ACCOUNTING CHOICES AND REPORTED FINANCIAL PERFORMANCE: THE UK GAS INDUSTRY 1970 - 1980

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CONTENTS

CHAPTER 4 : ACCOUNTING CHOICES

CHAPTER 5 : RESEARCH METHODOLOGY

CHAPTER 6 : ACCOUNTING CHOICES 1970 - 1974

CHAPTER 8 : SUMMARY AND IMPLICATIONS

CHAPTER 9 : CONCLUSIONS

ACCOUNTING CHOICES AND REPORTED FINANCIAL PERFORMANCE : THE UK GAS INDUSTRY 1970-1980

ABSTRACT

This study investigates the accounting choices made for the UK gas industry during the eleven years from 1 April 1969 to 31 March 1980. The general research question on which the study focuses is : What was the effect of these accounting choices on the gas industry's reported financial performance and what factors explain these choices and the gas industry's lobbying behaviour on proposed accounting standards.

The theoretical foundation for the study is the US literature on accounting and the political process. However, as the institutional and political environment of the UK gas industry was different from that of any firm in the United States it has been necessary to adapt the investigation to take these differences into consideration.

Each year of the study consists of evidence which is relevant to the research question; calculations of the effects of the accounting choices on reported financial performance; explanations for the accounting choices and where relevant, discussion of the gas industry's lobbying behaviour.

The main findings of this study are :

1. When there was a perceived need to either justify or reduce criticism of a price rise accounting choices were made which reduced reported profit.
2. When there was a perceived need to avoid political costs accounting choices were made which reduced reported profit.

3. The impact of these income decreasing accounting choices on the gas industry's reported profits was significant.

4. The accounting choices made during the quinquennium ended 31 March 1974 appeared to undermine the intended usefulness of the comparison between the financial target for that period with the reported outcomes as a control mechanism.

5. The gas industry's lobbying behaviour on proposed accounting standards appeared to be aimed at decreasing future reported profits which was consistent with the approach adopted for the accounting choices made for the industry.

This study has contributed to the fund of knowledge on the impact of the political process on accounting choices and has thereby contributed to the development of a positive theory of accounting choices.

CHAPTER 1 INTRODUCTION

1.0 INTRODUCTION

This chapter introduces and focuses the study of accounting choices in the UK gas industry. The development in the United States of a positive theory of accounting choices is briefly outlined in section 1.1. The impact of the political process on accounting choices in the UK gas industry is briefly discussed in section 1.2. The objectives of the study are described in section 1.3. An outline of the research methodology is provided in section 1.4. The limitations and key assumptions of the study are described in section 1.5. The expected contributions to knowledge are identified in section 1.6. An overview of the entire study is provided in section 1.7.

1.1 DEVELOPMENT OF A POSITIVE THEORY OF ACCOUNTING CHOICES

In recent years accounting researchers in the United States have been developing a positive theory of accounting choices. According to Kelly (1981, p 3) a :

> positive theory attempts to explain observed phenomena by searching for reasons why events occur. While founded upon observations, positive research goes beyond mere description to systematically explain the current environment. Accounting is studied in its social context, with concern for the interactions of the parties affected by accounting alternatives.

Zmijewski and Hagerman (1981, p 130) consider that a positive theory of accounting that explains why managers choose and lobby for particular accounting alternatives would be very useful because such :

> a theory could identify the economic motives that influence managers to make certain choices and thus indicate how these incentives could be altered.

Zmijewski and Hagerman see such a positive theory as also being useful to accounting policy makers in enabling them to predict how managers will react to proposed changes in accounting practice.

Recent empirical research on accounting choices has tested simple hypotheses that are derived from the literature on accounting and the contracting process and from the literature on accounting and the political process.

From the literature on accounting and the contracting process two hypotheses have been generated and tested: the bonus plan hypothesis and the debt/equity hypothesis. The bonus plan hypothesis predicts that if a firm operates a management compensation plan its managers will make income increasing accounting choices in order to increase the bonus payments made to them. The debt/equity hypothesis predicts that the higher the proportion of a firm's debt to equity the more likely its managers will make income increasing accounting choices in order to reduce the probability of violating the restrictive debt covenants in the debt contracts.

From the literature on accounting and the political process another two hypotheses have been generated and tested: the regulation hypothesis and the political costs hypothesis. The regulation hypothesis predicts that if a firm is subject to rate of return regulation of its prices its managers will make accounting choices which are aimed at reducing the reported rate of return in order to provide a more convincing case for an increase in prices and hence cash flows. The political costs hypothesis predicts that if a firm is in danger of suffering political costs it will make income decreasing accounting choices in order to avoid these costs and the consequent cash flow decreases.

A number of proxies for the likelihood of suffering political costs have been used in the empirical studies: size, market share, capital intensity and profit variability. These proxies are based on the arguments that a firm is more likely to suffer political costs if it is large, has a large market share, is capital intensive and has highly variable profits.

The empirical studies that test these hypotheses use data on companies in the USA. Most of these studies (see chapter 4) test hypotheses derived from both the contracting and political processes literature. Consequently interpretation of the results of this research requires ex post rationalisation of the trade-offs the managers faced between the conflicting pressures from the contracting and political processes when making the accounting choices. This study aims to overcome the problems associated with the conflicting pressures on accounting choices from the contracting and political processes by focusing on a situation where there appeared to be only one set of pressures - those from the political process.

1.2 THE POLITICAL PROCESS AND THE UK GAS INDUSTRY

A situation where there appeared to be the hypothesised pressures from the political process but not the hypothesised pressures from the contracting process existed for the UK gas industry during the eleven years from 1970 to 1980. The choice of time period is explained in section 5.4.

During that period the UK gas industry was a nationalised industry (see section 2.1 for a definition of a nationalised industry). Like most nationalised industries the gas industry received most of its external finance from the government in the form of fixed-interest loans and did not have any equity capital (section 2.2.3). Thus there was no need for restrictive covenants in debt contracts. Also like most nationalised industries the gas industry did not operate management compensation plans [Likierman, 1983(a), p 33]. Therefore during the period of the study it does not seem possible that the accounting choices made for the UK gas industry were influenced by the pressures from the contracting process hypothesised in the US literature.

On the other hand, during that period the UK gas industry had many of the characteristics that have been hypothesised to make a firm's accounting choices subject to the pressures from the political process. It was subject to various forms of regulation of its prices (see section 2.3 for a description of how these forms of regulation changed over time). It also had all the characteristics which have been argued to lead to an increased likelihood that a firm would be subject to political costs. During that period the gas industry was large (section 2.2.4), was a monopoly supplier of gas in the UK (section 2.2.5), was capital intensive (section 2.2.6) and had highly variable profits (section 2.2.7). In addition it received most of its external finance from the government (section 2.2.3) which seems likely to have contributed to its political sensitivity.

1.3 OBJECTIVES OF THE STUDY

The general research question to be investigated is : **What is the effect of accounting choices on reported financial performance and what factors explain such choices, and lobbying behaviour on proposed accounting standards, in the UK gas industry**. The theoretical foundations for the study will be the US literature on accounting and the political process. However as the institutional and political environment of the UK gas industry is different from any firm in the United States it will be necessary to adapt the investigation to take these differences into consideration. The research approach adopted, including the hypotheses to be investigated, is described in section 5.2.

1.4 RESEARCH METHODOLOGY

The study will cover the eleven years from 1 April 1969 to 31 March 1980. Each year of the study will consist of evidence which is relevant to the hypotheses, the effect of the accounting choices on reported performance, explanations for the accounting choices and where relevant, discussion of the gas industry's lobbying behaviour during the year. The research methodology adopted is discussed in detail in chapter 5.

1.5 LIMITATIONS AND KEY ASSUMPTIONS

The limitations and key assumptions of this study will be as follows :

1. This study will not deal with normative accounting issues nor will it attempt to develop prescriptions for the improvement of the external reporting practices of the gas industry.
2. This study will focus on the accounting choices made in the published accounts of the gas industry. Accounting choices made for the gas industry for any other purpose will not be included in the study.
3. It is assumed that the accounting choices made for the gas industry are to some extent systematic and are therefore capable of being explained.
4. External validity will be weak as the case study approach will make it difficult to generalise the findings from one case study on the gas industry to the nationalised sector as a whole.
5. The ex post facto case study approach makes it difficult to draw causal inferences with any certainty, as it is not possible to manipulate an independent variable.

1.6 EXPECTED CONTRIBUTIONS TO KNOWLEDGE

Expected contributions to knowledge stemming from this research are as follows :

1. As already noted this study aims to contribute to the fund of knowledge on the impact of the political process on accounting choices and thereby contribute to the development of a positive theory of accounting choices.

2. Since accounting choice studies until now have been conducted on US data, this research will contribute to the fund of knowledge by extending accounting choice studies to UK data.
3. This is the first accounting choice study on the UK nationalised sector and is thus the first contribution to the development of a positive theory of accounting choices in the UK nationalised sector.
4. This is the first accounting choice study to adopt an in-depth longitudinal case study approach.
5. This is the first study to investigate if there is a consistency between a firm's accounting choices in its published accounts and its submissions to an accounting policy making body on proposed accounting practices.

1.7 AN OVERVIEW

Earlier sections of this chapter have briefly described the development of a positive theory of accounting choices and how a study of the impact of the political process on the accounting choices made for the UK gas industry can contribute to that development. The objectives of the study, research methodology, limitations, key assumptions and the expected contributions to knowledge have been briefly described. This section provides an overview of the remainder of the study.

Chapter 2 will set the scene for the study by describing the accountability and control of the UK nationalised industries, relevant characteristics of the UK gas industry and the role of accounting measures in its regulation. The theoretical foundations of the study will be established in chapter 3 which will explore the literature on accounting and the political process. The prior research on accounting choices will be reviewed in chapter 4.

The research methodology will be described in chapter 5. The investigation of the accounting choices made for the UK gas industry and details of the industry's submissions to the Accounting Standards Committee will be described in chapters 6 and 7.

A summary of the empirical study will be provided in chapter 8 together with a discussion of the implications of the findings. Chapter 9 will assess the contributions to knowledge which the study has achieved and will point to related areas for future research.

First the scene for the study will be set in chapter 2.

CHAPTER 2 THE UK GAS INDUSTRY AND THE ROLE OF ACCOUNTING

2.0 INTRODUCTION

The purpose of this chapter is to set the scene for the study. The accountability and control of UK nationalised industries is briefly reviewed in section 2.1. Those characteristics of the UK gas industry which appear to be relevant to the present study are reviewed in section 2.2. The role of accounting measures in the regulation of the gas industry is reviewed in section 2.3. A summary of the chapter is provided in section 2.4.

2.1 ACCOUNTABILITY AND CONTROL OF UK NATIONALISED INDUSTRIES

The Gas Act 1948 provided the legislation for the nationalisation of the gas industry. Since then the gas industry has been treated as a nationalised industry in government publications such as the annual Public Expenditure White Paper and the annual Financial Statement and Budget Report. Nationalised industries are defined by the National Economic Development Office (1976, Appendix Volume, pp 2-3) as public corporations which have certain characterisitics. Public corporations are defined by the Central Statistical Office (1968, p 273) for National Income and Expenditure purposes as :

> public trading bodies which have a substantial degree of financial independence of the public authority - generally the central government - which created them. A public corporation is thus distinguished from other types of trading body by two main characteristics. Firstly, it is publicly controlled to the extent that the Sovereign, Parliament or a Minister appoints, directly or indirectly, the whole or the majority of the board of management. Secondly, it is a corporate body free to manage its affairs without detailed control by Parliament or other elected body; in particular, its financial independence includes the power to borrow, within limits laid down by Parliament, and to maintain its own reserves.

The National Economic Development Office (1976, Appendix Volume, pp 2-3) uses the above definition of public corporations to define nationalised industries as public corporations :

a) whose assets are in public ownership and vested in a corporation;
b) whose boards are appointed by a Secretary of State;
c) whose board members and employees are not civil servants;
d) which are primarily engaged in industrial or other trading activities;
e) which are differentiated from other public corporations by the degree to which they are engaged in sale of goods and services and the extent to which revenue is derived directly from their customers.

The Nationalisation Acts set out the duties of the boards of nationalised industries and also the power and duties of Ministers. In principle each board is responsible to a Minister. In practice each industry deals with the government department headed by the Minister to whom the industry is responsible. That government department is known as an industry's 'sponsoring' department as part of its responsibilities include looking after that industry's interests in discussions with the Treasury and other government departments. The Minister in charge of the 'sponsoring' department has formal responsibility in the House of Commons for answering questions which relate to each industry responsible to him as well as being responsible for government policy in relation to that industry.

The statutes specify that the boards should present annual reports and accounts to Ministers who should in turn place them before Parliament. The industries' annual reports and accounts can be the subject of both parliamentary questions and parliamentary debates. In addition, from 1952 to 1980 the Select Committee on Nationalised Industries (SCNI) had the right to question the industries on their annual report and accounts. In addition to politicians, there are other groups such as the press and the Nationalised Industries' Consumers Councils who scrutinise the industries' published accounts on behalf of the general public.

The economic, political and social pressures on a nationalised industry are different from those on a private sector corporation. There is no danger of bankruptcy or takeover for any of the industries, and some of them operate as monopolies or near-monopolies. The degree of autonomy granted to the managers of nationalised industries is limited. The framework for decision making and control is specified by the government through the publication of White Papers, of which there have so far been three : (HM Treasury, 1961), (HM Treasury, 1967) and (HM Treasury, 1978). These will be discussed in detail and in chronological order in section 2.3.

2.1.1 Involvement of civil servants in making accounting choices

There is some doubt as to whether the managers of nationalised industries make their accounting choices independently. When discussing the adjustments for inflation by the nationalised industries during 1976 to 1981 Likierman (1983a, p 30) points out that it is not clear who was responsible for these accounting choices. He explains the situation as follows :

> The role of three key parts of the government administrative machinery is also unknown because of the normal provisions of secrecy surrounding their activities. Each of the three has a different set of interests, the Treasury having to be consulted on accounting activities, the government accounting service dealing with accounting policy and a group of sponsoring government departments looking after general policy in respect of the industries. It can be surmised, although it cannot be proved, that the different interests resulted in different viewpoints on this issue.

The suspicion that civil servants have some involvement in making accounting choices for the nationalised industries is increased by the tone of the submissions to the Transport Committee's (1982) review of the form of the nationalised industries' reports and accounts. For instance the Chief Secretary of the British Railways Board made the following two comments in his submission (p 23) :

> At the end of the day, it is the sponsoring Minister who is responsible for determining the basic content and presentation of an Industry's Report and Accounts.

and

> The Committee may be interested to know that a Joint Working Party has been set up, comprising the Department of Transport, the Board and our auditors, to review issues of accounting policy.

The involvement of civil servants in making accounting choices is also mentioned in the Price Commission Report on the South of Scotland Electricity Board (Price Commission, 1978a). In response to criticism of their policy of charging interest during an asset's construction period against revenue rather than capitalising it, the Board explained that (para 4.15) :

> they are not permitted to change the policy .....without the consent of the Secretary of State for Scotland and the approval of the Treasury.

The Chairman of the Accounting Standards Committee, Ian Hay Davison, expressed his views on this topic (Accountancy Age, 30 September 1982, p 11) when discussing the published accounts of the nationalised industries, as follows :

> The relevant secretary of state can, and usually does, dictate the form of accounts, and I suspect it would not be unfair to say that private sector accounting standards are tolerated as long as the Treasury, and the sponsoring departments, do not find them inconvenient.

Although the above evidence is not conclusive it does suggest that civil servants have some involvement in making accounting choices for the nationalised industries.

2.2 THE UK GAS INDUSTRY

This section describes those characteristics of the UK gas industry which are relevant to the present study. Organisational structure and changes in gas supplies are described in section 2.2.1, consumer representation in section 2.2.2, sources of finance in section 2.2.3, size in section 2.2.4, competition in section 2.2.5, capital intensity in section 2.2.6 and variability of reported profits in section 2.2.7.

2.2.1 Organisational structure and changes in gas supplies

The Gas Act 1948 provided the legislation for the nationalisation of the gas industry. Under that Act twelve relatively autonomous Area Boards were set up. The Act also established a Gas Council whose duties were to advise the Minister on matters relating to the gas industry and to promote and co-ordinate the activities of the Area Boards (section 22). According to Williams (1981, p 103) :

> Nationalisation was the greatest single event in the history of the gas industry in the first century and a half of its existence. It gave it for the first time a structure based on units, each large enough to develop technologically and commercially, and an overall organisation that put it on a footing comparable with that of its major rivals, coal and electricity.

When the gas industry was nationalised almost all the gas used in the UK was manufactured using coal-based methods. However, it was clear at that time that there were a number of disadvantages in having an almost exclusively coal-based industry. The disadvantages identified by Williams (1981, p 121) were as follows :

1) the direct carbonisation process required high quality coking coal which was becoming scarce and expensive;

2) a large labour force was required and wage rates were rising;

3) the revenue from coke which was a major by-product of the process was uncertain;

4) the process produced noxious waste which was difficult to dispose of;

5) a grid distribution system was not feasible so a large number of relatively small manufacturing units had to be maintained;

6) the working conditions in these gasworks were unattractive relative to working conditions in other industries at that time.

These disadvantages of the coal-based manufacture of gas provided the incentives for the gas industry's research and development effort to focus on 1) the complete gasification of low-grade coal and on 2) the use of oil as a feedstock instead of coal. A third alternative considered was the importation of liquified natural gas.

Although the gas industry did introduce the complete gasification process in two plants the process was later abandoned when less expensive alternatives became available. One of these cheaper alternatives was the manufacture of gas from oil. In the early 1960's oil-based manufacturing plants were introduced which could not only produce the gas more cheaply but could also transmit it more easily. Around the same time liquified natural gas from the Sahara Desert was being imported to Canvey Island and in 1963-64 a pipeline was constructed which transmitted natural gas to other parts of the country.

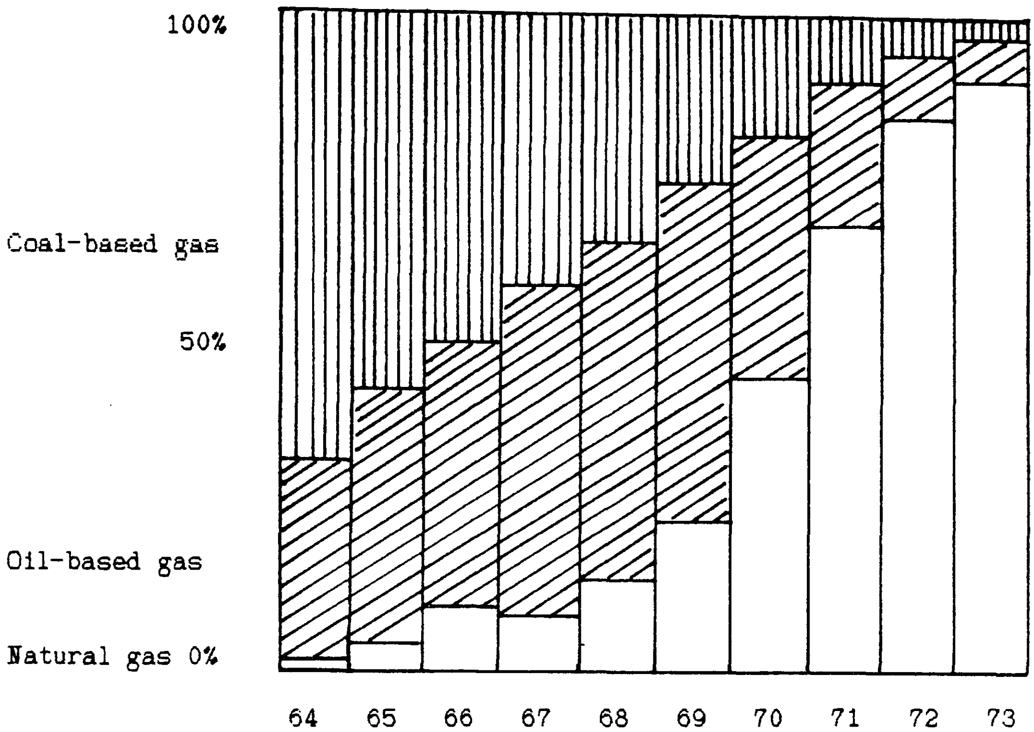
As it happened the importation of natural gas gave gas industry engineers' experience in handling high pressure natural gas which was to be very useful in the years to come.

Before the changeover from coal-based to oil-based plants was complete it became apparent that there were considerable supplies of gas under the North Sea and the Government decided to exploit this resource through a policy of rapid absorption (Ministry of Power, 1967). As the gas industry was a monopoly supplier of gas in the UK and as it had by then a nationwide distribution system the Gas Council was in a very strong position when negotiating the purchase of natural gas from the oil companies. As a result the gas industry was able to negotiate purchases at very favourable rates. Thus in the late 1960's the gas industry started another period of major transition this time from a mixture of coal-based and oil-based manufacture of gas to the distribution of natural gas. This transition has two important consequences which are relevant to the present study. The first is that the coal-based and oil-based manufacturing plants became obsolete and were gradually taken out of use. The second is that customers' appliances had to be converted to cope with natural gas. The accounting choices made in relation to the obsolete plant and the conversion costs are described in chapters 6 and 7.

The transition from coal-based and oil-based gas to natural gas during the ten years from 1963-64 to 1972-73 is demonstrated in Table 2.1 which is reproduced from the BGC's Annual Report and Accounts for 1972-73 (p 15).

Table 2.1

Yearly percentages of gas available



During the same 10-year period the number of gas works in operation was reduced from 272 to 81 (BGC Annual Report and Accounts 1972-73, pp 60-61). By 1977 the transition to natural gas was virtually complete (BGC Annual Report and Accounts 1976/77, p 22) and the number of gas works in operation had fallen to 35 (p 63).

The transition from manufactured gas to natural gas led to the Gas Act 1972 which abolished the Area Boards and the Gas Council and established the British Gas Corporation as the monopoly supplier of gas in the United Kingdom. During the era of manufactured gas one of the prime responsibilities of the Area Boards had been to ensure that, in spite of the vagaries of the British weather, there was sufficient gas to meet demand. With the advent of natural gas and a national transmission system that responsibility ceased for the Area Boards. Thus the 1972 Gas Act's change of organisational structure for the gas industry was aimed at transferring power to the centre which seemed to be more appropriate for an industry moving towards a position where its prime responsibility would be the distribution of natural gas through a national transmission system.

2.2.2 Consumer representation

The Gas Act 1948 required each Area Board to have a Gas Consultative Council. Each Council was to have not less than 20 and not more than 30 members, all of whom, including the Chairman, were to be appointed by the Minister [section 9(2)]. The Chairman was to be a member of the local Area Board which was also given responsibility for providing premises and permanent staff [section 9(9) and (10)]. This arrangement was criticised by Williams (1981, p 276) as follows :

> A priori this appears altogether too cosy an arrangement for effectiveness, with the Councils too much under the shadow of the Boards. The latter provided the accommodation - often within the Board's own premises - and the office staff and paid the general running costs; the Chairman was a member of the Board and thus had a loyalty to them which might be prejudicial to his freedom to criticise. A consumer with a genuine grievance might well feel that the odds were loaded against him from the outset.

The 1948 arrangement could also be criticised on the basis that there was no central body through which the Gas Consultative Councils for each Area could co-operate. This could be interpreted as a policy of divide and rule (Williams, 1981, p 276). However Williams (p 278) saw the main weakness of the Councils as follows :

> Even if there was a strong case to be argued, they did not have resources, comparable with those of the industry, to establish the facts, marshall the evidence, present a convincing report, and argue it forcefully.

Like most nationalised industries the gas industry did not have any equity capital. Until it became self-financing in the late 1970s most of its finance was obtained in the form of fixed-interest loans from the National Loans Fund which is administered by the Treasury. Since 1955 nationalised industries have not been allowed to raise finance on the UK capital market which explains why there were no further issues of British Gas stock during the 11 years of the study. However, the gas industry was given permission to raise finance abroad, with Treasury guarantees as to payment of both capital and interest, which it did during the period of the study.

2.2.4 Size

This section aims to give an indication of the size of the gas industry during the period of the study by comparing its capital employed,turnover and net profit before interest and tax with these criteria for both other nationalised industries and for UK industrial companies.

A useful ranking of UK firms by the size of their turnover is provided by The Times 1000 annual publication. The size of each firm's capital employed and net profit before interest and tax is also provided. Included in this annual publication is a ranking of the UK nationalised industries. Three years of The Times 1000 (1970-71, 1974-75 and 1979-80) were inspected to give an indication of the relative size of the gas industry during the period of the study. Unfortunately The Times 1000 for 1969-70 which covered the first year of the study was not available to the author.

The major change in the arrangements for consumer representation introduced by the Gas Act 1972 was the establishment of the National Gas Consumers Council. Twelve Regional Gas Consumers' Councils were also established along the same lines as the Consultative Councils which they replaced. The establishment of a National Council reflected the transfer of power to the centre within the gas industry as described in section 2.2.1. The National Council also provided a body through which the Regional Councils could discuss and co-operate on matters which did not appertain to only a single region. The Chairman of the National Council was to be appointed by the Secretary of State and the other members were to be Chairmen of the Regional Gas Consumer Councils together with other persons appointed by the Secretary of State [section 9(2)]. The funds for the operation of the Consumer Councils were to be provided by the BGC [Schedule 3(3)].

2.2.3 Sources of finance

According to the gas industry's published report and accounts at 31 March 1970, 31 March 1975 and 31 March 1980 its outstanding borrowings and self-financing ratios at these dates were as shown in Table 2.2.

Table 2.2

Outstanding borrowings	1970 £m	1975 £m	1980 £m
British Gas stock	465.2	214.0	214.0
Government loans	1127.3	1651.4	-
Foreign loans	32.1	223.7	304.9
Bank overdrafts and other	23.1	39.7	91.1
	1647.7	2128.8	610.0
Self-financing ratio	30%	76%	100%

There were 16 nationalised industries in 1970-71, 17 in 1974-75 and 20 in 1979-80. On size of capital employed the gas industry was third in 1970-71, third in 1974-75 and fourth in 1979-80. On size of turnover the gas industry was fifth in 1974-75 and sixth in 1979-80. The Times 1000 list of nationalised industries did not provide information on turnover for 1970-71. On size of net profit before interest and tax the gas industry was third in 1970-71, second in 1974-75 and third in 1979-80.

The gas industry was also compared to the 1000 largest UK industrial companies. The number of companies with larger capital employed was three in 1970-71, three in 1974-75 and four in 1979-80. The number of companies with larger turnover was 14 in 1974-75 and seven in 1979-80. The number of companies with a larger net profit before interest and tax was four in 1970-71, four in 1974-75 and two in 1979-80.

These comparisons indicate that throughout the period of the study the gas industry was a relatively large organisation in the UK context.

2.2.5 Competition

During the period of the study the 12 Area Gas Boards (up to 31 December 1972) and the BGC (from 1 January 1973) were monopoly suppliers of gas in the UK. However, in the energy market the gas industry was in competition with other sources of energy. The gas industry's changing share of the energy market is demonstrated in Table 2.3.

Table 2.3

Final consumption of energy in the UK analysed by fuel

	1970 %	1975 %	1980 %
Coal and other solid fuels	31	18	13
Oil	47	46	44
Electricity	11	13	13
Gas	11	23	30
	100	100	100

As can be seen from Table 2.3 the gas industry increased its share of the energy market during the period of the study by 19% largely at the expense of the coal industry.

One aspect of this expansion of the gas industry's activities which is relevant to the current study is the increase in the average number of customers (voters) from 13,306 in 1969-70 to 13,620 in 1974-75, to 15,074 in 1979-80.

2.2.6 Capital intensity

This section aims to give an indication of the capital intensity of the gas industry during the period of the study by comparing its capital intensity ratio with both the average for the nationalised industries and the average for the 20 largest UK industrial companies.

As when giving an indication of the relative size of the gas industry (section 2.2.4) the information in The Times 1000 annual publications was used. The capital intensity ratio was calculated as the ratio of capital employed to turnover expressed as a percentage. The capital intensity ratio for the gas industry is compared with the average capital intensity ratios for the nationalised sector and for the 20 largest industrial companies for 1970-71, 1974-75 and 1979-80 in Table 2.4. It should be noted that it was not possible to calculate an average capital intensity for the nationalised industries for 1970-71 because The Times 1000 list of nationalised industries for that year did not provide information on turnover.

Table 2.4

Comparison of capital intensity ratios

	1970-71 %	1974-75 %	1979-80 %
Gas industry	258	226	73
Average for nationalised industries	N/A	189	122
Average for 20 largest industrial companies	53	59	52

The fall in the capital intensity ratio for the gas industry for 1979-80 is due to the rapid increase in turnover from £897,500,000 in 1974-75 to £2,971,800,000 in 1979-80 while capital employed only increased from £2,027,800,000 to £2,180,800,000 over the same period. This increase in turnover is a reflection of the increase of 7% in market share achieved by the gas industry during this period shown in Table 2.3. As noted in section 2.2.1 the transition from town gas to natural gas was completed in 1977 which accounts for the relatively low increase in capital employed during this period.

The comparison of the capital intensity ratio for the gas industry with the average for the nationalised sector is inconclusive as shown on Table 2.4. There are other highly capital intensive nationalised industries such as electricity, rail and telecommunications. In 1974-75 the gas industry had the seventh highest ratio out of 17 while in 1979-80 it had the twelfth highest ratio out of 20.

The comparison with the average for the 20 largest industrial companies in the UK indicates that during the period of the study the gas industry was considerably more capital intensive than those industrial companies of similar size (see section 2.2.4).

2.2.7 Variability of reported profits

The variability of the reported profits of the gas industry during the period of the study is illustrated in Table 2.5. As can be seen from the Table the changes from one year to the next have sometimes been dramatic.

Table 2.5

Variability of reported profits

Year ended 31 March	Reported profit or (loss)	Percentage increase or (decrease)
1969	17,471,000	-
1970	13,749,000	(21%)
1971	1,990,000	(86%)
1972	15,119,000	660%
1973	5,600,000	(63%)
1974	(41,500,000)	(841%)
1975	(42,300,000)	(2%)
1976	25,100,000	159%
1977	31,500,000	25%
1978	180,300,000	472%
1979	360,700,000	100%
1980	425,900,000	18%

2.3 THE ROLE OF ACCOUNTING MEASURES IN THE REGULATION OF THE GAS INDUSTRY

The section traces chronologically the role of accounting measures in the regulation of the gas industry. This chronological approach starts with the Gas Act 1948 in section 2.3.1 and then continues with the 1961 White Paper in section 2.3.2, the 1965 Fuel Policy White Paper in section 2.3.3, the 1967 White Paper in section 2.3.4, the Counter-Inflation Act 1973 in section 2.3.5, the Price Commission Act 1977 in section 2.3.6 and the 1978 White Paper in section 2.3.7. Concluding comments are provided in section 2.3.8.

2.3.1 Gas Act 1948

Section 41 of the Act required each Area Board :

> to secure that the revenues of the board are not less than sufficient to meet their outgoings properly chargeable to revenue account, taking one year with another.

Although there was a general direction that prices should be kept as low as possible the Area Boards were permitted to fix their own prices [section 1(8)].

2.3.2 1961 White Paper

The 1961 White Paper (HM Treasury, 1961) was the first departure from the requirements of the various Nationalisation Acts. It pointed out (para 16) that :

> the nationalised industries generally have had to rely more heavily upon the Exchequer than is healthy, either for themselves or for the economy as a whole.

It was then argued (para 22) that :

> there are powerful grounds in the national interest for requiring these undertakings to make a contribution towards the cost of their capital development out of their own earnings, and so reduce their claims upon the nation's savings and the burden on the Exchequer : this is particularly so for those undertakings which are expanding fast and which have relatively large capital needs.

From the above it would appear that one of the aims of the 1961 White Paper was to reduce the extent of nationalised industries borrowing from the Government. This was to be achieved by setting each nationalised industry a financial target which would presumably in most cases, result in consumers being charged increased prices as the industries were now to be required to achieve more than a break-even position as required by the Nationalisation Acts. In addition to breaking even over a five-year period the industries were to provide from revenue for the excess of replacement cost depreciation over historic cost depreciation and were to make adequate allocations to reserves as safeguards against premature obsolescence and similar contingencies (para 19). In practice the financial targets were generally set in accounting rate of return terms (HM Treasury 1967, Table 1).

The 1961 White Paper made little comment on the pricing and investment policies the industries were expected to pursue. It thus allowed them to continue to price on the "average cost-plus" basis (Lapsley, 1981, p 2). As Heald (1980, p 252) points out :

> The 1961 White Paper was essentially about financial targets. They were designed to prevent too much of the nation's capital resources being diverted to the nationalised industries and earning a return lower than that of the displaced private investment.

2.3.3 1965 Fuel Policy White Paper

The 1965 Fuel Policy White Paper (Cmnd 2798) (Ministry of Power, 1965) recommended the same pricing policies for the nationalised fuel industries as the 1961 White Paper had recommended for the nationalised sector as a whole. Para 94 of the 1965 Fuel Policy White Paper stated that :

> in general, the industries' tariffs should provide revenue sufficient to cover the full accounting costs of the industry, including overheads and the surplus needed to achieve the agreed financial objectives.

2.3.4 1967 White Paper

There was a change of emphasis in the 1967 White Paper (Cmnd 3437) (HM Treasury, 1967). Instead of focusing on financial control as the 1961 White Paper and 1965 Fuel Policy White Paper had done the focus was placed on the requirements of allocative efficiency. Cmnd 3437 recommended that investments should be assessed on a DCF basis, using a test rate of discount that reflected the social opportunity cost of capital (paras 6-16) and that prices should be related to long run marginal costs (paras 17-26). To allocate resources on an efficient basis only pricing and investment criteria are required [Heald (1980), Lapsley (1981) and Davies and McInnes (1982)] but Cmnd 3437 also recommended the setting of financial targets (paras 33-36).

The 1967 White Paper's approach to pricing is of relevance to the present study. Para 17 stated that the Government's policy on pricing :

> starts from the principle that nationalised industries' revenues should normally cover their accounting costs in full - including the service of capital and appropriate provision for its replacement.

Although the above statement is consistent with the recommendations in the 1961 White Paper and in the 1965 Fuel Policy White Paper the change in emphasis became apparent in the paragraphs which followed. For instance para 21 stated that :

> In addition to recovering accounting costs, prices need to be reasonably related to costs at the margin and to be designed to promote the efficient use of resources..... In the long run the main consideration is the cost of supplying on a continuing basis ....

The relevance of the 1967 White Paper to the gas industry was assessed by the Select Committee on Nationalised Industries (1968). The SCNI summarised the pricing policies advocated in both the 1967 White Paper (Cmnd 3437) and in the 1965 Fuel Policy White Paper (Cmnd 2798) and noted that there appeared to be a change in priorities between the two.

> Cmnd 3437 appears, at any rate in places, to give priority to devising pricing policies with reference to costs of supply, while covering accounting costs wherever possible; Cmnd 2798 appears to give priority to covering accounting costs while accepting that it is desirable that tariffs should be related to consumer costs (para III.6).

The SCNI accepted that :

> the inconsistency may very well be confined only to policy, for the outcome of a policy of long run marginal cost pricing will normally produce a surplus large enough to cover the whole of an industry's accounting costs (para III.7).

However the SCNI also pointed out that :

> even in the long run, it is possible in principle for marginal costs to be less than unit costs, which would mean that a policy of long-run marginal cost pricing could involve the industry in an accounting deficit (para III.7).

The SCNI saw the practical question of whether the gas industry should set their prices at the level required to meet their accounting costs or whether they should relate their prices to long-run marginal costs as being of considerable importance and pointed out that the question arose on the charges for the obsolete gas-making plant (section III.8).

In April 1969 the Minister of Power published his observations (Select Committee on Nationalised Industries, 1969) on the above report by the SCNI. The Minister's response to the apparent change in pricing policy priorities between Cmnd 3437 and Cmnd 2798 was as follows :

> In the Minister's view the apparent inconsistency arises from the varying interpretations that can be placed on the phrase 'related to long-run marginal costs'. Neither of the White Papers intended it to mean 'equal to long-run marginal costs' even for an industry in equilibrium. As a statement of the Government's policy, Cmnd 3437 must be read as a whole, from which it will be clear that the policy starts from the principle that nationalised industries' revenue should normally cover their accounting costs in full (para 9).

The Minister's conclusions on pricing are of interest to the present study as they give an indication of the direction of influence, if any, which the sponsor department may have given to the gas industry :

> The Minister concludes that there are good grounds for charging prices close to long-run marginal costs to those consumer classes that tend to be relatively sensitive to price, while settling other parts of the industry's tariffs above marginal costs in order to make a contribution to the industry's overheads. This is broadly the pricing policy that the gas industry intends to pursue, as explained to the Committee by Sir Henry Jones (Q 136) (para 14). (Sir Henry Jones was at that time Chairman of the Gas Council).

Finally, the Minister outlined his intention regarding the setting of a future financial objective for the gas industry.

> The intention therefore is to set a financial objective for the next five years that will be consistent both with the earning of appropriate returns over the whole life of new assets and with the pursuit by the industry of pricing policies on the lines indicated in the preceding paragraphs and with the present and prospective situation facing the gas industry, including market conditions and the need for a rapid build-up in the use of North Sea gas.

It seems reasonable to conclude from this that the Ministry of Power intended to set objectives for the gas industry for the next five years which took into account the fact that prices would be set at a level which would enable the industry to recover its full accounting costs including the amortisation of both obsolete gas-making plant and the costs of conversion to natural gas at the amortisation rates then prevailing.

A report on gas prices by the National Board for Prices and Incomes (NBPI) (1969) was published in February 1969. The NBPI discuss the extent to which the gas industry should follow the 1967 White Paper's (HM Treasury, 1967) recommendation that prices should be related to marginal costs. They argue (para 55) that the purpose of that recommendation :

> is to enable consumers to take decisions now in the light of likely future developments.

They argue, however, that the marginal costs of natural gas are likely to show a changing pattern over time (paras 56 and 57). As long as the consumption of natural gas was below the capacity of the national transmission system the costs to the Gas Council of supplying extra gas to the Area Boards would consist of little more than the cost of buying gas at the beach-head and pumping it to the Area Boards' off-take points. However, if the demand for gas increased as expected beyond the initial capacity of the national transmission system the structure of costs would change to include a capital element to reflect the costs of additional compressors and additional storage capacity. Thus if the prices charged to gas consumers were closely related to marginal costs they would be low at first but would jump in probably two or three years time. The NBPI argued that this pattern of prices would not be in the best interests of consumers who might be induced by the low initial costs to buy expensive gas appliances only to find gas prices rising sharply later.

For the above reasons the NBPI recommended that the Gas Council charge the Area Boards a price for gas related to the longer-term estimate of costs. On retail prices the NBPI recommended that the Area Boards set these at levels which (para 65) :

at least cover marginal costs (and which in addition meet the revenue requirements resulting from the financial obligations).

Thus the NBPI was recommending that the gas industry be given freedom to charge customers more than marginal costs in order to meet its financial targets.

As part of the National Economic Development Office (1976) study of the UK nationalised industries Coopers and Lybrand (1976) were commissioned to review the pricing policies, investment criteria and financial objectives of four nationalised industries. One of the industries investigated was the gas industry. Coopers and Lybrand found that each of the four nationalised industries sought to set their prices at the level required to enable them to recover their accounting costs (p 98) and none of the four based their pricing policies on marginal costs (p 100). The investigation of the gas industry's pricing policies ascertained that the financial objective was used to ascertain the total additional revenue requirements (p 106). Then an assessment was made of the additional revenues to be expected from contract sales to industrial and commercial customers where the prices were market related (p 101 and p 106). The 'residual' revenue requirement was then to be achieved by increases in the charges to domestic customers (p 106).

From their evidence to the SCNI in 1968 (Select Committee on Nationalised Industries, 1968) and from the Minister of Power's observations on that SCNI report in 1969 (Select Committee on Nationalised Industries, 1969) it seems clear that the Ministry of Power and the Gas Council did not intend to set gas prices equal to long-run marginal costs as recommended in the 1967 White Paper (HM Treasury 1967). Instead they intended to set gas prices at the level required to cover accounting costs in full. This pricing strategy appeared to have the backing of the NBPI (National Board for Prices and Incomes 1969). The evidence from the Coopers and Lybrand (1976) investigation confirms that domestic gas prices were not based on long-run marginal costs but were instead based on the additional revenues required to meet the financial objective.

The pricing strategy adopted is of considerable importance for the present study which asssumes that accounting costs were a factor in the determination of gas prices.

2.3.5 Counter-Inflation Act 1973

From 2 April 1973 as a result of the Counter Inflation Act 1973 increases in gas prices had to be approved by the Price Commission. Although the Commission's powers were derived from the Act, the detailed provisions relating to the Commission's functions appeared in Statutory Orders. The detailed provisions of these Statutory Orders changed over time and are described in chapters 6 and 7. In general terms the Price Commission's decisions relating to the granting of price rises were to be based on accounting information supplied by the firm which had to be reconcilable with the firm's audited accounts. Thus accounting information continued to have a role in the determination of gas prices.

2.3.6 Price Commission Act 1977

The Price Commission Act gave the Commission the power from 1 August 1978 to conduct a more detailed and flexible investigation of any proposed price rise than had previously been possible under the Counter-Inflation Act 1973's Statutory Orders. The Commission did carry out such an investigation of a proposed rise in gas prices in the spring of 1979. As the Price Commission's (1979) report demonstrates accounting information from the gas industry's published accounts was part of the information set used in the investigation. Thus even under the more flexible investigations authorised by the Price Commission Act 1977 accounting information had a role to play in the determination of gas prices.

2.3.7 1978 White Paper

The investigation by the National Economic Development Office in 1976 highlighted the practical problems of implementing the theoretically perfect pricing and investment guidelines in the 1967 White Paper. As a result a third White Paper was published in 1978 (HM Treasury, 1978). This attempted to overcome the practical difficulties of the 1967 White Paper and in addition extended the framework of control.

The 1978 White Paper modified the marginal cost pricing rule to one of average incremental cost which involved :

> taking the investment programme, relating it to the output associated with that investment and estimating the price at which this output would have to sell in order to cover all the costs, including capital costs, involved in producing it (Appendix 1, para 5).

However, the White Paper also stated that :

> the Government sees its main role as determining the overall financial target, and hence the general level of prices (para 67).

and

> it is primarily for each nationalised industry to work out the details of its prices with regard to its markets and its overall objectives, including its financial target (para 68).

These statements in the 1978 White Paper are somewhat ambiguous and have been interpreted as an abandonment of marginal cost pricing and a return to prices determined on the basis of accounting costs (Heald, 1980).

2.3.8 Concluding comments

During the eleven years of the study from 1970 to 1980 accounting measures appear to have had a role to play in the setting of gas prices. Although the 1967 White Paper recommended that nationalised industries' prices be set on the basis of long-run marginal costs all the evidence described in section 2.3.4 indicates that gas prices were set on the basis of accoaunting costs. From 2 April 1973 to 31 July 1978 the Price Commission was given the authority to use the accounting-based rules specified in Statutory Orders as the basis for acceptance or rejection of proposed rises in gas prices. From 1 August 1978 the Price Commission had the authority to move away from these detailed accounting-based rules to adopt a more flexible and detailed approach to the investigation of proposed price rises. However, the Price Commission's investigation of the proposed gas price rise in the spring of 1979 still used accounting information from the gas industry's audited accounts in the conduct of the investigation. The 1978 White Paper's pricing guidelines, although ambiguous, still allowed nationalised industries prices and therefore gas prices to be set on the basis of accounting costs. Thus throughout the eleven years of the present study accounting costs appear to have had a role to play in the setting of gas prices.

2.4 SUMMARY

This chapter has set the scene for the study. Throughout the period of the study the gas industry was a nationalised industry which meant that civil servants may have been involved in making accounting choices for the industry.

The gas industry's main characteristics during the period of the study were that it was large, capital intensive, was a monopoly supplier of gas in the UK, had highly variable reported profits, received a significant proportion of its external finance from the government and its prices were subject to various forms of regulation in each of which accounting costs appear to have had a role to play.

It has been argued in section 1.2 that the above characteristics of the UK gas industry suggest that it may have been subject to pressures from the political process. It was further argued in section 1.3 that these pressures may have influenced the accounting choices made for the UK gas industry. The next chapter reviews the literature on accounting and the political process.

CHAPTER 3 ACCOUNTING AND THE POLITICAL PROCESS

3.0 INTRODUCTION

This chapter describes the theoretical foundations of the study by reviewing the mainly US literature on accounting and the political process. The nature of the political process is described in section 3.1, the participants in the political process in section 3.2 and the impact of the political process on accounting choices in section 3.3. Concluding comments are provided in section 3.4.

3.1 THE NATURE OF THE POLITICAL PROCESS

The traditional economic theory of the political process assumes that government intervention in the market is aimed at achieving "public interest" objectives (Posner, 1974 and McCraw, 1975). This "public interest" theory assumes that government regulations and other interventions are aimed at remedying perceived market failures. However, the inconsistencies between the "public interest" hypothesis and the evidence has led to the hypothesis being reformed. The reformed hypothesis is based on the assumption that the participants in the political process act in their own self interest.

This alternative view of the political process leads Schumpeter (1949) to define democracy as :

> an institutional arrangement in which individuals acquire the power to make political decisions by means of a competitive struggle for people's votes.

This view is extended by Downs (1957 and 1957a) and by Buchanan and Tulloch (1962). Interconnected work by Olsen (1971), Stigler (1971), Posner (1974) and Peltzman (1976) on the theory of economic regulation is based on the assumption that participants in the political process take actions which are aimed at maximising their utility. As Posner (1974, p 356) points out :

> the general assumption of economics that human behaviour can best be understood as the response of rational self-interested beings to their environment must have extensive application to the political process.

The maximisation of the utility of the participants in the political process involves these participants in a competition for wealth transfers and as a result they incur information, lobbying and coalition costs (Watts and Zimmerman, 1986, p 222). Nonzero information, lobbying and coalition costs are critical for accounting choices to have economic consequences. If these costs were not nonzero users could costlessly unravel accounting choices, coalesce and lobby to prevent the accounting choices having the economic consequences desired by the firm's managers (Holthausen and Leftwich, 1983, p 83). According to Watts and Zimmerman (1986, p 223) :

> the magnitude of these costs and their distribution across groups determine the outcome of the political process.

Information costs include the costs of gathering and if necessary adjusting and interpreting the information appertaining to a particular issue. Lobbying costs are the costs of taking some action which may change the probable outcome of the political process. Coalition costs are the costs of forming coalitions that are expected to be capable of achieving greater success in the political process than individuals. Coalitions should be able to achieve cost reductions in both information and lobbying costs relative to the costs that would be incurred on an individual basis.

It could be argued that the costs of adjusting and interpreting information by participants in the political process is higher than these costs are for capital market participants who are likely to have a comparative advantage at such activities (Watts and Zimmerman, 1978, p 117, fn 21). Also as Stigler (1971, p 11) points out :

> the costs of comprehensive information are higher in the political area because information must be sought on many issues of little or no direct concern to the individual....

If these costs are higher in the political process than in the market process there will be more opportunistic behaviour in the political process than in the market process (Watts and Zimmerman, 1986, p 242).

The expected benefit from incurring information, lobbying and coalition costs is the probability that a proposed political decision will be affected by the lobbying behaviour times the present value of the proposed political decision on an individual or group's wealth.

The participants in the political process decide whether or not to express their preferences by either individual or group representation on the basis of an assessment of the costs and benefits of doing so. An individual or group will only participate in the political process if the expected marginal benefits exceed the expected marginal costs.

3.2 PARTICIPANTS IN THE POLITICAL PROCESS

This section explores the motivation of various groups to participate in the political process. The motivation of voters is discussed in section 3.2.1, the motivation of the media in section 3.2.2, the motivation of politicians in section 3.2.3 and the motivation of bureaucrats in section 3.2.4.

3.2.1 Voters

The number of political issues which arise and are discussed during the course of a year is very large. The costs to the individual voter of keeping track of his representative's vote on each issue and of working out the effect of each issue on his own utility are likely to be very high. Furthermore, the likelihood that one individual's vote is going to affect the result of an election is trivial (Downs 1957 and 1957a). Thus the voter has little incentive to gather information relative to his vote as it is likely that the marginal costs of doing so will exceed the marginal benefits. It therefore seems likely as Watts (1977 p 65) suggests that voters will vote on the basis of information gathered as a by-product of some other activity such as reading newspapers or watching television for entertainment.

3.2.2 The Media

If the voter does not demand information for voting decisions from the press but instead demands to be entertained the behaviour of the press will be affected (Watts, 1977, p 65). Watts' arguments relating to the behaviour of the press are derived from Jensen's (1976) attempt to construct a theory of the press in which he argues that the press is more motivated to entertain than to inform (p 271). Jensen (p 282) describes the incentives of the press to entertain and how they do so as follows :

> People seem to love crises, apparently because of their entertainment value. If this hypothesis is true and if it increases.... newspaper readership, these media cannot be expected to remain passive bystanders.... But the incentives are for far more than sensational reporting. The media have strong incentives to help manufacture such crises.

Thus in order to increase newspaper sales reporters have incentives to report or create impressions of impending disasters.

3.2.3 Politicians

On the basis of Schumpeter's (1949) work, Downs (1957) regards the politician as an entrepreneur who trades in votes. As Zimmerman (1977, p 118) points out the maximisation of a politician's utility is likely to partly depend upon the likelihood of being re-elected. The likelihood of being re-elected can be enhanced according to Jensen and Meckling (1976), Watts (1977) and Zimmerman (1977) by the politician creating crises and then benefiting voters by "solving" them. It is argued that such activity enhances the politician's likelihood of being re-elected through the increased exposure he receives through the media who have incentives to highlight such crises in order to sell more newspapers as readers (voters) find such crises entertaining.

3.2.4 Bureaucrats

While the media and politicians have incentives to create crises, bureaucrats have incentives to avoid them. As Watts (1977, p 67) points out :

> bureaucrats' careers and hence their expected utilities are affected by the likelihood of being blamed for future "crises".

Therefore a bureaucrat has incentives to try to ensure that he is not blamed for any crisis suffered by his political masters. In order to avoid blame for such a crisis he needs to have a keen understanding of the policies adopted by his political masters particularly insofar as these policies impact upon his particular responsibilities.

3.3 EFFECT OF THE POLITICAL PROCESS ON ACCOUNTING CHOICES

This section explores the possible effect of the political process on accounting. In particular it will discuss the possible effect of the political process on the accounting choices made by regulated firms (section 3.3.1) and by firms subject to political costs (section 3.3.2).

3.3.1 Firms subject to regulation

In the United States the activities of firms in certain industries such as utilities, banking and insurance are restricted by regulations which are based explicitly on accounting reports. Most utilities are subject to rate of return regulation which means that if a utility wants to increase its prices in order to increase its cash flows it has to satisfy its regulatory commission either that its costs have increased or alternatively that its capital employed (its rate base) has increased.

Regulation of an industry using accounting numbers will be ineffective unless the regulatory body gives some guidelines on accounting choices. Generally the regulatory bodies recommend that the regulated firms adopt those accounting practices recommended by accounting policy making bodies such as the FASB and the SEC. However, the recommendations of the accounting policy making bodies still leave managers with some discretion when making accounting choices.

In order to increase the regulated firm's cash flows its managers have incentives to argue with its regulatory body that prices must be increased. As already noted that argument needs to be supported by evidence that either the regulated firm's costs have increased or that its investment base has increased. Thus the managers of regulated firms have incentives to make accounting choices which either increase the firm's reported costs or increase its investment base.

For the same reasons managers of regulated firms have incentives to lobby on proposed accounting standards. If an accounting policy making body proposes an accounting standard which recommends an accounting practice which has the effect of increasing a regulated firm's reported costs or investment base the managers of that firm have incentives to support that proposed accounting standard. Alternatively if the proposed accounting standard recommends practices that decrease the regulated firm's costs or investment base it has incentives to oppose that proposed accounting standard.

The regulatory commission decision on whether or not to grant a price rise to a regulated firm will partly depend on whether consumers coalesce and lobby against the price rise. Consumers' decisions on whether to incur coalition and lobbying costs as well as the costs of gathering information relative to the proposed price rise will depend on the expected benefits. Watts and Zimmerman (1978, p 117) point out that for small price increases the <u>per capita</u> costs each consumer (or group of consumers) bears are likely to be much greater than the <u>per capita</u> benefits they will receive in the form of lower prices.

The regulators will adjust for the accounting choices made by a regulated firm up to the point where the marginal costs of so doing equal the marginal benefits. If the regulators are under political pressure from consumers to oppose a regulated firm's proposed price rise they are more likely to make adjustments for the firm's accounting choices as the marginal benefits from so doing are increased. Alternatively if the regulators are not under pressure from consumers they may decide that the marginal costs of adjusting for the accounting choices are greater than the marginal benefits. As a result they may grant the proposed price rise. The accounting choices then help not only the regulated firm but also the regulatory commission justify the price rise to consumers. As Prakash and Rappaport (1977, p 36) point out it is likely that the managers of regulated firms will take into account the past use that has been made of their published accounting information.

The causal link between rate regulations and accounting choices has been discussed by Watts and Zimmerman (1978, pp 115-117), Watts and Zimmerman (1979, p 281), Kelly (1981, p 24), Zmijewski and Hagerman (1981, p 131), Holthausen and Leftwich (1983, pp 85-86) and Watts and Zimmerman (1986, pp 231-232). However, so far this causal link has only been investigated in one study (Jarrell, 1979) which is reviewed in section 4.4.

3.3.2 Firms subject to political costs

The political process can be used to transfer wealth between groups. As already noted in sections 3.2.2 and 3.2.3 both the media and politicians have incentives to create crises. It has been hypothesised by for example Watts and Zimmerman (1978, p 115), Kelly (1981, p 24), Zmijewski and Hagerman (1981, p 131), Holthausen and Leftwich (1983, pp 87-88) and Watts and Zimmerman (1986, pp 230-231) that large reported profits are used to create crises, such as the accusation that a firm is making monopoly profits at the expense of consumers. The proposed "solution" to such a crisis might be to transfer wealth from the "greedy" monopolist firm to some other "deserving" group such as consumers through lower prices or taxpayers through lower taxes.

In order to reduce the likelihood of being subjected to these negative wealth transfers it has been argued by the above authors that the managers of politically sensitive firms have incentives to (a) adopt accounting choices that have the effect of decreasing reported profits and to (b) lobby for proposed accounting standards that have that effect. Such action assumes that there is a low probability that those participants in the political process who might propose such negative wealth transfers will adjust for the accounting choices. They will not adjust unless the marginal benefits of so doing exceed the marginal costs as discussed in section 3.1.

The variables that make a firm politically sensitive are not clear. The empirical studies described in section 4.3 have tested size, concentration ratio as a surrogate for the opportunity to earn monopoly rents, capital intensity and risk. Of these, size has been tested the most often. The size hypothesis is that managers of large firms are more likely to choose income decreasing accounting choices than managers of small firms.

The assumption that large firms are more subject to political costs than small firms is tested by Zimmerman (1983). He argues that taxation makes up one component of political costs and that if large firms are subject to higher political costs they are likely to be subject to higher effective tax rates. On the basis of this argument he investigates the relationship between firm size and effective tax rates. As Ball and Foster (1982, pp 182-183) argue that size may be a surrogate for something else such as industry membership Zimmerman also investigates the effect of taxation on different industries.

For the purposes of his study Zimmerman defines an "effective tax rate" as the ratio of taxes paid to operating cash flows. He uses data from the Compustat industrial files to get 43,515 usable observations covering the years 1947-1981.

Zimmerman divides the firms in each industry classification in his sample into a "large" group which consisted of the largest 50 firms in that industry classification and an "other" group which contains all the other firms in that industry. He finds that the effective tax rates for the 50 "largest" firms are higher than those for the "other" firms. When the data is broken down by industry classification Zimmerman finds that the association between firm size and high effective tax rates is strongest in the oil industry, is somewhat weaker in manufacturing industry and is nonexistent in the trade industry. Zimmerman explains this strong association between size and effective tax rates for the oil industry in the 1970s on the basis that in 1969 and 1971 the oil depletion allowance was reduced. As the large companies in that industry classification were oil companies the effective tax rates of the large firms in that classification were thereby increased relative to the others. This last finding suggests that the oil industry incurred the largest political costs.

However, as Zimmerman (p 146) points out it must be remembered that the results of this study provide only limited evidence that political costs vary with firm size as all other potential political costs (regulation or other negative wealth transfers) are ignored.

3.4 CONCLUDING COMMENTS

This chapter has described the theoretical foundations of the present study of the accounting choices in the UK gas industry by reviewing the mainly US literature on accounting and the political process.

The next chapter reviews the prior research on accounting choices.

CHAPTER 4 ACCOUNTING CHOICES

4.0 INTRODUCTION

The author is not aware of any other study that has attempted to contribute to the development of a positive theory of accounting choices in the published accounts of a UK nationalised industry. Consequently the prior research reviewed in this chapter is only indirectly relevant to the present study.

As already noted in section 1.1 academic researchers in the United States have, over the last twenty years, attempted to develop a positive theory of accounting choices (although accounting procedures is the term generally used in the United States). It is this positive research which makes up most of the prior research reviewed in this chapter.

Section 4.1 briefly summarises the first attempts to develop such a positive theory (which were based on the proposition that managers' accounting choices were aimed at smoothing income) and then discusses the theoretical flaws in that research which have subsequently become apparent. The possible impact of the contracting process on accounting is discussed in section 4.2 and the empirical research which tests the impact of the contracting process and the political process (described in chapter 3) on both accounting choices and on lobbying behaviour on proposed accounting standards is described in section 4.3. The only test of the regulation hypothesis is described in section 4.4. The studies described in sections 4.3 and 4.4 are all based on accounting choices or lobbying behaviour relating to firms in the USA. Studies which describe the accounting choices made by the UK nationalised industries are summarised in section 4.5. Other studies which are relevant to the present investigation are reviewed in section 4.6. A summary and concluding comments on the prior research is provided in section 4.7.

4.1 TESTS OF THE INCOME SMOOTHING HYPOTHESIS

The first attempts to develop a positive theory of accounting focused on the hypothesis that managers' accounting choices were aimed at smoothing income. The notion was first suggested by Hepworth in 1953, but it was Gordon's paper in 1964 which appeared to stimulate a number of empirical studies aimed at testing the income smoothing hypothesis. Gordon assumed that managers' accounting choices were aimed at maximising their utility functions, which were likely to be increased by factors which increased their job security, the level and growth of their income and the level and growth of company size. He assumed that those factors were partly dependent on shareholder satisfaction which he further assumed would be increased by high and stable rates of growth in the income reported. On the basis of Gordon's propositions it follows that managers will be motivated to make accounting choices which smooth reported income and which smooth the rate of growth in income.

Following Gordon's (1964) paper there was a substantial number of empirical tests of the income smoothing hypothesis: for example, Gordon, Horwitz and Meyers (1966); Dopuch and Drake (1966); Archibald (1967); Copeland and Licastro (1968); Copeland (1968); Cushing (1969); Dascher and Malcolm (1970); White (1970); Barefield and Comisky (1972); Beidleman (1973); Barnea, Ronen and Sadan (1976). Most of this empirical research concentrated on testing ex post whether managers had in fact smoothed income without attempting to test Gordon's explanation of why they had done so.

The income smoothing research has subsequently been criticised because it is based on the assumption that managers believe that investors cannot, or will not, fully adjust for the managers' accounting choices. Subsequent empirical work by for example Archibald (1972), Ball (1972), Kaplan and Roll (1972), Beaver and Dukes (1973), Foster (1975), Sunder (1975), Cassidy (1976), Dukes (1976), Foster (1977) and Hong, Kaplan and Mandelker (1978) indicates that accounting choices with no known cash flow consequences do not affect security prices. This evidence indicates that investors <u>do adjust</u> for accounting choices and therefore seriously undermines a major assumption on which the income smoothing hypothesis is based.

The above investigations into the relationship between accounting choices and movements in stock prices identified apparently systematic accounting choices that could not be explained. Recent empirical research has attempted to explain such accounting choices. This research assumes that contracting and information costs in both the contracting and political processes are nonzero and then tests simple hypotheses that are based on the further assumption that accounting choices have the potential to affect either the firm's or the managers' future cash flows. The arguments from which these simple hypotheses have been derived are described in chapter 3 (accounting and the political process) and in the next section which describes the arguments relating to accounting and the contracting process.

4.2 ACCOUNTING AND THE CONTRACTING PROCESS

It is not argued that the contracting process has affected accounting choices in the UK gas industry. However, in order to review the empirical studies which investigate the accounting choices made by firms in the USA, it is necessary to briefly describe the contracting process and its possible impact on accounting choices. This description is necessary because the hypotheses tested in these studies are derived from arguments relating to the impact of both the contracting process and the political process on accounting choices. These empirical studies recognise that the accounting choices made are likely to reflect trade-offs between the sometimes conflicting pressures from the contracting and political processes. Consequently it is not possible to meaningfully describe the prior research on the impact of the political process on accounting choices without first providing a description of the possible impact of the contracting process on accounting choices.

The demand for contracts is discussed in section 4.2.1, the effect of management compensation plans on accounting choices is discussed in section 4.2.2 and the effect of debt contracts on accounting choices is discussed in section 4.2.3.

4.2.1 The demand for contracts

According to Jensen and Meckling (1976) the demand for contracts is the result of agency relationships between utility maximising individuals and groups. They (1976, p 308) define an agency relationship as :

> a contract under which one or more persons [principal(s)] engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent.

Jensen and Meckling's arguments are developed in the context of a company in the private sector where they argue that shareholders and bondholders act as principals and management acts as their agent. In this context they see two potential conflicts of interest: the shareholder/management conflict which gives rise to the agency costs of equity and the bondholder/shareholder-manager conflict which gives rise to the agency costs of debt.

Jensen and Meckling argue that agency costs consist of three components: monitoring costs, bonding costs and the residual loss. Monitoring costs are expenditures incurred by the principal to try to ensure that the agent is acting in the principal's best interest. Bonding costs are expenditures incurred by the agent to provide the principal with some assurance that he (the agent) will not take actions which will harm the principal's interest or that, if he does, compensation will be provided. The residual loss is the reduction in the amount the principal is willing to pay for bonds and shares because he knows that in spite of monitoring and bonding expenditures the agent will still have some opportunity to take actions which are not in the principal's best interest (shirking, consumption of perquisites, etc). Management bears this residual loss in the form of a higher cost of capital.

In their analysis Jensen and Meckling consider the situation where management, who own 100% of a firm, decide to sell a proportion of the equity. They argue that in order to reduce the residual loss on the sale of the equity management will voluntarily enter into contracts which will limit their activities. Jensen and Meckling argue that management will voluntarily enter into contracts which limit their activities as long as the marginal benefits of these contracts (in terms of the reduction in the residual loss) are greater than the marginal costs (in terms of the costs of negotiating the contracts and the utility of the perquisites etc forgone). An example of a bonding contract which aims at reducing the divergence between the interests of management and shareholders is a management compensation plan which provides that a portion of management's rewards be tied in some way to increases in shareholder wealth. Very often such a management compensation plan will include the payment of bonuses calculated as a percentage of reported net income.

Jensen and Meckling also argue that management has incentives to enter into contracts to reduce the agency cost of debt. In a capital market characterised by rational expectations potential debtholders know that once management has issued debt it may take financing and investment decisions that may not be in the best interests of the debtholders. For a detailed description of such financing and investment decisions see Watts and Zimmerman (1986, pp 186-191). In order to reduce the residual loss on the sale of the debt management has incentives to enter into contracts which limit the financing and investment decisions they can take. Such contracts, for instance, often place restrictions on the payment of dividends, the issuance of new debt, etc.

Thus in order to reduce the agency costs of both equity and debt, management has incentives to enter into contracts which limit their activities such as management compensation plans and debt contracts. However, these contracts will not reduce agency costs unless there is some means of determining whether or not their covenants have been breached. Jensen and Meckling suggest that accounting has been used in setting the terms of these contracts and in monitoring the outcomes. The next two sections discuss how accounting information may be used in setting the terms of management compensation plans and debt contracts and how the monitoring of the outcomes against the terms of these contracts may affect management's choices among generally accepted accounting practices.

4.2.2 Effect of management compensation on accounting choices

Although management compensation plans may impose some restrictions on management's accounting choices it is unlikely that these plans will remove all of management's discretion in this area as management needs to be able to make accounting choices for other purposes eg the avoidance of political costs.

If management compensation plans leave managers with some discretion on accounting choices and if monitoring is costly so that not all manipulation will be eliminated there would appear to be an incentive for managers to make income increasing accounting choices in order to increase the bonus payments to which they are entitled under the terms of their management compensation plans. This reasoning has led to the testing in a number of the empirical studies described in section 4.3 of what has become known (Watts and Zimmerman, 1986, p 208) as the bonus plan hypothesis. This simple hypothesis is that the managers of firms with management compensation plans are more likely to make income increasing accounting choices than the managers of firms without management compensation plans.

4.2.3 Effect of debt contracts on accounting choices

Debt contracts include covenants that use accounting numbers from audited financial statements to restrict management's actions. According to Leftwich (1980) and Smith and Warner (1979) typical covenants found in lending agreements contain restrictions relating to payment of dividends, repurchase of shares, maintenance of working capital, merger activity, investment in other firms, disposition of assets, additional debt. Most of these covenants are aimed at restricting managers' actions so as not to increase the risk of the debtholders. For instance, the restriction on the payment of dividends is intended to stop managers paying liquidating dividends thereby leaving the debtholders with the shell of the company. The restriction on the payment of dividends normally defines an inventory of funds payable for dividends over the life of the debt and dividends can only be paid out of that inventory.

Like management compensation plans debt covenants are likely to impose some restrictions on managers' accounting choices but these restrictions are unlikely to completely eliminate managers' discretion. As violation of a debt covenant can lead to either seizure of collateral or costly renegotiation of the debt contract managers are motivated to use their discretion in making accounting choices to try to ease the pressure on debt covenants. They are likely to do this by making income increasing accounting choices. This reasoning has led to the testing of a simple hypothesis called the debt/equity hypothesis in a number of the empirical studies reviewed in the next section. That hypothesis is that the higher a firm's debt/equity ratio the more likely that firm is to make income increasing accounting choices.

4.3 TESTS OF HYPOTHESES THAT PROXY FOR POLITICAL SENSITIVITY

This section reviews those studies of accounting choices and lobbying behaviour on proposed accounting standards that have tested hypotheses that proxy for political sensitivity. As already discussed these studies recognise that managers' accounting choices probably reflect trade-offs between conflicting pressures from the contracting and political processes. Consequently most of these studies do not only test the hypothesis that in order to avoid political costs the managers of large firms are more likely to choose income decreasing accounting choices than managers of small firms (the size hypothesis described in section 3.3.2). They test other hypotheses as well and many of the tests utilise multivariate statistical techniques. Consequently to make the review of the test of the size hypothesis meaningful it is necessary to also review the tests of the other hypotheses tested in these studies.

The studies are reviewed in approximately chronological order except that studies of the same accounting choice are reviewed together. The chronological approach allows the development of knowledge on the factors driving the accounting choices to become apparent while the grouping of studies of the same accounting choices allows the description of the alternatives available in that particular area of accounting to immediately precede the description of the tests.

4.3.1 General price level adjustments

Watts and Zimmerman (1978) focus on the corporate submissions to the FASB on the FASB's 1974 Discussion Memorandum titled "Reporting the Effects of General Price Level Changes in Financial Statements". The

General Price Level Adjusted (GPLA) statements were to be supplementary to the historical cost based statements. The major effects on reported earnings were to be an increased depreciation charge and a gain or loss on net monetary assets.

Only the size hypothesis is satisfactorily investigated by Watts and Zimmerman. The debt/equity hypothesis, although discussed in Watts (1977), is not discussed at all by Watts and Zimmerman perhaps because debt covenants would not have been affected by GPLA statements which were only being proposed as supplementary information. Although the bonus plan hypothesis is tested by Watts and Zimmerman the test is weak as it seems unlikely that management compensation plans would be affected by supplementary GPLA information.

Watts and Zimmerman assume that large firms are more vulnerable to political costs (increased taxes, government regulation and other negative wealth transfers) than small firms. On the basis of this assumption, Watts and Zimmerman predict that :

1. Large firms whose earnings are increased by GPLA will lobby against the proposed standard;
2. Large firms whose earnings are decreased by GPLA will lobby for the proposed standard;
3. All other firms will oppose the proposed standard because they will incur the extra costs of preparing the GPLA statements without receiving any benefits.

It is assumed that managers will only lobby on a proposed accounting standard if the costs of doing so are exceeded by the expected benefits. The lobbying costs are the time and expense involved in preparing the submission to the FASB. The benefits are considered to be the probability that the FASB's decision on a proposed standard will be affected by the submission times the present value of the standard on the firm or managers' wealth.

There were 53 corporate submissions on GPLA, 18 are classified as supporting, 34 are classified as opposing and the position of one firm cannot be determined. The effect of GPLA on the reported earnings for 1973 of these firms is ascertained from previous studies by Davidson and Weil (1975, 1975a) and by Davidson, Stickney and Weil (1976) or by using the techniques that are employed in these studies. The firms are ranked by size using each firm's Fortune 500 rank on assets. The existence or otherwise of an earnings based management compensation plan is ascertained from the responses to questionnaires sent to each firm's chief financial officer or from the firm's proxy statements or annual report.

As Watts and Zimmerman were not sure how regulatory commissions would treat gains and losses on net monetary assets the 18 regulated firms who made submissions are excluded from consideration. That left 34 unregulated firms, eight of which would have their earnings increased by GPLA and 26 of which would have their earnings decreased. GPLA was opposed by seven out of the eight firms whose earnings would have been increased and was favoured by eight out of the 26 firms whose earnings would have been decreased. The eight supporting submissions were all made by the larger firms. Using the Mann-Whitney U test, Watts and Zimmerman are able to reject the null hypothesis at the .001 level that the eight firms that supported GPLA were drawn from the same population as the 18 firms that opposed GPLA. Watts and Zimmerman claim that these results for the 34 unregulated firms are consistent with the size hypothesis.

Watts and Zimmerman assume that their evidence indicates that the size factor had dominated the management compensation factor. There were 31 unregulated firms with management compensation plans. Seven of the 23 with income decreases supported GPLA while only one of the eight with income increases supported GPLA. If management compensation had been an explanatory factor firms with income increases would have been more likely to support GPLA than those with income decreases. However, as already noted, it is not surprising that the evidence is not consistent with the bonus plan hypothesis given that GPLA was only proposed as supplementary information.

The Watts and Zimmerman study can be criticised on the following bases :

1) Their choice of the GPLA proposed accounting standard means that only the size hypothesis can be satisfactorily investigated. As the proposed GPLA statements were to be supplementary the test of the bonus plan hypothesis is not satisfactory and the debt/equity hypothesis cannot be tested.
2) There are limitations associated with the investigation of the lobbying behaviour on only one proposed accounting standard. A large firm whose earnings were decreased by GPLA and which supported GPLA may have lobbied for some other proposed accounting standard which increased its earnings. A better way to investigate whether large firms consistently lobby for income decreasing accounting standards would be to investigate their lobbying behaviour over a whole range of proposed standards.

3) Size can proxy for many variables other than political costs (Ball and Foster, 1982 pp 190-191). For instance, size can be a surrogate for industry membership and as Ball and Foster (1982, p 183) point out the majority of large firms in the Watts and Zimmerman sample were members of the oil industry. Watts and Zimmerman (p 121) do, in fact, acknowledge that oil industry firms were particularly politically sensitive around 1973.

4.3.2 Depreciation, inventory, investment tax credit and pension costs

Hagerman and Zmijewski (1979) build on the work of Watts and Zimmerman (1978) although instead of trying to explain corporate lobbying positions they try to explain accounting choices made by firms in their published accounts. A priori they identify the following five factors which they consider may affect a firm's accounting choices :

1) Size: Based on the work of Jensen and Meckling (1976) and Watts and Zimmerman (1978) which have already been described in this chapter, Hagerman and Zmijewski argue that the larger the firm the greater the likelihood that it will be subject to political costs and the greater the motivation to make income decreasing accounting choices.

2) Risk: Hagerman and Zmijewski argue that high-risk firms may be subject to political costs because their high variance of earnings means there is a greater likelihood that they will report "large profits". Participants in the political process (see chapter 3) may not adjust for the firm's risk when considering these "large profits" because of information costs (see chapter 3). Thus high-

risk firms will have a greater motivation to make income decreasing accounting choices than low-risk firms.

3) Capital intensity: Hagerman and Zmijewski argue that as it is not normal accounting practice to deduct the opportunity cost of capital when calculating a firm's reported earnings there is, ceterius paribus a greater likelihood of a capital intensive firm reporting "large profits" than a labour intensive firm. Participants in the political process may not adjust for the opportunity cost of capital when considering a capital intensive firm's "large profit" because of information costs. Thus capital intensive firms may be more likely to suffer political costs than labour intensive firms and will therefore be more motivated to make income decreasing accounting choices.

4) Competition: Managers of firms earning monopoly rents will, according to Hagerman and Zmijewski, be motivated to make income decreasing accounting choices in order to reduce both the likelihood of antitrust action and the likelihood of other firms entering the industry.

5) Incentive plans: Hagerman and Zmijewski argue, as already discussed in section 4.2, that the existence of a management compensation plan may lead to a firm's managers making income increasing accounting choices.

Hagerman and Zmijewski investigate firm's accounting choices relating to inventory, depreciation, the investment tax credit and the amortisation of post service pension costs. The use of LIFO, accelerated depreciation, the deferral method for the investment tax credit and the amortisation of post service pension costs over a period of less than or equal to 30 years are assumed to be income decreasing. The use of FIFO, straight-line depreciation, the flow-through method for the investment tax credit and the amortisation of post service pension costs over periods in excess of 30 years are assumed to be income increasing.

The sample is 300 randomly chosen non-regulated firms that disclosed their accounting choices. The size of firms is measured by both assets and sales. The measure of risk chosen is the beta coefficient from the market model. Capital intensity is measured by the ratio of gross fixed assets to sales. Competition is measured using a concentration ratio which is defined (p 144) as the percentage of total industry sales made by some specified number of the largest firms in an industry. The existence or otherwise of a management compensation plan is ascertained from the notes to the financial statements or from the 10-K reports. The hypotheses are tested using probit analysis [Tobin (1958)]. The results of that analysis are summarised in Table 4.0.

Table 4.0

Independent variables	Accounting choices			
	Depreciation	Inventory	Investment tax credit	Pension costs
Size	.05	NS	.10	NS
Risk	.05	NS*	NS	NS
Capital intensity	.10	.10	NS	NS
Concentration ratio	NS	.10	.10	NS
Incentive plan	.10	NS*	NS	.10

Notes

1. The decimals reflect the levels of significance.
2. NS signifies not significant, but sign in predicted direction.
3. NS* signifies not significant and sign not in predicted direction.

As can be seen from Table 4.0 the explantory variables tend to be different for each accounting choice tested. This suggests that managers have been influenced by different variables when making each accounting choice (which seems unlikely) or that the accounting choices are not made independently.

Hagerman and Zmijewski (p 156) also test the overall significance of their models. Using Chi-square statistics the overall findings for each accounting choice are as follows: depreciation significant at .01 level; inventory significant at .05 level; investment tax credit significant at .10 level and past service amortisation methods significant at .10 level. thus the overall results are broadly consistent with the hypotheses.

4.3.3 Income strategy based on depreciation, inventory, investment tax credit and pension costs

The major flaw in Hagerman and Zmijewski's research is that they assume that each accounting choice is made independently. This flaw is rectified in Zmijewski and Hagerman (1981) who treat a firm's set of accounting choices as a single comprehensive decision which they term the firm's income strategy. They argue that a firm's income strategy need not be extreme (either all income increasing or all income decreasing) because of the trade-offs the managers face between various factors. The factors which Zmijewski and Hagerman use in their study are the five independent variables used by Hagerman and Zmijewski (1979) plus the total debt to total assets ratio which is in essence a restatement of the debt/equity hypothesis.

Zmijewski and Hagerman are not able to ascertain the monetary effects of the accounting choices. Instead they make three different assumptions about their relative monetary effects.

1. All the accounting choices have an equal effect on income. This assumption yields five different strategies each with a different impact on income.
2. The investment tax credit and pension cost choices have exactly one-half of the effect of the depreciation and inventory choices. This assumption gives seven different strategies.
3. The investment tax credit and pension cost choices have an effect which is less than one-half of the effect of the depreciation and inventory choices, which gives nine different strategies.

The data is the random sample of 300 unregulated firms used by Hagerman and Zmijewski (1979) and the 34 unregulated firms who lobbied the FASB on GPLA used by Watts and Zimmerman (1978).

Zmijewski and Hagerman (1981) provide new insights into the Watts and Zimmerman (1978) empirical study. They compare the percentage of firms in the two samples that adopt extreme income strategies (ie either all increasing or all decreasing). The percentage adopting extreme strategies was 12.33% in the Hagerman and Zmijewski's sample against 35.30% in Watts and Zimmerman. Zmijewski and Hagerman establish that this percentage difference is statistically significant at the .05 level. Their suggested explanation for this difference is that managers of firms with extreme strategies have less scope for making accounting choices which will counteract the effect of a mandated accounting change and will therefore be more willing to incur the costs of lobbying.

Zmijewski and Hagerman also establish that the mean size of firms in the Watts and Zimmerman sample is more than twice the size of firms in the random Hagerman and Zmijewski sample. Zmijewski and Hagerman suggest that the reason Watts and Zimmerman are unable to find evidence consistent with the bonus plan hypothesis may have been because the unregulated firms that lobbied on GPLA were so large that the political costs factor dominated the management compensation factor.

In their own study Zmijewski and Hagerman use N-Probit analysis to estimate the effects of the independent variables on the portfolio of accounting choices. The statistical significance of the independent variables are summarised in Table 4.1.

Table 4.1

Independent Variables	Classification of Strategies		
	Five	Seven	Nine
Size	.01	.01	.01
Risk	NS	NS	NS
Capital intensity	NS	NS	NS
Concentration ratio	.05	.05	.05
Incentive plan	.05	.05	.05
Total debt/total assets	.10	.05	.05

Notes

1. The decimals reflect the levels of significance.
2. NS signifies not significant but sign in predicted direction.

The results in Table 4.1 indicate that four of the factors - size, concentration ratio, management compensation plans and the total debt to total assets ratio have a significant association with the portfolio of accounting choices that make up a firm's income strategy. The evidence suggests that firms choose an overall income strategy. This evidence is much stronger than that of Hagerman and Zmijewski (1979) when trying to explain individual accounting choices.

Zmijewski and Hagerman (1981) investigate the size and concentration effect further and their analysis shows that it is the large firms and those in concentrated industries that are making the income decreasing accounting choices. There is no evidence that small firms or those in less concentrated industries make income decreasing accounting choices.

The Zmijewski and Hagerman (1981) study is probably the most comprehensive study of accounting choices to date. Nevertheless it still fails to take into account the monetary effects of the accounting choices on net income and fails to take into account all the accounting choices made by the firms in the sample.

4.3.4 Oil and gas accounting

Until 1977 oil and gas companies had a choice between two methods of accounting for dry wells - the full cost method and the successful efforts method. The full cost method capitalised the cost of both dry wells and wet wells and wrote off the cost over the expected life of the wet wells. The successful efforts method only capitalised the cost of the wet wells which were written off over their expected life. The dry wells were written off against revenue as soon as the well was abandoned.

Sunder (1976) and Myers (1974) establish that oil and gas companies with expanding exploration activities which use the full cost method will report larger and less volatile earnings, higher net assets and a higher shareholders' equity than companies which use the successful efforts method.

In December 1977 the FASB issued FAS 19 which required the use of the successful efforts method. There was considerable opposition to FAS 19 from full cost firms. These firms appealed to the SEC who in August 1978 reversed FAS 19 and in ASR 253 and ASR 258 allowed particular versions of successful efforts and full cost. Three studies (Deakin, 1979), Dhaliwal (1980) and Lilien and Pastena (1982) investigate whether there are significant differences between those companies which chose the full cost method and those which chose the successful efforts method. However, as Dhaliwal (1980) does not test any hypothesis derived from the literature on accounting and the political process, it is not included in this research review.

Deakin (1979) uses the arguments by the full cost firms in their appeals to the SEC against the imposition of successful efforts to establish variables which might distinguish between full cost firms and successful efforts firms. The full cost firms argued that they were more aggressive in exploration, newer, smaller and more in need of external finance than successful efforts firms and that dual accounting methods were therefore appropriate. Deakin chooses seven variables to represent these four factors. The significance of these seven variables is tested using multiple discriminant analysis and a dichotomous classification test on a sample of oil and gas companies. That sample excluded the major integrated companies as it is considered that the impact of FAS 19 would not be significant to th;em. Of the remaining 53 companies, 25 used the full cost method and 28 used the successful efforts method.

The results of Deakin's tests establish that the debt/revenue ratio classifies firms best ie the higher the debt/revenue ratio the more likely the firm is to use the full cost method. This is consistent with the debt/equity hypothesis. Deakin's tests do not establish a significant relationship between size and the choice between successful efforts and full cost methods. However, as already noted, Deakin excluded the major oil and gas companies from his sample. Most of these companies chose the income decreasing successful efforts method and if these companies are included in the sample the size factor becomes significant as Deakin (p 727, fn 4) acknowledges. The bonus plan hypothesis is not tested.

Lilien and Pastena (1982) investigate not just the intermethod choice between full cost and successful efforts but also the intramethod choice which is the choice of procedures used in applying the full cost or successful efforts methods. Prior to 1978 when the SEC issued ASR 253 and ASR 258 oil and gas companies had various procedural choices available to them when applying either the full cost or successful efforts methods. In complying with the new rules in ASR 253 and ASR 258 oil and gas companies were required to adjust the retained earnings at the beginning of the year to reflect what the retaining earnings would have been if the new procedures had been in effect all along. This adjustment provides Lilien and Pastena with evidence of the monetary effect on income of the procedures previously adopted (the intramethod choice) by the oil and gas companies when using the full cost and successful efforts methods.

Lilien and Pastena test the size hypothesis, the debt/equity hypothesis, the exploratory risk hypothesis, the age hypothesis but not the management compensation hypothesis. Exploratory risk is defined as the proportion of dry wells to total wells. It is argued the firms with high exploratory risk will make accounting choices which increase income and which reduce income volatility so that restrictive covenants in debt contracts are not violated. The age hypothesis is that there will be a correlation between the age of the firm and the use of the successful efforts method. Lilien and Pastena argue that as the successful efforts method was the only choice available until the late 1950s and given the costs of switching to the full cost method, older firms would be more likely to use the successful efforts method.

The above hypotheses are tested on a sample of 102 oil and gas companies. The three statistical techniques used - probit analysis, regression analysis and discriminant analysis provide consistent results. Size (at the 0.6 level) and age are positively correlated with income decreasing choices and exploratory risk and leverage are positively correlated with income increasing choices. The strength of the correlation increases when the intermethod and intramethod choices are tested together when all the explanatory variables were significant at the .002 level or better. Thus this study in addition to providing evidence which is consistent with the individual hypotheses also provides further evidence which is consistent with Zmijewski and Hagerman's income strategy notion.

4.3.5 Interest costs

Until 1974 non-regulated firms in the USA could choose whether or not to capitalise interest on capital projects. Although the majority of firms treated such interest as an expense an increasing number had begun to capitalise and in 1974 the SEC imposed a moratorium on further adoption of capitalisation by non-regulated firms. Bowen, Noreen and Lacey (1981) investigate the economic factors which may have influenced firms' decisions on whether to expense or capitalise such interest prior to 1974.

Six hypotheses are tested: the bonus plan hypothesis; three hypotheses based on covenant restrictions in debt contracts and two versions of the size hypothesis. The bonus plan hypothesis is that managers of firms with bonus plans will capitalise interest in order to increase a firm's reported earnings which will in turn increase their bonuses. The three hypotheses based on debt contracts are that firms will capitalise interest in order to avoid violations of covenant restrictions relating to: (1) payment of dividends (2) interest cover (3) leverage. The two versions of the size hypothesis tested are (1) that the larger firms in the oil industry will be less likely to capitalise interest than other firms in the oil industry and (2) that the larger firms in all industries will be less likely to capitalise interest than other firms.

The sample consists of 91 matched pairs of interest-capitalising firms and non-interest capitalising firms all of which had the opportunity to capitalise interest. The firms are matched by industry. Bowen, Noreen and Lacey establish that there was a strong correlation between industry membership and interest capitalisation. In order to control for this industry effect the matched pair design is adopted. Both univariate and multivariate tests are used. The multivariate tests confirm the results of the univariate tests.

The tests of the bonus plan hypothesis find no association between the presence of a bonus plan and the method chosen for interest.

However, as Watts and Zimmerman (1986 p 279) point out the test was weak because many bonus plans add back interest to arrive at the earnings figure on which the bonus is based.

The results of the tests of the three hypotheses relating to debt covenants are all significant. The evidence indicates that a firm is more likely to capitalise interest the lower the inventory of funds payable as dividends (significant at the .02 level); the smaller the interest cover ratio (significant at the .06 level); the lower the net tangible assets to long-term debt ratio (significant at the .001 level).

The test of the size hypothesis on firms in the oil industry is significant at the .01 level. However, the test of the size hypothesis for firms from all industries is not as predicted as large firms from outside the oil industry were more likely to capitalise interest.

Dhaliwal (1982) focuses on the corporate submissions to the FASB on the FASB discussion memorandum on accounting for interest cost. Dhaliwal tests the debt/equity hypothesis, the size hypothesis and the bonus plan hypothesis. He excludes from his tests submissions by regulated firms, banks and financial service industries which leaves him with 44 submissions of which 30 opposed capitalisation of interest costs and 14 opposed expensing of interest costs. Each of the hypotheses is tested using both univariate and multivariate techniques. The multivariate tests are fairly consistent with the univariate tests.

The strongest result is obtained on the tests of the debt/equity hypothesis where the evidence is consistent with the hypothesis at the 0.00005 level of significance. The evidence is also consistent with the size hypothesis although only at the 0.14 significance level. The evidence is not consistent with the bonus plan hypothesis.

4.3.6 Depreciation

Dhaliwal, Salamon and Smith (1982) investigate if a firm's choice of depreciation method is affected by whether it is management controlled or owner controlled. Based on the work of managerial economists such as Williamson (1964, 1967) and Monsen and Downs (1965) Dhaliwal, Salamon and Smith expect management controlled firms to make income increasing accounting choices (such as preferring straight-line depreciation to accelerated depreciation) in order to reduce the probability of a takeover and in order to maximise their earnings through management compensation plans which, according to the authors, are likely to be more prevalent in management controlled firms.

The empirical study examines the choice of depreciation method made in 1962 by 42 management controlled firms and 41 owner-controlled firms all of which used accelerated depreciation for tax purposes. A probit analysis is carried out using the debt/equity ratio, size and whether the firm was management controlled or owner controlled as independent variables. The coefficient of the debt/equity variable is significant at the .01 level, the coefficient of the size variable at the .15 level and the coefficient of the control variable at .03 level. Thus the evidence in this study is consistent with the debt/equity hypothesis, the size hypothesis and the bonus plan hypothesis if it can be assumed that management controlled firms are more likely to operate a bonus plan.

4.3.7 Research and development expenditure

Prior to 1974 when the FASB issued SFAS 2, firms could choose whether to capitalise or expense all or part of their research and development expenditure. Expensing research and development expenditure has the effect of decreasing reported income while capitalisation has the opposite effect. Using firms' 1972 accounting choices on research and development expenditure Daley and Vigeland (1983) test the size hypothesis and the following four hypotheses based on debt contracts. They hypothesise that firms will be motivated to capitalise interest in order to increase reported earnings (1) the higher the debt/equity ratio, (2) the lower the interest cover, (3) the higher the ratio of dividends to inventory of funds payable (4) the higher the proportion of public to private debt in the firms' capital structure (because public debt is more costly to renegotiate than private debt).

Daley and Vigeland's sample consists of 178 expensing firms and 135 capitalising firms. They analyse their data using a multivariate statistical technique called the jackknife procedure. The results of the statistical tests are that size is significant at the 0.02 level, the debt/equity ratio and the dividend payability ratio at the 0.05 level and the ratio of public to private debt at the 0.10 level. The interest cover ratio was not significant although the sign of the coefficient was in the predicted direction.

To test whether the size hypothesis applies only to large firms as in Zmijewski and Hagerman (1981) Daley and Vigeland split their sample of 313 firms into large firms (156) and small firms (157). They find that the size effect is only significant for small firms which is not consistent with the findings of Zmijewski and Hagerman (1981).

4.3.8 Summary

The results of the tests of the size hypothesis are shown in Table 4.3.

Table 4.3

Accounting choice	Study	Level of significance
General price level adjustments	Watts and Zimmerman (1978)	.001
Depreciation	Hagerman and Zmijewski (1979)	.05
Inventory	Hagerman and Zmijewski (1979)	.14
Investment tax credit	Hagerman and Zmijewski (1979)	.10
Pension costs	Hagerman and Zmijewski (1979)	.17
Income strategy based on depreciation, inventory, investment tax credit & pension costs	Zmijewski and Hagerman (1981)	.01
Oil and gas accounting	Deakin (1979)	Consistent
Oil and gas accounting	Lilien and Pastena (1982)	.06
Interest costs	Bowen, Noreen and Lacey (1981)	Not consistent
Interest costs	Dhalival (1982)	.14
Depreciation	Dhalival, Salamon & Smith (1982)	.15
Research and development expenditure	Daley and Vigeland (1983)	.02

Notes to Table 4.3

1. Hagerman and Zmijewski (1979) only reported significance levels of 10% or better. The significance levels for inventory and pension costs were obtained from Watts and Zimmerman (1986, p 270).

2. As already noted Deakin excluded the large integrated oil and gas firms from his tests but if these were included the size factor becomes significant (Deakin, 1979, p 727, fn 4).

3. Although the results of Bowen et al's test of the size hypothesis on firms from all industries is not as predicted the results of their test of the size hypothesis for the oil industry is significant at the .01 level.

As can be seen from Table 4.3 the tests provide general support for the size hypothesis. The only study which investigates the portfolio of accounting choices made by firms (Zmijewski and Hagerman, 1981) and which as a result provides the most powerful tests finds the size hypothesis significant at the .01 level. Of the eleven single procedure choice tests, six are significant at the .10 level or better, four are significant at the 0.14 level to 0.17 levels and only one test provides inconsistent results.

However, the influence of the oil and gas companies on the results of the above tests of the size hypothesis are not entirely clear. The studies by Deakin (1979) and Lilien and Pastena (1982) are confined to the oil and gas industry while a number of the large firms in the samples of Watts and Zimmerman (1978), Hagerman and Zmijewski (1979) and Zmijewski and Hagerman (1981) are from the oil and gas industry. The only study (Bowen, Noreen and Lacey, 1981) that does not provide support for the size hypothesis when testing across industries does provide support at the .01 level when testing the association between size and accounting choices in the oil and gas industry. Thus it is possible that the political sensitivity of large firms in the oil and gas industry is affecting the results of the tests of the size hypothesis.

The other proxies for political costs tested in these studies are concentration ratios, capital intensity and risk. These proxies were tested in Hagerman and Zmijewski (1979) and in Zmijewski and Hagerman (1981) but not in any of the other studies.

Both studies suggest an association between concentration ratios and accounting choices. Zmijewski and Hagerman's portfolio tests are significant at the .05 level while the single choice tests of Hagerman and Zmijewski are significant at the .10 level for two of the choices and the coefficients have the predicted signs for the other two choices.

There is less support for capital intensity. The results of portfolio tests are not significant although the signs of the coefficients are in the predicted direction. The single choice tests provide support at the .10 level for two of the choices and the coefficients have the predicted sign for the other two choices.

There is almost no support for risk as a proxy for political costs. The portfolio tests are not significant although the signs of the coefficients are in the predicted direction. The single choice tests provide support at the 0.5 level on one choice and the signs of the coefficients are in the predicted direction on two other choices. However, on the fourth accounting choice the signs of the coefficient are in the opposite direction to that predicted.

4.4 A TEST OF THE REGULATION HYPOTHESIS

Jarrell (1979) extends the work of Jarrell (1978). The latter study found that, in general, the establishment of State commission regulation of the electric utility industry redistributed wealth from consumers to producers. Jarrell (1978) compares the prices and profits of the electric utilities in 25 states that established State commissions between 1912 and 1917 with utilities in other States that had not introduced State commission regulation. He finds that on average the former had prices and profits which were 25% and 35% higher respectively. This dramatic increase in price and profit levels accompanying the establishment of State commission regulation led Jarrell to question how this could happen given that the State commissions used rate-of-return regulation to attempt to eliminate the electric utilities' monopoly profits.

According to Watts and Zimmerman (1986, p 231) most public utility commissions use the following rate setting formula :

Revenues=Operating expenses + depreciation + taxes + r_A x asset base

where r_A is the allowed rate of return on capital. As Jarrell (1979, p 96) points out this :

> role of accounting as an instrument of regulatory control represented quite a promotion from its ordinary book-keeping functions.

There is clearly scope for manipulation of operating expenses and depreciation but Jarrell (1979) chooses to only investigate if there has been manipulation of the asset base. He hypothesises that rate-of-return regulation provides an incentive for public utilities to revise upwards the valuation of their asset base so as to appear to be earning the required accounting rate of return when in fact they are earning a supra-competitive return.

According to public utility laws and court interpretations the "fair value" of the rate base was generally to be based on "past cost" measures. The particular assets which Jarrell suspects might have had their balance sheet values increased by utilities subject to State commission regulation are the municipal franchises which gave electric utilities the authority to use public streets for distribution purposes. The value of these franchises had almost certainly been increased by State regulation which had increased electricity prices and monopoly rights. It may have been difficult for utilities to increase the balance sheet value of franchises without some transaction. However, as the State regulators were encouraging utilities to merge in order to eliminate wasteful competition there was ample opportunity to change ownership, whereby the seller could realise the increased value of the franchise and the purchaser could record that increased value in his balance sheet. That increased value would then be included in the asset base for rate-of-return regulation. Jarrell suggests that this benefit from a change of ownership may have led to some such changes being rigged between affiliated companies so that the increased values of franchises could be recorded in the asset base.

Jarrell uses regression analysis to test if the establishment of State commissions had an effect on the value of assets in regulated States compared with the value of assets in other States in 1917 and 1922. The evidence is consistent with the hypothesis that State regulation did provide incentives for electric utilities to increase the value of their reported assets. Unfortunately, the data source did not provide the information necessary for Jarrell to be able to test if the increases in total assets were due to increases in the value of franchises.

Jarrell's (1979) study provides the only test of the regulation hypothesis known to the author. Most of the studies reviewed in section 4.3 explicitly excluded regulated firms from their tests because the researchers were not sure of the impact of regulation on the accounting choice(s).

4.5 STUDIES OF ACCOUNTING CHOICES IN THE UK NATIONALISED INDUSTRIES

This section reviews studies of the accounting choices made in the UK nationised industries. Unlike the studies from the USA reviewed in sections 4.3 and 4.4, the British studies do not test explanatory hypotheses although Likierman (1983a) is an exception. Generally the British studies only provide a description of the accounting choices made by a selection of nationalised industries.

The first study was by Dean (1978). In a wide-ranging and partly normative discussion he provides examples of the inconsistencies between the accounting practices adopted by various nationalised industries.

Wright (1979) describes in detail the attempts by nine major nationalised industries, including the gas industry, to make adjustments to reflect the effects of inflation on their reported performances up to 1978. He notes that there is a lack of consensus between the industries on how to make these adjustments and he concludes that this is probably a reflection of a similar lack of consensus on the part of accounting policy makers. He provides no evidence other than that disclosed in the industries' annual report and accounts to explain why different industries made different adjustments or why some industries changed their inflation accounting adjustments over time. Thus there is no meaningful attempt to explain each industry's inflation accounting adjustments in terms of the changes in that industry's economic and political environment.

Gibbs and Tailor (1979) examine the 1978/79 published accounts of eight major nationalised industries, including the BGC. They express concern about the difficulties of comparing performance both between industries and over time for the same industry. They point out that comparison between industries is not meaningful not only because of the inherent differences between different industries' operating environments but also because of differences between different industries' accounting choices. They also point out that there are difficulties in asssessing a particular industry's performance over a number of years because of frequent changes in accounting practice. They describe the accounting changes made by a number of industries including the BGC and conclude (p 23) that :

> Accounting policies have been changed too frequently and, when considering whether to adopt new accounting principles, individual industries appear to have been too influenced by the effect that the changes would have on their published profits.

Likierman (1981) compares the 1980 and 1981 published accounts of 18 nationalised industries in order to assess the extent of their compliance with Statement of Standard Accounting Practice No 16 (1980) on current cost accounting and with the recommendations on this topic from the National Industries' Chairmen's Group (1981). He finds that overall there had been a major movement towards current cost accounting but the extent of that movement varied considerably between individual industries. Like Wright (1979) he makes no attempt to explain the different accounting treatments by individual industries in terms of the differences in their economic and political environment.

Likierman (1983a) examines and attempts to explain the adjustments for inflation made by 17 nationalised industries, including the BGC, during the six years from 1976 to 1981. Some of the industries had been publicly accused of using adjustments for inflation to manipulate their profits and Likierman's paper attempts to ascertain the vailidity of these accusations.

He tests two hypotheses :

1) Industries which were not in direct competition with the private sector and which were embarrassed by high historic cost profit would choose adjustments for inflation which decreased reported profits.

2) Industries which would not have been profitable after making adjustments for inflation would either not make any adjustments for inflation or alternatively would make adjustments which increased reported profits.

Overall Likierman's evidence is inconclusive although a finding which is of particular interest to the present study is that the inflation accounting adjustments made by the BGC were consistent with Hypothesis 1.

Likierman did not develop his hypotheses from the US positive theory of accounting choice literature. If he had done so his hypotheses would have been different. The testing of a size hypothesis based on either sales or net assets rather than on reported profits might have provided a better proxy for political costs. These industries not subject to competition are instead subject to price regulation and it would have been interesting to test the hypothesis that those industries had made inflation accounting adjustments which decreased reported profits in order to provide a more convincing argument for a price rise.

4.6 OTHER RELEVANT STUDIES

Healy (1985) provides the most powerful test so far of the bonus plan hypothesis by investigating the association between bonus plan details and accounting choices. The results of his tests are not relevant to the present study. However, Healy's study is the first to include accruals as well as accounting procedures in some of the tests and to that extent his study is of relevance.

In these tests Healy uses total accruals as a proxy for discretionary accruals. He defines total accruals as the difference between reported accounting earnings and cash flows from operations. He calculates total accruals as depreciation plus changes in the non-cash working capital items. Thus in Healy's study total accruals includes accounting procedures. For instance, to the extent that depreciation per se is an accrual and the accelerated and straight-line methods are procedures then accounting procedures can be regarded as a subset of total accruals.

Kaplan (1985) criticises Healy's study for not including a model that predicts what the accruals would be in the absence of manipulation. Kaplan argues that Healy's definition of total accruals which he uses as a proxy for discretionary accruals is flawed for a number of reasons. For instance, the total depreciation charge for most firms arises largely from assets acquired in the previous year and to that extent it is not an accrual which is at management's discretion in the current year. Also working capital items fluctuate from year to year for reasons relating to the economic circumstances of the firm and to that extent are not changes which reflect management manipulation.

In spite of these criticisms of Healy's treatment and definition of accruals the idea of including accruals as well as accounting procedures in accounting choice studies would appear to be worthwhile. As accruals present managers with another area for possible manipulation, tests which include both accruals and accounting procedures will be more powerful.

4.7 SUMMARY AND CONCLUSION

The prior studies which test hypotheses that proxy for political costs provide evidence consistent with size (ten studies), concentration ratio (two studies) and capital intensity (two studies). The only study of the regulation hypothesis provides consistent evidence.

So far the preponderance of studies focus on only one accounting choice. As most firms probably face conflicting pressure from the contracting and political processes they probably do not opt for extreme income increasing or income decreasing accounting choices. Thus a single accounting choice may not be representative of a firm's other accounting choices. For this reason the single accounting choice studies lack power.

Studies which focus on a portfolio of choices [Zmijewski and Hagerman (1981) and to a limited extent Lilien and Pastena (1982)] or include accruals (Healy, 1985) are more powerful than the single choice studies. So far no study has looked at both accounting choices and lobbying behaviour. The ideal would be a study that investigated all accounting choices (accruals and procedures) and lobbying behaviour for a firm over a number of years. Such an investigation would provide a powerful test.

The studies have other weaknesses. Most of the studies fail to take into consideration the monetary effect of the accounting choices. A further weakness of all of the studies is that the increase-decrease dichotomisation only refers to the impact of the accounting choices on the current year's income. Most accounting choices only create timing differences which reverse in some future year. The timing difference aspect of accounting choices is ignored in every study.

There have so far been no tests of hypotheses derived from the political process using accounting choices made by UK nationalised industries although there have been a number of studies that have described these accounting choices.

An attempt is made to overcome some of these weaknesses in prior studies of accounting choices in the research methodology adopted for the present study, which is described in the next chapter.

CHAPTER 5 RESEARCH METHODOLOGY

5.0 INTRODUCTION

This chapter describes the research methodology adopted in the empirical study. Section 5.1 distinguishes between the scientific and naturalistic approaches to research. Section 5.2 describes the research approach adopted in the present study. Section 5.3 describes the strengths of the case study approach adopted and section 5.4 describes the advantages of the longitudinal research design adopted. The investigation of the effect of the accounting choices is described in section 5.5 and the investigation of the explanations for these accounting choices is described in section 5.6. The investigation of the gas industry's lobbying behaviour is described in section 5.7. Concluding comments are provided in section 5.8.

5.1 SCIENTIFIC v NATURALISTIC APPROACHES TO RESEARCH

Several recent contributions to the accounting literature [eg Abdel-Khalik and Ajinka (1979), Colville (1981) and Tomkins and Groves (1981)] have distinguished between the 'scientific' and 'naturalistic' approaches to research and have discussed the relative merits of each approach. Each of these contributions to the accounting literature has drawn on the debate between alternative research approaches in the sociology literature [eg Glaser and Strauss (1967), Blumer (1969) and Denzin (1978)].

The 'scientific' approach has been adopted in most of the existing rigorous accounting research (Tomkins and Groves, 1981, p 31) and in most sociological and psychological research (Blumer, 1969, p 29). This approach :

> represents an attempt to translate the principles and methodology of the natural and physical sciences into the realm of the social sciences (Colville, 1981, p 121).

This approach is described by Blumer (1969, p 29) as follows :

> One starts with the construction of a scheme, theory or model of the empirical world or area under study. The scheme, theory or model represents the way in which one believes the empirical world to be structured and to operate. One then deduces from this scheme an assertion as to what one would expect to happen under such and such a set of empirical circumstances. This assertion is the hypothesis. One then arranges a study of a given empirical area that represents these circumstances. If the findings from such a study verify the hypothesis one assumes that the scheme, model or theory from which the hypothesis has been drawn is empirically valid. Logically, this view rests on an "as if" notion; that is, one approaches the empirical world <u>as if</u> it had such and such a make up, deduces narrow specific consequences as to what one would find if the empirical world had the make up attributed to it, and then sees if in fact such consequences are to be found in the empirical world.

Mills (1959) criticises the use of the 'scientific' approach for inhibiting the kind of problems which can be researched in the social sciences. He claims that the methodology was determining the problems in that only those problems which could be accommodated by the methodology were deemed suitable for scientific inquiry. Glaser and Strauss (1967) criticise the scientific method for presupposing the categories of relevance which exist in the data as a result ignoring those aspects of the data which do not fit the conceptual category of the deductive theory. Blumer (1969) criticises the approach as

> it forces .... data into an artificial framework that seriously limits and impairs general empirical analysis.

Blumer also argues that the use of this methodology allows the researcher to use the research model as a substitute for intimate knowledge of the sphere of life being studied.

As explained in the next section the research approach adopted in the present study is a compromise between the 'scientific' and 'naturalistic' approaches.

5.2 RESEARCH APPROACH ADOPTED

From the description in chapter 2 of the UK gas industry and the role of accounting measures in its regulation, from the review in chapter 3 of the US literature on accounting and the political process and from the review in chapter 4 of the prior research on accounting choices, two hypotheses relating to the accounting choices made for the UK gas industry during the period of the study have been generated :

Hypothesis 1 : When there is a perceived need to either justify a price rise or reduce criticism of a price rise accounting choices will be made which reduce reported profit.

Hypothesis 2 : When there is a perceived need to avoid political costs accounting choices will be made which reduce reported profit.

This study will test these hypotheses. In addition this study will investigate the gas industry's submissions to the Accounting Standards Committee on proposed Statements of Standard Accounting Practice. If these submissions are motivated by the same factors as hypothesised above for the industry's accounting choices then the submissions will support proposed accounting practices that would decrease the industry's future reported profits and will oppose proposed accounting practices that would increase the industry's future reported profits.

The hypotheses above were largely derived from US literature. In order to cope with the differences between the institutional, political and regulatory environment of the UK gas industry (chapter 2) and that relating to regulated firms and politically sensitive firms in the United States (section 3.3) the research approach adopted will be a compromise between the 'scientific' and 'naturalistic' approaches described in the previous section. Although the two hypotheses above will be used to focus the search for explanations for the accounting choices made for the gas industry it is recognised that in a UK setting there may be other explanations for the accounting choices. Therefore the study will not restrict the explanations to those covered by the two hypotheses above if other explanations become apparent during the empirical research.

Although the evidence in section 2.1.1 is not conclusive the study will assume that the accounting choices made for the gas industry were not made independently by gas industry management and that civil servants were also involved in making these choices.

5.3 THE GAS INDUSTRY - A CASE STUDY

The decision to investigate accounting choices in only the gas industry turned the current study into what is known in the research literature as a "case study". Hagg and Hedland (1979, p 135) have commented that:

> accounting researchers have not seriously considered the potential that case approaches can offer.

According to Goode and Hatt (1952, p 331) a case study is :

> a way of organising social data so as to preserve the unitary character of the social object being studied.

Katz (1953, p 75) argued that the great strength of the case study is:

> its inductive procedure, its potentiality for discovering significant variables and basic relations that would never be found if we were confined to research dictated by a hypothetical-deductive model.

Katz (p 75) saw the case study and the survey as being :

> the great protection in social science against the sterility and triviality of premature model building.

However, he felt that a case study provided both a more detailed and a more natural picture of the interrelations than a survey (p 58).

5.4 LONGITUDINAL RESEARCH DESIGN

The author decided to adopt a longitudinal research design. This is consistent with the recommendations of social anthropologists such as Smith (1962) for the study of social processes - the behaviour of men over time. Smith (1962, p 81) recommended that the appropriate field of anthropological study should be a "unit over time, not merely a unit at a particular point in time". In this way, structural regularities may be abstracted from the succession of relatively unique events "to reveal the outlines of an order within processes of simultaneous continuity and change" (p 84).

For his study on the politics of organisational decision making Pettigrew (1973, p xv) justified the use of a longitudinal research design as follows :

> an organisation or any other social system may profitably be explored as an ongoing system with a past, a present and a future. The generalised implication is that man's behaviour at time t_2 may be explained with reference to his past actions at time t_1 and his future designs at time t_3 as well as to the particular set of forces impinging on him at time t_2. Sound theory must therefore take into account the history and the future of a system and relate them to the present.

Such an argument can be applied to the choices of accounting bases in the published accounts of the gas industry. The choices at time t_2 may be influenced (a) by the choices made in prior years because of the consistency concept in accounting, (b) by the expected impact of the choices made in t_2 on the expected income outcomes at time t_3, t_4 etc and the expected economic consequences on publication of these outcomes and (c) by the expected impact on income at time t_2 and the expected economic consequences on publication at t_2. As Boring (1963, p 5) pointed out:

> The best fact is one that is set in a context, that is, known in relation to other facts, that is perceived in part in the context of its past, that comes into understanding as an event which acquires significance because it belongs to a continuous dynamic sequence ...

This longitudinal case study investigates the accounting choices made in the gas industry during the eleven-year period from 1 April 1969 to 31 March 1980. The opening date of the case study was chosen because the government set the gas industry a financial target from that date to 31 March 1974. 'A priori' it seemed possible that the accounting choices might have been influenced by the financial target. The original intention was that the longitudinal case study should cover a fourteen-year period from 1 April 1969 to 31 March 1983 which was the end of the financial year immediately preceding the period during which the empirical investigation was conducted. However, the investigation of the accounting choices made during the three years ended 31 March 1983 did not reveal any new types of accounting choices nor any new explanations for the accounting choices made. Therefore, the decision was made to drop these three years so that the longitudinal case study now ends at 31 March 1980.

The eleven year period is divided into two sub-periods. Chapter 6 focuses on the quinquennium from 1 April 1969 to 31 March 1974 for which the government set the gas industry a financial target. Chapter 7 focuses on the years from 1 April 1974 to 31 March 1980 for which financial targets were not set (apart from the year ended 31 March 1980).

Twelve separate files were prepared for each financial year from 1 April 1968 to 31 March 1980. Although the study only identifies and attempts to explain the accounting choices made during the eleven years to 31 March 1980, a file was prepared for the year ended 31 March 1969. This was done for two reasons :

(1) so that the published accounts for the year ended 31 March 1969 could be used as a benchmark for the investigation of the accounting choices made during the year ended 31 March 1970; and

(2) given the significance of the decision to exploit natural gas to the present study the author decided to start the review of relevant events with the report from the Select Committee on Nationalised Industries published in July 1968 titled the Exploitation of North Sea Gas (Select Committee on Nationalised Industries, 1968).

In addition to the published accounts for that financial year each file contained details of events during that year which the author judged to be relevant to an explanation of the accounting choices made by the gas industry during the period of the study.

The research approach recommended above by Smith (1962), Boring (1963) and Pettigrew (1973) has been adopted in the present study ie the accounting choices are explained in the context of past events, present pressures and future expectations. Each year of the study has been written up in at least three sections which describe :

(1) the relevant events up to the end of that financial year;

(2 the effect of the accounting choices made during that year on the reported outcomes for that year;

(3) the explanations for the accounting choices made during that year. For most years the explanations of the accounting choices included in the third section above are derived from events up to the end of the financial year in question but on occasion the explanations are derived from events which took place after the end of the financial year eg SCNI investigations.

For those years during which the gas industry lobbied the Accounting Standards Committee on a proposed accounting standard the author has included a fourth section which describes both the position adopted by the gas industry and the justification given for adopting that position. The author has attempted to estimate the impact of that proposed accounting standard on the gas industry's future reported performance and has then attempted to explain the position adopted within the context of the gas industry's self-interest.

5.5 INVESTIGATION OF THE EFFECT OF THE ACCOUNTING CHOICES

This section describes the investigation of the effect of the accounting choices made during the eleven years of the study. Section 5.5.1 describes the published accounts examined. Section 5.5.2 describes the types of accounting choices identified. Section 5.5.3 describes how the effects of these accounting choices were ascertained. Section 5.5.4 explains why the accounting choices made during the three years ended 31 March 1972 have been split into two categories. Section 5.5.5 discusses how the present study improves upon previous investigations of accounting choices.

5.5.1 Published accounts examined

The accounting choices were identified by examining the published accounts (in particular the notes to the accounts) of the gas industry for each of the eleven years of the study. On 1 January 1973 the BGC was formed. Prior to that date the gas industry was made up of the Gas Council and twelve relatively autonomous Area Boards. Thus for the first three years of the study it was necessary to examine the consolidated accounts of the Gas Council and the Area Boards as well as the published accounts of the Gas Council and those of the twelve Area Boards. For the remaining years of the study it was only necessary to examine the published accounts of the BGC.

5.5.2 Types of accounting choice identified

Watts and Zimmerman (1979, p 275) define accounting procedures, techniques and practices as "any computational algorithm used or suggested in the preparation of financial accounting statements" (footnote 8). The present study adopts the Watts and Zimmerman definition above but uses the term "accounting choices". Thus for the purposes of this study accounting choices are defined as any accounting procedure, technique or practice used in the preparation of financial accounting statements. Thus both accounting procedures and accruals are included in the present study.

The accounting choices in the present study which might be described as accruals are all increases or decreases in provisions. Examples of individual provisions which were changed during the period covered by the study were a provision against accrued income from gas sales, a provision against contingencies, a provision against stock obsolescence and deterioration, a pension scheme provision, a provision for deferred repairs and a provision for field abandonment costs. Each change in these provisions has been treated as an accounting choice.

Examples of accounting choices in the present study which might be described as choices of accounting procedures are the accelerated write-off of exploration expenditure, the non-capitalisation of interest, salaries and overheads on capital projects, the accelerated amortisation of displaced plant and deferred charges, the accelerated amortisation of loan expenses, changes in various depreciation rates, the charging of the cost of replacing certain categories of fixed assets to revenue and the charging of supplementary depreciation.

The last two examples in the preceding paragraph, the charging of the cost of replacing certain categories of fixed assets and the charging of supplementary depreciation, were treated differently from the other choices of accounting procedures. For the other accounting choices the consistency convention in accounting ensured that their effect on subsequent years was automatically determined eg the acceleration of the rate of write-off of an asset. For this reason the effects of these accounting choices on subsequent years were not treated as the result of new accounting choices made in the later years. However, the annual charges against revenue for the replacement cost of certain categories of fixed assets and for supplementary depreciation were treated as new accounting choices each year. For each of these accounting choices a subjective judgement had to be made each year on the size of the charge so it seemed logical to treat each year's charge against revenue as a new accounting choice.

It was appreciated that all the accounting choices identified in chapters 6 and 7 could be explained on the basis that they were chosen to reflect "economic reality". However, if the effect of these accounting choices on the gas industry's reported outcomes was in the same direction each year (eg income decreasing) then the "economic reality" explanation becomes less convincing.

5.5.3 Effect of the accounting choices

The two hypotheses formulated in section 5.2 focused on the effect of the accounting choices on the reported profit. Therefore the investigation of the effect of the accounting choices made during the eleven years of the present study ascertained the effect of each accounting choice on the reported profit or loss for the year in which that accounting choice was made.

However, further investigations were made of the effects of the accounting choices made during the first five years of the study. For these five years, the quinquennium ended 31 March 1974, the gas industry was set a financial target of achieving a net return of 7% on average capital employed. It seemed worthwhile to investigate whether the effect of the accounting choices made during the five years ended 31 March 1974 had undermined the usefulness of the financial target.

Therefore for each of the five years ended 31 March 1974 calculation was made of the effect of the accounting choices made each year on the net return on average capital employed for that year. In order to do this the effect of the accounting choices on the capital employed at the end of each year was ascertained as well as the effect on the net profit or loss for each year. These calculations are shown in sections. 6.1.2, 6.1.4, 6.2.3, 6.3.2, 6.3.4, 6.4.2, and 6.5.2.

The effect of accounting choices is not restricted to the year during which the accounting choice is made. As Holthausen and Leftwich (1983, p 104) pointed out :

> most accounting technique choices are timing choices because they shift revenue or expenses among periods, without altering total revenue and expenses over these periods. Thus, the increase-decrease dichotomisation does not fully reflect the decision being made.

Over the life of an accounting entity these timing differences make no difference to the total income reported. However, over a relatively short period of time, such as a quinquennium, this may not be the case. Consequently, it was decided to investigate the effect of the accounting choices made during the quinquennium ended 31 March 1974 on all the outcomes for the quinquennium. The effect of each year's accounting choices was investigated separately and is described separately in sections 6.6.1, 6.6.2, 6.6.3, 6.6.4 and 6.6.5.

Finally the cumulative effect of the accounting choices made during the quinquennium ended 31 March 1974 on the net return on average capital employed was calculated and is shown in section 6.7.

5.5.4 Accounting choices made during the three years ended 31 March 1972

Prior to investigating the accounting choices made for the gas industry for the three years ended 31 March 1972, it was known that the twelve Area Boards were relatively autonomous. However, there was no way of knowing whether that autonomy extended to their accounting choices. The Gas Council might have influenced all the accounting choices made for the Area Boards in order to achieve desired results in the consolidated accounts.

The investigation of the accounting choices made for the twelve Area Boards identified acknowledgement in their published accounts that certain accounting choices had been made at the request of the Gas Council. During the year ended 31 March 1970 the Gas Council had requested all Area Boards who had not already done so to transfer all reserves to reserve fund and during the year ended 31 March 1972 the Gas Council had requested all Area Boards to accelerate the amortisation of displaced plant. For the remaining accounting choices made during the three years ended 31 March 1972 there was no acknowledgement that they had been made at the request of the Gas Council.

In chapter 6 the accounting choices made during the three years ended 31 March 1972 have been split into two categories. The first category is those accounting choices made for the Gas Council or made for the Area Boards at the request of the Gas Council. The second category is the remaining accounting choices made for the Area Boards. This split was considered necessary because if the accounting choices in the second category had been made independently by the Area Boards they would not have been subject to the same pressures as those in the first category. As this study attempts to explain the accounting choices made for the gas industry as a whole that evidence could not be used to explain the accounting choices in the second category if they were chosen independently by the Area Boards.

5.5.5 Improvements on prior studies

(1) Holthausen and Leftwich (p 104) also pointed out that many of the previous studies only investigated the effect of one particular accounting choice. The weakness of such a research approach is that if a firm wanted to manipulate its income it would be likely to use more than one accounting choice to do so. Zmijewski and Hagerman (1981) substantially improved on these single accounting choice tests by investigating whether firms had used a portfolio of accounting choices to achieve an overall income strategy. However Zmijewski and Hagerman restricted their investigation to only four accounting choices. The case study approach adopted in the present study enabled the author to investigate all the accounting choices made by the gas industry during the eleven years from 1 April 1969 to 31 March 1980.

(2) Finally, Holthausen and Leftwich (p 104) pointed out that most of the previous studies weight each accounting choice equally. The present study overcomes this weakness by calculating the monetary effect of the accounting choices on the reported outcomes.

5.6 INVESTIGATION OF THE EXPLANATIONS FOR THE ACCOUNTING CHOICES

This section describes the investigation of the explanations for the accounting choices made during the eleven years of the study. The explanatory hypotheses formulated in section 5.2 were used to focus the search for evidence which would explain the accounting choices. That evidence was identified from inspection of the gas industry's report and accounts (as described in section 5.5.1) and from the use of the following four indexes described in later sub-sections :

1. General Index of Parliamentary Debates (section 5.6.1);
2. Government Publications Catalogue (section 5.6.2);
3. Research Index (section 5.6.3);
4. British Humanities Index (section 5.6.4).

5.6.1 General Index to the Parliamentary Debates

The author inspected the General Index to the Parliamentary Debates for each Parliamentary Session for 1967/68 to 1980/81. Details of the Parliamentary Debates are included in numbered volumes of Hansard for each Parliamentary Session. Each volume of Hansard is divided into two sections - Oral Answers which includes debates and Written Answers.

All the entries under the subject heading "Gas" or under related headings such as "Gas Boards", "Gas Industry", "Gas and Electricity", "Gas and Electricity Industries", "Gas Corporation", "Gas Tariffs", etc in the General Index for each Session from 1967/68 to 1980/81 were reviewed and if the description of the item indicated that it might be relevant to the present study it was inspected in the appropriate volume of Hansard.

The General Index was also used to search for evidence of government policy on the public sector borrowing requirement (PSBR). Government policy on the PSBR was considered relevant to the present study when the gas industry was unable to finance all its capital expenditure from existing resources. The two main sources of additional finance were :
(1) an increase in gas prices; or (2) additional borrowing from the government which would have the effect of increasing the PSBR. If the

government's policy was to reduce the level of government borrowing, government politicians and civil servants would have a preference for the additional resources being raised by an increase in gas prices, provided that such an increase did not conflict with any other macro-economic policy. The General Index was used to identify government policy on the PSBR as described in each year's Budget Statement which was then inserted in the author's file for the relevant year.

The items from Hansard which have been included in Chapters 8 and 9 (a considerably smaller number than the number originally included in the file for each year) have been referenced as suggested by Pemberton (1971, p 101) except that each reference ends with either the words "Oral Answers" or "Written Answers" to identify which section of a volume is being cited. This seemed to the author to be an improvement on Pemberton's recommendation that the column numbers for the Written Answers section be typed in italics.

5.6.2 Catalogue of Government Publications

The annual Catalogue of Government Publications contains all the items published by HMSO during the year except Statutory Instruments. Section I contains Parliamentary Papers such as House of Lords Papers and Bills, House of Lords Parliamentary Debates, House of Commons Papers, House of Commons Parliamentary Debates (Hansard and Standing Committee Debates), House of Commons Bill, Command Papers and Public General Acts. Section II contains both Parliamentary and Non-Parliamentary Publications, listed under the government departments and other bodies responsible for their preparation.

All the entries under the subject heading "Gas" in the index for each year from 1968 to 1981 were reviewed and if the description of the item indicated that it might be relevant to the present study it was inspected.

The annual Catalogue of Government Publications was also used to identify the Public Expenditure White Papers and the Financial Statement and Budget Reports published during the period of the study. These were inspected to identify government policy on nationalised industries' borrowing for the reasons described in section 5.6.1.

5.6.3 Research Index

The Research Index is a fortnightly index of articles and news items, mainly of financial interest which have appeared in about 150 newspapers, business, economic and trade periodicals during the previous two weeks. The Index is arranged in two sections covering (1) industrial, financial and commercial news arranged under broad subject headings and (2) company news arranged alphabetically by company name. From 1973 each section has been cumulated every six months into what is titled the "Research Index Amalgamation". According to Vernon (1984, p 40) the Research Index "is the best available means of tracing very recent business information in newpapers.....".

The author's experience confirmed Vernon's view. However, the search process was somewhat tedious. The Andersonian Library at the University of Strathclyde only had the "Research Index Amalgamation" from 1975. Thus the fortnightly index had to be used for the years from 1968 to 1972. All the entries under the subject heading "Gas" in the first section of the index for each year from 1968 to 1981 were reviewed and if the title of the item indicated that it might be relevant to the present study it was inspected. This inspection was largely carried out in the Mitchell Library, Glasgow. Any item which was not available in the Mitchell Library for any reason was inspected in the Colindale Newspaper Library, London, on one of the author's trips to London.

5.6.4 British Humanities Index

The British Humanities Index covers articles from nearly 400 British journals and newspapers in all areas of the humanities including management and business. All the entries under the subject heading "Gas Industry : Great Britain" and related headings were reviewed for each year from 1968 to 1981 and if the title of the article indicated that it might be relevant to the present study it was inspected either in the Mitchell Library, Glasgow or in the Colindale Newspaper Library, London.

The author did not find the British Humanities Index as useful to the present study as the Research Index. This was a result of the British Humanities Index's focus on articles which were by their nature usually discussive. The author was mainly interested in identifying the unfolding of events in each year which he considered relevant to the study. These events were included in the newspapers reports covered by the Research Index to a greated extent than they were included in the articles covered by the British Humanities Index.

5.6.5 Content Analysis

As the longitudinal case study developed it occurred to the author that the national daily newspaper reports on the gas industry's published accounts tended to focus rather more on expected or proposed increases in gas prices than on the contents of the published accounts. If this reaction by the press was predictable by the managers of the gas industry and by civil servants in the gas industry's sponsor department it might have influenced the accounting choices made for the gas industry. For instance, these managers and civil servants would not want the press to argue that a price rise was unreasonable because the gas industry was making large profits. Such arguments could be picked up by non-government politicians. Thus the press could create crises on the question of the level of gas prices which the managers of the gas industry, the civil servants in the gas industry's sponsor department and the government would rather avoid. One way of avoiding such crises would be to make accounting choices which reduced the gas industry's reported profit.

In order to establish in a systematic and objective fashion whether the press did, in fact, focus on gas prices in their reports on the gas industry's published report and accounts the author decided to content analyse for each year of the case study the reports in the national daily newspapers on the gas industry's published report and accounts.

Content analysis has been defined as follows:

> Content analysis is a research technique for the objective, systematic and quantitative description of the manifest content of communication (Berelson, 1952, p 18)
>
> Content analysis refers to any procedure for assessing the relative extent to which specified references, attitudes or themes permeate a given message or document (Stone, 1964).

According to Cartwright (1953, p 435) the objective of content analysis is to treat "raw" data in a scientific manner so that a body of knowledge can be built up.

The literature on content analysis (see for example Berelson, 1952; Berelson, 1954; Cartwright, 1953; Holsti, 1969) distinguishes between recording units, context units and units of enumeration. A recording unit is the specific segment of the content that is characterised by placing it in a given category. It may not be possible to classify a recording unit without some further reference to the context in which it appears. A context unit is "the largest body of content that may be examined in characterising a recording unit" (Berelson, 1952). The unit of enumeration is the unit in terms of which quantification is performed. In the case of communications research the unit of enumeration that seems to have been the most popular is that of physical length (Cartwright, 1953, p 459).

The author decided that the context units should be the reports in the national daily newspapers on the day after the gas industry's report and accounts were published. The reports in national daily newspapers were chosen on the basis that, generally speaking, national daily newspapers have larger circulations than provincial newspapers and may therefore be in a position to influence a larger number of people. The recording unit chosen was that part of these newspaper reports which had gas prices as a theme. The unit of enumeration adopted was column centimetres. The percentage of each of these newspaper reports in which gas prices were adopted as a theme was then calculated. These percentages are included in chapters 8 and 9 in the description of the relevant events up to the end of each financial year.

The theme of gas prices was adopted as the recording unit because of the theoretical reasons described in the first paragraph of this section. Before carrying out the content analysis the author was aware of the difficulties involved in adopting a thematic approach. Berelson (1952, p 139) pointed out that the theme is the most difficult from the standpoint of reliability :

> Communication on almost every topic is extremely varied, and the decision as to when a particular wording should be coded as an occurrence of a general theme is not easy to make.

The author did indeed find difficulty in making judgements in certain cases as to whether or not a particular sentence or paragraph should be treated as adopting the theme of gas prices. Nevertheless, judgements were made and hopefully the results of the content analysis give, at least, a broad indication of the approach adopted by national daily newspapers to the publication of the report and accounts of the gas industry.

5.7 INVESTIGATION OF LOBBYING BEHAVIOUR

The gas industry's lobbying behaviour was investigated by examining each of its submissions to the Accounting Standards Committee on accounting practices proposed in Exposure Drafts. These submissions were examined in the library of the Institute of Chartered Accountants in England and Wales.

Relevant details of each submission are incorporated in the case study. This approach overcomes the weakness of previous studies on lobbying behaviour which simply coded each submission as being either for or against the proposed accounting practice. Such a dichotomous classification loses much of the richness of the submission eg the intensity of a respondent's position or the agreement with certain parts of an exposure draft and disagreement with others.

By including lobbying behaviour in the study the author hoped to improve on previous studies, none of which had investigated accounting choices and lobbying behaviour for the same firm. If the factor(s) driving accounting choices and lobbying behaviour is(are) the same, as one would expect when studying one particular firm, there should be consistency between the accounting choices made and the lobbying positions adopted.

5.8 CONCLUDING COMMENTS

This chapter has described in detail the research methodology adopted for the investigation of the accounting choices made for the UK gas industry during the eleven years from 1 April 1969 to 31 March 1980. That investigation is described in the next two chapters.

CHAPTER 6 ACCOUNTING CHOICES 1970-1974

6.0 Introduction

This chapter describes the investigation of the accounting choices made during the quinquennium ended 31 March 1974. Each year's accounting choices were investigated separately and these investigations are described separately in sections 6.1, 6.2, 6.3, 6.4 and 6.5. The investigation of the effect of each year's accounting choices on the reported outcomes for later years of the quinquennium is shown in section 6.6. The cumulative effect of the accounting choices made during the quinquennium on the reported net returns on average capital employed during this period is described and discussed in section 6.7. Brief concluding comments are provided in section 6.8.

It should be noted that during the period under review civil service reorganisations meant that the gas industry's sponsor department changed several times. Up to October 1969 it was the Ministry of Power, from October 1969 to October 1970 it was the Ministry of Technology, from October 1970 to March 1974 it was the Department of Trade and Industry and from March 1974 it was the Department of Energy.

6.1 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1970

This section describes the investigation of the accounting choices made during the year ended 31 March 1970. The evidence collected up to 31 March 1970 which relates to the two explanatory hypotheses formulated in sections 5.2 is described in section 6.1.1. The effect of the accounting choices made for or at the request of the Gas Council is shown in section 6.1.2 and the explanations for these accounting choices are given in section 6.1.3. The effect of the other accounting choices made for the Area Boards is shown in section 6.1.4 and the explanations for these accounting choices are given in section 6.1.5

6.1.1 Evidence to 31 March 1970

During the quinquennium ended on 31 March 1974 the gas industry went through a period of significant change due to the changeover from town to natural gas. Although it began before the quinquennium commenced, most of this change took place during the quinquennium. During the year immediately preceding the quinquennium (the year ended 31 March 1969) 22% of the total gas available was natural gas. During the last year of the quinquennium (the year ended 31 March 1974) 93.5% of the total gas available was natural gas (BGC, Annual Report and Accounts 1973-74, p 15).

Given the significance of the decision to exploit natural gas to the quinquennium under study the researcher decided to start the chronological review of explanatory evidence with the report from the Select Committee on Nationalised Industries (SCNI) published in July 1968 titled the Exploitation of North Sea Gas (Select Committee on Nationalised Industries, 1968). The pricing principles discussed in this report have already been reviewed in Chapter 2. In addition this report included three other matters which are relevant to this study.

(1) The first of these is the description by both the Gas Council and the Ministry of Power of the accounting treatment adopted for obsolete plant and the expected impact of that treatment on gas prices. The

accounting charges arising from the premature obsolescence of gas-making plant were estimated to be around £400 million and when asked (Q.79) how this would be treated in the accounts, Mr. Crofton of the Ministry of Power replied that :

> Out of that £400 million, it is expected that possibly £100 million will be accounted for by way of depreciation, so that the eventual charges to obsolescence are likely to be around £300 million. According to the standard rules adopted by the gas industry, plant would be written off to obsolescence reserves, if there are any, and when they have been exhausted they would be written off to revenue over the next 15 years or the remaining life of the asset, whichever is less.

In reply to a later question (Q.81) Mr. Crofton confirmed that:

> Tariffs will have to carry this obsolescence charge if the reserves are not available and they will not, I suspect, be available for a sum of this size.

Mr. Crofton's comments are of interest not only for their manifest content but also for the indication which they give of the detailed awareness of the Ministry of Power of accounting matters relating to the gas industry.

The Gas Council confirmed that the unamortised balances on plant made obsolete by the advent of natural gas were likely to amount to £300 million approximately (Evidence, page 28, para 50) and confirmed (Q.118) the accounting treatment described above. The Chairman of the Gas Council explained their pricing policy as:

> to have very close regard to marginal costs in certain parts of our tariffs for industrial and domestic customers and at the same time to have a sufficiently flexible approach to be able to recover enough money not to run into deficiency. (Q.136)

As regards the calculation of long-run marginal costs the Chairman confirmed that obsolescence charges would not be taken into account at all but that they would be provided for out of their general revenues (Q.774).

The SCNI foresaw that it was likely that the Gas Council would be "required to adapt their pricing policy specifically to meet the charges for prematurely obsolete gas plant" (para III 18). They expressed their concern as follows:

> Your Committee do not wish to suggest that Cmnd 3437 promised that cost-based pricing policies would be the unalterable rule in all circumstances for the future, for it certainly did not; but they wish to draw attention to the fact that, in the first case which they have studied since the Paper was presented to Parliament, they find that it is far from certain that the new principles foreshadowed in the White Paper will be applied (para III 22).

(2) The second matter in the SCNI report which is relevant to the present study is the criticism of the Government and the Ministry of Power by the Chairman of the National Coal Board (NCB) regarding obsolete plant. When interviewed on 15 May 1968 by the SCNI the Chairman of the NCB criticised the Government for not having a nationalised fuel policy and claimed that as a result "hundreds of millions of pounds of state capital have been invested abortively" (Q 451). In answer to a later question (Q 532) he criticised the effectiveness of the Ministry of Power regarding the investment programme of the energy industries. He pointed out that, on average, senior civil servants are moved every 22 months and as a result they tend not to "look ahead at what is the impact of the act of one industry upon the other and the consequent abortive capital at present being invested".

The SCNI did not accept the criticism of the Ministry of Power by the Chairman of the NCB. They stated (para 1 36) that the :

> concept of cost-savings by means of replacement is clear enough when looked at within a single enterprise, and it is equally valid for the whole of the energy market.

The SCNI concluded (para 1 37) that :

> if the Ministry of Power are satisfied that from an economic point of view the replacement of one source of energy by another produces a margin of saving which represents an acceptable net return on investment, they cannot be criticised on general economic grounds for approving that replacement.

(3) The third matter in the SCNI report which is relevant to the present study is the criticism of the Ministry of Power by the SCNI regarding obsolete plant. On 26 June 1968 Mr. Mikardo of the SCNI criticised the Ministry of Power for overinvesting in gas manufacturing plant which turned out to be uneconomic. His questions demonstrated his concern that the consumer was as a result going to have to pay a price which exceeded long-run marginal cost as recommended in Cmnd 3437 (Treasury, 1967). His questions were as follows :

Q843 Suppose the Gas Council had not had a monopoly. Other people could have bought North Sea gas and distributed it; they could have started new companies for the purpose. They would not have been saddled with the cost of obsolete gas equipment. They would have been able to sell it at a price which took no account of writing off the cost of obsolete gas equipment. They could have put the Gas Council out of existence, could they not?

Q844 Why should the monopoly position of the Gas Council and the fact that they apparently did not do sufficient to anticipate the technical revolution put the gas consumer on a worse footing in respect of the prices he has to pay for North Sea gas than would be the case in a competitive situation?

Q845 ...if we may go back ...to Cmnd 3437, what it specifies is long-run marginal costs and including as an element in the costs an element to cover historic accounting costs but not the write off of obsolescent plant. On that basis, to the extent that the Gas Council is going to load its price with an element to enable it to write off the cost of obsolescent plant, is that not a direct departure from Cmnd 3437?

The Ministry of Power replied "Yes" to Q843 but gave evasive answers to Q844 and to Q845.

The SCNI concluded (para I 37) that :

> Any error in investment lies not in investing in the new process which show an economic return, but in having in the past over-invested in processes which now prove uneconomic.

This would seem to suggest that the SCNI suspected that the Ministry of Power had allowed the Gas Council to over-invest in gas manufacturing plant which had or was going to become uneconomic due to the introduction of natural gas.

The Times Business News commented on the report as follows :

> The most important point the Committee examined is probably the effect on the gas industry's pricing policy of adopting different financial assumptions ... if - which seems more likely - it is insisted that the £300m of prematurely-retired gas plant are to be depreciated against the greatly increased margins on the sale of natural gas, it is unlikely that prices will be reduced much, if at all, for some years. (Gas World 5 October 1968, p 305.)

When commenting on the SCNI report to the press the Gas Council chairman Sir Henry Jones committed himself to lower prices :

> We do expect lower prices after conversion to natural gas and very specially so for large consumers, he said. (Gas World, 5 October 1968, p 305).

On November 25, 1968, the Financial Times published an article (p 12) by Professor Maurice Peston which contributed to the debate as to whether the accounting charges for obsolete plant should be reflected in gas prices:

> My view is that it is allocative efficiency that matters, and that it is absurd to burden the users of the new product with costs unconnected with its supply, but which could be charged to them because of the special position of the gas industry as a single or monopoly supplier. Essentially what we have here is the development of a new industry based on natural gas which is replacing an old industry based on conventional gas production. Why should the customers of the new industry subsidise the old one? It is difficult to see why they should be selected for this tax on income distribution grounds, and there are no other grounds which are obviously relevant.

The linkage between the level of prices on the one hand and the relationship between the financial target and the reported surplus on the other was reflected in the comments on future gas prices by the Chairman of the Gas Council, Sir Henry Jones, in late February 1969. He stated that in the 1970s when the gas industry should start having surpluses of substantial proportions it should be possible to start thinking of what further reductions could be made in the price of gas. "We shall see as we go along", he said. "We don't know yet what our financial objectives will be - and that is a further reason for being cautious" (extracted from Gas World, 1 March 1969, p 231).

When arguing for the retention of a vigorous coal industry Lord Robens in March 1969 criticised the exploitation of North Sea gas as follows :

> What bothers me so profoundly is that the nation is allocating £1600 million in the next five years on the conversion and re-equipment of appliances and distribution networks and other works which will only be required for 20 or 25 years. Existing gas making equipment worth £300 million will have to be written off. (Gas World, 22 March 1969, p 317.)

There was plenty of sympathy for Lord Robens' views among speakers in a Commons debate on fuel policy a few days later. Further attacks were made on the gas industry. For instance, Mr. Fred Evans stated that:

> Meeting these costs is bound to be reflected in the charges paid for gas. The gas authority, therefore, aim to treble their sales by 1975, but 1968, the yardstick on which the trebling was based, was already a record year for sales by the Gas Council and I beg leave to doubt whether a 300 per cent increase is within the Council's capacity (Gas World, 22 March 1969, p 317).

And from Mr Alex Eadie came this comment :

> All the evidence seems to indicate that in spite of the tremendous capital investment by the Government, and all the modern innovations, there will not be any cheap North Sea gas for the consumers (Gas World, 22 March 1969, p 317).

In April 1969 the Minister of Power published his observations (Select Committee on Nationalised Industries, 1969) on the Second Report from the SCNI - Session 1967-68 (Select Committee on Nationalised

Industries, 1968). Accounting costs which were likely to lead to total accounting costs exceeding long-run marginal costs were discussed :

> The most significant of these to which we can point at present is the once and for all expenditure on conversion. Such expenditure is not part of long-run marginal costs and this therefore is a major reason for expecting that long-run marginal costs will prove to be below future average costs. If so, expenditure such as that on conversion can earn a proper return only if some or all consumers are charged prices above long-run marginal costs in order to meet full accounting costs (para 10).

The other accounting cost discussed in this context was the amortisation of obsolete plant :

> If the costs of obsolete plant did not fall on the gas consumer, they would have to fall on the taxpayer through deficits or a capital reconstruction. There seems no justification for such a transfer unless it can be shown that the recovery of these charges would distort the pattern of gas sales and frustrate the rapid absorption of natural gas to the overall disadvantage of the general (tax paying) community. But the additional departure from marginal cost pricing necessary to recover these costs will be relatively small and will not, in the Minister's view lead to any significant distorting of resource allocation (para 13).

The Minister's conclusions on pricing are of interest to the present study as they give an indication of the direction of influence, if any, which the sponsor department may have given to the gas industry :

> The Minister concludes that there are good grounds for charging prices close to long-run marginal costs to those consumer classes that tend to be relatively sensitive to price, while setting other parts of the industry's tariffs above marginal costs in order to make a contribution to the industry's overheads. This is broadly the pricing policy that the gas industry intends to pursue, as explained to the Committee by Sir Henry Jones (Q 136),(para 14).

Finally, the Minister outlined his intention regarding the setting of a future financial objective for the gas industry :

> The intention therefore is to set a financial objective for the next five years that will be consistent both with the earning of appropriate returns over the whole life of new assets and with the pursuit by the industry of pricing policies on the lines indicated in the preceding paragraphs and with the present and prospective situation facing the gas industry, including market conditions and the need for a rapid build-up in the use of North Sea gas (para 15).

It seems reasonable to conclude from this that the Ministry of Power intended to set objectives for the gas industry for the next five years which took into account the fact that prices would be set at a level which would enable the industry to recover its full accounting costs including the amortisation of obsolete plant at the amortisation rates then prevailing.

On 6 October 1969 the Ministry of Power announced new financial objectives for the gas industry (The Times, 7 October 1969, p 22. These new financial objectives were to earn a net return (surplus and interest but excluding depreciation) of 7% on average net assets employed (The Gas Council, Annual Report and Accounts for the year ended 31 March 1970, p 21). In setting these financial objectives the Ministry claimed to have taken into account the pricing and investment criteria set out in the 1967 White Paper (HM Treasury, 1967) and the transformation in the circumstances of the gas industry due to the introduction of natural gas (Gas World, 11 October 1969, p 317).

The publication on 14 October 1969 of the gas industry's annual reports and accounts for the year ended 31 March 1969 was used by Sir Henry Jones, Chairman of the Gas Council, as an opportunity to get the message over to the public that gas prices were likely to be lower in the future.

The following day the headlines in the national newspapers were as follows:

The Times (p 22)	: Gas Council recovers to £17.5m profit peak
The Guardian (p 13)	: More cuts planned by Gas Council
The Daily Telegraph (p 28)	: Gas industry turns loss into £17½m profit
Financial Times (p 12)	: Record £17.5m surplus by gas industry
Financial Times (p 34)	: Lower gas prices promised following £90m "profit"

Daily Mirror (p 21) : Going down ... the price of natural gas

Daily Express (p 12) : Gas bills cut : COUNCIL REPORT RECORD £17m PROFIT

Daily Mail (p 9) : Cheaper gas pledged as sales soar

The Sun (p 7) : Gas chief makes pledge on price cuts

As can be seen each of the national newspapers, with the exception of The Times and The Daily Telegraph, had a headline which focused on the proposed reduction in gas prices. The percentage of total space in these reports in which prices were adopted as a theme was as follows : The Times, 0%; The Guardian, 59%; The Daily Telegraph, 0%; Financial Times, 30%; Daily Mirror, 89%; Daily Express, 40%; Daily Mail, 45% and The Sun, 73%. None of the press reports made any reference to the accounting choices made during the year ended 31 March 1969.

The Financial Times report(p 34) included the following:

> A continuous process of price reductions for gas was promised by Sir Henry Jones, chairman of the Gas Council, yesterday when he revealed that the gas industry made a £90.4m 'profit' in private enterprise terms last year and achieved a record net surplus of £17.5m after meeting interest charges.
>
> Sir Henry pointed out that the industry was relying on lower prices to bring about the very rapid growth planned in the use of gas in industry and that domestic consumers would benefit as their appliances were converted to natural gas.
>
> The Government has already said that the price of gas is likely to fall in real terms over the next five years, but Sir Henry went further. The industry's own five-year programmes of development provides for reducing average prices of gas over the period, he explained.

The Financial Times Survey on The Gas Industry published on 24 November 1969 was also used by Sir Henry Jones to gain publicity for the industry's pricing plans. He stated (p 11) that "our plans provide for reducing average prices of gas in real terms over the next five years covered by our new financial target".

6.1.2 Effect of the accounting choices made for or at the request of the Gas Council

All the accounting choices made during the year ended 31 March 1970 for the Gas Council or for the Area Boards at the request of the Gas Council are described in Appendix A. The effects of these accounting choices on the net surplus for the year ended 31 March 1970 are shown on Table 6.1 and the effects on the capital employed at 31 March 1970 are shown on Table 6.2. Tables 6.1 and 6.2 are derived from Tables A11 and A12 in Appendix A.

The reported outcomes for the year ended 31 March 1970 have been restated to what they would have been if these accounting choices during the year had not been made. The restatement of the net surplus is shown on Table 6.3, the restatement of the capital employed is shown on Table 6.4 and the restatement of the net return on average capital employed is shown on Table 6.5.

These accounting choices made during the year ended 31 March 1970 had the effect of :

(1) increasing the net surplus for the year ended 31 March 1970 by approximately £358,000 (Table 6.1) from £13,391,000 to £13,749,000 (Table 6.3) which is an increase of 2.67%;

(2) decreasing the capital employed at 31 March 1970 by approximately £7,601,000 (Table 6.2) from £1,665,555,000 to £1,657,954,000 (Table 6.4) which is a decrease of 0.46%, and

(3) increasing the net return on average capital employed for the year ended 31 March 1970 by 0.038% from 6.438% to 6.476% (Table 6.5).

Table 6.1

Effect on the net surplus for the year ended 31 March 1970 of those accounting choices made during the year ended 31 March 1970 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

		Incr	Decr
		£	£
Gas Council	- none		
All Area Boards	- transfer of all reserves to reserve fund as at 1 April 1969 (Table A9)	358,142	
Net increasing effect on reported net surplus		358,142	

Table 6.2

Effect on the capital employed at 31 March 1970 of those accounting choices made during the year ended 31 March 1970 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

		Incr	Decr
		£	£
Gas Council	- none		
All Area Boards	- transfer of all reserves to reserve fund as at 1 April 1969 (Table A10)		7,600,987
Net decreasing effect on reported capital employed		-	7,600,987

Table 6.3

Restatement of the net surplus for the year ended 31 March 1970 for the effect of those accounting choices made during the year ended 31 March 1970 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

	£
Reported net surplus for the year ended 31 March 1970	13,749,000
Less: Net increasing effect on the reported net surplus of those accounting choices made for the Area Boards at the request of the Gas Council (Table 6.1)	358,000
Restated net surplus for the year ended 31 March 1970	13,391,000

Table 6.4

Restatement of the capital employed at 31 March 1970 for the effect of those accounting choices made during the year ended 31 March 1970 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

	£
Reported capital employed at 31 March 1970	1,657,954,000
Add: Net decreasing effect on the reported capital employed of those accounting choices made for the Area Boards at the request of the Gas Council (Table 6.2)	7,601,000
Restated capital employed at 31 March 1970	1,665,555,000

Table 6.5

Calculation of the effect on the net return on average capital employed for the year ended 31 March 1970 of those accounting choices made during the year ended 31 March 1970 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

	As reported in published accounts	Adjusted for the restated net surplus (Table 6.3) and for the restated capital employed (Table 6.4)
	£	£
Interest	87,958,000	87,958,000
Net surplus for year (Table 6.3)	13,749,000	13,391,000
Net return for financial target purposes	101,707,000	101,349,000
Capital employed at 1 April 1969	1,482,832,000	1,482,832,000
Capital employed at 31 March 1970 (Table 6.4)	1,657,954,000	1,665,555,000
Average capital employed during year	1,570,393,000	1,574,193,500
Return on average capital employed	6.476%	6.438%

6.1.3 Explanations for the accounting choices made for or at the request of the Gas Council

As can be seen from section 6.1.1, during the two years up to 31 March 1970 concern was expressed in the House of Commons by non-government politicians, at meetings of the SCNI by non-government politicians, in the press by Professor Maurice Peston and by the press itself that the gas consumer was not going to benefit from the exploitation of natural gas. It was argued that the prices charged to the gas consumer were not going to fall, in spite of the low cost of natural gas to the gas industry, because the industry was going to pass on to the consumer the high costs of the obsolete gas manufacturing plant. In addition the non-government politicians on the SCNI had criticised the officials from the Ministry of Power for having over-invested in gas making plant which turned out to be uneconomic. Finally, the Government had been criticised by the Chairman of the NCB for not having a nationalised fuel policy the lack of which had led to civil servants authorising investments in the nationalised fuel industries which had turned out to be abortive.

The unamortised cost of the gas manufacturing made obsolete during the year ended 31 March 1970 amounted to £36,220,000. It would seem likely that based on the past behaviour of the press and non-government politicians summarised in the previous paragraph that gas industry management and civil servants would expect that disclosure of such a large amount of displaced plant for the year ended 31 March 1970 would lead to further criticism of the decision to exploit natural gas. In these circumstances gas industry management and civil servants would be motivated to make accounting choices that reduced as far as possible the amount of displaced plant shown on the gas industry's balance sheet at 31 March 1970.

The accounting treatment of the obsolete plant displaced during the year ended 31 March 1970 showed two changes from the previous year which are described in detail in Appendix A.

The first of these changes was the recommendation by the Gas Council that all the Area Boards' reserves should be transferred to the reserve fund. This recommendation effectively removed the restriction accepted by nine of the Area Boards that the only reserve which could be used for writing off obsolete plant was the obsolescence and development reserve. The removal of this restriction enabled those Area Boards to increase the amount of displaced plant written off against reserves by £7,959,000 (see Table A3), thereby reducing the amount transferred to displaced plant in the consolidated balance sheet by that amount.

The second change, which was presumably recommended by the Gas Council as it was accepted by both relevant Area Boards, was to transfer obsolete oil-based gas making plant displaced during the year to deferred charges account instead of to displaced plant account. This accounting choice had the effect of reducing the amount transferred to displaced plant account by a further £1,936,000.

Thus these accounting choices relating to obsolete plant displaced during the year ended 31 March 1970 had the effect of reducing the amount transferred to displaced plant account at 31 March 1970 by £9,895,000 (£7,959,000+£1,936,000) which represented 27.3% of the total obsolete plant displaced during that year which was £36,220,000 (see Table A2).

These accounting choices were consistent with the explanation that they had been chosen in order to reduce the apparent impact on future gas prices of the amount to be written off displaced plant. By making these accounting choices gas industry management and civil servants may have hoped to reduce the likelihood of future criticism of the decision to exploit natural gas.

In section 6.1.1 the effect of the transfer of all reserves to reserve fund on the reported outcomes for the year ended 31 March 1970 was described. If this transfer had not been requested by the Gas Council, Area Boards would have transferred a further £7,959,000 approximately to displaced plant account and as a result the total amount written off displaced plant during the year ended 31 March 1970 would have increased by approximately £358,000 (1/15th of £7,959,000). Thus this accounting choice had the effect of increasing the reported net surplus for the year ended 31 March 1970 by £358,000 and decreasing the capital employed at 31 March 1970 by £7,601,000 (£7,959,000-£358,000) as shown in section 6.1.1. The transfer of obsolete oil-based gas making plant to deferred charges account instead of to displaced plant account affected neither the net surplus for the year ended 31 March 1970 nor the capital employed at 31 March 1970 as the basis of calculating the amounts written off these two accounts was the same (1/15th of the unamortised cost). It is argued that gas industry management and civil servants would have seen these effects as being of secondary importance to their perceived need to reduce the unamortised cost of the displaced plant shown in the consolidated balance sheet.

During the year ended 31 March 1970 the Chairman of the gas industry had attempted to increase the consumption of gas by forecasting that the gas industry would be able to reduce gas prices as a result of the exploitation of natural gas. In these circumstances there was clearly no motivation to make accounting choices which decreased the reported surplus for the year ended 31 March 1970 in order to provide a justification for a price rise. The gas industry was not in danger of suffering any political costs during the year ended 31 March 1970. Therefore there was no motivation to make accounting choices which decreased the reported surplus in order to avoid political costs. Thus the evidence for the year ended 31 March 1970 does not contradict the hypotheses derived from the US literature as the motivation to make income-decreasing accounting choices assumed in these hypotheses did not exist for the gas industry for the year ended 31 March 1970.

6.1.4 Effect of the other accounting choices made for the Area Boards

All the accounting choices made for the Area Boards during the year ended 31 March 1970 are described in Appendix A. The only accounting choice made during the year ended 31 March 1970 for which there was evidence of Gas Council involvement was the Council's instruction to all those Area Boards who had not already done so to transfer all their reserves to reserve fund. The effects of all the other accounting choices made for the Area Boards during the year ended 31 March 1970 on the net surplus for the year ended 31 March 1970 are shown on Table 6.6 and the effects on the capital employed at 31 March 1970 are shown on Table 6.7. Tables 6.6 and 6.7 are derived from Tables A11 and A12 in Appendix A.

The reported outcomes for the year ended 31 March 1970 have been restated to what they would have been if these accounting choices during the year had not been made. The restatement of the net surplus is shown on Table 6.8, the restatement of the capital employed is shown on Table 6.9 and the restatement of the net return on average capital employed is shown on Table 6.10.

These accounting choices made during the year ended 31 March 1970 had the effect of :

(1) increasing the net surplus for the year ended 31 March 1970 by approximately £1,077,000 (Table 6.6) from £12,672,000 to £13,749,000 (Table 6.8) which ic an increase of 8.50%;

(2) decreasing the capital employed at 31 March 1970 by approximately £3,392,000 (Table 6.7) from £1,661,346,000 to £1,657,954,000 (Table 6.9) which is a decrease of 0.20%, and

(3) increasing the net return on average capital employed for the year ended 31 March 1970 by 0.075% from 6.401% to 6.476% (Table 6.10).

Table 6.6

Effect on the net surplus for the year ended 31 March 1970 of those accounting choices made for the Area Boards during the year ended 31 March 1970 for which there was no evidence of Gas Council involvement

		Incr	Decr
East Midlands	- prov re gas sales		270,000
	- spec amort chge re an ind conv		155,000
	- incr in prov re contingencies		76,000
	- prov re painting of gas holder		60,000
	- inc in prov re stock obsol etc		61,000
	- under use of pension prov		32,407
Eastern	- dec in prov for deferred repairs	39,000	
	- inc in misc provs		14,000
North Eastern	- dec in pension scheme prov	9,000	
	- rel of retort reset prov	60,000	
	- dec in other provs	51,000	
North Thames	- inc in amount w/o assets of former undertakings		46,759
	- rel of prov for repairs	46,000	
	- dec in prov for leasehold dilap	55,000	
North Western	- inc in prov re employers' liab ins fund		6,000
Northern	- change in deprec of short-lived assets	43,400	
Scottish	- dec in prov for deferred repairs	5,000	
South Eastern	- change re calc of unread gas	357,720	
	- change in deprec of new and renewed services	642,056	
South Western	- none		
Southern	- inc in misc provs		10,000
Wales	- none		
West Midlands	- rel of prov re gas sales	500,000	
		1,808,176	731,166
		731,166	
Net increasing effect on reported net surplus		1,077,010	

Table 6.7

Effect on the capital employed at 31 March 1970 of those accounting choices made for the Area Boards during the year ended 31 March 1970 for which there was no evidence of Gas Council involvement

		Incr	Decr
East Midlands	- prov re gas sales		270,000
	- spec amort chge re an ind conv		155,000
	- inc in prov re contingencies		76,000
	- prov re painting of gas holder		60,000
	- inc in prov re stock obsol etc		61,000
	- under use of pension prov		32,407
Eastern	- inc in investment res		25,000
	- dec in prov for deferred repairs	39,000	
	- inc in misc provs		14,000
North Eastern	- dec in pension scheme prov	9,000	
	- rel of retort reset prov	60,000	
	- dec in other provisions	51,000	
	- prov for obsol		2,826,000
North Thames	- bal of compensation w/o against res fund		1,000,000
	- transf from res fund to intang assets of former undertakings		783,000
	- inc in amount w/o assets of former undertakings		46,759
	- rel of prov for repairs	46,000	
	- dec in prov for leasehole dilap	220,000	
North Western	- inc in prov re employers' liab ins fund		6,000
Northern	- change in deprec of short-lived assets	43,400	
Scottish	- dec in prov for deferred repairs	5,000	
South Eastern	- change re calc of unread gas	357,720	
	- change in deprec of new and renewed services	642,056	
South Western	- none		
Southern	- inc in misc provs		10,000
Wales	- none		
West Midlands	- rel of prov re gas sales	500,000	
		1,973,176	5,365,166
			1,973,176
Net decreasing effect on reported capital employed			3,391,990

Table 6.8

Restatement of the net surplus for the year ended 31 March 1970 for the effect of those accounting choices made for the Area Boards during the year ended 31 March 1970 for which there was no evidence of Gas Council involvement

	£
Reported net surplus for the year ended 31 March 1970	13,749,000
Less: Net increasing effect on the reported net surplus of those accounting choices made for the Area Boards for which there was no evidence of Gas Council involvement (Table 6.6)	1,077,000
Restated net surplus for the year ended 31 March 1970	12,672,000

Table 6.9

Restatement of the capital employed at 31 March 1970 for the effect of those accounting choices made for the Area Boards during the year ended 31 March 1970 for which there was no evidence of Gas Council involvement

	£
Reported capital employed at 31 March 1970	1,657,954,000
Add: Net decreasing effect on the reported capital employed of those accounting choices made for the Area Boards for which there was no evidence of Gas Council involvement (Table 6.7)	3,392,000
Restated capital employed at 31 March 1970	1,661,346,000

Table 6.10

Calculation of the effect on the net return on average capital employed for the year ended 31 March 1970 of those accounting choices made for the Area Boards during the year ended 31 March 1970 for which there was no evidence of Gas Council involvement

	As reported in published accounts £	Adjusted for the restated net surplus (Table 6.8) & for the restated capital employed (Table 6.9) £
Interest	87,958,000	87,958,000
Net surplus for year (Table 6.8)	13,749,000	12,672,000
Net return for financial target purposes	101,707,000	100,630,000
Capital employed at 1 April 1969	1,482,832,000	1,482,832,000
Capital employed at 31 March 1970 (Table 6.9)	1,657,954,000	1.661.346,000
Average capital employed during year	1,570,393,000	1,572,089,000
Return on average capital employed	6.476%	6.401%

6.1.5 Explanations for the other accounting choices made for the Area Boards

As can be seen from Tables 6.6 and 6.7 different accounting choices were made for different Area Boards. This is consistent with these accounting choices having been made independently by the individual Area Boards.

As can been seen from Table 6.10 the effect of these accounting choices on the reported return on average capital employed for the gas industry as a whole was insignificant. This is also consistent with these accounting choices having been made independently by the individual Area Boards.

If these accounting choices were made independently by the individual Area Boards then these accounting choices cannot be explained by the evidence collected for this study as that evidence only purports to describe the pressures on the gas industry as a whole. The pressures on the individual Area Boards may have been different.

6.2 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1971

This section describes the investigation of the accounting choices made during the year ended 31 March 1971. The evidence collected up to 31 March 1971 which relates to the two explanatory hypotheses is described in section 6.2.1. The explanations for the lack of accounting choices made for or at the request of the Gas Council are given in 6.2.2. The effect of the accounting choices made for the Area Boards is shown in section 6.2.3 and the explanations for these accounting choices are given in section 6.2.4.

6.2.1 Evidence to 31 March 1971

The first indication that the gas industry wanted to increase prices came in August 1970. During that month the National Board for Prices and Incomes (NBPI) published a report titled Costs and Efficiency in the Gas Industry, (National Board for Prices and Incomes, 1970). In that report the NBPI estimated that the gas industry could save up to £100 million over the next five years by increasing efficiency. In their reaction to the NBPI report the Gas Council hinted that they might be seeking a rise in gas prices in the near future:

> We consider that, in examining any proposals for price increases which the industry may put forward, the Government would be justified in expecting the industry to commit itself to achieving increased savings of the order recommended in this report and to develop action programmes to that end (Gas World, 22 August 1970, p 149).

More details relating to what Sir Henry Jones called "a modest increase" in the price of gas became available to Gas World in the following week. The magazine stated (p 168) that:

> Higher prices, to bring in about £25m a year are likely to be requested in the near future. No application has yet been lodged ..... but the industry is understood to feel that increases are necessary to counter the rise in costs and wages.

At the press conference on 13 October 1970 to present the Council's annual report and accounts for the year ended 31 March 1970 Sir Henry Jones explained that increases in gas prices were necessary to enable the gas industry to meet its financial targets. His comments were as follows:

> We, in common with the other publicly-owned industries, have to meet financial targets which are set by government. We do not regard an increase in costs as justifying automatic increases in prices. We have already achieved substantial savings in costs. But we have been unable to offset all the additional costs burden that we confront together with many other industries today. Our present situation is such that we must either increase some prices or fail to meet our financial targets; and this would result in increased

borrowing from the government. In these circumstances the gas industry is discussing with the government increases in gas prices (_Gas World_, 17 October 1970, p 293).

The press reports on the day after the annual report and accounts for the year ended 31 March 1970 were published (14 October 1970) concentrated more on the possible future price rise than on the contents of the financial statements. Headlines in national newspapers were as follows:

The Times (p1)	:	Gas charges may go up in January
The Guardian (p1)	:	Gas prices will rise by 8pc in winter
The Daily Telegraph (p10)	:	GAS BOARDS PLAN 6-10pc PRICE RISES NEXT YEAR
Financial Times (p11)	:	Gas Council Annual Report: Natural gas now accounts for over half the supply
Financial Times (p34)	:	Domestic consumer to bear brunt of gas price rise
Daily Mirror (p4)	:	Big rises in gas bills this winter
Daily Express (p1)	:	DEARER GAS
Daily Mail (p11)	:	High speed gas slows down: But prices speed UP
The Sun (p4)	:	NOW GAS BILLS GO UP IN NEW POWER SHOCK

As can be seen each of the national newspapers had a headline which focused on the proposed rise in gas prices. The percentage of total space in these reports in which prices were adopted as a theme was as follows: _The Times_, 65%; _The Guardian_, 70%; _The Daily Telegraph_, 90%; _Financial Times_, 38%; (although in the report on page 34 of the _Financial Times_ prices were adopted as a theme throughout); _Daily Mirror_, 100%; _Daily Express_, 100%; _Daily Mail_, 100% and _The Sun_, 84%. In addition the _Financial Times_ had an editorial that day which had the headline _A higher_ price for gas, in which 65% of the content had prices as a theme. None of the press reports made any reference to the accounting choices made during the year ended 31 March 1970.

The pressure on the government from non-government politicians regarding gas prices is illustrated by the following exchange in the House of Commons on 9 November 1970 on gas and electricity prices:

> Mr Judd asked the Secretary of State for Trade and Industry on how many occasions since 24 July he had intervened to prevent proposed price increases by the gas and electricity supply industries.
>
> **Mr John Davies**: I have once invited a board to defer a proposal.
>
> **Mr Judd**: Why is it that the right hon Gentleman has not vetoed price increases in this sphere? Does he recall the specific pledges made by his right hon Friends on this issue of price increases in the public sector? Is he aware that many of the least affluent members of our community feel betrayed by this Government and, together with many others, regard the so-called pledges in the recent election as nothing more than cynical and despicable opportunism?
>
> **Mr Davies**: I recognise the wide spread concern that there is over the various increases in prices. I also realise the degree to which this is due to the pace of inflation at the moment. I would stress that I have no formal powers to prevent price increases.
>
> As regards the undertakings given by this Government, it will be recalled that Mr Macleod said in this House that we would scrutinise very closely all proposed increases in the public sector and that these increases would be allowed only when there was a proven case for them.

(806 HC Deb 1970/71 col 24 Oral answers).

The financial pressure on the gas industry in late 1970 was summarised in the Financial Times on 23 November 1970, p 15 as follows:

> In the past year the industry has also encountered some serious financial problems. Like other industries, it has been affected very badly by the very rapid rates of inflation in wages, materials and general costs. The expense of the conversion programme, for instance, originally estimated at £400m in total, has now been revised upwards to £530m largely because of inflation. Earlier this year the industry also agreed significant wages rises for almost all its employees, adding a further £84m to its costs over the period 1969-74.
>
> Signs of strain on the industry's cash flow were already evident in last year's financial results and the Gas Council and the Boards are

now seeking price rises to recover costs. They are thought to be seeking a total £30m extra revenue a year with the increases being imposed selectively. Boards' running losses at the moment and domestic consumers of town gas will probably bear the brunt. Announcement of the changes is expected early next year. Although the rise is disappointing in terms of the industry's expectations about continuing price reductions with the entry of natural gas, the long-term trend on prices remains one of relative stability compared to general industrial inflation......

In December 1970 the government agreed to price rises for the gas industry which varied from Area Board to Area Board and also varied between different types of consumers but which averaged just over six per cent. (Gas World, 19/26 December 1970, p 503).

The granting of this increase led to the following exchange in the House of Commons on 18 January 1971:

Mr Judd asked the Secretary of State for Trade and Industry what studies he has made of the inflationary significance of proposed gas price increases and of their social significance particularly for the elderly and those on low income; what action he has taken to prevent these increases; and whether he will make a statement.

Mr Ridley: These increases average 6.3% and for domestic consumers alone 8.2% against an increase of 15.4% in the index of retail prices since the last gas price increases in April 1968. Since then many consumers have had price reductions on conversion to natural gas. Increases in fuel costs are reflected in the retail prices index and are therefore taken into account along with other factors when new rates of social security benefits are fixed.

(809 HC Deb 1970/71 col 182 Written Answers).

A further question was raised on 8 March 1971:

Mr David Stoddart asked the Secretary of State for Trade and Industry what proportion of recent increases in gas tariffs.....is due to wage and salary awards in those industries during 1970.

Mr Ridley: The estimated cost to the gas industry in a full year of wage and salary awards granted during 1970 is £23 million; the estimated additional revenue from the recent tariff increases is £37 million.

(813 HC Deb 1970/71 col 10 Written Answers)

6.2.2 Explanations for the lack of accounting choices made for or at the request of the Gas Council

As noted in section 6.1.1 the Ministry of Power set the gas industry a financial target of achieving a 7% net return on average capital employed for the quinquennium ended on 31 March 1974. This represented an increase on the previous financial target of over 1½% (Gas World 11 October 1969, p 317). According to the Financial Times (22 November 1971, p 18) that increase was partly aimed at ensuring that the gas consumer contributed a larger proportion of the gas industry's financial requirements than had been the case in previous years. The Financial Times claimed that the industry's financial target was aimed at achieving a self-financing ratio of 42% over the quinquennium. As the self-financing ratio for the two years ended 31 March 1971 averaged only 29% (Gas Council, Annual Report and Accounts for the year ended 31 March 1970, p 25; 1971, p 23) it seems likely that civil servants would have wanted to see gas prices rise in the future provided such a rise did not conflict with any of the Government's macro-economic policies.

The evidence in section 6.2 indicated that:

1) gas industry management saw the need to meet the industry's financial target as a suitable basis on which to justify a price rise;
2) the press thought their readers were interested in gas prices changes;
3) non-government politicians saw increases in gas prices as a possible source of embarrassment to the Government.

The evidence in section 6.3.1 indicates that by May 1971 the gas industry had applied for a price rise.

As can be seen from Tables B1 and B2 in Appendix B no accounting choices were made for the Gas Council for the year ended 31 March 1971 nor was there any evidence that any of the accounting choices made by the Area Boards for the year ended 31 March 1971 had been made at the request of the Gas Council. The reported return on average capital employed for the year ended 31 March 1971 was 6.2% against the financial target of 7% (Gas Council, Annual Report and Accounts for the year ended 31 March 1971, p 21).

As the reported outcome was well below the financial target, gas industry management and civil servants had no need to make income-decreasing accounting choices in order to provide justification for a future price rise or to reduce criticism of such a price rise from the press and/or non-government politicians.

There was no evidence that the gas industry was in any danger of suffering any political costs during the year ended 31 March 1971. Therefore there was no motivation to make income-decreasing accounting choices during the year ended 31 March 1971 in order to avoid political costs.

Thus the evidence for the year ended 31 March 1971 does not contradict the hypotheses derived from the US literature as the motivation to make income-decreasing accounting choices assumed in these hypotheses did not exist for the gas industry for the year ended 31 March 1971.

6.2.3 Effect of the accounting choices made for the Area Boards

All the accounting choices made during the year ended 31 March 1971 are described in Appendix B. All these accounting choices were made for the Area Boards. There was no evidence of Gas Council involvement in any of these accounting choices. The effects of these accounting choices on the net surplus for the year ended 31 March 1971 are shown on Table 6.11. The effect on the capital employed at 31 March 1971 are shown on Table 6.12. Tables 6.11 and 6.12 are derived from Tables B1 and B2 in Appendix B.

The reported outcomes for the year ended 31 March 1971 have been restated to what they would have been if the accounting choices during the year had not been made. The restatement of the net surplus is shown on Table 6.13, the restatement of the capital employed is shown on Table 6.14 and the restatement of the net return on average capital employed is shown on Table 6.15.

The accounting choices made during the year ended 31 March 1971 had the effect of:

(1) decreasing the net surplus for the year ended 31 March 1971 by approximately £904,000 (Table 6.11) from £2,894,000 to £1,990,000 (Table 6.13) which is a decrease of 31.24%, and

(2) decreasing the capital employed at 31 March 1971 by approximately £887,000 (Table 6.12) from £1,869,125,000 to £1,868,238,000 (Table 6.14) which is a decrease of 0.05%.

The above decrease in the net surplus for the year ended 31 March 1971 and the above decrease in the capital employed at 31 March 1971 did not affect the reported net return on average capital employed for the year ended 31 March 1971 which remained at 6.2% (Table 6.15).

Table 6.11

Effect on the net surplus for the year ended 31 March 1971 of those accounting choices made for the Area Boards during the year ended 31 March 1971 for which there was no evidence of Gas Council involvement

		Incr	Decr
East Midlands	- rel of prov re gas sales	270,000	
	- decr in prov re painting of gas holder	45,000	
	- incr in prov re stock obsol etc		121,538
	- under use of pension prov		26,007
	- accel deprec on distrib system		605,860
Eastern	- incr in prov for deferred repairs		58,000
	- decr in misc provisions	71,000	
North Eastern	- decr in pension scheme prov	10,000	
North Thames	- none		
North Western	- incr in prov re employers' liab ins fund		4,000
Northern	- capitalisation of certain salaries and related costs	199,000	
	- deprec of the salaries and related costs capitalised		6,567
Scottish	- incr in prov for deferred repairs		249,000
South Eastern	- none		
South Western	- none		
Southern	- incr in provisions		22,000
Wales	- none		
West Midlands	- change in calc of deprec		407,000
		595,000	1,499,972
			595,000
Net decreasing effect on reported net surplus			904,972

Table 6.12

Effect on the capital employed at 31 March 1971 of those accounting choices made for the Area Boards during the year ended 31 March 1971 for which there was no evidence of Gas Council involvement

		Incr	Decr
East Midlands	- rel of prov re gas sales	270,000	
	- decr in prov re painting of gas holder	45,000	
	- incr in prov re stock obsol etc		121,538
	- under use of pension prov		26,007
	- accel deprec on distrib system		605,860
Eastern	- incr in investment res		3,000
	- incr in prov for deferred repairs		58,000
	- decr in misc provisions	86,000	
North Eastern	- decr in pension scheme prov	10,000	
North Thames	- transf from res fund to intang assets of former undertakings		40,000
	- prov for leasehold dilapid w/o against res fund	40,000	
North Western	- incr in prov re employers' liab ins fund		4,000
Northern	- capitalisation of certain salaries and related costs	199,000	
	- deprec of the salaries and related costs capitalised		6,567
Scottish	- incr in prov for deferred repairs		249,000
South Eastern	- none		
South Western	- none		
Southern	- incr in provisions		22,000
	- transf from investment res to res fund	6,000	
Wales	- none		
West Midlands	- change in calc of deprec		407,000
		656,000	1,542,972
			656,000
Net decreasing effect on reported capital employed			886,972

Table 6.13

Restatement of the net surplus for the year ended 31 March 1971 for the effect of those accounting choices made for the Area Boards during the year ended 31 March 1971 for which there was no evidence of Gas Council involvement

	£
Reported net surplus for the year ended 31 March 1971	1,990,000
Add: Net decreasing effect on the reported net surplus of those accounting choices made for the Area Boards for which there was no evidence of Gas Council involvement (Table 6.11)	904,000
Restated net surplus for the year ended 31 March 1971	2,894,000

Table 6.14

Restatement of the capital employed at 31 March 1971 for the effect of those accounting choices made for the Area Boards during the year ended 31 March 1971 for which there was no evidence of Gas Council involvement

	£
Reported capital employed at 31 March 1971	1,868,238,000
Add: Net decreasing effect on the reported capital employed of those accounting choices made for the Area Boards for which there was no evidence of Gas Council involvement (Table 6.12)	887,000
Restated capital employed at 31 March 1971	1,869,125,000

Table 6.15

Calculation of the effect on the net return on average capital employed for the year ended 31 March 1971 of those accounting choices made for the Area Boards during the year ended 31 March 1971 for which there was no evidence of Gas Council involvement

	As reported in published accounts £	Adjusted for the restated net surplus (Table 6.13) and for the restated capital employed (Table 6.14) £
Interest	106,680,000	106,680,000
Net surplus for year (Table 6.13)	1,990,000	2,894,000
Net return for financial target purposes	108,670,000	109,574,000
Capital employed at 1 April 1970	1,657,954,000	1,657,954,000
Capital employed at 31 March 1971 (Table 6.14)	1,868,238,000	1,869,125,000
Average capital employed during year	1,763,096,000	1,763,538,000
Return on average capital employed	6.164%	6.213%

6.2.4 Explanations for the accounting choices made for the Area Boards

As can be seen from Tables 6.11 and 6.12 different accounting choices were made for different Area Boards. This is consistent with those accounting choices having been made independently by the individual Area Boards.

As can be seen from Table 6.15, the effect of these accounting choices on the reported return on average capital employed for the gas industry as a whole was insignificant. This is also consistent with these accounting choices having been made independently by the individual Area Boards.

If these accounting choices were made independently by the individual Area Boards then these accounting choices cannot be explained by the evidence collected for this study as that evidence only purports to describe the pressures on the gas industry as a whole. The pressures on the individual Area Boards may have been different.

6.3 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1972

This section describes the investigation of the accounting choices made during the year ended 31 March 1972. The evidence collected up to 31 March 1972 which relates to the two explanatory hypotheses is described in section 6.3.1. The effect of the accounting choices made for or at the request of the Gas Council is shown in section 6.3.2 and the explanations for these accounting choices are given in section 6.3.3. The effect of the other accounting choices made for the Area Boards is shown in section 6.3.4 and the explanations for these accounting choices are given in section 6.3.5.

6.3.1 Evidence to 31 March 1972

On 5 May 1971 the Financial Times (p 1) reported that the gas industry had asked the Government for permission to raise prices by an average of between 6 and 7 per cent from mid-summer. According to the Financial Times' report these increases were needed to meet the increased costs of raw material and labour and to enable the industry to meet its financial target.

On 14 June 1971 The Times (p 17) reported that because the Government had delayed consideration of the gas industry's application for price rises the Gas Council had abandoned plans to introduce higher tariffs on 1 July. The report pointed out that as it was unlikely that any increases which the Government might approve could be implemented before September or October the gas industry was now going to lose three month's increased revenue which would jeopardise the industry's chances of meeting its financial target.

As a result of the CBI initiative in July 1971 to counter inflation there was a further threat to the gas industry's hopes of a price rise. In his 'mini-budget' statement on 19 July 1971 (821 HC Deb 1970/71 cols 1037-8 Oral Answers) the Chancellor of the Exchequer (Mr Anthony Barber) informed the House of Commons that he and fellow Ministers had discussed the CBI proposals with the chairman of the major nationalised industries. He continued as follows :

> The Government expressed the view that the nationalised industries should be prepared to match the performance of the private sector members of the CBI by accepting the same restraint on prices on the same conditions. I am pleased to be able to tell the House that the chairmen of all the major nationalised industries have said that they intend to co-operate in this way.

The gas industry was thus pledged to hold down prices to 5% in the twelve months to July 1972.

At the press conference on 12 October 1971 to present the annual report and accounts of the gas industry for the year ended 31 March 1971, Sir Henry Jones made it clear that he did not think the CBI initiative was in the best interests of the industry. He pointed out that the industry had been continually hampered recently in its efforts to meet its financial target by delay in approving price increases :

> A 7.5% increase that the industry had wanted to introduce in July 1970 had been held up until January of this year. A further 7 per cent increase the board had hoped to introduce this July had been delayed and would now be introduced as a 5 per cent rise in January (The Times, 13 October 1971, p 19).

The press reports the day after the annual report and accounts for the year ended 31 March 1971 were published (13 October 1971) concentrated more on the expected price rise of 5% in January 1972 than on the contents of the financial statements. Headlines in the national newspapers were as follows :

The Times (p 1)	:	Gas price to rise by 5 pc
The Times (p 19)	:	Gas price increase follows dearer electricity : rise in coal cost seems inevitable
The Guardian (p 1)	:	State help for gas urged
The Daily Telegraph (p 9)	:	PRICES UP 5 pc AS GAS CHIEF ATTACKS GOVERNMENT
Financial Times (p 1)	:	5% rise in gas prices coming
Daily Mirror (p 32)	:	GAS PRICES GO UP IN NEW YEAR
Daily Express (p 6)	:	GAS BILL UP 5 pc shock for New Year
Daily Mail (p 10)	:	High speed rises for gas prices
The Sun (P 5)	:	Now gas goes up 5p in the £

As can be seen each of the national newspapers apart from _The Guardian_ had a headline which focused on the proposed rise in gas prices. The percentage of total space in these reports in which prices were adopted as a theme was as follows : _The Times_, 84%; _The Guardian_, 89%; _The Daily Telegraph_, 90%; _Financial Times_, 74%; _Daily Mirror_, 90%; _Daily Express_, 74%; _Daily Mail_, 100% and _The Sun_, 94%. None of the press reports made any reference to the accounting choices made during the year ended 31 March 1971.

The _Financial Times_ Survey of the Gas Industry on 22 November 1971 (p 18) estimated that as a result of the decision to exploit North Sea gas the capital requirements of the industry had increased from an average of £60m a year in the fifteen years up to 1965 to over £300m in 1971. The Survey pointed out that this level of capital expenditure was expected to continue until the mid-1970s at least. The _Financial Times_ pointed out that the large increases in capital expenditure had led to large increases in borrowing which were up from a pre 1965 average level of £15m a year to over £200m a year in 1971. The self-financing ratio had fallen from the 41 per cent average of the 1949-65 era to an average of around 25 per cent since 1965. The Survey argued that part of the reason for increasing the financial target for the quinquennium ended on 31 March 1974 was so that gas consumers, through higher prices, would finance more of the industry's capital requirements and that borrowing would be proportionately lower. The Survey explained that the industry was having difficulty achieving its financial target because price rises were delayed or restrained. The £30m a year which the proposed January 1972 rise of 5% was expected to bring in was not considered sufficient to put the industry back on to its target.

The 5 per cent rise in gas prices was granted from January 1972 (Annual report and accounts of the Gas Council for the year ended 31 March 1972, Financial Survey, p 18).

During January 1972 the Gas Bill [HC Bill 1971/72 (62)] to establish the BGC received its First and Second Reading in the House of Commons (829 HC Deb 1971/72 cols 223-224 Oral Answers and cols 1635-1708 Oral Answers).

Clause 16 of that Bill is of interest to the present study. Clause 16 stated that :

> If in any financial year of the Corporation there is an excess of the revenue of the Corporation over the total sums properly chargeable by them to revenue account, the Secretary of State may with the approval of the Treasury direct the Corporation to pay over to him so much of that excess as appears to him after consultation with the Corporation, to be surplus to their requirements; and it shall be the duty of the Corporation to comply with any such direction.

The Minister for Industry, Sir John Eden, when introducing the Bill at the Second Reading justified Clause 16 as follows :

> We cannot tell how successful the corporation will be in future in the finding of natural gas and perhaps oil, but in this kind of activity there is the possibility that really large finds might give the industry exceptionally high profits. In such circumstances it would not necessarily be right for these profits to accrue wholly to the industry (829 HC Deb 1971/72 col 1645 Oral Answers).

He then attempted to provide reassurance to those concerned about the government having such powers by stating that :

> I would emphasise as strongly as I can that it (Clause 16) will not be used to require the corporation to pay over any and every surplus. The industry has heavy financial burdens in the shape of obsolete plant and conversion expenditure, and it has reserves which are tiny in relation to its assets. The Government fully recognise the need to discharge these financial burdens and to build up proper reserves, and the new powers will certainly not be used to prevent this being done (829 HC Deb 1971/72 col 1645 Oral Answers).

Nevertheless, Clause 16 caused considerable controversy during the Second Reading (see 829 HC Deb 1971/72 cols 1669-1701 Oral Answers).

6.3.2 Effect of the accounting choices made for or at the request of the Gas Council

All the accounting choices made during the year ended 31 March 1972 for the Gas Council or for the Area Boards at the request of the Gas Council are described in Appendix C. The effects of these accounting choices on the net surplus for the year ended 31 March 1972 are shown on Table 6.16 and the effects on the capital employed at 31 March 1972 are shown on Table 6.17. Tables 6.16 and 6.17 are derived from Tables C4 and C5 in Appendix C.

The restatement of the net surplus for the year ended 31 March 1972 is shown on table 6.18, the restatement of the interest charge for the year ended 31 March 1972 is shown on Table 6.19, the restatement of the capital employed at 31 March 1972 is shown on Table 6.20 and the restatement of the net return on average capital employed is shown on Table 6.21.

The accounting choices made during the year ended 31 March 1972 had the effect of :

(1) decreasing the net surplus for the year ended 31 March 1972 by approximately £9,751,000 (Table 6.16) from £24,870,000 to £15,119,000 (Table 6.18) which is a decrease of 39.21%;

(2) increasing the interest charge for the year ended 31 March 1972 by approximately £1,237,000 from £123,545,000 to £124,782,000 (Table 6.19) which is an increase of 1.00%

(3) decreasing the capital employed at 31 March 1972 by approximately £9,751,000 (Table 6.17) from £2,021,906,000 to £2,012,155,000 (Table 6.20) which is a decrease of 0.48%, and

(4) decreasing the return on average capital employed for the year ended 31 March 1972 by 0.419% from 7.630% to 7.211% (Table 6.21)

Table 6.16

Effect on the net surplus for the year ended 31 March 1972 of those accounting choices made during the year ended 31 March 1972 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

		Incr £	Decr £
Gas Council	- accelerated write-off of exploration expenditure		4,612,500
	- non-capitalisation of interest		1,237,391
	- depreciation saved on non-capitalisation of interest	55,683	
	- non-capitalisation of salaries and related expenses		992,517
	- depreciation saved on non-capitalisation of salaries and related expenses	44,663	
All Area Boards	- accelerated amortisation of displaced plant		3,009,062
		100,346	9,851,470
			100,346
Net decreasing effect on reported net surplus			9,751,124

Table 6.17

Effect on the capital employed at 31 March 1972 of those accounting choices made during the year ended 31 March 1972 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

		Incr £	Decr £
Gas Council	- accelerated write-off of exploration expenditure		4,612,500
	- non-capitalisation of interest		1,237,391
	- depreciation saved on non-capitalisation of interest	55,683	
	- non-capitalisation of salaries and related expenses		992,517
	- depreciation saved on non-capitalisation of salaries and related expenses	44,663	
All Area Boards	- accelerated amortisation of displaced plant		3,009,062
		100,346	9,851,470
			100,346
Net decreasing effect on reported capital employed			9,751,124

Table 6.18

Restatement of the net surplus for the year ended 31 March 1972 for the effect of those accounting choices made during the year ended 31 March 1972 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

	£
Reported net surplus for the year ended 31 March 1972	15,119,000
Add: Net decreasing effect on the reported net surplus of those accounting choices which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council (Table 6.16)	9,751,000
Restated net surplus for the year ended 31 March 1972	24,870,000

Table 6.19

Restatement of the interest charge for the year ended 31 March 1972 for the effect of the Gas Council's accounting choice to cease capitalising interest on construction work commenced after 31 March 1971

	£
Reported interest charge for the year ended 31 March 1972	124,782,000
Less: Increasing effect on the reported interest charge of the Gas Council's choice of ceasing to capitalise interest on construction work commenced after 31 March 1971 (Appendix C)	1,237,000
Restated interest charge for the year ended 31 March 1972	123,545,000

Table 6.20

Restatement of the capital employed at 31 March 1972 for the effect of those accounting choices made during the year ended 31 March 1972 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

	£
Reported capital employed at 31 March 1972	2,012,155,000
Add: Net decreasing effect on the reported capital employed of those accounting choices which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council (Table 6.17)	9,751,000
Restated capital employed at 31 March 1972	2,021,906,000

Table 6.21

Calculation of the effect on the net return on average capital employed for the year ended 31 March 1972 of those accounting choices made during the year ended 31 March 1972 which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council

	As reported in published accounts	Adjusted for the restated net surplus (Table 6.18) and for the restated capital employed (Table 6.20)
	£	£
Interest (Table 6.19)	124,782,000	123,545,000
Net surplus for year (Table 6.18)	15,119,000	24,870,000
Net return for financial target purposes	139,901,000	148,415,000
Capital employed at 1 April 1971	1,868,258,000	1,868,258,000
Capital employed at 31 March 1972 (Table 6.20)	2,012,155,000	2,021,906,000
Average capital employed during year	1,940,206,000	1,945,082,000
Return on average capital employed during year	7.211%	7.630%

6.3.3 Explanations for the accounting choices made for or at the request of the Gas Council

Civil servants' underlying motivation for setting the financial target for the quinquennium ended 31 March 1974 was discussed in section 6.2.2. They were apparently aiming at the gas industry achieving an average self-financing ratio of 42% over the quinquennium. As the self-financing ratio for the three years ended 31 March 1972 averaged only 35% (Gas Council, Annual Report and Accounts 1970, p 25; 1971, p 23 and 1972, p 22) it seems likely that civil servants would have wanted to see gas prices rise in the future provided such a rise did not conflict with any of the Government's macro-economic policies.

The evidence is section 6.3 indicated that:

1) gas industry management saw the need to meet the industry's financial target as a suitable basis on which to justify a price rise;

2) the press thought their readers were interested in gas price changes.

The evidence in section 6.4.1 indicates that by September 1972 the gas industry had applied for a price rise.

The effect of the accounting choices which were either made for the Gas Council or were made for the Area Boards at the request of the Gas Council during the year ended 31 March 1972 is shown in section 6.3.2. These accounting choices had the effect of reducing the reported surplus for the year by approximately £9,751,000 (Table 6.16) and the net return on average capital employed for the year by 0.419% from 7.630% to 7.211% (Table 6.21).

In October 1970 and October 1971 gas industry management had justified price rises on the basis that they were needed to meet the financial target of achieving a 7 per cent return on average capital employed. However, before these accounting choices, the return on average capital employed for the year ended 31 March 1972 would have been 7.6% against the financial target of 7%. It may be that if the gas industry had reported a 7.6% return on average capital employed for the year ended 31 March 1972 against the financial target of 7% and at the same time announced an increase in gas prices then this would have given the press and/or non-government politicians the opportunity to create a crisis for the gas industry and the Government. Gas industry management and civil servants might have expected the press and/or non-government politicians to argue that as the financial target had been exceeded by a significant margin the price rise was unnecessary and was unfair on the gas consumer.

In order to reduce the likelihood of the press and/or non-government politicians behaving in this way it could be argued that it was in the interests of both gas industry management and civil servants to make income decreasing accounting choices which also had the effect of reducing the extent to which the return on average capital employed exceeded the financial target.

In any event, income decreasing accounting choices made during the year ended 31 March 1972 which reduced the reported return on average capital employed from 7.6% to 7.2% (Table 6.21) are consistent with the explanation that they were chosen by the Gas Council and by civil servants in order to help justify, or at least not make more difficult, the arguments for a future increase in gas prices.

Clause 16 of the Gas Bill 1972 provided a further possible motivation for the income decreasing accounting choices as that Clause gave the government the right to transfer to the Treasury any profits made by the gas industry. The Minister for Industry had tried to provide reassurance that this Clause would only be used if the industry earned "exceptionally high profits" (829 HC Deb 1971/72 col 1645 Oral Answers). In spite of this reassurance a non-government politician Mr Alex Eadie claimed that :

> It is no secret that the whole gas industry is appalled by the Bill and that the officials in charge of the industry are appalled by this Clause (HC Standing Committee B 1971/72 Vol II col 840).

Mr Eadie's comment seems to indicate that the civil servants in the sponsor department were on the side of the gas industry and against the government and probably the Treasury on this matter.

Thus the income decreasing accounting choices made during the year ended 31 March 1972 are consistent with the explanation that they were chosen by the Gas Council and by civil servants in the sponsor department in order to avoid the political costs of a wealth transfer to the Treasury of a portion of the gas industry's surplus for the year ended 31 March 1972.

6.3.4 Effect of the other accounting choices made for the Area Boards

All the accounting choices made for the Area Boards during the year ended 31 March 1972 are described in Appendix C. The only accounting choice made during the year ended 31 March 1972 for which there was evidence of Gas Council involvement was the Council's instruction to all Area Boards to accelerate their amortisation of displaced plant. The effects of all the other accounting choices made for the Area Boards during the year ended 31 March 1972 on the net surplus for the year ended 31 March 1972 are shown on Table 6.22 and the effects on the capital employed at 31 March 1972 are shown on Table 6.23. Tables 6.22 and 6.23 are derived from Tables C4 and C5 in Appendix C.

The reported outcomes for the year ended 31 March 1972 have been restated to what they would have been if these accounting choices during the year had not been made. The restatement of the net surplus is shown on Table 6.24, the restatement of the capital employed is shown on Table 6.25 and the restatement of the net return on average capital employed is shown on Table 6.26.

These accounting choices made during the year ended 31 March 1972 had the effect of :

(1) increasing the net surplus for the year ended 31 March 1972 by approximately £2,086,000 (Table 6.22) from £13,033,000 to £15,119,000 (Table 6.24) which is an increase of 16.00%;

(2) increasing the capital employed at 31 March 1972 by approximately £1,577,000 (Table 6.23) from £2,010,578,000 to £2,012,155,000 (Table 6.25) which is an increase of 0.78%, and

(3) increasing the net return on average capital employed for the year ended 31 March 1972 by 0.105% from 7.106% to 7.211% (Table 6.26).

Table 6.22

Effect on the net surplus for the year ended 31 March 1972 of those accounting choices made for the Area Boards during the year ended 31 March 1972 for which there was no evidence of Gas Council involvement

		Incr	Decr
East Midlands	- rel of prov re painting of gas holder	15,000	
	- decr in prov re stock obsol etc	333,436	
	- decr of pension scheme prov	104,548	
	- rel of spec prov for doubtful debts	250,000	
	- rel of prov for repairs	240,000	
	- rel of prov for hardship	10,000	
Eastern	- incr in misc provisions		149,000
North Eastern	- decr of pension scheme prov	10,000	
North Thames	- none		
North Western	- none		
Northern	- none		
Scottish	- decr in prov for deferred repairs	250,000	
	- rel of pension scheme prov	120,000	
	- surplus on sale of an investment in an assoc company used to accel the amort of displaced plant	36,563	
South Eastern	- capitalisation of certain labour costs	774,000	
	- deprec on cost of labour capitalised		28,638
South Western	- none		
Southern	- inc in misc provisions		11,000
Wales	- rel of pension scheme prov	131,585	
West Midlands	- none		
		2,275,132	188,638
		188,638	
Net increasing effect on reported net surplus		2,086,494	

Table 6.23

Effect on the capital employed at 31 March 1972 of those accounting choices made for the Area Boards during the year ended 31 March 1972 for which there was no evidence of Gas Council involvement

		Incr	Decr
East Midlands	- rel of prov re painting of gas holder	15,000	
	- decr in prov re stock obsol etc	333,436	
	- decr of pension scheme prov	104,548	
	- rel of spec prov for doubtful debts	250,000	
	- rel of prov for repairs	240,000	
	- rel of prov for hardship	10,000	
Eastern	- decr in investment res	117,000	
	- rel of prov for deferred repairs	265.000	
	- incr in misc prov		149,000
North Eastern	- decr of pension scheme prov	10,000	
North Thames	- transf from res fund to intangible assets of former undertakings		804,000
North Western	- none		
Northern	- none		
Scottish	- decr in prov for deferred repairs	250,000	
	- rel of pension scheme prov	120,000	
	- surplus on sale of an investment in an assoc company used to accel the amort of displaced plant	36,563	365,633
	- surplus on sale of an investment in an assoc company used to fully amort the balance of compensation		53,047
South Eastern	- capitalisation of certain labour costs	774,000	
	- deprec on cost of labour capitalised		28,638
South Western	- none		
Southern	- incr in misc provisions		11,000
Wales	- rel of pension scheme prov	131,585	
West Midlands	- rel of pension scheme prov	331,000	
		2,988,132	1,411,318
		1,411,318	
Net increasing effect on reported capital employed		1,576,814	

Table 6.24

Restatement of the net surplus for the year ended 31 March 1972 for the effect of those accounting choices made for the Area Boards during the year ended 31 March 1972 for which there was no evidence of Gas Council involvement

	£
Reported net surplus for the year ended 31 March 1972	15,119,000
Less: Net increasing effect on the reported net surplus of those accounting choices made for the Area Boards for which there was no evidence of Gas Council involvement (Table 6.22)	2,086,000
Restated net surplus for the year ended 31 March 1972	13,033,000

Table 6.25

Restatement of the capital employed at 31 March 1972 for the effect of those accounting choices made for the Area Boards during the year ended 31 March 1972 for which there was no evidence of Gas Council involvement

	£
Reported capital employed at 31 March 1972	2,012,155,000
Less: Net increasing effect on the reported capital employed of those accounting choices made for the Area Boards for which there was no evidence of Gas Council involvement (Table 6.23)	1,577,000
Restated capital employed at 31 March 1972	2,010,578,000

Table 6.26

Calculation of the effect on the net return on average capital employed for the year ended 31 March 1972 of those accounting choices made for the Area Boards during the year ended 31 March 1972 for which there was no evidence of Gas Council involvement

	As reported in published accounts	Adjusted for the restated net surplus (Table 6.24) and for the restated capital employed (Table 6.26)
	£	£
Interest	124,782,000	124,782,000
Net surplus for year (Table 6.24)	15,119,000	13,033,000
Net return for financial target purposes	139,901,000	137,815,000
Capital employed at 1 April 1971	1,868,258,000	1,868,258,000
Capital employed at 31 March 1972 (Table 6.25)	2,012,155,000	2,010,578,000
Average capital employed during year	1,940,206,000	1,939,418,000
Return on average capital employed	7.211%	7.106%

6.3.5 Explanations for the other accounting choices made for the Area Boards

As can be seen from Tables 6.22 and 6.23 different accounting choices were made for different Area Boards. This is consistent with these accounting choices having been made independently by their individual Area Boards.

As can be seen from Table 6.26 these accounting choices increased the net return on average capital employed by 0.105%. As can be seen from Table 6.21 the accounting choices made for the Gas Council or for the Area Boards at the request of the Gas Council <u>decreased</u> the net return on average capital employed by 0.419%. This is also consistent with these accounting choices having been made independently by the individual Area Boards.

If these accounting choices were made independently by the individual Area Boards then these accounting choices cannot be explained by the evidence collected for this study as that evidence only purports to describe the pressures on the gas industry as a whole. The pressures on the individual Area Boards may have been different.

6.4 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1973

This section described the investigation of the accounting choices made during the year ended 31 March 1973. The evidence collected up to 31 March 1973 which relates to the two explanatory hypotheses is described in section 6.4.1. The effect of the accounting choices is shown in section 6.4.2 and the explanations for these accounting choices are given in section 6.4.3.

6.4.1 Evidence to 31 March 1973

As a result of the controversy relating to Clause 16 of the Gas Bill 1972 (described above) both the government and the opposition proposed amendments to that Clause at the Standing Committee stage (HC Standing Committee B 1971/72 Vol II cols 829-862). Although the opposition objected in principle to the Clause (cols 830-832) their two amendments (col 829) were aimed at ensuring that any such transfer was discussed in

Parliament. Both opposition amendments were defeated (cols (861-862). The government's amendment (cols 829-830) which was accepted (cols 861-864) changed Clause 16 to read as follows :

> If in any financial year of the Corporation there is an excess of the revenue of the Corporation over the total sums properly chargeable by them to revenue account, the Secretary of State may with the approval of the Treasury direct the Corporation to pay over to him so much of that excess as appears to him, after consultation with the Corporation, to be -
>
> (a) attributable to the carrying on, whether by the Corporation or by any subsidiary of theirs, of activities falling within paragraph (a) or (b) of section 2(2) of this Act, and
> (b) surplus to the Corporation's requirements;
>
> and it shall be the duty of the Corporation to comply with any such direction :
>
> Provided that no such direction shall be given as respects any financial year unless the total of the sums standing to the credit of the Corporation's reserves at the beginning of that year exceeds 10 per cent of the value at the beginning of that year of their net assets as for the time being defined for the purposes of this section by the Secretary of State. [HC Bill 1971/72 (148)]

The activities referred to in (a) above are the Corporation's oil and gas activities.

The Minister for Industry, Mr Emery, attempted to establish the reasonableness of the new Clause 16 by pointing out that at 31 March 1971 the industry's net assets stood at over £1,800m which meant that reserves would have to grow to £180m before the Government's powers under Clause 16 came into effect (col 853). According to Mr Emery (col 857) the gas industry's reserves were only £6.6m in 1971.

The opposition pointed out that they thought the management of the gas industry would be unhappy with Clause 16 both in its original form (col 840) and in its amended form (col 860). Mr Emery replied (col 860) that there had been consultation with the industry and others on the Government's Amendment and "that the Amendment goes a long way, if not entirely, to meet objections" (col 860). Mr Varley was not impressed with Mr Emery saying that the gas industry was better pleased with this Amendment than the Clause as it stood. He expressed his feelings as follows :

> It is like the man who was being hanged and found out at last that he was only to be tortured and he was grateful for that. I am sure that they still object to this as violently as they did before (col 861).

There were no further changes to Clause 16 and it became Section 16 of the Gas Act 1972 which received Royal Assent on 9 August 1972.

In early September 1972 the national press publicised rumours that the gas industry had government approval for an overall increase in the price of gas of 5% or more (Gas World, 16 September 1972, p 205).

When presenting the annual report and accounts for both the year ended 31 March 1970 and the year ended 31 March 1971 the Chairman of the Gas Council had argued that a price rise was required because the industry had failed to meet its financial target in these years. As already noted the reported returns were 6.5% for the year ended 31 March 1970 and 6.2% for the year ended 31 March 1971 against the target of 7% over the quinquennium. During the year ended 31 March 1972 the industry reported a return on average capital employed of 7.2% which exceeded the target by 0.2%. This meant that the Chairman, Mr Arthur Hetherington had to change his argument for a price rise. At the press conference on 10 October 1972 to present the annual report and accounts for the year ended 31 March 1972 he pointed out that the industry was still about £20m short of the overall surplus necessary to achieve an annual average return of 7% over the first three years of the quinquennium. He further justified the proposed price rise on the basis that there was :

> still a great need to build up reserves for the future and to increase the proportion of new capital expenditure which is being met from internal resources (*Financial Times*, 11 October 1972, p 36).

The press reports the day after the publication of the annual report and accounts for the year ended 31 March 1972 (11 October 1972) concentrated more on the possible future price rise than on the contents of the financial statements. The headlines in those national newspapers, which carried a report, suggested something amiss about the gas industry wanting a price rise when its sales and profits were improving :

The Times (p 19)	:	Gas charges may rise despite jump in sales
The Guardian (p 15)	:	Gas Council profit improves but its prices may rise
Financial Times (p 36)	:	£15m gas surplus "not enough"

The percentage of total space in these reports in which prices were adopted as a theme was as follows : *The Times*, 42%; *The Guardian*, 80%; and the *Financial Times*, 66%. None of the press reports made any reference to the accounting choices made during the year ended 31 March 1972.

Unfortunately from the gas industry's point of view this proposed price rise had to be abandoned because of the general restraint in the autumn of 1972 caused by the Government's Counter Inflation Programme which started on 6 November 1972.

In his Budget Statement on 6 March 1973 (852 HC Deb 1972/73 col 235-280 Oral Answers) Mr Barber announced various measures which would lead to increases in the public sector borrowing requirement. He acknowledged that "the large borrowing requirement in 1973-74 poses a considerable financing task for the authorities" (col 254).

6.4.2 Effect of the accounting choices

All the accounting choices made during the year ended 31 March 1973 are described in Appendix D. The effects of these accounting choices on the net surplus for the year ended 31 March 1973 are shown on Table 6.27. The effects on the capital employed at 31 March 1973 are shown on Table 6.28. Tables 6.27 and 6.28 are derived from Tables D1 and D2 in Appendix D.

The restatement of the net surplus for the year ended 31 March 1973 is shown on Table 6.29, the restatement of the capital employed at 31 March 1973 is shown on Table 6.30 and the restatement of the return on average capital employed is shown on Table 6.31.

The accounting choices made during the year ended 31 March 1973 had the effect of :

(1) decreasing the net surplus for the year ended 31 March 1973 by approximately £19,746,000 (Table 6.27) from £25,346,000 to £5,600,000 (Table 6.29) which is a decrease of 77.91%;

(2) decreasing the capital employed at 31 March 1973 by approximately £19,746,000 (Table 6.28) from £2,071,346,000 to £2,051,600,000 (Table 6.30) which is a decrease of 0.95%, and

(3) decreasing the return on average capital employed for the year ended 31 March 1973 by 0.931% from 8.249% to 7.318% (Table 6.31).

Table 6.27

Effect on the net surplus for the year ended 31 March 1973 of the accounting choices made during the year ended 31 March 1973

	Increasing	Decreasing
Balance of compensation written off as an extraordinary item		4,686,000
Unamortised balance on pre-vesting fixed assets written off as an extraordinary item		2,027,000
Accelerated amortisation of deferred charges: conversion to natural gas		11,125,000
Accelerated amortisation of loan expenses		1,908,000
Decreasing effect on reported net surplus		19,746,000

Table 6.28

Effect on the capital employed at 31 March 1973 of the accounting choices made during the year ended 31 March 1973

	Increasing	Decreasing
Balance of compensation written off as an extraordinary item		4,686,000
Unamortised balance on pre-vesting fixed assets written off as an extraordinary item		2,027,000
Accelerated amortisation of deferred charges: conversion to natural gas		11,125,000
Accelerated amortisation of loan expenses		1,908,000
Decreasing effect on capital employed		19,746,000

Table 6.29

Restatement of the net surplus for the year ended 31 March 1973 for the effect of the accounting choices made during the year ended 31 March 1973

	£
Reported net surplus for the year ended 31 March 1973	5,600,000
Add: Decreasing effect on the reported net surplus of the accounting choices made during the year (Table 6.27)	19,746,000
Restated net surplus for the year ended 31 March 1973	25,346,000

Table 6.30

Restatement of the capital employed at 31 March 1973 for the effect of the accounting choices made during the year ended 31 March 1973

	£
Reported capital employed at 31 March 1973	2,051,600,000
Add: Decreasing effect on the reported capital employed of the accounting choices made during the year (Table 6.28)	19,746,000
Restated capital employed at 31 March 1973	2,071,346,000

Table 6.31

Calculation of the effect on the net return on average capital employed for the year ended 31 March 1973 of the accounting choices made during the year ended 31 March 1973

	As reported in published accounts	Adjusted for the restated net surplus (Table 6.29) and for the restated capital employed (Table 6.30)
	£	£
Interest	143,213,000	143,213,000
Net surplus for year (Table 6.29)	5,600,000	25,346,000
Net return for financial target purposes	148,813,000	168,559,000
Capital employed at 1 April 1972	2,015,500,000	2,015,500,000
Capital employed at 31 March 1973 (Table 6.30)	2,051,600,000	2,071,346,000
Average capital employed during year	2,033,550,000	2,043,423,000
Return on average capital employed	7.318%	8.249%

6.4.3 Explanation for the accounting choices

The self-financing ratio for the four years ended 31 March 1973 averaged 48% (Gas Council, Annual Report and Accounts for the year ended 31 March 1970, p 25; 1971, p 23; 1972, p 22 and the BGC's Annual Report and Accounts for the year ended 31 March 1973, p 53). Although civil servants may have considered this ratio to be satisfactory, particularly as the self-financing ratio for the year ended 31 March 1973 had risen to 85%, they would probably still have preferred to see gas prices rise so that even more of the gas industry's future capital expenditure would be financed by the gas consumer rather than by borrowing from the Treasury. As Mr Barber acknowledged in his Budget Statement on 6 March 1973 (section 6.4.1) the large increase in the public sector borrowing requirement had presented the Treasury with a "considerable financing task". For this reason it seems likely that civil servants would have wanted to see gas prices rise in the future provided that such a rise did not conflict with the Government's Counter Inflation Programme.

The evidence in section 6.4.1 indicated that :

1) gas industry management wanted to increase gas prices;

2) the press drew their readers' attention to the proposed rise in gas prices but ignored the accounting choices made for the year ended 31 March 1972 although these had a significant effect in reducing both the reported surplus and reported net return on average capital employed for the year ended 31 March 1972.

The effect of the accounting choices made during the year ended 31 March 1973 is shown in section 6.4.2. These accounting choices had the effect of reducing the reported surplus for the year by approximately £19,746,000 (Table 6.27) and the return on average capital employed for the year by 0.9% from 8.2% to 7.3% (Table 6.31).

From a pricing perspective these accounting choices could possibly be explained on the same basis as in the previous year. Gas industry management and civil servants might have expected that if the gas industry had reported a 8.2% return on average capital employed for the year ended 31 March 1973 against the financial target of 7% and at the same time announced an increase in gas prices then this would have given the press and/or non-government politicians the opportunity to create a crisis for the gas industry and the Government.

Income-decreasing accounting choices made during the year ended 31 March 1973 which reduced the reported return on average capital employed for the year from 8.2% to 7.3%, are consistent with the explanation that they were chosen by the Gas Council and by civil servants in order to help justify, or at least not make more difficult, the arguments for a future increase in gas prices.

The accounting choices during the year ended 31 March 1972 are consistent with the explanation that they had been chosen in order to avoid a wealth transfer to the Treasury as a result of Clause 16 of the Gas Bill 1972. However, the amendments to that Clause before it became Section 16 of the Gas Act 1972 probably removed any motivation to make income decreasing accounting choices for that reason during the year ended 31 March 1973. Section 16 of the Gas Act 1972 would only come into effect if the reserves of the gas industry at the beginning of the year exceeded 10% of its net assets at the beginning of the year. Given that the industry's net assets at 1 April 1972 amounted to £2,012,155,000 and its reserves at that date to only £16,488,000 or 0.8% the accounting choices made during the year cannot be explained by the gas industry's desire to avoid a wealth transfer resulting from Section 16.

The review of relevant events up to 31 March 1973 did not identify any other political costs which the gas industry or the Department of Trade and Industry might suffer as a result of the gas industry's published accounts for the year ended 31 March 1973. Thus the accounting choices made during the year ended 31 March 1973 cannot be explained on the basis that they have been chosen in order to avoid political costs.

6.5 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1974

This section describes the investigation of the accounting choices made during the year ended 31 March 1974. The evidence collected up to 31 March 1974 which relates to the two explanatory hypotheses is described in section 6.5.1. The effect of the accounting choices is shown in sections 6.5.2 and the explanations for these accounting choices are given in section 6.5.3. The gas industry's lobbying behaviour during the year is described and discussed in section 6.5.4.

6.5.1 Evidence to 31 March 1974

The Counter-Inflation Act, which created the Price Commission and defined its powers and functions, received the Royal Assent on 22 March 1973. The Commission formally came into being on 2 April 1973 although the standstill on prices (Stage 1) continued until 28 April 1973 in order to cover the changeover to VAT. Stage 2 commenced on 29 April 1973. The Commission was charged by the Act with ensuring that the provisions of the Price and Pay Code relating to prices and charges were implemented. Although the Commission's powers were derived from the Act, the detailed provisions relating to the Commission's functions appeared in Statutory Orders. There were a number of these Orders. The principle ones and their relevance to the gas industry are described below :

(1) The Counter-Inflation (Price and Pay Code) Order 1973 (No 658) :

This was the Order which contained the Price and Pay Code in its final form. Para 3 described the general principles relating to prices which included the aim of limiting :

the extent to which prices may be increased on account of increased costs.

> And para 16 which turned out to be crucial to the BGC stated that :
>
> Prices which are within the control may not be increased unless there is an increase in total costs per unit of output. No increase may exceed the increase in total costs per unit.

(2) The Counter-Inflation (Notification of Increases in Prices and Charges) Order 1973 (No 664) : This Order required large firms to notify the Price Commission in advance of proposed increases in prices and charges and required the Commission to approve, qualify or reject the proposed increases. The BGC was one of the firms covered by this Order.

(3) The Counter-Inflation (Prices and Charges) (Information) Order 1973 (No 778) : This Order described the obligation on large and medium businesses to submit periodical returns to the Price Commission. Para 4 of that Order specified that these returns must be reconcilable with the annual accounts. This Order also applied to the BGC.

The Price Commission felt it was important that its role should be clearly understood and in para 4.2 of its first report (Price Commission, 1973) it described that role as follows :

> It is not in any sense of the term deciding whether proposed increases in prices are reasonable or unreasonable. It cannot reject an application because it thinks that in social or economic terms it would be wrong for the price in question to be increased : or even because it felt that on general grounds an increase in the price was unjustified. The Code is a statutory instrument and the function of the Commission is to administer it. The Code gives the Commission no general discretionary powers. It follows that if an application is within the terms of the Code the Commission must allow it. Equally if the application is not within the terms of the Code the Commission must reject it.

On 12 June 1973 the BGC lodged an application for a 5 per cent rise in gas prices from 1 September 1973 which was estimated to bring in

£30m a year in additional revenue if accepted (Financial Times, 13 June 1973, p 1). The BGC justified the proposed price rise as follows :

> Increased efficiency and major growth have kept the industry profitable but British Gas cannot escape the effect of the very severe inflation which has so dramatically affected the economy as a whole. Last year's proposals for price increases designed to the financial requirements of the industry were overtaken by Stage 1 of the counter inflation policy. An application for price increases has now been lodged with the Price Commission. The proposals which are designed to conform to the limitations imposed by Stage 2 of the Price and Pay Code are based on allowable costs and do not exceed 5 per cent (Gas World, 16 June 1973, p 515).

This proposed price rise had been discussed with the civil servants from the Department of Trade and Industry prior to submission (Financial Times, 13 June 1973, p 1) which suggests that it had Ministerial approval (Gas World, 14 July 1973, p 19).

On 6 July 1973 the Price Commission announced that it had rejected the BGC's proposed price rise on the basis that costs per unit in the industry had fallen (The Guardian, 7 July 1973, p 1). According to The Guardian report the BGC "reacted furiously" and claimed that the price rise had been lost on a "technicality". The Corporation was reported as pointing out that the Price Commission had ignored the fact that income per unit had fallen at an even greater rate than costs per unit so that overall the industry was losing money. The BGC claimed that it had pointed out this "major defect" to the government when the code was first drafted and it understood that this had been recognised. The Corporation was therefore "greatly surprised and disappointed" that its proposed price rise had been rejected on this basis (The Guardian, 7 July 1973, p 1).

The annual report and accounts for the year ended 31 March 1973 were published on 4 September 1973. As already noted the reported return on average capital employed for the year ended 31 March 1973 was 7.3% against the target of 7%. This made it difficult for the BGC to argue that a price rise was required in order to meet the financial target. Instead it was argued in the following extract from the "Financial survey" in the unaudited section of the annual report and accounts that the financial target had become inadequate for the industry's financial needs.

> It must ....be emphasised that the target of 7 per cent, incorporating as it does the interest element, has become inadequate for the industry's financial needs because of the steep rise in interest rates since 1969. It is essential that adequate provision is made for the cost of replacing existing assets out of current revenue either by allocations from profits to reserve, which at the end of the year was only £25.8 million, or by a specific provision in the accounts. It is estimated that an appropriate amount for this purpose would be of the order of 2 per cent on net assets.

The author has calculated that a 2% return (after interest) on average capital employed for the year ended 31 March 1973 (2% of £2,033.6m) would have allowed the BGC to earn profits of £40.7m against the reported profit for that year of only £5.7m. Such a target would have given the BGC a plausible argument for a price rise.

At the press conference on 4 September 1973 to present the BGC's published accounts for the year ended 31 March 1973, Mr Arthur Hetherington, chairman of the BGC, was severely critical of the Price Commission for rejecting their proposed price rise in July :

> We are particularly disturbed that the application under the Price Code should have been rejected on what we regard as a technicality to which we had drawn attention when the Code was being drafted. It cannot make sense in my view that we should not be able to raise prices when we are incurring heavy increases in costs which will cause us to move from a small profit last year to a large loss this year ....It is difficult to believe that an industry should be deliberately forced into a loss-making situation through the operation of the Code (Financial Times, 5 September 1973, p 44).

In justifying the need for a price rise the Chairman of the BGC appeared to play down the 7.3% reported return on average capital employed for the year ended 31 March 1973 which was probably an embarrassment to him exceeding as it did the financial target of 7%. Instead he justified the price rise on the basis of the large loss expected for the year ended 31 March 1974.

The press reports the day after the annual report and accounts were published (5 September 1973) concentrated on the possible future price rise and the BGC's expected loss during the year ended 31 March 1974. The headlines in the national newspapers were as follows :

<u>The Times</u>(p 23)	:	Gas industry to lodge further application for increase in tariffs
<u>The Guardian</u> (p 1)	:	Gas loss may put up price
<u>The Guardian</u> (p 15)	:	Gas Corporation likely to show loss of £35m
<u>The Daily Telegraph</u> (p 7)	:	GAS CHIEF ATTACKS REFUSAL OF 5 pc TARIFF INCREASE
<u>Financial Times</u> (p 44)	:	British Gas heading for loss of £35m to £45m this year
<u>Daily Mirror</u> (p 11)	:	GAS PRICE RISE IS ON THE WAY: Massive loss will force new call for increases
<u>Daily Express</u> (p 5)	:	Flare-up over gas prices
<u>Daily Mail</u> (p 11)	:	Gas boss blames prices ruling
<u>The Sun</u> (p 2)	:	Bid for high speed gas rise

The percentage of total space in these reports in which prices were adopted as a theme was as follows : <u>The Times</u>, 62%; <u>The Guardian</u>, 66%; <u>The Daily Telegraph</u>, 79%; <u>Financial Times</u>, 43%; <u>Daily Mirror</u>, 100%; <u>Daily Express</u>, 100%; <u>Daily Mail</u>, 100%; and <u>The Sun</u>, 100%. None of the press reports made any reference to the accounting choices made during the year ended 31 March 1973 although, as already noted, these had the effect of reducing the reported return on average capital employed by 0.9% from 8.2% to 7.3%. This tends to undermine Likierman's (1983, p 145) argument that "it is the media which probably act as the most influential watchdog" regarding the published accounts of the nationalised industries.

On 1 November 1973 a new statutory instrument the Counter-Inflation (Price and Pay Code) (No 2) Order 1973 (No 1785) became the basis of Stage 3 of the government's counter-inflation policy. the significance of this statutory instrument for the BGC and its possible effect on the BGC's accounting choices will be discussed in section 6.5.3.

On 26 November 1973 the BGC applied to the Price Commission for an increase in gas prices of approximately 7.5% from 1 January 1974 (Gas World, January 1974, p 61). On 21 December 1973 permission for that rise in gas prices was granted which the BGC estimated would bring in additional revenue of about £55m in a full year (Financial Times, 22 December 1973, p 24).

The Statutory Corporations (Financial Provisions) Act 1974 was introduced on 8 February 1974. Section 1(1) of that Act specified that compensation should be paid by the appropriate Minister to those corporate bodies which had in any of the financial years 1971-73 incurred deficits as a result of compliance with national policy relating to the limitation of prices. Schedule 1 to that Act specified that £33,381,000 be paid to the BGC as compensation for those losses incurred by the gas industry in the years ended 31 March 1971, 1972, and 1973 which arose as a result of government restraint of prices. Section 2 specified that compensation should be paid to those corporate bodies which incurred deficits for the years ended 31 March 1974 and 31 March

1975 as a result of price restraint. The amount of compensation to be paid for each of these two years was to be equal to each entity's reported loss in each year's audited financial accounts.

As a result of the general election on 28 February 1974 Harold Wilson formed a minority government. In his Budget Statement on 26 March 1974 (871 HC Deb 1974 col 294) Denis Healey, the new Chancellor of the Exchequer, announced a "massive reduction in the public sector's borrowing requirement, a reduction of about £1,500 million compared with 1973-74". He also announced that the new government had asked the BGC "to refrain from putting forward any price increase" (col 301). This was justified on the basis that the new government wanted to ease the financial pressures on the domestic consumer at a time when they had already given permission for coal and electricity increases (cols 299-301).

6.5.2 Effect of the accounting choices

All the accounting choices made during the year ended 31 March 1974 are described in Appendix E. The effects of these accounting choices on the net loss for the year ended 31 March 1974 are shown on Table 6.32. The effects of these accounting choices on the net assets at 31 March 1974 are shown on Table 6.33. Tables 6.32 and 6.33 are derived from Tables E1 and E2 in Appendix E.

The restatement of the net loss for the year ended 31 March 1974 is shown on Table 6.34, the restatement of the capital employed at 31 March 1974 is shown on Table 6.35 and the restatement of the return on average capital employed is shown on Table 6.36.

The accounting choices made during the year ended 31 March 1974 had the effect of :

(1) increasing the net loss for the year ended 31 March 1974 by approximately £13,621,000 (Table 6.32) from £27,879,000 to £41,500,000 (Table 6.34) which is an increase of 48.86%;

(2) decreasing the capital employed at 31 March 1974 by approximately £13,621,000 (Table 6.33) from £2,120,121,000 to £2,106,500,000 (Table 6.35) which is a decrease of 0.64%, and

(3) decreasing the return on average capital employed for the year ended 31 March 1974 by 0.635% from 6.043% to 5.408% (Table 6.36).

Table 6.32

Effect on the net loss for the year ended 31 March 1974 of the accounting choices made during the year ended 31 March 1974

	Increasing £	Decreasing £
Changes in various depreciation rates	9,200,000	
Non-capitalisation of overheads	3,700,000	
Depreciation saved on non-capitalisation of overheads		207,200
Reduction of hire purchase interest earned	928,000	
	13,828,000	207,200
	207,200	
Net increasing effect on reported net loss	13,620,800	

Table 6.33

Effect on the capital employed at 31 March 1974 of the accounting choices made during the year ended 31 March 1974

	Increasing £	Decreasing £
Changes in various depreciation rates		9,200,000
Non-capitalisation of overheads		3,700,000
Depreciation saved on non-capitalisation of overheads	207,200	
Reduction of hire purchase interest earned		928,000
	207,200	13,828,000
		207,200
Net decreasing effect on reported capital employed		13,620,800

Table 6.34

Restatement of the net loss for the year ended 31 March 1974 for the effect of the accounting choices made during the year ended 31 March 1974

	£
Reported net surplus for the year ended 31 March 1974	41.500,000
Less: Net increasing effect on the reported net loss of the accounting choices made during the year (Table 6.32)	13,621,000
Restated net loss for the year ended 31 March 1974	27,879,000

Table 6.35

Restatement of the capital employed at 31 March 1974 for the effect of the accounting choices made during the year ended 31 March 1974

	£
Reported capital employed at 31 March 1974	2,106,500,000
Add: Net decreasing effect on the reported capital employed of the accounting choices made during the year (Table 6.33)	13,621,000
Restated capital employed at 31 March 1974	2,120,121,000

Table 6.36

Calculation of the effect on the net return on average capital employed for the year ended 31 March 1974 of the accounting choices made during the year ended 31 March 1974

	As reported in published accounts	Adjusted for the restated net surplus (Table 6.34) and for the restated capital employed (Table 6.35)
	£	£
Interest	153,931,000	153,931,000
Net loss for year (Table 6.34)	(41,500,000)	(27,879,000)
Return for financial target purposes	112,431,000	126,052,000
Capital employed at 1 April 1973	2,051,600,000	2,051,600,000
Capital employed at 31 March 1974 (Table 6.35)	2,106,500,000	2,120,121,000
Average capital employed during year	2,079,050,000	2,085,860,000
Return on average capital employed	5.408%	6.043%

6.5.3 Explanations for the accounting choices

As noted in section 6.5.1 Mr Healey in his Budget Statement on 26 March 1974 announced a "massive reduction" of about £1,500 million in the public sector borrowing requirement for 1974/75 compared to 1973/74. In these circumstances it seems likely that civil servants would want to see gas prices rise after the end of the gas price freeze which was also announced in the Budget Statement. Otherwise the gas industry would have to finance its capital expenditure through increased borrowing from the Treasury which would increase the public sector borrowing requirement.

The evidence in section 6.5.1 indicated that gas industry management wanted to increase gas prices. That evidence also indicated that the accounting choices made for the year ended 31 March 1974 were to have a direct impact on the industry's future cash flows. That impact was dependent upon the rules of the Counter-Inflation (Price and Pay Code) (No 2) Order 1973 (No 1785) and upon section 2 of the Statutory Corporations (Financial Provisions) Act 1974.

Para 84 of the Counter-Inflation (Price and Pay Code) (No 2) Order 1973 (No 1785) applied only to the gas and electricity industries. It stated that :

> Where since the base date the average revenue per unit has fallen faster than the average costs per unit, tariffs may be increased by the amount necessary to restore the cash margin per unit of output to the level which applied at the base date. Where since the base date the average revenue per unit has fallen but average costs per unit have risen, the permissible increase in tariffs may include an element sufficient to restore average revenue per unit to the base date level in addition to an element calculated on the basis of allowable cost increases.

Para 21 of the Code stated that the base date was 30 April 1973 but where :

> The price of a particular product or of a range of related products has not been increased since 30 September 1972 that date may, at the option of the enterprise, be substituted for 30 April 1973.

As the BGC had not been able to increase its prices since 1 January 1972 it could have opted for September 1972 as its base date if it so desired.

As the submissions to the Price Commission remain confidential the researcher was unable to ascertain directly the exact basis of the price rise proposed by the BGC in November 1973. However, it seems clear from the Financial Surveys included in the annual report and accounts for the years ended 31 March 1973 and 31 March 1974 that whichever basis was opted for by the BGC one or other of the situations described in para 84 would apply.

According to the Financial Survey of the year ended 31 March 1973 included in the published report and accounts for that year (p 12) there was during that year a reduction of .61p from 7.83p to 7.22p in the average revenue per therm and a reduction of .47p from 7.64p to 7.17p per therm in the overall cost of gas supplied. According to the Financial Survey of the year ended 31 March 1974 (p 11) there was during that year a reduction of .20p from 7.22p to 7.02p in the average revenue per therm and an increase of .21p from 7.17p to 7.38p per therm in the overall cost of gas supplied. Thus during these two years there appeared to be a continued reduction in the average revenue per therm making para 84 relevant to the BGC regarding any submission to the Price Commission for a price rise.

If the BGC chose 30 September 1972 as its base date for the price rise proposed in November 1973 (which seems likely on the basis of the evidence below) it would probably have been possible for the corporation to have claimed that, since the base date, the average revenue per therm had fallen faster than the average costs per therm as shown below.

	30 Sept 1972	30 Sept 1973	Decrease
Average revenue per therm	7.52p	7.12p	(0.40p)
Average costs per therm	7.40p	7.27p	(0.13p)

The author has made the above calculations based on two assumptions:

(1) that the proposed price rise in November 1973 was based on accounting figures up to 30 September 1973, and

(2) that revenues and costs changed evenly through both the year ended 31 March 1973 and the year ended 31 March 1974.

In these circumstances para 84 stated that :

> tariffs may be increased by the amount necessary to restore the cash margin per unit of output to the level which applied at the base date.

This would appear to have motivated the BGC to make accounting choices during the year ended 31 March 1974 which either decreased revenue or increased costs.

There were three accounting choices made during the year ended 31 March 1974 (see Table 6.32). The method of release of hire purchase interest to revenue was standardised for all regions which had the effect of decreasing revenue by £928,000. There were changes in various depreciation rates which increased total costs by £9,200,000. The decision to cease capitalising overheads related to fixed assets constructed by the BGC increased total costs by a net £3,492,800. Thus these accounting choices were consistent with the explanation that they had been chosen in order to increase the price rise permitted under the Price Code if 30 September 1972 was chosen as the base date.

If the BGC chose 30 April 1973 as its base date for the price rise proposed in November 1973 it would probably have been possible for the corporation to have claimed that, since the base date, the average revenue per therm had fallen but average costs had risen as shown below :

	30 April 1973	30 Sept 1973	Increase (decrease)
Average revenue per therm	7.20p	7.12p	(0.8p)
Average costs per therm	7.19p	7.27p	0.8p

The author has made the above calculations based on two assumptions:

(1) that the proposed price rise in November 1973 was based on accounting figures to 30 September 1973 and

(2) that revenues and costs changed evenly through the year ended 31 March 1974.

In these circumstances para 84 stated that :

> the permissible increase in tariffs may include an element sufficient to restore average revenue per unit to the base level in addition to an element calculated on the basis of allowable cost increases.

This would appear to motivate the BGC to make accounting choices during the year ended 31 March 1974 that either decreased revenue or increased allowable costs.

It is not clear from the Price Code whether the overheads which were previously capitalised would have been accepted as an allowable cost. However, depreciation was specifically included in allowable costs [para 28(ii)(d)]. Thus at least two out of three accounting choices made during the year ended 31 March 1974 were consistent with the explanation that they had been chosen in order to increase the price rise permitted under the Price Code if 30 April 1973 was chosen as the base date.

The evidence in section 6.5.1 suggests that the civil servants had backed the BGC's proposed price rise of 5% in June 1973. Presumably they did so in order to reduce the pressure on the PSBR for the reasons described in the first paragraph of this section. The rejection of that proposed price rise by the Price Commission in July 1973 would therefore have been a disappointment to the civil servants. The disappointment of gas industry management is clear from section 6.5.1. Thus both civil servants and gas industry management had reasons for making accounting choices during the year ended 31 March 1974 which would increase the size of the price rise which would be acceptable to the Price Commission in November 1973. For the reasons described in the preceding paragraphs these accounting choices had to be income decreasing. Gas industry management and civil servants may also have felt that income decreasing accounting choices made during the year ended 31 March 1974 would help justify future proposed price rises even if the Price Code was changed.

As already noted in section 6.5.1 section 2 of the Statutory Corporations (Financial Provisions) Act 1974 required the Government to pay compensation equal to the financial loss reported in the audited accounts. The accounting choices made during the year ended 31 March 1974 increased the net loss by £13.6m from £27.9m to £41.5m which is an increase of 49%. Thus these accounting choices increased the compensation the BGC received from the Government by £13.6m or 49%. As explained above these accounting choices are consistent with the explanation that they were chosen in order to increase the size of the price rise allowable by the Price Commission in November 1973. However, the passing of the Statutory Corporations (Financial Provisions) Act 1974 in February 1974 ensured that the BGC received a further cash flow benefit from these accounting choices.

As a result of the increased payment for compensation these accounting choices had the effect of increasing the PSBR by £13.6 million. However, the civil servants may not have been too concerned as there may have been a net benefit to the PSBR from these accounting choices. The effect of these accounting choices in reducing gas industry borrowing and therefore the PSBR as a result of the December 1973 gas price rise may have been more than £13.6 million. That gas price rise was estimated to bring in £55 million in a full year (section 6.5.1).

6.5.4 Lobbying behaviour

On 26 July 1973 Mr J H Smith, the Member for Finance for the BGC lobbied on Exposure Draft 8 "Accounting for changes in the purchasing power of money". That submission included the following comments :

> There are two adjustments of significance in the revenue account, and these are on depreciation and on the holding of long-term loans. I welcome the adjustment on depreciation as being a reasonable approximation to replacement cost depreciation, but see no merit in the adjustment for holding of long-term loans which suggests a profitability for the industry which does not exist.

Thus the BGC supported the adjustment for depreciation which would decrease income but opposed the adjustment for purchasing power gains on long-term loans which would increase income. Thus this submission on Exposure Draft 8 is consistent with BGC's preference for accounting choices which would decrease income.

6.6 EFFECT ON QUINQUENNIUM OUTCOMES

As noted in section 6.1.1 the financial target set for the gas industry for the quinquennium ended on 31 March 1974 was to earn a net return (surplus and interest but excluding depreciation) of 7 per cent on average capital employed during the five-year period ended on 31 March 1974. The effect of the accounting choices made each year on the reported outcomes for that year has already been described.

However, as Holthausen and Leftwich (1983, p 104) point out :

> most accounting technique choices are timing choices because they shift revenues or expenses among periods, without altering total revenue and expenses over those periods. Thus, the increase-

decrease dichotomisation does not fully reflect the decision being made.

Over the life of an accounting entity these timing differences will make no difference to the total income reported. However, over a relatively short period of time, such as a quinquennium, this may not be the case.

Consequently, the researcher decided to investigate the effect of the accounting choices made during the quinquennium on all the outcomes for the quinquennium. Calculations were made of not only the effect of each accounting choice on the net surplus or deficit for the year in which the accounting choice was made but also the effect on the net surplus or deficit for each remaining year of the quinquennium. These calculations are shown in Appendices A to E. Calculations were made of not only the effect of each accounting choice on the net assets at the end of the year in which the accounting choice was made but also the effect on the net assets at the end of each remaining year of the quinquennium. These calculations are also shown in Appendices A to E.

Finally, calculations were made of not only the effect of the accounting choices on the net return on average capital employed for the year in which the accounting choice was made but also the effect on the net return on average capital employed for each remaining year of the quinquennium. These calculations are shown in Appendix F.

This section provides a summary of the investigation of the effect of the accounting choices made during the quinquennium on all the outcomes for the quinquennium. The effect of each year's accounting choices was investigated and is described separately in sections 6.6.1, 6.6.2, 6.6.3, 6.6.4 and 6.6.5.

It should be noted that all the accounting choices made during the three years ended 31 March 1972 are included in this section.

6.6.1 Effect of accounting choices made during year ended 31 March 1970

The effects of the accounting choices made during the year ended 31 March 1970 on the outcomes for the quinquennium are shown on Table 6.37.

Table 6.37 Effect of the accounting choices made during the year ended 31 March 1970 on the outcomes for the quinquennium

Year ended 31 March	Effect on net surplus		Effect on capital employed		Effect on net return on average capital employed	
	Incr	Decr	Incr	Decr	Incr	Decr
1970	1,435,000			10,993,000	0.1%	
1971	1,335,000			620,000	0.1%	
1972	1,883,000			3,414,000	0.1%	
1973	4,114,000		4,664,000		0.2%	
1974	2,035,000		5,343,000		No change	

The effects on the net surplus for each year were obtained from Table A11 and the effects on the capital employed for each year were obtained from Table A12. The effects on the net return on average capital employed for the years ended 31 March 1970, 31 March 1971, 31 March 1972, 31 March 1973 and 31 March 1974 were obtained from Tables F3, F6, F10, F14 and F18 respectively.

As can be seen from Table 6.37 the accounting choices made during the year ended 31 March 1970 did not have a significant effect on the net return on average capital employed for the year ended 31 March 1970 nor did they have a significant effect on the net return on average capital employed for the remaining years of the quinquennium.

6.6.2 Effect of accounting choices made during year ended 31 March 1971

The effects of the accounting choices made during the year ended 31 March 1971 on the reported outcomes for the quinquennium are shown on Table 6.38.

Table 6.38 Effect of the accounting choices made during the year ended 31 March 1971 on the outcomes for the quinquennium

Year ended 31 March	Effect on net surplus		Effect on capital employed		Effect on net return on average capital employed	
	Incr	Decr	Incr	Decr	Incr	Decr
1971		904,000		887,000	No change	
1972		760,000		1,647,000	0.1%	
1973		703,000		2,350,000	No change	
1974		991,000		3,341,000	No change	

The effects on the net surplus for each year were obtained from Table B1 and the effects on the capital employed for each year were obtained from Table B2. The effects on the net return on average capital employed for the years ended 31 March 1971, 31 March 1972, 31 March 1973 and 31 March 1974 were obtained from Tables F6, F10, F14 and F18 respectively.

As can be seen from Table 6.38 the accounting choices made during the year ended 31 March 1971 did not affect the net return on average capital employed for the year ended 31 March 1971 nor did they have a significant effect on the net return on average capital employed for the remaining years of the quinquennium.

6.6.3 Effect of accounting choices made during year ended 31 March 1972

The effects of the accounting choices made during the year ended 31 March 1972 on the reported outcomes for the quinquennium are shown on Table 6.39.

Table 6.39 Effect of the accounting choices made during the year ended 31 March 1972 on the outcomes for the quinquennium

Year ended 31 March	Effect on net surplus		Effect on capital employed		Effect on net return on average capital employed	
	Incr	Decr	Incr	Decr	Incr	Decr
1972		7,665,000		8,174,000		0.3%
1973		9,597,000		17,771,000		0.4%
1974		24,219,000		41,990,000		0.9%

The effects on the net surplus for each year were obtained from Table C4 and the effects on the capital employed for each year were obtained from Table C5. The effects on the net return on average capital employed for the years ended 31 March 1972, 31 March 1973 and 31 March 1974 were obtained from Tables F10, F14 and F18 respectively.

As can be seen from Table 6.39 the accounting choices made during the year ended 31 March 1972 had the effect of reducing the return on average capital employed by 0.3% in that year, by 0.4% in the year ended 31 March 1974 and by 0.9% in the year ended 31 March 1974. The accounting choices which had the largest effect in reducing the average capital employed for the year ended 31 March 1972 were the accelerated amortisation of displaced plant, the accelerated write-off of exploration expenditure, the non-capitalisation of interest and the non-capitalisation of salaries and related expenses. As can be seen from Table C4 and C5 these accounting choices had not begun to reverse by the end of the quinquennium. They had a major effect in reducing the return on average capital employed during the years ended 31 March 1973 and 31 March 1974.

6.6.4 Effect of accounting choices made during year ended 31 March 1973

The effects of the accounting choices made during the year ended 31 March 1973 on the reported outcomes for the quinquennium are shown on Table 6.40.

Table 6.40 Effect of the accounting choices made during the year ended 31 March 1973 on the outcomes for the quinquennium

Year ended 31 March	Effect on net surplus		Effect on capital employed		Effect on net return on average capital employed	
	Incr	Decr	Incr	Decr	Incr	Decr
1973		19,746,000		19,746,000		0.9%
1974		18,545,000		38,291,000		0.8%

The effects on the net surplus for each year were obtained from Table D1 and the effects on the capital employed for each year were obtained from Table D2. The effects on the net return on average capital employed for the years ended 31 March 1973 and 31 March 1974 were obtained from Tables F14 and F18 respectively.

As can be seen from Table 6.40 the accounting choices made during the year ended 31 March 1973 had the effect of reducing the return on average capital employed by 0.9% in that year and by 0.8% in the year ended 31 March 1974. As can be seen from Table D1 the accounting choices during the year ended 31 March 1973 to write off the balance of compensation and the unamortised balances on pre-vesting fixed assets as extraordinary items began to reverse during the year ended 31 March 1974. This had the effect of increasing income for the year ended 31 March 1974 by £1,581,914. However, the accounting choices during the year ended 31 March 1973 to accelerate the amortisation of deferred charges and to accelerate the amortisation of loan expenses did not begin to reverse during the year ended 31 March 1974. This had the effect of decreasing income for the year ended 31 March 1974 by £20,126,886. Thus the overall effect of the accounting choices made during the year ended 31 March 1973 on the income for the year ended 31 March 1974 was to decrease it by £18,544,972.

6.6.5 Effect of accounting choices made during year ended 31 March 1974

The effects of the accounting choices made during the year ended 31 March 1974 on the outcomes for the year ended 31 March 1974 are described in section 6.5.2. As this was the last year of the quinquennium these accounting choices obviously did not have any other effects on the quinquennium. These effects are reproduced in summarised form in Table 6.41.

Table 6.41

Year ended 31 March	Effect on net loss		Effect on capital employed		Effect on net return on average capital employed	
	Incr	Decr	Incr	Decr	Incr	Decr
1974	13,621,000			13,621,000	0.6%	

6.7 CUMULATIVE EFFECT ON RETURN ON CAPITAL EMPLOYED

Table 6.42 overleaf, which is based on Tables 6.37, 6.38, 6.39, 6.40 and 6.41, shows the cumulative effect of the accounting choices made during the quinquennium on the reported net returns on average capital employed during the quinquennium.

Table 6.42 Cumulative effect on accounting choices made during the quinquennium on the reported net returns on average capital employed during the quinquennium

Accounting choices	1970	1971	1972	1973	1974
1970 - Table 6.37	+0.1%	+0.1%	+0.1%	+0.2%	No change
1971 - Table 6.38		No change	-0.1%	No change	No change
1972 - Table 6.39			-0.3%	-0.4%	-0.9%
1973 - Table 6.40				-0.9%	-0.8%
1974 - Table 6.41					-0.6%
	+0.1%	+0.1%	-0.3%	-1.1%	-2.3%
Outcome before accounting choices made in the quinquennium	6.4%	6.1%	7.5%	8.4%	7.7%
Reported outcome	6.5%	6.2%	7.2%	7.3%	5.4%
Financial target	7.0%	7.0%	7.0%	7.0%	7.0%

Presumably it was assumed in October 1969 when the financial target was set that the outcomes for each year of the quinquennium would be measured on the basis of the accounting choices used in the annual report and accounts for the year ended 31 March 1969 which were published in October 1969. If these accounting choices had been used throughout the quinquennium the outcomes for each year would have been different as shown in Table 6.42. For the last three years of the quinquennium these differences became significant. For the year ended 31 March 1972 the return on average capital employed was reduced by 0.3% from 7.5% to 7.2%.

For the year ended 31 March 1973 the return on average capital employed was reduced by 1.1% from 8.4% to 7.3%. For the year ended 31 March 1974 the return on average capital employed was reduced by 2.3% from 7.7% to 5.4% (a reduction of one third).

6.8 SUMMARY

This chapter has described the investigation of the accounting choices made during the quinquennium ended 31 March 1974. As noted in section 5.2 this study has assumed that civil servants had some involvement in making accounting choices for the gas industry. Limited evidence consistent with that assumption has been identified and is described in this chapter.

The evidence relating to the accounting choices made either for the Gas Council or for the individual Area Boards at the request of the Gas Council during the years ended 31 March 1970, 31 March 1971 and 31 March 1972 and the evidence relating to the accounting choices made for the BGC during the years ended 31 March 1973 and 31 March 1974 was not inconsistent with the two explanatory hypotheses, identified in section 5.2, which were used to focus the empirical study. During the years ended 31 March 1970 and 31 March 1971 when there was no need to justify or reduce criticism of a price rise nor a need to avoid political costs income decreasing accounting choices were not made. However, during the years ended 31 March 1972, 31 March 1973 and 31 March 1974 when such needs did exist income decreasing accounting choices were made. The effect of these income decreasing accounting choices was not insignificant reducing the gas industry's reported net income by 39.2%

for the year ended 31 March 1972, by 77.9% for the year ended 31 March 1973 and by 48.9% for the year ended 31 March 1974.

The investigation of the accounting choices made during the quinquennium ended 31 March 1974 identified two explanations for the accounting choices not covered by the two explanatory hypotheses derived from the US literature. The accounting choices made during the year ended 31 March 1970, which reduced the amount of displaced plant shown on the consolidated balance sheet, were consistent with the explanation that they had been made in order to reduce the likelihood of future criticism of government politicians, civil servants and gas industry management that the decision to exploit natural gas was not going to lead to lower gas prices as the gas consumer was going to have to bear the costs of obsolete gas manufacturing plant. The accounting choices made during the year ended 31 March 1974 were consistent with the explanation that they were made in order to increase the amount of compensation for price restraint payable under section 2 of the Statutory Corporations (Financial Provisions) Act 1974.

The hypothesised explanations for the accounting choices would only hold provided gas industry management and those civil servants involved in making the accounting choices believed that the other groups participating in the political process relating to the gas industry would not adjust for the accounting choices. The investigation described in this chapter provided no evidence that any of these groups had, in fact, made adjustments for the accounting choices, presumably because they thought that the marginal costs of adjusting exceeded the marginal benefits. Thus the investigation of the behaviour of the other groups participating in the political process relating to the gas industry did not provide evidence which was inconsistent with the hypothesised explanations for the accounting choices.

During the quinquennium ended 31 March 1974 the gas industry only lobbied on one proposed accounting standard, ED8 in July 1973. The positions adopted in that submission were consistent with gas industry management's apparent preferences for accounting choices which would decrease the industry's reported profits.

The investigation of the accounting choices for the quinquennium ended 31 March 1974 investigated the effect of the accounting choice on all the outcomes for the quinquennium. The accounting choices made during the years ended 31 March 1972 and 31 March 1973 were found to have a significant effect on the reported outcomes for the remaining years of the quinquennium.

Finally, the cumulative effect of the accounting choices made during the quinquennium on the reported net returns on average capital for each year of the quinquennium were calculated. For the last three years of the quinquennium these reported net returns were significantly reduced : for the year ended 31 March 1972 by 0.3% from 7.5% to 7.2%; for the year ended 31 March 1973 by 1.1% from 8.4% to 7.3%; for the year ended 31 March 1974 by 2.3% from 7.7% to 5.4%. Thus the cumulative effect of the accounting choices made during the quinquennium would appear to have had an impact on the usefulness of the comparison of the reported net return on average capital employed with the financial target.

The next chapter describes the investigation of the accounting choices and the submissions on proposed accounting standards made during the six years ended 31 March 1980.

CHAPTER 7 ACCOUNTING CHOICES 1975-1980

7.0 INTRODUCTION

This chapter describes the investigation of the accounting choices made during the six years ended 31 March 1980. Each year's accounting choices were examined separately and these investigations are described separately in sections 7.1, 7.2, 7.3, 7.4, 7.5 and 7.6. Brief concluding comments are provided in section 7.7.

The financial framework for the six years ended 31 March 1980 described in this chapter was different from that for the five years ended 31 March 1974 described in the previous chapter. A financial target was set for the quinquennium ended 31 March 1974 which was consistent with the recommendations of the 1967 White Paper (Cmnd 3437). For the six years ended 31 March 1980 described in this chapter a financial target was only set for one year - the year ended 31 March 1980.

7.1 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1975

This section describes the investigation of the accounting choices made during the year ended 31 March 1975. The evidence collected up to 31 March 1975 which relates to the two explanatory hypotheses formulated in section 5.2 is described in section 7.1.1. The effect of the accounting choices is shown in section 7.1.2 and the explanations for these accounting choices are given in section 7.1.3.

7.1.1 Evidence to 31 March 1975

As noted in section 6.5.1 Denis Healey announced in his Budget Statement on 26 March 1974 that he had asked the BGC "to refrain from putting forward any price increase". However, by June 1974 the BGC was lobbying for a price rise. On 26 June 1974 the Financial Times (p 44) carried a report titled "Gas chief calls for price rise". That report included the following :

> Confirming that the corporation expected to show a loss of about £40m in the last financial year, Sir Arthur said that prices would have to rise by around 10% if an even greater loss was not to be made this year ... The corporation was already in negotiations for an increase earlier in the year when the change of government led to a halt in the discussions. Although no further negotiations have since taken place the Department of Energy at least is known to favour granting the rise this year.

The unaudited sections of the BGC's annual report and accounts for the year ended 31 March 1974 published on 3 September 1974 were used by the BGC to lobby for a price rise. In the Foreword (p 7) Sir Arthur Hetherington stated :

> As a direct result of price restraint during a period of high inflation, we are announcing a very substantial loss in the year ended 31 March 1974 and warning of the danger of losses in subsequent years unless some modest price increases are permitted.

The Review of the Year (p 8) included the following :

> Soon after the end of the year HM Government asked the Corporation to refrain, for the time being, from increasing the price charged to domestic customers. Unless this policy is altered and the Corporation is allowed to increase prices to meet increases in costs, the financial position of the Corporation will deteriorate and it is likely that an increased loss will be incurred during the year ending 31 March 1975. The Corporation has made and will continue to make strong representations to the Secretary of State for a change in this policy so that the gas industry can recover a sound financial position and avoid accumulating losses. This can be done with the aid of a modest increase in charges.

The Financial Survey (p 11) summarised the history of governments' restraint of gas prices since 1967 and quantified the cumulative effect up to 31 March 1974 as follows :

> The cumulative effect of these restraints up to March 1974 has been to deny the Corporation income totalling some £110 million. Even after allowing for compensation from the Government of £74.9 million for the four years to 31 March 1974 this still leaves a ;balance of some £35 million lost to the industry when it was badly needed to strengthen its very low level of financial reserves at a time of continuing expansion, increasing demands for gas and high interest rates.

At the press conference on 4 September 1974 to present the BGC's annual report and accounts for the year ended 31 March 1974 Sir Arthur Hetherington attributed much of the blame for the loss of £41.5m to the price restraint policies of successive governments. He went on to say :

> We do not know whether we shall be able to get an increase. We have no arrangement with the Government. I can only say that, under the allowable costs formula of the prices code, if we were to go for an increase now it would be in the region of 10 per cent. I have to say that it is inevitable that the longer we have to wait for an increase the larger it will have to be (The Times, 4 September 1974, p 17).

The press reports the day after the annual report and accounts for the year ended 31 March 1974 were published (4 September 1974) concentrated more on the possibility of future price rises than on the contents of the financial statements. The headlines in the national newspapers were as follows :

The Times (p 1)	:	Gas price warning
The Times (p 17)	:	Pressure mounts for gas price rise after £41m loss by corporation
The Times (p 19)	:	Locating the faults in the Gas Corporation loss
The Guardian (p 1)	:	Warning of 10 pc rise in gas prices
The Daily Telegraph (p 2)	:	10 pc RISE FOR DOMESTIC GAS URGED
Financial Times (p 28)	:	British Gas expected to seek new tariff increase
Daily Mirror (p 22)	:	The gasman makes a loss of £41 million

The percentage of total space in these reports in which prices were adopted as a theme was as follows : The Times 65%; The Guardian 87%; The Daily Telegraph 88%; Financial Times 70% and The Daily Mirror 56%. None of the press reports made any reference to the accounting choices made during the year ended 31 March 1974 although these had the effect of reducing the reported return on average capital employed from 6% to 5.4%.

In an editorial on the same day titled "The policies of the gas price" (p 1) the Financial Times commented that "the political advantage of keeping gas cheap is easy to understand". The Daily Telegraph in its report above (4 September 1974) suggested that "Mr Varley, Energy Secretary, is determined to block the corporation's request until after a General Election".

The General Election on 10 October 1974 was won by the Labour Party. In his Budget Statement on 12 November 1974 the Chancellor of the Exchequer (Mr Healey) announced that he intended to let nationalised industries' prices rise, subject to the jurisdiction of the Price Commission, in order to phase out completely as quickly as possible the government's payments to the industries of compensation for price restraint (881 HC Deb 1974/75 col 268 Oral Answers).

Apparently as a result of Mr Healey's Budget Statement the following questions on future gas price increases were asked in the House of Commons on 18 November 1974 and 25 November 1974 respectively :

> Mr Rost asked the Secretary of State for Industry what is the estimated increase in domestic and industrial gas prices next year that will result from the Budget proposals.
>
> Mr Eadie : Any application for further price increases in the light of the Budget statement have yet to be formulated by the industries and considered by the Government and the Price Commission. It is

therefore impossible to give an estimate (881 HC Deb 1974/75 col 296 Written Answers).

Mr Skeet asked the Secretary of State for Energy when he proposes to increase gas prices.

Mr John Smith : As my right hon Friend the Chancellor of the Exchequer has already indicated, domestic gas prices are likely to rise in the new year (882 HC Deb 1974/75 col 5 Written Answers).

In its report for the period from 1 September 1974 to 30 November 1974 the Price Commission made the following comments on the reconciliation of the periodic returns submitted to it with the published annual accounts :

Article 5(1) of the Information Order requires that periodic returns of net profit margins, which are normally based on information in management accounts, should be reconcilable with the firm's annual accounts. The checking of these reconciliations has become an increasing part of the Commission's work. By this means the Commission are able to verify that an enterprise is accounting for all of its activities which are subject to control and can ensure that the figures reported in the periodic returns are on the same basis as that used in the annual accounts (which in turn should also have been used in arriving at the reference level figure).

So far it would appear that in most cases periodic returns, when taken together, form a reasonably accurate representation of the results appearing in the audited accounts of enterprises (Price Commission, Report for period 1 September 1974 to 30 November 1974, HC 125, 1974/75, para 3.14).

The above comments by the Price Commission are important to the present study as it is argued elsewhere (sections 6.5.3, 7.1.3, 7.2.3 and 7.3.3) that a factor which may have influenced the BGC's accounting choices was the desire to influence Price Commission decisions on whether or not to accept the BGC's proposals for price rises. This explanation for the BGC's accounting choices would only hold if the Price Commission's decisions were based on figures prepared on the same basis as those in the published accounts.

On 13 December 1974 the national press carried reports that the Price Commission had not intervened on the application by the BGC to increase gas prices by 12% from the first meter reading after 1 January 1975 (The Times, p 1; The Guardian, p 24; The Daily Telegraph, p 1; and the Financial Times, p 36).

On 20 December 1974 the Counter-Inflation (Price Code) Order 1974 (SI 2113) became the basis for Stage 4 of the government's counter-inflation policy. The significance of this statutory instrument for the BGC and its possible effect on the BGC's accounting choices will be discussed in section 7.1.3.

In his Budget Statement on 15 April 1975 Mr Healey acknowledged that the PSBR had increased significantly during the year ended 31 March 1975 (890 HC Deb 1974/75 cols 278-279). He claimed that the increases were largely due to the effects of inflation (col 279).

7.1.2 Effect of the accounting choices

All the accounting choices made during the year ended 31 March 1975 are described in Appendix G. The effects of these accounting choices on the net loss for the year ended 31 March 1975 are shown on Table 7.1 which is derived from Table G1 in Appendix G. The restatement of the net loss for the year ended 31 March 1975 is shown on Table 7.2. The accounting choices made during the year ended 31 March 1975 had the effect of increasing the net loss for the year ended 31 March 1975 by approximately £20,380,000 (Table 7.1) from £21,920,000 to £42,300,000 (Table 7.2) which is an increase of 93%.

Table 7.1

Effect on the net loss for the year ended 31 March 1975 of the accounting choices made during the year ended 31 March 1975

	Increasing £	Decreasing £
Accelerated amortisation of deferred charges: conversion to natural gas	16,600,000	
Accelerated amortisation of displaced plant	3,780,000	
Increasing effect on reported net loss	20,380,000	

Table 7.2

Restatement of the net loss for the year ended 31 March 1975 for the effect of the accounting choices made during the year ended 31 March 1975

	£
Reported net loss for the year ended 31 March 1975	42,300,000
Less: Increasing effect on reported net loss of the accounting choices made during the year (Table 7.1)	20,380,000
Restated net loss for the year ended 31 March 1975	21,920,000

7.1.3 Explanations for the accounting choices

As already noted in section 7.1.1 the Counter-Inflation (Price Code) Order 1974 (SI 2113) came into effect on 20 December 1974. Para 98,2(c) of that Price Code stated that a nationalised industry could increase prices by the amount necessary :

> to provide sufficient revenue in the accounting year in question to ensure a surplus in that year of 2 per cent calculated on turnover on controlled activities in that year; or at the option of the industry, a return of 10 per cent on net assets.

According to para 98,4(a)(ii) that surplus was to be after a deduction for depreciation and according to para 98,4(a)(iii) that depreciation was to include any amounts written off displaced plant and deferred charges which should "be calculated in accordance with accounting principles consistently applied by the industry concerned".

As noted in section 7.1.2 two accounting choices were made during the year ended 31 March 1975 which were (1) to accelerate the amortisation of displaced plant and (2) to accelerate the amortisation of deferred charges. These accounting choices had the effect of increasing the net loss for the year ended 31 March 1975 by £20,380,000 from £21,920,000 to £42,300,000, an increase of 93% (section 7.1.2).

The evidence to 31 March 1975 provides ample indication of the BGC's perceived need for a price rise. The accounting choices made during the year ended 31 March 1975 are consistent with the explanation that they were chosen in order to increase the size of the price rises the BGC could apply for under Stage 4. As an application under Stage 4 would likely be made during the year ended 31 March 1976 the BGC would be able to argue, if they so desired, that the accounting choices for displaced plant and deferred charges were consistent with those used in the previous year's published accounts (the year ended 31 March 1975).

Given that the Chancellor of the Exchequer (Mr Healey) had made it clear in his Budget Statement on 12 November 1974 that the Government intended to let nationalised industries' prices rise in order to phase out compensation for price restraint, and presumably also to ease the pressure on the PSBR, civil servants would tend not to be motivated to oppose accounting choices by the BGC which would enable the corporation to justify a larger price rise than it could otherwise have done.

As already noted in the review of relevant events to 31 March 1974, section 2 of the Statutory Corporations (Financial Provisions) Act 1974 required the Government to pay compensation equal to the financial loss reported in the audited accounts. The accounting choices made during the year ended 31 March 1975 increased the net loss by £20,380,000 from £21,920,000 to £42,300,000 which is an increase of 93%. Thus these accounting choices increased the compensation the BGC received from the Government by £20,380,000 or 93%. As explained above these accounting choices are consistent with the explanation that they were chosen in order to increase the size of the price rise which would be allowable by the Price Commission under Stage 4. However, section 2 of the Statutory Corporations (Financial Provisions) Act 1974 ensured that the BGC received a further cash flow benefit from these accounting choices.

As a result of the increased payment for compensation these accounting choices had the effect of increasing the PSBR by £20,380,000. However, the civil servants may not have been too concerned as there may have been a net benefit to the Treasury from these accounting choices. The effect of these accounting choices in reducing gas industry borrowing and therefore the PSBR as a result of the July 1975 gas price rise may have been more than £20,380,000. As noted in section 7.2 the rise in the price of gas was estimated to bring in £250 million in a full year.

7.2 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1976

This section describes the investigation of the accounting choices made during the year ended 31 March 1976. The evidence collected up to 31 March 1976 which relates to the two explanatory hypotheses is described in section 7.2.1. The effect of the accounting choices is shown in section 7.2.2 and the explanations for these accounting choices are given in section 7.2.3. The gas industry's lobbying behaviour during the year is described and discussed in section 7.2.4.

7.2.1 Evidence to 31 March 1976

On 24 June 1975 the national press carried reports that the BGC had notified the Price Commission of proposed increases of around 20% (The Daily Telegraph, p 1; Daily Mail, p 9).

At the press conference on 30 July 1975 to present the BGC's annual report and accounts for the year ended 31 March 1975 Sir Arthur Hetherington announced Price Commission approval for a 20 per cent rise in gas prices from the first meter reading after 1 October 1975. According to the Financial Times (31 July 1975, p 28) the :

> industry's latest price increase, which follows a £42.3m loss recorded by the corporation in the financial year 1974-75 is expected to bring in an additional £120m of revenue to the industry this year and some £250m in a full year.

The press reports the day after the annual report and accounts for the year ended 31 March 1975 were published (31 July 1975) concentrated more on the future price rise than on the contents of the financial statements. The headlines in the national newspapers were as follows :

The Times (p 17)	:	Go-ahead in October for 20p increase in gas prices
The Guardian (p 1)	:	Gas prices to rise as contract row flares
The Daily Telegraph (p 1)	:	GAS UP 28 pc AFTER LOSS OF £44m
Financial Times (p 8)	:	Deficit of £44m on higher sales last year
Financial Times (p 28)	:	Go-ahead for 20% gas price increases
Daily Mirror (p 2)	:	High-rise gas on way
Daily Mail (p 9)	:	State firms £660m in debt-and you pay
The Sun (p 2)	:	Gas prices will rocket by 20 pc

The percentage of total space in these reports in which prices were adopted as a theme was as follows : The Times 100%; The Guardian 96%; The Daily Telegraph 100%; Financial Times 55%; Daily Mirror 100%; Daily Mail 100% and The Sun 86%. The approach adopted by the press would seem to indicate their belief that their readers were more interested in future gas prices than in the contents of the financial statements for the year ended 31 March 1975. None of the press reports made any reference to the accounting choices made during the year ended 31 March 1975.

In April 1975, Sub-Committee B of the SCNI decided that its first inquiry should be into the tariff structures and pricing policies of electricity and gas. The greater part of the oral evidence was taken by the Sub-Committee between June and early August 1975 and the remainder in November. Most of the written evidence was received over the same period. The SCNI's report together with the Minutes of Proceedings of the Committee, Minutes of Evidence and Appendices was published in April 1976 (SCNI, 1976).

When questioned on 2 July 1975 as to whether gas prices should be set in line with long-run marginal costs in the natural gas system (Q 263) Mr J H Smith, the BGC's Member for Finance replied by describing long-run marginal costs as "one of those concepts that no one seems to be able to define. There are many definitions". He then informed the Sub-Committee that the BGC's pricing policy was to try to avoid any sharp increases in gas prices by writing off the £1,000 million of displaced plant and deferred charges while there were still supplies of low-cost gas from the Southern Basis of the North Sea.

In reply to a question on tariffs and long-run marginal costs (Q 531) on 5 November 1975 Mr Buckley of the BGC replied :

> we do not anticipate that the higher prices being paid for new purchases of gas will lead to a steep increase in gas tariffs because of the way we have managed the finances of the industry over the past few years. What we have done is to change our depreciation policy gradually over the last three or four years.... What we have done is to decide to write off the whole of our conversion expenditure....approaching £1,000 million altogether. We are writing that off over five years. This write off will just about coincide with the full impact of Frigg gas coming in ....

In answer to a later question (Q 536) on 5 November 1975 Mr Smith informed the Sub-Committee that he did not consider the BGC's reserves of £60 million to be satisfactory for a firm as large as the BGC. He claimed that industries of a similar size had reserves of £700-£800 million. He also argued that the BGC should finance more of its capital expenditure and that in order to achieve this the BGC would have to make bigger profits. He thought a profit of 4 per cent on turnover was what the BGC should aim at but recognised that Stage 4 of the Price Code only allowed 2 per cent on turnover.

In the House of Commons on 25 November 1975 the following exchange took place :

> Mr Lawrence asked the Secretary of State for Energy whether the recent increase in gas prices conforms with the Government's counter-inflation policy.
> Mr John Smith : Yes. This increase was in accordance with provisions of the Price Code, as well as reflecting the need, recognised in the Government's White Paper on "The Attack on Inflation", to increase nationalised industry prices this year in order to eliminate deficits (901 HC Deb 1975/76 col 35 Written Answers).

On 11 February 1976 Sub-Committee B of the SCNI took evidence from BGC top management on the BGC's published accounts for the year ended 31 March 1975 (SCNI, 1976a). The desire to increase cash flows was clear from the following response by Mr J H Smith, the BGC's Member for Finance, to a question (Q 3) on the desirable level of reserves :

> The position on reserves .... is that because of our not being able to achieve the right sort of profit levels, mainly because of price restraint, we have not been able to carry out obligations of putting money into reserves. Our view is that we should be able to build up sufficient reserves, very much in line with a major private enterprise concern, the aim being, of course, to be able to meet from internal reserves a much greater proportion of our future capital expenditure.

Mr Smith quantified the level of reserves he thought the BGC should be aiming at by the early 1980's as being five hundred million pounds (answers to Q3 and Q6).

The Government's policy on the financing of the nationalised industries' capital expenditure was stated in the Public Expenditure White Paper published in February 1976 (Treasury 1976) as follows :

> In future, the general aim will be for the nationalised industries to finance more of their capital expenditure from earnings, and to reduce their demands for borrowing and for grants ....

On 20 February 1976 at an energy conference organised by the Department of Energy the coal and electricity industries lobbied for a tax on gas (Department of Energy, 1976). For instance, Mr Arthur Hawkins, the Chairman of the Central Electricity Generating Board argued as follows :

> North sea gas .... has seriously eroded electricity's competitive position in the heating and cooking market. The under-pricing of gas is encouraging the rapid exhaustion of an irreplaceable premium fuel and chemical feedstock. In the meantime the country's coal stocks are piling up. And as we all know, it costs nothing to turn down the gas taps in the North Sea. Electricity believes that there is a case for revenue earning tax on all natural gas supplies landed in this country .... The Government I am sure could use the tax which could amount to several hundreds of millions of pounds a year, to create job opportunities, or to help poor people to pay their fuel bills (p 4).

In his Budget Statement on 6 April 1976 (909 HC Deb 1975/76 cols 232-283 Oral Answers) Denis Healey explained that the PSBR for the year ended 31 March 1976 was higher than expected mainly as a result of the under-estimating of the effect of inflation on public expenditure (col 236). He announced that improved methods of monitoring public expenditure were being developed including extensive use of cash limits (col 269).

7.2.2 Effect of the accounting choices

Only one accounting choice was made during the year ended 31 March 1976 and it is described in Appendix H. The effect of that accounting choice on the net profit for the year ended 31 March 1976 is shown on Table 7.3 which is derived from Table H1 in Appendix H. The restatement of the net profit for the year ended 31 March 1976 is shown on Table 7.4. The accounting choice made during the year ended 31 March 1976 had the effect of decreasing the reported net profit for the year ended 31 March 1976 by £48,100,000 from £73,200,000 to £25,100,000 (Table 7.4) which is a reduction of 65.7%.

Table 7.3

Effect on the reported net profit for the year ended 31 March 1976 of the accounting choice made during the year ended 31 March 1976

	Increasing	Decreasing £
Charging the cost of replacing certain categories of existing fixed assets to revenue		48,100,000

Table 7.4

Restatement of the net profit for the year ended 31 March 1976 for the effect of the accounting choice made during the year ended 31 March 1976

	£
Reported net profit for the year ended 31 March 1976	25,100,000
Add: Decreasing effect on reported net profit of the accounting choices made during the year (Table 7.3)	48,100,000
Restated net profit for the year ended 31 March 1976	73,200,000

7.2.3 Explanations for the accounting choices

The evidence in section 7.2.1 indicated that the Government wanted nationalised industries to reduce their demands for borrowing and grants, presumably to reduce the pressure on an increasing PSBR. In these circumstances it seems likely that civil servants would encourage the BGC to finance its capital expenditure from increased gas prices rather than from increased borrowing from the Treasury.

The evidence in section 7.2.1 indicated that BGC management wanted to raise gas prices for the same reason.

As noted in section 7.1.3 para 98, 2(c) of the Counter-Inflation (Price Code) Order 1974 (SI 2113) stated that a nationalised industry could increase prices by the amount necessary

> "to provide sufficient revenue in the accounting year in question to ensure a surplus in that year of 2 per cent calculated on turnover on controlled activities in that year; or at the option of the industry, a return of 10 per cent on net assets....."

According to para98, 4(a)(ii) that surplus should be after a deduction for depreciation.

In his evidence to the SCNI (SCNI, 1976) on 5 November 1975 Mr Smith of the BGC stated (Q 538) :

> "We cannot get the full 2 per cent on turnover at the moment because part of our replacement cost depreciation charge that I mentioned is not allowable by the Price Commission. We are only getting 1 per cent at the moment. We need another 3 per cent".

Mr Smith's evidence indicated that the BGC had used the replacement cost depreciation to try to increase the size of the price rise allowable under the rules of the Price Commission.

For the year ended 31 March 1976 the BGC made a surplus of 1.6 per cent calculated on turnover and a return on average net assets before interest of 8.6 per cent (BGC annual report and accounts, p 12). If replacement cost depreciation had not been charged during that year the reported surplus would have been £73,200,000 instead of £25,100,000 and the surplus as a percentage of turnover would have been 4.7 per cent and the return on average net assets before interest would have been 11 per cent. Presumably such high returns for the year ended 31 March 1976 would have made it impossible for the BGC to successfully apply to the Price Commission for a price rise under Stage 4.

Thus the accounting choices made during the year ended 31 March 1976 are consistent with the explanations that they were chosen by BGC management and by civil servants in order to influence the outcome of applications to the Price Commission for price increases under Stage 4.

The accounting choices made during the year ended 31 March 1976 cannot be explained on the basis that they were chosen in order to reduce or avoid political costs. Although the idea of a tax on gas was suggested in February 1976 this was after the BGC had made the decision to charge the cost of replacing certain categories of fixed assets to revenue. This accounting choice which was effective from 1 April 1975 was certainly made before 5 November 1975 when written evidence on the matter was provided to the SCNI (SCNI, 1976).

7.2.4 Lobbying behaviour

In his evidence to the SCNI (SCNI, 1976) Mr Smith of the BGC informed the SCNI that evidence had been given on behalf of the Corporation to the Sandilands Committee. In September 1975 the Sandilands Committee published its report (Sandilands Committee, 1975). The Preface by the Chairman included the following statement (p xv) :

> We decided not to publish either written evidence or the records of discussions since we felt our task would be facilitated if the issues were considered in an informal atmosphere. In addition, in view of the undertaking of confidentiality which we gave to those who submitted evidence to us, we have not published a list of their names.

Thus it was not possible for the author to inspect the submission by the BGC to the Sandilands Committee.

However, the main thrusts of that submission are reasonably clear from an inspection of Mr Smith's evidence to the SCNI (SCNI, 1976). On 5 November 1975 in response to Q 533 on how the BGC should account for inflation Mr Smith replied as follows :

> We gave evidence as a Corporation to the Sandilands Committee and the final recommendations of Sandilands are very close to the sort of evidence that we gave. There are points of difference. We certainly did not go along with the chartered accountants' CPP method and we believe that Sandilands has a great deal to commend it as far as our own industry is concerned.

The above comments by Mr Smith are consistent with his submissions in July 1973 on Exposure Draft 8 "Accounting for changes in the purchasing power of money". In that submission Mr Smith supported the adjustment for depreciation which would decrease income but opposed the adjustment for purchasing power gains on long-term loans which would increase income. As the effects on income of the Sandilands recommendations would all have been income decreasing the BGC submission would also appear to be consistent with the BGC's preference for accounting choices which would decrease income.

7.3 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1977

This section describes the investigation of the accounting choices made during the year ended 31 March 1977. The evidence collected up to 31 March 1977 which relates to the two explanatory hypotheses is described in section 7.3.1. The effect of the accounting choices is shown in section 7.3.2 and the explanations for these accounting choices are given in section 7.3.3. The gas industry's lobbying behaviour during the year is described and discussed in section 7.3.4.

7.3.1 Evidence to 31 March 1977

In June 1976 the Consultative Document on the Modifications to the Price Code (Department for Prices and Consumer Protection, 1976) recognised the argument of the Sandilands Committee that accounts drawn up on a historic cost basis "may conceal the fact that the firm is not making sufficient money even to replace the assets it has consumed" (para 5). The Consultative Document proposed that, while an accounting standard based on the Sandilands Committee's recommendations was being prepared, there should be a general marking-up of historic cost based depreciation charges. The proposed adjustment factor was 1.3 (para 8).

On 22 June 1976 the Department of Energy held a "National Energy Conference" (Department of Energy, 1976a). At the invitation of the Secretary of State for Energy a paper entitled "The case for a planned energy policy" was prepared by Francis Morrell and Francis Cripps

(Department of Energy, 1976a) and made available for discussion at the conference.

In that paper the authors stated that :

> If energy policy continues on traditional lines, cheap gas will expand its domestic and industrial market at the expense of electricity, jeopardising the coal industry whose main outlet is now in fuel for power stations. Thus the steady build-up of new pits, vital for the long term, will be held back for short-term reasons. Conservation and development of renewable sources will proceed slowly. Offshore oil and gas reserves will be depleted rapidly (para 3).

To overcome these problems the authors recommended parity pricing of electricity and gas (para 7). The Chairman of the BGC, Sir Arthur Hetherington responded by arguing that if the parity pricing of gas and electricity was adopted the cost of gas would be at least doubled to some 14 million gas customers and give a savage increase to the cost of living (p 9).

On 19 July 1976 the Secretary of State for Energy (Dr J Dickson Mabon) was able to assure Mr Teddy Taylor that "it is not the Government's present intention to impose a gas tax" (915 HC Deb 1975/76 col 1272 Oral Answers).

At the press conference on 27 July 1976 to present the annual report and accounts of the BGC for the year ended 31 March 1976, Mr Denis Rooke stated that the BGC would be applying for as big an increase as possible under the new Price Code although it would abide by its promise not to raise charges before October (Financial Times, 28 July 1976, p 7). The press reports the day after the annual report and accounts were published (28 July 1976) concentrated more on the expected price rise of 10-12 per cent than on the contents of the financial statements. The headlines in the national newspapers were as follows :

The Times (p 17)	: British Gas aims to end its price freeze with 10 pc October rise
The Guardian (p 1)	: Dearer gas sought
(p 17)	: British Gas begins high-speed recovery
The Daily Telegraph (p 1)	: Gas Price Rise of 10 pc sought
Financial Times (p 7)	: Big price rise in autumn
Daily Mirror (p 1)	: GAS PRICE RISE BLAST
Daily Express (p 3)	: Gas prices to rise again
The Sun (p 4)	: 10 pc GAS PRICE RISE SHOCKER

As can be seen above three out of seven national newspapers carried all or part of their report on page 1 and every national newspaper carried a headline which focused on the future rise in gas prices. The percentage of total space in these reports in which prices were adopted as a theme was as follows : The Times 54%; The Guardian 35%; The Daily Telegraph 70%; Financial Times 25%; Daily Mirror 100%; Daily Express 79% and The Sun 100%. The approach adopted by the press would seem to indicate their belief that their readers were more interested in future gas prices than in the contents of the financial statements for the year ended 31 March 1976.

Only The Guardian pointed out that the BGC had chosen to charge the cost of replacing certain categories of existing fixed assets to revenue thereby reducing its surplus for the year ended 31 March 1976 from £73.2 million to £25.1 million. Given that this accounting change had a major effect on the profit for the year ended 31 March 1976 and given that it was relatively easy to identify and to understand, the press seem to have failed to fulfil their role as a "watchdog" (Likierman, 1983, p 145) regarding the published accounts of the BGC for the year ended 31 March 1976.

The Daily Mirror carried a comment from TUC chairman, Mr Cyril Plant, which attempted to create a crisis for the BGC and the Government by condemning the future gas price rise in the light of the £25.1 million profit. Mr Plant was quoted as saying :

> It is deplorable that in the same breath as they announce a £25 million profit the gas chiefs indicate a desire to increase prices.

Mr Platt could presumably have created more of a crisis if the profit figure had been £73 million as it would have been but for the accounting decision to charge the replacement cost of certain categories of existing fixed assets to revenue.

On 1 August 1976 the Counter Inflation (Price Code) Order 1976 (SI No 1170) came into operation. Para 41 allowed depreciation charges to be adjusted by a factor of 1.4 for the purposes of the Price Code.

On 10 September 1976 The Times (p 5) reported that the BGC had been given permission by the Price Commission to increase its charges by 12% from the first meter reading after 1 October 1976.

On 30 September 1976 the Price Commission published its Report for the period from 1 June to 31 August 1976 (Price Commission, 1976). That report included a section on nationalised industry prices (p 7) which pointed out that the provisions of the Price Code allow Ministers to reduce or extinguish price rises made by nationalised industries even if these increases were within the terms of the Price Code and had been approved by the Price Commission. The Price Commission felt that it was generally not appreciated that the power to control nationalised industry prices was firmly vested in the Minister responsible and not the Price Commission.

On 15 December 1976 Mr Healey, the Chancellor of the Exchequer, announced various Government measures aimed at improving the nation's economic situation. Included in the Government's measures aimed at reducing the Public Sector Borrowing Requirement (in order to satisfy the International Monetary Fund) was an agreement with the BGC that gas prices should be raised from April 1977 (922 HC Deb 1976/77 col 1529 Oral Answers). On 22 December 1976 Mr Denis Rooke, the Chairman of the BGC stressed that the proposed increase - which could be up to 10% - was most definitely not a tax on gas since the extra revenue that would be raised as a result of the new tariff increase would be used to repay high interest borrowing (The Times, 23 December, p 16).

The national press carried reports on 11 February 1977 that the 1 April price rises would be around 10-11% (The Guardian, p 14, The Daily Telegraph, p 2 and the Financial Times, p 7). The Daily Telegraph (p 2) pointed out that :

> under existing price code rules the corporation does not have a case to justify an average increase of around 10-11 pc that would be needed to meet the Government's objective. But ministers have powers to override the price code and the Price Commission to clear the increase.

On 11 March 1977 the Financial Times (p 1) reported that the

> Energy Secretary, Mr Tony Benn, intends to sign a special consent order next week to push through a 10 per cent gas price increase on April 1 despite the Price Commission's published verdict yesterday that it would be inadmissible under normal price controls .....The Commission said that it is the first time that the Government has used its special powers under Schedule 2 of the Counter Inflation Act to override a commission decision that a price rise is not justified .... The Government's decision to use the powers is likely to cause it considerable political difficulty. The TUC has made it clear that unless the Government takes a strong line on prices there is little chance of a third stage of pay restraint.

The Government's political difficulty over the gas price rise was reflected in the following exchanges in the House of Commons. On 14 March 1977 Mr Newbert asked the Secretary of State for Energy how many representations he had had on the impending increase in gas prices. Dr John A Cunningham replied : "My Department has received just over 150 up to today" (928 HC Deb 1976/77 col 29 Written Answers). On 17 March 1977 Dr Glyn asked the Secretary of State for Energy whether he took into account the impact of a 10% rise in gas prices on pensioners and those on fixed incomes before giving an instruction to British Gas to increase prices. Dr J Dickson Mabon replied : "We are aware of these considerations, but an increase in gas prices was necessary to reduce the level of Government financing" (928 HC Deb 1976/77, col 251, Written Answers).

There were a number of questions on gas prices which received oral answers in the House of Commons on 28 March 1977. For instance, Mr Whitehead asked the Secretary of State for Energy what representations he had received about his decision to authorise a 10 per cent increase in gas prices. Dr John A Cunningham replied : "My right hon Friend has received about 500 representations from consumers and their representatives up to 25 March" (929 HC Deb 1976/77 col 4 Oral Answers). In reply to a later question from Mr Whiteford which included the claim that the gas price rise had "caused outrage among many of our own working supporters" Dr Cunningham accepted that "any increase in price at this time is bound to cause concern among people on low incomes" (929 HC Deb 1976/77 col 5, Oral Answers).

7.3.2 Effect of the accounting choices

All the accounting choices made during the year ended 31 March 1977 are described in Appendix J. The effects of these accounting choices on the net profit for the year ended 31 March 1977 are shown on Table 7.5 which is derived from Table J1 in Appendix J. The restatement of the net profit for the year ended 31 March 1977 is shown on Table 7.6. The accounting choices made during the year ended 31 March 1977 had the effect of decreasing the net profit for the year ended 31 March 1977 by approximately £242,072,000 from £273,572,000 to £31,500,000 (Table 7.6) which is a decrease of 88.5%.

Table 7.5

Effect on the reported net profit for the year ended 31 March 1977 of the accounting choices made during the year ended 31 March 1977

	Increasing	Decreasing £
Replacement expenditure charged as a trading cost		55,576,000
Supplementary depreciation charge		102,596,000
Accelerated amortisation of displaced plant		27,300,000
Accelerated amortisation of deferred charges		56,600,000
Decreasing effect on reported net profit	-	242,072,000

Table 7.6

Restatement of the net profit for the year ended 31 March 1977 for the effect of the accounting choices made during the year ended 31 March 1977

	£
Reported net profit for the year ended 31 March 1977	31,500,000
Add: Decreasing effect on reported net profit of the accounting choices made during the year (Table 7.5)	242,072,000
Restated net profit for the year ended 31 March 1977	273,572,000

7.3.3 Explanations for the accounting choices

The evidence in section 7.2.1 indicated that in early 1976 the Government wanted nationalised industries to reduce their demands for borrowing and grants, presumably to reduce the pressure on an increasing PSBR. There was no evidence in section 7.3.1 that the Government had changed that policy prior to the BGC's proposal to raise gas prices from 1 October 1976. In these circumstances it seems likely that civil servants would have supported that price rise proposal as the main alternative source of finance would have been borrowing from the Government. According to the evidence in section 7.4.1 (The Daily Telegraph, 28 June 1977, p 1 and the Financial Times, 29 June 1977, p 8) the Department of Energy supported the BGC's accounting choices.

The accounting choices made during the year ended 31 March 1977 are consistent with the explanation that they were chosen by BGC management and by civil servants in order to influence the outcome of the application to the Price Commission for a rise in gas prices from October 1976.

As Mr Smith's evidence on 5 November 1975 (Q 538) to the SCNI (SCNI, 1976) indicated that part of the replacement expenditure charged as a trading cost was allowable by the Price Commission it seems reasonable to assume that part of that charge for the year ended 31 March 1977 formed part of the BGC's price claim for October 1976.

From a pricing perspective the introduction of the supplementary depreciation charge can be explained from events both before and after 31 March 1977. In June 1976 the Consultative Document on the Modifications to the Price Code (Department for Prices and Consumer Protection, 1976) recognised that the historic cost accounting method made too little provision for depreciation. In the absence of an inflation accounting standard, an adjustment factor of 1.3 to historic cost depreciation was proposed. On 1 August 1976 the new Price Code (SI. No 1170) was published which increased the factor by which historic cost depreciation charges were to be adjusted to 1.4. The Chairman of the BGC, Mr Denis Rooke, had already stated that the BGC would be applying for as big a price rise as possible under the new Price Code (Financial Times, 28 July 1976, p 7). Thus the application by the BGC for a price rise from 1 October 1976 was partly justified by applying a factor of 1.4 to the BGC's historic cost depreciation. This was later (8 February 1978) confirmed to the SCNI (SCNI, 1978) by Sir Denis Rooke in answer to Q 85 on supplementary depreciation. "We were the first nationalised industry ... to adopt the 40 per cent part of it. We had to because that formed part of our price claim to the Price Commission in October 1976 - it was in the price code at the time we made that submission." Mr J Smith in answer to Q 83 stated that "this was certainly a factor in our decision to move to inflation accounting".

The accelerated write-off of displaced plant and deferred charges can also be explained from a pricing perspective. Both of these accounting changes were introduced on 1 April 1976 (see Appendix J). The resulting increased write-offs were probably included in the October 1976 price rise application, thereby increasing the size of the price rise applied for. Although there is no definite evidence that these accelerated write-offs were accepted by the Price Commission in October 1976, The Economist (30 July 1977) reported that they were acceptable to the Price Commission in the published accounts for the year ended 31 March 1977. This would suggest that these accelerated write-offs were also acceptable to the Price Commission in October 1976.

Thus the accounting choices made during the year ended 31 March 1977 are consistent with the explanations that they were chosen by BGC management and civil servants in order to influence the outcome of applications to the Price Commission for price increases.

BGC management (although not civil servants) may have had additional reasons for choosing income-decreasing accounting choices for the year ended 31 March 1977. These reasons may have been the avoidance of the imposition of political costs. The evidence suggests that the BGC was in danger of suffering political costs as a result of the arguments for a tax on gas and as a result of section 16 of the Gas Act 1972.

The arguments for a tax on gas appear to have started at the Tripartite Energy Consultations in February 1976, continued at the National Energy Conference in June 1976 and then on 19 July 1976 a question on the topic was asked in the House of Commons. Clearly BGC management would not have wanted to provide fuel for these arguments by reporting profits which could have been described as excessive. Thus the accounting choices made during the year ended 31 March 1977 which reduced the reported profit by £242,072,000 are consistent with the explanation that they were chosen by BGC management in order to avoid political costs in the form of the proposed tax on gas.

Section 16 of the Gas Act 1972 gave the Government the power to transfer part of the profits of the BGC to the Treasury if the reserves of the BGC at the beginning of the year exceeded 10% of the corporation's net assets at the beginning of the year. According to the BGC's balance sheet at 31 March 1977 the net assets at that date amounted to £2,318,800,000 and the accumulated reserves at that date amounted to £116,000,000. As Table 9.5 shows, the accounting choices during the year ended 31 March 1977 decreased the reported profit by £242,072,000. If these accounting choices had not been made the accumulated reserves at 31 March 1977 would have been £358,072,000 which is more than 10% of the net assets of £2,318,800,000 at that date. Thus if the accounting choices made during the year ended 31 March 1977 had not been made the Government would have had the power to transfer to the Treasury a proportion of the BGC's profits for the year ended 31 March 1978. The BGC would obviously have been motivated to make accounting choices which postponed for as long as possible the Government's powers under Section 16. Thus the accounting choices made during the year ended 31 March 1977 are consistent with the explanation that they were chosen by BGC management in order to avoid the political costs which would have resulted from the Government exercising its right to transfer a proportion of the BGC's profits for the year ended 31 March 1978 to the Treasury under Section 16 of the Gas Act 1972.

7.3.4 Lobbying behaviour

On 14 May 1976 Mr J H Smith, the BGC's Member for Finance, wrote to the Accounting Standards Committee regarding revised Exposure Draft 17 on Accounting for research and development. He made the following point:

> Paras 7-11. Whilst I would not disagree that there are circumstances in which it may be justified to defer the writing off of expenditure on development, I feel that the option should remain open to write off the whole cost of research and development as it is incurred.
>
> Accordingly I should prefer the wording in paragraph 11 to read: "....it may be carried forward" rather than "it should be carried forward." Whilst this would allow the writing off of development expenditure to be a discretionary matter, the onus would remain on those who wish to defer write-off to meet the criteria for such deferment.

The charge for "Research testing and development" in the published accounts of the year ended 31 March 1976 was £16,100,000 (p 38). If the revised Exposure Draft became a Statement of Standard Accounting Practice without any change on the above matter the profit of the BGC would have been increased by the amount of the development expenditure incurred each year.

The submission by Mr J H Smith above is consistent with a desire by the BGC not to have its profits increased as a result of the recommendations of a proposed Statement of Standard Accounting Practice.

7.4 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1978

This section describes the investigation of the accounting choices made during the year ended 31 March 1978. The evidence collected up to 31 March 1978 which relates to the two explantory hypotheses is described in section 7.4.1. The effect of the accounting choices is shown in section 7.4.2 and the explanations for these accounting choices are given in section 7.4.3.

7.4.1 Evidence to 31 March 1978

The pressure for a tax on gas continued in May 1977. On 2 May 1977 The Daily Telegraph (p 6) carried a report that a Cabinet decision would be needed to settle the latest row on this matter between the gas and coal industries. On 30 May 1977 The Daily Telegraph (p 16) carried a report titled "Pressure grows for gas tax" which stated that the BGC was disturbed by "the increasing possibility that the Coal Board backed by the TUC will win the battle to have a tax imposed on its troublesome rival".

On 26 June 1977 The Sunday Telegraph (p 1) carried a report of a row between the BGC and the Price Commission titled "GAS ROW OVER EXCESS PROFITS". The Sunday Telegraph reported that the Price Commission was claiming that the BGC had made £35 to £36 million more than is allowed under the Price Code.

The next morning the Chairman of the BGC, Sir Denis Rooke, publicly denied that the corporation had made excess profits and said there would be no refund to consumers. "What excess profits?" he asked reporters who questioned him. "You should not read such silly newspapers" (Financial Times, 28 June 1977, p 34). Two hours later the Price Commission announced that the BGC had made excess profits of £36.6 million. In the evening the BGC again denied it had made excess profits and claimed that it had written to the Price Commission pointing out "distorting factors". The BGC claimed that during the year ended 31 March 1977 it had made a profit of £30 million on a turnover of over £2 billion and that the Price

Commission's figure of £36.6 million was "determined under Price Commission rules and not by normal accounting procedures" (The Guardian, 28 June 1977, p 1). The political visibility of the BGC was reflected in coverage given to the row by the national press. The headlines on 28 June 1977 were as follows :

The Times (p 19)	:	Price Commission and British Gas clash over "excess" profit
The Guardian (p 1)	:	Profits of £30m start gas row
The Daily Telegraph (p 1)	:	£36m "EXCESS PROFIT" BY STATE GAS Row over claim by price watchdog
Financial Times (p 34)	:	British Gas rejects profiteering charge
Daily Mirror (p 5)	:	Storm over the gas profits is hotting up
Daily Express (p 2)	:	What a gas over profits
Daily Mail (p 1)	:	GASMAN TOLD: PAY IT BACK: Good news for the householder, Row over £36 million profit
The Sun (p 1)	:	STORM ON GAS PROFIT

The above headlines and the contents of their reports provide good examples of the press making the most of the "crisis" (Watts, 1977; Jensen, 1976).

The Department of Energy's position in this dispute is of interest to the current research. The Daily Telegraph (p 1) report on 28 June 1977 claimed that the Energy Department had backed Sir Denis Rooke's claim that the BGC had not made too much profit and a further report in the Financial Times (p 8) on 29 June 1977 stated that the Department of Energy was satisfied with the corporation's accountancy procedures.

On 29 June 1977 the Financial Times carried an editorial (p 18) titled "Getting all hot about gas" which explored the dispute between the

BGC and the Price Commission. The Financial Times questioned what the dispute was likely to achieve :

> even if the Corporation has breached the price code, there would seem to be little practical chance of gas prices being adjusted in accordance with the code's provisions. Having instructed the Gas Corporation to raise its prices by 10 per cent from April 1, the Government would be most unlikely to countenance a reduction now, albeit one of relatively modest proportions.

On 15 July 1977 The Times (p 19) reported that the Price Commission had ordered a freeze on gas prices until the excess profits of £36.6m had been used up. On 22 July 1977 the Price Commission Act received the Royal Assent. This gave the Price Commission the power to conduct a detailed investigation of any proposed price rise. Profit margin control was to continue from 1 August 1977 to 31 July 1978 as specified in the Counter-Inflation (Price Code) Order 1977 (SI 1272). From 1 August 1978 the Price Commission was to be free to adopt a more flexible approach in its investigations.

On 26 July 1977 the BGC published its annual report and accounts for the year ended 31 March 1977. The press reports the following day had the following headlines :

The Times (p 22)	:	Gas chairman pledges price stability despite higher cost of supplies
The Guardian (p 12)	:	£250M gas 'profit' buried
The Daily Telegraph (p 6)	:	GAS SHOWS PROFIT OF £31M
Financial Times (p 8)	:	British Gas seeks greater freedom to make profits
(p 42)	:	Tracing the leak in Gas profits
Daily Mirror (p 14)	:	GAS PROFITS ARE RED HOT
Daily Mail (p 31)	:	Cut gobbledegook - and our gas bills
The Sun (p 11)	:	FREEZE ON GAS PRICE

The percentage of total space in these press reports in which prices were adopted as a theme was as follows : The Times, 43%; The Guardian, 12%; The Daily Telegraph, 6%; Financial Times, 28%; Daily Mirror, 15%; Daily Mail, 33% and The Sun 71%. These percentages are relatively low compared to other years which was presumably because a price rise was not imminent as Sir Denis Rooke had pledged price stability until April 1978.

The Guardian (p 12) and the Financial Times (p 42) described the effect of the accounting choices made by the BGC during the year ended 31 March 1977. The Guardian reported as follows :

> British Gas which has been ordered to freeze its charges by the Price Commission is making more money than implied by the £31.5 millions profit disclosed in yesterday's annual report.
>
> Although the £31.5 millions is easily a record for the corporation it was reached only after the introduction of changed accounting procedures without which it could easily have been well over five times as high.
>
> If the results had been drawn up on the same basis as the previous year the profit and loss account would have included £102.6 millions which has been charged this year to a specially created fixed asset maintenance account.
>
> This is in accordance with prudent accounting practice being a movement towards current cost accounting but without it the declared profit would have been £134.1 millions. If the accounts had been done on the same basis as two years ago (when the corporation started making provisions for special depreciation) this year's pre-tax profit would have risen to £189.7 million.
>
> In addition, for the first time, BG has decided to accelerate its provisions for displaced plant (the unamortised residue costs of old coal and oil based plant) and to bring forward the writing-off of expenditure incurred on the conversion programme ....
>
> In other words the accounts could easily be re-written to show a profit of around £250 millions for 1976-77 before tax ....

On 30 July 1977 The Economist (p 84) carried a report titled "It's a gas" which described the BGC's supplementary depreciation charge and its accelerated amortisation of displaced plant and deferred charges. The

Economist claimed that the Price Commission had accepted the accelerated amortisation of displaced plant and deferred charges and had accepted the supplementary depreciation charge to the extent that it was not more than 140% of last year's level. The report claimed that the dispute between the BGC and the Price Commission arose because :

> some engineering works planned for last winter were delayed. If all had gone as planned an extra £36m would have appeared as replacement expenditure ....

On 31 July 1977 *The Sunday Times* (p 61) carried a report titled "THE BILLION POUND EXPLOSION IN GAS". The introductory paragraph of that report stated :

> It is arguable whether the British Gas Corporation is more adept in the business of gas distribution or in the art of accounting. With two major changes in accounting methods in two years the corporation has flown in the face of the cardinal accounting principle - consistency and virtually adopted its own definition of depreciation. The effect has been to cloud the corporation's high and rising profits and put off the day when the Government may demand that some of the money is handed over.

The report went on to argue that :

> British Gas has developed rare and unrealistic accounting techniques and seems bent on thwarting the will of Parliament as expressed in the 1972 Gas Act...... Parliament in her wisdom recognised the unique blessing cheap natural gas conferred on the corporation and decreed that when that blessing became too much, it should be shared. Section 16 of the Gas Act gives the Secretary of State power to siphon off excess revenue from British Gas provided its reserves, shown in the balance sheet, exceed 10% of net assets. In the last two years changes in the corporation's accounting methods have distorted profit figures and effectively postponed the day when section 16 may be used in the way Parliament clearly envisaged.

The *Accountants Weekly* in a report (p 3) on 5 August 1977 titled "British Gas profits slashed by write-off changes" described the effect of the accounting choices made by the BGC during the year ended 31 March 1977. The reported commented that by :

> adopting a more conservative approach to accounting policies at a time when impending price rises are being criticised, British Gas

has laid itself open to suspicion that it has made changes simply to suit the political climate of the day.

In the summer of 1977 there was thus evidence of the press taking an interest in the BGC's accounting choices which may have been due to the dispute between the BGC and the Price Commission in June 1977.

On 8 February 1978 the SCNI (SCNI, 1978) questioned the BGC on their report and accounts for the year ended 31 March 1977. Mr Edwin Wainwright of the SCNI asked (Q 82) why the BGC had adopted the accounting practice of charging supplementary depreciation. Sir Denis Rooke replied that the BGC wanted to ensure that in a time of high inflation its depreciation charges were sufficient "to cover the cost of the real use and replacement of fixed assets". He argued that the BGC's supplementary depreciation charge not only had the support of the accountancy profession but also had the support of the Government "whom you will recall in the House on one occasion said they do believe that a steady move towards some sort of inflation accounting is necessary and proper".

Mr Wainwright responded (Q 83) by suggesting that the public would see the supplementary depreciation charge as an attempt by the BGC to reduce its profits. Mr Smith justified the supplementary depreciation charge on the basis of the price code which :

> included some 18 months ago for the first time a provision for a 40 per cent up-lift in the charge for depreciation for pricing purposes, and of course, this was certainly a factor in our decision to move to inflation accounting. Even if we had not done it, and you ask how it affects the pricing situation, the 40 per cent in the price code would have affected our pricing situation anyway.

In answer to a later question (Q 85) from Mr Thomas, Sir Denis Rooke confirmed that the 40 per cent uplift had formed part of the BGC's price claim to the Price Commission in October 1976.

Mr Thomas then asked (Q 86) if the reason the BGC had increased its depreciation charge by almost 100 per cent between 1976 and 1977 was to reduce its profits from an embarrassingly high level to a more acceptable level. Sir Denis Rooke did not accept this explanation arguing that :

> we have, through our sponsoring department sought the means of going into replacement cost depreciation over many years back; to my knowledge 7 or 8 years back. And this moment, when they decided to put something in the price code was the first time we had any opportunity to move.

Mr Marshall asked a question (Q 94) about financial targets to which Sir Denis Rooke replied :

> We certainly agree that a proper target should be set by the Secretary of State. We have always pressed for such targets. We were very glad when they were set earlier, and we were very sad when they gradually lost their meaning and fell by the wayside. We have consistently said we would like to see a target. The one we have gone on putting forward both internally and when I have mentioned publicly is a target of 4 per cent return on turnover after charging current cost depreciation and interest.

Sir Denis's answer led to the following exchange with Mr Renton of the SCNI (Q 98 and Q 99) :

> Mr Renton : If I can just be clear in relation to your 1977 Accounts, if you had made the 4 per cent profit on turnover which you seek, this would have meant your making a profit of around £80 million?
> Sir Denis Rooke : £78 million is the figure.
> Mr Renton : Instead of a profit of £31 million. What would that really mean in terms of increased price at the moment if you were to be given that target ....?
> Mr J Smith : A 4 per cent increase on tariff gas.

The cash flow benefits to the BGC of having a financial target are thus obvious.

On 11 February 1978 The Guardian (p 22) reported that the BGC and the Price Commission had finally settled their dispute over the claim by the latter that the BGC had made excess profits of £36.6 million during the year ended 31 March 1977. The agreement announced jointly on 10

February was that gas prices should remain frozen until April 1979 provided that there is no major increase in the rate of inflation.

The first meeting of the Energy Commission was held on 28 November 1977 (Energy Commission, 1977). The main purpose of that meeting was to discuss a Working Document on Energy Policy which had been prepared by civil servants in conjunction with the industries concerned. After discussion and appropriate amendments the Working Document was to go forward to Ministers with the recommendation that it be published as a Green Paper. The impact of gas prices on the demand for other forms of energy was discussed. Mr Berridge, Chairman of the South of Scotland Electricity Board pointed out that gas represented a constraint on coal and electricity (p 12); Sir William Hawthorne, Chairman of the Advisory Council on Energy Conservation said that consumers only preferred gas because it was cheaper than oil (p 12); Mr F L Tombs, Chairman of the Electricity Council pointed out that as gas was undercutting electricity in a number of markets, the electricity industry's capacity to make a nuclear contribution was affected and suggested that gas prices be linked to future replacement costs rather than to early acquisition costs (p 13).

The Green Paper on Energy Policy was duly published on 13 February 1978 (Department of Energy, 1978). Para 8.16 recommended that gas prices:

> need to be related to the expected cost of future supplies, rather than to its historic costs, and this implies prices higher than can be justified by the view that price increases should be limited to those made necessary by cost increases actually incurred.

Para 8.21 pointed out that decisions relating to the future expansion of the gas industry would have to take into account the effect on the long term growth of the coal, electricity and nuclear industries.

The Energy Commission held its second meeting on 13 February 1978 (Energy Commission, 1978). Once again the pricing of energy was discussed. Sir Francis Tombs pointed out that energy pricing was decided on a short-term basis. He said that :

> all the energy industries presently price on 12 months accounts and the prospect of a very large profit appearing is embarrassing both to the industry and the Government, and one might note here that British Gas tried very hard indeed last year to justify their price situation by prudently .....anticipating writing off capital costs, a very sensible thing to do on a year's basis, though it does not necessarily lay the foundation for the future.

Sir Denis Rooke denied that the BGC had made its accounting choices for the year ended 31 March 1977 for this reason. He argued that the August 1976 change in the Price Code had given the BGC its first opportunity to move towards replacement cost depreciation. He added that as "officials who have been around a long time in the Department of Energy will know, British Gas have been asking to go on a replacement cost depreciation basis for many years". This comment gives further evidence of the involvement of civil servants from the Department of Energy in the BGC's accounting choices. He justified the accelerated write-off of displaced plant and deferred charges on the basis that the BGC wanted these written off before the more expensive gas from the northern basis of the North Sea came on stream so that consumers would not have to suffer a sudden dramatic jump in gas prices.

Sir Derek Ezra, Chairman of the National Coal Board, expressed his concern that the relatively low price of gas to the domestic consumer was adversely affecting the other energy industries whose prices were related to the international price of oil. Sir Denis Rooke argued that the current price of gas to the domestic consumer had been greatly affected by the control on prices exercised by the NBPI and by the Price Commission over many years. He argued that :

> If it were thought that prices ought to have been higher one way to have done that would have been to set financial targets, and can I remind Members that my industry has been one that has been asking for the setting of a realistic financial target for a long time .... This would give you an argument when you face NBPI or Price Commission or somebody else".

Sir Denis Rooke's comment appears to indicate that he preferred to have a financial target because it could provide a good basis for arguing for a price rise.

On 14 February 1978 Sir Francis Tombs launched a further attack on the BGC's pricing policy when speaking to the Electrical Industries' Club in London. He described the gas industry's recent expansion as "a model of the monopoly exploitation of a cheap and favoured fuel". He said that the amount of gas available to British Gas will increase by 50 per cent in the next few years.

> If gas is to dominate the energy market then its competitors and potential substitutes - electricity and coal - will have limited markets and will not be able to afford the investment necessary on a very large timescale in order to provide the capacity to replace the gas when reserves are depleted. (The Guardian, 15 February 1978, p 14).

There was further criticism of gas prices from the electricity industry on 22 February 1978. On that date the SCNI questioned the top management of the Central Electricity Generating Board (CEGB) on various matters including the effect on the electricity industry of the competition from the BGC. Mr G England, Chairman of the CEGB, took the opportunity to recommend that gas prices should reflect the longer term costs of bringing in more expensive gas supplies from the fields in the northern part of the North Sea (Q 284, Q 285, Q 286 and Q 287) (SCNI, 1978).

7.4.2 Effect of the accounting choices

All the accounting choices made during the year ended 31 March 1978 are described in the Appendix K. The effects of these accounting choices made during the year ended 31 March 1978 on the reported pre-tax profit for the year ended 31 March 1978 are shown on Table 7.7 which is derived from Table K1 in Appendix K. The restatement of the pre-tax profit for the year ended 31 March 1978 is shown on Table 7.8. The accounting choices made during the year ended 31 March 1978 had the effect of decreasing the pre-tax profit for the year ended 31 March 1978 by £240,600,000 from £420,900,000 to £180,300,000 (Table 7.8) which is a decrease of 57.2%.

Table 7.7

Effect on the reported pre-tax profit for the year ended 31 March 1978 of the accounting choices made during the year ended 31 March 1978

	Increasing	Decreasing
Replacement expenditure charged as a trading cost		89,000,000
Supplementary depreciation charge		145,400,000
Provision for field abandonment costs		6,200,000
Decreasing effect on reported pre-tax profit		240,600,000

Table 7.8

Restatement of the pre-tax profit for the year ended 31 March 1978 for the effect of the accounting choices made during the year ended 31 March 1978

	£
Reported pre-tax profit for the year ended 31 March 1978	180,300,000
Add: Decreasing effect on reported pre-tax profit of the accounting choices made during the year (Table 7.7)	240,600,000
Restated pre-tax profit for the year ended 31 March 1978	420,900,000

It should be noted that in addition to the accounting choices listed in Table 7.7 there was, for the first time, in the years covered by this study, a deferred tax adjustment. That adjustment is described in Appendix K but has not been included in Tables 7.7 and 7.8 above for the following reasons :

(1) The Price Commission appeared to focus on pre-tax profits. the Counter-Inflation (Price Code) Order 1977 (SI 1272) specified that the net profit used in calculating the net profit margin should be the pre-tax profit [para 11 (i)]. After profit margin control ended on 31 July 1978 the Price Commission were free to take a more flexible approach when they chose to investigate a proposed price rise. However, the Commission appears to have continued to focus on the pre-tax profit. The Commission's investigation into the BGC's proposed price rise from April 1979 (Price Commission, 1979) did not mention the BGC's deferred tax adjustments when discussing the BGC's accounting choices over the five years to 31 March 1978 (paras 9.33 to 9.43). Also when calculating the BGC's return on capital employed over these years (paras 9.44 to 9.47) the Commission used the pre-tax profit.

(2) The focus of the press was on pre-tax profits (see sections 7.51 and 7.61). Thus the two hypotheses on which this study is largely based cannot provide an explanation for the deferred tax adjustment. The deferred tax adjustments in future years have been ignored and the remaining years of this sub-period focus on pre-tax profits.

7.4.3 Explanation for the accounting choices

The disputes between the BGC and the Price Commission in July 1973 and in June/July 1977 almost certainly meant that the BGC saw the Price Commission as a threat to a gas price rise in April 1979.

The Price Commission's choices of proposed price rises to investigate since the Price Commission Act 1977 must have increased the BGC's suspicion that there was a danger of a Price Commission investigation of any proposed gas price rise for April 1979. The Price Commission (1978) later explained their choice of investigation from 1 August 1977 to 30 April 1978 as follows :

> our primary concern has been sectors where competition is limited. We have wanted to show whether lack of full competition has led to inefficiency in the use of resources, to exploitation of market strength against the consumer or to an unreasonable level of profit....

As a result of the BGC having no competition with reference to the distribution of gas, and as the 10% rise in gas prices from 1 April 1977 had led to accusations that the gas consumer was being exploited and also as the BGC was, in absolute terms, making large profits, gas industry management and civil servants must have realised that there was a danger of a Price Commission investigation of any price rise proposed for April 1979.

Gas industry management and civil servants probably felt that if the press and non-government politicians created a crisis over the size of the BGC's reported profits the likelihood of a Price Commission investigation would be increased. Furthermore, gas industry management and civil servants would have been aware that any proposal to increase gas prices from April 1979 would become public knowledge some time before that when the most recent reported profits of the BGC would have been those for the year ended 31 March 1978. As the profits for the year ended 31 March 1978 showed a dramatic increase over those for the previous year there was therefore an increased motivation for gas industry management and civil servants to make income decreasing accounting choices in order to reduce the likelihood of the press or non-government politicians creating a crisis which would in turn increase the likelihood of a Price Commission investigation of any price rise proposed for April 1979.

Civil servants had a further reason for encouraging the BGC to make accounting choices which decreased the BGC's reported profit for the year ended 31 March 1978. In December 1976 the Government had over-ruled the Price Commission in order to impose a 10% gas price rise from 1 April 1977. This price rise was one of a number of measures aimed at reducing the PSBR - as requested by the IMF. However, as a result of this price rise the Government could have been subject to further criticism when the BGC's accounts were published if the reported profits for the year ended 31 March 1978 were seen as being excessively large. The press and/or non-government politicians could have claimed that the April 1977 price rise had been unnecessary and had been unfair to the gas consumer. Civil servants would be aware that government politicians might blame them for not avoiding such criticism. Thus civil servants would be motivated to encourage the BGC to make income decreasing accounting choices in order to avoid the likelihood of such criticism of the government.

Thus the accounting choices made during the year ended 31 March 1978 are consistent with the explanation that they were chosen by BGC management and civil servants in order to help justify (or at least reduce criticism of) both the Government's April 1977 gas price increase and any proposed gas price rise in April 1979.

The demands for a tax on gas continued during the year ended 31 March 1978 as noted in section 7.4.1. Clearly BGC management would not have wanted to provide fuel for these arguments by reporting profits which could have been described as excessive. Thus the accounting choices made during the year ended 31 March 1978, which reduced the reported profit by £240,600,000 or 57.2% are consistent with the explanation that they were chosen by BGC management in order to avoid political costs in the form of the proposed tax on gas.

In section 7.3.3 it was claimed that the accounting choices for the year ended 31 March 1977 were consistent with the explanation that they had been chosen by BGC management in order to avoid the political costs which would have resulted from the Government exercising its right to transfer a proportion of the BGC's profits for the year ended 31 March 1978 to the Treasury under section 16 of the Gas Act 1972. It is not possible to make a similar claim for the accounting choices made during the year ended 31 March 1978. According to the BGC's balance sheet at 31 March 1978 the net assets at that date amounted to £2,102,200,000 and the accumulated reserves at that date amounted to £313,000,000 which is more than 10% of the net assets. Thus in spite of the income decreasing accounting choices made during the year ended 31 March 1978 the Government would have been able, if it had so desired, to transfer a proportion of the profits for the year ended 31 March 1979 to the Treasury under section 16 of the Gas Act 1972.

7.5 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1979

This section describes the investigation of the accounting choices made during the year ended 31 March 1979. The evidence collected up to 31 March 1979 which relates to the two explanatory hypotheses is described in section 7.5.1. The effect of the accounting choices is shown in section 7.5.2 and the explanations for these accounting choices are given in section 7.5.3.

7.5.1 Evidence to 31 March 1979

On 7 June 1978 the Financial Times (p 7) reported that Mr Anthony Wedgewood Benn, the Energy Secretary, had rejected the idea of a special tax on gas to bring the price of gas more into line with other forms of energy.

On 11 June 1978 The Sunday Times (p 53) carried a report titled "Heat on British Gas as profits double". The report claimed that :

> Profits approaching £200m are to be declared by the British Gas Corporation in the next few weeks. This will be ..... many times the previous year's £31m. The results are likely to stoke up the still simmering row over whether there should be a gas tax.

At the press conference on 17 July 1978 to present the BGC's annual report and accounts for the year ended 31 March 1978, Sir Denis Rooke explained the increase in pre-tax profits from £31.6m in the previous year to £180.3m in the current year on the basis that it had resulted from the Government-imposed price increase from 1 April 1977. He argued that despite the massive increase in profits he expected to apply for an increase in gas prices in April 1979 (at the end of the current freeze on gas prices) because by that time the BGC would be buying its natural gas from the much more expensive fields in the northern North Sea.

The headlines in the national newspapers on 18 July 1978 were as follows :

The Times (p 21)	:	British Gas boosts profits to a record £180m
(p 25)	:	Ignoring the Hyde guidelines
The Guardian (p 1)	:	Gas prices to rise despite record profit
(p 11)	:	British gas for the best inflation
The Daily Telegraph (p 1)	:	Freeze on gas price to end next year
(p 6)	:	STATE GAS DENIES UNDERSTATING PROFIT BY £145m
Financial Times (p 1)	:	Gas profits up- but price may increase
(p 38)	:	Cash flow bonanza for British Gas
Daily Mirror (p 2)	:	Gas prices row erupts
Daily Mail (p 9)	:	Gas likely to go up despite big profits
(p 19)	:	Mr Therm's profits are a gas, man
The Sun (p 2)	:	£180m gas profit

The proportion of the press reports in which prices were adopted as a theme was as follows : The Times, 5%; The Guardian, 37%; The Daily Telegraph, 60%; Financial Times, 27%; Daily Mirror, 86%; Daily Mail, 54% and The Sun 75%. These percentages are relatively low compared to other years which was presumably because a price rise was not imminent as the Price Commission had insisted that gas prices remain frozen until April 1979.

All the press reports above tended to focus on the BGC's profit before taxation of £180.3 million rather than on the profit after taxation of £103.9 million. Thus the deferred tax charge of £76.4 did not influence the profit figure highlighted in the press reports, nor was it criticised in any of the national newspapers. The supplementary depreciation charge of £145.4 million was mentioned by The Times, The Guardian, The Daily Telegraph, the Financial Times and the Daily Mail. Only the Daily Mail mentioned the charge to revenue of £89.0 million for replacement expenditure and the new provision for field abandonment costs of £6.2 million. Both The Times and the Financial Times noted that the BGC had not made a gearing adjustment which would have reduced the supplementary depreciation charge. Both newspapers criticised the BGC for not making this adjustment and thereby not adhering to the Hyde guidelines.

The Economist (29 July 1978, pp 89-90) in an article titled "Shoot the nationalised auditor - no one would notice" criticised the accounting choices made by nationalised industries in 1978. The BGC was criticised for the supplementary depreciation charge, for the accelerated write-off of displaced plant and deferred charges and for the deferred tax charge. On the deferred tax charge The Economist pointed out that the BGC intended to spend £1.6 billion on new investment over the next five years, much of which would attract capital allowances. The Economist deduced from this that the BGC must be expecting huge profits over the next five years otherwise the deferred tax charge would be unnecessary.

On 23 December 1978 the Financial Times (p 1) carried a report that the Government had set the BGC a new financial target. According to the published report and accounts of the BGC for the year ended 31 March 1979 (p 18) the Government had set the BGC a financial target for the year ended 31 March 1980 of a return on turnover of 6.5 per cent after interest and depreciation according to the accounting conventions adopted in the accounts of the BGC for the year ended 31 March 1978. When giving evidence to the SCNI on 31 January 1979 (Select Committee on Nationalised Industries, 1979) Sir Denis Rooke described the one-year target as "extremely unwelcome" as :

> "we just do not know what to do with a one-year target. It does not teach you anything about running the business. What we want is continuity .... We need a target that continues into the future so that we know how to steer the ship" (Q 127)

In answer to a later question (Q 143) Sir Denis became more specific about why the 6.5% target was unwelcome.

> The moment I go for a price increase ..... my customers will start asking me : "What is the justification for putting up the price of gas?" If I say, "It is because of a target of 6.5 per cent" they will say : "Why should you be adopting a target of 6.5 per cent when you have publicly said, many times, that your commercial view was something around 4 per cent?" What I want to be clear on is this. What is the basis of the 6.5 per cent? Exactly what am I going to say to my customers? .....I have to deal with my customers, the Price Commission and the Consumer Council.

This comment from Sir Denis also gives an indication that he saw an important use of the financial target as being to justify a price rise.

On 23 February 1979 the Financial Times carried a report (p 6) that the BGC was to notify the Price Commission that it planned to increase its prices by between 8 per cent and 10 per cent. The BGC justified the proposed price rise on the basis that it was required in order to meet the financial target of 6.5 per cent on turnover imposed by the Government. According to the corporation the Government had made it clear that its 6.5 per cent target was designed to ensure that gas prices did not fall in real terms during the next year. According to the Financial Times the Government had imposed the financial target on the BGC to ensure that gas prices did not fall too far below electricity prices in order to safeguard the interests of the coal and electricity industries.

On 1 March 1979 the BGC notified the Price Commission under the Prices and Charges (Notification of Increases) Order 1978 (SI No 1083) of its intention to increase its charges (Price Commission, 1979, p VI).

An example of the embarrassment that the high profits of the BGC brought to the Government was the following question in the House of Commons on 8 March 1979. Mr Dykes asked the Secretary of State for Energy what action he proposes to take to delay the proposed 10% rise in the price of average domestic gas tariffs in view of the substantial surplus shown in the accounts of the BGC. Mr Benn responded : "I understand that the British Gas Corporation has now made application to increase domestic tariffs from 1 April by about 8%. Otherwise I have nothing to add...." (963 HC Deb 1978/79 col 741 Written Answers).

On 22 March 1979 the Price Commission gave notice to the Secretary of State for Prices and Consumer Protection that an investigation of the BGC's proposed price increase should be undertaken under the terms of the Price Commission Act 1977. On the same date a copy of the Notice was given to the BGC (Price Commission, 1979, p VI).

On 24 March 1979 the Financial Times (p 1) reported that the Price Commission had frozen gas prices for three months while it investigated the price rise application from the BGC. According to the Financial Times the Price Commission had hinted that it would consult the Government if it found that the financial targets set the BGC were too high.

7.5.2 Effect of the accounting choices

The effects of the accounting choices made during the year ended 31 March 1979 on the reported pre-tax profit for the year ended 31 March 1979 are shown on Table 7.9. The restatement of the pre-tax profit for the year ended 31 March 1979 is shown on Table 7.10. The accounting choices made during the year ended 31 March 1979 had the effect of decreasing the pre-tax profit for the year ended 31 March 1979 by £298,600,000 from £659,300,000 to £360,700,000 (Table 7.10) which is a decrease of 45.3%.

Table 7.9

Effect on the reported pre-tax profit for the year ended 31 March 1979 of the accounting choices made during the year ended 31 March 1979

	Increasing	Decreasing £
Replacement expenditure charged as a trading cost (see Appendix H)		126,400,000
Supplementary depreciation charge (see Appendix J)		165,300,000
Increase in provision for field abandonment costs (see Appendix K)		6,900,000
Decreasing effect on reported pre-tax profit		298,600,000

Table 7.10

Restatement of the reported pre-tax profit for the year ended 31 March 1979 for the effect of the accounting choices made during the year ended 31 March 1979

	£
Reported pre-tax profit for the year ended 31 March 1979	360,700,000
Add: Decreasing effect on reported pre-tax profit of the accounting choices made during the year (Table 7.9)	298,600,000
Restated pre-tax profit for the year ended 31 March 1979	659,300,000

7.5.3 Explanations for the accounting choices

Throughout the year ended 31 March 1979 the BGC knew that if it applied for a gas price rise in April 1979 there was the possibility that it would become subject to a Price Commission investigation of the need for a price rise. As the Price Commission's decision on whether or not to investigate that price rise would have to be made prior to April 1979 and as the accounts for the year ended 31 March 1979 would not be published until July 1979 gas industry management and civil servants would know that the reported profits (and therefore the accounting choices) for the year ended 31 March 1979 would not influence the Price Commission's decision on whether or not to conduct an investigation. However, in the event of the Price Commission conducting an investigation, gas industry management and civil servants may have expected that the accounting choices for the year ended 31 March 1979 would have had some influence on the outcome. The Price Commission had previously accepted the BGC's supplementary depreciation charge and the corporation's policy of charging the cost of replacing certain categories of fixed assets to revenue. Thus, although the Price Commission's investigations were to be conducted on a more flexible basis since the Price Commission Act 1977, gas industry management and civil servants might have expected that increases in these charges against profits would be likely to help justify their need for a price rise to the Price Commission.

The Government's desire to see gas prices rise can be seen in the setting of a financial target of achieving a 6.5% return on turnover for the year ended 31 March 1980 when the BGC would apparently have preferred that target to be only 4%. Thus civil servants would not be motivated to stop the BGC making accounting choices which decreased profits if by so doing a price rise from April 1979 was going to be more easily justified.

Thus the accounting choices made during the year ended 31 March 1979 are consistent with the explanation that they were chosen by BGC management and civil servants in order to help justify a price rise from April 1979.

Although the demands for a tax on gas were not so frequent during the year ended 31 March 1979 as during the previous two years the BGC would have been well aware that these demands could have started up again at any time. Clearly the BGC would not have wanted to provide fuel for these arguments by reporting profits which could have been described as excessive. Thus the accounting choices made during the year ended 31 March 1979 which reduced the reported profit by £298,600,000 or 45.3% are consistent with the explanation that they were chosen by BGC management in order to avoid political costs in the form of a proposed tax on gas.

7.6 ACCOUNTING CHOICES MADE DURING YEAR ENDED 31 MARCH 1980

This section describes the investigation of the accounting choices made during the year ended 31 March 1980. The evidence collected up to 31 March 1980 which relates to the two explanatory hypotheses is described in section 7.6.1. The evidence collected after 31 March 1980 which relates to the two explanatory hypotheses is described in section 7.6.2. The effect of the accounting choices is shown in section 7.6.3 and the explanations for these accounting choices are given in section 7.6.4. The gas industry's lobbying behaviour during the year is described and discussed in section 7.6.5.

7.6.1 Evidence to 31 March 1980

The Price Commission exercised their discretion under the Price Commission Act 1977 and on 11 April 1979 permitted a weighted average increase of 11 per cent in respect of non-domestic users and on 17 May 1979 permitted a weighted average increase of 8 per cent in respect of domestic users (Price Commission, 1979).

At the General Election on 3 May 1979 the Conservative Party gained a majority of 43 over all other parties in the new House of Commons (Survey of Current Affairs, Vol 9, 1979, p 115). During the debate on the Queen's speech on 15 May 1979 the Prime Minister announced the Government's decision to abolish the Price Commission as part of a new framework of competition policy (967 HC Deb 1979-80 Col 79 Oral Answers). The Price Commission was progressively run down from May 1979 (Price Commission, 1979a, p 2) and provisions for its abolition were included in the Competition Act 1980 which received the Royal Assent on 3 April 1980.

In his Budget Statement on 12 June 1979 (968 HC Deb 1979-80, cols 235-263) Sir Geoffrey Howe announced changes in taxation and public expenditure aimed at reducing the PSBR (col 243).

On 16 July the Financial Times in an editorial (p 14) argued the case for introducing a special tax on gas as soon as possible. The Financial Times argued that the huge monopoly profits of the BGC which at present accrued to the corporation and its domestic customers (who were thus shielded from world energy prices) would be better transferred to the exchequer to reduce public sector borrowing.

On 18 July 1979 the Price Commission published its report titled "British Gas Corporation - Gas Prices and Allied Charges" (Price Commission, 1979). The Price Commission described the BGC as being an efficient and well-run industry but was critical of its pricing policies. The Commission argued that LRMC should be one of the major factors taken into account when setting price levels in each market segment (para 10.12). According to the Commission although the price of gas to non-domestic users was slightly below LRMC the price to domestic users was well below LRMC (para 10.13). The Commission recognised that bringing domestic prices into line could not be done in a single step and recommended this be phased over a number of years (para 10.14). The Commission also recognised that such a "move towards LRMC-based pricing would imply an appropriately higher financial target" (para 10.16).

As regards the accounting changes made over the six years to 31 March 1979 the Commission argued that charging the cost of replacing certain categories of existing fixed assets as a revenue expense did not :

> represent generally accepted accounting practice as it results in a mismatching of cost and revenue .... At the present time we believe that the continuing use of this policy results in a mis-statement of the balance sheet because it lowers the amounts recorded for fixed assets and fixed assets maintenance (para 9.39).

The Commission accepted that providing for current cost depreciation was reasonable (para 9.40) and appeared to accept the corporation's explanation for the accelerated amortisation of displaced plant and deferred charges (para 9.43).

At the press conference on 23 July 1979 to present the annual report and accounts of the BGC for the year ended 31 March 1979 Sir Denis Rooke disclosed that domestic gas prices would start rising in

1979 as part of a three to four year programme to narrow the gap with non-domestic gas prices (The Daily Telegraph, 23 July 1979, p 1). The "popular" press reports the day after the annual report and accounts were published (24 July 1979) concentrated more on this expected rise in gas prices for the domestic consumer than on the contents of the financial statements. The headlines in the national newspapers were as follows :

The Guardian (p 1)	:	Gas set to turn away extra business
The Guardian (p 17)	:	For British Gas read British Cash - in the Guinness Book of Records
The Daily Telegraph (p 1)	:	BOOMING GAS SEEKS PRICE RISE: Profits double to £360 million
The Daily Telegraph (p 21)	:	Now it's high speed loans
Financial Times (p 1)	:	British Gas to lend Government money after record profit
Financial Times (p 28)	:	A cash bubble at British Gas
Daily Mirror (p 2)	:	Gas profits up ... now for prices!
Daily Mail (p 9)	:	Prices threat as gas profits soar
The Sun (p 2)	:	GAS PROFITS HIT £1M A DAY
Daily Star (p 6)	:	GAS 'HAS TO RISE BY HALF'

All the above press reports highlighted the pre-tax profit of £360.7m which was regularly described as being twice the previous year's level. The Guardian (p 17) and The Daily Telegraph (p 21) pointed out that the pre-tax profit would have been £526m if supplementary depreciation had not been charged. None of the press reports mentioned the after-tax profit figure of £172.3m. The percentage of total space in these reports in which prices were adopted as a theme was as follows: The Guardian, 10%; The Daily Telegraph, 55%; Financial Times, 10%; Daily Mirror, 100%; Daily Mail, 100%; Daily Star, 100%, and The Sun 25%.

Three national newspapers carried editorials on 25 July 1979. The Guardian's titled "Gas in search of realism" (p 14) supported the Price Commission's argument for an increase in gas prices and suggested that the state "rake off the bulk of the extra money which higher prices brought in". The Daily Telegraph's editorial titled "BOOMING GAS" (p 18) also argued for a price rise and suggested that the resulting large profits be reduced by imposing "on gas a revenue duty similar to that imposed on petrol". The Daily Mail's editorial titled "The gas dilemma" (p 6) was less sure that a rise in gas prices was a good idea concluding somewhat hesitantly that "quite possibly an expanded cheap gas industry may be Britain's best bet". The percentage of total space in these editorials in which prices were adopted as a theme was 100% in each case.

On 17 December 1979 the Financial Times (p 10) carried an article titled "The need for a British tax on gas profits". The opening sentences were as follows :

> How does one reconcile the British public to a substantial rise in gas prices when the British Gas Corporation is the most profitable of the nationalised industries, and may be making profits of up to £1bn per annum in the next few years? The short answer is by imposing a special tax on the corporation ....

On 16 January 1980 Mr David Howell, the Secretary of State for Energy made a statement to the House of Commons about financial targets for the gas and electricity industries (976 HC Deb 1979-80 cols 1644-1646 Oral Answers). Mr Howell gave five reasons why gas prices would have to rise (col 1645) and then announced that the Government had set the BGC :

> a target expressed as an average annual rate of return to be achieved over the period April 1980 to March 1983 of 9 per cent on net assets valued at current cost. The target is related to current cost operating profit after taking account of depreciation but before interest and tax. It will be adjusted, if necessary, after introduction of the proposed new current cost accounting standard.

> The target rate of return is expressed as an average over three years.... Details of the tariff changes necessary to achieve the target are a matter for British Gas. However, in broad terms, the Government expect domestic gas prices to increase this year by 10 per cent over and above the rate of inflation, followed by comparable real increases in the following two years......

The ensuing debate produced the following exchange (col 1651) which illustrates the government's difficulty in justifying a rise in gas prices when the BGC's profits were already large :

> Sir Bernard Braine: Is my right hon Friend aware that .....many people in this country are mystified? They see the gas industry making substantial profits. My own constituents know that it is difficult enough to meet electricity and gas bills now. Can my right hon Friend explain the justification for the size of the increase in gas prices? That is what people want to know.

> Mr Howell: .....While the BGC may have a large surplus and is efficient, it does not mean that it is competing for customers. On the contrary, customers are competing for gas, as industry well knows. That will continue until the price rises to economic levels. Failure to go that way will be grossly inefficient and will lead to arbitrary rationing and shortages.

The possibility of introducing an additional gas tax was raised by Mr Forman (col 1652). Mr Howell responded by describing a gas tax as an "interesting idea" which seemed to indicate that the government planned to give the matter serious consideration.

In response to questions from Dr Owen (col 1659) Mr Howell admitted that the BGC had not wanted such a large price rise and that the expected increase in the BGC's profits, as a result of the proposed price rise was between £200 and £300 million. Mr Howell's statement on the financial targets for the gas industry was reported in the Financial Times (p 1) the following day. The Financial Times commented that :

> The combination of large increasing profits and high and rapidly increasing prices, presents the Government and British Gas with a problem of presentation and Energy Department officials have been considering ways of applying a special tax on the corporation's profits.

On 24 January 1980 the Financial Times (p 23) made an attempt to clarify matters relating to future gas prices by means of an article consisting of questions and answers. One of these is of particular interest from the political cost aspect of the present study :

> Would it not be better to impose an explicit tax on the Corporation analagous to the Petroleum Revenue Tax?
>
> Yes, if only to stop the childish personification of the argument in terms of a "greedy" Government or Corporation not being content with the present massive gas profits.

The possibility of introducing a tax on gas continued to be discussed both in the House of Commons and in the press in early 1980. The matter was raised twice by Mr Joe Ashton: first on 29 January 1980 during a debate on Gas Prices (977 HC Deb 1979-80 cols 1129-1201 Oral Answers) and again on 11 February in a question to Mr David Howell (978 HC Deb 1979-80 col 1047 Oral Answers). On 3 March 1980 The Daily Telegraph (p 28) reported that the Government was planning to announce a tax on gas in the Budget. Sir Denis Rooke was reported as being opposed to the idea.

7.6.2 Evidence after 31 March 1980

This section included those events which took place after 31 March 1980 which help to explain the accounting choices made during the year ended 31 March 1980.

On 8 May 1980 Mr David Howell, the Secretary of State for Energy announced the introduction of a levy on gas (984 HC Deb 1979/80 cols 191-192 Oral Answers). As justification he used the following public interest argument :

> This will mean that some of the financial benefits which would otherwise accrue to the corporation will be permanently transferred to the benefit of the nation as a whole.

British Gas said it was "very disappointed" at the decision and said that it had opposed the levy because it would reduce cash reserves at a time when a huge onshore and offshore investment programme was being planned (Financial Times, 9 May 1980, p 48).

On 17 July 1980 the National Gas Consumers' Council claimed that domestic gas prices would rise by 125 per cent in the three years to the end of 1982 if inflation continued at its present rate. Professor Naomi McIntosh, Chairman of the Council, claimed that consumers simply did not understand why they should pay more for natural gas than is necessary for the continuing needs of the industry. The NGCC claimed that it received many letters from people mystified by the Government's decision to increase prices by more than the industry needs and called on the Government to explain its decision to consumers (Financial Times, 18 July 1980, p 8).

On 22 July 1980 the BGC published its report and accounts for the year ended 31 March 1980. The press reports the next day had the following headlines :

The Times (p 1)	:	Record gas profit
The Times (p 17)	:	British Gas chief cautious against restructuring after announcing £425m profits
The Guardian (p 1)	:	Hands off, says British Gas after £466m record profit
The Daily Telegraph (p 1)	:	£425m GAS PROFIT
Financial Times (p 1)	:	British Gas fights asset sale
Financial Times (p 26)	:	British Gas
Daily Mirror (p 2)	:	Hands off! Gas is booming
Daily Express (p 2)	:	Price row flares over gas profits
Daily Mail (p 16)	:	Gas and rail fares set to rocket again
Daily Star (p 8)	:	A blast for Maggie on gas prices

All the above newspapers reported that the BGC had made a record pre-tax profit of £425.9 million, an increase of 18 per cent on the previous year. None of the press reports mentioned the after-tax profit figure of £204.6 million. The Times (p 17) noted that the reported return on turnover was 12.1% against the financial target of 6.5% set by the previous government. Only The Daily Telegraph (p 1) mentioned that a supplementary depreciation charge had significantly reduced the reported profit figure. Accounting choices were not mentioned by any of the other national newspapers.

The percentage of total space in these press reports in which prices were adopted as a theme was as follows: The Times, 19%; The Guardian, 10%; The Daily Telegraph, 19%; Financial Times, 4%; Daily Mirror, 31%; Daily Express, 100%; Daily Mail, 68%; Daily Star, 77% and The Sun, 0%. The Daily Star (p 8) quoted the Chairman of the National Gas Consumers' Council, Professor Naomi McIntosh as follows :

> These profits confirm our view that consumers are being taken for a ride by the Government. British Gas has confirmed that future price rises will be higher than the industry itself needs.

On 4 August 1980 Mr Hannam asked the Secrtary of State for Energy if he will list the names of organisations which have made representations to him regarding the government imposed increase in gas prices. Mr Norman Lamont provided a list of 38 organisations who had made representations to the Department of Energy about the increase in gas prices. Mr Lamont also stated that the Department had received representations on the same topic from 90 companies, some of whom had expressed fears about employment prospects (990 HC Deb 1979/80 cols 39-40 Written Answers).

7.6.3 Effect of the accounting choices

The effects of the accounting choices made during the year ended 31 March 1980 on the reported pre-tax profit for the year ended 31 March 1980 are shown on Table 7.11. The restatement of the pre-tax profit for the year ended 31 March 1980 is shown on Table 7.12. The accounting choices made during the year ended 31 March 1980 had the effect of decreasing the pre-tax profit for the year ended 31 March 1980 by £376,000,000 from £801,900,000 to £425,900,000 (Table 7.11) which is a decrease of 46.9%.

Table 7.11

Effect on the reported pre-tax profit for the year ended 31 March 1980 of the accounting choices made during the year ended 31 March 1980

	Increasing	Decreasing £
Replacement expenditure charged as a trading cost (see Appendix H)		134,000,000
Supplementary depreciation charge (see Appendix J)		235,800,000
Increase in provision for field abandonment costs (see Appendix K)		6,200,000
Decreasing effect on reported pre-tax profit		376,000,000

Table 7.12

Restatement of the reported pre-tax profit for the year ended 31 March 1980 for the effect of the accounting choices made during the year ended 31 March 1980

	£
Reported pre-tax profit for the year ended 31 March 1980	425,900,000
Add: Decreasing effect on reported pre-tax profit of the accounting choices made during the year (Table 7.11)	376,000,000
Restated pre-tax profit for the year ended 31 March 1980	801,900,000

7.6.4 Explanations for the accounting choices

The accounting choices made during the year ended 31 March 1980 which decreased the BGC's pre-tax profit for that year by £376,000,000 or 46.9% from £801,900,000 to £425,900,000 can be explained from a pricing perspective. As the Government had announced in January 1980 that gas prices were to rise by 10% over the rate of inflation in each of the three years to 31 March 1983 it would not want the BGC's reported profit to be any higher than absolutely necessary. Non-government politicians, the National Gas Consumers' Council and the media could have claimed that the BGC was already making massive profits and that these Government imposed price rises were unnecessary and were unfair on gas consumers. Given that government politicians might blame them for not avoiding such criticism, civil servants would be motivated to encourage the BGC to make accounting choices which decreased the BGC's reported profit for the year ended 31 March 1980.

Thus the accounting choices made during the year ended 31 March 1980 are consistent with the explanation that they were chosen by BGC management and civil servants to reduce criticism of the Government imposed price rises for the three years to 31 March 1983.

The demands for a tax on gas continued during the year ended 31 March 1980 as noted in section 9.6. Clearly the BGC would not have wanted to provide fuel for these arguments by reporting profits which were any higher than absolutely necessary. Thus the accounting choices made during the year ended 31 March 1980 which reduced the pre-tax profit for that year by £376,000,000 or 46.9% are consistent with the explanation that they were chosen by BGC management in order to avoid political costs in the form of the proposed tax on gas.

7.6.5 Lobbying behaviour

During the year ended 31 March 1980 the BGC lobbied the Accounting Standards Committee regarding Exposure Draft 24 on Current Cost Accounting. The BGC expressed concern that :

> there is no indication in ED24 that current cost accounting should eventually be included in the main accounts, nor is there any guidance for businesses who already provide for current cost adjustments in their profit and loss account.

This comment seems to reflect the BGC's desire not to return to preparing their main accounts on a purely historical cost basis and only showing the current cost adjustments in a supplementary statement. The BGC probably felt that the much higher profits that they would have to report on a historical cost basis would make it more difficult to justify proposed price rises and would make the avoidance of political costs more difficult.

The BGC supported the depreciation, cost of sales and monetary working capital adjustments but objected to the gearing adjustment as follows :

> The gearing adjustment would again appear to be a financing rather than a cost adjustment, but in any case it is not considered appropriate for nationalised industries where the fixed debt lender and the main 'stockholder' are the same, namely the Government. Some general reference in ED24 to gearing not being applicable in such a set of circumstances would be helpful without specifically mentioning nationalised industries.

Thus the BGC supported those adjustments which would reduce its profits but objected to the adjustment that would increase its profits.

7.7 SUMMARY

This chapter has described the investigation of the accounting choices made during the six years ended 31 March 1980. As noted in section 5.2 this study has assumed that civil servants had some involvement in making accounting choices for the gas industry. Limited evidence consistent with that assumption has been identified and is described in this chapter.

The evidence is consistent with the two explanatory hypotheses derived from the US literature identified in section 5.2. During each of the six years there was a need to either justify or reduce criticism of a price rise and during each of the six years income decreasing accounting choices were made for the BGC. During each of the four years ended 31 March 1977, 31 March 1978, 31 March 1979 and 31 March 1980 there was also a need to avoid political costs and during each of these four years income decreasing accounting choices were made for the BGC.

The investigation identified one explanation which was not covered by the two hypotheses. The income decreasing accounting choices made during the year ended 31 March 1975 were consistent with the explanation that they were made in order to increase the amount of compensation for price restraint payable under section 2 of the Statutory Corporations (Financial Provisions) Act 1974.

The effect of these income decreasing accounting choices was not insignificant as they reduced the gas industry's reported profit by 93.0% for the year ended 31 March 1975; by 65.7% for the year ended 31 March 1976; by 88.6% for the year ended 31 March 1977; by 57.2% for the year ended 31 March 1978; by 45.3% for the year ended 31 March 1979 and by 46.9% for the year ended 31 March 1980.

The hypothesised explanations for the accounting choices would only hold provided gas industry management and those civil servants involved in making the accounting choices believed that the other groups participating in the political process relating to the gas industry would not adjust for the accounting choices. The investigation provided very little evidence that any of these groups had, in fact, made adjustments for the accounting choices, presumably because they thought that the marginal costs of adjusting exceeded the marginal benefits. Thus the investigation of the behaviour of the other groups participating in the political process relating to the gas industry did not provide evidence which was inconsistent with the hypothesised explanations for the accounting choices.

The positions adopted by the BGC when lobbying the Accounting Standards Committee on ED17 and ED24 and when lobbying the Sandilands Committee on inflation accounting were consistent with the corporation's apparent preference for accounting choices which would decrease its reported profits.

The next chapter provides a summary of the entire empirical study and discusses the implications of the findings.

CHAPTER 8 SUMMARY AND IMPLICATIONS

8.0 INTRODUCTION

This chapter summarises the empirical study described in chapters 6 and 7 and interprets the findings in the context of the theoretical foundations provided in chapter 3. The chapter also discusses the implications of the findings.

Section 8.1 provides a summary of the results of the investigation of the two hypotheses. Section 8.2 shows the effects of the accounting choices made in each year of the study on the reported net income for the year in which the accounting choices were made. Section 8.3 reviews the evidence of the involvement of civil servants in making the accounting choices. The behaviour of the participants in the political process not involved in making accounting choices is described and discussed in section 8.4. The explanations for the accounting choices which relate to gas prices are summarised in section 8.5. The explanations for the accounting choices which relate to political costs are summarised in section 8.6. Other explanations for the accounting choices are summarised in sections 8.7. The explanations for lobbying behaviour are summarised in section 8.8.

The implications of the accounting choices made during the quinquennium ended 31 March 1974 for the usefulness of the financial target for that period are discussed in section 8.9. The implications for the future economic regulation of the nationalised sector, for accounting policy making and for auditing are discussed in section 8.10, section 8.11 and section 8.12 respectively. Concluding comments are provided in section 8.13.

8.1 INVESTIGATION OF THE TWO HYPOTHESES

In section 5.2 two explanatory hypotheses were generated and these were used to focus the empirical study. These hypotheses were as follows:

Hypothesis 1: When there is a perceived need to either justify a price rise or reduce criticism of a price rise accounting choices will be made which reduce reported profit.

Hypothesis 2: When there is a perceived need to avoid political costs accounting choices will be made which reduce reported profit.

The result of the investigation of these two hypotheses is described in chapters 6 and 7 and is summarised in Table 8.0.

Table 8.0

Year ended	Justification of or reduction in criticism of a price rise	Avoidance of political costs	Income decreasing accounting choices
1970	No	No	No *
1971	No	No	No *
1972	Yes	Yes	Yes *
1973	Yes	No	Yes
1974	Yes	No	Yes
1975	Yes	No	Yes
1976	Yes	No	Yes
1977	Yes	Yes	Yes
1978	Yes	Yes	Yes
1979	Yes	Yes	Yes
1980	Yes	Yes	Yes

* Those accounting choices for which there was no evidence of Gas Council involvement have been ignored for the purposes of this chapter (see section 5.5.4).

8.2 EFFECT OF THE ACCOUNTING CHOICES

During the three years ended 31 March 1972 the gas industry was made up of the Gas Council and twelve Area Boards. The accounting choices for these three years were divided into two categories. The first category was those accounting choices which were either made for the Gas Council or were made for the individual Area Boards at the request of the Gas Council. The second category was those accounting choices made for the Area Boards where there was no evidence that they had been made at the request of the Gas Council.

This study does not attempt to explain the accounting choices in the second category. As explained in sections 6.15, 6.24 and 6.35 different accounting choices were made for different Area Boards during these three years and the effect of these accounting choices on the reported returns on average capital employed for the gas industry as a whole were insignificant. For the year ended 31 March 1972 the accounting choices in the second category increase both the net surplus and the net return on average capital employed for the year ended 31 March 1972 while the accounting choices in the first category had the opposite effects. These findings are consistent with the accounting choices in the second category having been made independently by the individual Area Boards. If these accounting choices were made independently by the individual Area Boards then they cannot be explained by the evidence described in sections 6.1, 6.2 and 6.3 as that evidence only purports to describe the pressures on the gas industry as a whole. The pressures on the individual Area Boards may have been different.

This study does attempt to explain the accounting choices in the first category. The effects of these accounting choices which were made for or at the request of the Gas Council for the three years ended 31 March 1972 together with the effects of the accounting choices made for the BGC for the eight years ended 31 March 1980 are shown on Table 8.1.

Table 8.1

Effect of the accounting choices made for or at the request of the Gas Council for the three years ended 31 March 1972 or by the BGC for the eight years ended 31 March 1980

Year ended 31 March	Estimated net income prior to accounting choices made during year	Effect on net income of accounting choices made during year incr(decr)	Reported net income	Percentage change in reported income
	£	£	£	
1970	13,391,000	358,000	13,749,000	+2.7%
1971	1,990,000	-	1,990,000	-
1972	24,870,000	(9,751,000)	15,119,000	-39.2%
1973	25,346,000	(19,746,000)	5,600,000	-77.9%
1974	(27,879,000)	(13,621,000)	(41,500,000)	-48.9%
1975	(21,920,000)	(20,380,000)	(42,300,000)	-93.0%
1976	73,200,000	(48,100,000)	25,100,000	-65.7%
1977	273,072,000	(242,072,000)	31,500,000	-88.6%
1978	420,900,000	(240,600,000)	180,300,000	-57.2%
1979	659,300,000	(298,600,000)	360,700,000	-45.3%
1980	801,900,000	(376,000,000)	425,900,000	-46.9%

As can be seen from Table 8.1 income decreasing accounting choices were made for each of the nine years ended 31 March 1980. The only years for which income decreasing accounting choices were not made were the years ended 31 March 1970 and 31 March 1971. For the year ended 31 March 1970 the accounting choices made by the Area Boards at the request of the Gas Council had the effect of increasing reported net income by 2.8%. There were no accounting choices made for the Gas Council or for the Area Boards at the request of the Gas Council during the year ended 31 March 1971.

8.3 INVOLVEMENT OF CIVIL SERVANTS IN MAKING ACCOUNTING CHOICES

As noted in section 2.1.1 it was not clear prior to conducting the empirical study whether or not civil servants had been involved in making accounting choices for the gas industry. The empirical study provided some evidence on this issue. That evidence was as follows :

1) In their evidence to the SCNI in 1968 the officials from the Ministry of Power demonstrated a keen awareness of the standard accounting rules used by the gas industry for writing off obsolete gas making plant (section 6.1.1). Such a keen awareness is consistent with the officials from the Ministry of Power having had some influence in the setting of these standard rules.

2) During the dispute in 1977 between the BGC and the Price Commission over the BGC's "excess profits" the Financial Times (29 June 1977,p 8) reported that the Department of Energy was satisfied with the BGC's accounting procedures (section 7.4.1).

3) In his evidence to the SCNI on 8 February 1978 Sir Denis Rooke defended the supplementary depreciation charge in the BGC's published accounts by claiming that the BGC had wanted to adopt replacement cost depreciation for seven or eight years but had been

prevented from doing so by the sponsor department. He repeated this claim on 13 February 1978 during discussions at the Energy Commission (section 7.4.1).

Although the above evidence is not conclusive it is consistent with civil servants having some involvement in making accounting choices for the gas industry. This study's explanations for these accounting choices has assumed that civil servants were involved in making these choices. Thus the above evidence is consistent with that assumption.

8.4 BEHAVIOUR OF THE PARTICIPANTS IN THE POLITICAL PROCESS NOT INVOLVED IN MAKING ACCOUNTING CHOICES

As noted in section 3.3.1 it is likely that the use that is made of published accounting information will be taken into consideration by those making the accounting choices. If this argument holds for the UK gas industry its managers and those civil servants involved in making accounting choices for the industry would take into account the use made of its published accounts by other groups participating in the political process relating to the industry.

Insights into the behaviour of the various groups participating in the political process relating to the gas industry including their use of the industry's published accounts is provided in chapters 6 and 7. This section provides for each group not involved in making the accounting choices a summary of that behaviour and a hypothesised explanation within the context of the theoretical foundations of the study provided in chapter 3. Non-government politicians are dealt with in section 8.4.1, the press in section 8.4.2, consumers in section 8.4.3, the Price

Commission in section 8.4.4 and competitors in section 8.4.5. Concluding comments on the behaviour of these groups is provided in section 8.4.6.

8.4.1 Non-government politicians

As noted in section 3.2.3 politicians have incentives to create crises and then benefit voters by "solving" them. In the case of non-government politicians the emphasis is likely to be on the former activity as they would generally not have the power as non-government politicians to "solve" crises.

The present study provides ample evidence of non-government politicians taking an interest in gas prices both through questions to government politicians in the House of Commons and when serving on the SCNI, through questions to both civil servants and gas industry management. Non-government politicians did not ask any questions in the House of Commons on accounting choices and only the charges to revenue for the replacement cost of certain categories of fixed assets and the supplementary depreciation charges were asked about on the SCNI.

From the non-government politician's point of view gas prices probably provide a better source of potential crises than accounting choices. Increases in gas prices have an obvious effect on the gas consumer/voter's utility. Accounting choices do not have an effect on the gas consumer/voter's utility which is easily understood by the average gas consumer/voter. Thus in order to maximise their own utility non-government politicians have a motivation to create crises on issues relating to gas prices but little motivation to create crises on issues relating to accounting choices.

A further reason for not reporting on accounting choices is the costs to each non-government politician of unravelling the accounting numbers. Few non-government politicians are likely to have either the time or sufficient technical knowledge of accounting to be able to unravel the complexity associated with accounting choices. Thus from the viewpoint of the non-government politician the marginal benefits of adjusting for the accounting choices are unlikely to exceed the marginal costs.

8.4.2 The press

As noted in section 3.2.2 the press are more motivated to entertain than inform and one way they can entertain is by creating impressions of impending disasters. Many of the reports in the national newspapers on the day following the publication of the gas industry's annual accounts carried a headline which sensationalised a proposed or planned rise in gas prices. For all gas consumers a price rise would be seen as bad news and for some, because of their financial circumstances, it might well be seen as a disaster. The headlines of all the reports in the national newspapers on the day following the publication of the gas industry's annual report during the eleven years of the current study are included in chapters 6 and 7. Fifty-eight out of 75 reports, or 77%, had a headline which referred to a gas price rise. If the years 1977 and 1978, when a gas price rise was not imminent, are excluded from the analysis the percentage of reports with a headline that refers to a gas price rise goes up to 82%.

In addition to providing entertainment newspapers have incentives to provide information which is of interest to consumers. Readers will be interested in news which enables them to maximise their utility. The news relating to the gas industry which is likely to be of interest to readers is information about future gas prices. On the basis of such information readers can make rational decisions regarding their future consumption of gas and can thereby maximise their utility. Readers are unlikely to be interested in information relating to the gas industry's accounting choices as it would probably not be obvious to them what effect these accounting choices had on their utility. Thus in order to satisfy the demand from readers, the press will be motivated to supply information about gas prices but will not be motivated to supply information about accounting choices.

A further reason for not reporting on accounting choices is the costs to each newspaper of unravelling the accounting numbers. For instance, the adjustment of the accounting choices relating to displaced plant in the gas industry's accounts for the year ended 31 March 1970 was extremely time-consuming. Furthermore, many newspapers would not have staff who had sufficient technical knowledge of accounting to be able to unravel the complexity associated with such accounting choices. Thus from the point of view of the press, if adjusting for accounting choices is complex the marginal benefits of so doing are unlikely to exceed the marginal costs.

The evidence in chapters 6 and 7 is consistent with the above analysis. Over the 11 years of the study on average 66% of the national newspaper reports on the day after the gas industry's annual accounts were published focused on prices. If the newspaper reports on the published accounts for the years ended 31 March 1977 and 31 March 1978 (when a gas price rise was not imminent) are dropped out of the analysis the average proportion of the newspaper reports which focused on gas prices goes up to 72%. Of the 75 national newspaper reports on the day after the gas industry's annual accounts were published during the 11 years of the study only 11 or 15% made any reference to accounting choices. None of these 11 newspaper reports made a complete adjustment for all the accounting choices made for the gas industry in that year.

The above analysis of the national newspaper reports on the day following the publication of the gas industry's published accounts reveals a certain structural regularity (section 5.4). That structural regularity can be summarised as follows :

1) the majority of headlines focused on gas prices;
2) a substantial proportion of the content of these reports focused on gas prices;
3) the majority of the reports did not identify the accounting choices made for the gas industry.

8.4.3 Consumers

In principle as noted in section 3.3.1 consumers' decisions on whether to incur coalition and lobbying costs as well as the costs of gathering information relative to a proposed price rise will depend on the expected benefits. As noted in section 2.2.2 gas consumers' coalition costs were to a large extent provided by the gas industry throughout the period of the study. However, during the period of the study there was little evidence of the Councils representing gas consumers by participating in the political process on matters relating to either gas prices or political costs. There was also little evidence of any public reaction from the Councils to the publication of the gas industry published accounts. The lack of evidence of the Councils' participation in the political process can be interpreted as an indication that the Councils felt that the costs of lobbying and gathering information on these matters were likely to be greater than the expected benefits.

However, it should be borne in mind that the present study only investigated publicly available information at the national level. Up to the Gas Act 1972 there was no National Gas Consumers Council so it is perhaps unreasonable to expect any reactions from consumers to appear at national level. After 1972 such an expectation does not appear to be unreasonable but it is possible that the National Gas Consumers Council decided that it could more effectively influence the political process by activities about which information is not publicly available. For instance, they may have raised issues on gas prices at their regular meetings with the BGC. However, on the basis of the results of the survey by Dean (1984) on the ability of the Nationalised Industry Consumer Councils to monitor the performance of industries it seems unlikely that the National Gas Consumer Council would have adjusted for the BGC's accounting choices.

8.4.4 Price Commission

As noted in section 2.3.5 the detailed provisions relating to the Price Commission's functions appeared in Statutory Orders. The details of these provisions insofar as they relate to the present study have been described in chapters 6 and 7. As noted in section 6.5.1 these Statutory Orders gave the Price Commission no discretionary powers. However, as the basis of the Price Commission's decisions is not publicly available it is not clear what approach the Price Commission adopted when presented with a proposal for a price rise justified on the basis of accounting information which included accounting choice(s) not excluded in the Statutory Orders.

On the basis of the evidence presented in chapters 6 and 7 it is possible to hypothesise how the Price Commission might have reacted to such an accounting choice by the BGC. If there was pressure from the government, civil servants and the BGC to allow a rise in gas prices and if after the new accounting choices (not excluded by the Statutory Orders) the BGC met the Statutory requirements for a price rise it would probably be in the interests of the Price Commission (the equivalent of the regulators in section 3.3.1) to not adjust for the accounting choices. This is because there is no evidence that the other participants in the political process, non-government politicians, the press and consumers adjusted either. Thus from the Price Commission's point of view the marginal costs of adjusting for the accounting choices may have exceeded the marginal benefits in that government politicians, civil servants and the BGC would probably protest if a gas price rise was not awarded while non-government politicians, the press and consumers would probably not adjust for the accounting choices if the accounting numbers were used to justify the gas price rise.

8.4.5 Competitors

As noted in section 2.2.5 the gas industry increased its share of the energy market from 11% to 30% during the period of the study. This was a cause of considerable concern to both the coal and electricity industries as the evidence in chapter 7 demonstrates. It was these industries which first suggested and then lobbied for some sort of extra tax on the BGC in the hope that as such a tax would reduce the BGC's profits, gas prices would have to rise which would then reduce the attractiveness of gas relative to coal and electricity. Thus the most major threat that political costs would be imposed on the gas industry originated from its competitors.

The comments of the electricity industry indicated that they were aware that the gas industry's accounting choices were aimed at dampening down its reported profits. However, the electricity industry did not attempt to create a crisis over the gas industry's accounting choices, perhaps because the electricity industry itself had made controversial accounting choices (Dean, 1978; Wright, 1979; Gibbs and Taylor, 1979; Likierman, 1981 and Likierman, 1983). There was no evidence that either the electricity industry or the coal industry had fully adjusted for the gas industry's accounting choices, presumably because the marginal costs of so doing exceeded the marginal benefits.

8.4.6 Concluding comments

The evidence in chapters 6 and 7 suggest that for most of the period of the study the participants in the political process relating to the gas industry thought that the marginal costs of adjusting for the gas industry's accounting choices were greater than the expected marginal benefits. Thus the evidence is consistent with the arguments in the US literature on accounting and the political process described in chapter 3.

When making the accounting choices for the gas industry, gas industry management and civil servants are likely to take into account the evidence that the other participants in the political process relating to the industry do not usually adjust for the accounting choices.

8.5 EXPLANATIONS FOR THE ACCOUNTING CHOICES WHICH RELATE TO GAS PRICES

As noted in section 3.3.1 it has been argued in the US literature that regulated firms in the USA will favour income decreasing accounting choices in order to provide a more convincing argument for a price rise. Although the UK gas industry has many features in common with regulated firms in the USA the regulations in the UK are looser (section 2.3) and the political environment is different (section 2.1). Taking these differences into account Hypothesis 1 (section 5.2) predicts that income decreasing accounting choices were made for the gas industry when there was a need to justify or reduce criticism of a price rise.

As demonstrated in Table 8.0 the findings of this study provide evidence which is consistent with Hypothesis 1. In nine out of the 11 years of the study there was a perceived need to justify or reduce criticism of an increase in gas prices. During each of these years income decreasing accounting choices were made and as can be seen from Table 8.1 these accounting choices decreased reported profit to a significant extent each year. Income decreasing accounting choices were not made during the remaining two years of the study when there was no need to justify or reduce criticism of an increase in gas prices. Thus the evidence is consistent with Hypothesis 1.

The evidence in chapters 6 and 7 indicates that gas industry management wanted to increase gas prices in order to increase the industry's cash flows which were to be used to finance the large capital expenditure programme resulting from the transition from the manufacture of town gas to the distribution of natural gas through a national transmission system. Also as NEDO (1976, Appendix Volume, p 105) points out for the BGC

> the self-financing ratio (ie the proportion of investment expenditure to be financed from internally generated funds) has become, in itself, an important financial objective.

If the funds necessary to finance the capital expenditure programme could not be generated internally they would have to be sought from external sources. The most likely external source of finance would be borrowing from the National Loans Fund administered by the Treasury (section 2.2.3). However, the evidence in chapter 6 and 7 indicates that during the period of the study it was government policy to try to reduce the Public Sector Borrowing Requirement which included loans to nationalised industries. Thus civil servants, particularly those at the Treasury, would probably have preferred the BGC to raise its financial requirements from increases in gas prices rather than from increased borrowing from the National Loans Fund. Thus to the extent that lower reported profits for the gas industry improved the justification for a price rise to the other participants in the political process civil servants also had reason to favour income decreasing accounting choices.

For some of the years of the study civil servants had another reason for favouring income decreasing accounting choices. In 1977 and 1980 the government intervened to impose an increase in gas prices. In each case this led to criticism from other participants in the political process. In these circumstances government politicians would presumably have preferred the BGC to not report massive profits as these would have provided further ammunition for other participants in the political process to depict the government as being "greedy" by raising gas prices at the expense of "poor" consumers when the BGC's profits were already large. Thus civil servants had incentives to favour income decreasing accounting choices for the gas industry in order to avoid crises for government politicians.

The activities of civil servants described above are based on the argument that they did not want to be criticised by their political masters for either not carrying out government policies to the best of their ability (eg reducing the Public Sector Borrowing Requirement) or for not doing their best to protect their political masters from criticisms from the other participants in the political process. Civil servants probably believed that their careers could be damaged if they were subject to any such criticism from government politicians.

The income decreasing accounting choices by gas industry management and civil servants would only achieve their desired objectives provided the other participants in the political process did not adjust the gas industry's reported profits for these accounting choices. However, the evidence in section 8.4 indicates that most of the time the other participants in the political process did not, in fact, so adjust, presumably because the marginal costs of so doing exceeded the marginal benefits.

8.6 EXPLANATIONS FOR THE ACCOUNTING CHOICES RELATING TO POLITICAL COSTS

As noted in section 3.3.2 it has been argued in the US literature that politically sensitive firms in the USA will favour income decreasing accounting choices in order to avoid the imposition of political costs. The variables which have been used in the empirical studies described in chapter 4 as surrogates for political sensitivity are size, the opportunity to earn monopoly profits, capital intensity and variability in reported profits. As noted in section 2.2 the UK gas industry is large, is a monopoly supplier of gas in the UK, is capital intensive and had highly variable profits during the period of the study. In addition, like all nationalised industries the government was a major provider of finance for the UK gas industry (section 2.2.3). As the UK gas industry had all these characteristics it seems reasonable to assume that it is a politically sensitive industry. This reasoning led to the generation in section 5.2 of Hypothesis 2 which predicts that income decreasing accounting choices were made for the UK gas industry when there was a need to avoid political costs.

As demonstrated in Table 8.0 the findings of this study provide evidence which is consistent with Hypothesis 2. In five out of the 11 years of the study there was an apparent need to avoid the imposition of political costs. During each of these years income decreasing accounting choices were made and as can be seen from Table 8.1 these accounting choices decreased reported profit to a significant extent each year. Political costs might have been imposed on the gas industry as a result of 1) Clause 16 of the Gas Bill 1972, 2) Section 16 of the Gas Act 1972 and 3) the arguments for a special tax on gas.

Gas industry management would not have wanted to suffer any political costs which would have decreased the industry's cash flows at a time when funds were needed to finance a large capital expenditure programme. Civil servants would probably have been indifferent on this issue as the political costs which the gas industry might have suffered during the period of the study would only have transferred wealth from one part of the public sector to another. Thus Hypothesis 2 provides gas industry management, but not civil servants, with a second reason for favouring income decreasing accounting choices.

These income decreasing accounting choices would only achieve their objective provided the other participants in the political process did not adjust the industry's reported profits for these accounting choices. However, the evidence in section 8.4 indicates that most of the time the other participants did not so adjust, presumably because the marginal costs of so doing exceeded the marginal benefits.

8.7 OTHER EXPLANATIONS FOR THE ACCOUNTING CHOICES

It was noted in section 5.2 that as the institutional and political environment of the UK gas industry was different from that of regulated and politically sensitive firms in the United States the investigation would not be restricted to the two explanatory hypotheses derived from the US literature. The study identified two explanations for the accounting choices for the UK gas industry which were not covered by the two hypotheses.

The accounting choices made during the year ended 31 March 1970 were consistent with the explanation that they had been made in order to reduce the likelihood of future criticism of government politicians, civil servants and gas industry management that the decision to exploit natural gas was not going to lead to lower prices for the gas consumer. Such criticism had already been made by non-government politicians and the press on the basis that gas prices were not going to fall because the gas consumer was going to have to bear the cost of the obsolete gas-making plant. The accounting choices made during the year ended 31 March 1970 for the Area Boards at the request of the Gas Council significantly reduced the amount of obsolete plant shown in the consolidated balance sheet.

The accounting choices made during each of the two years ended 31 March 1974 and 1975 were consistent with the explanations that they were made to increase the amount of compensation for price restraint payable under section 2 of the Statutory Corporations (Financial Provisions) Act 1974. Section 2 of that Act specified that the amount of compensation paid should be equal to the reported loss in the audited financial statements. The accounting choices made during each of these years significantly increased the gas industry's reported loss.

8.8 EXPLANATIONS FOR LOBBYING BEHAVIOUR

The positions adopted by the BGC when lobbying the Accounting Standards Committee on ED8, ED17, and ED24 and when lobbying the Sandilands Committee on inflation accounting were consistent with the corporation's apparent preference for accounting choices which would decrease its reported profits.

8.9 IMPLICATIONS OF THE ACCOUNTING CHOICES MADE DURING THE QUINQUENNIUM ENDED 31 MARCH 1974 FOR THE USEFULNESS OF THE FINANCIAL TARGET FOR THAT PERIOD

The gas industry was set a financial target of achieving a 7% return on average capital employed for the quinquennium ended 31 March 1974 (section 6.1.1). The effects of the accounting choices made during the quinquennium on the accounting rates of return reported for the quinquennium were calculated in order to assess the extent to which these accounting choices had undermined the usefulness of the comparison between the reported rate of return and the financial target.

As noted in section 5.5.3 most accounting choices only create timing differences between accounting periods. They affect not only the reported outcomes for the year in which they were made but also the reported outcomes for subsequent years as well. Thus in order to assess the extent to which the accounting choices made during the quinquennium affected the usefulness of the comparison between the reported rate of return and the financial target it was necessary to calculate not only the effect of the accounting choices on the reported outcomes for the year in which they were made but also their effect on the reported outcomes for the remaining years of the quinquennium. These effects are described in section 6.6.

The accounting choices made during the first two years of the quinquennium did not have a significant effect on the reported returns on average capital employed for any of the years of the quinquennium. However, the accounting choices for the year ended 31 March 1972 not only reduced the reported return in that year by 0.3% it also reduced the reported returns for the next two years by 0.4% and 0.9% respectively. Similarly the accounting choices for the year ended 31 March 1973 not only reduced the reported return for that year by 0.9% but also reduced the reported return for the following years by 0.8%. Thus the accounting choices made during the years ended 31 March 1972 and 31 March 1973 significantly affected the accounting choices for subsequent years of the quinquennium.

The cumulative effects of the accounting choices made during the quinquennium on the reported returns on average capital employed for each year of the quinquennium are described in section 6.7 and are summarised in Table 6.42. As can be seen from Table 6.42 the cumulative effect of these accounting choices significantly reduced the reported return for the last three years of the quinquennium: the year ended 31 March 1972 was reduced by 0.3% from 7.5% to 7.2%; the year ended 31 March 1973 was reduced by 1.1% from 8.4% to 7.3% and the year ended 31 March 1974 was reduced by 2.3% from 7.7% to 5.4%.

Thus it would appear that the accounting choices made during the last three years of the quinquennium did undermine the usefulness of the comparison between the reported rate of return on average capital employed and the financial target.

The evidence summarised above suggests that the gas industry's financial target was not being used as intended in the 1967 White Paper (HM Treasury, 1967). According to para 33 of which the financial target was to serve :

> both as an incentive to management and as one of the standards by which success or failure over a period of years may be judged. The alternative would be an indefensible lack of control over the return achieved on a very substantial public investment.

If the reported outcome was compared to the financial target for the purposes described in para 33 it seems unlikely that gas industry management would make accounting choices which significantly reduced the reported outcomes for the last three years of the quinquennium. What seems more likely is Deardon's (1969, p 134) conclusion that :

> return on investment does not provide any control and only obscures the fact that there is no real control.

This study provides evidence of an important alternative use of the comparison between the reported outcome and the financial target. As Hopwood (1984 p 185) points out :

> the consequences of accounting do not necessarily have a close and automatic relationship with the aims in the name of which it is introduced.

The evidence indicates that the comparison was used by gas industry management to help justify rises in gas prices. The evidence suggests that gas industry management saw this as being an important function of financial targets. In 1974 (section 6.5.1) the BGC argued that its financial target was not high enough and later complained about the lack of a target for the following five years. Such arguments are consistent with a financial target having a useful role in the arguments for price rises but are not consistent with the use of financial targets for the assessment of operating efficiency.

For gas industry management and civil servants the system of using a financial target as a objective in the price-setting process has the advantage of flexibility. If the financial target turns out to be too low to achieve the desired level of prices, as in the later years of the quinquennium ended 31 March 1974, income decreasing accounting choices can be adopted which will achieve the same purpose as raising the target.

However, from the perspective of gas consumers the system seems less than ideal. To the extent that the financial target provides some sort of signal to gas consumers regarding the future level of gas prices the present flexibility in accounting choices undermines its usefulness. This weakness in the price-setting system is exacerbated by the inability of the other participants in the political process to identify and adjust for these accounting choices.

To the extent that the financial target provides some indication of the level of prices required to achieve LRMC the efficient allocation of resources may be affected by the accounting choices. In such a situation income decreasing accounting choices could lead to a hidden tax being imposed on gas consumers.

8.10 IMPLICATIONS FOR THE FUTURE ECONOMIC REGULATION OF THE NATIONALISED SECTOR

The results of this study indicate that any comparison between a financial target and an outcome where both are expressed in accrual accounting terms is always going to be suspect because of the inevitable discretion available to those making the accounting choices. Although the extent of this discretion could be reduced by specifying certain accounting choices in advance some of the subjectivity associated with accrual accounting is bound to remain and therefore some opportunities for manipulation must also remain.

As noted in the previous section the evidence in the study suggests that gas industry management regarded the financial target for the quinquennium ended 31 March 1974 more as part of an input into an argument for a price rise rather than as a benchmark for use by others in measuring their operating efficiency.

The evidence in the study tends to be consistent with the findings of NEDO (1976, Appendix Volume, p 101 and p 106) that in the absence of either government intervention or the rules of Price Codes) the gas industry's prices were set on the basis of accounting costs rather than on the basis of long-run marginal costs as recommended in the 1967 White Paper.

Evidence in the study suggests that civil servants were involved in making accounting choices for the gas industry. Such an involvement would appear to sit uneasily with their responsibility to monitor the performance of the gas industry.

The evidence in the study suggests that most of the time the participants in the political process relating to the gas industry who were not involved in making the accounting choices did not adjust for these accounting choices. In other words these groups appeared to accept the gas industry's reported profits at face value. In those circumstances the accounting choices made for the gas industry would appear to have undermined the contribution of the industry's published accounts to the accountability and control of the industry.

It is not possible to generalise the findings of a research study on one nationalised industry to the nationalised sector as a whole. Nevertheless, the findings of this study would appear to be a useful input to those charged with the responsibility of designing a new system of accountability and control for the nationalised sector.

8.11 IMPLICATIONS FOR ACCOUNTING POLICY MAKING

The study provides evidence which suggests that income decreasing accounting choices were made for the UK gas industry in order to provide a more convincing argument for a rise in gas prices or to avoid political costs. The study also provides evidence that each time that gas industry management lobbied the Accounting Standards Committee on a proposed accounting standard they either argued for income decreasing accounting or argued against income increasing accounting choices. Thus the gas industry's lobbying behaviour appeared to reflect the gas industry's preference for income decreasing accounting choices.

Such knowledge should be useful to the Accounting Standards Committee if setting accounting standards specifically for the nationalised sector.

8.12 IMPLICATIONS FOR AUDITING

Watts and Zimmerman (1979, p 280) point out that :

> Accounting texts (and theories) which detail how managers seek to manipulate profits and the consequent effects of these manipulations.... not only improve the auditor's ability to monitor such behaviour, but also provide the auditor with ready-made arguments to use against such practices in discussions with management.

This study not only details the accounting choices made for the UK gas industry but also calculates their effect on the gas industry's reported outcomes and attempts to provide explanations of why they were made. Such knowledge should be useful to the auditors of the gas industry when discussing future accounting choices for the industry with gas industry management.

8.13 SUMMARY

This chapter has summarised the findings of the investigation of the accounting choices made for the gas industry during the eleven years up to 31 March 1980. As noted in section 5.2 the study has assumed that these accounting choices were not made independently by gas industry management and that civil servants were also involved in making these choices. Limited evidence consistent with that assumption has been identified and is summarised in this chapter.

Two hypotheses derived from the US literature were used to focus the empirical study. The evidence was not inconsistent with these two hypotheses. For nine out of the eleven years of the study there was evidence of a perceived need to either justify or reduce criticism of a price rise and income decreasing accounting choices were made. For five out of the eleven years there was evidence of a perceived need to avoid political costs and income decreasing accounting choices were made. During the two years of the study when there was no evidence of a perceived need to justify or reduce criticism of a price rise nor evidence of a perceived need to avoid political costs income decreasing accounting choices were not made.

For each of the nine years during which income decreasing accounting choices were made the effect of these choices on the gas industry's reported profits was significant. The decreases in the reported profits ranged from 39.2% to 93.0%.

The investigation was not restricted to the two explanatory hypotheses derived from the US literature. Evidence consistent with other explanations was identified for the accounting choices made during the years ended 31 March 1970, 31 March 1974 and 31 March 1975.

The hypothesised explanations for the accounting choices would only hold provided gas industry management and those civil servants involved in making the accounting choices believed that the other groups participating in the political process relating to the gas industry would not adjust for the accounting choices. The investigation provided very little evidence that any of these groups had, in fact, made adjustments for the accounting choices, presumably because they thought that the marginal costs of adjusting exceeded the marginal benefits. Thus the investigation of the behaviour of the other groups participating in the political process relating to the gas industry did not provide evidence which was inconsistent with the hypothesised explanations for the accounting choices.

During the eleven years of the study the gas industry lobbied on four proposed accounting practices and each time the position adopted was consistent with the BGC's apparent preference for accounting choices which would decrease its reported profits.

The cumulative effects of the accounting choices made during the three years ended 31 March 1972, 31 March 1973 and 31 March 1974 significantly reduced the reported net return on average capital employed for these three years. The 1967 White Paper intended the comparison of reported outcomes with financial targets to be useful as a control mechanism but this purpose appeared to be undermined for the gas industry for the three years ended 31 March 1972, 31 March 1973 and 31 March 1974 as a result of the cumulative effect of the accounting choices made during these years. An alternative use of financial targets was suggested by the study as evidence was identified which was consistent with gas industry management seeing the financial target for the quinquennium ended 31 March 1974 as having a useful role in the arguments for price rises.

Finally, this chapter has reviewed the implications of the study for the future economic regulation of the nationalised sector, for accounting policy making and for auditing.

The next and final chapter will summarise the entire study, describe its contributions to knowledge and its limitations, and identify areas for future research.

CHAPTER 9 CONCLUSIONS

9.0 INTRODUCTION

This chapter provides a review of the entire thesis. A summary of the thesis is provided in section 9.1, the contributions to knowledge are identified in section 9.2, the limitations and key assumptions are described in section 9.3, areas for future research are described in section 9.4 and concluding remarks are provided in section 9.5.

9.1 SUMMARY

In chapter 1 the development in the United States of a positive theory of accounting choices is briefly introduced. The contributions to that development which are expected from the longitudinal study of the impact of the political process on (1) the accounting choices made for the UK gas industry and on (2) the gas industry's submissions to the Accounting Standards Committee are briefly described. The hypotheses to be tested are identified and a brief review of the research methodology is provided. The limitations amd key assumptions of the study are outlined as are the expected contributions to knowledge.

Chapter 2 sets the scene for the study. The accountability and control of the UK nationalised industries is described including the limited evidence on the involvement of civil servants in making accounting choices for the industries. Those characteristics of the UK gas industry considered relevant to the present study are described and the role of accounting measures in the regulation of the industry is traced from the Gas Act 1948 to the 1978 White Paper. It is concluded that accounting measures had a role to play in the setting of gas prices during the period of the present study.

The theoretical foundations of the study are provided in chapter 3 with a review of the mainly US literature on accounting and the political process. The discussion of the nature of the political process introduces the self-interest assumption which is a key assumption of the present study. Based on this assumption the incentives of various groups to participate in the political process are discussed. Finally the impact of the political process on the accounting choices made for both regulated firms and politically sensitive firms is discussed.

The prior research on accounting choices is reviewed in chapter 4. First, income smoothing research is briefly summarised and the theoretical flaws in that research which have subsequently become apparent are pointed out. As the later empirical studies of accounting choices test hypotheses derived from both the literature on accounting and the political process and from the literature on accounting and the contracting process the latter is briefly described before reviewing the empirical studies. The review starts with those studies which include tests of hypotheses that proxy for political sensitivity. This is followed by a review of the only test of the regulation hypothesis, a review of those studies which have described some of the accounting choices made by nationalised industries, and a review of a study that includes accruals as well as accounting procedures in its tests.

The research methodology is described in chapter 5. The distinction is made between the 'scientific' and 'naturalistic' approaches to research before the compromise between the two adopted in the present study is described. That compromise involves using two explanatory hypotheses derived from the US literature to focus the investigation of the accounting choices for the UK gas industry but, because of the institutional, political and regulatory differences between the countries, being prepared to accept other explanations for the accounting choices that are identified by the empirical study. The benefits of adopting a case study approach and a longitudinal research design are outlined. Detailed descriptions are provided of the investigations of (1) the effects of the accounting choices, (2) the explanations for the accounting choices and (3) the submissions to the Accounting Standards Committee.

The investigation of the accounting choices made during the quinquennium ended 31 March 1974 for which a financial target in accounting rate of return terms was set, is described in chapter 6. The structure of the description of the investigation of each year's accounting choices includes the following: (1) the evidence up to the end of that financial year which relates to the two explanatory hypotheses identified in section 5.2 plus any other evidence identified during the course of the study which seemed to provide an alternative explanation for the accounting choices; (2) the effects of the accounting choices on the reported profit or loss, capital employed and net return on average capital employed for the year; (3) the explanations for the accounting choices which are consistent with the evidence. In addition, for the relevant years a description is provided of the gas industry's submissions to the Accounting Standards Committee on proposed accounting standards. The effect of each year's accounting choices on the reported outcomes for later years of the quinquennium is described. Finally the cumulative effect of the accounting choices made during the quinquennium on the reported net returns on average capital employed during the quinquennium is described.

The investigation of the accounting choices made during the six years ended 31 March 1980 is described in chapter 7. The structure of the chapter is the same as that for chapter 6 except that as a financial target was not set for this period it only includes the effect of the accounting choices on the reported profit or loss for the year in which the accounting choices were made.

The empirical study is summarised and its implications are discussed in chapter 8. A summary is provided of (1) the investigation of the two hypotheses, (2) the effect of the accounting choices on reported net income, (3) the evidence of the involvement of civil servants in making the accounting choices, (4) the behaviour of those participants in the political process not involved in making accounting choices, (5) the explanations for the accounting choices relating to gas prices, (6) the explanations for the accounting choices relating to political costs, (7) other explanations for the accounting choices and finally (8) the explanations for the submissions to the Accounting Standards Committee on proposed accounting standards. The implications are discussed of the accounting choices made during the quinquennium ended 31 March 1974 for the usefulness of the financial target for that period. Finally the implications of the study for the future economic regulation of the nationalised sector, for accounting policy making and for auditing are discussed.

9.2 CONTRIBUTION TO KNOWLEDGE

The expected contributions to knowledge from this research were described in section 1.7. In this section the contributions to knowledge actually achieved will be matched against these earlier expectations.

1. This study has contributed to the fund of knowledge on the impact of the political process on accounting choices and has thereby contributed to the development of a positive theory of accounting choices.
2. As all the studies which investigated the impact of the political process on accounting choices have used US data this research has contributed to the fund of knowledge by extending such studies to UK data.
3. As this is the first study to focus on the impact of the political process on accounting choices in the UK nationalised sector it is the first contribution to the development of a positive theory of accounting choices in the UK nationalised sector.
4. This research has provided evidence relating to the UK gas industry which is consistent with the hypothesis that income decreasing accounting choices will be made for a regulated firm in order to help justify or help reduce criticism of a price rise.
5. This research has also provided evidence relating to the UK gas industry which is consistent with the hypothesis that income decreasing accounting choices will be made for a politically sensitive firm in order to reduce the likelihood of the imposition of political costs.

6. This study has provided evidence which is consistent with accounting choices being made for the gas industry for the year ended 31 March 1970 in order to reduce the likelihood of government politicians, civil servants and gas industry management being subject to further criticism that the decision to exploit natural gas was not going to lead to lower prices for gas consumers as gas prices were going to include the charges for the displaced gas manufacturing plant.

7. This study has provided evidence which is consistent with income decreasing accounting choices being made for the gas industry for each of the two years ended 31 March 1975 in order to increase the amount of compensation payable under section 2 of the Statutory Corporations (Financial Provisions) Act 1974.

8. This is the first study which has investigated accounting choices and lobbying behaviour on proposed accounting standards for the same firm. The research provides evidence which suggests that the gas industry's lobbying behaviour was aimed at decreasing future reported income. Thus the research provides evidence which suggests that a consistent approach was adopted by the gas industry when making accounting choices and when lobbying the Accounting Standards Committee.

9. The study provides limited evidence which is consistent with civil servants having some involvement in making accounting choices for the gas industry.

10. The study provides evidence that most of the time those participants in the political process relating to the gas industry who were not involved in making the accounting choices for the

industry did not appear to fully adjust for these accounting choices.

11. This is the first accounting choice study to depart from the scientific method to adopt a compromise between the naturalistic approach and the scientific method.

12. This is the first accounting choice study to adopt an in-depth longitudinal case study approach.

13. Apart from Healy (1985) this is the first accounting choice study to include all the accounting choices made each year. Thus, as in Healy (1985) both accruals and accounting procedures are included as accounting choices.

14. This is one of the first studies, after Zmijewski and Hagerman (1981) and Healy (1985) to assume that accounting choices are not made independently.

15. This is one of the first studies to take into account the monetary effect of each accounting choice. In many of the prior studies each accounting choice was weighted equally.

16. This is the first study to investigate the effect of accounting choices on years subsequent to the one during which the accounting choice was made.

17. This is the first study to investigate the effect of accounting choices on the accounting rate of return reported for a nationalised industry.

18. This is the first study to investigate the extent to which the accounting choices made for a nationalised industry undermined the usefulness of the comparison between its financial target and its reported outcome over the years for which the target was set.

9.3 LIMITATIONS AND KEY ASSUMPTIONS

The limitations and key assumptions of the study are as follows :

1. It is assumed that the behaviour of each participant or group of participants in the political process relating to the gas industry is aimed at maximising the utility of that individual or group.
2. Although the research approach adopted was a compromise between the naturalistic approach and the scientific method, the two hypotheses used did narrow the focus of the study. There may have been other explanations for the accounting choices which the study failed to identify.
3. One alternative explanation for the accounting choices is that they were made to reflect economic reality. However, both the number of income decreasing accounting choices and the significance of their effect during the period of the study somewhat undermines the plausibility of this explanation.
4. A limitation of the case study approach is having to draw a boundary around the subject matter to be studied. In this study the boundary was initially drawn around those groups who appeared, _a priori_, to have an interest in the gas industry's published accounts as participants in the political process relating to the gas industry. This led to the choice of the four indexes described in section 5.6. Any participant or group of participants in the political process relating to the gas industry who was neither identified, _a priori_, nor was identified later through inspection of some item identified through one of these four indexes, was excluded from the study.

5. This study has only examined documents and records that were publicly available.

6. The _ex post facto_ case study approach makes it difficult to draw causal inferences with any certainty, as it is not possible to manipulate an independent variable. Consequently the evidence is described as being only "consistent with" the hypotheses.

7. External validity is weak as the case study approach makes it difficult to generalise the findings to other cases ie the findings of the study may be unique to the gas industry.

8. This study has focused on the accounting choices made in the published accounts of the gas industry. Accounting choices made for the gas industry for any other purpose have not been included in the study.

9. Only those accounting choices which were _disclosed_ in the gas industry's published accounts have been included in the study. There may have been other accounting choices made for the gas industry's published accounts which were not disclosed. However, this limitation biased the results against finding a relationship between the independent variables and the accounting choices as anyone manipulating a firm's accounting profits would obviously prefer not to disclose the methods they use.

10. Most accounting choices have a multiperiod effect but it has been assumed that the present value of the accounting choice on the managers' or firm's wealth is significantly influenced by the effect of the accounting choice on the income of the period during which the accounting choice was made. Consequently the explanations

relate only to the period during which the accounting choice was made.

11. To a large extent accruals were only counted as accounting choices during the first three years of the study. After that the BGC was formed and much of the detailed information on accruals, previously disclosed in the accounts of the Gas Council and the 12 Area Boards was not disclosed by the BGC.

12. The causal links in this study are not based on the terms of explicit contracts, such as management compensation plans, lending agreements or an explicit formula such as the rate regulation formula in the USA. The causal links hypothesised in this study are more tentative.

13. The explanations for the accounting choices made for the gas industry are based on the behaviour of the participants in the political process given the accounting choices actually made. There is no way of knowing what the behaviour of the participants in the political process would have been if these accounting choices had not been made.

14. This study has not dealt with normative accounting issues nor has it attempted to develop prescriptions for the improvement of the external reporting practices of the gas industry.

9.4 AREAS FOR FUTURE RESEARCH

The present study contributes to the development of a positive theory of accounting choices which could be further developed as follows:

1. As the development of the theory is at the embryonic stage further testing of established hypotheses would add to the fund of knowledge on accounting choices.
2. In particular there is a shortage of tests of the regulation hypothesis. Additional tests of this hypothesis would add to the fund of knowledge on why regulated firms make their accounting choices.
3. There is a dearth of accounting choice studies in a UK context. The testing of hypotheses using UK data would contribute to the fund of knowledge by explaining why accounting choices are made in the UK.
4. The present study is the first investigation of the impact of the political process on the accounting choices of a nationalised industry. Additional studies of the accounting choices made by other nationalised industries are necessary to build up a fund of knowledge which explains why accounting choices are made in the UK nationalised sector.
5. As far as studies of accounting choices in the nationalised sector are concerned additional evidence is required of :
   a) the involvement of civil servants in making accounting choices for the nationalised industries;
   b) the extent to which other participants in the political process adjust for the accounting choices made for the industries, and
   c) the extent to which accounting choices undermined the usefulness of comparisons between nationalised industries' financial targets and reported outcomes.

9.5 CONCLUDING REMARKS

This study has contributed to the fund of knowledge on the impact of the political process on accounting choices. The investigation identified the accounting choices made for the UK gas industry over an eleven year period, calculated their monetary effect on reported outcomes and explained these accounting choices mainly through two hypotheses generated from the literature on the impact of the political process on accounting.

The results of this research have implications for the future economic regulation of the nationalised industries, for accounting policy makers setting standards specifically for the nationalised sector and for the auditors of nationalised industries.

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ACCOUNTING CHOICES AND REPORTED FINANCIAL PERFORMANCE: THE UK GAS INDUSTRY 1970 - 1980

Volume II

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APPENDICES

APPENDICES

APPENDIX A - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1970

APPENDIX A

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31st MARCH 1970

INTRODUCTION

The accounting choices made in the published accounts of the twelve Area Boards during the year ended 31 March 1970 are identified below. The Area Boards are dealt with in alphabetical order.

An accounting choice made during the year ended 31 March 1970 could have affected not only the net surplus for the year ended 31 March 1970 (eg the increase or decrease of a provision) but also the net surplus for each of the remaining years of the quinquennium (eg the change of a rate of depreciation).

The effect on net assets of the accounting choices made during the year ended 31 March 1970 could be either static or dynamic depending on the nature of the accounting choice. Where, for example, a provision was increased or decreased the effect on net assets would be static in that it would require another accounting choice in a future year to change the provision and hence the net assets. But where, for example, a rate of depreciation was changed the effect on net assets would be dynamic in that the changed rate of depreciation would continue to have a changing effect on the net assets at the end of each subsequent year. Most of the accounting choices made during the year ended 31 March 1970 had a static effect on net assets. Thus where the effect of a particular accounting choice on the net assets at the end of the remaining years of the quinquennium is not discussed below it should be assumed that the effect was static ie that the effect on the remaining years of the quinquennium was the same as the effect on the net assets at 31 March 1970.

The effect, if any, of each accounting choice made during the year ended 31 March 1970 on the net surplus for each year of the quinquennium and on the net asssets at the end of each year of the quinquennium has been ascertained from the relevant published accounts or, where this has not been possible calculated as explained below. The effects on the net surplus for each year of the quinquennium are shown on Table A11 and the effect on the net assets at the end of each year of the quinquennium are shown on Table A12.

EAST MIDLANDS GAS BOARD

Provision against income from gas sales

Note 1 (1970) stated that :

> Having regard to the low figure for unaccounted for gas which has emerged at 31 March 1970 it is deemed prudent to make a provision of £270,000 against income from gas sales.

This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £270,000.

Special charge following a re-assessment of the amortisation of the cost of an industrial conversion

Note 6 (1970) stated that in addition to the normal write-off of 1/15th of expenditure under "Deferred charges - conversion to natural gas" a special charge of £155,000 had been made in the current year following a re-assessment of the amortisation of the cost of an industrial concern. This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £155,000.

Increase in provision against contingencies

Note 14(b) (1970) stated that the existing provision had been increased during the year ended 31 March 1970 by £76,000 to £165,000. This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £76,000.

Increase in provision to cover outstanding costs on gas holder painting

Note 14(c) (1970) explained that a provision of £60,000 had been established during the year :

> to cover outstanding costs due to the shortfall in the programme of gas holder painting at 31 March 1970.

This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £60,000.

Increase in provision against stock obsolescence and deterioration

Note 15(b) (1970) explained that this provision had been increased during the year by £61,000. This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £61,000.

Under-use of pension provision account to eliminate the deficiencies arising on pension funds and schemes

Note 13 (1969) explained that the exact amount £98,547 necessary to eliminate the deficiencies arising on pension funds and schemes had been transferred from the pension provision account. Thus the charge to revenue relating to these deficiencies was zero. The balance on the pension provision account at 31 March 1969 was £701,000 (Schedule 15 to the published accounts at 31 March 1969).

The deficiencies arising on pension funds and schemes during the year ended 31 March 1970 amounted to £133,860 but only £101,453 was transferred from the pension provision account leaving a balance of £32,407 which was charged to revenue [Note 14(a)]. The balance on the pension provision account at 31 March 1970 was £600,000 (Schedule 15 to the published accounts at 31 March 1970). This accounting choice to under use the pension provision account to eliminate the deficiencies arising on pension funds and schemes during the year ended 31 March 1970 had the effect of decreasing both the net surplus for that year and the net assets at 31 March 1970 by £32,407.

EASTERN GAS BOARD

Increase in investment reserve

Note 10 (1970) stated that :

> The investment reserve has been increased by £25,000 to £213,000 to provide for the fall in value of trade and other investments.

Note 16 (1970) established that the £25,000 had been transferred from the reserve fund. Thus this accounting choice did not affect the net surplus for the year ended 31 March 1970 but did decrease the net assets at 31 March 1970 by £25,000 as the investment reserve was deducted from the balance on the investment account.

Decrease in provision for deferred repairs

Note 13 (1970) stated that this provision had been decreased by £39,000. This accounting choice had the effect of increasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £39,000.

Increase in miscellaneous provisions

The increase in miscellaneous provisions of £14,000 was ascertained from Schedule 15 (1970). This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £14,000.

NORTH EASTERN GAS BOARD

Decrease in pension scheme provision, release of retort resetting provision and decrease in other provisions

The changes in the above provisions were ascertained from Schedule 15 (1970). All three changes had the effect of increasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £9,000, £60,000 and £51,000 respectively.

Provision for obsolescence of coal carbonisation plants

Note 12 disclosed that £2,826,000 had been transferred from the reserve fund to set up a provision for obsolescence of coal carbonisation plants. This transfer had no effect on the net surplus for the year ended 31 March 1970 but decreased the net assets at 31 March 1970 by £2,826,000. The effect on net assets of this accounting choice was eliminated at 31 March 1971 when obsolete assets displaced during the year completely eliminated the provision.

Balance of compensation written off against reserve fund

Note 6 (1970) explained that :

> The balance of compensation representing the excess of the consideration given for acquisition of the undertakings which vested in the Board in 1949 over the nominal value of the securities of these undertakings has now been completely written off. The normal depreciation in the year amounted to £14,000 and a further write off of £1,000,000 has been made out of accumulated reserves.

This accounting choice had the effect of decreasing net assets at 31 March 1970 by £1,000,000 but had no effect on the net surplus for the year ended on that date as the £14,000 written off to revenue that year was the same amount as in previous years.

However, this accounting choice did affect the net surpluses of the North Thames Gas Board for the years ended 31 March 1971 and 31 March 1972 and those of the BGC for the year ended 31 March 1973. The net surpluses of the North Thames Gas Board for the years ended 31 March 1971 and 31 March 1972 were both increased by £14,000 as £14,000 was no longer being written off to revenue. The net surplus of the BGC for the year ended 31 March 1973 was increased by £972,000 as the total balance of compensation written off as an extraordinary item in that year was decreased by £972,000 [£1,000,000 - (£14,000 x 2)] as a result of this accounting choice by the North Thames Gas Board during the year ended 31 March 1970. The effect of this accounting choice on net assets was thus eliminated at 31 March 1973.

Transfer from reserve fund to intangible assets of former undertakings

An amount of £783,000 was transferred from the reserve fund to increase the write off of the intangible assets of former undertakings. This transfer had the effect of decreasing the net assets at 31 March 1970 but had no effect on the net surplus for the year ended 31 March 1970 as the balance of the intangible assets was being written off at the rate of £200,000 per annum which was unaffected by the transfer from the reserve fund. The net surpluses for the years ended 31 March 1971 and 1972 were similarly unaffected but the net surplus of the BGC for the year ended 31 March 1973 was increased by £783,000 as the total balance of the assets of former undertakings written off as an extraordinary item in that year was decreased by £783,000 as a result of this accounting choice by the North Thames Gas Board during the year ended 31 March 1970. The effect of this accounting choice on net assets was thus eliminated at 31 March 1973.

Increase in amount written off assets of former undertakings

Included in the net book value of the assets of former undertakings at 31 March 1970, 31 March 1971 and 31 March 1972 was an amount in respect of intangible assets. This balance was being written off to revenue account at the rate of £200,000 per annum (Note 13, 1970), (Note 12, 1971) and (Note 11, 1972).

However, Note 13 to the published accounts for the year ended 31 March 1969 stated that the balance was :

> being written off over the remaining period of 50 years from vesting date.

This change in accounting base had the effect of decreasing both income and net assets for each of the years ended on 31 March 1970, 31 March 1971 and 31 March 1972. The effect of the change in each year is calculated below.

Year ended 31 March 1970

Net book value of intangible assets at 31 March 1970 (Note 13, 1970)	£4,444,000
Amount which would have been written off if the previous accounting base had been used 1/29th of £4,444,000	£ 153,241
Amount actually written off (Note 13, 1970)	200,000
Additional amount written off during the year ended 31 March 1970	46,759

Year ended 31 March 1971

Net book value of intangible assets at 31 March 1971 (Note 12, 1971)	£2,953,000
Additional amount written off during the year ended 31 March 1970	46,759
Net book value of intangible assets at 31 March 1971 if previous accounting base had been used	£2,999,759
Amount which would have been written off if the previous accounting base had been used 1/28th of £2,999,759	£ 107,134
Amount actually written off (Note 12, 1971)	200,000
Additional amount written off during the year ended 31 March 1971	£ 92,866

Year ended 31 March 1972

Net book value of intangible assets at 31 March 1972 (Note 11, 1972)	£ 846,000
Additional amount written off during the year ended 31 March 1970	46,759
Additional amount written off during the year ended 31 March 1971	92,866
Net book value of intangible assets at 31 March 1972 if previous accounting base had been used	£ 985,625
Amount which would have been written off if the previous accounting base had been used 1/27th of £985,625	£ 36,505
Amount actually written off (Note 11, 1972)	200,000
Additional amount written off during the year ended 31 March 1972	£ 163,495

The net surplus of the BGC for the year ended 31 March 1973 was increased by £303,120 (£46,759 + £92,866 + £163,495) as the total balance of the fixed assets of former undertakings written off as an extraordinary item in that year had been decreased by that amount as a result of this accounting choice by the North Thames Gas Board during the year ended 31 March 1970. The effect on net assets of this accounting choice was eliminated at 31 March 1973 by the writing off of the fixed assets of former undertakings as an extraordinary item during that year.

Release of provision for repairs, decrease in provision for leasehold dilapidations

The changes in the above provisions were ascertained from Schedule 15 (1970). The release of the provision for repairs had the effect of increasing the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £46,000. The decrease in the provision for leasehold dilapidations of £220,000 had the effect of increasing the net assets at 31 March 1970 by that amount but the net surplus for the year ended 31 March 1970 was only increased by £55,000 as £165,000 was transferred to the reserve fund [Note 18(1970)].

NORTH WESTERN GAS BOARD

Increase in provision relating to employers liability insurance fund

The increase of £6,000 in the above provision was ascertained from Schedule 15 (1970). This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £6,000.

NORTHERN GAS BOARD

Depreciation on short-lived assets changed to commence in the year following the incidence of the expenditure

Note 5 (1970) stated that :

> Depreciation on short-lived assets has hitherto commenced in the year of expenditure but in this years's accounts that basis has been changed and depreciation will commence in the year following the incidence of the expenditure, thereby reducing the depreciation charge in this year's accounts by £43,400.

This accounting choice had the effect of increasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £43,400.

SCOTTISH GAS BOARD

Decrease in provision for deferred repairs

The change in the above provision was ascertained from Schedule 15 (1970). This accounting change had the effect of increasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £5,000.

SOUTH EASTERN GAS BOARD

Change in the method of calculating unread gas

Note 2 (1970) stated that :

> On 31 March 1970 the method of calculating unread gas was modified. In consequence this year received additional gas revenue of £621,660 offset by an increase of £263,940 to the provision against "accrued revenue for gas and rentals", giving a net benefit to revenue account of £357,720.

For the remaining years of the quinquennium the net benefit to revenue was not disclosed so these have been calculated by the researcher. The researcher has asssumed that at the end of each of the remaining years of the quinquennium the net benefit will have changed in proportion to the change from the previous year in the income from gas sales. The net benefit to the current year's revenue will thus be the difference between the net benefit at the end of the current year less the net benefit at the end of the previous year. The researcher has also assumed that the provision against accrued revenue for gas and rentals has changed in proportion to the change in the gas revenue due to the change in the method of calculating unread gas. The basis of each calculation can be demonstrated as follows :

Current year's net benefit to revenue =

$$\text{Net benefit at end of previous year} \times \frac{\text{Income from gas sales for current year}}{\text{Income from gas sales for previous year}} - \text{Previous year net benefit to revenue}$$

Year ended 31 March 1971

The net benefit to revenue for the year ended 31 March 1971 has been calculated as follows :

Net benefit to revenue for the year ended 31 March 1971 =

$$\text{Net benefit at the end of the year ended 31 March 1970} \times \frac{\text{Income from gas sales for year ended 31 March 1971}}{\text{Income from gas sales for year ended 31 March 1970}} - \text{Net benefit at the end of the year ended 31 March 1970}$$

$$= £357{,}720 \text{ (note 1)} \times \frac{£68{,}938{,}000 \text{ (note 3)}}{£64{,}286{,}000 \text{ (note 2)}} - £357{,}720 \text{ (note 1)}$$

= £383,606 - £357,720

= £25,886

(1) Ascertained from Note 2 (1970)

(2) Ascertained from the revenue account for the year ended 31 March 1970

(3) Ascertained from the revenue account for the year ended 31 March 1971

Thus the change in the method of calculating unread gas would have had the effect of increasing both the net surplus for the year ended 31 March 1971 and the net assets at 31 March 1971 by £25,886.

Year ended 31 March 1972

The net benefit to revenue for the year ended 31 March 1972 has been calculated as follows :

Net benefit to revenue for the year ended 31 March 1972 =

$$\begin{array}{l}\text{Net benefit at}\\ \text{the end of the year}\\ \text{ended 31 March 1971}\end{array} \times \frac{\begin{array}{l}\text{Income from gas sales for}\\ \text{the year ended 31 March 1972}\end{array}}{\begin{array}{l}\text{Income from gas sales for}\\ \text{the year ended 31 March 1971}\end{array}} - \begin{array}{l}\text{Net benefit at}\\ \text{the end of the year}\\ \text{ended 31 March 1971}\end{array}$$

$$= \text{£}383{,}606 \text{ (note 1)} \times \frac{\text{£}75{,}124{,}000 \text{ (note 3)}}{\text{£}68{,}938{,}000 \text{ (note 2)}} - \text{£}383{,}606 \text{ (note 1)}$$

= £418,028 - £383,606

= £34,422

(1) Calculated above

(2) Ascertained from the revenue account for the year ended 31 March 1971

(3) Ascertained from the revenue account for the year ended 31 March 1972

Thus the change in the method of calculating unread gas would have had the effect of increasing both the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £34,422.

Year ended 31 March 1973

The net benefit to revenue for the year ended 31 March 1973 has been calculated as follows :

Net benefit to revenue for the year ended 31 March 1973 =

$$\text{Net benefit at the end of the year ended 31 March 1972} \times \frac{\text{Income from gas sales for the year ended 31 March 1973}}{\text{Income from gas sales for the year ended 31 March 1972}} - \text{Net benefit at the end of the year ended 31 March 1972}$$

$$= £418{,}028 \text{ (note 1)} \times \frac{£85{,}500{,}000 \text{ (note 3)}}{£75{,}124{,}000 \text{ (note 2)}} - £418{,}028 \text{ (note 1)}$$

= £475,765 - £418,028

= £57,737

(1) Calculated above

(2) Ascertained from the revenue account for the year ended 31 March 1972

(3) Ascertained from page 65 of the published accounts of the BGC for the year ended 31 March 1973

Thus the change in the method of calculating unread gas would have had the effect of increasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £57,737.

Year ended 31 March 1974

The net benefit to revenue for the year ended 31 March 1974 has been calculated as follows :

Net benefit to revenue for the year ended 31 March 1974 =

$$\text{Net benefit at the end of the year ended 31 March 1973} \times \frac{\text{Income from gas sales for the year ended 31 March 1974}}{\text{Income from gas sales for the year ended 31 March 1973}} - \text{Net benefit at the end of the year ended 31 March 1973}$$

$$= £475{,}765 \text{ (note 1)} \times \frac{£92{,}000{,}000 \text{ (note 3)}}{£85{,}500{,}000 \text{ (note 2)}} - £475.765 \text{ (note 1)}$$

= £511,934 - £475,765

= £36,169

(1) Calculated above

(2) Ascertained from page 65 of the published accounts of the BGC for the year ended 31 March 1973

(3) Ascertained from page 71 of the published accounts of the BGC for the year ended 31 March 1974.

Thus the change in the method of calculating unread gas would have had the effect of increasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £36,169.

Change in basis of calculating depreciation on new and renewed services
Note 8 (1970) stated that :

> In the case of new and renewed services, a basis of depreciation other than that recommended by the Joint Committee had been adopted up to 31 March 1969. From 1 April 1969 the Joint Committee basis has been used, with a saving of depreciation in this year of £642,056.

For the remaining four years of the quinquennium the effect, if any, of this change of accounting base was not disclosed. As Note 8 (1970) did not explain the nature of the change of accounting base it was not possible for the researcher to calculate an estimate of the effect of this change on the next four years. Consequently the researcher has assumed an identical saving in depreciation for each of these four years as in the year ended 31 March 1970 (a fairly heroic assumption). This accounting choice had the effect of increasing each year's net surplus and of cumulatively increasing the net assets at the end of each year. The calculation of the cumulative effect on net assets is shown overleaf :

Saving in depreciation during the year ended 31 March 1970	£ 642,056
Increase in net assets at 31 March 1970	642,056
Estimated saving in depreciation during the year ended 31 March 1971	642,056
Cumulative increase in net assets at 31 March 1971	1,284,112
Estimated saving in depreciation during the year ended 31 March 1972	642,056
Cumulative increase in net assets at 31 March 1972	1,926,168
Estimated saving in depreciation during the year ended 31 March 1973	642,056
Cumulative increase in net assets at 31 March 1973	2,568,224
Estimated saving in depreciation during the year ended 31 March 1974	642,056
Cumulative increase in net assets at 31 March 1974	£3,210,280

SOUTHERN GAS BOARD

Increase in miscellaneous provisions

The change in the miscellaneous provisions was ascertained from Schedule 15 (1970). This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £10,000.

WEST MIDLANDS GAS BOARD

Release of provision against accrued income from gas sales

Note 1 (1970) stated that the provision made in the previous year amounting to £500,000 against accrued revenue for gas and rentals was no longer required. The release of this provision had the effect of increasing both the net surplus for the year ended 31 March 1970 and the net assets at 31 March 1970 by £500,000.

ALL AREA BOARDS

Accounting treatment of obsolete plant displaced during the year

In order to put the accounting choices relating to the obsolete plant displaced during the year ended 31 March 1970 into context the accounting choices made during the previous year relating to obsolete gas making plant displaced during that year were examined. During the year ended 31 March 1969 unamortised balances of displaced plant amounting to £22,717,000 were transferred from fixed assets (see Table A1). After adjustments for demolition costs and for proceeds of sale these unamortised balances were reduced to £21,163,000 (see Table A1).

That net unamortised balance of displaced plant was dealt with as follows :

Written off against obsolescence and development reserve	£ 9,914,000
Written off against other reserves	4,535,000
Transferred to displaced plant account	6,714,000
	£21,163,000

Most of the Area Boards had adhered to the standard rules adopted by the gas industry at that time for writing off obsolete plant. In April 1968 these had been described to the Select Committee on Nationalised Industries by Mr D H Crofton from the Ministry of Power as follows :

> According to the standard rules adopted by the gas industry, plant would be written off to obsolescence reserves, if there are any, and when they have been exhausted they would be written off to revenue

over the next 15 years or the remaining life of the asset, whichever is less. (SCNI, 1968, Minutes of Evidence, p 15).

During the year ended 31 March 1969 all the Area Boards adhered to these standard rules except the Northern Gas Board and the West Midlands Gas Board. Northern wrote obsolete plant off against its general reserve and West Midlands against its reserve fund. Both of those Area Boards had combined all of their reserves, including their obsolescence and development reserve into one account at 1 April 1966 according to their published accounts for the year ended 31 March 1967.

With this matter in mind the researcher also reviewed the published report and accounts of all the Area Boards for the year ended 31 March 1968 and discovered that the Scottish Gas Board had written off the obsolete plant displaced during that year which amounted to £550,000 against revenue account. Thus this Area Board had not adhered to the gas industry's standard rule regarding the writing off of obsolete plant.

During the year ended 31 March 1970 unamortised balances of displaced plant amounting to £37,555,000 were transferred from fixed assets (see Table A2). After adjustments for demolition costs and for proceeds of sale these unamortised balances were reduced to £36,220,000 (see Table A2).

That net unamortised balance of displaced plant was dealt with as follows :

	£000
Written off against reserve fund	£25,025
Transferred to deferred charges account	1,936
Transferred to displaced plant account	9,259
	£36,220

The published accounts for each of the Area Boards for the year ended 31 March 1970 showed that as at 1 April 1969 all reserves had been transferred to a reserve fund. This was described by the Eastern Gas Board (1970, p 24) as follows :

> In view of projected changes in the Industry and also to accord with current financial practice, it was recommended by the Gas Council, and accepted by Area Boards, that all reserves, including the balance of revenue account, shall be transferred to the reserve fund, thus maintaining a single account in the future. This recommendation was put into effect as at the 1st April 1969...

Almost certainly the "projected changes in the Industry" referred to by the Eastern Gas Board related to the switch from the manufacture and distribution of town gas to the distribution of natural gas from the North Sea (SCNI, 1968). It was recognised that one of the effects of the switch to natural gas was to be the early obsolescence of costly coal-based and oil-based gas manufacturing plant (SCNI, 1968, para III.9). The recommendation by the Gas Council that all reserves should be transferred to reserve fund removed the restriction accepted by nine of the Area Boards that the only reserve which could be used for writing off obsolete plant was the obsolescence and development reserve.

The removal of this restriction meant that an additional £7,959,000 was written off against reserves. This amount has been calculated as follows :

	£000
Amounts written off to reserve fund by those Area Boards which had adhered to the standard rules in the year ended 31 March 1969 (see Table A3)	£12,777
Obsolescence and development reserve at 1 April 1969 or the amount written off against reserve fund during the year ended 31 March 1970 whichever was the smaller (see Table A3)	4,818
Additional amounts written off against reserve fund due to the removal of the restriction that the only reserve which could be used for writing off obsolete plant was the obsolescence and development reserve (see Table A3)	£ 7,959

Thus the total amount of £25,025,000 written off against the reserve fund can be analysed as follows :

	£000
Amounts which would have been written off according to the gas industry's standard rules up to 31 March 1969 by those Area Boards that had adhered to these rules (see Table A3)	£ 4,818
Additional amounts written off by these Area Boards as a result of these standard rules being changed during the year ended 31 March 1970	7,959
Amounts written off during the year ended 31 March 1970 by those Area Boards that had not adhered to the gas industry's rules up to 31 March 1969 (Northern £1,907,000 + West Midlands £9,772,000 + Scottish £569,000 from Table A2)	12,248
	£25,025

Of the £36,220,000 net unamortised balances of obsolete plant displaced during the year ended 31 March 1970, £25,025,000 or 69.1% was written off against reserve fund. If those Area Boards which had adhered to the gas industry's standard rules up to 31 March 1969 had continued to adhere to these rules during the year ended 31 March 1970 they would have only written off £4,818,000 or 13.3% against reserves instead of £12,777,000 or 35.3% which represents an increase of £7,959,000 or 22%. The Northern Gas Board, the West Midlands Gas Board and the Scottish Gas Board had abandoned these standard rules earlier. The £12,248,000 they wrote off against reserve fund represented 33.8% of the total obsolete plant displaced during the year.

During the year ended 31 March 1970 the decision appears to have been made to transfer obsolete oil-based gas making plant to deferred charges account. This decision was not made explicit but is implied from the published accounts of the relevant Area Boards, the North Thames Gas Board and the North Western Gas Board.

In Note 11 to its published accounts for the year ended 31 March 1969 titled "Displaced Plant and Obsolescence Reserve" the North Thames Gas Board stated that :

> In view of the new sources of gas supply and technical developments, substantial changes are expected to arise in the future in respect of gas manufacturing plant which will become obsolete. The amount and timing of these charges cannot at present be ascertained, but the balance of net book amount of assets declared obsolete will be amortised out of revenue or met by appropriation of surplus.

In Note 14 to its published accounts for the year ended 31 March 1969 titled "Deferred Charges - Conversion to Natural Gas" the North Thames Gas Board did not mention obsolete plant at all.

In Note 14 to its published accounts for the year ended 31 March 1970 titled "Deferred Charges - Conversion to Natural Gas" the North Thames Gas Board disclosed that unamortised balances of oil-based gas making plants amounting to £1,104,000 were included in Deferred Charges. That Note also stated that :

> The availability of large quantities of natural gas will make it possible for the Board to take out of commission some of its oil-based gas-making plant before the end of its normal life. The amount and timing of the obsolescence charges which will arise in consequence cannot yet be ascertained, but the balance of net book amount of assets declared obsolete will be amortised out of revenue in the same way as the costs incurred on conversion to natural gas.

In Note 11 to the same published accounts titled "Displaced Plant" the North Thames Gas Board only described the accounting treatment of coal-based plant.

A comparison between the preceding two paragraphs would appear to imply that a decision had been made during the year ended 31 March 1970 to transfer obsolete oil-based gas-making plant displaced by the North Thames Gas Board to deferred charges account instead of to displaced plant account.

In Note 8 to its published accounts for the year ended 31 March 1969 titled "Displaced Plant" the North Western Gas Board did not state whether "the production plant taken out of commission" was coal-based or oil-based. Note 9 to the same published accounts titled "Deferred Charges : Conversion to natural gas" did not mention obsolete plant at all.

In Note 6 to its published accounts for the year ended 31 March 1970 titled "Displaced Plant" the North Western Gas Board stated that :

> This item relates to unamortised capital expenditure on coal-based carbonising and associated plant taken out of commission on replacement by oil-based gas manufacturing plant.

Note 7 to the same published accounts titled "Deferred Charges : Conversion to natural gas" disclosed that unamortised balances of oil-based gas-making plants amounting to £478,998 were included in Deferred Charges.

A comparison between the preceding two paragraphs would appear to imply that a decision had been made during the year ended 31 March 1970 to transfer obsolete oil-based gas-making plant displaced by the North Western Gas Board to deferred charges account instead of to displaced plant account.

Of the £36,220,000 net unamortised balances of obsolete plant displaced during the year ended 31 March 1970, £1,936,000 or 5.3% was transferred to deferred charges account.

It should be noted that the accounting choice during the year ended 31 March 1970 to transfer obsolete oil-based plant displaced during the year to "Deferred Charges : Conversion to natural gas" was reversed during the year ended 31 March 1972. Note 3 to the Consolidated Accounts for the year ended 31 March 1972 stated that :

The unamortised balance of capital expenditure on oil-based plant taken out of commission as a result of the natural gas conversion programme, together with associated plant spares and penalities arising form the cancellation of feedstock contracts has been transferred to Displaced Plant. Previously such plant has been included as "Other consequential costs" in "Deferred charges : Conversion to natural gas".

The decision to transfer obsolete oil-based plant displaced during the years ended 31 March 1970 and 31 March 1971 to deferred charges account instead of to displaced plant account affected neither the net surpluses for the years ended 31 March 1970 and 31 March 1971 nor the net assets at 31 March 1970 and at 31 March 1971 because the same basis was used for each account in calculating the amounts written off to revenue. Consequently the remainder of this section will only focus on the effects of transferring all reserves to reserve fund as at 1 April 1969.

Year ended 31 March 1970

During the year ended 31 March 1970 five of the nine Area Boards affected wrote off against their reserve funds amounts of obsolete plant greater than their obsolescence and development reserves at 1 April 1969 (see Table A3). The five Area Boards were East Midlands, Eastern, North Thames, North Western and South Western. If all the reserves of these five Area Boards had not been transferred to their reserve funds at 1 April 1969 the amounts of obsolete plant written off against reserves during the year ended 31 March 1970 would have been restricted to the amount of their obsolescence and development reserves at 1 April 1969 and the remainder would have been transferred to the displaced plant accounts. Table A4 shows what the effects would have been, if during the year ended 31 March 1970 these five Area Boards had not written off against their reserve funds amounts of obsolete plant greater than their obsolescence and development reserve at 1 April 1969. Amounts transferred to displaced plant accounts were during the year ended 31 March 1970 being written off to revenue over 15 years or the remaining life of the asset whichever was less but this was accelerated in 1972 so that unamortised balances would all be written off by 1981 at the latest. In calculating the amounts of displaced plant which would have been written off to revenue each year the reseracher has assumed (in the absence of any other information on which to base the calculation) that 1/15th of the amounts transferred from fixed assets during the year ended 31 March 1970 would have been written off to revenue for the years ended 31 March 1970 and 31 March 1971 and that 1/10th of the unamortised balances at 31 March 1971 would have been written off to revenue during the year ended 31 March 1972 and during each year thereafter up to 1981. The effect of these calculations on the gas industry's net surplus and net assets is shown in Table A9 and Table A10 respectively.

During the year ended 31 March 1970 the net surplus and the net assets of the other four Area Boards were not affected by the transfer of all reserves to a reserve fund. North Eastern, South Eastern and Southern wrote off amounts of obsolete plant which were less than their obsolescence and development reserve at 1 April 1969 and Wales did not write off any obsolete plant (see Table A3).

Year ended 31 March 1971

During the year ended 31 March 1971 East Midlands, Eastern, and North Thames wrote off obsolete plant against their reserve funds. As shown in Table A4, the obsolescence and development reserves for each of these three Area Boards would have been used up during the year ended 31 March 1970 if all their reserves had not been transferred to their reserve funds. Thus if all the reserves of these three Area Boards had not been transferred to their reserve funds as at 1 April 1969 the amounts of obsolete plant written off against reserves during the year ended 31 March 1971 would have been transferred to displaced plant account. Table A5 shows what the effects would have been during the year ended 31 March 1971 if these three Area Boards had not written off their obsolete plant against their reserve funds but had instead transferred them to displaced plant accounts.

Also during the year ended 31 March 1971 the treatment of the obsolete plant written off by the North Eastern Gas Board was affected by the transfer of all its reserves to its reserve fund as at 1 April 1969. During the year ended 31 March 1970 obsolete plant amounting to £133,000 was written off against the reserve fund. If the £133,000 had been written off against the obsolescence and development reserve at 1 April 1969 of £1,217,000 a balance of £1,084,000 on the obsolescence and development reserve would have remained at 31 March 1970. During the year ended 31 March 1971 obsolete plant amounting to £2,885,000 was written off against reserve fund. If all the reserves had not been combined as at 1 April 1969 only £1,084,000 would have been written off against obsolescence and development reserve. The balance of obsolete plant remaining £1,801,000 (£2,885,000 - £1,084,000) would have been transferred to displaced plant account as shown on Table A5.

Amounts transferred to displaced plant accounts were during the year ended 31 March 1971 being written off to revenue over 15 years or the remaining life of the asset whichever was less but this was accelerated in 1972 so that the unamortised balances would all be written off by 1981 at the latest. In calculating the amounts of displaced plant which would have been writte off to revenue each year the researcher has assumed (in the absence of any other information on which to base the calculation) that 1/15th of the amounts transferred from fixed assets during the year ended 31 March 1971 would have been written off to revenue during the year ended 31 March 1971 and that 1/10th of the unamortised balances at 31 March 1971 would have been written off to revenue during the year ended 31 March 1972 and during each year thereafter up to 1981. The effect of these calculations on the gas industry's net surplus and net assets is shown in Table A9 and A10 respectively.

Also during the year ended 31 March 1971 the treatment of the obsolete plant written off by the South Eastern Gas Board was affected by the transfer of all its reserves to its reserve fund as at 1 April 1969. During the year ended 31 March 1970 obsolete plant amounting to £786,856 was written off against the reserve fund. If the £786,856 had been written off against the obsolescene and development reserve at 1 April 1969 of £5,150,451 a balance of £4,363,595 on the obsolescence and development reserve would have remained at 31 March 1970. Instead the obsolescence and development reserve was largely used to absorb the accumulated deficits on revenue account which at 1 April 1969 amounted to £2,734,000 and to absorb the deficit for the year ended 31 March 1970 which amounted to £346,400. During the year ended 31 March 1971 obsolete plant amounting to £3,212,000 was transferred from fixed assets to displaced plant account. If all the reserves had not been combined as at 1 April 1969 the £3,212,000 would have been transferred to obsolescence and development reserve. This would have had the effect of decreasing net assets at 31 March 1971 by £3,212,000, of increasing income for the year ended 31 March 1971 by £79,000 (the amount written off) and of increasing income for the year ended 31 March 1972 and thereafter by £313,300 (1/10th of £3,212,000 - £79,000). This is shown in Table A6. The effect of these calculations on the gas industry's net surplus and net assets is shown in Table A9 and Table A10 respectively. The balance on the obsolescence and development reserve at 31 March 1971 would have decreased to £1,151,595 (£4,363,595 - £3,212,000).

Year ended 31 March 1972

During the year ended 31 March 1972 East Midlands, North Thames and South Eastern wrote off obsolete plant against their reserve funds. As shown in Table A4, the obsolescence and development reserves for East Midlands and North Thames would have been used up during the year ended 31 March 1970 if all their reserves had not been transferred to their reserve funds. Thus if all the reserves of these two Area Boards had not been transferred to their reserve funds as at 1 April 1969 the amounts of obsolete plant written off against reserves during the year ended 31 March 1972 would have been transferred to displaced plant account. In the case of the South Eastern Gas Board obsolete plant amounting to £3,460,000 was written off against the reserve fund. If all the reserves had not been transferred to the reserve fund the balance on the obsolescence and development reserve would have been £1,151,595 as calculated above. Thus the amount of obsolete plant which could have been written off against the obsolescence and development reserve would have been restricted to this amount. The balance of £2,308,405 would have been added to displaced plant account. Table A7 shows what the effects would have been during the year ended 31 March 1972 if the reserves had not been combined. Amounts transferred to displaced plant during the year ended 31 March 1972 were being written off by 1981 at the latest. In calculating the amounts of displaced plant which would have been written off to revenue each year the researcher has assumed (in the absence of any other information on which to base the calculation) that 1/10th of the amounts transferred from fixed assets during the year ended 31 March 1972 would have been written off to revenue during that year and each year thereafter up to 1981. The effect of these calculations on the gas industry's net surplus and net assets is shown in Table A9 and Table A10 respectively.

Also during the year ended 31 March 1972 the treatment of the obsolete plant written off by the Southern Gas Board and the Wales Gas Board was affected by the transfer of all of their reserves to their reserve funds. In the case of Southern, obsolete plant amounting to £163,000 was written off against the reserve fund during the year ended 31 March 1970. If the £163,000 had been written off against the obsolescence and development reserve at 1 April 1969 of £1,004,000 a balance of £841,000 on the obsolescence and development reserve would have remained at 31 March 1970. During the year ended 31 March 1971 no obsolete plant was transferred from fixed assets. During the year ended 31 March 1972 obsolete plant amounting to £5,752,000 was transferred from fixed assets to displaced plant account. It was not possible to write off any of this obsolete plant against the reserve fund as it had a debit balance of £2,849,000 at 31 March 1971 due to making deficits in the years ended 31 March 1970 and 31 March 1971. If the reserves had not been combined as at 1 April 1969 the £841,000 balance on the obsolescence and development reserve at 31 March 1970 would have been used to reduce the £5,752,000 transferred to displaced plant account during the year ended 31 March 1972. This would have had the effect of decreasing net assets at 31 March 1972 by £841,000 and of increasing income for the year ended 31 March 1972 and thereafter by £84,100 (1/10th of £841,000). This is shown in Table A8.

In the case of the Wales Gas Board there was no obsolete plant transferred from fixed assets during the years ended 31 March 1970 and 31 March 1971. During the year ended 31 March 1972 obsolete plant amounting to £3,825,000 was transferred from fixed assets to displaced plant account. It was not possible to write off any of this obsolete plant against the reserve fund as it had a debit balance of £2,599,000 at 31 March 1971 due to making deficits in both the years ended 31 March 1970 and 31 March 1971. If the reserves had not been combined as at 1 April 1969 the £990,000 balance on obsolescence and development reserve at that date would have been used to reduce the £3,825,000 transferred to displaced plant account. This would have had the effect of decreasing net assets at 31 March 1972 by £990,000 and of increasing income for the year ended 31 March 1972 and thereafter by £99,000 (1/10th of £990,000). This is shown in Table A8. The effect of the calculations shown in Table A8 on the gas industry's net surplus and net assets is shown in Table A9 and Table A10 respectively.

TABLE A1

Accounting treatment of the net unamortised balances of obsolete plant displaced during the year ended 31st March 1969

	East M'lands	Eastern	North Eastern	North Thames	North Western	Northern	Scottish	South Eastern	South Western	Southern	Wales	West M'lands	Gas Council	£000 Total
Displaced during year (at original cost)	7,942	1,617	4,538	9,565	5,933	3,817	2,360	4,304	2,654	3,467	410	4,826	1,083	52,516
Accumulated depreciation on plant displaced during year	4,114	930	2,727	5,431	3,714	1,505	1,299	2,971	1,407	2,455	336	2,698	212	29,799
Unamortised balance of plant displaced during year	3,828	687	1,811	4,134	2,219	2,312	1,061	1,333	1,247	1,012	74	2,128	871	22,717
Add demolition costs etc. and less proceeds of sale	(66)	(42)	(30)	(242)	(94)	(8)	(69)	(191)	67	(37)	(74)	103	(871)	(1,554)
Net unamortised balance of plant displaced during year	3,762	645	1,781	3,892	2,125	2,304	992	1,142	1,314	975	-	2,231	-	21,163
Written off against obsolescence and development reserve	3,762	645	1,781	295	-	-	-	1,142	1,314	975	-	-	-	9,914
Written off against other reserves	-	-	-	-	-	2,304	-	-	-	-	-	2,231	-	4,535
Transferred to Deferred Charges	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transferred to Displaced Plant (as below)	-	-	-	3,597	2,125	-	992	-	-	-	-	-	-	6,714
	3,762	645	1,781	3,892	2,125	2,304	992	1,142	1,314	975	-	2,231	-	21,163
Balance on displaced plant account at 1/4/68	NIL	NIL	NIL	NIL	494	NIL	847	NIL	NIL	NIL	NIL	NIL	NIL	1,341
Balance on displaced plant account at 31/3/69	NIL	NIL	NIL	3,597	2,523	NIL	1,626	NIL	NIL	NIL	NIL	NIL	NIL	7,746
Increase during year	NIL	NIL	NIL	3,597	2,029	NIL	779	NIL	NIL	NIL	NIL	NIL	NIL	6,405
Add: Amount written off during year	NIL	NIL	NIL	NIL	96	NIL	213	NIL	NIL	NIL	NIL	NIL	NIL	309
Amount transferred to displaced plant (see above)	NIL	NIL	NIL	3,597	2,125	NIL	992	NIL	NIL	NIL	NIL	NIL	NIL	6,714

TABLE A2

Accounting treatment of the net unamortised balances of obsolete plant displaced during the year ended 31st March, 1970

	East M'lands	Eastern	North Eastern	North Thames	North Western	Northern	Scottish	South Eastern	South Western	Southern	Wales	West M'lands	Gas Council	£000 Total
Displaced during year (at original cost)	7,013	3,417	1,431	19,019	9,952	4,267	4,905	3,044	2,613	669	398	16,043	284	73,055
Accumulated depreciation on plant displaced during year	2,382	1,459	1,283	9,211	5,896	2,381	2,496	2,344	1,326	463	357	5,848	54	35,500
Unamortised balance of plant displaced during year	4,631	1,958	148	9,808	4,056	1,886	2,409	700	1,287	206	41	10,195	230	37,555
Add: demolition costs etc. and less proceeds of sale	(175)	(41)	(15)	(344)	(168)	21	(13)	86	51	(43)	(41)	(423)	(230)	(1,335)
Net unamortised balance of plant displaced during year	4,456	1,917	133	9,464	3,888	1,907	2,396	786	1,338	163	-	9,772	-	36,220
Written off against Reserve Fund	4,103	1,917	133	2,587	1,750	1,907	569	786	1,338	163	-	9,772	-	25,025
Transferred to Deferred Charges	353	-	-	1,104	479	-	-	-	-	-	-	-	-	1,936
Transferred to Displaced Plant A/c (see below)	-	-	-	5,773	1,659	-	1,827	-	-	-	-	-	-	9,259
	4,456	1,917	133	9,464	3,888	1,907	2,396	786	1,338	163	-	9,772	-	36,220
Balance on displaced plant a/c at 1/4/69	NIL	NIL	NIL	3,597	2,523	NIL	1,626	NIL	NIL	NIL	NIL	NIL	NIL	7,746
Balance on displaced plant a/c at 31/3/70	NIL	NIL	NIL	9,057	3,911	NIL	3,194	NIL	NIL	NIL	NIL	NIL	NIL	16,162
Increase during year	NIL	NIL	NIL	5,460	1,388	NIL	1,568	NIL	NIL	NIL	NIL	NIL	NIL	8,416
Add: Amount written off during year	NIL	NIL	NIL	313	271	NIL	259	NIL	NIL	NIL	NIL	NIL	NIL	843
Amount transferred to displaced plant (see above)	NIL	NIL	NIL	5,773	1,659	NIL	1,827	NIL	NIL	NIL	NIL	NIL	NIL	9,259

TABLE A3

Calculation of the additional amounts written off against reserve fund due to the removal of the restriction that the only reserve which could be used for writing off obsolete plant was the obsolescence and development reserve.

£000

	East Midlands	Eastern	North Eastern	North Thames	North Western	South Eastern	South Western	Southern	Wales	Total
Written off against reserve fund	4,103	1,917	133	2,587	1,750	786	1,338	163	-	12,777
Balance on obsolescence and development reserve at 1st April 1969	1,317	1,861	1,217	-	-	5,150	558	1,004	990	12,097
Amounts which would have been written off against obsolescence and development reserve according to the gas industry's standard rules up to 31st March 1969 (the smaller of the obsolescence and development reserve and the amount written off)	1,317	1,861	133	-	-	786	558	163	-	4,818
Additional amounts written off against reserve fund due to the removal of the restriction that the only reserve which could be used for writing off obsolete plant was the obsolescence and development reserve	2,786	56	-	2,587	1,750	-	780	-	-	7,959

Table A4

Effect of transferring all reserves to reserve fund as at 1 April 1969

Year ended 31 March 1970

	Total	East Midland	Eastern	North Thames	North Western	South Western
Obsolete assets written off against reserve fund during the year ended 31 March 1970	11,695,286	4,103,286	1,917,000	2,587,000	1,750,000	1,338,000
Less: Obsolescence and development reserve at 1 April 1969	3,736,157	1,317,157	1,861,000	-	-	558,000
Amount by which the obsolete assets written off against reserve fund during the year ended 31 March 1970 exceeded the obsolescence and development reserve at 1 April 1969	7,959,129	2,786,129	56,000	2,587,000	1,750,000	780,000
Amount which would have been transferred to displaced plant account during the year ended 31 March 1970	7,959,129	2,786,129	56,000	2,587,000	1,750,000	780,000
Amount of displaced plant which would have been written off to revenue during the year ended 31 March 1970 - 1/15th thereof	358,142	185,742	3,733	-	116,667	52,000
Unamortised balance on displaced plant account at 31 March 1970 would have been	7,600,987	2,600,387	52,267	2,587,000	1,633,333	728,000
Amount of displaced plant which would have been written off to revenue during the year ended 31 March 1971 - as 1970 except North Thames (see note below)	530,609	185,742	3,733	172,467	116,667	52,000
Unamortised balance on displaced plant account at 31 March 1971 would have been	7,070,378	2,414,645	48,534	2,414,533	1,516,666	676,000
Amount of displaced plant which would have been written off to revenue during the year ended 31 March 1972 and thereafter 1/10th of unamortised balance at 31 March 1971	707,038	241,465	4,853	241,453	151,667	67,600

Note: The North Thames Gas Board did not amortise displaced plant until the year after it was transferred from fixed assets

Table 45

Effect of transferring all reserves to reserve fund as at 1 April 1969

Year ended 31 March 1971

	Total	East Midland	Eastern	North Eastern	North Thames
Amount which would have been transferred to displaced plant account during the year ended 31 March 1971	4,601,372	2,280,372	335,000	1,801,000	185,000
Amount of displaced plant which would have been written off to revenue during the year ended 31 March 1971 1/15th thereof	294,424	152,024	22,333	120,067	- (note)
Unamortised balance on displaced plant account at 31 March 1971 would have been	4,306,948	2,128,348	312,667	1,680,933	185,000
Amount of displaced plant which would have been written off to revenue during the year ended 31 March 1972 and thereafter 1/10th of the unamortised balance at 31 March 1971	430,695	212,835	31,267	168,093	18,500

Note : The North Thames Gas Board did not amortise displaced plant until the year after it was transferred from fixed assets.

Table A6

Effect of transferring all reserves to reserve fund as at 1 April 1969

Year ended 31 March 1971

	South Eastern
Amount which would have been written off against obsolescence and development reserve but which was instead transferred to displaced plant account	£3,212,000
Amount of displaced plant written off to revenue during the year ended 31 March 1971 which would not have been written off to revenue if all the reserves had not been transferred to reserve fund at 1 April 1969	79,000
Unamortised balance on displaced plant account at 31 March 1971	3,133,000
Amount of displaced plant written off to revenue during the year ended 31 March 1972 and thereafter which would not have been written off to revenue if all the reserves had not been transferred to reserve fund at 1 April 1969 1/10th of unamortised balance at 31 March 1971	313,300

Table A7

Effect of transferring all reserves to reserve fund as at 1 April 1969

Year ended 31 March 1972

	Total	East Midlands	North Thames	South Eastern
Amount which would have been transferred to displaced plant account during the year ended 31 March 1972	7,151,073	4,533,668	309,000	2,308,405
Amount of displaced plant which would have been written off to revenue during the year ended 31 March 1972 and thereafter 1/10th thereof	715,108	453,367	30,900	230,841

Table A8

Effect of transferring all reserves to reserve fund as at 1 April 1969

Year ended 31 March 1972

	Total	Southern	Wales
Amount which would have been written off against obsolescence and development reserve but which was instead transferred to displaced plant account	1,831,000	841,000	990,000
Amount of displaced plant written off to revenue during the year ended 31 March 1972 and thereafter which would not have been written off to revenue if all the reserves had not been transferred to reserve fund at 1 April 1969 1/10th thereof	183,100	84,100	99,000

Table A9

Effect on net surplus of transferring all reserves to the reserve fund as at 1 April 1969

	Year ended 31 Mar 70 Effect on net surplus Inc	Dec	Year ended 31 Mar 71 Effect on net surplus Inc	Dec	Year ended 31 Mar 72 Effect on net surplus Inc	Dec	Year ended 31 Mar 73 Effect on net surplus Inc	Dec	Year ended 31 Mar 74 Effect on net surplus Inc	Dec
Amounts which would have been written off the amounts which would have been transferred to displaced plant accounts during the year ended 31 March 1970 (Table A4)	358,142		530,609		707,038		707,038		707,038	
Amounts which would have been written off the amounts which would have been transferred to displaced plant during the year ended 31 March 1971 (Table A5)			294,424		430,695		430,695		430,695	
Amount of displaced plant which was written off to revenue which would not have been written off to revenue if the plant displaced during the year ended 31 March 1971 had been written off against the balance of the obsolescence and development reserve (Table A6)				79,000		313,300		313,300		313,300
Amounts which would have been written off the amounts which would have been transferred to displaced plant accounts during the year ended 31 March 1972 (Table A7)					715,108		715,108		715,108	
Amounts of displaced plant which would have been written off to revenue which would not have been written off to revenue if the plant displaced during the year ended 31 March 1972 had been written off against the balance of the obsolescence and development reserve (Table A8)						183,100		183,100		183,100
	358,142	-	825,033	79,000	1,852,841	496,400	1,852,841	496,400	1,852,841	496,400
			79,000		496,400		496,400		496,400	
			746,033		1,356,441		1,356,441		1,356,441	

Table A10

Effect on net assets of transferring all reserves to reserve fund as at 1 April 1969

	Year ended 31 Mar 70 Effect on net assets Inc	Dec	Year ended 31 Mar 71 Effect on net assets Inc	Dec	Year ended 31 Mar 72 Effect on net assets Inc	Dec	Year ended 31 Mar 73 Effect on net assets Inc	Dec	Year ended 31 Mar 74 Effect on net assets Inc	Dec
Amounts which would have been transferred to displaced plant accounts during the year ended 31 March 1970		7,959,129								
Amounts of displaced plant which would have been written off to revenue if the above amounts had been transferred to displaced plant accounts during the year ended 31 March 1970	358,142		530,609		707,038		707,038		707,038	
Amounts which would have been transferred to displaced plant accounts during the year ended 31 March 1971				4,601,372						
Amounts of displaced plant which would have been written off to revenue if the above amounts had been transferred to displaced plant accounts during the year ended 31 March 1971			294,424		630,695		630,695		630,695	
Amount which would have been written off against obsolescence and development reserve but which was instead transferred to displaced plant account during the year ended 31 March 1971			3,212,000							
Amount of displaced plant written off to revenue which would not have been written off to revenue if the above amount had been written off during the year ended 31 March 1971 against the balance of the obsolescence and development reserve				79,000		313,300		313,300		313,300
Amounts which would have been transferred to displaced plant accounts during the year ended 31 March 1972						7,151,073				
Amounts of displaced plant which would have been written off to revenue if the above amounts had been transferred to displaced plant accounts during the year ended 31 March 1972					715,108		715,108		715,108	
Amounts which would have been written off against obsolescence and development reserve but which were instead transferred to displaced plant account during the year ended 31 March 1972					1,831,000					
Amounts of displaced plant written off to revenue which would not have been written off to revenue if the amounts above had been written off during the year ended 31 March 1972 against the balance of obsolescence and development reserve						183,100		183,100		183,100
	358,142	7,959,129	4,037,033	4,680,372	3,683,841	7,647,473	1,852,841	496,400	1,852,841	496,400
		358,142		4,037,033		3,683,841	496,400		496,400	
		7,600,987		643,339		3,963,632	1,356,441		1,356,441	

Table A11

Effect of accounting choices made during the year ended 31 March 1970 on the reported net surpluses for each year of the quinquennium ended 31 March 1974

		Year ended 31 March 1970 Incr	Decr	Year ended 31 March 1971 Incr	Decr	Year ended 31 March 1972 Incr	Decr	Year ended 31 March 1973 Incr	Decr	Year ended 31 March 1974 Incr	Decr
East Midlands	- prov re gas sales		270,000								
	- spec amort charge re an industrial conversion		155,000								
	- incr in prov re contingencies		76,000								
	- prov re painting of gas holder		60,000								
	- incr in prov re stock obsol etc		61,000								
	- under-use of pension prov		32,407								
Eastern	- decr in prov for deferred repairs	39,000									
	- incr in misc provs		14,000								
North Eastern	- decr in pension scheme prov	9,000									
	- release of retort reset prov	60,000									
	- decr in other provs	51,000									
North Thames	- bal of comp w/o against res fund			14,000		14,000		972,000			
	- transfer from res fund to intang assets							783,000			
	- incr in amount w/o assets of former undertakings		46,759		92,866		163,495	303,120			
	- release of prov for repairs	46,000									
	- decr in prov for leasehold dilap	55,000									
North Western	- incr in prov re employers' liab ins fund		6,000								
Northern	- chge in deprec of short-lived assets	43,400									
Scottish	- decr in prov for deferred repairs	5,000									
South Eastern	- chge re calc of unread gas	357,720		25,886		34,422		57,737		36,169	
	- chge in deprec of new and renewed services	642,056		642,056		642,056		642,056		642,056	
South Western	- none										
Southern	- incr in misc provs		10,000								
Wales	- none										
West Midlands	- release of prov re gas sales	500,000									
		1,808,176	731,166	681,942	92,866	690,478	163,495	2,757,913		678,225	
		731,166		92,866		163,495					
		1,077,010		589,076		526,983					
All Area Boards	- transfer of all reserves to res fund (Table A9)	358,142		746,033		1,356,441		1,356,441		1,356,441	
		1,435,152		1,335,109		1,883,424		4,114,354		2,034,666	

Table A12

Effect of accounting choices made during the year ended 31 March 1970 on the reported capital employed at the end of each year of the quinquennium ended 31 March 1974

		Year ended 31 March 1970 Incr	Decr	Year ended 31 March 1971 Incr	Decr	Year ended 31 March 1972 Incr	Decr	Year ended 31 March 1973 Incr	Decr	Year ended 31 March 1974 Incr	Decr
East Midlands	- prov re gas sales		270,000		270,000		270,000		270,000		270,000
	- spec amort chge re an industrial conversion		155,000		155,000		155,000		155,000		155,000
	- incr in prov re contingencies		76,000		76,000		76,000		76,000		76,000
	- prov re painting of gas holder		60,000		60,000		60,000		60,000		60,000
	- incr in prov re stock obsol etc		61,000		61,000		61,000		61,000		61,000
	- under-use of pension prov		32,407		32,407		32,407		32,407		32,407
Eastern	- incr in investment res		25,000		25,000		25,000		25,000		25,000
	- decr in prov for deferred repairs	39,000		39,000		39,000		39,000		39,000	
	- incr in misc provs		14,000		14,000		14,000		14,000		14,000
North Eastern	- decr in pension scheme prov	9,000		9,000		9,000		9,000		9,000	
	- release of retort reset prov	60,000		60,000		60,000		60,000		60,000	
	- decr in other provs	51,000		51,000		51,000		51,000		51,000	
	- prov for obsolescence		2,826,000	2,826,000	2,826,000						
North Thames	- bal of comp w/o against res fund		1,000,000	14,000	1,000,000	28,000	1,000,000	1,000,000	1,000,000		
	- transfer from res fund to intang assets		783,000		783,000		783,000	783,000	783,000		
	- incr in amount w/o assets of former undertakings		46,759		139,625		303,120	303,120	303,120		
	- release of prov for repairs	46,000		46,000		46,000		46,000		46,000	
	- decr in prov for leasehold dilap	220,000		220,000		220,000		220,000		220,000	
North Western	- incr in prov re employers' liab ins fund		6,000		6,000		6,000		6,000		6,000
Northern	- chge in deprec of short-lived assets	43,400		43,400		43,400		43,400		43,400	
Scottish	- decr in prov for deferred repairs	5,000		5,000		5,000		5,000		5,000	
South Eastern	- chge re calc of unread gas	357,720		383,606		418,028		475,765		511,934	
	- chge in deprec of new and renewed services	642,056		1,284,112		1,926,168		2,568,224		3,210,280	
South Western	- none										
Southern	- incr in misc provs		10,000		10,000		10,000		10,000		10,000
Wales	- none										
West Midland	- release of prov re gas sales	500,000		500,000		500,000		500,000		500,000	
		1,973,176	5,365,166	5,481,118	5,458,032	3,345,596	2,795,527	6,103,509	2,795,527	4,695,614	709,407
			1,973,176	5,458,032		2,795,527		2,795,527		709,407	
			3,391,990	23,086		550,069		3,307,982		3,986,207	
All Area Boards	- transfer of all reserves to res fund (Table A10)		7,600,987		643,339		3,963,632	1,356,441		1,356,441	
Gas Council	- none										
			10,992,977		620,253		3,413,563	4,664,423		5,342,648	

APPENDIX B - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1971

APPENDIX B

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1971

INTRODUCTION

The discretionary accounting choices made in the published accounts of the twelve Area Boards during the year ended 31 March 1971 are identified below. The Area Boards are dealt with in alphabetical order.

An accounting choice made during the year ended 31 March 1971 could have affected not only the net surplus for the year ended 31 March 1971 (eg the increase or decrease of a provision) but also the net surplus for each of the remaining years of the quinquennium (eg the change of a rate of depreciation).

The effect on net assets of the accounting choices made during the year ended 31 March 1971 could be either static or dynamic depending on the nature of the accounting choice. Where, for example, a provision was increased or decreased the effect on net assets would be static in that it would require another accounting choice in a future year to change the provision and hence the net assets. But where, for example, a rate of depreciation was changed the effect on net assets would be dynamic in that the changed rate of depreciation would continue to have a changing effect on the net assets at the end of each subsequent year. Most of the accounting choices made during the year ended 31 March 1971 had a static effect on net assets. Thus where the effect of a particular accounting choice on the net assets at the end of the remaining years of the quinquennium is not discussed below it should be assumed that the effect was static ie that the effect on the remaining years of the quinquennium was the same as the effect on the net assets at 31 March 1971.

The effect, if any, of each accounting choice made during the year ended 31 March 1971 on the net surplus for each year of the quinquennium and on the net assets at the end of each year of the quinquennium has been ascertained from the relevant published accounts, or, where this has not been possible calculated as explained below. The effects on the net surplus for each year of the quinquennium are shown on Table B1 and the effect on the net assets at the end of each year of the quinquennium are shown on Table B2.

EAST MIDLANDS GAS BOARD

Release of provision against income from gas sales

Note 1 (1971) stated that this provision was no longer required. This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1971 and of increasing the net assets at 31 March 1971 by £270,000.

Decrease in provision relating to gas holder painting

The decrease in this provision was ascertained from Schedule 14 (1971). This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1971 and of increasing the net assets at 31 March 1971 by £45,000.

Increase in provision against stock obsolescence and deterioration

Note 14(b) (1971) stated that this provision had been increased. This accounting choice had the effect of decreasing the net surplus for the year ended 31 March 1971 and of decreasing the net assets at 31 March 1971 by £121,538.

Under use of pension provision account to eliminate the deficiencies arising on pension funds and schemes

The deficiencies arising on pension funds and schemes during the year ended 31 March 1971 amounted to £126,007 but only £100,000 was transferred from pension provision account leaving a balance of £26,007 which was charged to revenue [Note 13 (1971)]. The balance on the pension provision account at 31 March 1971 was £500,000 (Schedule 14 to the published accounts at 31 March 1971) and was thus sufficiently large to absorb the total deficiencies arising during the year ended 31 March 1971. This accounting choice had the effect of decreasing the net surplus for the year ended 31 March 1971 and of decreasing the net assets at 31 March 1971 by £26,007.

Accelerated depreciation on distribution system

Note 6 (1971) and Note 6 (1972) both explained that the depreciation figures for these years included an amount (£605,860 for 1971 and £562,233 for 1972) in respect of accelerated depreciation of expenditure incurred in compliance with the recommendations of the Institution of Gas Engineers relative to testing the Board's distribution system.

For the remaining two years of the quinquennium the effect, if any, of this change of accounting base was not disclosed. Neither Note 6 (1971) nor Note 6 (1972) provided sufficient information to enable the researcher to calculate an estimate of the effect of this change on the next two years. Consequently the researcher has assumed an identical increase in the depreciation charge for the years ended 31 March 1973 and 31 March 1974 as in the year ended 31 March 1972. This accounting choice had the effect of decreasing each year's net surplus and of cumulatively decreasing the net assets at the end of each year. The calculation of the cumulative effect on net assets is shown below :

Accelerated depreciation on distribution system during year ended 31 March 1971	£ 605,860
Decrease in net assets at 31 March 1971	605,860
Accelerated depreciation on distribution system during the year ended 31 March 1972	562,233
Cumulative decrease in net assets at 31 March 1972	1,168,093
Estimated accelerated depreciation on distribution system during year ended 31 March 1973	562,233
Cumulative decrease in net assets at 31 March 1973	1,730,326
Estimated accelerated depreciation on distribution system during year ended 31 March 1974	562,233
Cumulative decrease in net assets at 31 March 1974	2,292,559

EASTERN GAS BOARD

Increase in investment reserve

The increase in the investment reserve was ascertained from Schedule 12 (1971). The researcher has assumed that this amount was transferred from the reserve fund as in the year ended 31 March 1970, although Note 17 (1971) did not confirm this (perhaps because £3,000 was not considered to be material). On the basis of this assumption this accounting choice did not affect the net surplus for the year ended 31 March 1971 but did decrease the net assets at 31 March 1971 by £3,000 as the investment reserve was deducted from the balance on investment account.

Increase in provision for deferred repairs

Note 14 (1971) stated that this provision had been increased by £58,000. This accounting choice had the effect of decreasing the net surplus for the year ended 31 March 1971 and the net assets at 31 March 1971 by £58,000.

Decrease in miscellaneous provisions

The decrease of £86,000 in miscellaneous provisions was ascertained from Schedule 14 (1971). Note 17 (1971) established that £15,000 had been transferred to the reserve fund. These accounting choices had the effect of increasing the net surplus for the year ended 31 March 1971 by £71,000 and of increasing the net assets at 31 March 1971 by £86,000.

NORTH EASTERN GAS BOARD

Decrease in pension scheme provision

The decrease in the above provision was ascertained from Schedule 14 (1971). This accounting choice had the effect of increasing both the net surplus for the year ended 31 March 1971 and the net assets at 31 March 1971 by £10,000.

NORTH THAMES GAS BOARD

Transfer from reserve fund to intangible assets of former undertakings

An amount of £40,000 was transferred from the reserve fund to increase the write off of the intangible assets of former undertakings [Notes 12 and 18 (1971)]. This transfer had the effect of decreasing the net assets at 31 March 1971 but had no effect on the net surplus for the year ended 31 March 1971 as the balance of the intangible assets was being written off at the rate of £200,000 per annum which was unaffected by the transfer from the reserve fund. The net surplus for the year ended 31 March 1972 was similarly unaffected but the net surplus of the BGC for the year ended 31 March 1973 was increased by £40,000 as the total balance of the assets of former undertakings written off as an extraordinary item in that year [Note 2(j) and Note 10 (1973)] was decreased by £40,000 as a result of this accounting choice by the North Thames Gas Board during the year ended 31 March 1971. The effect of this accounting choice on net assets was thus eliminated at 31 March 1973.

Provision for leasehold dilapidations written off against reserve fund

The decrease in the provision for leasehold dilapidations of £40,000 (Schedule 14, 1971) had the effect of increasing the net assets at 31 March 1971 by that amount but the net surplus for the year ended 31 March 1971 was unaffected as the £40,000 was transferred to the reserve fund [Note 18 (1971)].

NORTH WESTERN GAS BOARD

Increase in provision relating to employers' liability insurance fund

The increase of £4,000 in the above provision was ascertained from Schedule 14 (1971). This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1971 and the net assets at 31 March 1971 by £4,000.

Change in the basis for calculating bad and doubtful debts

Note 12(a) (1971) stated that :

> Provisions against gas and rental debtors in respect of bad and doubtful debts have this year been computed as a percentage of the

> total debts outstanding. This is a departure from the former practice of making specific provisions relating to this type of debtor.

It has not been possible to quantify the effect of this change as the published accounts and the supporting schedules did not provide sufficient information.

NORTHERN GAS BOARD

Capitalisation of certain salaries and related costs

Note 1 (1971) described the change in accounting base as follows :

> The Board's policy hitherto has been to treat all its engineering department costs as revenue expenditure. It is now considered appropriate to treat as capital expenditure the salaries of certain headquarters personnel who are engaged on capital projects and to allocate to capital expenditure a proportion of the salary, wages and transport costs of the local distribution offices. The effect of this change in the basis of accounting is to charge to capital expenditure costs of £199,000 incurred in the year to 31 March 1971.

This accounting choice had the effect of increasing both the net surplus for the year ended 31 March 1971 and the net assets at 31 March 1971 by £199,000.

The amount which was charged to capital accounts for the year ended 31 March 1972 was not disclosed in the published accounts for that year. This amount has been estimated by the researcher by adjusting the £199,000 for the year ended 31 March 1971 by the change in the Index of average salaries : non-manual employees (Great Britain) included in the Annual Abstract of Statistics for 1973 (HMSO, 1973).

The researcher has assumed that :

(a) salaries and related expenses accrued evenly through the year ended on 31 March 1971 and through the year ending on 31 March 1972.

(b) the index of average salaries accrued evenly between April 1971 and April 1972.

Given the above assumptions the researcher calculated the amount which was charged to capital accounts for the year ended 31 March 1972 as follows :

$$\text{Salaries and related expenses charged to capital for the year ended 31 March 1971} \times \frac{\text{Index of average salaries at October 1971}}{\text{Index of average salaries at October 1970}}$$

$$£199{,}000 \text{ (note 1)} \times \frac{118.9 \text{ (note 3)}}{105.9 \text{ (note 2)}} = £223{,}429$$

(1) The amount of salaries and related expenses charged to capital for the year ended 31 March 1971 was obtained from Note 1 to the published accounts for the year ended 31 March 1971

(2) At October 1970 the index of average salaries = 105.9 (April 1970 = 100)

(3) The October 1971 index of average salaries was assumed to be the mid-point between the index at April 1971 and the index at April 1972 and was calculated as follows :

$$\frac{\text{Index at April 1971} + \text{index at April 1972}}{2} = \frac{112.4 + 125.4}{2} = 118.9$$

This accounting choice had the effect of increasing both the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £223,429.

The amount which was charged to capital accounts for the year ended 31 March 1973 was not disclosed in the BGC's published accounts for that year. This amount has been estimated by the researcher by adjusting the £223,429 for the year ended 31 March 1972 by the change in the Index of average salaries : non-manual employees (Great Britain) included in the Annual Abstract of Statistics for 1974 (HMSO, 1974).

The researcher has assumed that :

(a) salaries and related expenses accrued evenly through the year ended 31 March 1972 and through the year ended 31 March 1973,

(b) the index of average salaries accrued evenly between April 1971 and April 1973.

Given the above assumptions the researcher calculated the amount which was charged to capital account for the year ended 31 March 1973 as follows :

Salaries and related expenses charged to capital for the year ended 31 March 1972 x $\frac{\text{Index of average salaries at October 1972}}{\text{Index of average salaries at October 1971}}$

£223,429 (note 1) x $\frac{132.0 \text{ (note 3)}}{118.9 \text{ (note 2)}}$ = £248,046

(1) The amount of salaries and related expenses charged to capital for the year ended 31 March 1972 was obtained from the calculation above.

(2) The October 1971 index of average salaries was assumed to be the mid-point between the index at April 1971 and the index at April 1972 and was calculated as follows :

$$\frac{\text{Index at April 1971 + index at April 1972}}{2} = \frac{112.4 + 125.4}{2} = 118.9$$

(3) The October 1972 index of average salaries was assumed to be the mid-point between the index at April 1972 and the index at April 1973 and was calculated as follows :

$$\frac{\text{Index at April 1972 + index at April 1973}}{2} = \frac{125.4 + 138.7}{2} = 132.0$$

This accounting choice ceased during the year ended 31 March 1974. Note 2(b) (1973) stated that in relation to fixed assets constructed by the BGC cost included "related works and administrative overheads". But Note 2(b) (1974) stated that in the case of fixed assets constructed by the Corporation only direct expenditure was included in cost. Note 4 (1974) expanded on this change by stating that :

> £3.7 million of expenditure which would have formed part of the cost of fixed assets on the basis used in previous years has been

charged against the trading profit of the year to 31 March 1974 following a review of the basis of overhead capitalisation.

Thus the accounting change made in the year ended 31 March 1971 did not have an effect on the net surplus for the year ended 31 March 1974 nor on the net assets at 31 March 1974.

Finally it should be noted that the effect on net assets of the accounting decision to capitalise salaries and related costs was cumulative over the relevant years of the quinquennium. The calculation of these cumulative effects is shown below :

Salaries and related costs capitalised during the year ended 31 March 1971	£199,000
Increase in net assets at 31 March 1971	199,000
Salaries and related costs capitalised during the year ended 31 March 1972	223,429
Cumulative increase in net assets at 31 March 1972	422,429
Salaries and related costs capitalised during the year ended 31 March 1973	248,046
Cumulative increase in net assets at 31 March 1973	£670,473

The cumulative increase in net assets at 31 March 1974 was also £670,473 as salaries and related costs were not capitalised after 31 March 1973.

Depreciation on the salaries and related costs capitalised

The capitalisation of the salaries and related costs discussed in the previous section meant that Northern's depreciation charges to revenue were increased. Details of the rates at which these amounts were depreciatied was not disclosed. Consequently the researcher has assumed that the salaries and related costs capitalised were spread over a range of fixed assets and that they were depreciated at the average rate used to depreciate Northern's fixed assets. The average rate for each of the years ended on 31 March 1970, 31 March 1971 and 31 March 1972 was calculated as follows :

$$\frac{\text{Depreciation charge for the year ended 31 March 1970 (note 1)}}{\text{Gross book value of post vesting fixed assets @ 31 March 1970 (note 2)}} \times \frac{100}{1}$$

$$= \frac{1856}{55,357} \times \frac{100}{1} = 3.4\%$$

$$\frac{\text{Depreciation charge for the year ended 31 March 1971 (note 3)}}{\text{Gross book value of post vesting fixed assets @ 31 March 1971 (note 4)}} \times \frac{100}{1}$$

$$= \frac{1919}{61,005} \times \frac{100}{1} = 3.1\%$$

$$\frac{\text{Depreciation charge for the year ended 31 March 1972 (note 5)}}{\text{Gross book value of post vesting fixed assets @ 31 March 1972 (note 6)}} \times \frac{100}{1}$$

$$= \frac{2199}{64,934} \times \frac{100}{1} = 3.4\%$$

(1) Obtained from Note 5 (1970)
(2) Obtained from the Balance Sheet at 31 March 1970
(3) Obtained from Note 8 (1971)
(4) Obtained from the Balance Sheet at 31 March 1971
(5) Obtained from Note 5 (1972)
(6) Obtained from the Balance Sheet at 31 March 1972.

The researcher calculated the average for these three years as follows :

$$\frac{3.4\% + 3.1\% + 3.4\%}{3} = 3.3\%$$

and assumed that this average rate was used to depreciate the salaries and wages capitalised by Northern in each of the relevant years.

The extra depreciation charged in each of the four remaining years of the quinquennium as as a result of the accounting choice during the year ended 31 March 1971 to capitalise certain salaries and related costs was estimated as follows :

Salaries and related costs capitalised up to 31 March 1971 (note 7)	£199,000
Estimated depreciation charged during the year ended 31 March 1971 on salaries and related costs capitalised up to 31 March 1971 3.3% of £199,000	£ 6,567
Estimated salaries and related costs capitalised up to 31 March 1972 (note 8)	£422,429
Estimated depreciation charged during the year ended 31 March 1972 on salaries and related costs capitalised up to 31 March 1972 3,3% of £422,429	£ 13,940
Estimated salaries and related costs capitalised up to 31 March 1973 (note 8)	£670,475
Estimated depreciation charged during the year ended 31 March 1973 on salaries and related costs capitalised up to 31 March 1973 3.3% of £670,475	£ 22,126
Estimated salaries and related costs capitalised up to 31 March 1974 (note 8)	£670,475
Estimated depreciation charged during the year ended 31 March 1974 on salaries and related costs capitalised up to 31 March 1974 3.3% of £670,475	£ 22,126

(7) Obtained from Note 1 (1971)

(8) As calculated in the preceding section on the capitalisation of certain salaries and related costs.

The net surplus for each year and the net assets at the end of each year were decreased by the depreciation charged on the salaries and related costs capitalised up to the end of that year. The effect on net assets was cumulative as shown overleaf :

Estimated depreciation on salaries and related costs capitalised up to 31 March 1971	£ 6,567
Decrease in net assets at 31 March 1971	£ 6,567
Estimated depreciation on salaries and related costs capitalised up to 31 March 1972	13,940
Cumulative decrease in net assets at 31 March 1972	£20,507
Estimated depreciation on salaries and related costs capitalised up to 31 March 1973	22,126
Cumulative decrease in net assets at 31 March 1973	£42,633
Estimated depreciation on salaries and related costs capitalised up to 31 March 1974	22,126
Cumulative decrease in net assets at 31 March 1974	£64,759

SCOTTISH GAS BOARD

Increase in provision for deferred repairs

The increase of £249,000 in the above provision was ascertained from Schedule 14 (1971). This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1971 and the net assets at 31 March 1971 by £249,000.

SOUTHERN GAS BOARD

Increase in provisions

The increase in provisions of £22,000 was ascertained from Schedule 14 (1971). This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1971 and the net assets at 31 March 1971 by £22,000.

Transfer from investment reserve to reserve fund

The transfer of £6,000 from investment reserve to reserve fund was ascertained from Note 9 (1971) and from Schedule 12 (1971). This accounting choice had no effect on the net surplus for the year ended 31 March 1971 but had the effect of increasing the net assets at 31 March 1971 by £6,000 as the investment reserve was deducted from the investment account.

WEST MIDLANDS GAS BOARD

Change in the basis of calculating depreciation

Note 7 (1971) stated that :

> During the year certain changes in the bases of depreciation have resulted in the charge for the year being £407,000 more than it would have been on the previous bases.

For the remaining three years of the quinquennium the effect of these changes in the basis of calculating depreciation were not disclosed. It was not possible for the researcher to calculate the effect of these changes on the remaining three years of the quinquennium as insufficient information was provided. Consequently the researcher has assumed an identical effect on the years ended 31 March 1972, 31 March 1973 and 31 March 1974 as on the year ended 31 March 1971. This accounting change had the effect of decreasing each year's net surplus by £407,000 and of cumulatively decreasing the net assets at the end of each year by £407,000. The calculation of the cumulative effect on net asssets is shown overleaf :

Increase in depreciation charge during year ended 31 March 1971	£ 407,000
Decrease in net assets at 31 March 1971	£ 407,000
Increase in depreciation charge during year ended 31 March 1972	407,000
Cumulative decrease in net assets at 31 March 1972	814,000
Increase in depreciation charge during year ended 31 March 1973	407,000
Cumulative decrease in net assets at 31 March 1973	1,221,000
Increase in depreciation charge during year ended 31 March 1974	407,000
Cumulative decrease in net assets at 31 March 1974	£1,628,000

Table B1

Effect of accounting choices made during the year ended 31 March 1971 on the reported net surpluses for each remaining year of the quinquennium ended 31 March 1974

		Year ended 31 March 1971 Incr	Decr	Year ended 31 March 1972 Incr	Decr	Year ended 31 March 1973 Incr	Decr	Year endd 31 March 1974 Incr	Decr
East Midlands	- release of prov re gas sales	270,000							
	- decr in prov re painting of gas holder	45,000							
	- incr in prov re stock obsol etc.		121,538						
	- under-use of pension prov		26,007						
	- accel deprec on distribution system		605,860		562,233		562,233		562,233
Eastern	- incr in prov for deferred repairs		58,000						
	- decr in misc provs	71,000							
North Eastern	- decr in pension scheme prov	10,000							
North Thames	- transfer from res fund to intang assets					40,000			
North Western	- incr in prov re employers' liab ins fund		4,000						
Northern	- capitalisation of certain salaries etc.	199,000		223,429		248,046			
	- deprec on salaries etc capitalised		6,567		13,940		22,126		22,126
Scottish	- incr in prov for deferred repairs		249,000						
South Eastern	- none								
South Western	- none								
Southern	- incr in provs		22,000						
Wales	- none								
West Midlands	- chge in basis of calc deprec		407,000		407,000		407,000		407,000
Gas Council	- none								
		595,000	1,499,972	223,429	983,173	288,046	991,359		991,359
			595,000		223,429		288,046		
			904,972		759,744		703,313		991,359

Table B2

Effect of accounting choices made during the year ended 31 March 1971 on the reported capital employed at the end of each remaining year of the quinquennium ended 31 March 1974

			Year ended 31 March 1971		Year ended 31 March 1972		Year ended 31 March 1973		Year ended 31 March 1974	
			Incr	Decr	Incr	Decr	Incr	Decr	Incr	Decr
East Midlands	-	release of prov re gas sales	270,000		270,000		270,000		270,000	
	-	decr in prov re painting of gas holder	45,000		45,000		45,000		45,000	
	-	incr in prov re stock obsol etc.		121,538		121,538		121,538		121,538
	-	under-use of pension prov		26,007		26,007		26,007		26,007
	-	accel deprec on distribution system		605,860		1,168,093		1,730,326		2,292,559
Eastern	-	incr in investment res		3,000		3,000		3,000		3,000
	-	incr in prov for deferred repairs		58,000		58,000		58,000		58,000
	-	decr in misc provs	86,000		86,000		86,000		86,000	
North Eastern	-	decr in pension scheme prov	10,000		10,000		10,000		10,000	
North Thames	-	transfer from res fund to intang assets		40,000		40,000	40,000	40,000		
	-	prov for leasehold dilap w/o against res fund	40,000		40,000		40,000		40,000	
North Western	-	incr in prov re employers' liab ins fund		4,000		4,000		4,000		4,000
Northern	-	capitalisation of certain salaries etc.	199,000		422,429		670,475		670,475	
	-	deprec on salaries etc. capitalised		6,567		20,507		42,633		64,759
Scottish	-	incr in prov for deferred repairs		249,000		249,000		249,000		249,000
Scottish Eastern	-	none								
South Western	-	none								
Southern	-	incr in provs		22,000		22,000		22,000		22,000
	-	transfer from invest res to res fund	6,000		6,000		6,000		6,000	
Wales	-	none								
West Midlands	-	chge in basis of calc deprec		407,000		814,000		1,221,000		1,628,000
Gas Council	-	none								
			656,000	1,542,972	879,429	2,526,145	1,167,475	3,517,504	1,127,475	4,468,863
				656,000		879,429		1,167,475		1,127,475
				886,972		1,646,716		2,350,029		3,341,388

APPENDIX C - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1972

APPENDIX C

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1972

INTRODUCTION

The discretionary accounting choices made in the published accounts of the twelve Area Boards during the year ended 31 March 1972 are identified below. The Area Boards are dealt with in alphabetical order.

An accounting choice made during the year ended 31 March 1972 could have affected not only the net surplus for the year ended 31 March 1972 (eg the increase or decrease of a provision) but also the net surplus for each of the remaining years of the quinquennium (eg the accelerated amortisation of displaced plant).

The effect on net assets of the accounting choices made during the year ended 31 March 1972 could be either static or dynamic depending on the nature of the accounting choice. Where, for example, a provision was increased or decreased the effect on net assets would be static in that it would require another accounting choice in a future year to change the provision and hence the net assets. But where, for example, a rate of amortisation was changed the effect on net assets would be dynamic in that the changed rate of amortisation would continue to have a changing effect on the net assets at the end of each subsequent year. Most of the accounting choices made during the year ended 31 March 1972 had a static effect on net assets. Thus where the effect of a particular accounting choice on the net assets at the end of the remaining years of the quinquennium is not discussed below is should be assumed that the effect was static ie that the effect on the remaining years of the quinquennium was the same as the effect on the net assets at 31 March 1972.

The effect, if any, of each accounting choice made during the year ended 31 March 1972 on the net surplus for each year of the quinquennium and on the net assets at the end of each year of the quinquennium has been ascertained from the relevant published accounts or, where this has not been possible calculated as explained below. The effects on the net surplus for each year of the quinquennium are shown on Table C5 and the effects on the net assets at the end of each year of the quinquennium are shown on Table C6.

EAST MIDLANDS GAS BOARD

Release of provision relating to gas holder painting

The release of this provision was ascertained from Schedule 14 (1972). This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and of increasing the net assets at 31 March 1972 by £15,000.

Reduction in provision against stock obsolescence and deterioration

Note 15(b) (1972) stated that this provision has been reduced. This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and of increasing the net assets at 31 March 1972 by £333,436.

Reduction of pension scheme provision

The deficiencies arising on pension funds and schemes during the year ended 31 March 1972 amounted to £195,452. The amount transferred from the pension scheme provision amounted to £300,000 so that £104,548 was credited to revenue [Note 13 (1972)]. The balance on the pension scheme provision account at 31 March 1972 was £200,000 (Schedule 14 to the published accounts at 31 March 1972). Note 13 (1972) justified this increased transfer from the pension scheme provision account as follows :

> During 1971/72 and 1972/73 the Board will bear the burden of increased contributions to pension schemes (to meet the cost of higher benefits) while manpower levels will remain high due to the continuation of conversion and town gas production. The Board therefore decided to increase the transfer from the pension provision account during these two years, after which costs will be reduced as the number of employees falls.

This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £104,548.

<u>Release of special provision for doubtful debts</u>

Note 12 (1972) explained that "largely as a result of an intensification of the Board's debt collection procedures" the need for the special provision of £250,000 made in 1968/69 was no longer required. This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £250,000.

<u>Release of provision for repairs and maintenance of plant</u>

Note 14 (1972) explained that with the continued reduction in the number of gas making plants in operation, and in the light of experience gained in operating the new high pressure transmission system it was decided that this provision was no longer required. This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £240,000.

Release of provision for hardship

The release of this provision was ascertained from Schedule 14 (1972). This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £10,000.

EASTERN GAS BOARD

Reduction in investment reserve

The reduction in the investment reserve was ascertained from Schedule 12 (1972). Note 16 (1972) established that the £117,000 has been transferred to the reserve fund. Thus this accounting choice did not affect the net surplus for the year ended 31 March 1972 but did increase the net assets at 31 March 1972 by £117,000 as the investment reserve was deducted from the balance on investment account.

Release of provision for deferred repairs

The release of this provision was ascertained from Schedule 14 (1972). Note 16 (1972) established that the £265,000 had been transferred to reserve fund. Thus this accounting choice did not affect the net surplus for the year ended 31 March 1972 but did increase the net assets at 31 March 1972 by £265,000.

Increase in miscellaneous provisions

The increase in these provisions was ascertained from Schedule 14 (1972). This accounting choice had the effect of decreasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £149,000.

NORTH EASTERN GAS BOARD

Reduction of pension scheme provision

The reduction in the above provision was ascertained from Schedule 14 (1972). This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £10,000.

NORTH THAMES GAS BOARD

Transfer from reserve fund to intangible assets of former undertakings

An amount of £804,000 was transferred from reserve fund to increase the write off of the intangible assets of former undertakings [Note 11 and 17 (1972)]. This transfer had the effect of decreasing the net assets at 31 March 1972 but had no effect on the net surplus for the year ended 31 March 1972 as the balance of the intangible assets was being written off at the rate of £200,000 per annum which was unaffected by the transfer from reserve fund. However, the net surplus for the BGC for the year ended 31 March 1973 was increased by £804,000 as the total balance of the assets of former undertakings written off as an extraordinary item in that year [Note 2(j) and Note 10 (1973)] was decreased by £804,000 as a result of this accounting choice by the North Thames Gas Board during the year ended 31 March 1972. The effect of this accounting choice on the net assets was thus eliminated at 31 March 1973.

Reduction in provision for deferred repairs

The reduction in the above provision was ascertained from Schedule 14 (1972). This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £250,000.

Release of pension scheme provision

The release of the above provision was ascertained from Schedule 14 (1972). This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £120,000.

Surplus on sale of an investment in an associated company used to accelerate the amortisation of displaced plant

Note 9 (1972) explained that the surplus on the sale of an investment in an associated company had been partly used to accelerate by £365,633 the amortisation of displaced plant. This accounting choice had the effect of decreasing the net assets at 31 March 1972 by £365,633 as the most likely alternative choice was to transfer the surplus to reserve fund. As a result of this accounting choice the net surpluses for each of the years ended 31 March 1972, 31 March 1973 and 31 March 1974 were increased by £36,563. This was because displaced plant was to be written off by 31 March 1981 (Note 6, 1972) so that 1/10th of £365,633 or £36,563 would have been written off to revenue over each of these years.

Surplus on sale of an investment in an associated company used to fully amortise the balance of compensation

Note 9 (1972) explained that the surplus on the sale of an investment in an associated company had been partly used to fully amortise the balance of compensation at 31 March 1972 of £53,047. This accounting choice had the effect of decreasing the net assets at 31 March 1972 by £53,047 as the most likely alternative choice was to transfer the surplus to reserve fund. The net surplus for the year ended 31 March 1972 was unaffected by this accounting choice as the amount written off to revenue during that year (£5,539) was the same as in previous years. However, the net surplus for the BGC for the year ended 31 March 1973 was increased by £53,047 as the total balance on the balance of compensation account written off as an extraordinary item in that year [Note 2(j) and Note 10 (1973)] was decreased by £53,407 as a result of this accounting choice by the Scottish Gas Board during the year ended 31 March 1972. The effect of this accounting choice on the net assets was thus eliminated at 31 March 1973.

SOUTH EASTERN GAS BOARD

Capitalisation of certain labour costs

Note 9 (1972) stated that :

> An amount of £774,000 has, this year, been charged to Mains and Services in respect of certain elements of the cost of labour not previously taken into account for capital account purposes resulting in a reduction of revenue expenditure of a like amount.

This accounting choice had the effect of increasing both the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £774,000.

The amount which was charged to capital accounts for the year ended 31 March 1973 was not disclosed in the BGC's published accounts for that year. This amount has been estimated by the researcher by adjusting the £774,000 for the year ended 31 March 1972 by the change in the Monthly index of average earnings included in the Annual Abstract of Statistics for 1974 (HMSO, 1974). The researcher has assumed that this index is appropriate in the absence of any further details relating to the "cost of labour" capitalised by the South Eastern Gas Board. The researcher has also assumed that the cost of labour accrued evenly through the year ended 31 March 1972 and through the year ended 31 March 1973.

Given the above assumptions the researcher calculated the amount which was charged to capital account for the year ended 31 March 1973 as follows :

$$\text{Cost of labour charged to capital for the year ended 31 March 1972} \times \frac{\text{Index of average earnings at Oct 1972}}{\text{Index of average earnings at Oct 1971}}$$

$$£774{,}000 \text{ (note 1)} \times \frac{140.5 \text{ (note 2)}}{122.0 \text{ (note 2)}} = £891{,}369$$

(1) Obtained from Note 9 (1972)
(2) Obtained from the Monthly Index of average earnings (HMSO, 1974).

This accounting choice had the effect of increasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £891,369.

The researcher has assumed that this accounting choice ceased during the year ended 31 March 1974. Note 2(b) (1973) stated that in relation to fixed assets constructed by the BGC cost included "related works and administrative overheads". But Note 2(b) (1974) stated that in the case of fixed assets constructed by the Corporation only direct expenditure was included in cost. The researcher has assumed that the "cost of labour" capitalised by the South Eastern Gas Board was considered to be a works overhead which on the basis of the above notes from the published accounts of the BGC would have been capitalised during the year ended 31 March 1973 but not thereafter. Thus the above accounting change made in the year ended 31 March 1972 did not have an effect on the net surplus for the year ended 31 March 1974 nor on the net assets at 31 March 1974.

It should be noted that the effect on net assets of the accounting decision to capitalise certain elements on the cost of labour was cumulative. The calculation of these cumulative effects is shown below :

Cost of labour capitalised during the year ended 31 March 1972	£ 774,000
Increase in net assets at 31 March 1972	£ 774,000
Cost of labour capitalised during the year ended 31 March 1973	891,369
Increase in net assets at 31 March 1973	£1,665,369

The cumulative increase in net assets at 31 March 1974 was also £1,665,369 as the cost of labour was not capitalised after 31 March 1973.

Depreciation on the cost of labour capitalised

The capitalisation of the cost of labour discussed in the previous section meant that South Eastern's depreciation charges to revenue were increased. Details of the rates at which these amounts were depreciated was not disclosed. Consequently the researcher has assumed that the cost of labour capitalised was spread over a range of fixed assets and was depreciated at the average rate used to depreciate South Eastern's fixed assets. The average rate for each of the years ended on 31 March 1970, 31 March 1971 and 31 March 1972 were calculated as follows :

$$\frac{\text{Depreciation charge for the year ended 31 March 1970 (note 1)}}{\text{Gross book value of post vesting fixed assets @ 31 March'70 (note2)}} \times \frac{100}{1}$$

$$= \frac{6{,}912}{196{,}824} \times \frac{100}{1} = 3.5\%$$

$$\frac{\text{Depreciation charge for the year ended 31 March 1971 (note 3)}}{\text{Gross book value of post vesting fixed assets @ 31 March'71 (note 4)}} \times \frac{100}{1}$$

$$= \frac{7{,}466}{206{,}475} \times \frac{100}{1} = 3.6\%$$

$$\frac{\text{Depreciation charge for the year ended 31 March 1972 (note 5)}}{\text{Gross book value of post vesting fixed assets @ 31 March'72 (note 6)}} \times \frac{100}{1}$$

$$= \frac{8{,}097}{197{,}840} \times \frac{100}{1} = 4.1\%$$

(1) Obtained from Note 9 (1970)
(2) Obtained from the Balance Sheet at 31 March 1970
(3) Obtained from Note 7 (1971)
(4) Obtained from the Balance Sheet at 31 March 1971
(5) Obtained from Note 7 (1972)
(6) Obtained from the Balance Sheet at 31 March 1972

The researcher calculated the average for these three years as follows:

$$\frac{3.5\% + 3.6\% + 4.1\%}{3} = 3.7\%$$

and assumed that this average rate was used to depreciate the cost of labout capitalised in each of the relevant years.

The extra depreciation charged in each of the three remaining years of the quinquennium as a result of the accounting choice during the year ended 31 March 1972 to capitalise certain elements of the cost of labour was estimated as follows :

Cost of labour capitalised up to 31 March 1972 (note 7)	£ 774,000
Estimated depreciation charged during the year ended 31 March 1972 on the cost of labour capitalised up to 31 March 1972 3.7% of £774,000	£ 28,638
Estimated cost of labour capitalised up to 31 March 1973 (note 8)	£1,665,369
Estimated depreciation charged during the year ended 31 March 1973 on the cost of labour capitalised up to 31 March 1973 3.7% of £1,665,369	£ 61,619
Estimated cost of labour capitalised up to 31 March 1974 (note 8)	£1,665,369
Estimated depreciation charged during the year ended 31 March 1974 on the cost of labour capitalised up to 31 March 1974 3.7% of £1,665,369	£ 61,619

(7) Obtained from Note 9(1972)
(8) As calculated in the preceding section on the capitalisation of certain labour costs

The net surplus for each year and the net assets at the end of each year were decreased by the depreciation charged on the cost of labour capitalised up to the end of that year. The effect on net assets was cumulative as shown below :

Estimated depreciation on the cost of labour capitalised up to 31 March 1972	£ 28,638
Decrease in net assets at 31 March 1972	28,638
Estimated depreciation on the cost of labour capitalised up to 31 March 1973	61,619
Cumulative decrease in net assets at 31 March 1973	90,257
Estimated depreciation on the cost of labour capitalised up to 31 March 1974	61,619
Cumulative decrease in net assets at 31 March 1974	£151,876

SOUTHERN GAS BOARD

Increase in miscellaneous provisions

The increase in the above provisions was ascertained from Schedule 14 (1972). This accounting choice had the effect of decreasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £11,000.

WALES GAS BOARD

Release of pension scheme provision

Note 4(iii) (1972) stated that the provision of £131,585 made in previous years in respect of deficiencies relating to the pension scheme was no longer required and had been released. This accounting choice had the effect of increasing the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £131,585.

WEST MIDLANDS GAS BOARD

Release of pension scheme provision

The release of these provisions was explained in Note 20 (1972) as follows :

> The Board are liable to make good the deficiencies arising on pension funds and schemes. As a result of the actuarial valuation of the Protected Persons Superannuation Scheme made as at 31 March 1970, the annual deficiency contributions required for the period from 1 April 1970 to 31 March 1975 have been reduced from £186,000 per year to £59,000 per year. The amounts over provided at 31 March 1971 have been credited to the reserve fund.

The amount credited to the reserve fund was £331,000 (Note 19, 1972). This accounting choice did not affect the net surplus for the year ended

31 March 1972 but did increase the net assets at 31 March 1972 by £331,000.

GAS COUNCIL

Accelerated write-off of exploration expenditure

The accelerated write-off of exploration expenditure by the Gas Council subsidiary, Gas Council (Exploration) Ltd was described in Note 13 to the published accounts of the Gas Council for the year ended 31 March 1972 as follows :

> In 1970-71 and earlier years expenditure on exploration was written off on a straight line basis over ten years, but the basis was changed for 1971-72 so that it is now written off to revenue account as incurred. The unamortised balance of exploration expenditure at 31 March 1971 is now being written off over two years. The effect of this change has been to increase the depreciation charge against the revenue of the company for the year to 31 March 1972 by £4.5 million .....

For the following year further information was provided by Note 23(a) to the published accounts of the BGC for the year ended 31 March 1973. This note described the accelerated write-off of exploration expenditure by the BGC's principal subsidiary, Gas Council (Exploration) Ltd, during the year ended 31 March 1973 as follows :

> Exploration expenditure is written off to revenue account during the year in which it is incurred. In addition during the year 1972/73 a further sum of £2.9 million was written off in respect of the balance of exploration expenditure incurred prior to 31 March 1971. There are no further such amounts to be written off in future years.

In order to calculate the amount which would have been written off prior to the change of accounting base it was necessary to calculate the total exploration expenditure up to 31 March 1971 as this amount was originally being written off over ten years on a straight line basis. It was possible to do this using the information on the fixed assets of the

BGC subsidiary, Gas Council (Exploration) Ltd at 31 March 1973 provided in the notes to the published accounts of the BGC for the years ended 31 March 1973 and 31 March 1974.

In Note 23(a) to the published accounts of the BGC for the year ended 31 March 1973 the fixed assets of Gas Council (Exploration) Ltd at 31 March 1973 were shown as follows :

Fixed assets	£000
Company's share of expenditure incurred by consortia on exploration for and development of natural gas reserves (less Investment Grants)	32,033
Less: Depreciation charged to date	14,046
	17,987

In Note 23(a) to the published accounts of the BGC for the year ended 31 March 1974 the fixed assets of Gas Council (Exploration) Ltd at 31 March 1973 were shown as comparative figures as follows :

Fixed assets	£000
Company's share of expenditure incurred by consortia on development of natural gas reserves (less Investment Grants)	21,490
Less: Depreciation charged to date	3,503
	17,987

Although the unamortised balance at 31 March 1973 is the same in both sets of figures both the company's share of expenditure incurred and the accumulated depreciation thereon are £10,543,000 less in the published accounts at 31 March 1974 than they were in the published accounts at 31 March 1973. The description of these fixed assets in the published accounts for the year ended 31 March 1973 includes the "company's share of expenditure incurred by consortia on exploration". The description of these fixed assets in the published accounts for the year ended 31 March

1974 does not include any mention of exploration expenditure. It therefore seems reasonable to conclude that the differences between the two sets of figures (£10,543,000) is the exploration expenditure incurred up to 31 March 1971 which became fully amortised at 31 March 1973.

As already noted, prior to the change of accounting base exploration expenditure was written off on a straight line basis over ten years (Note 13 to the published accounts of the Gas Council for the year ended 31 March 1972). Therefore the amount which would have been written off each year on the expenditure incurred on exploration up to 31 March 1971 would have been 10% of £10,543,000 = £1,054,300.

Year ended 31 March 1972

As already noted Note 13 to the published accounts of the Gas Council for the year ended 31 March 1972 stated that the :

> effect of this change has been to increase the depreciation charge against the revenue of the company for the year to 31 March 1972 by £4.5 million .....

It therefore seems reasonable to conclude that the amount written off the unamortised balance of exploration expenditure at 31 March 1971 during the year ended 31 March 1972 was £1,054,300 + £4,500,000 = £5,554,300.

The effect of the change of accounting base for the year ended 31 March 1972 can now be calculated as follows :

Amounts actually written off

Amount written off unamortised balance of exploration expenditure at 31 March 1971 (see previous page)	£5,554,300
Exploration expenditure incurred and written off to revenue during year ended 31 March 1972 (line 15, Revenue Account of the Gas Council for the year ended 31 March 1972)	125,000
Total amount written off to revenue	£5,679,300

Amounts which would have been written off prior to change of accounting base

10% of exploration expenditure incurred up to 31 March 1971	£1,054,300
10% of exploration expenditure incurred during year ended 31 March 1972	12,500
	1,066,800
Increase in exploration expenditure written off due to change of accounting base	4,612,500

This increase in the exploration expenditure written off to revenue had the effect of decreasing both the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £4,612,500.

Year ended 31 March 1973

The effect of the change of accounting base for the year ended 31 March 1973 has been calculated as follows :

Amounts actually written off

Unamortised balance of exploration expenditure at 31 March 1971 written off [Note 23(a) to the published accounts of the BGC at 31 March 1973 and Note 23(a) to the published accounts of the BGC at 31 March 1974]	£2,927,000
Exploration expenditure incurred during year ended 31 March 1973 [Note 23(a) to the published accounts of the BGC at 31 March 1974]	1,878,000
	£4,805,000

Amounts which would have been written off prior to change of accounting base

10% of exploration expenditure incurred up to 31 March 1971	£1,054,300
10% of exploration expenditure incurred up to 31 March 1972	12,500
10% of exploration expenditure incurred up to 31 March 1973	187,800
	£1,254,600
Increase in exploration expenditure written off due to change of accounting base	£3,550,400

This increase in the exploration expenditure written off to revenue had the effect of decreasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £3,550,400.

Year ended 31 March 1974

The effect of the change of accounting base for the year ended 31 March 1974 has been calculated as follows :

Amounts actually written off

Exploration expenditure incurred during year ended 31 March 1974 [Note 23(a) to the published accounts of the BGC at 31 March 1974]	£2,792,000

Amounts which would have been written off prior to change of accounting base

10% of exploration expenditure incurred up to 31 March 1971	£1,054,300
10% of exploration expenditure incurred up to 31 March 1972	12,500
10% of exploration expenditure incurred up to 31 March 1973	187,800
10% of exploration expenditure incurred up to 31 March 1974	279,200
	£1,533,800
Increase in exploration expenditure written of due to change of accounting base	£1,258,200

This increase in the exploration expenditure written off to revenue had the effect of decreasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £1,258,200.

The calculation of the cumulative effect on net assets is shown below :

Increase in exploration expenditure written off during the year ended 31 March 1972	£4,612,500
Decrease in net assets at 31 March 1972	£4,612,500
Increase in exploration expenditure written off during the year ended 31 March 1973	3,550,400
Cumulative decrease in net assets at 31 March 1973	£8,162,900
Increase in exploration expenditure written off during the year ended 31 March 1974	1,258,200
Cumulative decrease in net assets at 31 March 1974	£9,421,100

Non-capitalisation of interest

The change of accounting base relating to the capitalisation of interest was first mentioned in Note 7 to the 1970-71 published accounts of the Gas Council as follows :

> Interest incurred on borrowings required to finance the provision of capital assets for the purpose of the reception and transmission of natural gas is charged to capital account in respect of assets under construction up to the date when they come into normal operational use. The amount so charged in 1970/71 was £2,607,000. Interest will continue to be charged to capital on construction in progress at 31 March 1971 until these assets come into operational use. On new construction work commenced after the 31 March 1971 the practice of charging interest to capital account will cease.

This change was confirmed in Note 7 to the 1971-72 published accounts of the Gas Council as follows :

> The practice of charging interest to capital on new construction ceased from 31 March 1971 except for projects already in progress at that date which continue to bear interest charges until they come into normal operational use.

Year ended 31 March 1972

The effect of this change of accounting base was not disclosed in the published accounts of the Gas Council for the year ended 31 March 1972. Therefore this has been estimated by the researcher on the basis of the following available information. Para 105 of the Gas Council Report for the year ended 31 March 1972 stated that :

> During the year investment by the Council on the natural gas transmission system amounted to £31.9 million (including £0.8 million for interest charged to capital).

Para 101 of the same report stated that during the year ended 31 March 1972 the industry paid an average rate of interest of 6.51% on its debt. In the calculations which follow the researcher has assumed that this average rate of interest of 6.51% was the rate paid on the amounts borrowed for investment in the natural gas transmission system during the year ended 31 March 1972.

According to the Revenue Account of the Gas Council for the year ended 31 March 1972 (line 21) the interest charged to capital account was £788,000 (the £0.8 million referred to in para 105 above). On the basis of Note 7 (1971) and Note 7 (1972) this was the interest charged on the construction work on the natural gas transmission system commenced prior to 31 March 1971. Assuming as stated above that 6.51% was the average rate of interest paid, the cost of the construction work commenced prior to 31 March 1971 was :

$$£788{,}000 \quad \times \quad \frac{100}{6.51} \quad = \quad £12{,}104{,}454$$

The cost of the construction work commenced after 1 April 1971 can now be arrived at as follows :

Total investment in natural gas transmission system during the year ended 31 March 1972 (Gas Council Report, para 105)		£31,900,000
Construction work commenced prior to 31 March 1971 (as calculated above)	£12,104,454	
Interest charged to capital on construction work commenced prior to 31 March 1971 (Gas Council's Revenue Account for the year ended 31 March 1972, line 21)	788,000	12,892,454
Investment in natural gas transmission system during the year ended 31 March 1972 commenced after 1 April 1971		£19,007,546

The effect on the year ended 31 March 1972 of the accounting decision not to capitalise interest on construction work on the natural gas transmission system commenced after 1 April 1971 can now be seen to be £1,237,391 (6.51% of £19,007,546). Thus this accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £1,237,391.

Year ended 31 March 1973

The amount of the investment in the natural gas transmission system for the year ended 31 March 1973 was not disclosed separately in the BGC's 1972/73 published accounts.

In order to quantify the effect of the change of accounting base already described in 1971/72 an estimate of the amount of the investment in the natural gas transmission system had to be made. This was done as follows : In 1971/72 the £31.9m invested in the transmission system represented 21% of the additions to fixed assets. In 1973/74 the £45.9m invested in the transmission system (Price Commission, 1979, Table 9.11) represented 33% of the additions to fixed assets. It will be assumed for the purposes of this calculation that the average between those 2 years ie 27% applies to 1972/73.

Additions to fixed assets for the year ended 31 March 1973 (BGC Report & Accounts 1972/73, p 36)	£125,300,000
27% thereof	£ 33,831,000

According to Note 8 (1973) the interest charged to capital for the year ended 31 March 1973 was £40,000. On the basis of Note 7 (1971) and Note 7 (1972) this was the interest charged on the construction work on the natural gas transmission system commenced prior to 31 March 1971. The average rate of interest paid by the BGC during the year ended 31 March 1973 was 7.23% (p 14, 1973). The researcher has assumed that this was the average rate of interest paid on the amounts borrowed for investment in the natural gas transmission system during the year ended 31 March 1973. On the basis of this assumption the cost of the construction work commenced prior to 31 March 1971 was :

$$£40{,}000 \times \frac{100}{7.23} = £553{,}250$$

The cost of the construction work commenced after 1 April 1971 can now be arrived at as follows :

Total investment in natural gas transmission system during the year ended 31 March 1973 (as calculated above)		£33,831,000
Construction work commenced prior to 31 March 1971 (as calculated above)	£553,250	
Interest charged to capital on construction work commenced prior to 31 March 1971 (BGC Report & Accounts for the year ended 31 March 1973, p 14)	40,000	593,250
Investment in natural gas transmission system during the year ended 31 March 1973 commenced after 1 April 1971		£33,237,750

The effect on the year ended 31 March 1973 of the accounting decision not to capitalise interest on construction work on the natural gas transmission system commenced after 1 April 1971 can now be seen to be £2,403,089 (7.23% of £33,237,750). Thus this accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £2,403,089.

Year ended 31 March 1974

The amount of the investment in the natural gas transmission system for the year ended 31 March 1974 was not disclosed separately in the published accounts of the BGC for the year ended 31 March 1974. However, that amount was identified by the Price Commission (1979, Table 9.11) as being £45.9m.

Note 8 to the published accounts for the year ended 31 March 1974 made it clear that there was no interest charged to capital during that year. On the basis of this information the researcher has assumed that there was no construction work commenced prior to 31 March 1971 included in the £45.9m investment in the natural gas transmission system during the year ended 31 March 1974.

The average rate of interest paid by the BGC during the year ended 31 March 1974 was 7.64% (p 13, 1974). The researcher has assumed that this was the average rate of interest paid on the amounts borrowed for investment in the natural gas transmission system during the year ended 31 March 1974.

The effect on the year ended 31 March 1974 of the accounting decision not to capitalise interest on construction work on the natural gas transmission system after 1 April 1971 can now be seen to be

£3,506,760 (7.64% of £45,900,000). Thus this accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £3,506,760.

The calculation of the cumulative effect on net assets is shown below :

Estimated increase in interest charge to revenue for the year ended 31 March 1972	£1,237,391
Estimated decrease in net assets at 31 March 1972	£1,237,391
Estimated increase in interest charge to revenue for the year ended 31 March 1973	2,403,089
Estimated cumulative decrease in net assets at 31 March 1973	£3,640,480
Estimated increase in interest charge to revenue for the year ended 31 March 1974	3,506,760
Estimated cumulative decrease in net assets at 31 March 1974	£7,147,240

Non-capitalisation of salaries and related expenses

Note 7 to the Gas Council's published accounts for the year ended 31 March 1972 stated that :

> From 31 March 1971 the practice of charging a proportion of salaries and related expenses to capital accounts was discontinued. The amount charged to capital account in 1970-71 was £884,000.

The amount which would have been charged to capital accounts during the year ended 31 March 1972 was not disclosed in the published accounts for the year ended 31 March 1972. This amount has been estimated by the researcher by adjusting the £884,000 for the year ended 31 March 1971 by the change in the Index of average salaries : non-manual employees (Great Britain) included in the Annual Abstract of Statistics for 1973 (HMSO, 1973).

The researcher has assumed that :

(a) salaries and related expenses accrued evenly through the year ending on 31 March 1971 and through the year ended on 31 March 1972; and

(b) the index of average salaries accrued evenly between April 1971 and April 1972.

Given the above assumptions the researcher calculated the amount which would have been charged to capital accounts for the year ended 31 March 1972 as follows :

$$\text{Salaries \& related expenses charged to capital for year ended 31 March '71} \times \frac{\text{Index of average salaries @ Oct '71}}{\text{Index of average salaries @ Oct '70}}$$

$$£884{,}000 \text{ (note 1)} \times \frac{118.9 \text{ (note 3)}}{105.9 \text{ (note 2)}} = £992{,}517$$

(1) The amount of salaries and related expenses charged to capital for the year ended 31 March 1971 was obtained from Note 7 to the published accounts of the Gas Council for the year ended 31 March 1971.

(2) At October 1970 the index of average salaries = 105.9 (April 1970 = 100).

(3) The October 1971 index of average salaries was assumed to be the mid-point between the index at April 1971 and the index at April 1972 and was calculated as follows :

$$\frac{\text{Index at April 1971 + index at April 1972}}{2} = \frac{112.4 + 125.4}{2}$$

$$= 118.9$$

The effect of the change in accounting base described above is to decrease both the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £992,517.

Year ended 31 March 1973

The amount which would have been charged to capital account during the year ended 31 March 1973 was not disclosed in the published accounts of the BGC for the year ended 31 March 1973. This amount has been estimated by the researcher by adjusting the estimate of £992,517 for the year ended 31 March 1972 by the change in the Index of average salaries : non-manual employees (Great Britain) included in the Annual Abstract of Statistics for 1974 (HMSO, 1974).

The researcher has assumed that :

(a) salaries and related expenses accrued evenly through the year ended 31 March 1972 and through the year ended 31 March 1973; and

(b) the index of average salaries accrued evenly between April 1971 and April 1973.

Given the above assumptions the researcher calculated the amount which would have been charged to capital account for the year ended 31 March 1973 as follows :

$$\text{Estimated salaries \& related expenses charged to capital for the year ended 31 March 1972} \times \frac{\text{Index of average salaries @ Oct '72}}{\text{Index of average salaries @ Oct '71}}$$

$$£992{,}517 \text{ (note 1)} \times \frac{132.0 \text{ (note 3)}}{118.9 \text{ (note 2)}} = £1{,}101{,}870$$

(1) The estimated salaries and related expenses charged to capital for the year ended 31 March 1972 was obtained from the calculation above.

(2) The October 1971 index of average salaries was assumed to be the mid-point between the index at April 1971 and the index at April 1972 and was calculated as follows :

$$\frac{\text{Index at April 1971 + index at April 1972}}{2} = \frac{112.4 + 125.4}{2}$$

$$= 118.9$$

(3) The October 1972 index of average salaries was assumed to be the mid-point between the index at April 1972 and the index at April 1973 and was calculated as follows :

$$\frac{\text{Index at April 1972 + index at April 1973}}{2} = \frac{125.4 + 138.7}{2}$$

$$= 132.0$$

The effect of the change in accounting base described above is to decrease both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £1,101,870.

Year ended 31 March 1974

The amount which would ahve been charged to capital account during the year ended 31 March 1974 was not disclosed in the published accounts of the BGC for the year ended 31 March 1974. This amount has been estimated by the researcher by adjusting the estimate of £1,101,870 for the year ended 31 March 1973 by the change in the Index of average salaries : non-manual employees (Great Britain) included in the Annual Abstract of Statistics for 1975 (HMSO, 1975).

The researcher has assumed that :

(a) salaries and related expenses accrued evenly through the year ended 31 March 1973 and through the year ended 31 March 1974; and

(b) the index of average salaries accrued evenly between April 1972 and April 1974.

Given the above assumptions the researcher calculated the amount which would have been charged to capital account for the year ended 31 March 1974 as follows :

$$\text{Estimated salaries \& related expenses charged to capital for the year ended 31 March 1973} \times \frac{\text{Index of average salaries @ Oct '73}}{\text{Index of average salaries @ Oct '72}}$$

$$£1,101,870 \text{ (note 1)} \times \frac{147.7 \text{ (note 3)}}{132.0 \text{ (note 2)}} = £1,232,926$$

(1) The estimated salaries and related expenses charged to capital for the year ended 31 March 1973 was obtained from the calculation above.

(2) The October 1972 index of average salaries was assumed to be the mid-point between the index at April 1972 and the index at April 1973 and was calculated as follows :

$$\frac{\text{Index at April 1972 + index at April 1973}}{2} = \frac{125.4 + 138.7}{2}$$

$= 132.0$

(3) The October 1973 index of average salaries was assumed to be the mid-point between the index at April 1973 and the index at April 1974 and was calculated as follows :

$$\frac{\text{Index at April 1973 + index at April 1974}}{2} = \frac{138.7 + 156.8}{2}$$

$= 147.7$

The effect of the change in accounting base described above is to decrease both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £1,232,926.

The calculation of the cumulative effect on net assets is shown below :

Estimated salaries and related expenses not capitalised during the year ended 31 March 1972	£ 992,517
Estimated decrease in net assets at 31 March 1972	992,517
Estimated salaries and related expenses not capitalised during the year ended 31 March 1973	1,101,870
Estimated cumulative decrease in net assets at 31 March 1973	2,094,387
Estimated salaries and related expenses not capitalised during the year ended 31 March 1974	1,232,906
Estimated cumulative decrease in net assets at 31 March 1974	£3,327,293

Depreciation saved on non-capitalisation of interest, salaries and related expenses

The non-capitalisation of interest, salaries and related expenses discussed in the previous two sections meant that there was a saving in depreciation in each of the three years ended 31 March 1972, 1973 and 1974. The interest, salaries and related expenses discussed in the previous two sections all related to the construction of the natural gas transmission system. The basis on which natural gas assets were depreciated each year was described in the notes to each of these year's published accounts as follows :

> Depreciation has been provided on all natural gas assets in operation during 1971/72 by reference to the actual volume of gas transmitted compared with the planned throughput when operational. (note 3 to the published accounts of the Gas Council for the year ended 31 March 1972).
>
> The cost of the national gas transmission system, built to transmit natural gas, is being written off by reference to the volume of gas passed through it each year compared with the known resources of natural gas. [note 2(c)(v) to the published accounts of the BGC for the year ended 31 March 1973].
>
> The cost of the national gas transmission system, built to transmit natural gas, is being written off by reference to the volume of gas passed through the system each year compared with the estimated recoverable reserves of natural gas from known gas fields. Estimates of recoverable reserves will be reviewed annually with subsequent adjustment of the depreciation charges of the current and future years. [note 1(c)(iv) to the published accounts of the BGC for the year ended 31 March 1974].

Although the volume of gas passed through the system each year was disclosed each year the estimated recoverable reserves were not. It was therefore not possible to calculate the depreciation saved on the interest, salaries and related expenses not capitalised using the method described in the above notes.

Insufficient information was available for the researcher to identify the fixed asset categories into which these expenses relating to the natural gas transmission system would have been allocated. Therefore the researcher decided to calculate the depreciation saved on the interest, salaries and related expenses not capitalised on the basis that they would have been depreciated at the average rate of depreciation used each year. The average rates of depreciation for each year have been calculated as follows :

Average depreciation rate for the year ended 31 March 1972 $= \dfrac{\text{Total depreciation for the year ended 31 March 1972}}{\text{Total fixed assets @ 31 March '72}} \times \dfrac{100}{1}$

$\dfrac{12.2\text{m (note 1)}}{275.4\text{m (note 2)}} \times \dfrac{100}{1}$

<u>4.5%</u>

Average depreciation rate for the year ended 31 March 1973 $= \dfrac{\text{Total depreciation for the year ended 31 March 1973}}{\text{Total fixed assets @ 31 March '73}} \times \dfrac{100}{1}$

$\dfrac{90.0\text{m (note 3)}}{1{,}909.7\text{m (note 4)}} \times \dfrac{100}{1}$

<u>4.7%</u>

Average depreciation rate for the year ended 31 March 1974 $= \dfrac{\text{Total depreciation for the year ended 31 March 1974}}{\text{Total fixed assets @ 31 March '74}} \times \dfrac{100}{1}$

$\dfrac{108.3\text{m (note 5)}}{1{,}918.5\text{m (note 6)}} \times \dfrac{100}{1}$

<u>5.6%</u>

(1) Obtained from line 17 of the revenue account of the Gas Council for the year ended 31 March 1972.

(2) Obtained from line 8 of the balance sheet of the Gas Council as at 31 March 1972.

(3) Obtained from page 37 of the published accounts of the BGC for the year ended 31 March 1973.

(4) Obtained from page 36 of the published accounts of the BGC for the year ended 31 March 1973.

(5) Obtained from page 37 of the published accounts of the BGC for the year ended 31 March 1974.

(6) Obtained from page 36 of the published accounts of the BGC for the year ended 31 March 1974.

	Non-capitalisation of interest	Non-capitalisation of salaries and related expenses
Decrease in net assets at 31 March 1972	£1,237,391	£ 992,517
Depreciation saved (4.5% thereof)	£ 55,683	£ 44,663
Decrease in net assets at 31 March 1973	£3,640,480	£2,094,387
Depreciation saved (4.7% thereof)	£ 163,822	£ 98,436
Decrease in net assets at 31 March 1974	£7,147,240	£3,327,293
Depreciation saved (5.6% thereof)	£ 400,245	£ 186,328

The cumulative effect on net assets has been calculated as follows:

	Non-capitalisation of interest	Non-capitalisation of salaries and related expenses
Depreciation saved during year ended 31 March 1972	£ 55,683	£ 44,663
Increase in net assets at 31 March 1972	£ 55,683	£ 44,663
Depreciation saved during year ended 31 March 1973	£163,822	£ 98,436
Cumulative increase in net assets at 31 March 1973	£219,505	£143,099
Depreciation saved during year ended 31 March 1974	£400,245	£186,328
Cumulative increase in net assets at 31 March 1974	£619,750	£329,427

ALL AREA BOARDS

Accelerated amortisation of displaced plant

Prior to the year ended 31 March 1972 the amounts transferred to displaced plant account and the basis for calculating the amounts to be written off to revenue were described in the notes to the published accounts of the relevant Area Boards in terms which were similar to the following extract from the notes to the published accounts of the Eastern Gas Board for the year ended 31 March 1971.

> The unamortised balance of coal-based plant made obsolete during the year as a result of new sources of gas supply and technical developments has been taken to a displaced plant account. The balance will be amortised by charges to revenue account in future years, calculated on a straight line basis over a period of 15 years or the unexpired depreciation period of the plant concerned, whichever is the shorter (note 9).

Prior to the year ended 31 March 1972 the amounts transferred to the "Deferred charges : conversion to natural gas account" and the basis for calculating the amounts to be written off to revenue were described in the notes to the published accounts of the relevant Area Boards in terms which were similar to the following extract from note 8 to the published accounts of the North Western Gas Board for the year ended 31 March 1971.

> This represents the costs of conversion to natural gas. In accordance with the recommendations of the Gas Council the costs incurred in each financial year are being written off by equal annual instalments over a period of 15 years.

Then the note explained that included in the deferred charges account :

> are the cost of conversion and the unamortised capital expenditure on oil-based gas making plants and related plant spares taken out of commission on the introduction of natural gas.

The notes to the published accounts of the relevant Area Boards for the year ended 31 March 1972 described the change in accounting base in terms which were similar to the following extract from note 9 to the published accounts of the Eastern Gas Board for the year ended 31 March 1972.

> All unamortised capital expenditure on oil-based plant taken out of commission is now included in displaced plant and comparative figures for 1970-71 have been adjusted. Such expenditure was previously included in "Deferred Charges - Conversion to natural gas - Other consequential costs". The amortisation of displaced (coal-based and oil-based) plant has been accelerated to ensure that all such costs are written off by 31 March 1981.

Year ended 31 March 1972

Details of the amounts written off displaced plant for the year ended 31 March 1972 are provided in Table C1. The accelerated amortisation of the displaced (coal-based and oil-based) plant led to additional charges being made to the revenue accounts of eleven of the Area Boards for the year ended 31 March 1972 (the North Eastern Gas Board did not have a balance on displaced plant account at 31 March 1972). These additional charges were quantified and disclosed in the notes to the published accounts of eight of the Area Boards. For the three Area Boards which did not disclose these additional charges the researcher calculated them as described in note 3 to Table C1.

As can be seen from Table C1 the additional amounts written of to revenue during the year ended 31 March 1972 due to the accelerated amortisation of displaced plant totalled £3,009,062. Thus this change of accounting base had the effect of decreasing both the net surplus for the year ended 31 March 1972 and the net assets at 31 March 1972 by £3,009,062.

Year ended 31 March 1973

Although the effect of the change in accounting base was disclosed in the published accounts of most of the Area Boards for the year ended 31 March 1972 (as shown in Table C1) the effect was not disclosed in the published accounts of the BGC for either the year ended 31 March 1973 or for the year ended 31 March 1974. Consequently the effect of the change for those two years had to be calculated by the researcher as described in the following paragraphs.

Examination of the published accounts of the relevant Area Boards for the year ended 31 March 1972 left the researcher with the impression that the Boards did not all calculate the amounts they wrote off to revenue on the same basis. Consequently the researcher decided to analyse what each Area Board had done in this regard during the year ended 31 March 1972.

The published accounts of each of the relevant Area Boards disclosed, where applicable, the following information relating to displaced plant :

(a) the unamortised balances at 31 March 1971;

(b) the unamortised balances at 31 March 1972;

(c) the amounts written off to revenue during the year ended 31 March 1972;

(d) the amounts written off to reserve fund during the year ended 31 March 1972.

The amounts transferred from fixed assets during the year were not disclosed, so these were calculated by the researcher by deducting item (a) above from the total of items (b), (c) and (d) as shown in Table C2. This enabled the researcher to prepare a detailed displaced plant account for each Area Board for the year ended 31 March 1972 as shown in Table C3.

The details in Table C3 of the displaced plant accounts of the relevant Area Boards for the year ended 31 March 1972 indicated that although all the relevant Area Boards (except the West Midlands Gas Board) claimed to be writing off the balances on displaced plant to revenue by 1981 there were differences between the Boards in exactly how they calculated the amounts written off. The basis on which each of the Area Boards appeared to calculate the amounts written off to revenue is listed below.

East Midlands	:	20% of the balance at 31 March 1972 before deducting the amount written off to revenue
Eastern	:	10% of the unamortised balance at 31 March 1971 plus 10% of the amounts transferred from fixed asets (probably from the date of displacement)
North Thames	:	10% of the unamortised balance at 31 March 1971
North Western	:	10% of the unamortised balance at 31 March 1971
Northern	:	10% of the balance at 31 March 1972 before deducting the amount written off to revenue
Scottish	:	10% of the balance at 31 March 1972 before deducting the amount written off to revenue
South Eastern	:	10% of the unamortised balance at 31 March 1971 plus 10% of the amounts transferred from fixed assets (probably from the date of displacement)

South Western	:	10% of the unamortised balance at 31 March 1971 plus 10% of the amounts transferred from fixed assets (probably from the date of displacement)
Southern	:	10% of the balance at 31 March 1972 before deducting the amount written off to revenue
Wales	:	10% of the balance at 31 March 1972 before deducting the amount written off to revenue
West Midlands	:	20% of the balance at 31 March 1972 before deducting the amount written off to revenue

It should be noted that the exact basis on which the East Midlands Gas Board calculated the amounts written off to revenue is not entirely clear. Note 10(b) (1972) stated that the

> amortisation of displaced plant has been accelerated to ensure that all such costs are written off by 1981.

However, as can be seen from Table C3 the rate of write off worked out to be 20% of the balance at 31 March 1972 before deducting the amount written off to revenue.

For those Boards (Eastern, North Thames, North Western, South Eastern and South Western) that did not base their calculation of the amount to be written off to revenue on the balance at 31 March 1972 the researcher calculated the amounts they had omitted from that calculation as shown in Table C4. The researcher felt it was necessary to do this as these amounts would have been included in the write-off calculations of the Area Boards at 31 March 1973 as shown overleaf.

The effect for the year ended 31 March 1973 of the change in accounting base can now be demonstrated as follows :

	£000
Amounts which would have been written off according to the published accounts for the year ended 31 March 1972 (Table C1) (note 1)	4,041
Amounts which would have been written off during the year ended 31 March 1973 on the amounts which were not included in the write-off calculation for the year ended 31 March 1972 (Table C4) (1/15th of £7,269,000)	485
Amounts which would have been written off those amounts transferred from fixed assets during the year ended 31 March 1973 (notes 2 and 3) (1/15th of £38,275,000)	2,552
Amounts which would have been written off for the year ended 31 March 1973 if the accounting base had not been changed	7,078
Amount actually written off (BGC's published accounts for the year ended 31 March 1973, p 34)	11,605
Increase in amount written off due to the change of accounting base	4,527

(1) It has been assumed that the amounts which would have been written off to revenue for the year ended 31 March 1972 if the accounting base had not been changed would also have been written off to revenue for the year ended 31 March 1973 if the accounting base had not been changed. This seems reasonable as prior to the change of accounting base the amounts written off to revenue were to be calculated on a straight-line basis.

(2) The amounts transferred from fixed assets during the year ended 31 March 1973 were obtained from the comparative figures for the previous year included in Note 13 to the BGC's published accounts for the year ended 31 March 1974. These amounts were not disclosed in the notes to the BGC's published accounts for the year ended 31 March 1973.

(3) It has been assumed that all amounts transferred from fixed assets during the year ended 31 March 1973 would all have been subject to the same write-off treatment, so that the inconsistencies between the Area Boards would have been eliminated. This is consistent with Note 1 to the published accounts of the BGC for the year ended 31 March 1973 which stated that :

Adoption of the accounting policies described in Note 2 on a consistent basis throughout the Corporation has resulted in several changes being made in the accounting policies previously followed by Area Boards. It has been necessary to re-assess the amortisation period for the balances of displaced plant ....

It is for this reason that it has been assumed that 1/15th would have been written off all amounts transferred from fixed assets during the year ended 31 March 1973.

As can be seen from the calculations above the additional amounts written off to revenue during the year ended 31 March 1973 due to the accelerated amortisation of displaced plant totalled £4,527,000. Thus this change of accounting base had the effect of decreasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £4,527,000.

Year ended 31 March 1974

The effect of the accelerated amortisation of displaced plant for the year ended 31 March 1974 was calculated as follows :

	£000
Amounts which would have been written off for the year ended 31 March 1973 if the accounting base had not been changed (note 1)	7,078
Amounts which would have been written off (those amounts transferred from fixed assets during the year ended 31 March 1974 less the proceeds of sale of plant applied to reduce the unamortised balance of displaced plant during the year ended 31 March 1974 (note 2) (1/15th of £71,258,000 - £9,936,000)	4,088
	11,166
Amount actually written off (note 3)	29,949
Increase in amount written off due to change of accounting base	18,783

(1) It has been assumed that the amounts which would have been written off to revenue for the year ended 31 March 1973 if the accounting base had not been changed would also have been written off to revenue for the year ended 31 March 1974 if the accounting base had not been changed. This seems reasonable as prior to the change of accounting base the amounts written off to revenue were to be calculated on a straight-line basis.

(2) The amounts transferred from fixed assets during the year ended 31 March 1974 and the proceeds of sale of plant applied to reduce the unamortised balance of displaced plant during the year ended 31 March 1974 were obtained from Note 13 to the BGC's published accounts for the year ended 31 March 1974.

(3) The amount actually written off displaced plant during the year ended 31 March 1974 was obtained from Note 13 to the BGC's published accounts for the year ended 31 March 1974.

As can be seen from the calculations above the additional amounts written off to revenue during the year ended 31 March 1974 due to the accelerated amortisation of displaced plant totalled £18,783,000. Thus this change of accounting base had the effect of decreasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £18,783,000.

The calculation of the cumulative effect on net assets is shown overleaf :

Increase in amount written off displaced plant during the year ended 31 March 1972	£ 3,009,062
Decrease in net assets at 31 March 1972	£ 3,009,062
Increase in amount written off displaced plant during the year ended 31 March 1973	£ 4,527,000
Decrease in net assets at 31 March 1973	£ 7,536,062
Increase in amount written off displaced plant during the year ended 31 March 1974	£18,783,000
Decrease in net assets at 31 March 1974	£26,319,062

Table C1 : Amounts written off displaced plant for the year ended 31 March 1972

Area Board (note 1)	Total amounts written off (note 2)	Additional amounts written off (note 3)	Amounts which would have been written off (note 4)
East Midlands	970,403	641,000	329,403
Eastern	547,000	241,000	306,000
North Eastern	-	-	-
North Thames	1,232,000	252,000	980,000
North Western	786,725	175,530	611,195
Northern	65,737	21,912	43,825
Scottish	365,863	128,037	237,826
South Eastern	1,422,000	855,000	567,000
South Western	324,000	108,000	216,000
Southern	575,000	191,667	383,333
Wales	382,552	143,916	238,636
West Midlands	379,000	251,000	128,000
	7,050,280	3,009,062	4,041,218

Notes to Table C1

(1) All the Area Boards had a displaced plant account in their published accounts for the year ended 31 March 1972 except the North Eastern Gas Board.

(2) The total amounts written off displaced plant were obtained from the notes to the published accounts of the relevant Area Boards for the year ended 31 March 1972.

(3) The additional amounts written off displaced plant were obtained from the notes to the published accounts of the relevant Area Boards for the year ended 31 March 1972 except in the cases of the Northern Gas Board, the South Western Gas Board and the Southern Gas Board. These three Area Boards had no entries for displaced plant in their published accounts for the year ended 31 March 1971 and consequently the adoption during the year ended 31 March 1972

of the accounting policy of writing off the unamortised balance on the displaced plant account by 1981 did not represent a change of accounting base. Presumably for that reason these Area Boards did not quantify and disclose the effect of writing off the displaced plant by 1981 instead of writing it off on the basis used by the other Area Boards up to 31 March 1971. As the researcher was interested in the effect of the change of accounting base on the gas industry as a whole he calculated the additional charge for these three Area Boards. The researcher estimated that the additional change represented one third of the total amount written off to revenue for these three Area Boards for the year ended 31 March 1972. This estimate was based on the increase in the percentage write off due to the change in accounting base as shown below :

Percentage write off for the year ended 31 March 1972 (1/10th)	10.00%
Percentage write off if the accounting base had not been changed (1/15th)	6.67%
Increase in percentage write off due to the change in accounting base	3.33%

Thus one third of the total amount written off would appear to be due to the change in accounting base.

4) The amounts which would have been written off if the accounting base had not been changed were calculated by deducting the additional amounts written off due to the change of accounting base from the total amounts written off.

Table C2

Calculation of the amount transferred from fixed assets during the year ended 31 March 1972

	East Midlands	Eastern	North Thames	North Western	Northern	Scottish	South Eastern	South Western	Southern	Wales	West Midlands	Consol Accounts
	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
Unamortised balances at 31 March 1972 (note 1)	3,882	6,494	12,419	9,527	582	3,274	13,985	3,652	5,177	3,443	1,517	63,952
Add: Amounts written off to revenue (note 2)	970	547	1,232	787	66	366	1,422	324	575	383	379	7,051
Amounts written off to res fund (note 2)	1,603	-	309	-	-	366	-	-	-	-	2	2,280
	6,455	7,041	13,960	10,314	648	4,006	15,407	3,976	5,752	3,826	1,898	73,283
Less: Unamortised balances at 31 March 1971 after restatement (note 3)	6,455	2,312	12,322	7,868	-	3,014	3,133	2,007	-	-	298	37,409
Amounts transferred from fixed assets (note 4)	-	4,729	1,638	2,446	648	992	12,274	1,969	5,752	3,826	1,600	35,874

Notes to Table C2

(1) The unamortised balances at 31 March 1972 were obtained from each Area Board's balance sheet and from the consolidated balance sheet at 31 March 1972.

(2) The amounts written off to revenue and the amounts written off to reserves for the Area Boards were obtained from the notes to each Area Board's published accounts for the year ended 31 March 1972. The amounts of £7,051,000 and £2,280,000 in the consolidated accounts column were not disclosed anywhere in the consolidated accounts and have therefore been derived arithmetically.

(3) The unamortised balances at 31 March 1971 (after restatement to include displaced oil-based plant formerly included in deferred charges account) were obtained from the comparative figures at 31 March 1971 provided with each Area Board's balance sheets and from the consolidated balance sheet at 31 March 1972.

(4) The amounts transferred from fixed assets are balancing figures except in the case of North Western Gas Board where the amount was disclosed in the notes to the accounts.

(5) There were no entries relating to displaced plant in the published accounts of the North Eastern Gas Board.

Table C3

Details of the displaced plant account for each Area Board for the year ended 31 March 1972

	East Midlands	Eastern	North Thames	North Western	Northern	Scottish	South Eastern	South Western	Southern	Wales	West Midlands	Consol Accounts
	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
Unamort bals at 31 March 1971 after restatement (note 1)	6,455	2,312	12,322	7,868	-	3,014	3,133	2,007	-	-	298	37,409
Add: Amounts transferred from fixed assets (note 2)	-	4,729	1,638	2,446	648	992	12,274	1,969	5,752	3,826	1,600	35,874
	6,455	7,041	13,960	10,314	648	4,006	15,407	3,976	5,752	3,826	1,898	73,283
Less: Amounts transferred to reserve fund (note 3)	1,603	-	309	-	-	366	-	-	-	-	2	2,280
Bals at 31 March 1972 before deducting the w/o to revenue	4,852	7,041	13,651	10,314	648	3,640	15,407	3,976	5,752	3,826	1,896	71,003
Less: Amounts w/o to revenue (note 3)	970	547	1,232	787	66	366	1,422	324	575	383	379	7,051
Unamort bals at 31 March 1972 (note 4)	3,882	6,494	12,419	9,527	582	3,276	13,985	3,652	5,177	3,443	1,517	63,952

(1) The unamortised balances at 31 March 1971 (after restatement to include displaced oil-based plant formerly included in deferred charges account) were obtained from the comparative figures at 31 March 1971 provided with each Area Board's balance sheet and from the consolidated balance sheet at 31 March 1972.

(2) The amounts transferred from fixed assets were obtained from Table C2.

(3) The amounts written off to reserves and the amounts written off to revenue for the Area Boards were obtained from the notes to each Area Board's published accounts for the year ended 31 March 1972. The amounts of £2,280,000 and £7,051,000 in the consolidated accounts column were not disclosed anywhere in the consolidated accounts and have therefore been derived arithmetically.

(4) The unamortised balances at 31 March 1972 were obtained from each Area Board's balance sheet and from the consolidated balance sheet at 31 March 1972.

(5) The North Eastern Gas Board has been omitted from Table C3 as there were no entries relating to displaced plant in the published accounts of that Area Board for the year ended 31 March 1972.

Table C4

Calculation of the amounts not included in the calculations of the amounts written off to revenue for the year ended 31 March 1972

Area Board (note 1)	Amount written off (note 2)	Amounts on which write-off calculation based (note 3)	Balances at 31 March 1972 before write-off (note 4)	Amounts not included in calculation (note 5)
Eastern	547	5,470	7,041	1,571
North Thames	1,232	12,322	13,651	1,329
North Western	787	7,868	10,314	2,446
South Eastern	1,422	14,220	15,407	1,187
South Western	324	3,240	3,976	736
				7,269

Notes to Table C4

(1) The only Area Boards included in Table C4 are those which did not base their calculation of the amounts to be written off to revenue for the year ended 31 March 1972 on the balances on displaced plant account at 31 March 1972 before deduction of the amounts written off to revenue.

(2) The amounts written off to revenue were obtained from the notes to each Area Board's published accounts for the year ended 31 March 1972.

(3) For North Thames and North Western the write-off calculation was based on the unamortised balances of displaced plant at 31 March 1971 (after restatement to include displaced oil-based plant formerly included in deferred charges account) which were obtained from the comparative figures at 31 March 1971 provided with each Area Board's balance sheet at 31 March 1972. For the other three Area Boards the amount on which the write-off calculation was based was assumed to be ten times the amount written off to revenue as each of these Area Boards claimed to be writing displaced plant off by 1981.

(4) The balances at 31 March 1972 before deducting the amounts written off to revenue were obtained from Table C3.

(5) The amounts not included in the write-off calculation for each Area Board are the difference between the balances at 31 March 1972 before deduction of the revenue write-off and the amounts on which each Board's write-off was calculated.

Table C5

Effect of accounting choices made during the year ended 31 March 1972 on the reported net surpluses for each remaining year of the quinquennium ended 31 March 1974

		Year ended 31 March 1972 Incr	Year ended 31 March 1972 Decr	Year ended 31 March 1973 Incr	Year ended 31 March 1973 Decr	Year ended 31 March 1974 Incr	Year ended 31 March 1974 Decr
East Midlands	- release of prov re painting of gas holder	15,000					
	- decr in prov re stock obsol etc.	333,436					
	- decr in pension scheme prov	104,548					
	- release of spec prov for doubtful debts	250,000					
	- release of prov for plant repairs and maint	240,000					
	- release of prov for hardship	10,000					
Eastern	- incr in misc provs		149,000				
North Eastern	- decr of pension scheme prov	10,000					
North Thames	- transfer from res fund to intang assets			804,000			
North Western	- none						
Northern	- none						
Scottish	- decr in prov for deferred repairs	250,000					
	- release of pension scheme prov	120,000					
	- surplus on sale of an investment in an assoc company used to accel the amort of displaced plant	36,563		36,563		36,563	
	- surplus on sale of an investment in an assoc company used to fully amort the bal of compensation			53,047			
South Eastern	- capitalisation of certain labour costs	774,000		891,369			
	- deprec on cost of labour capitalised		28,638		61,619		61,619
South Western	- none						
Southern	- incr in misc provs		11,000				
Wales	- release of pension scheme prov	131,585					
West Midlands	- none						
All Area Boards	- accel amort of displaced plant		3,009,062		4,527,000		18,783,000
Gas Council	- accel w/o of exploration expend		4,612,500		3,550,400		1,258,200
	- non-capitalisation of interest		1,237,391		2,403,089		3,506,760
	- deprec saved on non-capitalisation of interest	55,683		163,822		400,245	
	- non-capitalisation of salaries and related exp		992,517		1,101,870		1,232,926
	- deprec saved on non-capitalisation of salaries etc.	44,663		98,436		186,328	
		2,375,478	10,040,108	2,047,237	11,643,978	623,136	24,842,505
			2,375,478		2,047,237		623,136
			7,664,630		9,596,741		24,219,369

Table C6

Effect of accounting choices made during the year ended 31 March 1972 on the reported capital employed at the end of each remaining year of the quinquennium ended 31 March 1974

		Year ended 31 March 1972 Incr	Year ended 31 March 1972 Decr	Year ended 31 March 1973 Incr	Year ended 31 March 1973 Decr	Year ended 31 March 1974 Incr	Year ended 31 March 1974 Decr
East Midlands	- release of prov re painting of gas holder	15,000		15,000		15,000	
	- decr in prov re stock obsol etc.	333,436		333,436		333,436	
	- decr in pension scheme prov	104,548		104,548		104,548	
	- release of spec prov for doubtful debts	250,000		250,000		250,000	
	- release of prov for plant repairs and maint	240,000		240,000		240,000	
	- release of prov for hardship	10,000		10,000		10,000	
Eastern	- decr in investment res	117,000		117,000		117,000	
	- release of prov for deferred repairs	265,000		265,000		265,000	
	- incr in misc provs		149,000		149,000		149,000
North Eastern	- decr of pension scheme prov	10,000		10,000		10,000	
North Thames	- transfer from res fund to intang assets		804,000	804,000	804,000		
North Western	- none						
Northern	- none						
Scottish	- decr in prov for deferred repairs	250,000		250,000		250,000	
	- release of pension scheme prov	120,000		120,000		120,000	
	- surplus on sale of an investment in an assoc company used to accel the amort of displaced plant	36,563	365,633	73,126	365,633	109,689	365,633
	- surplus on sale of an investment in an assoc company used to fully amort the bal of compensation		53,047	53,047	53,047		
South Eastern	- capitalisation of certain labour costs	774,000		1,665,369		1,665,369	
	- depreciation on cost of labour capitalised		28,638		90,257		151,876
South Western	- none						
Southern	- incr in misc provs		11,000		11,000		11,000
Wales	- release of pension scheme prov	131,585		131,585		131,585	
West Midlands	- release of pension scheme prov	331,000		331,000		331,000	
All Area Boards	- accel amort of displaced plant		3,009,062		7,536,062		26,319,062
Gas Council	- accel w/o of explor expend		4,612,500		8,162,900		9,421,100
	- non-capitalisation of interest		1,237,391		3,640,480		7,147,240
	- deprec saved on non-capitalisation of interest	55,683		219,505		619,750	
	- non-capitalisation of salaries and related exp		992,517		2,094,387		3,327,293
	- deprec saved on non-capitalisation of salaries etc.	44,663		143,099		329,427	
		3,088,478	11,262,788	5,135,715	22,906,766	4,901,804	46,892,204
			3,088,478		5,135,715		4,901,804
			8,174,310		17,771,051		41,990,400

APPENDIX D - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1973

APPENDIX D

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1973

Introduction

The discretionary accounting choices made in the published accounts of the BGC during the year ended 31 March 1973 are identified below.

The accounting choices made during the year ended 31 March 1973 affected not only the net surplus for the year ended 31 March 1973 but also the net surplus for the year ended 31 March 1974 (the last year of the quinquennium). Similarly not only did these accounting choices affect the net assets at 31 March 1973 they also affected the net assets at 31 March 1974.

The effect of each accounting choice on the net surpluses for the years ended 31 March 1973 and 31 March 1974 and on the net assets at 31 March 1973 and 31 March 1974 have been ascertained from the published accounts of the BGC for the years ended 31 March 1973 and 31 March 1974 or, where this has not been possible, calculated as explained below. The effects on the net surplus for each year are shown on Table D1 and the effects on the net assets at the end of each year are shown on Table D2.

Balance of compensation written off as an extraordinary item

To understand the background to the above it is necessary to refer back to the date of nationalisation, 1 May 1949. At that date assets and liabilities from over 1000 undertakings were transferred to the public sector (Williams, 1981, p 115). These undertakings were of a diverse nature as the First Report of the Gas Council (1950, para 62) pointed out:

	Number of Undertakings
Statutory Undertakings	
Local Authorities	275
Companies	402
Non-Statutory Undertakings	387
	1,064

The Gas Council had to decide what basis should be used to provide the opening entries for fixed assets (para 272). Four bases were considered :

(a) A new valuation
(b) Original cost less an appropriate estimated depreciation provision to vesting date
(c) Effective cost to Area Boards, related to compensation payable
(d) Net book values as shown by the final audited accounts of the former undertakings.

The Gas Council decided that (d) was the most appropriate (para 272).

The "Balance of Compensation" entries arose as a result of the above decision. Any difference between the net book values of the total net assets in the final audited accounts of the former undertakings and the compensation payable to shareholders, together with that for severance payable to local authorities had to be shown as a separate item in the Balance Sheets of the Area Boards and described as "Balance of Compensation" (para 275). This item was to be written off by equal annual instalments over a period not exceeding 90 years (para 284). This process continued until 31 March 1973 at which point the unamortised balance of £4,686,000 was written off to revenue [Note 2(j) and Note 10 to the published accounts of the BGC for the year ended 31 March 1973].

Examination of the published accounts of the Area Boards at 31 March 1972 established that only five of the Boards still had unamortised balances on their "Balance of Compensation" accounts. These were as follows :

Area Board	Unamortised balance on Balance of Compensation Account at 31 March 1972 £000
North Eastern	353
South Eastern	3,080
South Western	84
Southern	812
Wales	462
Consolidated Accounts	4,791

Examination of the published accounts of these five Area Boards for the three years ended on 31 March 1972 established the amounts written off to revenue by these Area Boards as follows :

Area Board	Amounts written off to revenue 1970	1971	1972
North Eastern	10,000	10,000	10,000
South Eastern	71,683	72,000	72,000
South Western	1,000	1,000	1,000
Southern	14,000	14,000	14,000
Wales	6,914	6,914	6,914
	103,597	103,914	103,914

The same amount appeared to have been written off to revenue during the year ended 31 March 1973 as the figures below indicate.

	£000
Unamortised balance at 31 March 1972 (Consolidated Balance Sheet of the Gas Council and Area Boards at 31 March 1972)	4,791
Unamortised balance at 31 March 1973 prior to being written off as an Extraordinary item (Note 10 to the published accounts of the BGC for the year ended 31 March 1973)	4,686
Amount written off during year ended 31 March 1973	105

The difference between the amount calculated above as having been written off during the year ended 31 March 1973 and the amounts written off during the years ended 31 March 1971 and 31 March 1972 was presumably due to rounding off to the nearest thousand pounds for balance sheet purposes. It seems reasonable to conclude that the exact amount actually written off during the year ended 31 March 1973 was £103,914. It also seems reasonable to conclude that £103,914 would have been written off during the year ended 31 March 1974 if the unamortised balance had not been written off as an extraordinary item during the year ended 31 March 1973.

The effect of that change of accounting base can now be calculated as follows :

	1973	1974
Amounts actually written off		
Annual amount written off	103,914	Nil
Unamortised balance written off as extraordinary item	4,686,000	Nil
	4,789,914	Nil
Amounts which would have been written off prior to the change of accounting base		
Annual amount written off	103,914	103,914
Increase (decrease) in amount written off due to the change in accounting base	4,686,000	(103,914)

This accounting choice had the effect of (a) decreasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £4,686,000 and of (b) increasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £103,914.

The cumulative effect on the net assets at 31 March 1974 was a decrease of £4,582,086 (£4,686,000 - £103,914).

Unamortised balance on pre-vesting fixed assets written off as an extraordinary item

Para 281 of the Gas Council (1950) report pointed out that :

> In many of the older undertakings the absence of information on the date of installation and costs of assets made it impossible to adopt a standard method of compouting depreciation applicable to both pre-vesting and post-vesting expenditure.

As a result pre-vesting and post-vesting assets were depreciated separately and were shown separately in the balance sheets of each Area Board. The Area Boards agreed that :

> where it was impossible to ascertain the written-down costs of pre-vesting assets, they would compute the provision for depreciation, on an average straight line basis, by reference to the estimated remaining serviceability of those assets as a whole (para 281).

The pre-vesting assets were depreciated on this basis by the Area Boards until 31 March 1973 at which point the unamortised balance of £2,027,000 was written off to revenue [Note 2(j) and Note 10 to the published accounts of the BGC for the year ended 31 March 1973].

Examination of the published accounts of the Area Boards at 31 March 1972 established that only four of the Boards still had unamortised balances on pre-vesting fixed assets account. These were as follows :

Area Board	Unamortised balance on pre-vesting fixed assets at 31 March 1972 £000
North Thames	10,682
South Western	1,493
Southern	369
Wales	225
Consolidated Accounts	12,769

Examination of the published accounts of these four Area Boards for the three years ended 31 March 1972 established the amounts written off to revenue by these Area Boards as follows :

Area Board	Amounts written off to revenue 1970	1971	1972
North Thames	1,009,000	1,009,000	1,009,000
South Western	313,000	309,000	303,000
Southern	314,000	286,000	185,000
Wales	278,410	278,410	278,410
	1,914,410	1,882,410	1,775,410

On the basis of the above information the amounts written off to revenue for the years ended 31 March 1973 and 31 March 1974 are estimated as follows :

Area Board	Estimated amount written off to revenue 1973	1974
North Thames (note 1)	1,009,000	1,009,000
South Western (note 2)	295,000	285,000
Southern (note 3)	185,000	184,000
Wales (note 4)	225,000	-
	1,714,000	1,478,000

(1) Estimates for the North Thames Gas Board for 1973 and 1974 are identical to the actual amounts written off for 1970, 1971 and 1972.

(2) Estimates for the South Western Gas Board for 1973 and 1974 reflect the same decreasing trend as do the actual amounts written off for 1970, 1971 and 1972.

(3) Estimates for the Southern Gas Board for 1973 and 1974 are approximately equal to the amount written off during the year ended 31 March 1972 and are exactly sufficient to write-off balance of pre-vesting fixed assets to zero by 31 March 1974.

(4) The estimate for the Wales Gas Board for 1973 is exactly sufficient to write off the balance of pre-vesting assets to zero by 31 March 1973. The amount written off during the year ended 31 March 1972 (£278,410) was greater than the unamortised balance of £225,000 at 31 March 1972.

The effect of the change of accounting base can now be calculated as follows :

	1973	1974
Amounts actually written off		
Estimated amount written off (note 1)	1,714,000	Nil
Unamortised balance written off as extraordinary item	2,027,000	Nil
	3,741,000	Nil
Amounts which would have been written off prior to the change of accounting base		
Estimated amounts written off (see above)	1,714,000	1,478,000
Increase (decrease) in amount written off due to the change in accounting base	2,027,000	(1,478,000)

(1) It has not been possible to confirm the amount written off to revenue during the year ended 31 March 1973 as insufficient information was provided in the published accounts of the BGC for the year ended on that date. Consequently the amount estimated has been used instead.

This accounting choice had the effect of (a) decreasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £2,027,000 and of (b) increasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £1,478,000.

The cumulative effect on the net assets at 31 March 1974 was a decrease of £549,000 (£2,027,000 - £1,478,000).

Accelerated amortisation of deferred charges : conversion to natural gas

For each year up to and including the year ended 31 March 1972 during which conversion costs were incurred the Gas Council instructed the Area Boards to write off these costs to revenue on a 15 year straight line basis commencing in the year in which the expenditure was incurred. This instruction is described in the notes to the published accounts of the relevant Area Boards. For instance, note 12 to the published accounts of the North Thames Gas Board for the year ended 31 March 1972 stated that :

> In accordance with the recommendations of the Gas Council the costs incurred in each financial year are being written off by equal annual instalments over a period of 15 years.

However, note 1(e) to the BGC's published accounts for the year ended 31 March 1973 stated that :

> Expenditure incurred on converting systems and customers' appliances to natural gas during 1972/73 and subsequent years is being written off in seven equal annual instalments. The unamortised balance of conversion expenditure incurred up to 1 April 1972 will be written off in equal annual instalments so that amortisation is completed by the same date as that appropriate to post 1 April 1972 expenditure in the same Region.

This change of accounting base had the effect of decreasing income for the year ended 31 March 1973 by approximately £11,125,000 calculated as follows :

	£000
Conversion costs incurred up to 31 March 1972 (note 1)	248,046
Add : Conversion costs incurred during the year ended 31 March 1973 (note 2)	76,668
Conversion costs incurred up to 31 March 1973	324,714
Amount which would have been written off during the year ended 31 March 1973 if the accounting base had not been changed (1/15th of £324,714,000)	21,648
Amount actually written off during the year ended 31 March 1973 (note 3)	32,773
Increase in amount written off during the year ended 31 March 1973 due to the change in accounting base	11,125

(1) The conversion costs incurred up to 31 March 1972 were obtained from the Consolidated Balance Sheet at 31 March 1972 of the Gas Council and the Area Boards.

(2) The conversion costs incurred during the year ended 31 March 1973 were obtained from the comparative figures for the previous year included in Note 14 to the published accounts of the BGC for the year ended 31 March 1974. This information was not disclosed in the notes to the BGC's published accounts for the year ended 31 March 1973.

(3) The amount actually written off during the year ended 31 March 1973 was obtained from Schedule 1 (page 34) to the published accounts of the BGC for the year ended 31 March 1973 and from Note 14 (1974).

This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £11,125,000.

Year ended 31 March 1974

The effect of the accelerated amortisation of deferred charges for the year ended 31 March 1974 was calculated as follows :

	£000
Conversion costs incurred up to 31 March 1973 (see above)	324,714
Add : Conversion costs incurred during the year ended 31 March 1974 (note 1)	81,293
Conversion costs incurred up to 31 March 1974	406,007
Amount which would have been written off during the year ended 31 March 1974 if the accounting base had not been changed (1/15th of £406,007,000)	27,067
Amount actually written off during the year ended 31 March 1974 (note 1)	44,631
Increase in amount written off during the year ended 31 March 1974 due to the change in accounting base	17,564

(1) The conversion costs incurred during the year ended 31 March 1974 and the amount actually written off during the year ended 31 March 1974 were both obtained from Note 14 to the published accounts of the BGC for the year ended 31 March 1974.

This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £17,564,000.

The cumulative effect on net assets at 31 March 1974 was calculated as follows :

Increase in amount written off during the year ended 31 March 1973	£11,125,000
Decrease in net assets at 31 March 1973	£11,125,000
Increase in amount written off during year ended 31 March 1974	17,564,000
Cumulative decrease in net assets at 31 March 1974	£28,689,000

Accelerated amortisation of loan expenses

The balance sheet of the Gas Council at 31 March 1970 included amounts totalling £32,142,000 described as "Deutsche Mark Bearer Bonds" and an amount of £1,678,000 described as "Discount, issue expenses and revaluation of Deutsche Mark Bearer Bonds". The backgrounds to these entries was described in Notes 19 and 21 to the Gas Council's published accounts as shown below.

Deutsche Mark Bearer Bonds

19. In April 1969 the Council made a public issue of DM 200 million 6¾% Bearer Bonds 1969/84 at 99 per cent and a private placement of DM 100 million 6¾% Bearer Bonds 1969/79 at 99¼%. The DM 200 million Bonds are guaranteed by Her Majesty's Treasury as to payment of interest, principal and premium on redemption (if any). In addition the DM 200 million Bonds are guaranteed against fluctuations in exchange rates whereas the DM 100 million Bonds are not so guaranteed. Provision has been made for the loss arising from the revaluation of the Deutsche Mark in October 1969 in respect of the DM 100 million Bonds.

Discount, Issue Expenses and Revaluation of Deutsche Mark Bearer Bonds

21. This item consists of :

	Public Issue	Private Issue	Total
	£	£	£
Discount on bonds	207,577	78,596	286,173
Subscription commission	518,941	130,993	649,934
Capital stamp duty	-	52,083	52,083
Provision for loss on revaluation (Note 19)	-	904,901	904,901
	726,518	1,166,573	1,893,091
Less : amount written off (Schedule No 1)	69,192	145,822	215,014
As per Balance Sheet	657,326	1,020,751	1,678,077

The amount written off (£215,014) is on the basis of the life of the loans adjusted to take account of the varying dates of redemption.

In the balance sheet of the Gas Council at 31 March 1971 the title of the expenses item was changed to "Foreign Loan Expenses" and the amount was reduced to £1,463,063 by a write off to revenue of £215,014 (Note 22 to the published accounts of the Gas Council for the year ended 31 March 1971). During the year ended 31 March 1971 the Gas Council arranged further foreign loans amounting to £36,095,000 (Note 20 to the published accounts of the Gas Council for the year ended 31 March 1971). These loans were guaranteed by HM Treasury as to payment of interest and capital as well as against fluctuations in exchange rates (Note 20). The expenses involved in arranging these loans were not transferred to the foreign loan expenses account.

In the balance sheet of the Gas Council at 31 March 1972 foreign loan expenses were shown at £2,092,000 after a write off to revenue of £436,000 (note 18 to the published accounts of the Gas Council for the year ended 31 March 1972). Note 16 to these published accounts contained the following information :

Foreign Loans

16. During the year the Council arranged a foreign loan of 200 million Swiss Francs (£20,070,000) which is guaranteed by HM Treasury as to payment of interest, principal and fluctuations in exchange rates.

As a result of the revaluation of the Deutsche Mark in December 1971, the Council's potential liability on the DM 100 million loan increased by £525,000. This is reflected in the foreign loan liability. The amount will be written off over the remaining life of the loan.

Note 8 to the published accounts of the BGC for the year ended 31 March 1973 disclosed the change of accounting policy as follows :

Adoption of a revised treatment of loan expenses, including exchange conversion differences on certain foreign currency loans, results in the charge for interest payable in the profit and loss account including £844,000 relating to 1971/72 and £1,248,000 relating to earlier years.

Thus the unamortised balances of foreign loan expenses at 31 March 1972 were completely written off during the year ended 31 March 1973. As foreign loan expenses did not appear in the balance sheets of the BGC at either 31 March 1973 nor at 31 March 1974 it seems reasonable to conclude that the "revised treatment" mentioned in Note 8 above is to write off loan expenses as they are incurred.

The Financial Survey attached to the published accounts of the BGC for the year ended 31 March 1973 (pp 13-14) stated that a foreign loan amounting to $20 million or £10.5 million had been raised at the end of March 1973. This loan was repayable after five years and was subject to Treasury cover of exchange risks. The expenses involved in arranging this loan were not disclosed.

The Financial Survey attached to the published accounts of the BGC for the year ended 31 March 1974 (p 13) stated that two loans had been raised on the Eurodollar market totalling £120 million. The first was a private loan of \$30 million (£12.4 million) raised from two Japanese banks and which was repayable after five years. The second loan amounted to \$250 million (£107.5 million) and was repayable after seven years (Gas World, 8 December 1973, p 391). Both dollar loans were subject to Treasury cover of exchange risks. The expenses involved in arranging these loans were not disclosed.

In order to estimate the effect of the change of accounting base on the profit for the year ended 31 March 1973 and on the profit for the year ended 31 March 1974 it was necessary to estimate the foreign loan expenses incurred during these two years. This was done by :

(1) investigating the relationship between the size of the foreign loans raised and the size of the foreign loan expenses incurred during the years ended 31 March 1970 and 31 March 1972.

(2) assuming that approximately the same relationship as that ascertained in (1) would have existed between the size of the foreign loans raised and the size of the foreign loan expenses incurred during the years ended 31 March 1973 and 31 March 1974.

When investigating (1) above the provisions for exchange losses were excluded from foreign loan expenses as all foreign loans raised during the years ended 31 March 1973 and 31 March 1974 were subject to Treasury cover for exchange risks.

The relationship between the size of the foreign loans raised and the size of the foreign loan expenses incurred was calculated as a percentage as follows :

$$\frac{\text{Foreign loan expenses}}{\text{Foreign loan}} \quad \times \quad \frac{100}{1}$$

Year ended 31 March 1970 (note 1)

$$\frac{(1,893,091 - 904,901)}{32,142,000} \times \frac{100}{1} = \frac{988,090}{32,142,000} \times \frac{100}{1} = \underline{3.1\%}$$

Year ended 31 March 1972 (note 2)

$$\frac{540,000}{20,070,000} \times \frac{100}{1} = \underline{2.7\%}$$

(1) The foreign loan expenses figures were obtained from Note 21 to the published accounts of the Gas Council for the year ended 31 March 1970 and the foreign loan figure from the balance sheet of the Gas Council at 31 March 1970.

(2) The foreign loan expenses incurred during the year ended 31 March 1972 were calculated as shown below. The foreign loan figure was obtained from Note 16 to the published accounts of the Gas Council for the year ended 31 March 1972.

<u>Calculation of loan expenses incurred during the year ended 31 March 1972 on Swiss loan of £20,070,000</u>

Amount written off to revenue (Note 18 to the published accounts of the Gas Council for the year ended 31 March 1972)	£436,000
Amount written off DM Bearer Bonds each year (Note 21 to the published accounts of the Gas Council for the year ended 31 March 1970 and Note 22 to the published accounts of the Gas Council for the year ended 31 March 1971)	215,000
	221,000
Unamortised balance relating to year ended 31 March 1972 (Note 8 to the published accounts for the year ended 31 March 1973)	844,000
Amount transferred to Foreign Loan Expenses during year ended 31 March 1972	1,065,000
<u>Less</u> : Increased provision for exchange loss on the DM 100 million loan (Note 16 to the published accounts of the Gas Council for the year ended 31 March 1972)	525,000
Loan expenses incurred during the year ended 31 March 1972 on the Swiss loan of £20,070,000	540,000

On the basis of the above calculations it seems reasonable to calculate the loan expenses incurred during the years ended 31 March 1973 and 31 March 1974 on the basis of 3% of the loans raised during these years.

	Loan	Estimated loan expenses - 3% of loan
Year ended 31 March 1973		
5 year loan	10,500,000	315,000
Year ended 31 March 1974		
5 year loan	12,400,000	372,000
7 year loan	107,500,000	3,225,000

The effect of the change of accounting base can now be calculated as follows :

	1973	1974
Amounts actually written off		
Unamortised balances at 31 March 1972 (Note 8 to the published accounts of the BGC for the year ended 31 March 1973)	2,092,000	
Estimated loan expenses incurred during the year ended 31 March 1973 as above	315,000	
Estimated loan expenses incurred during the year ended 31 March 1974 as above		
5 year loan		372,000
7 year loan		3,225,000
	2,407,000	3,597,000
Amounts which would have been written off prior to the change of accounting base		
On unamortised balances at 31 March 1972 (Note 18 to the published accounts of the Gas Council for the year ended 31 March 1972)	436,000	436,000
On loan expenses incurred during the year ended 31 March 1973 (1/5th of £315,000)	63,000	63,000
On loan expenses incurred during the year ended 31 March 1974		
(1/5th of £372,000)	-	74,400
(1/7th of £3,225,000)	-	460,714
	499,000	1,034,114
Increase in amount written off due to the change in accounting base	1,908,000	2,562,886

Thus this accounting choice had the effect of :

(a) decreasing the net surplus for the year ended 31 March 1973 and the net assets at 31 March 1973 by £1,908,000 and

(b) decreasing the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £2,562,886.

The cumulative effect on the net assets at 31 March 1974 has been calculated as follows :

Increase in amount written off during the year ended 31 March 1973	£1,908,000
Decrease in net assets at 31 March 1973	£1,908,000
Increase in amount written off during the year ended 31 March 1974	2,562,886
Cumulative decrease in net assets at 31 March 1974	£4,470,886

Table D1

Effect of accounting choices made during the year ended 31 March 1973 on the reported net surpluses for each remaining year of the quinquennium ended 31 March 1974

	Year ended 31 March 1973		Year ended 31 March 1974	
	Incr	Decr	Incr	Decr
Balance of compensation written off as an extraordinary item		4,686,000	103,914	
Unamortised balance on pre-vesting fixed assets written off as an extraordinary item		2,027,000	1,478,000	
Accelerated amortisation of deferred charges: conversion to natural gas		11,125,000		17,564,000
Accelerated amortisation of loan expenses		1,908,000		2,562,886
		19,746,000	1,581,914	20,126,886
				1,581,914
		19,746,000		18,544,972

Table D2

Effect of accounting choices made during the year ended 31 March 1973 on the reported capital employed at the end of each remaining year of the quinquennium ended 31 March 1974

	Year ended 31 March 1973		Year ended 31 March 1974	
	Incr	Decr	Incr	Decr
Balance of compensation written off as an extraordinary item		4,686,000		4,582,086
Unamortised balance on pre-vesting fixed assets written off as an extraordinary item		2,027,000		549,000
Accelerated amortisation of deferred charges: conversion to natural gas		11,125,000		28,689,000
Accelerated amortisation of loan expenses		1,908,000		4,470,886
		19,746,000		38,290,972

APPENDIX E - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1974

APPENDIX E

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1974

Introduction

The discretionary accounting choices made in the published accounts of the BGC during the year ended 31 March 1974 are identified below.

The effect of each accounting choice on the net surplus for the year ended 31 March 1974 and on the net assets at 31 March 1974 have been ascertained from the published accounts of the BGC for the year ended 31 March 1974 or, where this has not been possible, calculated as explained below. The effects on the net surplus for the year ended 31 March 1974 are shown on Table E1 and the effects on the net assets at 31 March 1974 are shown on Table E2.

Changes in various depreciation rates

Note 4 (1974) stated that :

> From 1 April 1973 the Corporation's depreciation rates were revised to those shown in Note 1(c). The charge for depreciation of £113.0 million is £9.2 million greater than it would have been had the previous rates been applied.

These changes in depreciation rates had the effect of decreasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £9.2 million.

Non-capitalisation of overheads

Note 2(b) (1973) stated that in relation to fixed assets constructed by the BGC cost included "related works and administrative overheads". But Note 2(b) (1974) stated that in the case of fixed assets constructed by the Corporation only direct expenditure was included in cost. Note 4(1974) expanded on this change by stating that :

£3.7 million of expenditure which would have formed part of the cost of fixed assets on the basis used in previous years has been charged against the trading profit of the year to 31 March 1974 following a review of the basis of overhead capitalisation.

This accounting choice had the effect of decreasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £3.7 million.

Depreciation saved on non-capitalisation of overheads

The non-capitalisation of overheads discussed in the previous section meant that there was a saving in depreciation in the year ended 31 March 1974. Insufficient information was published for the researcher to identify the fixed asset categories into which these overheads would have been allocated. Therefore the researcher decided to calculate the depreciation saved on the non-capitalisation of overheads on the basis that these amounts would have been depreciated at the average depreciation rate for the year. The average rate was calculated as follows :

Average depreciation rate for the year ended 31 March 1974

$$= \frac{\text{Total depreciation for the year ended 31 March 1974}}{\text{Total fixed assets at 31 March 1974}} \times \frac{100}{1}$$

$$= \frac{108.3\text{m (note 1)}}{1{,}918.5\text{m (note 1)}} \times \frac{100}{1}$$

$$= \underline{5.6\%}$$

(1) Obtained from Schedule 3 to the published accounts of the BGC for the year ended 31 March 1974

The depreciation saved on the non-capitalisation of overheads can now be calculated as 5.6% of £3.7 million which is £207,200. This saving in depreciation had the effect of increasing both the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £207,200.

Reduction of hire purchase interest earned

Note 7(1974) stated that :

> From 1 April 1973 the method of release of hire purchase interest to revenue was standardised in all Regions. The result was to reduce by £928,000 the amount of 'Interest on hire purchase and similar transactions' which would have been included on the previous basis.

This accounting choice had the effect of decreasing the net surplus for the year ended 31 March 1974 and the net assets at 31 March 1974 by £928,000.

Table E1

Effect of accounting choices made during the year ended 31 March 1974 on the reported net surplus for that year

	Incr	Decr
Changes in various deprec rates		9,200,000
Non-capitalisation of overheads		3,700,000
Deprec saved on non-capitalisation of overheads	207,200	
Reduction of hire purchase interest earned		928,000
	207,200	13,828,000
		207,200
		13,620,800

Table E2

Effect of accounting choices made during the year ended 31 March 1974 on the reported capital employed at the end of that year

	Incr	Decr
Changes in various deprec rates		9,200,000
Non-capitalisation of overheads		3,700,000
Deprec saved on non-capitalisation of overheads	207,200	
Reduction of hire purchase interest earned		928,000
	207,200	13,828,000
		207,200
		13,620,800

APPENDIX F

EFFECT OF THE ACCOUNTING CHOICES MADE DURING THE QUINQUENNIUM ENDED 31 MARCH 1974 ON THE REPORTED OUTCOMES FOR EACH YEAR OF THE QUINQUENNIUM

The financial target set for the gas industry for the quinquennium ended on 31 March 1974 was to earn a net return (surplus and interest but excluding depreciation) of 7 per cent on average capital employed during the five-year period (Gas Council, Annual Report and Accounts for the year ended 31 March 1970, p 21).

Holthausen and Leftwich (1983, p 104) point out that :

> most accounting technique choices are timing choices because they shift revenues or expenses among periods, without altering total revenue and expenses over these periods. Thus, the increase - decrease dichotomisation does not fully reflect the decision being made.

Over the life of an accounting entity these timing differences will make no difference to the total income reported. However, over a relatively short period of time, such as a quinquennium, this may not be the case.

Consequently, it was decided to investigate the effect of the accounting choices made during the quinquennium on the reported outcomes for each remaining year of the quinquennium. Calculations were made of not only the effect of each accounting choice on the net surplus or deficit for the year in which the accounting choice was made but also the effect on the net surplus or deficit for each remaining year of the quinquennium. These calculations are shown in Appendices A to E. Calculations were made of not only the effect of each accounting choice on the net assets at the end of the year in which the accounting choice was made but also the effect on the net assets at the end of each remaining year of the quinquennium. These calculations are shown in Appendices A to E.

In this Appendix the net surplus for each year and the capital employed at the end of each year are restated to what they would have been if the accounting choices made during each year of the quinquennium had not been made. The effect of these accounting choices on the reported return on average capital employed for each year is then calculated.

The restatement of the surplus for the year ended 31 March 1970 is shown on Table F1, the restatement of the capital employed at 31 March 1970 is shown on Table F2 and the restatement of the return on average capital employed for the year ended 31 March 1970 is shown on Table F3.

The restatement of the surplus for the year ended 31 March 1971 is shown on Table F4, the restatement of the capital employed at 31 March 1971 is shown on Table F5 and the restatement of the return on average capital employed for the year ended 31 March 1971 is shown on Table F6.

The restatement of the surplus for the year ended 31 March 1972 is shown on Table F7, the restatement of the interest charge for the year ended 31 March 1972 is shown on Table F8, the restatement of the capital employed at 31 March 1972 on Table F9 and the restatement of the return on average capital employed for the year ended 31 March 1972 is shown on Table F10.

The restatement of the surplus for the year ended 31 March 1973 is shown on Table F11, the restatement of the interest charge for the year ended 31 March 1973 is shown on Table F12, the restatement of the capital employed at 31 March 1973 is shown on Table F13 and the restatement of the return on average capital employed for the year ended 31 March 1973 is shown on Table F14.

The restatement of the deficit for the year ended 31 March 1974 is shown on Table F15, the restatement of the interest charge for the year ended 31 March 1974 is shown on Table F16, the restatement of the capital employed at 31 March 1974 is shown on Table F17 and the restatement of the return on average capital employed for the year ended 31 March 1974 is shown on Table F18.

Table F1

Restatement of surplus for the year ended 31 March 1970

	£000
Reported surplus	13,749
Effect of accounting choices made during the year ended 31 March 1970 (see Table A11)	(1,435)
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1970	12,314

Table F2

Restatement of capital employed at 31 March 1970

	£000
Reported capital employed at 31 March 1970	1,657,954
Effect of accounting choices made during the year ended 31 March 1970 (see Table A12)	10,993
Restated capital employed after adjusting for accounting choices made during the year ended 31 March 1970	1,668,947

Table F3

Calculation of the effect of the accounting choices made during the year ended 31 March 1970 on the reported return on average capital employed for the year ended 31 March 1970

	As reported in published accounts £000	Restated after adjustment for accounting choices made in the year ended 31 March 1970 £000
Interest	87,958	87,958
Net surplus for year (see Table F1)	13,749	12,314
Return for financial target purposes	101,707	100,272
Capital employed at 1 April 1969	1,482,832	1,482,832
Capital employed at 31 March 1970 (see Table F2)	1,657,954	1,668,947
Average capital employed during year	1,570,393	1,575,889
Return on average capital employed	6.5%	6.4%

Table F4

Restatement of surplus for the year ended 31 March 1971

	£000
Reported surplus	1,990
Effect of accounting choices made during the year ended 31 March 1971 (see Table B1)	904
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1971	2,894
Effect of accounting choices made during the year ended 31 March 1970 (see Table A11)	(1,335)
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1970	1,559

Table F5

Restatement of capital employed at 31 March 1971

	£000
Reported capital employed at 31 March 1971	1,868,238
Effect of accounting choices made during the year ended 31 March 1971 (see Table B2)	887
Restated capital employed after adjusting for accounting choices made during the year ended 31 March 1971	1,869,125
Effect of accounting choices made during the year ended 31 March 1970 (see Table A12)	620
Restated capital employed after adjusting for accounting choices made during the year ended 31 March 1970	1,869,745

Table F6

Calculation of the effect of the accounting choices made during the two years ended 31 March 1971 on the reported return on average capital employed for the year ended 31 March 1971

	As reported in published accounts	Restated after adjustment for accounting choices made in the:	
		year ended 31 March 71	2 years ended 31 March 71
	£000	£000	£000
Interest	106,680	106,680	106,680
Net surplus for year (see Table F4)	1,990	2,894	1,559
Return for financial target purposes	108,670	109,574	108,239
Capital employed at 1 April 1970	1,657,954	1,657,954	1,668,947
Capital employed at 31 March 1971 (see Table F5)	1,868,238	1,869,125	1,869,745
Average capital employed during year	1,763,096	1,763,538	1,769,346
Return on average capital employed during year	6.2%	6.2%	6.1%

Table F7

Restatement of surplus for the year ended 31 March 1972

	£000
Reported surplus	15,119
Effect of accounting choices made during the year ended 31 March 1972 (see Table C4)	7,665
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1972	22,784
Effect of accounting choices made during the year ended 31 March 1971 (see Table B1)	760
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1971	23,544
Effect of accounting choices made during the year ended 31 March 1970 (see Table A11)	(1,883)
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1970	21,661

Table F8

Restatement of interest for the year ended 31 March 1972

	£000
Reported interest	124,782
Effect of accounting choices made during the year ended 31 March 1972 (see Table C4)	(1,237)
Restated interest after adjusting for accounting choices made during the year ended 31 March 1972	123,545

Table F9

Restatement of capital employed at 31 March 1972

	£000
Reported net assets at 31 March 1972	2,012,155
Effect of accounting choices made during the year ended 31 March 1972 (see Table C5)	8,174
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1972	2,020,329
Effect of accounting choices made during the year ended 31 March 1971 (see Table B2)	1,647
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1971	2,021,976
Effect of accounting choices made during the yeaa ended 31 March 1970 (see Table A12)	3,414
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1970	2,025,390

Table F10

Calculation of the effect of the accounting choices made during the three years ended 31 March 1972 on the reported return on average capital employed for the year ended 31 March 1972

	As reported in published accounts £000	Restated after adjustment for accounting choices made in the: year ended 31 March 1972 £000	2 years ended 31 March 1972 £000	3 years ended 31 March 1972 £000
Interest (see Table F8)	124,782	123,545	123,545	123,545
Net surplus for year (see Table F7)	15,119	22,784	23,544	21,661
Return for financial target purposes	139,901	146,329	147,089	145,206
Capital employed at 1 April 1971	1,868,258	1,868,258	1,869,125	1,868,003
Capital employed at 31 March 1972 (see Table F9)	2,012,155	2,020,329	2,021,976	2,025,390
Average capital employed during year	1,940,206	1,944,293	1,945,550	1,946,696
Return on average capital employed during year	7.2%	7.5%	7.6%	7.5%

Table F11

Restatement of the surplus for the year ended 31 March 1973

	£000
Reported surplus	5,600
Effect of accounting choices made during year ended 31 March 1973 (see Table D1)	19,746
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1973	25,346
Effect of accounting choices made during year ended 31 March 1972 (see Table C4)	9,597
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1972	34,943
Effect of accounting choices made during year ended 31 March 1971 (see Table B1)	703
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1971	35,646
Effect of accounting choices made during year ended 31 March 1970 (see Table A11)	(4,114)
Restated surplus after adjusting accounting choices made during the year ended 31 March 1970	31,532

Table F12

Restatement of interest for the year ended 31 March 1973

	£000
Reported interest	143,213
Effect of accounting choices made during year ended 31 March 1972 (see Table C4)	(2,403)
Restated interest after adjusting for accounting choices made during the year ended 31 March 1972	140,810

Table F13

Restatement of capital employed at 31 March 1973

	£000
Reported capital employed at 31 March 1973	2,051,600
Effect of accounting choices made during the year ended 31 March 1973 (see Table D2)	19,746
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1973	2,071,346
Effect of accounting choices made during the year ended 31 March 1972 (see Table C5)	17,771
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1972	2,089,117
Effect of accounting choices made during the year ended 31 March 1971 (see Table B2)	2,350
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1971	2,091,467
Effect of accounting choices made during the year ended 31 March 1970 (see Table A12)	(4,664)
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1970	2,086,803

Table F14

Calculation of the effect of the accounting choices made during the four years ended 31 March 1973 on the reported return on average capital employed for the year ended 31 March 1973

	As reported in published accounts £000	Restated after adjustment for accounting choices made in the: year ended £000	2 years ended £000	3 years ended £000	4 years ended £000
Interest (see Table F12)	143,213	143,213	140,810	140,810	140,810
Net surplus for year (see Table F11)	5,600	25,346	34,943	35,646	31,532
Return for financial target purposes	148,813	168,559	175,753	176,456	172,342
Capital employed at 1 April 1972	2,015,500	2,015,500	2,020,329	2,021,976	2,025,401
Capital employed at 31 March 1973 (see Table F13)	2,051,600	2,071,346	2,089,117	2091,467	2,086,803
Average capital employed during year	2,079,050	2,043,423	2,054,723	2056,721	2,056,102
Return on average capital employed during year	7.3%	8.2%	8.6%	8.6%	8.4%

Table F15

Restatement of deficit for the year ended 31 March 1974

	£000
Reported deficit	(41,500)
Effect of accounting choices made during year ended 31 March 1974 (see Table E1)	13,621
Restated deficit after adjusting for accounting choices made during the year ended 31 March 1974	(27,879)
Effect of accounting choices made during year ended 31 March 1973 (see Table D1)	18,545
Restated deficit after adjusting for accounting choices made during the year ended 31 March 1973	(9,334)
Effect of accounting choices made during year ended 31 March 1972 (see Table C4)	24,219
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1972	14,885
Effect of accounting choices made during year ended 31 March 1971 (see Table B1)	991
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1971	15,876
Effect of accounting choices made during year ended 31 March 1970 (see Table A11)	(2,035)
Restated surplus after adjusting for accounting choices made during the year ended 31 March 1970	13,841

Table F16

Restatement of interest for the year ended 31 March 1974

	£000
Reported interest	153,931
Effect of accounting choices made during the year ended 31 March 1972 (see Table C4)	(3,507)
Reported interest after the accounting choices made during the year ended 31 March 1972	150,424

Table F17

Restatement of capital employed at 31 March 1974

	£000
Reported capital employed at 31 March 1974	2,106,500
Effect of accounting choices made during the year ended 31 March 1974 (see Table E2)	13,621
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1974	2,120,121
Effect of accounting choices made during the year ended 31 March 1973 (see Table D2)	38,291
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1973	2,158,412
Effect of accounting choices made during the year ended 31 March 1972 (see Table C5)	41,990
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1972	2,200,402
Effect of accounting choices made during the year ended 31 March 1971 (see Table B2)	3,341
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1971	2,203,743
Effect of accounting choices made during the year ended 31 March 1970 (see Table A12)	5,343
Restated capital employed after adjusting for the accounting choices made during the year ended 31 March 1970	2,198,400

Table F18

Calculation of the effect of the accounting choices made during the five years ended 31 March 1974 on the reported return on average capital employed for the year ended 31 March 1974

	As reported in published accounts £000	Restated after adjustment for accounting choices made in the:				
		year ended 31 March 1974 £000	2 years ended 31 March 1974 £000	3 years ended 31 March 1974 £000	4 years ended 31 March 1974 £000	5 years ended 31 March 1974 £000
Interest (after deducting interest paid by subsidiary) (see Table F16)	153,931	153,931	153,931	150,424	150,424	150,424
Net surplus (deficit) for year (see Table F15)	(41,500)	(27,879)	(9,334)	14,885	15,876	13,841
Return for financial target purposes	112,431	126,052	144,587	165,309	166,300	164,265
Capital employed at 1 April 1973	2,051,600	2,051,600	2,071,346	2,089,117	2,091,467	2,086,814
Capital employed at 31 March 1974 (see Table F17)	2,106,500	2,120,121	2,158,412	2,200,402	2,203,743	2,198,400
Average capital employed during the year	2,079,050	2,085,860	2,114,879	2,144,759	2,147,605	2,142,607
Return on average capital employed during the year	5.4%	6.0%	6.8%	7.7%	7.7%	7.7%

APPENDIX G - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1975

APPENDIX G

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1975

Introduction

The discretionary accounting choices made in the published accounts of the BGC during the year ended 31 March 1975 are identified below.

The effect of each accounting choice on the net loss for the year ended 31 March 1975 has been ascertained from the published accounts of the BGC for the year ended 31 March 1975 or, where this has not been possible, calculated as explained below. The effects on the net loss for the year ended 31 March 1975 are shown on Table G1.

Accelerated amortisation of deferred charges : conversion to natural gas

Note 3 (1975) stated that :

> From 1st April 1974 the period of write-off being used for deferred charges : conversion to natural gas was revised to that shown in Note 1(e). The amount written off was £16.6 million greater than it would have been had the previous basis been applied.

Note 1(e) titled "Deferred charges: conversion to natural gas" stated that

> Expenditure incurred on converting systems and customers' appliances to natural gas is being written off in five equal annual instalments. Prior to 1st April 1974 such expenditure was written off over approximately seven years.

This accounting choice had the effect of increasing the net loss for the year ended 31 March 1975 by £16,600,000.

Accelerated amortisation of displaced plant

Note 1(d) (1974) stated that the unamortised balances of displaced plant "are being written off by equal annual instalments at rates sufficient to reduce the last of the individual balances to nil by 1980/81."

Note 1(d) (1975) stated that the unamortised balances of displaced plant "are being written off in five equal annual instalments."

This would appear to accelerate by two years the amortisation of those items of displaced plant which would not have been written off until 31 March 1981. The effect of this accounting choice was not disclosed by the BGC. The researcher has attempted to estimate that effect as follows :

Calculation of the average rate of write-off for the year ended 31 March 1974

	£000
Unamortised balances at 31 March 1974 before deducting amount written off for the year ended 31 March 1974	161,880
Amount written off for the year ended 31 March 1974	29,949
Average rate of write-off for the year ended 31 March 1974 $\frac{29,949}{161,880} \times \frac{100}{1}$	18.5%

Calculation of the effect of the accelerated amortisation of displaced plant during the year ended 31 March 1975

	£000
Unamortised balances at 31 March 1975 before deducting amount written off for the year ended 31 March 1975	186,404
Amount written off for the year ended 31 March 1975	38,265
Estimate of amount which would have been written off for the year ended 31 March 1975 if the accounting charge described above had not been made 18.5% of £186,404	34,485
Estimated increase in amount written off during the year ended 31 March 1975 due to the accounting change	3,780

Thus this accounting choice had the estimated effect of increasing the net loss for the year ended 31 March 1975 by £3,780,000.

Table G1

Effect of the accounting choices made during the year ended 31 March 1975 on the reported net loss for the year ended 31 March 1975

	Year ended 31 March 1975 Effect on net loss Increasing	 Decreasing
Accelerated amortisation of deferred charges: conversion to natural gas	16,600,000	
Accelerated amortisation of displaced plant	3,780,000	
	20,380,000	-

APPENDIX H - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1976

APPENDIX H

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1976

Introduction

Only one discretionary accounting choice was made in the published accounts of the BGC for the year ended 31 March 1976. That accounting choice is described below.

The effect of that accounting choice on the net profit for the year ended 31 March 1976 has been ascertained from the published accounts of the BGC for the year ended 31 March 1976. The effect on the net profit for the year ended 31 March 1976 is shown on Table H1.

Charging the cost of replacing certain categories of existing fixed assets to revenue

Note 1(b) (1976) stated that :

> In view of increasing inflationary costs and changes in technology the Corporation has decided to adopt with effect from 1 April 1975, a policy of charging the cost of replacing certain categories of existing fixed assets as a revenue expense, taking account also of the expected trend of expenditure over the next few years, and capitalising only that expenditure which represents an extension, increase in capacity or improvement to the Corporation's fixed assets. Costs of similar assets which were previously capitalised continue to remain in fixed assets and to be depreciated in the normal manner (see Note 3).

Note 3 (1976) stated that :

> The revised policy of charging the cost of replacing certain categories of existing fixed assets to revenue as explained in Note 1(b) results in £48.1 million being charged to revenue in 1975/76 which would previously have been capitalised.

The profits of each remaining year of the sub-period were decreased by a charge for the replacement cost of fixed assets. The author decided to treat each year's charge as a new accounting choice for the following reasons :

(1) Each year a subjective judgement would have to be made as to which items should be written off as a revenue expense and which items should be capitalised. This opens up the possibility of manipulation. This decision to charge the replacement cost of certain fixed assets to revenue is thus unlike a decision to change the number of years over which a fixed asset should be written off. The latter decision would determine the amounts to be written off each year until either the asset's life is changed again or the asset is completely written off.

(2) The accounting choice described in Note 1(b) is sufficiently vague as to put very little constraint on management's decision each year as to which items should be charged to revenue. This vagueness presumably left the auditors, Price Waterhouse & Co, with a limited ability to argue with management on the items (and thus the amount) which should be charged as a revenue expense.

(3) To the best of the author's knowledge this treatment of the replacement cost of fixed assets is unusual and is not consistent with the accounting practices generally used by British companies. It could therefore presumably have been abandoned at any time without creating any problems with the auditors, Price Waterhouse & Co. Perhaps the auditors would have been pleased to see the practice abandoned as they would then not be subject to criticism for allowing the BGC to use this unusual accounting practice in the audited financial statements.

For the above reasons the amount of replacement expenditure charged to revenue in each of the remaining years of the sub-period has been treated as the result of a new accounting choice. The amounts involved are shown below :

Year ended 31 March 1977	£ 55,576,000
Year ended 31 March 1978	89,000,000
Year ended 31 March 1979	126,400,000
Year ended 31 March 1980	134,000,000

These amounts were obtained from the published accounts of the BGC for the relevant years.

Table H1

Effect of the accounting choice made during the year ended 31 March 1976 on the reported net profit for the year ended 31 March 1976

	Year ended 31 March 1976 Effect on net profit Increasing	Decreasing
Charging the cost of replacing certain categories of existing fixed assets to revenue		£48,100,000
	-	£48,100,000

APPENDIX J - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1977

APPENDIX J

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1977

Introduction

The discretionary accounting choices made in the published accounts of the BGC during the year ended 31 March 1977 are identified below.

The effect of each accounting choice on the net profit for the year ended 31 March 1977 has been ascertained from the published accounts of the BGC for the year ended 31 March 1977. These effects are shown on Table J1.

Replacement expenditure charged as a trading cost

As already noted in Appendix H the author decided to treat as an accounting choice during the year ended 31 March 1977 the charging of £55,576,000 replacement expenditure as a trading cost. This accounting choice had the effect of reducing the net profit for the year ended 31 March 1977 by £55,576,000.

Supplementary depreciation charge

Note 1(b) (1977) stated that :

> The Corporation adopted with effect from 1 April 1975, a policy of charging the cost of replacing certain categories of existing fixed assets as a revenue expense, and capitalising only that expenditure which represented an extension, increase in capacity or improvement to the Corporation's fixed assets.
>
> With effect from 1 April 1976, the Corporation have charged against trading profits (see Note 3) the following, which in total are the equivalent of a depreciation charge based on the current cost of all its fixed assets :
>
> (i) replacement expenditure referred to above which has been charged in trading costs;
> (ii) depreciation based on the historical cost of fixed assets recorded in the Corporation's books;
> (iii) a supplementary depreciation amount to increase the charge to a current cost basis.

The accumulated historical depreciation has been deducted in the balance sheet from the cost of the related fixed assets and the supplementary charge has been credited to a fixed asset maintenance account.
Supplementary depreciation relating to periods prior to 31 March 1976 has not been taken up.

Note 3 referred to above included the following information relating to the supplementary depreciation charge against the trading profit for the year :

The supplementary depreciation amount shown above is calculated on the basis set out in Note 1(b) as follows :

		£000
Total depreciation charge calculated on the current cost of fixed assets		335,000
Less: Depreciation based on the historical cost of fixed assets	176,828	
Replacement expenditure incurred during the year and charged to revenue	55,576	232,404
Amount transferred to fixed asset maintenance account		102,596

This accounting choice had the effect of decreasing the net profit for the year ended 31 March 1977 by £102,596,000.

The profits of each remaining year of the sub-period were decreased by a charge for supplementary depreciation. The author decided to treat each year's charge as a new accounting choice for the following reasons :

(1) The BGC continued until 1981 to record its fixed assets in the balance sheet at historical cost. Thus the "total depreciation charge" above could not be related to the "current cost of fixed assets". This opens up the possibility of manipulation especially as the current cost of fixed assets was probably based on management estimates.

(2) The charging of supplementary depreciation was unusual and was not consistent with the accounting practices generally used by British companies. It could therefore presumably have been abandoned at any time without creating any problems with the auditors, Price Waterhouse & Co. As with the charging of the replacement cost of certain categories of fixed assets as a revenue expense perhaps the auditors would have been pleased to see the practice abandoned as they would then not be subject to criticism for allowing the BGC to use this unusual accounting practice in the audited financial statements.

For the above reasons the amount of replacement expenditure charged to revenue in each of the remaining years of the sub-period has been treated as the result of a new accounting choice. The amounts involved are shown below :

Year ended 31 March 1978	£145,400,000
Year ended 31 March 1979	165,300,000
Year ended 31 March 1980	235,800,000

These amounts were obtained from the published accounts of the BGC for the relevant years.

Accelerated amortisation of displaced plant

Note 1(c) (1977) stated that :

> The Corporation have decided with effect from 1 April 1976, to write off the unamortised balance and any plant displaced in 1977/78 by 31 March 1978. Plant displaced after 31 March 1978, will be written off in the year of displacement. Amounts charged to this account were previously being written off in five equal annual instalments and the write-off would have been completed by 31 March 1979, after taking account of proceeds of sale.

Note 3 (1977) stated that the revised policy for writing off displaced plant described above resulted in additional charges of £27.3 million against the trading profit for the year ended 31 March 1977. Thus this accounting choice had the effect of decreasing the net profit for the year ended 31 March 1977 by £27,300,000.

Accelerated amortisation of deferred charges : conversion to natural gas

Note 1(d) (1977) stated that :

> The Corporation have decided with effect from 1 April 1976, to write off the balance of expenditure incurred in converting customers' appliances to natural gas, together with further costs to be incurred in 1977/78 by 31 March 1978. Amounts charged to this deferred charges account were previously being written off in five equal annual instalments and would have been substantially written off by 31 March 1979.

Note 3 (1977) stated that the revised policy for writing off deferred charges described above resulted in additional charges of £56.6 million against the trading profit for the year ended 31 March 1977. Thus this accounting choice had the effect of decreasing the net profit for the year ended 31 March 1977 by £56,600,000.

Table J1

Effect of the accounting choices made during the year ended 31 March 1977 on the reported net profit for the year ended 31 March 1977

	Year ended 31 March 1977 Effect on net profit Increasing	Decreasing
Replacement expenditure charged as a trading cost		55,576,000
Supplementary depreciation charge		102,596,000
Accelerated amortisation of displaced plant		27,300,000
Accelerated amortisation of deferred charges		56,600,000
		242,072,000

APPENDIX K - CONTENTS

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1978

APPENDIX K

ACCOUNTING CHOICES MADE DURING THE YEAR ENDED 31 MARCH 1978

Introduction

The discretionary accounting choices made in the published accounts of the BGC during the year ended 31 March 1978 are identified below.

The effect of each accounting choice on the net profit for the year ended 31 March 1978 has been ascertained from the published accounts of the BGC for the year ended 31 March 1978. These effects are shown on Table K1.

Replacement expenditure charged as a trading cost

As already noted in Appendix H the author decided to treat as an accounting choice during the year ended 31 March 1978 the charging of £89,000,000 replacement expenditure as a trading cost. This accounting choice had the effect of reducing the net profit for the year ended 31 March 1978 by £89,000,000.

Supplementary depreciation charge

As already noted in Appendix J the author decided to treat as an accounting choice during the year ended 31 March 1979 the charging of £145,400,000 supplementary depreciation. This accounting choice had the effect of reducing the net profit for the year ended 31 March 1978 by £145,400,000.

Provision for field abandonment costs

Note 1(c) (1978) :

> Current licence agreements impose an obligation on operators of North Sea oil and gas fields to restore the sea bed at the end of the producing lives of the fields to a condition acceptable to the

Department of Energy. Accordingly, it has been decided to commence, with effect from 1 April 1977, making provision for abandonment costs, calculated field by field on a throughput basis similar to that used for depreciation.

Estimates of abandonment costs will be reviewed annually and the provision adjusted accordingly.

Note 3 (1978) noted that the provision for field abandonment costs was £6.2 million.

This accounting choice had the effect of decreasing the net profit for the year ended 31 March 1978 by £6,200,000.

Note 3 (1979) noted that provision for field abandonment costs had been increased by £6.9 million. This accounting choice had the effect of decreasing the net profit for the year ended 31 March 1979 by £6.9 million.

Note 3 (1980) noted that provision for field abandonment costs had been increased by £6.2 million. This accounting choice had the effect of decreasing the net profit for the year ended 31 March 1980 by £6.2 million.

Deferred tax charge

Note 1(g) (1978) stated that :

The Corporation is subject to United Kingdom taxation on its annual profits as calculated for tax purposes. The forecast levels of profits and capital expenditure indicate that in the foreseeable future tax losses brought forward from past years are likely to be fully utilised and a liability to Corporation Tax is expected to arise. Accordingly, after taking account of such losses available against future profits assessable to tax, provision is made in the accounts for deferred taxation at current rates on timing differences, which relate principally to the allocation for tax purposes of depreciation to periods different from those used for accounting purposes.

Note 6 (1978) stated that :

The Corporation has no current liability to Corporation Tax in 1977/78 (1977 £.1 million) as the taxable profit is extinguished by tax losses brought forward from past years. The charge in the accounts represents a provision for deferred taxation made in accordance with the Corporation policy described in Note 1(g) as follows :

	1978 £m	1977 £m
Deferment due to accelerated tax depreciation	793.0	1003.9
Less : Unutilised tax losses	646.0	1041.8
	147.0	(37.9)
Tax at 52%	76.4	-

This accounting choice had the effect of decreasing the net profit for the year ended 31 March 1978 by £76,400,000. However the effect of this accounting choice has not been included in Table K1 for the reasons given in section 7.4.2.

Table K1

Effect of the accounting choices made during the year ended 31 March 1978 on the reported pre-tax profit for the year ended 31 March 1978

	Year ended 31 March 1978 Effect on pre-tax profit Increasing	Decreasing
Replacement expenditure charged as a trading cost		89,000,000
Supplementary depreciation charge		145,400,000
Provision for field abandonment costs		6,200,000
		240,600,000