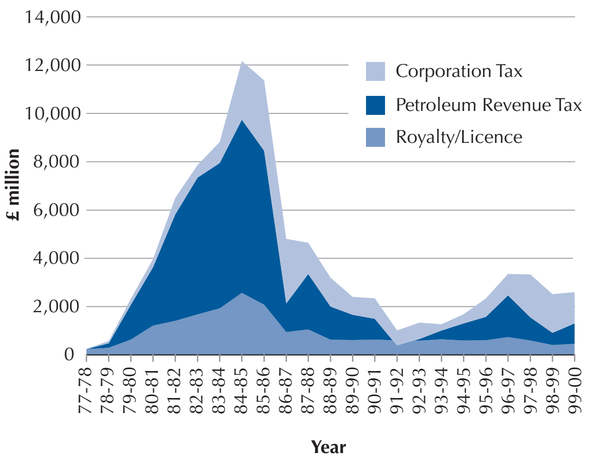
2 Taxation on UK oil and gas production 1964-65 to 1999-00



Note: Supplementary petroleum duty is no longer part of the current tax structure

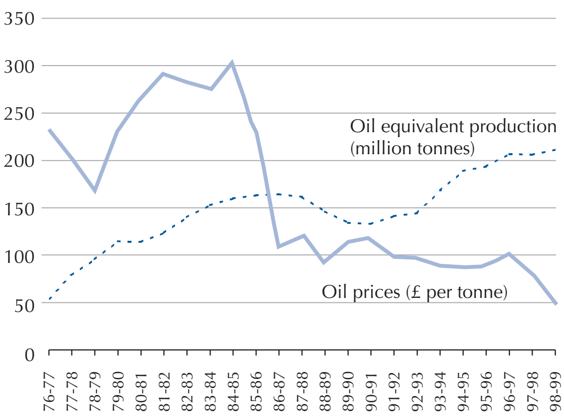
Source: National Audit Office

3 Oil and gas taxation 1977-78 to 1999-00



Source: Development of UK Oil and Gas Resources 2000 (Department of Trade and Industry)

4 North Sea oil prices and oil equivalent production 1976-77 to 1998-99



Notes: 1. The scale relates to both production and prices
2. Oil prices are valued at 1999-00 prices

Source: Department of Trade and Industry

1.8 **Figure 3** shows that tax yield on upstream activity has varied considerably over the last twenty years or so.

1.9 Key factors affecting tax yield on upstream activity are production levels, prices, and tax rates. **Figure 4** shows that while production has increased over the past twenty years or so, prices have fluctuated, with a significant fall in price in the mid-1980s which contributed to the substantial reduction in tax yield shown in Figure 3.

1.10 The main taxes on downstream activity, which includes activity relating to imports as well as indigenous production, include hydrocarbon oil duty on deliveries and value added tax on sales, administered by HM Customs and Excise. Income tax and corporation tax on profits arising from refining, distribution and retailing activity are assessed by the Inland Revenue. These taxes are subject to annual review as part of our statutory examination of tax systems under section 2 of the Exchequer and Audit Departments Act 1921 and issues arising from these examinations are included in our reports on the Departments' accounts. The main features of each tax stream are described in Appendix 2.

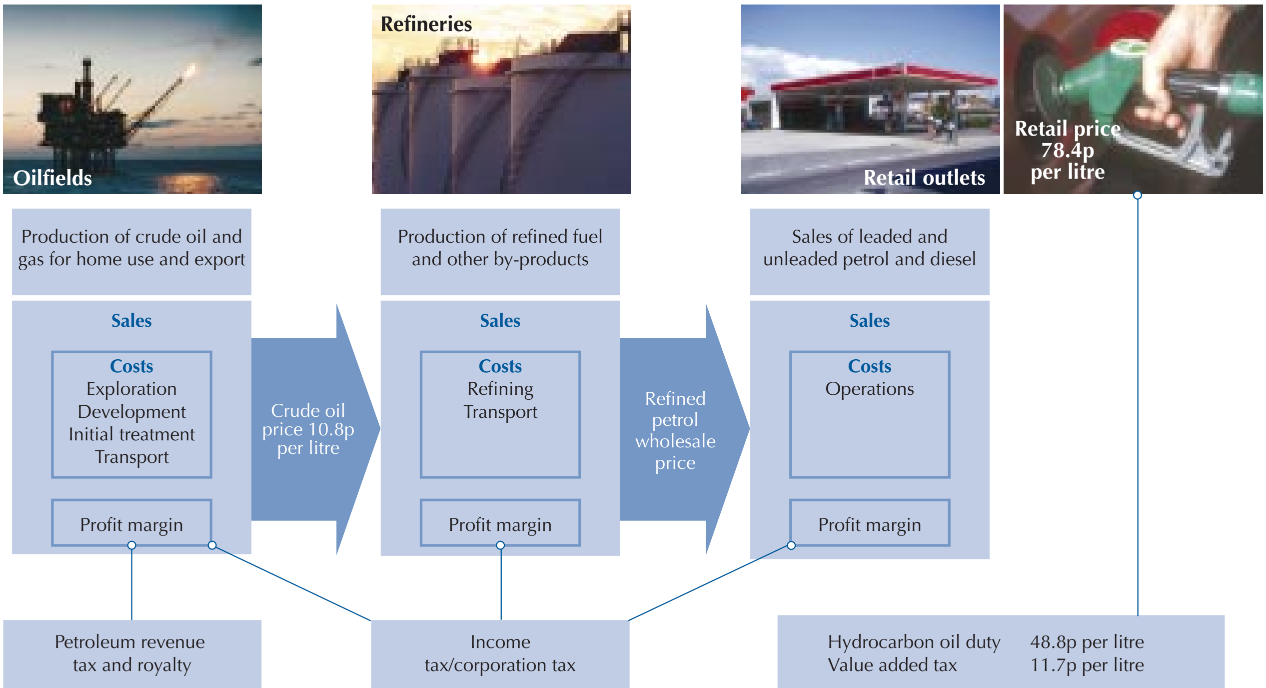
1.11 Hydrocarbon oil duty and value added tax, the two main taxes on downstream activity, have a direct impact on the price paid for fuel by consumers (see **Figure 5**). We are carrying out a separate examination of hydrocarbon oil duty and intend to report the results to Parliament in due course. By contrast, the impact of petroleum revenue tax on fuel prices cannot be determined. This is because a key factor underlying fuel prices is the cost of crude oil, which fluctuates in response to global supply and demand, rather than in response to underlying production costs. Furthermore, a significant proportion of UK production subject to the tax is exported, and some fuel supplied to UK consumers is refined from imported crude oil. National taxes on production, such as petroleum revenue tax, are more likely to influence oil companies' decisions on whether to increase or decrease production from individual fields in response to oil price changes, together with other field-related costs.

Petroleum revenue tax

1.12 This report focuses on what has historically been the largest source of tax revenue from oil and gas production, petroleum revenue tax. The following paragraphs explain how the tax operates and the scope of our examination.

1.13 The assessment of the amount of revenue due from taxable activities is governed by regulations made by Parliament through various statutes and statutory instruments. Petroleum revenue tax was introduced by the Oil Taxation Act 1975 and statutory provisions relating to the assessment and collection of the tax are contained in this Act. Amendments to reflect changes in the scheme, for example in response to developments in

5 The impact of taxation on fuel prices



Note: Prices are based on indicative levels at March 2000

Source: National Audit Office

the industry or to close loopholes, are contained in subsequent Acts of Parliament. More detailed regulations are contained in statutory instruments. Appendix 3 provides details of these statutory provisions and paragraphs 1.14 to 1.17 below provide a summary of how the tax operates.

1.14 The tax is paid by any participator in the development of an oil or gas field which was approved for development before 16 March 1993 and which has reached the position of profitability, taking account of allowances and losses brought forward from earlier periods within the development. Although there are over 110 oil and gas fields within the scope of the tax, many are not liable because tax allowances and expenditure exceed taxable income. There are currently around 25 taxpaying fields with over 120 participators.

1.15 The tax is currently levied at 50 per cent on the net profit of sales of offshore oil and gas after allowable expenditure on:

- the cost of extraction;
- initial treatment of the raw products; and
- transport of those products to the nearest landfall.

Certain other items of expenditure, for example on research and exploration, are also allowable.

1.16 For all fields within the scope of petroleum revenue tax, operators and participators are required to send in field-based returns for six-monthly taxable periods ending in June and December. These returns should be filed within two months of each period end. Operators return details of total production from the field. Participators' returns include details of the income from the production of oil and gas, including any appropriations and stock transfers. Claims for expenditure are generally submitted at the same time as the returns.

1.17 Participators are required to pay petroleum revenue tax in monthly instalments, each equating to 12.5 per cent of the previous period's liability, with a balancing payment, if appropriate, on the submission of the return.

1.18 The Inland Revenue's Oil Taxation Office is responsible for the administration of petroleum revenue tax and its main objective is the prompt and accurate assessment and collection of revenues properly due. It is headed by a director who reports through the International Division to the Chairman of the Board of Inland Revenue (Appendix 6). The Oil Taxation Office also deals with corporation tax for the oil industry and, since April 2000, with petroleum royalties.

1.19 Appendix 7 shows the structure of what is now the London branch of the Oil Taxation Office. It has separate sections dealing with petroleum revenue tax production returns and expenditure claims, and corporation tax. There is also a general office which is responsible for the processing of returns and assessments. There are currently 42 London-based staff, including 15 inspectors dealing with petroleum revenue tax.

Scope of National Audit Office examination

1.20 In common with other taxes, risk management is the key to the effective administration of petroleum revenue tax. The National Audit Office examination therefore focused on how the Department manages risks associated with the tax and what assurance is provided to the Chairman of the Board of Inland Revenue on those risks. The examination was carried out in support of the Comptroller and Auditor General's responsibilities under section 2 of the Exchequer and Audit Departments Act 1921 to ascertain that adequate regulations and procedure have been framed to secure an effective check on the assessment, collection, and allocation of revenue and that the regulations and procedure are being duly carried out.

1.21 In order to ensure that the examination was directed at areas of higher risk, we carried out a broad analysis of the likely risk of non-compliance associated with petroleum revenue tax (see **Figure 6**).

1.22 In shaping our study, we concluded that as there was a relatively small number of potential taxpayers and oil and gas exploration and development were regulated, there was a very low risk that potential taxpayers would not be identified by the Department. And given the status of the companies concerned, and the results of our previous audit work on the Department's accounts, there was also a relatively low risk of taxpayers defaulting on payments assessed as due and in the allocation of tax to the correct head of duty.

1.23 The oil and gas industry is, however, financially sophisticated with substantial resources and is able to invest in tax planning to mitigate its tax liabilities. We decided, therefore, to focus our examination on those areas of higher risk which were likely to be associated with the production returns and expenditure claims filed by companies.

1.24 Our methodology is set out in detail at Appendix 8. In summary, we adopted a top-down approach to analyse how the Oil Taxation Office managed the risks and the extent of assurance available from various Departmental

6 Petroleum revenue tax: analysis of risks

Process	Risk	
Establishment of regulations and procedure	■ Legislation does not address tax risks ■ Regulations and procedure are not in line with legislation ■ Regulations and procedure are unclear and taxpayers and staff do not understand their responsibilities	
Identification of taxpayers	■ Eligible oil fields omitted from tax net ■ Taxpayers not identified	Identification of taxable transactions (Parts 2 and 3)
Returns and claims management	■ Returns and claims are not filed by taxpayers ■ Missing returns are not identified and pursued	
Processing	■ Returns and claims by taxpayer incomplete or inaccurate	
	■ Taxpayer's assessment of liability incorrect ■ Returns and claims not processed ■ Returns and claims processed incorrectly by Oil Taxation Office	Assessment of tax liability (Parts 2 and 3)
Conduct of enquiries	■ Failure to identify important areas for further enquiry due to inadequate assessment of risks ■ Failure to identify and investigate potential mis-statements relating to ▪ deliveries and prices ▪ non arm's-length prices ▪ claims for allowances ▪ ineligible expenditure ▪ overstated expenditure ■ Assessment of allowable expenditure incorrect	
Notification of liability	■ Assessment not issued to or received by taxpayers ■ Assessment incorrect	Collection of tax (Part 4)
Debt management	■ Liability not paid when due and not pursued ■ Interest for non payment not charged ■ Interest charged incorrectly ■ Repayments made incorrectly	
Sums brought to account	■ Receipts incorrectly recorded or allocated ■ Diversion of funds within the Department	

Source: National Audit Office

processes. We also consulted the oil and gas industry and compared the administration of petroleum revenue tax in the United Kingdom with the approach adopted by the Norwegian authorities for the taxation of oil and gas fields in their sector of the North Sea.

1.25 The results of the examination are set out in the following parts of the report:

- Valuation of oil and gas production (Part 2)
- Expenditure claims (Part 3)
- Collection of petroleum revenue tax (Part 4)
- Quality of compliance work (Part 5)
- Performance measurement and reporting (Part 6)

Part 2

Valuation of oil and gas production

This part of the report examines how the Oil Taxation Office manages the risks associated with identifying taxable transactions and valuing production as part of the process for assessing tax liability.

2.1 The risks of non-compliance on the valuation of oil and gas production for petroleum revenue tax purposes include the accidental or deliberate understatement of production income, which could result in an understatement of tax liabilities. Mis-statements could arise from understatements of either the volume of production or prices. There are specific risks attached to valuations arising from contracts where prices may not have been negotiated on an arm's-length basis at open market values. Such contracts include those transacted between related companies and those which form part of a series of interconnected deals.

2.2 The Oil Taxation Office has established a number of measures, which serve to minimise the exposure of the Department in terms of potential loss of tax (see **Figure 7**). We reviewed the operation of these measures to obtain assurance that the risks were being managed effectively. We examined the validation of the production returns made by the field operators and participators and the valuation of production sold under non arm's-length contracts. This examination is detailed at Appendix 4.

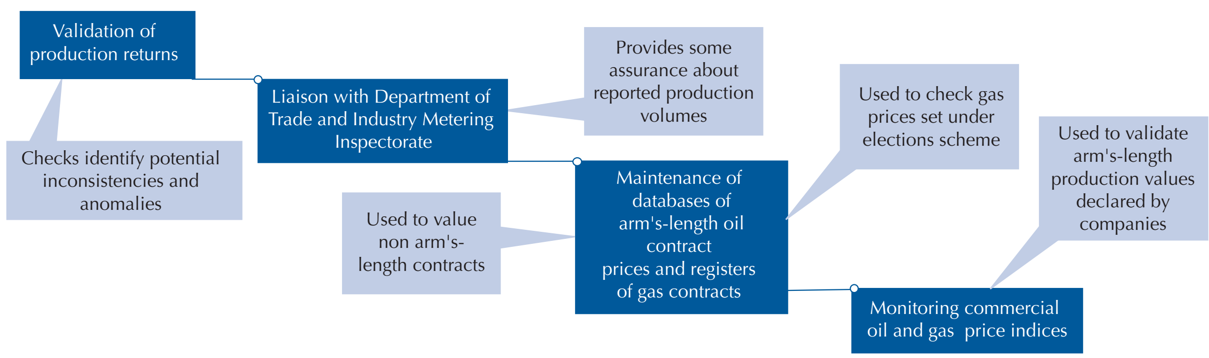
Conclusions on validation of production returns and recommendations

2.3 Most of the Oil Taxation Office's assurance about the reliability of the production returns filed by oil companies for petroleum revenue tax purposes comes from its systematic checks on the returns. We confirmed that these checks were being carried out effectively, providing the assurance required.

2.4 These checks are not, however, proof against deliberate understatement of production, although the transparency of the industry and the commercial relationships between operators and participators reduce the risk of fraud and collusion.

2.5 The former Oil and Gas Royalties Office compared production information supplied by companies for petroleum revenue tax purposes with that supplied for

7 Oil Taxation Office: management of risks attached to returns of production



Source: National Audit Office analysis of Oil Taxation Office procedures

royalty purposes and provided feedback to the Oil Taxation Office on an ad hoc basis. The amalgamation of the Oil Taxation Office and the Oil and Gas Royalties Office provides opportunities for closer working on the validation of the value of reported production. We therefore endorse the steps currently being taken by the Offices to establish the scope for taking assurance from their respective work on petroleum revenue tax and royalty.

2.6 The Oil Taxation Office also takes some assurance from the work of the Department of Trade and Industry's Metering Inspectorate, which carries out checks on the reliability and accuracy of metering arrangements. It does not, however, validate production information declared on petroleum revenue tax returns by using information about deliveries of hydrocarbon products provided to the Inspectorate.

2.7 To obtain a greater degree of assurance, we recommend that the Oil Taxation Office establishes closer links with the Department of Trade and Industry Metering Inspectorate and reviews the outcome of its work. We also recommend that the Office secures access to the pipeline returns to assist it in validating declarations by oil companies.

2.8 The approach adopted in Norway provides a greater degree of assurance on production volumes because tax assessments are based on data which includes adjustments for metering errors detected by the Norwegian Metering Inspectorate. We recommend that the Oil Taxation Office benchmarks the current arrangements against those adopted by Norway to assess the scope for improvements.

Conclusions on valuation of production and recommendations

2.9 The Oil Taxation Office's checks on the valuation of oil and gas production for petroleum revenue tax purposes provide substantial assurance that the main area of risk, the identification and valuation of production under non arms-length contracts is being managed effectively.

2.10 We endorse the Office's approach to maintaining independent databases of open market prices and have confirmed that its work conformed to statutory requirements and produced reliable information. Although the current approach to estimating monthly average open market prices for Brent crude oil is not statistically invalid and has proved to be acceptable to the oil industry, it is not ideally suited to a situation where there are significant daily variations in the number of deals. This is because it may result in average prices, and hence petroleum revenue tax assessments, that differ from those which would prevail if the deals were more evenly distributed.

2.11 The approach could be improved and streamlined by adopting a weighted average of all reported transactions. This would eliminate the need to interpolate prices for days on which there was no information, and help the Oil Taxation Office simplify its procedures. Any change in methodology would require an amendment to existing legislation, but we nevertheless recommend that the merits of adopting this alternative approach are considered.

2.12 The Oil Taxation Office's databases of open market prices for propane and butane used to value non arms-length transactions exclude entitlement contracts, which account for a significant proportion of deals. Omitting these contracts could lead to the under- or over-estimation of open market prices. We therefore recommend that the Oil Taxation Office reviews the scope for a change in methodology to include a greater proportion of arms-length deals.

2.13 Once the Department has released its calculations of open market values, it does not currently amend them if companies notify revisions to reported contract prices because it considers the impact on petroleum revenue tax would be unlikely to be material and revisions would involve additional administrative costs for both itself and the oil companies. It does not, however, maintain information on sales of individual oil and gas products which would enable it to calculate the potential tax effect of making changes. As adjustments may have a significant impact on estimated open market prices, we recommend that it considers collating information about sales of specific products included on returns so that it can make a reliable estimate of the potential tax effect before deciding whether to revise its database of open market prices.

Part 3

Expenditure claims

This part of the report examines how the Oil Taxation Office manages the risks of oil companies obtaining tax relief on ineligible expenditure and the production of assessments of tax.

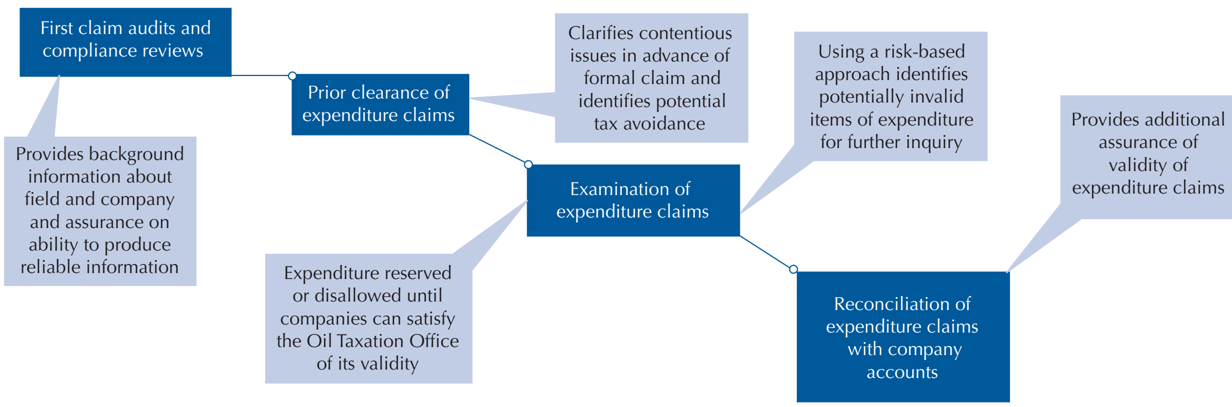
3.1 The amount of petroleum revenue tax due from each company is based on the net income from sales of oil and gas, after taking account of expenditure on exploration and extraction, and transport to the nearest landfall. The Oil Taxation Act 1975 sets out the types of expenditure which are allowable against petroleum revenue tax. The main risks to the assessment of tax which need to be managed include the overstatement of expenditure claims, tax avoidance and the mis-interpretation of legislation. **Figure 8** summarises the main elements of the Oil Taxation Office's work to address these risks. Our examination assessed the effectiveness of these arrangements.

3.2 There is no statutory requirement for petroleum revenue tax returns and claims to be independently audited before submission. This contrasts with the position on the equivalent tax in Norway. It also contrasts with the requirements in relation to royalties due to the Department of Trade and Industry, where royalty statements are currently certified by companies' external auditors. In the absence of an audit requirement, the Oil Taxation Office takes steps to obtain its own direct assurance that returns and claims are not mis-stated.

3.3 Until recently, the Oil Taxation Office's approach to managing the risk that companies' claims for expenditure relief are mis-stated was intended to ensure that all key risk areas were addressed. Over the last two years, following the development of new arrangements for corporation tax, the Office has recast its approach and it asked its inspectors to prepare risk assessments to identify key risks and concerns. These risk assessments, which were largely based on the Oil Taxation Office's past experience, included information on the structure and operation of the field, the tax position, general issues, and specific issues relating to the field, and identified areas requiring more detailed examination. The assessments are treated as live documents which will be subject to revision in the light of experience.

3.4 The lack of a common structure to risk assessments meant that the Oil Taxation Office could not readily compare risks between fields and prioritise resources accordingly. In July 1999, it began to address this by issuing an agreed format for completion of risk

8 Oil Taxation Office: management of risks attached to claims for expenditure



Source: National Audit Office analysis of Oil Taxation Office procedures

assessments to inspectors. This should help ensure that key factors are considered on a consistent basis and that resources are allocated to compliance work in response to assessed risk.

3.5 Given that the Department's approach to checking companies' compliance with legislation relating to expenditure claims is evolving in the light of its risk assessment work, we focused our examination on the conduct of current compliance activity in order to identify issues which the Department might wish to consider in developing its risk-based approach.

3.6 We specifically examined the Oil Taxation Office's reviews of companies' accounting systems, the inspectors' examination of expenditure claims, the reconciliation of tax returns with company accounts and ledgers and opportunities now offered by the integration of the Oil and Gas Royalties Office into the Oil Taxation Office. The details of this examination are in Appendix 5 and our methodology is explained in Appendix 8.

Conclusions and recommendations

3.7 The Oil Taxation Office's work to assess whether companies' accounting systems are likely to lead to reliable expenditure claims needs to address key risks and to be kept up to date if the Department is to tailor its compliance work to manage risks effectively. Our review showed that the Oil Taxation Office has approached this issue in a number of ways, but that these have not produced the overall assurance that a more structured approach could provide. We therefore recommend that the Oil Taxation Office establishes a standard approach for its risk assessment of accounting systems to ensure that any risks are identified and managed, and that this work is documented in a consistent way.

3.8 Every six months, the Oil Taxation Office receives a significant volume of claims for relief from petroleum revenue tax in respect of expenditure incurred in oil and gas production. The Office aims to target its limited resources on areas of higher risk in order to secure an effective check on claims.

3.9 Inspectors are dealing with claims on a timely basis and their work has detected substantial amounts of ineligible expenditure. We consider, however, that the Oil Taxation Office could demonstrate more clearly that risks are being managed by documenting the risks and the checks which need to be undertaken on a claim, and the results of those checks, and by recording the reasons behind the approach adopted where there are questions or doubts about the eligibility of expenditure. We therefore recommend that, as part of its quality assurance processes, the Oil Taxation Office considers how best to improve the transparency of its work to assess and address the risks arising on expenditure claims.

3.10 We endorse the Oil Taxation Office's initiatives to liaise with the oil industry and with individual companies to ensure that petroleum revenue tax legislation is interpreted consistently and in accordance with Parliament's adjudged intentions. This, and action taken to clarify the legislation, should help minimise the risk of tax loss through companies' mis-interpretation of the rules or through tax avoidance schemes. We recommend that the Oil Taxation Office records the financial impact of this work to help it analyse the cost-effectiveness of different aspects of compliance activity.

3.11 There is a significant backlog of appeals against decisions made by the Oil Taxation Office on companies' expenditure claims, with around 100 dating back to 1995 or earlier. In view of the Oil Taxation Office's policy of restraint in the use of the statutory arrangements for securing the information necessary to progress appeals, except in cases where companies have refused to co-operate, we recommend that the Office and the oil industry discuss how best to address the issues giving rise to delays.

3.12 The successful reconciliation of petroleum revenue tax expenditure claims to extracts from companies' general ledgers provides some assurance about the reliability of claims. The assurance available to the Oil Taxation Office is limited, however, because the arrangements depend on the voluntary co-operation of the companies and there continue to be significant backlogs. In addition, the information provided, while forming the basis of companies' audited accounts, is not itself covered by an independent audit opinion. We therefore recommend that the Oil Taxation Office examines the extent to which the reconciliation process is adding value in relation to the cost to itself and the oil companies of carrying out the work and explores alternative approaches to addressing the risks that reconciliations are intended to tackle.

3.13 Of the potential sources of additional assurance on petroleum revenue tax claims available to the Oil Taxation Office, the integration of the work of the Oil and Gas Royalties Office seems to offer the most scope in the short term for developing and improving the way risks are managed. In particular, the intelligent use of questionnaires to understand developments in oil and gas fields and the structured approach adopted by the Oil and Gas Royalties Office could help inform the risk assessment process to determine where assurance is most likely to be needed. There is also likely to be scope for developing the approach to royalty administration using the Inland Revenue's experience on petroleum revenue tax. We therefore recommend that the Oil Taxation Office uses the opportunities offered by the integration to further develop its approach.

3.14 Introducing a requirement on companies to provide claims certified by their external auditors would offer scope for reducing the Department's own compliance efforts and the associated burden on oil companies, while maintaining or increasing the level of assurance about the propriety of returns. We recommend that the Oil Taxation Office examines the merits of a move to this approach as a longer-term option.

Part 4

Collection of petroleum revenue tax

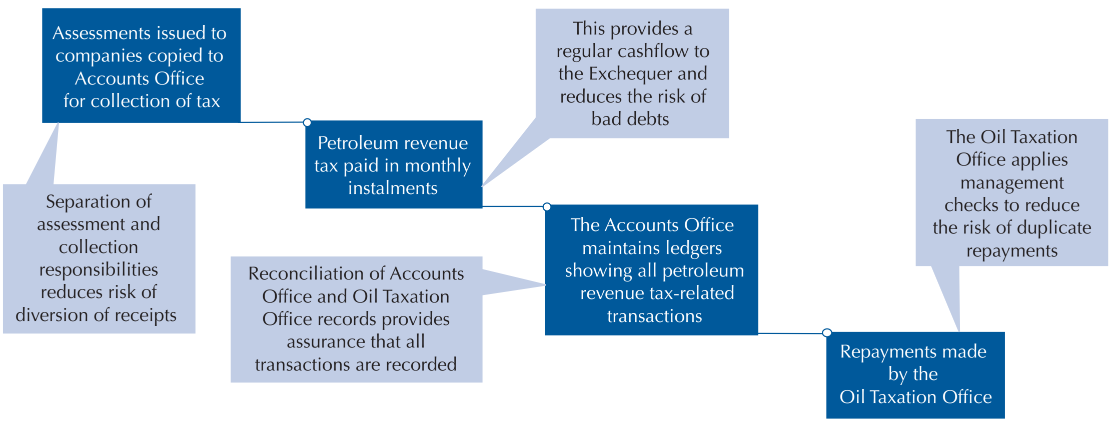
This part examines how the Inland Revenue ensures that the amounts of petroleum revenue tax assessed to be due are collected and paid over to the Exchequer.

4.1 Our overall analysis of the risks attached to the administration of petroleum revenue tax suggested that there was a relatively low risk of taxpayers defaulting on their assessed petroleum revenue tax liabilities. In addition, our audits of the Inland Revenue's financial statements each year have provided assurance that sums paid are duly brought to account. We, nevertheless, reviewed the arrangements for collecting the tax to obtain assurance that the Inland Revenue was managing the risks effectively. **Figure 9** shows the key elements of the process.

4.2 The key to managing the risk of non-collection is to ensure that tax liabilities are recorded in the Department's accounting records as soon as an assessment is issued and to ensure that any subsequent adjustments represent valid alterations and are accurately recorded. The administrative section of the Oil Taxation Office issues assessment notices to companies for the two half-yearly cycles in May and November each year. These are copied to the Inland Revenue's Accounts Office at Shipley, which is responsible for collection. Any amended assessment notices issued in the interim period are handled in the same way. The separation of assessment and collection responsibilities minimises the risk of collusion between the taxpayer and the Inland Revenue and the risk of misappropriation of tax receipts by those responsible for making assessments.

4.3 Petroleum revenue tax is payable in six separate monthly instalments, based on the amount assessed in the previous period, with a balancing payment on completion of the tax return. Any balance due on the issue of an assessment notice is payable within 28 days. These arrangements provide a regular cashflow to the Exchequer and help minimise the risk of significant liabilities arising, which could result in bad debts. Over the three half-yearly assessment cycles between January 1998 and June 1999, some 96 per cent of the tax due had been paid on account.

9 **Oil Taxation Office: management of risks associated with collection of petroleum revenue tax**



Source: National Audit Office analysis of Oil Taxation Office procedures

4.4 Repayments are made whenever a company's payments have exceeded its assessed tax liability. They can arise both at the end of each half-yearly cycle and also during the cycle, if the previously assessed tax liability is reduced. A reduction in liability can arise following a successful appeal against a disallowance, or if a loss is carried back to an earlier period. The Department repaid some £130 million in 1999-00.

4.5 In our report on the Department's appropriation accounts for 1991-92, we noted that two duplicate repayments amounting in total to £40 million had been made by both the Oil Taxation Office and the Accounts Office. Following this, the Oil Taxation Office strengthened its management checks to reduce the risk of a recurrence. We obtained assurance that these checks remained in place and reviewed the documentation on a sample of repayment files and confirmed that they were being duly applied. The Oil Taxation Office now has sole responsibility for repayments, further reducing the risk of duplicate repayments.

4.6 The Accounts Office maintains manual accounting ledgers which show the petroleum revenue tax liability for each company and field. The balance is struck after taking account of assessments issued by the Oil Taxation Office, tax receipts and repayments, and other adjustments. The operation of a manual accounting system means that there is no computerised interface between the Accounts Office and the Oil Taxation Office. Computerisation of the petroleum revenue tax ledgers in Shipley would reduce the need for the transmission of documents between the two offices. It would also reduce the risk of repayment errors by providing on-line information about balances due to and from companies.

4.7 The Oil Taxation Office is currently examining the business case for upgrading the information technology support for the administration of petroleum revenue tax, embracing all aspects of the process, including accounting. The proposed improvements would improve communications between the Office and oil companies by allowing, for example, the electronic filing of tax returns. Any decision to proceed will depend on the strength of the business case, the availability of resources, and competing priorities.

4.8 The Accounts Office is responsible for monitoring payments and for recovering outstanding debt. The interim payments system outlined at paragraph 4.3 above means that there is rarely any significant debt. The Department prepares balance accounts each year to provide assurance on the completeness of its accounting records. These showed that some £1.5 million debt was outstanding at 31 October 1999, representing 0.24 per cent of the amount assessed in the year.

Conclusions and recommendations

4.9 Our examination confirmed that the Inland Revenue is managing the risks attached to the collection of petroleum revenue tax effectively. Computerisation of the accounting ledgers would, however, improve the availability of payment information to the Oil Taxation Office and further reduce the risk of repayment errors. We therefore endorse the Department's initiative to assesses whether there is a business case for upgrading its information technology system for petroleum revenue tax.

Part 5

Quality of compliance work

This part examines how the Oil Taxation Office obtains assurance that its examination of petroleum revenue tax returns is carried out to a satisfactory standard.

5.1 The resolution of complex taxation issues such as those associated with petroleum revenue tax depends to a significant extent on the professional judgement of experienced tax inspectors. The Inland Revenue builds quality into its work through its staff selection procedures, structured training, guidance, and development activity. It has recognised, though, that it needs to monitor the quality of the compliance checks carried out by its staff on petroleum revenue tax returns to provide assurance that it is meeting its objective of assessing the right amount of tax.

5.2 During 1995, the Department reviewed its quality assurance arrangements for the administration of income tax in preparation for the introduction of self assessment. The resulting Compliance Quality Initiative report made a number of recommendations for developing a quality management system, supported by clear and independently validated measures of performance. The recommendations were subsequently developed for application in the Department's network of local tax offices and in the Department's specialist Executive Offices.

5.3 In order to provide assurance on the conduct of compliance work, the Compliance Quality Initiative report envisaged a system of self-appraisal, where staff would assess their performance on key elements of the compliance process, with a proportion of cases being subject to independent validation by, for example, peer review.

5.4 We examined the Oil Taxation Office's quality management arrangements for petroleum revenue tax and its progress in introducing independent appraisals of compliance work in response to the Department's Compliance Quality Initiative.

5.5 The foundation of the Oil Taxation Office's quality management arrangements is the existence of a manual and instructions setting out comprehensive guidance on the administration of petroleum revenue tax and on the handling of issues where complex judgements may need to be made. These written instructions are supported by training and development.

5.6 The Oil Taxation Office was, in 1996, the second operational office within the Department to gain Investors in People accreditation. As part of its commitment to quality and staff development, new inspectors are provided with specialist technical skills training when joining the Office. Thereafter, specific skills needs are continuously re-assessed and updated.

5.7 New inspectors have traditionally been allocated fields which are considered to have a relatively low risk and are reassigned to higher risk fields as their experience develops. More experienced staff have been designated "central issues" inspectors and handle common issues which affect more than one taxpayer or field such as insurance and the allocation of oil company overheads across fields. This helps to secure a consistent approach. In February 2000, the Oil Taxation Office used the risk scores derived for individual fields and common issues to underpin proposed staff allocations and intends to use this approach to allocate staff in future.

5.8 One of the oil and gas industry representative bodies told us that staff changes can result in companies having to deal with several new inspectors over a short period of time. The Oil Taxation Office is attempting to address this concern in allocating work to inspectors by providing a measure of continuity, where possible, although it has to balance this against the need for staff rotation for development purposes and to minimise the risk of inspectors becoming too closely involved with individual cases.

5.9 The Oil Taxation Office has also established quality groups in order to identify the scope for further improvement in its business processes. There are five separate groups focusing on communications, compliance, leadership and planning, personal development, and process improvement; some of these have sub-groups set up to look at specific issues, for example appeals. The Office is planning to review the effectiveness of the work of the groups in late 2000.

5.10 As regards monitoring the quality of compliance work, the Oil Taxation Office, in conjunction with the Department's Compliance Division and Large Business Office, commenced work in 1996 to develop a model for corporation tax based on the principles set out in the Compliance Quality Initiative report. Inspectors completed questionnaires to assess their performance in dealing with key issues. Following the trial, the Oil Taxation Office carried out a full review during 1999. This exercise concluded that corporation tax compliance work had been carried out to a satisfactory standard.

5.11 The Oil Taxation Office had to rely on its own limited resources to further develop quality monitoring for petroleum revenue tax. The quality assurance model differs in a number of important respects from corporation tax, in that it needs to cover work to verify the valuation of production as well as companies' expenditure claims. There were also questions as to whether the work should focus on issues, individual taxpayers, or adopt a field-based approach. The Oil Taxation Office has, therefore, made less progress than on corporation tax and was still trialling the arrangements at the time of our examination.

5.12 The specialised nature of the work undertaken by petroleum revenue tax inspectors also led to some initial difficulty in identifying external assessors with the skills necessary to carry out independent reviews of the quality monitoring work. This issue has now been addressed and independent peer reviews to validate its quality assurance work were carried out in August 2000. The exercise concluded that petroleum revenue tax compliance work had been carried out to a satisfactory or better standard and the external assessors confirmed these results, with some upward adjustments of the reviewers' marks.

Conclusions and recommendations

5.13 A complex tax such as petroleum revenue tax depends on skilled inspectors with sound technical knowledge. The Oil Taxation Office's arrangements for training new inspectors and for matching their skills and experience to the risks involved should help deliver good quality work. The Office has trialled quality monitoring arrangements to provide assurance that work is being delivered to a satisfactory standard and to obtain independent confirmation of the standards achieved. We recommend that it builds on this initial work to refine its approach.

Part 6

Performance measurement and reporting

This part examines how senior management obtains assurance that the Oil Taxation Office is managing the risks associated with the administration of petroleum revenue tax.

6.1 The business aims of the Oil Taxation Office are the prompt and accurate assessment and collection of revenues properly due and the prompt and accurate repayment of tax where more has been paid than is due. Primary responsibility for the prompt collection of petroleum revenue tax, however, lies with the Inland Revenue's Accounts Office at Shipley (paragraph 4.2). Performance targets against which the activities of the Oil Taxation Office are measured are set out in the Inland Revenue Plan, the latest version of which covers the financial years 1999-2000 to 2001-2002.

6.2 During the course of the year, the Director of International Division monitors progress against these indicators in a number of ways, including:

- formal quarterly reports from the Oil Taxation Office, which contain information on running costs, unit costs, yield, correspondence turnaround, repayments, and clearance of petroleum revenue tax returns and expenditure claims;
- regular feedback from members of the Office's management team;
- direct contact with other members of the Office on issues with international implications;
- discussions with the Department's Human Resources Division and the Energy Policy Group;
- bi-annual meetings of the Oil Taxation Office, International Division and the Large Business Office.

At the end of the year, the Oil Taxation Office produces an annual report which summarises performance against its agreed objectives. Some of this information is included in the Annual Report of the Board of Inland Revenue.

6.3 For the majority of categories the Oil Taxation Office's performance equalled or bettered its targets (**Figure 10**).

6.4 The Oil Taxation Office also monitors its activities in other areas, for which no formal targets are set (**Figure 11**).

6.5 These indicators are supplemented by periodic surveys of taxpayer companies covering a range of service issues such as speed of response, accuracy, efficiency and consistency, most recently in 1996 and 1999. As the questions covered all aspects of the Oil Taxation Office's operations, we were unable to isolate specific views on petroleum revenue tax issues. The two surveys yielded similar responses on the overall performance of the Office, with over 90 per cent of respondents reporting the service satisfactory or better, and over 75 per cent good or better. None of the respondents felt that any of the main overseas Revenue authorities provided a more effective service than the Oil Taxation Office in the UK.

6.6 These arrangements provide a broad measure of assurance to senior management that the Oil Taxation Office is administering petroleum revenue tax effectively. However, the performance targets set do not specifically address the four primary business aims of the Oil Taxation Office set out in paragraph 6.1 above: prompt collection and accurate assessment, collection and repayment.

6.7 The Oil Taxation Office told us that the indicators were intended to provide assurance on its own operations as a whole rather than for the administration of petroleum revenue tax, and the prompt and accurate collection of tax was primarily the responsibility of the Accounts Office. Since its original business aims had been agreed, customer service had become a more important aspect

10 **Key targets and results for 1995-96 to 1999-00**

	1995-96		1996-97		1997-98		1998-99		1999-00	
	Target	**Result**	**Target**	**Result**	**Target**	**Result**	**Target**	**Result**	**Target**	**Result**
Customer Service	%	%	%	%	%	%	%	%	%	%
Correspondence dealt with in										
28 days	90	96	90	96	90	95	90	94	90	93
56 days	98	99	98	99	98	99	98	98	98	98
90 days	100	99	100	99	100	99	100	99	100	100
North Sea clearance applications dealt with in 15 days	100	97	100	100	100	99	100	99	100	100
Compliance	%	%	%	%	%	%	%	%	%	%
Repayments made in 28 days	95	99	95	99	95	98	95	99	95	95
Returns dealt with in 10 weeks	100	100	100	100	100	100	100	100	100	100
Assessments made by due date	100	100	100	100	100	100	100	100	100	100
Cost efficiency	£	£	£	£	£	£	£	£	£	£
Unit cost										
per return	444	446	473	516	535	585	523	423	421	450
per expenditure claim	407	515	448	470	492	456	405	531	466	627
of collection		0.36		0.18		0.34		0.64		0.20

Notes: 1. The results are validated by the Inland Revenue's Internal Audit Office on a cyclical basis.
2. The cost efficiency measures are forecasts rather than targets.

Source: *Inland Revenue Annual Reports*

of its business and this had justified the inclusion of performance information on how quickly it had dealt with correspondence. It accepted, however, that it could provide information on accuracy by reporting the results of its existing work on accuracy of assessments, repayments and quality assurance.

6.8 We identified two possible additional performance indicators which might help the Oil Taxation Office to demonstrate whether it was meeting its business aims:

- debtors as a proportion of tax due (prompt collection); and
- adjustments to petroleum revenue tax assessments to correct mistakes by the Oil Taxation Office (accuracy of assessment and repayment).

Much of the information necessary to compute these indicators is already available within the Oil Taxation Office, and this could be achieved for little or no additional cost.

Conclusions and recommendations

6.9 The Oil Taxation Office has clear lines of accountability to the Chairman of the Board of Inland Revenue and the performance of the Office is monitored on a regular basis, focusing on the achievement of plans. While these arrangements are working well, they do not provide fully comprehensive information on the achievement of all the Office's business aims. We therefore recommend that the Oil Taxation Office liaises with the Accounts Office to establish the availability of information on the prompt and accurate collection of petroleum revenue tax and examines the scope for reporting more of its own management information to provide assurance on the accuracy of assessments and repayments.

6.10 While quantitative information can provide valuable assurance on what has been achieved, it is also important for senior management to receive positive assurance on the outcome of work that cannot be so

11 **Other indicators for 1995-96 to 1999-00**

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00
Additional tax brought into charge	£ million	326	166	47	28	77
Estimated yield/cost ratio	£	447:1	177:1	44:1	20:1	68:1
Staffing	Numbers	40	41	42	40	40

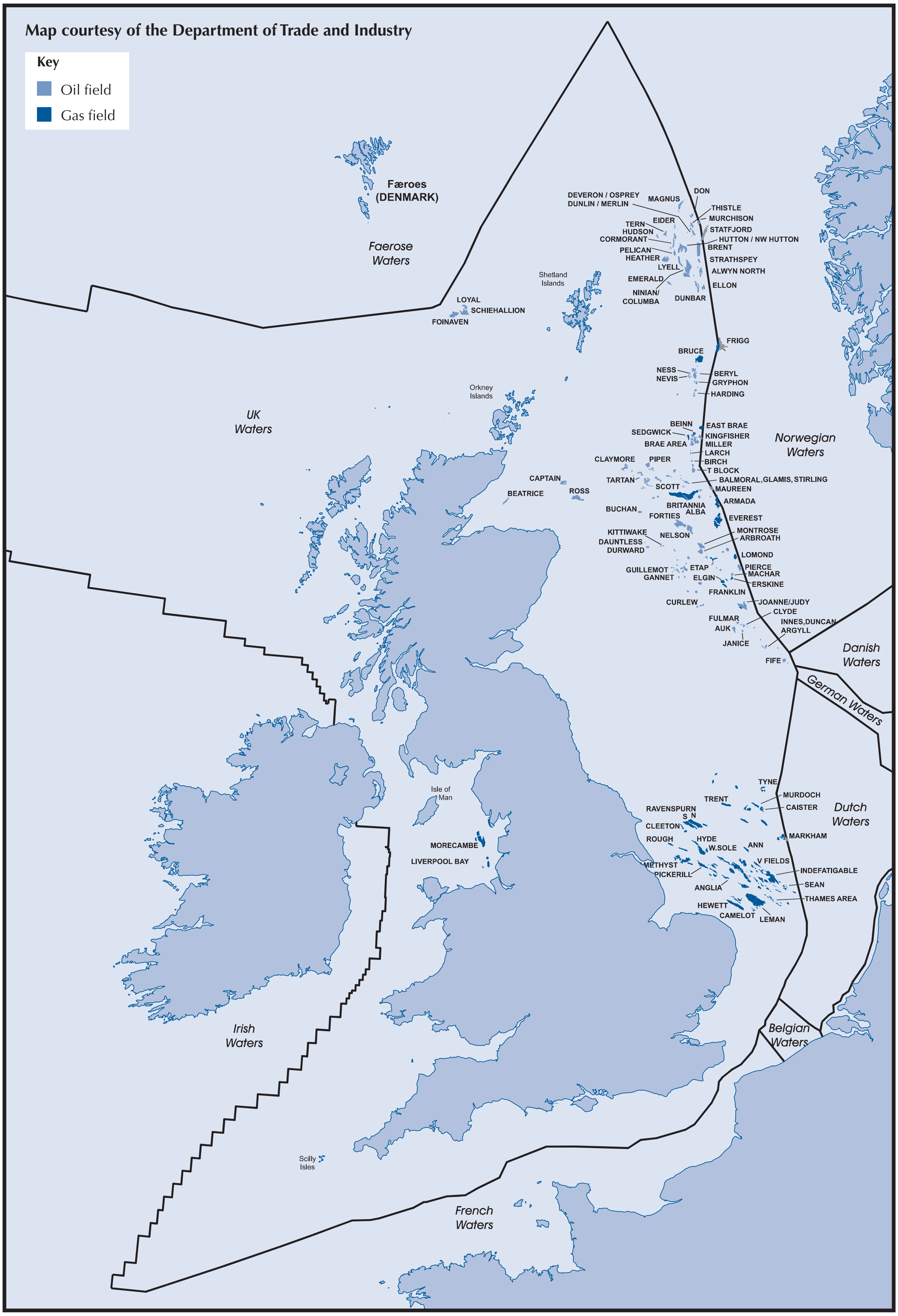
Notes: 1. The decline in yield up to 1998-99 is due to a combination of factors, including a reduction in the rate of tax from 75 per cent to 50 per cent, changes in oil prices resulting in a fall in overall yield in 1997-98 and 1998-99, and a reduction in the number of claims for development expenditure, traditionally a source of large adjustments. In addition, a more prudent approach to estimating additional yield was introduced in 1998-99.

2. The staff figures above are for the whole of the Oil Taxation Office including those employed on corporation tax work.

3. The additional tax brought into charge is for petroleum revenue tax only. These are not shown separately in the Inland Revenue's Annual Report which records the amalgamated corporation tax and petroleum revenue tax figures for the Oil Taxation Office.

Source: *Inland Revenue and Oil Taxation Office Annual Reports* easily quantified, such as whether key risks have been identified and addressed. We also recommend that the Office considers how it could best report progress on the identification and management of the risks attached to the administration of the taxes for which it is accountable to Parliament.

Appendix 1 UK oil and gas fields



Appendix 2

Summary of main taxes and duties for oil and gas

Department of Trade and Industry

Licence fees

The first licensing round was held in 1964. License fees comprise initial and periodic payments and tender receipts for exclusive onshore and offshore exploration and production rights in specified parts (blocks within quadrants) of the UK continental shelf.

Royalties

Royalties are paid at six-monthly intervals generally at the rate of 12.5 per cent of the landed value of petroleum products won and saved from fields approved before April 1982, less allowable expenditure for transport and initial treatment.

Gas levy

Gas levy was introduced in 1981 to obtain a share of the benefit that the nationalised British Gas Corporation had derived from purchasing gas under long-term contracts exempt from petroleum revenue tax. It was abolished with effect from April 1998. It was categorised as a tax on expenditure rather than on income from oil and gas production.

Inland Revenue

Petroleum revenue tax

Petroleum revenue tax was introduced by the 1975 Oil Taxation Act. It is levied at six-monthly intervals on the net profit of sales of oil and gas, less any royalty or levy collected by the Department of Trade and Industry. Fields, which received development approval on or after 16 March 1993, are exempt from the tax. The current rate of tax is 50 per cent.

Corporation tax

Corporation tax is levied against UK resident company profits or income and chargeable gains and was introduced in 1964. The current full rate is 30 per cent, reduced to 20 per cent for small companies. Both royalties and petroleum revenue tax paid are deductible in computing company profits for corporation tax purposes. Within the upstream oil and gas activities company profits are ring fenced so that they cannot be reduced by any other losses or reliefs arising from other activities, including downstream operations.

HM Customs and Excise

Hydrocarbon oil duty

Hydrocarbon oil duty is a tax on mineral oils imported or produced in the UK. The full or rebated rate of duty varies by product and becomes due when the oil is delivered from the warehouse or refinery. The relevant legislation is the Hydrocarbon Oil Duties Act 1979.

Value added tax

Value added tax (VAT) was introduced in the UK in April 1973 as a tax on final consumption of goods and services. It effectively replaced purchase tax and selective employment tax. VAT is collected at every stage of production and distribution, but with registered businesses allowed to offset VAT paid on purchases against tax collected from their customers, the ultimate tax charge falls on the final consumer. The standard rate is 17.5 per cent.

Appendix 3 Petroleum revenue tax – current legislative provisions

Primary legislation

Act	Main provisions
Oil Taxation Act 1975	The establishment of petroleum revenue tax and the main regulations governing the administration of the tax.
Finance Act 1976	Minor adjustments to petroleum revenue tax definitions.
Finance Act 1977	Minor adjustments to petroleum revenue tax definitions.
Finance (No 2) Act 1979	Refinements to allowances.
Petroleum Revenue Tax Act 1980	Payments on account and interest payable.
Finance Act 1980	Increase in rate of petroleum revenue tax, advance payments of tax, transfers of interests in fields, transmedian fields, gas banking schemes and fractionation.
Finance Act 1981	Restrictions of expenditure supplement, restriction of limit on amount of tax payable, contracts with deferred payment, spreading of capital expenditure, licence payments other than royalties, transportation costs, and gas banking schemes.
Finance Act 1982	Increase of petroleum revenue tax, export sales of gas, alternative valuation of ethane, determination of fields, disregarded regional development grant expenditure, advance petroleum revenue tax.
Finance Act 1983	Phasing out of advance petroleum revenue tax, increased oil allowance for new fields, reliefs for exploration and appraisal expenditure, implied terms of payment in determining market value, exclusion of appropriated oil for production purposes in other fields, variation of decisions on claims for allowable expenditure, transfers of interests in fields.
Oil Taxation Act 1983	Reliefs for expenditure for certain assets and expenditure related to exempt gas and deballasting, and other miscellaneous reliefs, recognition of receipts, including tariff receipts, disposal receipts, definition of qualifying assets, tariff receipts allowance, returns relating to receipts and receipts attributable to UK use of foreign field assets.
Finance Act 1984	Restriction on petroleum revenue tax reliefs, treatment of payments in gas sales, provision of information on arm's-length sales and market value of oil and offences relating thereto, recovery of tax assessed on non-residents.
Finance Act 1985	Limitation on relief for exploration and appraisal expenditure, chargeable periods relevant to limit on tax payable and expenditure supplement, exclusion of land and buildings from qualifying assets.
Finance Act 1986	Treatment of the on-shore/off-shore boundary, alternative valuation of light gases, attribution of receipts and expenditure between oil fields.
Advance Petroleum Revenue Tax Act 1986	Repayments of advance petroleum revenue tax in certain circumstances.
Finance Act 1987	Nomination scheme for disposals and appropriations, monthly basis for market values, blended oil from two fields, relief for research expenditure, cross-field allowance, adjustment of oil allowance, variation of decisions on allowable expenditure claims.

Finance (No 2) Act 1987	Interest on overdue tax, failure to do things within a limited time, miscellaneous minor amendments.
Finance Act 1988	Production of computer records, reduced oil allowance, extension of allowable expenditure for assets generating tariff receipts.
Finance Act 1989	Setting rates of interest and periods of accrual for repayment interest.
Finance Act 1990	Allowance for abandonment expenditure, carry back of losses related thereto, corporation tax treatment of petroleum revenue tax repayment, correction of errors in Taxes Act 1988, loss relief, limit on petroleum revenue tax repayment where loss relief carried back, variation of decision on expenditure claim arising from fraudulent or negligent conduct.
Finance Act 1991	Abandonment guarantees, reliefs and restrictions for abandonment and meeting defaulters abandonment expenditure and reimbursement, restriction on offset of advance corporation tax against corporation tax, relief for company trading losses, proceedings for petroleum revenue tax penalties.
Taxation of Chargeable Gains Act 1992	Taxable gains for the oil exploration and exploitation activities including oil licences for undeveloped areas and non-availability of roll-over relief, drilling expenditure, disposals of interests in fields, replacement of assets, deemed disposals, limitation of losses on disposal of assets held at 31 March 1982.
Finance (No 2) Act 1992	Direct export of oil from off-shore fields, extended transportation, change of name for general and special commissioners.
Finance Act 1993	Abolition of petroleum revenue tax for fields with development consents after 16 March 1993, reduction in rate of petroleum revenue tax, returns and information, exploration and appraisal expenditure, allowance of expenditure for assets by reference to taxable field use, time expenditure incurred, chargeable periods, tariff receipts, double taxation relief, gas levy.
Finance Act 1994	Participators' allowance for expenditure on elected assets, tax relief for certain receipts, valuation of oil and light gases, abortive exploration expenditure, disposals of assets producing tariff receipts.
Finance Act 1996	Application of Capital Allowances Act 1990 to the disposal of oil licences.
Finance Act 1998	Gas valuation.
Finance Act 1999	Replacement of old contracts with the British Gas Corporation, sale and leaseback arrangements, transfer of field interests, qualifying assets, petroleum revenue tax instalments and returns.

Other legislation

Act	Main provisions
Inland Revenue Regulation Act 1890	Consolidated enactments relating to the regulation of the Inland Revenue.
Petroleum (Production) Act 1934	Established legal title to petroleum existing in its natural state as vested in the Crown and gave the Board of Trade the right to grant licences to search for and recover reserves (consolidated in Petroleum Act 1998).
Parliamentary Commissioner Act 1967	Evidence and secrecy of information.
Provisional Collection of Taxes Act 1968	Consolidation of enactments relating to the provisional collection of taxes and associated matters.
Taxes Management Act 1970	Relief for excessive assessments, error or mistake, ordinary time limit of six years, fraud or wilful default, appeals and other proceedings, collection and recovery, interest on overdue tax, penalties, responsibilities of company officers, documents.
Finance Act 1973	Provision of information, collection.
Petroleum and Submarine Pipe-lines Act 1975	Established the British National Oil Corporation and its functions. Specifically related to disclosure of information about petroleum production licences by the Inland Revenue (consolidated in Petroleum Act 1998).
Prevention of Terrorism (Temporary Provisions) Act 1989	Investigation of terrorist activities.
Finance Act 1989	Disclosure of information.
Petroleum Act 1998	Consolidation of the Petroleum (Production) Act 1934 and the Petroleum and Submarine Pipe-lines Act 1975.

Statutory Instruments

Year	No	Subject
1982	92	Gas banking schemes
1986	1644	Specification of foreign fields
1987	545	Specification of foreign fields
1987	1338	Nomination scheme for disposals and appropriations
1989	1297	Interest on unpaid tax
1989	2384	Specification of foreign fields
1990	2469	Amendment to nomination scheme for disposals and appropriations
1991	1982	Specification of foreign fields
1993	1408	Specification of foreign fields
1993	1565	Amendment to specification of foreign fields
1993	1566	Specification of foreign fields

Appendix 4

Valuation of oil and gas – validation, statistical valuations and gas elections

Validation of returns from oil companies

1 The Oil Taxation Office's main source of assurance on production and prices comes from its examination of the production returns which oil companies are required to send in to support their tax assessments. Every six months, oil field participators send the Oil Taxation Office returns of the value of production for each field, analysed between the various commodities, showing individual transactions, differentiating between arm's-length sales, non arm's-length sales, appropriations and stock transactions. Oil field operators submit similar details of production for the whole field, showing each participator's share. In addition, participators are required to provide details of transactions involving sales of oil which have not been reported in a field-based return. These additional returns include sales of oil outside the scope of petroleum revenue tax and sales of non-equity (bought-in) oil. Participators also provide details on request of contracts, transactions and prices, for example to help validate prices or to clarify the commercial basis of deals.

2 On receipt of the six-monthly returns from the participators and field operators, the Oil Taxation Office inputs the information into its petroleum revenue tax computer system. The system compares the data provided from the two different sources and produces reports of potential inconsistencies for follow up by the valuation inspectors. This comparison provides some assurance about the accurate reporting of production volumes by the oil companies. The Oil Taxation Office also takes assurance from the checks implicit in the commercial relationship between operators and participators to confirm the reliability of the figures returned. These arrangements provide less assurance, however, where the field operator is the sole participator in the field, because the data are all coming from the same source.

3 The Oil Taxation Office also performs systematic checks on other aspects of the returns, such as foreign currency conversions. The valuation inspectors compare the declared contract prices and volumes with other information received from oil companies about contracts within the period, raising queries with the companies where further explanations are required, for instance where large adjustments have been declared, or where there are abnormal delivery patterns or unusual prices.

4 We confirmed that the valuation inspectors were undertaking the appropriate checks and following up exception reports. Matters raised with the oil companies were either satisfactorily resolved or became subsumed in wider issues under current discussion with specific companies or the industry in general. **Figure 12** illustrates the types of issue under examination.

5 The valuations used for assessing petroleum revenue tax liabilities also underpin the assessment of royalties. Staff in the former Oil and Gas Royalties Office compare this information with audited Statements of Value submitted by oil companies. In the past, the two Offices held ad hoc liaison meetings to discuss common problems and any discrepancies arising. The Oil Taxation Office has therefore also taken some assurance from this validation work. With the recent merger of the two Offices, much closer contacts are being developed with the object of harmonising the administration of petroleum revenue tax and royalties.

6 The Oil Taxation Office also draws some assurance from the existence and work of the Department of Trade and Industry's Metering Inspectorate. The Inspectorate carries out independent checks on the measurement of production to ensure that the quality of metering is sufficient for fiscal purposes and that metering maintenance programmes are being carried out. However, the Oil Taxation Office has not evaluated the Inspectorate's work in order to establish the amount of assurance that could be taken from it.

12 Types of issue raised with oil companies

Specific issues

In one case, a contract had been framed under which a delivery was triggered when oil prices reached a certain level. Under this arrangement, the companies concerned had agreed a delivery by telephone but there was no documentary evidence to confirm the agreed price. The availability of evidence to value trigger pricing contracts is under discussion with the company concerned.

General issues

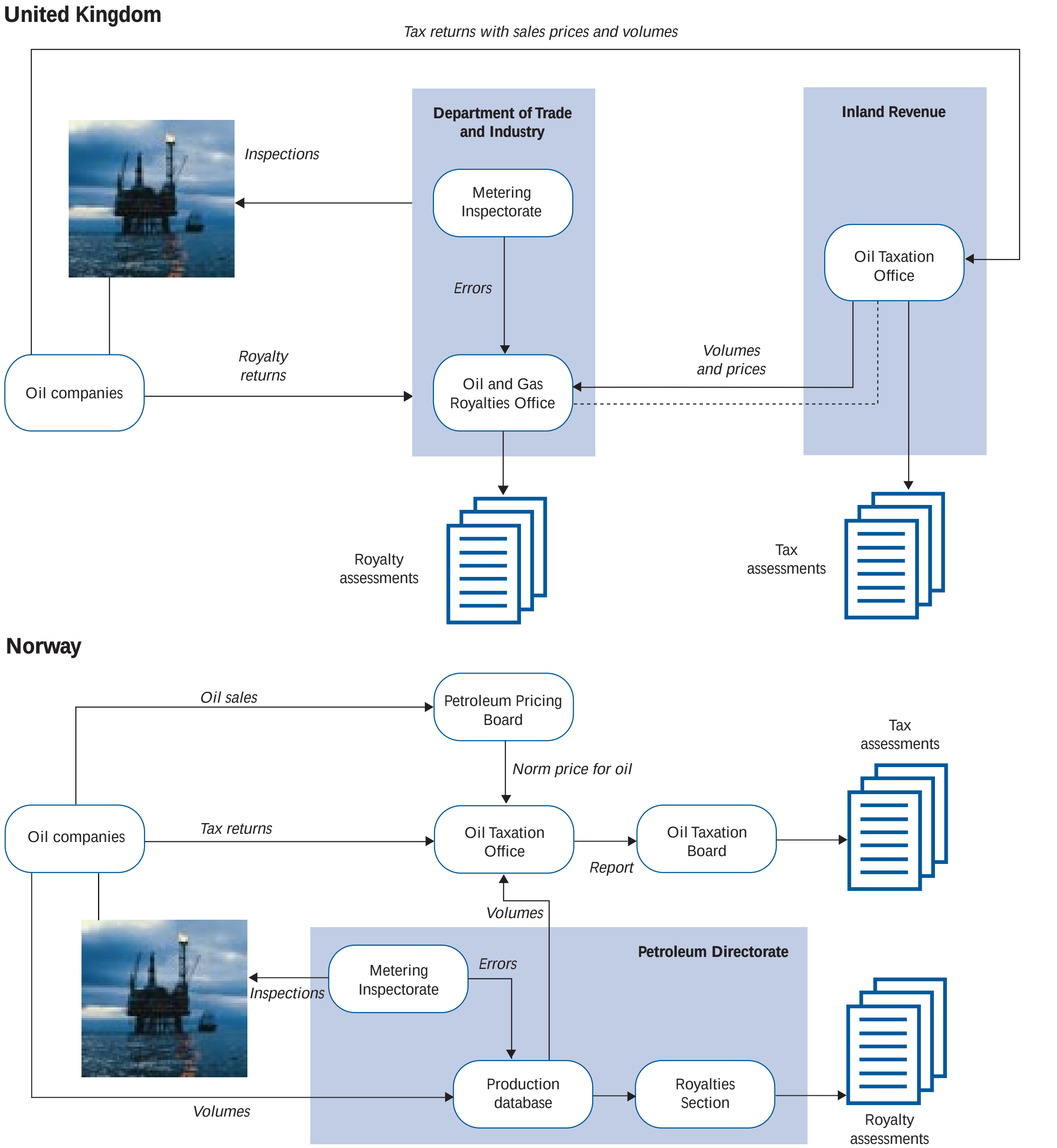
The Oil Taxation Office is in general discussions with the oil industry about the use of equity swap arrangements. The incidence of abnormal delivery patterns has been included in these discussions. These arrangements might be indicative of the possible substitution of oil from fields not liable to petroleum revenue tax to meet sales contracts, as a possible tax avoidance measure.

Source: National Audit Office analysis of Oil Taxation Office cases.

7 We reviewed the work of the Metering Inspectorate, and compared it with the work carried out by the Norwegian Petroleum Directorate, with which it carries out joint inspections for the fields, which straddle the UK/Norway frontier. The UK Metering Inspectorate has a nominal complement of four staff but has had to reduce the scope of its offshore inspection programme because of staff shortages. In contrast, the Norwegian Petroleum Directorate has about twice the number of inspectors to cover a smaller number of fields.

8 **Figure 13** compares the links between the regulatory and taxation authorities in the United Kingdom and in Norway.

13 Links between regulatory and taxation authorities



Note: The UK position relates to before April 2000 when the Oil and Gas Royalties Office was still part of the Department of Trade and Industry. The dotted line denotes ad hoc liaison meetings.

Source: National Audit Office

9 In Norway, oil companies supply production information to the Petroleum Directorate. The Norwegian Metering Inspectorate adjusts the data to take account of any amendments to bills of lading arising from their inspections. The amended production data are then passed on to the Norwegian Oil Taxation Board for tax calculation purposes. This contrasts with UK system, where the Oil Taxation Office is provided with production data by oil companies. In the event of the UK Metering Inspectorate confirming a discrepancy with an oil company it would encourage the firm to report the adjustment to the Oil Taxation Office, as there is no direct reporting line between the two public sector organisations.

10 The Norwegian Petroleum Directorate has estimated that its inspectors have made more than 25 adjustments in the last 12 years amounting in total to between £1 million and £2 million. In the United Kingdom, however, while the Metering Inspectorate has raised concerns about two significant potential inaccuracies in metering in the last few years, it has been unable to sustain these concerns in the face of argumentation and additional evidence from the oil and gas companies concerned.

11 The Metering Inspectorate informed us that operators are no longer maintaining metering staff on the rigs, with the result that it may take longer for firms to attend to any potential difficulties with meters. The Oil Taxation Office told us that there is a trend towards cheaper and less accurate metering in the North Sea oilfields, which may increase the risk of mis-statements of production. This is being taken up with the companies involved.

12 The Inspectorate receives monthly pipeline system reports from the operators of on-shore terminals showing the volume of deliveries. We examined whether these reports could be used to provide additional assurance about the volume of production reported by participants and operators, by comparing one six-month set of pipeline reports with the relevant petroleum revenue tax returns from four fields. Although there were some discrepancies at the field level, we were able to complete an overall reconciliation within a 0.5 per cent tolerance, providing some additional assurance on the companies' petroleum revenue tax returns.

Valuation of production sold under non arm's-length contracts

13 The main risks on oil companies' declarations of production value are that reported prices may be mis-stated or that companies may seek to minimise their tax liabilities through artificial transfer pricing arrangements or seek to cross-subsidise production from taxable fields by sales from non-taxable fields. Legislation has been framed to address these risks and the checks described at paragraphs 2 and 3 above enable the Department to identify and challenge under-valuations on arm’s-length contracts.

14 In the periods covered by our examination, around 40 per cent of crude sales contracts reported to the Oil Taxation Office were not considered to be within the statutory definition of arm’s-length sales. In order to determine petroleum revenue tax liabilities, prices agreed on non arm’s-length transactions need to be substituted by estimated open market prices. In view of the risk that commercial price indices might be open to manipulation by the industry, the Oil Taxation Office maintains its own databases of open market prices for each calendar month based on arm's-length contract prices for various blends of crude oil, condensate, butane and propane reported to them on the six-monthly returns. The methodology used to calculate monthly open market prices is set out at Schedule 3 of the Oil Taxation Act 1975 and Schedule 11 of the Finance Act 1987, and was established following discussion with the oil industry.

15 The legislation states that the calculation of a monthly average price per barrel of oil should be based upon the simple average of the volume-weighted daily prices for each working day within a 44 to 47 day reference period commencing one month before the month of delivery to half way through the month of delivery. Thus, to calculate the average open market oil price for March, the Oil Taxation Office would examine all the contracts for delivery in March agreed between 1 February and 16 March.

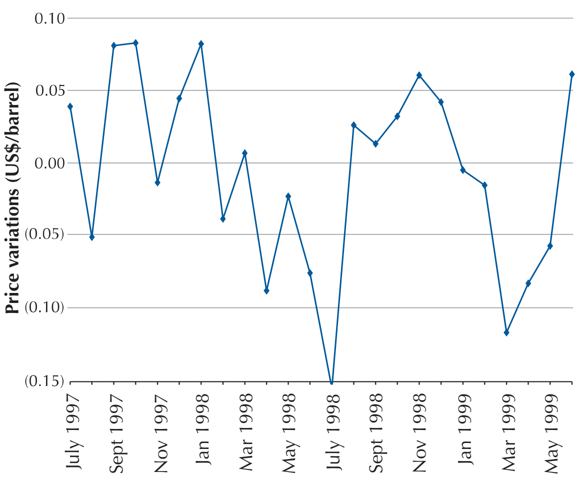
Brent crude oil price database

16 The main database for calculating a monthly market price for crude oil based on arm's-length deals is for Brent crude oil. The Oil Taxation Office also maintains databases for nine other taxable blends of crude oil, whose prices are expressed as differentials from the Brent price. Separate databases are maintained for propane, butane and condensate.

17 Between July 1997 and June 1999, field participators reported some 5,000 Brent deals for each half-year petroleum revenue tax period. Of those which fell within the definition of arm's-length deals, just under half fell within the statutory reference periods and could be used to estimate market prices. Our checks confirmed that the Oil Taxation Office had been operating this database in line with statutory requirements.

18 The Oil Taxation Office also monitors the monthly prices compiled from the London Oil Report, Platts and Petroleum Argus indices to validate the prices derived from its Brent database. We compared the London Oil

14 **Comparison of monthly average prices calculated by the Oil Taxation Office with prices derived from the London Oil Report index (US$)**



Source: National Audit Office

Report figures with the Brent database figures produced by the Oil Taxation Office database (see **Figure 14**). The small variations between the two sets of figures provide further assurance about the validity of the open market prices calculated by the Oil Taxation Office. However, we recognise the Oil Taxation Office's reservations about the risk of manipulation if a commercial index were to be used as the sole source of data for the calculation of monthly average open market prices instead of its own database.

Statistical basis

19 We reperformed the calculation of the Brent database for each month between July 1997 and June 1999. We discovered some minor differences in the calculation of market prices for individual days. The differences arose because oil companies sometimes provided information on contracts after the results of the original calculations had been released to them. And in one case an arm's-length deal had been omitted from the database. However, none of these differences materially affected the monthly prices calculated by the Oil Taxation Office.

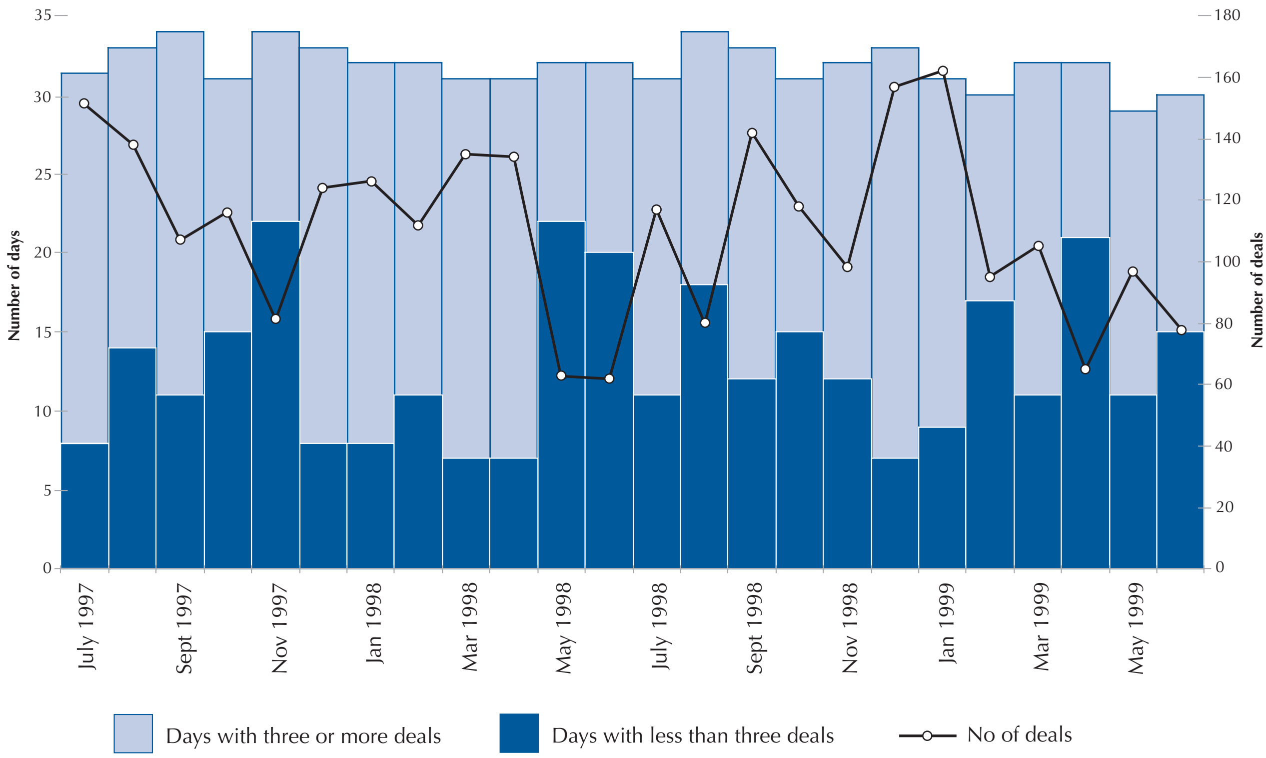
20 Where there are no reported transactions on an individual day, the price has to be interpolated by the Oil Taxation Office for the purpose of calculating the average oil price for deliveries in the relevant month. It does this by taking any reported sales on the day for delivery in the current month or later months and by adjusting the contract prices in line with movements in the London Oil Report index. Although a significant element of judgement is required in arriving at an estimate for an individual day, and the results did not always fit in with overall price trends, the likely impact of any uncertainty in the estimate on the estimated average monthly oil price would be limited.

21 The Oil Taxation Office's use of a simple average of a set of volume-weighted daily prices to derive an average oil price for each month is not statistically invalid. The Office also considered that the approach was relatively transparent in that oil companies were familiar with it and could broadly replicate the calculations to reassure themselves that the estimated prices were reasonable.

22 However, this approach is more relevant where weighted daily prices are based on a significant number of transactions. In the case of the Brent database there was a considerable variation in the number of deals quoted for each working day in the reference periods ranging from none, where interpolations have had to be made, to as many as ten. **Figure 15** shows that there were a significant number of days in each month where less than three deals were used to calculate the daily prices.

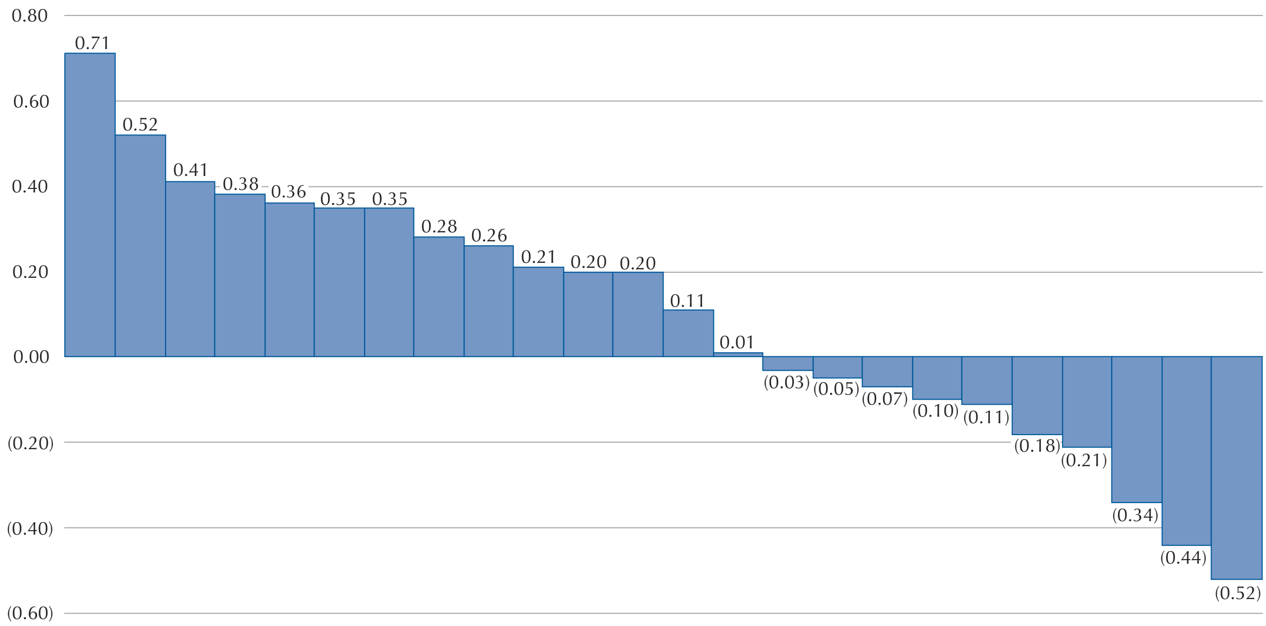
23 For some months, significantly different average monthly oil prices would have been produced by using a weighted average of all the reported transactions within the reference period for each month, rather than the simple average of the weighted daily values. **Figure 16** shows the difference between the two approaches.

15 **Number of days in each reference period when the weighted daily oil price was based on less than three deals (July 1997 to June 1999)**



Source: National Audit Office analysis of Oil Taxation Office data

16 **Price differences between the two statistical approaches (US$)**



Note: The differences are ranked in descending order of magnitude, not in date order. They represent the differences between the monthly estimated oil prices for Brent crude oil calculated using the simple average of each day's transactions and the weighted average of all relevant transactions, expressed in US$ per barrel between July 1997 and June 1999.

Source: National Audit Office analysis of Oil Taxation Office data

24 The Oil Taxation Office does not organise its records of oil deliveries in a way which would enable it to easily estimate the overall effect on tax revenues, if the statutorily defined statistical approach were to be exchanged for a different method. In the case of two of the fields in our sample, we calculated that the aggregate effect of using the alternative approach outlined in paragraph 23 above between January 1998 and June 1999 would have been approximately £450,000 in favour of taxpayers. This amount represented about 0.25 per cent of the total tax liability for the all the participants in these fields over the period. **Figure 17** shows the largest potential adjustments which would have arisen in absolute and percentage terms for individual companies, indicating that the impact would vary from case to case.

17 Range of tax effects arising from the use of an alternative statistical approach to calculate monthly oil prices

	Tax effect	Tax liability	Per cent
Highest increase in liability (value)	£0.043 million	£18.1 million	0.24
Highest decrease in liability (value)	£0.175 million	£28.1 million	0.62
Highest increase in liability (per cent)	£0.013 million	£1.5 million	0.82
Highest decrease in liability (per cent)	£0.036 million	£0.9 million	3.85

Source: National Audit Office

Liquid petroleum gas price database

Exclusion of term entitlement contracts

25 The Oil Taxation Office maintains separate databases to calculate average monthly market prices for propane and butane. The calculations are based on all reported term contract sales at arm's-length but exclude spot contracts and term entitlement contracts, where a premium is usually included in the price to cover the facility for flexible deliveries. The databases include a few large deals and numerous smaller deals from which the weighted average price for each month is calculated.

26 We noted that for two fields that we were examining, a number of large declared term deals in the second half of 1998 had been excluded from the butane and propane databases because they were entitlement contracts. **Figure 18** shows that these entitlement contracts accounted for a significant proportion of the total market and that, had they been included in the Oil Taxation Office's calculations, different average monthly prices would have been produced, with a consequential effect on the amount of tax due.

18 Liquid petroleum gas deals in the second half of 1998

	(a) Oil Taxation Office Database		(b) Entitlement contracts		(c) Average prices including entitlement contracts		Difference in weighted prices (c) - (a)
	Volume	Weighted price	Volume	Weighted price	Volume	Weighted price	
Butane	Metric tonnes	US $ per metric tonne	Metric tonnes	US $ per metric tonne	Metric tonnes	US $ per metric tonne	US $ per metric tonne
July	6,570	97.76	3,181	112.63	9,751	102.61	4.85
August	11,481	100.53	2,099	110.25	13,580	102.03	1.50
September	5,796	94.85	2,320	105.11	8,116	97.78	2.93
October	12,731	139.96	6,351	132.22	19,082	137.39	(2.57)
November	7,170	164.73	5,739	143.37	12,909	155.24	(9.49)
December	6,741	161.13	5,316	141.25	12,057	152.31	(8.82)
Propane							
July	21,168	100.39	2,841	107.64	24,009	101.25	0.86
August	10,513	107.62	4,167	118.89	14,680	110.82	3.20
September	14,171	103.35	4,395	112.03	18,566	105.41	2.06
October	35,256	144.12	8,413	139.24	43,669	143.18	(0.94)
November	39,049	178.83	8,021	156.86	47,070	175.09	(3.74)
December	29,117	195.25	8,092	158.06	37,209	187.17	(8.08)

Source: National Audit Office analysis of contract information

27 The Oil Taxation Office does not maintain information on sales of the different commodities by tax period. It is therefore difficult to assess the overall tax effect of adopting the prices shown in column (c) in Figure 18. We estimated, however, that for one of the fields in our sample, the net impact on revenue would have been approximately £200,000 in favour of taxpayers. This represented approximately 0.5 per cent of the total declared tax liability of £41.5 million for participants in the field, although for one participant the effect of the decrease in liability would have been £141,000, or 0.78 per cent of the declared tax liability.

Retrospective adjustments

28 Companies sometimes report subsequent adjustments to contract prices. For example, in September 1999, the Oil Taxation Office was notified of an end of year adjustment between two contracting parties which affected the prices charged for propane transactions in October and November 1998, and butane in December 1998. Where adjustments have been reported after the calculated market values have been released to the oil companies, the Oil Taxation Office has not, in practice, recalculated the monthly weighted average, on the basis that the amendments to the tax payable would not be material and because revisions would involve additional administrative costs for both itself and the companies affected.

29 We calculated the effect of the adjustment on propane and butane prices for the three months concerned. **Figure 19** shows that while the impact on tax in October was unlikely to have been material, the impact in November and December would probably have been more significant.

30 For the field in which the price adjustments occurred the effect would have been a very small increase in tax liability. However, for one other field in our sample, we estimated that the net impact of reflecting these subsequent adjustments to contract prices would have been approximately £247,000 in favour of taxpayers. This would have represented some 0.6 per cent of the declared tax liability for the participants in that field. The impact would have been lower, had the Department adjusted prices to reflect entitlement contracts as shown in Figure 18.

Gas valuations

31 The gas industry has changed significantly since the introduction of petroleum revenue tax in 1975, with movement towards a more open and competitive market. Approximately 85 per cent of gas transactions liable to petroleum revenue tax are currently at arm's-length. The Oil Taxation Office reviews all contracts and checks whether the contract value is broadly appropriate for the contract timing and terms in order to

19 Effect of subsequent adjustments to contract prices notified by oil companies

	Product	Database price $/MT	Impact of adjustment $/MT	Change %
October 1998	Propane	144	+ 0.5	< 1
November 1998	Propane	179	- 6.5	- 3.6
December 1998	Butane	161	-13.5	- 8.4

Source: National Audit Office analysis of Oil Taxation Office liquid petroleum gas price database

obtain assurance that prices have been established at arm's-length.

32 Under section 10 of the Oil Taxation Act 1975, sales of gas under contracts made before 30 June 1975 are exempt from petroleum revenue tax. Where contracts are renegotiated, the Oil Taxation Office reviews them to assess whether the changes would bring production into the scope of the tax. There are currently six exempt fields and, on average, one contract variation each year but, to date, these have not had an impact on petroleum revenue tax liability. Our work confirmed that the Oil Taxation office was managing the risks attached to exempt fields.

33 The gas market is continuing to develop. From 1994 onwards, with increased competition, gas contracts have tended to be struck for periods between one and three years. Gas marketing companies have also increased in prominence and the opening of the Interconnector pipeline between the United Kingdom and Europe in October 1998 has provided new market opportunities for both importers and exporters of gas. The contracts employed are diverse and include fixed price contracts, formula price contracts, spot sales, and a small number of netback contracts. The netback contracts are where the marketing company holds a portfolio of external sales contracts and allocates the sales price, less operating expenses and a rate of return, back to the selling company. The Oil Taxation Office checks back to the contract documentation to verify prices.

34 In the case of non arm's-length transactions, the Oil Taxation Office maintains registers of contracts and obtains both daily extracts of Petroleum Argus spot price information and monthly summaries of market activity to inform its compliance work. Until 31 December 1993, for longer term contracts struck between upstream companies and their own gas marketing companies, the Oil Taxation Office offered price certainty by allowing the selling company to make an election as to the way in which non arm's-length gas

sales should be valued. The valuation approach usually consisted of a base price with an annual escalator formula over a minimum period of five years. As prices have tended to fall in recent years, the Oil Taxation Office plans to review the operation of these elections about every five years. There are four elections currently in force and all had been reviewed recently.

35 While we confirmed that the Oil Taxation Office was managing the risks associated with gas pricing and elections, we drew its attention to two issues arising from our examination of the case papers for one production return.

- The agreement of a 1997-98 election calculation in September 1999, which showed an additional £358,000 tax to be due, had not been raised as an assessment at the time of audit in January 2000.
- There was a discrepancy of nearly 4.7 million therms, valued at around £1 million, between the deliveries shown on a spreadsheet supporting transport costs for the period October 1997 to September 1998 and the petroleum revenue tax returns covering the same period. If the deliveries shown on the spreadsheet were correct, a further £500,000 tax would be due.

The Oil Taxation Office confirmed that it had since raised an amended assessment for the tax due in relation to the first point and that it would make further enquiries into the discrepancy, highlighted in the second. Interest charges would automatically attach to any additional tax charged in amended assessments.

Appendix 5 Examination of expenditure claims

First claim audits and compliance reviews

1 Before the Oil Taxation Office allows an operator's first claim for expenditure relief, it obtains information about the equity interests of participators, well locations and transport arrangements, pipeline and tariff agreements and major contracts. It also evaluates the company's accounting and internal control systems to obtain assurance that there is a low risk of it being unable to identify and classify relevant expenditure and produce reliable claims on behalf of the other participators in the field.

2 In only one of the 16 fields we examined had there been a recent change in the field operator. In this case, the Oil Taxation Office had tailored its approach to reflect what was already known about the company. Its inspectors had then been given presentations by the company and had carried out site visits to review its information technology and accounting systems and internal audit coverage. We concluded that this work provided assurance that the company would be able to produce reliable expenditure claims.

3 In the other cases we examined, the first claims audits had been completed in the 1970s and 1980s and in two cases the results were not readily available within the Oil Taxation Office. Where the results were located, they did not show clearly the scope, coverage, and outcome of the work. In view of the fact that many of the physical, commercial and accounting arrangements relating to a field will have changed substantially since the initial review, the first claim audits will, in most cases, now provide limited assurance. To address this, in 1992 the Oil Taxation Office introduced a programme of selective reviews to examine areas of perceived risk that were not otherwise being addressed by examination of claims or reconciliations.

4 We found, however, that there was limited documentary evidence of later work and what there was, appeared to have been carried out on an ad hoc basis. Although enquiries had been made, the potential impact of changes to accounting systems, for example, were not being assessed on a systematic basis. In addition, the absence of a structure for compliance reviews meant that there was limited assurance that all key risks had been properly considered. This prevented the Oil Taxation Office from making meaningful comparisons of risks in different fields and companies. The Office told us that these deficiencies would be addressed by its structured risk assessment process and by the development of a revised work programme for assessing the impact of a company's acquisition of a new accounting system.

Examination of expenditure claims

5 The conditions determining whether expenditure which is allowable against petroleum revenue tax liabilities are complex. The companies involved are financially sophisticated and, as a result, the Oil Taxation Office has frequent discussions with the oil and gas industry in general, and with individual companies, over the interpretation of legislation and its impact on petroleum revenue tax assessments.

6 In order to minimise the risk of oil companies submitting invalid claims, the Oil Taxation Office encourages them to enter into discussions about potential tax implications in advance of the submission of formal claims, particularly where there have been changes to the operating environment. This enables the Office to explain its position on issues before formal claims are submitted and to identify potentially contentious issues. This co-operation with the industry provides an important customer service and can lead to issues being resolved at an early stage. The Office does not, however, quantify the additional potential tax yield this work achieves.

7 For each six-monthly assessment period, the Oil Taxation Office receives around 1,000 formal expenditure claims from oil companies. In the first half of 1999, these claims amounted to £3,528 million. In view of the number of claims, and the amount of supporting detail provided, it is important that inspectors target their efforts on areas of higher risk. The Oil Taxation Office adopts a risk-based approach and concentrates its efforts on claims relating to fields where there is clearly a tax liability and those where there is potential tax liability. It considers the major elements of expenditure, and focuses attention on any novel features of the claim, on significant issues arising from previous claims, and on common issues which apply to a number of fields.

8 The need for consistency in decision making in key areas has been recognised by the Oil Taxation Office by the appointment of "central issues" inspectors for each company which has interests in more than one field. These inspectors take the lead when dealing with the companies on common issues such as insurance, tariff arrangements and the allocation of overheads. They are also responsible for detecting tax planning and avoidance, which are often related to cross-field issues.

9 Expenditure inspectors input the full value of claims reported by oil companies on to a database, analysed by company and field. They review the information submitted and, based on their findings, issue "decision notices" for each claim specifying the amounts of expenditure they have allowed, disallowed and reserved.

10 Where inspectors require further information from oil companies to confirm the validity of a claim for tax relief, they may "reserve" the expenditure. This has the effect of suspending action on the claim and denying the company relief for the expenditure until further details are given. Based on the information provided by the company, inspectors then make further decisions as to whether to allow or disallow the expenditure.

11 Inspectors also have the opportunity to revise previous decisions to allow expenditure by issuing notices of variation. These can be issued up to three years after the original decision notice and companies then have a further month in which they can appeal.

12 For the year 1998 and for the first half of 1999, for each of the 16 fields included in our sample we examined:

- claims for expenditure shared between participators;
- claims for expenditure incurred by individual participators; and
- claims for exploration and appraisal expenditure.

13 We found that the Oil Taxation Office, in common with the Department's previous general practice in relation to accounts examination, had not adopted a standard methodology for the checks to be undertaken and that there was no written guidance on the methods to be applied when reviewing claims. We confirmed, however, that inspectors were reviewing material items of expenditure, seeking explanations where they were not satisfied with the information provided, and recording why significant issues may not have been taken up or how such issues have been resolved.

14 In the cases we examined, some £4.5 million expenditure was disallowed out of the £400 million claimed by companies in the first half of 1999. Common issues which led to expenditure being disallowed or reserved included the location of new wells and seismic work, time recording, the allocation of overheads and other costs, insurance, and tariff arrangements. Companies may make expenditure claims up to six years after the period in which the costs were incurred. In the past, some companies, where oil allowance and/or safeguard applied, sought to defer expenditure claims to later tax periods to minimise their tax liability. Our review confirmed that, following legislative changes, the Oil Taxation Office was managing this risk effectively by requiring claims to be submitted within one year of the period in which the expenditure was incurred.

15 There were, however, inconsistencies in inspectors' approach to recording what they had checked. For example, some did not document the results of basic checks such as comparisons of current expenditure claims with those for previous periods to identify unusual variations or trends which might be indicative of mis-statements. The Oil Taxation Office told us that much of the significant technical work on expenditure claims was carried out when oilfields were being developed. Once fields started operating, claims became more straightforward and inspectors could normally see very quickly how one period's claim compared with others.

16 Inspectors have three options for dealing with expenditure items which need investigation. They can reserve expenditure until satisfactory explanations are forthcoming, disallow the expenditure or allow the expenditure temporarily, raising a notice of variation to disallow the item at a later date. The first two courses of action result in companies being assessed for the tax due at the outset, with a subsequent repayment being made if the expenditure is allowed later, and the third reduces a company's tax liability at the outset. The financial impact of the choice of action is limited, however, because interest is added to any additional tax due or payable. It was not always apparent in the cases we examined why inspectors had taken a particular course of action in relation to items of expenditure under enquiry. The Oil Taxation Office told us that judgements would reflect various factors, including the length of time an issue had been under inquiry, the degree of co-operation, the materiality of the sum involved, and linkage with action in other fields.

17 In some cases, the approach taken by inspectors changed over time, depending on the co-operation received from oil companies. For example, claims were accepted in full in the first instance, subject to satisfactory explanations being provided. However, if the company failed to respond, expenditure in subsequent claims was either reserved or disallowed. The Oil Taxation Office said that its approach had been widely publicised to companies and believed that it was well understood. It also told us that no sustained objections had been raised to its approach to dealing with items of expenditure.

18 The Oil Taxation Office operating plan for 1998-99 included a customer service turn-round target of 90 per cent of correspondence within 28 days. In the context of expenditure claims, inspectors aim to issue either decision notices or letters requiring further information within this timescale. We confirmed that inspectors were reviewing expenditure claims in a timely manner and that results were being promptly notified to the oil companies.

19 If the Oil Taxation Office identifies areas where the oil companies' interpretation of petroleum revenue tax legislation differs from the way in which Parliament is judged to have intended it should operate, it may suggest legislative changes to clarify the position. Where new legislation is recommended, the Inland Revenue's Energy Policy Group submits proposals to the Treasury for ministerial consideration and approval. In evaluating proposals, the Energy Policy Group examines the tax at risk and the impact of the suggested changes on other taxes and on existing legislation.

20 A recent example of new legislation is the proposal, announced in the March 2000 budget statement, to prevent companies from gaining a tax advantage by deferring claims for relief for operating expenditure. The Oil Taxation Office had identified this as a potential risk to tax and moved to address it. The new legislation, which is intended to protect up to £20 million revenue a year, took effect from 20 March 2000, the date of the budget announcement.

Appeals

21 The Oil Taxation Act 1975 requires companies to make appeals against disallowed expenditure within three years of the date of the claim. Appeals are normally settled by the Oil Taxation Office following the provision of additional information from the oil companies and discussions and negotiations with them. If agreement cannot be reached then the case can be put before the Special Commissioners. The oil companies have a right of direct access to the Special Commissioners but, in practice, a hearing is more likely to be requested by the Oil Taxation Office.

22 The Oil Taxation Office told us that in the last three years four cases had been listed for a hearing before the Special Commissioners and, of these, two had been settled by agreement before the hearing. In the two cases heard by the Commissioners, the decisions had gone in the companies' favour.

23 There is no right of appeal against reserved expenditure because it is assumed that the Oil Taxation Office will make a decision whether to disallow the expenditure in good time for companies to raise any appeals they believe to be necessary. Inspectors therefore routinely review reserved expenditure nearing the three year appeal deadline before each half-yearly claims round. Decision notices are then issued to the oil companies allowing or disallowing the expenditure, enabling companies to make a formal appeal, if necessary.

24 In February 2000, there were 677 expenditure claims under appeal with a total value of £654 million. Our analysis of the cases showed that there were 100 outstanding appeals relating to 1995 and earlier. **Figure 20** indicates that these cases had a value of £98.1 million and represented 15 per cent of the total value of outstanding appeals. If an appeal is successful, the company would be entitled to a repayment of any overpaid tax.

25 We reviewed a sample of 10 outstanding appeals with a total value of £238 million. Questions under consideration included the interpretation of legislation relating to wells outside the statutory 5 kilometre limit of a field and the eligibility of the cost of insurance provided by linked insurance companies using transfer pricing. Our examination indicated that the Oil Taxation Office had made efforts to progress appeals in a timely manner, but that some oil companies were slow to reply to correspondence and to provide the information necessary to settle appeals. The Oil Taxation Office told us that this was often due to companies merging, personnel changes, the complexity of some of the issues, and the lack of any immediate tax effect. Of the 100 appeals dating back to 1995 or earlier, half related to a company which had recently undergone a merger.

26 The only formal means of making progress, other than listing the appeal for hearing by the Special Commissioners, is for the Oil Taxation Office to use its statutory information powers under which it can issue a notice requiring the company to produce specified information. However, in line with the Department's general approach to the use of such statutory information powers, it tends to reserve the use of these powers to deal with cases where a company was refusing to supply information, as opposed to cases where a company was slow to respond. Since 1993, it had issued two such notices.

20 Outstanding petroleum revenue tax appeals

Schedule	Pre 1996	Cases 1996 onwards	Total	Pre 1996 Percentage	Pre 1996 £ million	Expenditure 1996 onwards £ million	Total £ million	Pre 1996 percentage
5	48	119	167	28.7	35.5	388.1	423.6	8.4
6	42	448	490	8.6	26.1	165.8	191.9	13.6
7	10	10	20	50.0	36.5	2.4	38.9	93.8
Total	100	577	677	14.8	98.1	556.3	654.4	15.0

Note: Claims under Schedules 5, 6, 7 of the Oil Taxation Act 1975 refer to three types of expenditure set out in paragraph 12 above.

Source: National Audit Office analysis of Oil Taxation Office data.

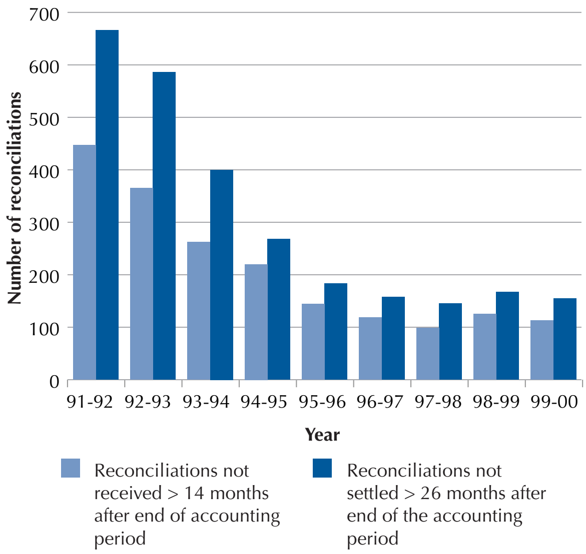
27 The Oil Taxation Office does not routinely maintain statistics on the outcome of appeals. It considers that such statistics would not necessarily reflect the effectiveness of its compliance work because most of this work does not lead to formal appeals. In addition, as noted at paragraph 25 above, some appeals are made to protect the taxpayer's rights, where an issue remains unresolved at the end of the three year appeal deadline.

Accounts reconciliations

28 The third main element of the Oil Taxation Office's approach to obtaining assurance about the reliability of claims for expenditure relief has been the reconciliation of claims with companies' audited accounts. As activity liable for petroleum revenue tax usually forms only a proportion of a company's business, companies normally supply reconciliations of claims with extracts from their accounting records, for example the general ledger. However, as general ledger extracts have not been subject to independent audit, less assurance can be placed on reconciliations of expenditure claims to these accounting records than to the published accounts.

29 In previous reports to Parliament, we commented on delays by companies in providing reconciliations. As the companies are not required by law to provide this information, the Oil Taxation Office has had to address the issue by meeting with the bodies representing the industry to try and obtain agreement to proposals for submission within an agreed period. **Figure 21** shows that it has had some success in reducing the delays.

21 Oil Taxation Office: progress of reconciliation work 1991-92 to 1999-00



Source: Oil Taxation Office

30 Despite these improvements, **Figure 22** shows that, at January 2000, there remained a significant backlog of reconciliation work, with the Oil Taxation Office awaiting receipt of 141 reconciliations dating as far back as 1991. Although inroads had been made into the backlog, reconciliations were still being accorded a low priority by some companies and were typically being submitted several years in arrears. The Oil Taxation Office told us that delays were particularly acute where companies had been restructured or had cut back on staff to reduce costs. It also considered that companies had tended to put more resources into corporation tax compliance in recent years, as this had increased in importance compared with petroleum revenue tax. In these circumstances, there were practical difficulties in maintaining more stringent requirements for petroleum revenue tax even if there was a compliance concern not present in corporation tax.

22 Progress on accounts reconciliations at January 2000

Year	Expected	Received	Percentage	Settled	Percentage
1991	97	95	97.9	87	91.6
1992	93	89	95.7	80	89.9
1993	93	87	93.5	74	85.1
1994	90	78	86.7	57	73.1
1995	86	66	76.7	43	65.2
1996	85	34	40.0	12	35.3
1997	45	0	0.0	0	n/a
1998	1	0	0.0	0	n/a
Total	590	449	76.1	353	78.6

Source: National Audit Office analysis of Oil Taxation Office data

31 Our examination found that the Oil Taxation Office's review of reconciliations resulted in few adjustments to claims. In most cases, reconciliations were evidenced by supporting information which enabled inspectors to agree the figures to petroleum revenue tax returns. It was not uncommon for the process to result in companies making further claims following the identification of expenditure which they had omitted from the original claim.

Other potential sources of assurance

32 Our examination of the way in which the Oil Taxation Office manages the risks attached to expenditure claims has identified a number of areas where there is scope to develop or reconsider its approach to securing assurance, as part of its evolving work on risk assessment. In addition to identifying the general risks and those attached to specific claims more clearly and evaluating the amount of assurance it can take from the various strands of its work, we examined whether there were any other potential sources of assurance which could be tapped.

Requiring audited claims

33 The Inland Revenue has not sought to impose a requirement for taxpayers to submit audited information relating to their tax liabilities. It relies on its powers to ask for supporting information and to investigate claims. It told us that it believed that such a requirement might be perceived as an additional burden by the industry and that it might limit its own freedom of inquiry. Oil companies are, however, currently required to provide royalty returns certified by their external auditors to the Department, and companies operating in the Norwegian sector of the North Sea are required to provide audited tax returns to the Norwegian authorities four months after the year end.

34 Decisions on matters such as this are for Ministers to decide and for Parliament to approve. If the Inland Revenue were asked to examine the merits of this option, it would need to weigh the additional assurance this would provide, the impact of this on the Oil Taxation Office's current compliance activity, and the potential reduction in the work required by companies to produce reconciliations, against the additional audit costs on companies. It might also be necessary to change the petroleum revenue tax assessment period from a half-yearly to an annual basis.

Assurance from joint venture audits

35 There are audit clauses contained within the joint operating agreements which regulate the activities of participators within each field. These clauses allow the non-operating participators to inspect the operator's books and records to ensure that the billing statements they receive are in accordance with the terms of the agreement. Most agreements require such an inspection to be made within two years of the year in which the expenditure is incurred.

36 The Oil Taxation Office has taken the view that this process could provide some assurance on the accuracy of billing statements, but they have little information on whether audits have been undertaken and, if so, on their results. We understand, however, that rationalisation within the oil industry has led to a considerable reduction in the number of joint venture audits being conducted, with non-operating participators choosing not to exercise their audit rights. The Oil Taxation Office does not routinely rely on such audits for assurance and if it were to do so, it would need to establish what was being done and obtain evidence as to its reliability.

Review of royalty returns

37 In April 2000, responsibility for the Oil and Gas Royalties Office transferred to the Inland Revenue's Oil Taxation Office from the Department of Trade and Industry. The latter Department will retain responsibility for royalty policy, but a joint management board will oversee the Oil Taxation Office's discharge of its new devolved responsibility.

38 As noted at paragraph 33 above, companies are currently required to submit audited royalty returns. As the Oil and Gas Royalties Office does not have access to the external auditor's working papers, it performs its own audits of the returns. Our review of its approach showed that short checklists were sent to each oil company with their royalty returns seeking information about significant changes in the business since the last return. The checklists contained standard questions, plus customised questions for individual fields. Completed checklists allowed the Oil and Gas Royalties Office to identify any risks arising from changes to key areas of the business.

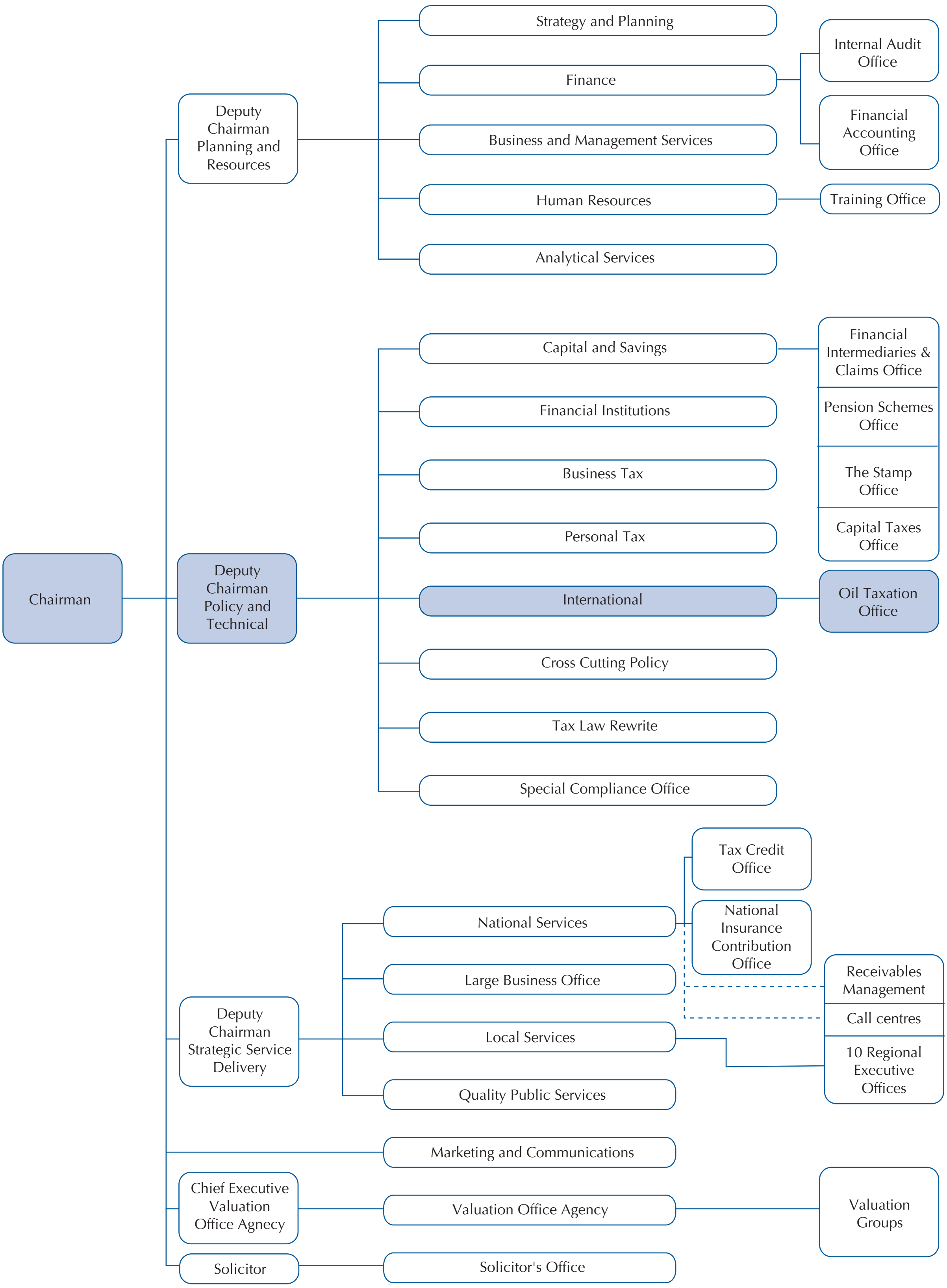
39 Our review of information in the Oil and Gas Royalties Office's audit files showed that, in contrast to the Oil Taxation Office's higher-level approach to the examination of petroleum revenue tax expenditure claims, detailed analyses of costs, for example comparisons of expenditure with budgets, were being undertaken. Its work also included visits to the oil companies to carry out reviews of their accounting systems and to check a sample of individual transactions. However, we noted that low materiality limits had been applied which had tended to lead to large numbers of unresolved queries.

40 Although there are some differences between petroleum revenue tax and royalties in the types of expenditure allowable for relief, the integration of petroleum revenue tax and royalty administration within the Inland Revenue, offers opportunities for exchange of information and best practice, and scope for combining the work of the respective teams to benefit both taxpayers and the Exchequer. The Oil Taxation Office has recognised the scope for joint working with one audit covering both returns. It is envisaged that the majority of audit visits would be undertaken by royalty inspectors who currently have the greater expertise in this area, whereas petroleum revenue tax inspectors would focus on the technical aspects of the work.

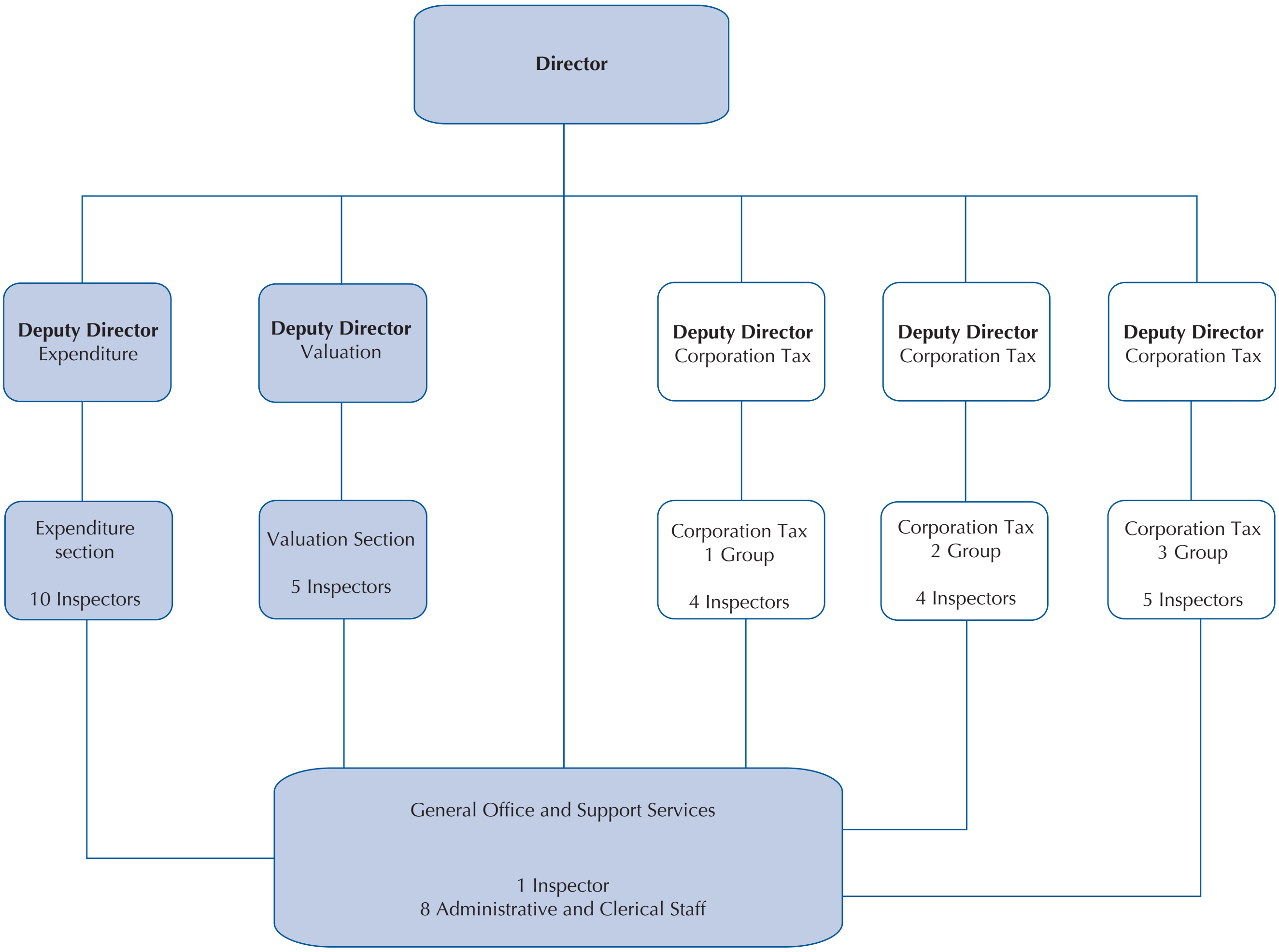
41 Some oil companies have sought assurance from the Oil Taxation Office that no more information would be exchanged between the two Offices under the new integrated structure than under the previous arrangements. The Oil Taxation Office told us that the relevant legislation allows the free flow of information for the purposes of royalty and tax administration, but that such information will remain confidential for all other purposes.

Appendix 6

Inland Revenue organisation chart



Appendix 7 Structure of the Oil Taxation Office's London Branch



Note: This chart shows the structure of the Oil Taxation Office prior to the incorporation of the Department of Trade and Industry's Oil and Gas Royalties Office (see paragraph 1.7).

Appendix 8

Study methodology

During the course of the study, the National Audit Office team:

- interviewed
  - key personnel at the Oil Taxation Office including the Director and Deputy Directors responsible for expenditure and valuation;
  - the Director of the Inland Revenue's International Division, who has overall Board responsibility for ensuring the Oil Taxation Office meets its strategic targets and members of the Energy Group which advises him on matters of policy;
  - management from the Metering Inspectorate which is part of the Oil and Gas Directorate of the Department of Trade and Industry; and
  - members of the Oil and Gas Royalties Office to compare their approach in the assessment and collection of royalties.
- consulted with
  - the oil industry representative bodies of the United Kingdom Offshore Operators Association Ltd, United Kingdom Oil Industry Taxation Committee and BRINDEX (the Association of British Independent Oil Exploration Companies);
  - the Inland Revenue's Internal Audit Office and examined their reports relating to the Oil Taxation Office and petroleum revenue tax; and
  - the Riksrevisjonen (the Norwegian equivalent of the National Audit Office), the Norwegian Oil Taxation Office, the Norwegian Ministry of Finance and the Norwegian Petroleum Directorate.
- reviewed
  - the Inland Revenue's strategic plans relating to the Oil Taxation Office and the Oil Taxation Office's own operating plans, policies and procedures and the results achieved against the targets contained within these plans;
  - the reliability of information provided by the petroleum revenue tax forecasting model maintained by the Inland Revenue's Analytical Services Division; and
  - the organisation of the Oil Taxation Office, the setting of performance targets, the monitoring of results against these targets and the setting and maintenance of quality standards.

Within the Oil Taxation Office, separate groups of inspectors are responsible for assessing the income and the expenditure reported on petroleum revenue tax claims. On the **income or valuation** side, the valuation inspectors are responsible for:

- the examination of the six-monthly returns of volumes of production and proceeds from sales;
- comparison against contract information, including nominations;
- the creation of databases for the various blends of crude, condensate and liquid petroleum gases (butane and propane) to apply market prices to non arm's-length transactions; and
- the monitoring of gas exemptions and election prices.

The study concentrated on the maintenance of the Brent oil price database, and its underlying methodology. We also examined one other oil price database (Statfjord) and the databases for butane and propane. Further aspects included:

- the file examination of checks carried out by the valuation inspectors on the six-monthly petroleum revenue tax returns on the fields sampled within the examination of expenditure claims (see below);
- evaluation of the work of the Department of Trade and Industry Metering Inspectorate in verifying the volumes of declared production; and
- an overall review and selective file examination of gas exemptions and elections.

On the **expenditure** side, the methods used by the Oil Taxation Office to validate expenditure deductions included:

- risk assessment work;
- first claims audits and subsequent compliance reviews;
- account reconciliations;
- joint venture audits; and
- detailed examination of claims.

The study examined the effectiveness of these controls in a judgmental sample of sixteen fields for the year 1998 and for the first half of 1999. The sample was selected to cover the whole spectrum of the Oil Taxation Office's client base and included:

- thirteen petroleum revenue tax paying fields;
- three fields where profits were covered either by safeguard or oil allowance;
- fourteen different operators;
- fifty two participators;
- oil, gas and condensate production.

Examination was primarily based on detailed file examination and interview of inspectors responsible for the fields and covered each stage in the process of assessment and collection covering:

- the collection of payments on account and the companies' estimate of the petroleum revenue tax due on the submission of returns or repayments then due;
- the finalisation of liability and adjustments thereto arising from queries raised and appeals; and
- the collection of monies due or repayments of tax.

Glossary of terms

Term	**Description**
Abandonment	See decommissioning.
Arm's-length sale or transaction	Commercial sales transactions between two independent companies.
Barrel or bbl	A unit of volume measurement used for petroleum and its products. One barrel is equal to approximately 35 imperial gallons. 7.3/7.5 barrels equates to 1 metric tonne and 6.29 barrels equates to 1 cubic metre.
Block	A North Sea acreage sub-division measuring approximately 10x20 kilometres, forming part of a quadrant.
Butane	See liquefied petroleum gas.
Condensate	A mixture of pentanes and higher hydrocarbons. It is in a gaseous state under reservoir conditions and becomes liquid when temperature or pressure is reduced.
Crude oil	See petroleum. Crude oil is designated in various commercial blends e.g. Brent, Forties etc.
Decommissioning	The discontinuance or abandonment of production from a field including the capping of the well and the disposal of the rig structure in an environmentally sound way.
Dry gas	Natural gas composed mainly of methane with only minor amounts of ethane, propane and butane and little or no heavier hydrocarbons in the gasoline range.
Equity production	Oil and gas products obtained by virtue of a company's participation in a North Sea field.
Field	A geographical area under which an oil or gas reservoir lies.
Gas field	A field containing natural gas but no oil.
Hydrocarbon	A compound containing only the elements hydrogen and carbon. It may exist as a solid, a liquid or a gas. The term is used in a catch-all sense for oil, gas and condensate.
Informal claims	Expenditure claims submitted by the oil companies to the Oil Taxation Office with the intention of ascertaining the Office's policy on certain types of expenditure.
Liquefied petroleum gas or LPG	Light hydrocarbon material, gaseous at atmospheric temperature and pressure, held in a liquid state by pressure to facilitate storage, transport and handling. Commercial liquefied gas consists essentially of either propane or butane, or mixtures thereof.
Liquefied natural gas or LNG	Oilfield or naturally occurring gas, chiefly methane, liquefied for transportation.
Methane	See liquefied natural gas.
Metric tonne or MT	Equivalent to 1000 kilograms, 2204.61 lbs or 7.3/7.5 barrels.
Natural gas	Gas, occurring naturally, and often found in association with crude petroleum.

Net profit period	The "net profit period" is the earliest chargeable period ending after a development decision has been made for a field for which: ■ the amount of oil won or saved from the field exceeds 1000 metric tonnes (in terms of gas this is 1100 cubic metres of gas at 15 degrees centigrade at 1 atmosphere); ■ a net profit accrues to the participant.
Nominations scheme	Introduced in the Finance Act 1987 to mitigate loss of tax through oil companies declaring a number of different deals for a particular day and allocating the North Sea production to the cheapest contract some time later. Oil companies are now required to nominate the supply within 48 hours.
Non arm's-length sales or transactions	Sales of oil and gas products to subsidiary or associated companies, or sales transactions between unrelated parties where there are other linked transactions or where the seller has an interest in the price at which the oil is sold on by the buyer.
Non equity production	Oil obtained from fields other than by virtue of a company's participation in a North Sea field.
Oil field	A geographic area under which an oil reservoir lies.
Oil allowance	125,000 or 250,000 metric tonnes per chargeable period per oil field. If there are multiple participants in an oil field the allowance is split between them in proportion to their shares of the oil won and saved in the period. The maximum allowance is 5 million metric tonnes over the life of the field. This allowance is applied against gross assessable profits.
Operator	The company that has legal authority to drill wells and undertake production of hydrocarbons. The operator is often part of a consortium and acts on behalf of the consortium.
Participator	A member of the consortium developing an oil field.
Petroleum	A generic name for hydrocarbons, including crude oil, natural gas liquids, natural gas and their products.
Qualifying receipts	Means receipts in relation to the principal field, which are attributable to the provision of services or other business facilities in connection with the use of any assets for extracting, transporting, initially treating or initially storing oil won otherwise than from the principal field.
Recoverable reserves	That proportion of oil and gas in a reservoir that can be removed using currently available techniques.
Relevant expenditure	The meaning is taken from Oil Taxation Act 1975, section 3(5), and relates to expenditure for: ■ bringing about the commencement of the winning of oil from the field or the commencement of the transporting of oil won from it to the UK or another country; ■ ascertaining (whether before or after the determination of the field, Schedule 1, Oil Taxation Act 1975) matters relating to expenditure on assets used in more than one oil field (see Oil Taxation Act 1975, section 3(1c)); ■ carrying out works for acquiring an asset or an interest in an asset to be used for the purpose of, substantially improving the rate at which oil can be won or transported to the UK or another country from the field, or preventing or substantially reducing the decline in that rate; ■ providing an installation for the initial treatment or initial storage of oil won from the field.

Relevant period	Any chargeable period from the first chargeable period up to and including the period which is the participant's "net profit period" for the field (see above). Any subsequent periods after the first set of chargeable periods above, for which the above conditions apply. This second set of periods is capped at half the number of chargeable periods of the first set of periods (any fraction of a period is counted as a whole period in the 1975 Oil Taxation Act). Note: where section 113 of the Finance Act 1981 applies (in summary when the accumulated losses/advanced petroleum revenue tax exceed the total assessable profits in chargeable periods up to and including the chargeable period three years after the end of the net profit period) the first set of chargeable periods, above, runs from the date of the development decision to the earliest of the periods mentioned in this section of the act.
Relief for allowable losses	Where an allowable loss has accrued to a participant, the participant may carry back the loss to previous chargeable periods and offset the profits for those periods or carry forward the loss to future chargeable periods. This relief is allowed against gross assessable profits and is intended to encourage investment.
Reservoir	The underground formation where oil and gas has accumulated. It consists of porous rock to hold the oil or gas, and a cap rock that prevents its escape.
Royalty payment and credit	The cash or kind paid to the owner of mineral rights, in this instance to the Crown through the Department of Trade and Industry, for fields developed before April 1982. Credit for royalty already paid to the Oil and Gas Royalty Office is allowed against petroleum revenue tax due.
Safeguard	This is a bi-annual calculation designed to protect the rate of return on capital employed once overall field profitability has been reached. The tax payable by a participator in an oil field for a chargeable period, which should not exceed 80 per cent of the amount by which the adjusted profit for the period exceeds 15 per cent of the accumulated capital expenditure. Safeguard, unlike the other allowances, is deducted from the tax payable rather than allowed against the gross assessable profits.
Tariff receipts allowance	The allowance is given for qualifying tariff receipts received by the principal field from other user fields. The allowance is 250,000 metric tonnes per principal field per chargeable period per user field. When the whole tariff is received under contract(s) made before 8 May 1982 the allowance is 375,000 metric tonnes for chargeable periods on or before 30 June 1987. It is allowed against gross assessable profits.
Transfer of losses	When an interest in an oil field is transferred from one participator to another the allowable losses of the original participator may be transferred to the extent that they cannot be offset against profits of the current or preceding periods.
Uplift	An additional relief at 35 per cent on relevant expenditure up to the start of production and on certain other expenditure until profitability is reached. The relief supplements loss relief and reduces a company's petroleum revenue tax liability in the early stages of development. It is allowed against gross assessable profits.
Various other allowances	There are a number of specific technical expenditure allowances which can be applied in the appropriate circumstances to reduce tax liability by offsetting against gross assessable profits. These include exploration and appraisal relief, scientific research allowance, mineral extraction allowance, plant and machinery allowance, cross-field allowance and abandonment allowance.