THE EVOLUTION OF INDUSTRIAL POLICY IN THE UNITED KINGDOM 1964-1978

by Robert P. Guttmann

The thesis focuses on policy measures between 1964 and 1978 to improve performance and growth in U.K.'s private industry. Underlying structural weaknesses and institutional constraints characteristic to U.K.'s company sector are identified and analysed in Part One. This exercise provides the basis for both a definition of the concept of "industrial policy" and a critical assessment in Part Two of its relevance and effectiveness to tackle industry's main difficulties. In discussing policy initiatives to assist companies with public funds for investment finance, industrial reorganisation and the application of new technology, a variety of problems associated with state intervention in private industry are highlighted. The various attempts by policy-makers to overcome shortcomings in the coordination of policy, communication with firms, public monitoring and exercise of control as a result of experience with existing measures and by means of new, more powerful instruments are examined in detail. Industry's growing difficulties and pressure on policy-makers to expand or at least improve public assistance meant that industry policy evolved, despite controversy and policy shifts, with a certain degree of continuity. In the three case-studies which follow, shipbuilding, computers and the NEB, these dynamics are explored in depth.

One useful contribution of this thesis is to explain industrial decline in the U.K. economy in terms of supply-side constraints in the private sector. This approach avoids the methodological shortcomings of currently popular theories which instead concentrate on factors outside private industry, such as the public sector or international trade. The analysis of overall industrial policy since 1964 and the attempt to develop criteria for assessing its effectiveness contribute to a better understanding of this subject. The case studies cover new areas of research. By linking the analysis of policy-making with theoretical hypotheses concerning industry's main problems the effects of policy measures in private industry can be evaluated to determine both the limitations and the potential of state intervention in private industry.

DECLARATION

I hereby declare that I have not been registered for any other award of the Council of National Academic Awards or of a University during the entire period of my registration as a candidate for a research degree of the Council.

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PREFACE

The following details should be kept in mind, when reading the text:

a) Notes: These are indicated in the text by consecutive numbers in parentheses at the end of the relevant sentence or paragraph, such as (1), (2), and so forth. They are arranged chapter by chapter and can be found at the end of the thesis, following Appendix 1.

b) Abbreviations: When used for the first time in text, abbreviations are usually written in parentheses after the words abbreviated; for example, "....the National Enterprise Board (NEB)...." In subsequent use, the text contains the abbreviation only. A list of frequently used abbreviations in alphabetical order is attached, following the footnotes.

c) References: When a specific article, pamphlet, or book is mentioned in the text (or in the notes) for the first time, the name of the author(s) appears in capital letters; thereafter, in case of repeated reference, the lower case is used. Each reference in text includes the name of the author(s), the year of publication, and specific pages, tables, chapters or sections of that publication, where relevant.

For example: 1) S. YOUNG (1974, pp. 92-101) -- this implies a specific reference to pp. 92-101 of S. Young's book which is mentioned here for the first time.

or 2) G. Ganz (1977) -- this refers to Ganz's book as a whole and implies that this publication has already been referred to previously in text (or footnotes).

In case of reference to different materials by the same author(s) published in the same year, these are distinguished by capital letters: e.g. M. Wilkinson (1978A), M. Wilkinson (1978B). A complete and alphabetically ordered bibliography follows the list of abbreviations at the end of the thesis. The titles are underlined, in the case of a book or an unpublished mimeo, and in the case of an article the name of the journal is underlined.

d) The sign for the British pound used in the text is £.

PART 1: PRODUCTION CONDITIONS AND ELEMENTS OF STRUCTURAL WEAKNESS IN THE PRIVATE INDUSTRY OF THE UNITED KINGDOM

INTRODUCTORY NOTE

The first part of the thesis presents in two chapters an analysis of the conditions for growth in U.K. private industry. Recent attempts to explain the comparatively low growth in the U.K. economy on the basis of the declining share of its manufacturing sector are critically assessed in Chapter 1. Therein we argue that these theories of "deindustrialization", which emphasize the contribution of manufacturing in the economy as an important determinant of overall growth, are inadequate. Their focus on manufacturing industry and on constraints to its expansion, which operate outside that sector's own dynamics, is shown to be incapable of providing a satisfactory explanation of U.K.'s industrial problems.

In Chapter 2 we attempt an alternative framework of analysis by concentrating instead on private industry and its internal supply factors determining growth which we term "production conditions." Among these we stress in particular: a) the lack of investment activity to add new and more modern production capacity at a sufficient rate; and b) the apparent inability within private industry to use existing resources efficiently in the process of production.

It is our hypothesis that these two deficiencies on the supply side of growth acted combined as a serious constraint on the expansion of U.K. private industry in the post-war period. Attention is then focused on identifying institutionalised "elements of structural weakness": limits on external finance, managerial inefficiency, out-moded work practices and techniques of production. These elements, which are structural in the sense of constituting deep-rooted and institutionalized problems with a long history of evolution in the context of the U.K. economy, are analysed more closely in order to explain why the production conditions, most notably investment and efficiency in production, are so unfavourable.

The aim of this analytical exercise in the first part of the thesis is thus to establish the theoretical framework, within which major problems of U.K. private industry can be identified. Based on our explanations and findings concerning the constraints to expansion within the private sector in the first two chapters, we can then proceed to evaluate certain policy measures which have been introduced recently in this country to deal with those constraints.

CHAPTER 1: THE LIMITS OF ESTABLISHED EXPLANATIONS OF LOW GROWTH IN THE U.K.

1.1. The U.K. Economy's Growth Record after WW2 in an international context

Over the last 100 years the U.K. economy has declined relative to other industrialised nations. This process, expressed in terms of its falling share of world exports, increasing import penetration and a growth rate of its industry that was gradually declining over time compared to previous periods and in relation to other countries, had already commenced in the 1870's.(1) The longevity of this downward trend points to deep-rooted, historical weaknesses within the U.K. industry. Even during the world-wide boom after WW2, which created even in the U.K. sustained expansion, full employment and record growth of exports to an unprecedented extent, the U.K. economy as a whole did less well than other major economies, as is evident from Table 1.1.(2)

Table 1.1. Comparison data -- the U.K. economy in an international context during the 1960's and early 1970's.

	change in trade-share 1961-1974	average annual growth-rate of export volume 1961-1974	average annual growth-rate of real GDP 1961-1972	average annual growth-rate of real GDP per capita 1961-1972
U.K.	-5.1%	4.9%	2.5%	2.0%
Belgium	+0.8%	8.9%	4.8%	4.3%
France	+0.5%	10.3%	5.8%	4.7%
West Germany	+2.3%	8.9%	4.5%	3.6%
Italy	-0.9%	10.8%	4.8%	4.1%
Japan	+5.5%	15.3%	10.1%	8.9%
Netherlands	+1.2%	10.1%	5.6%	4.4%
Sweden	-0.1%	7.3%	3.7%	3.0%
U.S.A.	-5.2%	6.4%	4.4%	3.2%

SOURCE: OECD (1974)

These data show convincingly that in terms of growth and trading performance the U.K. lagged behind its main competitors even during the boom period. In addition, the average growth rate of the U.K. economy began to fall from cycle to cycle from the mid-1960's onwards, thus ending a short period of more rapid growth in the early 1960's which had been encouraged

by reflationary economic policies. After 1973, which marked the beginning of a recession in the U.K. and elsewhere, the average rate of growth fell to a level substantially below even that of the second half of the 1950's, during which a rigid policy of demand deflation in the interest of reestablishing the convertability of the currency had contributed to comparatively slow growth (see table 1.2).

Table 1.2: The deterioration of growth in the U.K.

Year	real average growth rate of GDP p.a. (measured over cycles from peak to peak)
1955-59	2.24%
1960-63	3.10%
1964-67	2.90%
1968-72	2.46%
1973-77	1.36%

SOURCE: CSO (1976, T.1.12, p. 15); Trade and Industry, 2/6/1978, p. 495.

To explain the comparatively poor and more latterly deteriorating growth record of the U.K., recent studies have pointed to the contraction of the manufacturing sector in the U.K. Its share in total GDP fell from an average 35.5% in 1955-59 to an average 30.7% in 1970-75 with a low point of 28.7% in 1975.(3) While manufacturing declined relatively to other sectors also in countries, such as the USA, Sweden, and even Japan, this process was most pronounced in the U.K. Table 1.3. compares the relative strength of manufacturing industry in terms of growth of output, employment and productivity in 6 EEC-countries and confirms the U.K. position.

Table 1.3: Data of manufacturing industry's growth in selected EEC-countries

1) Annual growth rates of output in manufacturing (in per cent)

	1955-60	1960-64	1964-69	1969-72
Belgium	4.08	7.22	5.67	5.37
France	5.72	7.11	6.48	6.46
West Germany	7.72	5.95	6.15	4.60
Italy	8.02	7.13	8.00	5.32
Netherlands	6.33	6.28	6.63	5.23
U.K.	2.85	3.25	3.16	2.78

2) Annual growth-rates of employment in manufacturing

	1955-60	1960-64	1964-69	1969-72
Belgium	0.53	2.16	-0.43	0.71
France	1.26	2.13	0.15	1.80
West Germany	2.66	0.58	0.56	0.22
Italy	2.88	3.46	1.37	1.14
Netherlands	1.49	1.82	-0.38	-1.75
U.K.	0.62	0.09	-0.23	-1.61

3) Annual growth-rates of output per person employed in manufacturing

	1955-60	1960-64	1964-69	1969-72
Belgium	3.53	4.96	6.12	4.62
France	4.40	4.87	6.32	4.58
West Germany	4.92	5.34	5.55	4.37
Italy	5.00	3.54	6.53	4.14
Netherlands	4.77	4.38	7.04	7.11
U.K.	2.19	3.15	3.40	4.46

SOURCE: D.T. JONES (1976, pp. 75-77)

The growth differential in manufacturing between the U.K. and the rest was substantial during the whole period 1955-1972. The U.K. manufacturing sector managed, however, to increase the growth rate in productivity (albeit from a very low starting base) and thus to prevent any further widening of the 'productivity gap.' At the same time the achievement came at the expense of falling levels of employment and could therefore not be transformed into higher output growth. Only the Netherlands had a stronger decline in employment after 1964, but maintained it's output levels through significant productivity gains. All the other countries continued more or less to experience net employment gains and therefore enjoyed higher growth-rates of manufacturing's output.

It seems from T. 1.3. that the price for improvements in productivity in the U.K. was a net reduction of employment in manufacturing, as capacity expansion and with it the creation of new jobs were insufficient to absorb all those made redundant. According to R. BACON and W. ELTIS (1975, pp. 34-38) the rate of growth of industrial production fell in the U.K. from 35% in 1955-65 (equal to a 3.0% p.a. average) to 17% for 1965-7 75 (1.5% p.a. on average). Productive capacity expansion in manufacturing fell from 35% between 1955-65 to 22% (2.5% p.a.) between cyclical peaks 1965 and 1973. At the same time productivity in the manufacturing sector

grew 33% in 1965-74 (3.2% p.a.). In as much as productivity growth since the mid-60's exceeded those of capacity expansion and industrial production, there was a consequent decline in the numbers employed in manufacturing of 12.5% in 1965-74 (1.5% p.a.) together with a fall in the number of hours worked. The key problem seems therefore to have been insufficient capacity expansion with the effect that productivity gains did not result in higher levels of output. Without a higher level of net investment the contraction of U.K. manufacturing in relation to the rest of the economy could neither be prevented nor stopped. This process of a relatively declining manufacturing sector (usually expressed in terms of its falling share in total GDP) was recently termed 'deindustrialisation.'(4)

1.2. The limitations of the 'deindustrialisation' concept as the basis to explain low growth

Deindustrialisation, as defined by Bacon and Eltis, has recently become the concern of economists and policy-makers, because, as Singh (1977, p. 122) points out, manufacturing is the most important source for increases in productivity, rapid technological change and expanding exports.(5) We will argue in this section that 'deindustrialisation'-theories, as recently formulated by R. BACON and W. ELTIS (1976) or A. Singh (1977) to explain the low growth of the U.K. economy, are inadequate. Bacon and Eltis, for example, distinguish between a market sector where products are sold at a market price above costs, and a non-market sector which covers all activities of the public sector to the extent that they are not sold at all or are sold at a subsidized price below costs, such as defense, law and order, administration, health, etc. They note the expansion of employment in and relatively fast growth of non-market activities. They assume further that all investment goods and exports are marketed and that all the money spent by wage and salary earners and pensioners is spent on marketed output. Hence the combined marketed output of the manufacturing and service sectors must supply all the private consumption, investment and export needs of the whole economy (pp. 26-27). Because of the expansion of (non-market) public sector employment and activities a steadily increasing proportion of marketed output is consumed by those who do not add to the country's resources. At the same time industrial workers have through wage militancy maintained their consumption share, resisting successfully a reduction in real net take-home pay. Therefore, as more resources are

absorbed by those who do not add to marketed output and as personal consumption of those producing marketed output cannot be lowered, the reduction of resources available to the market sector had to come entirely from investment and exports (p. 28-29). This leads them to conclude that all the major economic ills in the U.K., be it the growing defensive militancy of of the industrial workforce, increasing balance of payments deficits, accelerating inflation, the squeeze on profits and investment in the market sector, were caused by the rapid expansion of employment and absorptcn of resources in the non-market public sector. This theory provides the basis for economic policies that aim to rechannel resources into investment and exports by cutting public sector employment and expenditure and by keeping wage increases down.

But this theory, which has had some impact on policy-making, has serious limitations:

1) The claim in Bacon and Eltis (1976, p. 27) that all investment is marketed is factually wrong. A growing proportion of investment in industry is, as will be shown in subsequent chapters, heavily subsidised and supported by public expenditure. Support for industrial investment in the form of allowances and grants, artificial low-cost pricing of products from public sector suppliers (steel, energy, transport, etc.), regional aid, and selective investment aid schemes increased rapidly during the 1960's and 1970's.

2) The analysis of Bacon and Eltis concentrates entirely on the costs of public sector activities and ignores their potential and actual benefits to private industry through raising the level of education, training and health of the workforce, as a source of aggregate demand or through direct subsidies.

3) G. HADJIMATHEOU (1977, p. 22-23 and T.2-4) showed for the U.K. that at constant prices the share of public expenditure in GNP had actually fallen between 1955 and 1974. Therefore the claimed relative increase of the public sector was mostly due to relative price effects. The above-average inflation rate in the public sector resulted possibly from lower productivity and other cost pressures. He also pointed out that the fastest increase in public sector activities came in transfer payments to those <u>outside</u> the work-force and in net lending. Both findings contradict the claim by Bacon and Eltis that the present economic crisis is caused by the expansion of public sector activities directly depriving the private sector of needed resources. G. HADJIMATHEOU and A. SKOURAS (1977) exten-

sively attacked Bacon and Eltis on both statistical and theoretical grounds, casting further doubts on the validity of their theory.

4) According to the empirical evidence in OECD (1974) and in R. NEILD and T. WARD (1976) other Western European countries experienced in the 1960's and 1970's proportionately larger and/or more rapidly growing non-market sectors (expressed in terms of levels and increases of both public expenditure and taxation) than the U.K. without having suffered from similar consequences in terms of growth, inflation, balance of payments deficits.

5) The shift of resources into the public sector can only become a problem if the production of marketed output has not been increasing sufficiently to absorb the growing claims from an expanding public sector without reducing at given wage rates the proportion left for investment and/or exports of the market sector. This point is even briefly mentioned in Bacon and Eltis (1976, pp. 123-124). But they make no attempt to explain why production in the private sector has not expanded at a high enough rate. Instead of focussing on this underlying problem they shift the emphasis on the rapid expansion of non-marketed activity which can only become problematic as a consequence of marketed output not having risen enough. It is the latter that needs to be at the centre of any explanation of low growth in the U.K.

6) The implication of their theory that a shift of resources back into the market sector is a) achievable and b) takes care of major economic ills is dubious. It assumes that workers made redundant in the non-market sector will find suitable employment in the market sector. This would presuppose extensive retraining facilities, motivation for occupational mobility and large enough capacity expansion in the market sector with production technologies of a less labour-saving nature. There is little indication that all this is likely to occur. It is in addition less than certain that the private sector will actually use the financial resources set free by cuts in public expenditure and taxation to achieve more investment and/or exports. In order to make this assumption it would be necessary to analyse the determinants of investment decisions, production techniques, employment levels and export potential in private industry. An investigation of such factors is, however, entirely outside the reach of Bacon and Eltis' theoretical framework.

The second variant of the 'deindustrialisation' theory with policy implications has been most clearly formulated by Singh. His basic argument

in Singh (1977, p. 114) is that the weakness of U.K.'s industrial economy, for whatever reasons, has been exacerbated by its increased participation in world trade, made possible by institutional arrangements such as free trade and currency convertibility. This has been due to a number of reasons: 1) The 'competitive aspects' of economic expansion elsewhere will create alternative sources of supply competing with and constraining a country's industries even in their own home market. 2) Successful competition from other industrialised economies might occur most likely in the technically most advanced industries with largest potential for productivity growth. This affects the structure of demand and output of a less successful economy even more adversely, as its sectors with the highest potential for future growth are most severely hit. 3) A deteriorating foreign trade position may via balance of payments deficits and a weakened exchange rate force the government into deflationary policies and thus have an adverse effect on the aggregate level of demand at home. 4) This constraint on demand and the pressure of foreign competition on the profit-rates of domestic firms will reduce their incentive to invest. For the same reasons foreign companies are less likely to invest in the U.K., while U.K. firms are more likely to invest abroad to the direct detriment of the already difficult balance of payments position of the U.K. This is particularly true in a country like the U.K. with its long tradition of overseas investment and its comparatively large number of multinational corporations.

The combination of all these forces in a situation of inadequate international competitiveness will perpetuate the deindustrialisation process and accelerate industrial decline.[6] The major shortcoming of Singh's theory is that the lack of International competitiveness is already assumed a priori. His arguments concern only the aggravating effects of international trade on an already weak domestic industry. Their purpose is to present a strong case for import controls. Singh explicitly (p. 119) does not attempt to identify the prime reasons for the underlying weakness of U.K. industry. As in the case of Bacon and Eltis his analysis of deindustrialisation only refers to constraints external to manufacturing industry, and fails to analyse specific factors without which the expansion of the public sector or international trade could not have had such negative effects. This criticism requires in Singh's case, however, a minor qualification because of some important clues at the end of his article (p. 131). He notes that <u>despite</u> productivity improvements and relative price and cost

the case of UK's multinationals, which traditionally have relied much more than their German or Japanese counterparts on direct investments overseas as an alternative to and thus at the expense of sustained export efforts. Furthermore, as pointed out in the LABOUR PARTY(1977,p. 30 f.), the ability of multinational companies to set transfer prices in their intra-company trading across national boundaries meant that those corporate giants, in effect, set their own exchange rates. This is especially probable, when the trade is not in finished goods, but, as applies to the majority of intra-group trade, in parts and components. Hence devalation will have less impact on such a company's export and import policies. Consequently, for devaluation to have its desired impact on trade, domestic producers must become more competitive and import substitution needs to be encouraged (to reduce the country's inelasticity of demand for imports), whereas the decisions of UK's multinationals concerning their pricing strategies and their plans for exports or overseas investment need to be more closely scrutinized, and if necessary, influenced as part of policy-making.

What about import controls? In November 1964, against the background of a balance of payments crisis (with a deficit at the then unprecedented level of £ 800m. p.a. and imports rising by an alarming 19% p.a.) and after having decided not to devalue, the newly elected Labour Government imposed a 15% import surcharge on most imported manufactured goods, which covered roughly a third of all merchandise imports in 1964. By making imports relatively more expensive, demand would be shifted to competing domestic products. At the same time the surcharge acted as a tax on all the imports that continued despite the tariff. This revenue was expected to reduce domestic expenditure by £ 200m. and to thus counteract the inflationary effect of reducing imports (by an estimated £300m. p.a.) and switching instead to domestic products. Subsequently the official forecasts of the reduction of imports turned out to be far too optimistic. The surcharge had much less impact on imports than anticipated. S.JOHNSTON and M.HENDERSON(1967), for example, put the savings in imports due to the surcharge over the whole 2-year period of its existence at no more than £ 210m. (in 1964 prices). The storm of protests overseas, which followed the introduction of the surcharge , led within a month to private

The complete overhaul of production processes and possible establishment of new plant, which characterize "enterprise investment", are more likely to lead to maximum scale economies and more rapid technological progress. The consequences will be lower unit costs, improved quality of existing products and frequent introduction of entirely new products. The resulting gains in efficiency and international competitiveness provide the basis for export offensives and import substitution--both new sources of demand. Expanding markets(the demand side) and "enterprise investment"(the supply side) are thus interrelated and condition each other, providing cumulative self-reinforcing benefits.

In a situation of declining, stagnating or only slowly growing markets firms will not have the means and incentives to undertake "enterprise investment". If other firms do not simultaneously increase their levels of investment activity and demand does not rise sufficiently, then those firms undertaking major investment projects may end up with excess capacity, lower profit-rates and subsequently more restricted and expensive access to sources of external finance. Whereas in a rapidly expanding economy firms may lose market shares and profits to competitors, if they do not keep up with the generally high investment activity, firms in a 'low growth' economy run large risks, if they do engage in "enterprise investment" projects. Major innovation and capacity expansion will also be hampered by the lower cash flow, the longer pay-off periods for previous investment, and the low scrap values for old, but still functioning capital equipment characteristic of a 'low growth' economy. Instead firms, facing stagnating markets and their consequences, will try to defend their market-share rather than expand aggressively. Their "defensive investment" will focus more on the improvement of existing capital goods through rationalisation (i.e. organisational, rather than technological, innovation independent of long-term research, big R&D-budgets, expensive use of professional staff and automation devices) and minor innovations which can be done without major investment expenditure and costly scrapping of existing plant and machinery. The effects of this "defensive" investment behaviour are less capacity expansion, slower pace of technological change and introduction of new products, longer use of old plant and machinery. As firms spend less, fewer new employment opportunities

will be created. All this results in production below the optimal efficiency levels, continued lack of international competitiveness and inadequate creation of new sources of demand. A 'low growth' economy therefore not only leads to "defensive investment", but is at the same time reinforced, perpetuated by it. The question is how to break out of this vicious cycle. Is it primarily a prob= lem for traditional macro-economic demand management and a question of developing means to cope with demand constraints other than self-defeating deflation (as discussed above in the analysis of devaluation versus import controls)? Or is there in addition a need for a policy oriented towards supply-side constraints within industry to complement appropriate demand management measures?

Recent studies, whose conclusions were briefly summarized in A. Singh (1977), stressed in this context the need to focus on 'supply-side' deficiencies. The problem of inadequate levels of investment activity as well as the failure to use existing resources in production efficiently were both mentioned in Singh's concluding remarks as having contributed to the lack of growth and international competitiveness of domestic producers. In addition the empirical evidence of Table 1.3 indicated that insufficient creation of new capacity prevented higher productivity from being translated into higher levels of output and led instead to a net loss of employment (in manufacturing and thus in significant parts of private industry).(3)

A formal way of presenting these relations between , on the one hand, investment and efficient use of productive resources, which in accordance with our definition in the introductory note to Part 1 are part of the "production conditions" in private industry, and growth on the other is through a reformulation of the HARROD-DOMAR accounting identity $g = s/k$ Expressed in supply-terms g stands for the rate of growth of output and k for the capital-output ratio, while s can be defined as the share of net investment in output, because actual savings equal investment by definition.(4)

Using the formula with its most simplifying assumptions, as spelled out in footnote 4, we can say that, ceteris paribus, the growth-rate in the private company sector depends on a) the net investment share and b)

the capital-output ratio. Later we will discuss in more detail why the capital-output ratio can be used as a proxy to indicate investment efficiency.

Our argument has thus far developed the following hypotheses: 1) The 'deindustrialisation' theories based on the lack of capacity expansion (Bacon and Eltis) or competitiveness (Singh) of domestic industry fail to explain supply constraints, but instead assume them a priori. 2) The effects of UK's balance of payments difficulties, aggravated by repeated deflation, and the interaction between 'low growth' and 'defensive investment' being one of mutual reinforcement, as analysed by Lamfalussy, emphasize both the need for demand management policies which help to create the environment for more rapid growth. However, because expansion depends also on the investment behaviour of firms and their ability to overcome existing supply-side constraints, we direct our attention to these factors. In the rest of Ch.2 we will examine more fully the effects ofinvestment and of efficiency on growth in private industry.

2.2. The trend of investment activity in the U.K. company sector

2.2.1. Empirical Evidence

Table 2.2. is a time-series of the net investment share (i.e. net domestic fixed capital formation as a proportion of net domestic product) of the U.K. company sector as a whole, and of the industrial and commercial companies including and excluding the North Sea oil-related "petroleum and natural gas" sector.(5)

Table 2.2: The net investment share of the U.K. company sector 1956-76

Year	net investment share s=S/Y of total U.K. company sector	s of industrial and commercial companies	s of ind. and comm. companies less "petroleum and natural gas"
1956	6.5%		
1957	7.4%		
1958	7.2%		
1959	7.1%		
1960	7.7%		
1961	8.7%		
1962	8.1%		
1963	7.0%		
1964	8.5%		
1965	9.0%		8.3%

(Table continued)

1966	8.2%	7.2%	
1967	7.6%	6.4%	
1968	8.5%	7.0%	
1969	10.2%	7.9%	
1970	10.3%	8.1%	7.9%
1971	8.8%	6.9%	6.6%
1972	8.2%	6.4%	5.9%
1973	10.7%	7.8%	6.9%
1974	11.4%	8.7%	6.7%
1975	9.9%	7.5%	3.1% (est.)
1976	8.6%	n.a.	n.a.

SOURCE: CSO (1966, T.62 and 65), CSO (1976A, T.1.11, T.14.1, T.12.9, T.11.8), CSO (1977, T.11-10), Business Monitor, Provisional Results, 1974, and Business Monitor PA104, p. 3.

The net investment share s can, given the specified assumptions about capital consumption and replacement investment (see footnote 5), be taken as an indicator for capital expenditure to expand capacity. Table 2.2 implies that the actual increase of the net investment share of the company sector after 1964/65 was mostly due to the rapid expansion of financial companies and North Sea oil-related investment. Apart from these growth sectors the capacity creation in private industry seemed to have declined. That is, the proportion of the already slowly expanding company sector and income spent on new capacity has been declining, if we exclude insurance, banking and financial business service and the installment of plant and machinery to exploit U.K.'s oil reserves. We can conclude that the levels of investment activity in most parts of U.K.'s private industry has in relative terms, i.e. proportionately followed the decline of its growth rate since the early 1960's or, to put it less strongly, has not substantially increased. Even the rise in s for the company sector as a whole does not necessarily indicate a major increase, because it is measured in relation to a declining growth of income.

2.2.2. Determinants of investment activity -- the construction of an investment decision equation

Table 2.2. confirms the hypothesis that capacity creation in industry (particularly in manufacturing) was falling between 1965 and 1975 and was therefore incapable of generating enough new jobs for all those made re-

inadequate rationalisation. Hence the elements of structural weakness derived from early industrialisation and inadequate subsequent readjustment in the U.K. seem to focus less on insufficient concentration in industry or on a disadvantageous product mix across sectors. Instead the key problem, historically speaking, in terms of adjustment and reorganisation is to be found within the organisation of production itself. Small production runs, lack of integrated production facilities and an overly fragmented range of products resulted in competitive disadvantages, when compared with the frequently more centralised and rationalised industrial activities in other countries.

2.3.2.4: Capital Vintage: C.F. Pratten (1976, p. 41) stressed the older vintage of factories and plants in the U.K. in comparison to the U.S.A., West Germany and France. A special problem here is the predominance of old, multi-storey as opposed to new single-storey factories. The consequences of this old type of industrial buildings are more difficult production control, higher stocks and overhead labour requirements and less use of automated production control systems. Furthermore, U.K. companies seem also to have been slower in adopting "Best Practice Techniques" and in achieving possible technical improvements by scrapping machines that are still technically serviceable but already technologically obsolete. This was especially true in labour-intensive sectors, because the cost of labour relative to capital equipment was so much lower in the U.K. than, say, in Germany, France or the U.S.A. An important argument concerning the slower technological change and inefficient use of new equipment (with more modern machinery being installed without significant improvements in productivity) is the "defensive investment" hypothesis of A. LAMFALUSSY (1963, pp. 105). He argues that the U.K. has been more than other countries characterised by an existing prewar inheritance of old plant which did not have to be replaced or rebuilt after the war. This combined often with low post-war rates of investment in new plant and machinery. And consequently modernisation investment was basically "defensive" and usually involved wedding of relatively small units of new equipment to old-fashioned blocks of capital. The findings of BACON and ELTIS (1974) that the service life and average age of U.K. machine tools are, over a wide range of different types of machine tools, the same as in the U.S.A. are therefore incomplete, as they abstract from the persistence of old plant. The resulting complementarity between old plant and modern equipment was often an alternative to large-scale changes of production facilities and techniques and prevented more fundamental rationalisation. New equipment

was therefore not always efficiently used.

2.3.2.5: Management Inefficiency: The failure of U.K. firms to reduce product differentiation, achieve larger production runs and use new equipment more efficiently points to behavioural aspects as an important element of structural weakness underlying the persistently low level of production efficiency in the U.K. This has become a matter of increasing concern for scholars and policy-makers analysing the growth constraints in U.K. Industry:

> "...whatever combination of influences adversely affects the performance of United Kingdom industry, their widespread nature does suggest that there may be evidence of some deep-rooted malaise: some combination of attitudes, expectations and tastes that 'locks' United Kingdom industry to its present position." (A. Mueller, (1977, p. 264))

More often than not the emphasis on such 'behavioural aspects' in explaining UK's economic problems and weaknesses is used as a pretext for demands to curb the power of the unions. According to D.PURDY(1976A,pp.271-274) the strength of UK's labour movement derives from its comparatively deep historical roots, from having escaped repression and destruction in the 1930's (and the post-war reconstruction in highly centralised structures under moderate leadership, as in Austria, West Germany or Scandinavia), from not having to experience the political divisions of the unions in France, Italy, Belgium or the Netherlands or the difficulties associated with a minority position of the urban industrial working class and with an ethnically and racially heterogenous labour force, as is the case in the USA. But the probably most important characteristics of the UK labour movement are its unique system of shop steward organisation and workplace bargaining and the decentralised structure of its unions. Both C.F.Pratten(1976, p.53-55) and L.ULMAN(1968,pp.352-5) comment upon the power of shop stewards in the UK to conduct plant bargaining in order to drive pay above nationally agreed wage rates ("wage drift") and to force management into negotiating work procedures and job specifications with regard to labour mobility, manning levels for different types of work and new technology, speed of operations, and demarcation between unions (to protect especially the smaller craft unions). To conclude from this, however, that unions are the main force behind inflation or prevent more efficient organisation of production, is one-sided and simplistic. D.JACKSON, H.A. TURNER and F.WILKINSON (1972) have shown convincingly how

an improvement in production efficiency, that process of industrial decline is self-reinforcing. Consequently we conclude that to break out of this process requires fundamental changes within industry so that efficiency can be improved and investment activity increased. In the following chapters we will examine the development of industrial policy in the U.K. since the mid-1960's and in particular examine the impact and limitations of measures within this branch of economic policy in bringing about sustained improvements in the production conditions of private industry.

PART 2: THE EVOLUTION OF INDUSTRIAL POLICY IN THE U.K. BETWEEN 1964 AND 1978

INTRODUCTORY NOTE

In Part 2 of our thesis we discuss the evolution of policy measures in the U.K. which were designed to tackle the problems within private industry as outlined above in Ch. 2. We begin our discussion in Ch. 3 by defining these measures through the concept of "industrial policy." We then proceed to explain why policy-makers began in the early 1960's to accept the need for a more active role of the state in the promotion of economic growth. This reassessment of priorities and scope of economic policy in the period of 'indicative planning' between 1960 and 1966 led to a transition in the U.K. from purely macro-economic demand management towards state intervention in the private sector equipped with new types of economic policy. At the end of Ch. 3 we assess this development in terms of its significance for the introduction of first industrial policy measures after 1964.

In Ch. 4 we differentiate, in correspondence with the intentions of policy-makers when introducing such measures, between various areas of intervention and objectives of industrial policy. More specifically, we categorize industrial policy measures as either a) aiming mainly at an increase of investment finance within private industry, b) attempting to accelerate the restructuring of specific industries or firms, or c) promoting technological change and innovative activities throughout the private sector. Within each of these categories we analyze relevant measures individually with regard to their underlying objectives, actual implementation, and relation to other previous and current policy initiatives. Special emphasis in these analyses of single measures is laid on assessing their impact on industry and on the continued development of industrial policy. (The case-studies in Part 3 will provide us with an opportunity to deal much more extensively with this task).

The structure of our analysis in Ch. 4, and particularly the grouping together of measures into different categories according to common objectives, reflects the expansion of industrial policy under the Labour Government 1964-1970. During that phase policy-makers undertook a number of initiatives to improve the liquidity position, the industrial structure and the application of new technology within many sectors of private industry. But at the same time policy-makers relied often on relatively limited mea-

sures with narrowly defined aims and conducted industrial policy without formulating any explicit strategies beforehand or attempting any overall coordination of policy measures in the course of implementing those. The repeated expansion of measures beyond the initial intention of the government and the constant need to introduce additional means of public assistance and/or control underscored, in our view, already in the late 1960's the necessity for a more extensive and integrated policy of state intervention in private industry.

In Ch. 5 we discuss how industrial policy developed gradually during the 1970's from its initially frequent reliance on experimental 'ad hoc' measures with limited objectives into an autonomous and increasingly integrated branch of economic policy with its own range of government institutions. Whereas we will already have discussed in sec. 4.1 (investment finance) and sec. 4.3 (science and technology), how industrial policy has been strengthened during the 1970's within specific areas of intervention, we turn our attention in Ch. 5 to those central policy initiatives after 1971/72 which were intended to tackle a variety of problems simultaneously across a wide range of industries within the private company sector: the Industry Acts 1972 and 1975, and the Industrial Strategy after 1975. This extension of industrial policy must in our view be understood as a consequence of both the rapid deterioration during the 1970's of private industry's production conditions (as characterized and analysed above in Ch. 2) and the experience gained by policy-makers from the successes and failures of previous intervention in the 1960's.

In Ch. 5 we also point out that this expansion of industrial policy took place amidst intensified political controversies concerning the extent of state intervention in the economy. In sec. 5.1 we analyse the attempts of the Conservative Government after the 1970 elections to 'disengage' the state apparatus from private industry. The failure to carry out this strategy and its subsequent reversal, which restored a high degree of state intervention, are to us clear proof of the need for industrial policy as a politically justified and potentially effective framework within which remedial measures can be formulated to deal with problems in private industry. In sec. 5.2 (and again further below in the case-study on the National Enterprise Board in Part 3/ Ch. 7) we have to conclude, however, that the radical proposals for more far-reaching and powerful means of state intervention and public control in private industry, which became official policy of the Labour Party in 1973/74 and were to be implemented after Labour's election victories in 1974, failed to materialize in the face of

widespread opposition among industrialists, financial institutions and more moderate or conservative politicians. Judging from the actual evolution of industrial policy between 1964 and 1978, it seems clear that both parties were despite major ideological and political differences forced to adopt similar policy measures. In the face of growing economic difficulties in the U.K. both parties had to expand the scope of industrial policy. At the same time opposition from within industry prevented either party from successfully carrying out a policy course in line with its own ideological preferences. Any ultimate conclusions concerning the effects of industrial policy in private industry (as attempted in Part 4/Ch. 8), which may lead to arguments for either less or more state intervention, will therefore have to take account of these existing pressures on policy-makers. Whether determined economically or politically, such pressures are likely to reduce any government's ability to adopt policies of its own choice.

CHAPTER 3: DEFINITION OF "INDUSTRIAL POLICY" AND ITS INTRODUCTION IN THE CONTEXT OF U.K. POLICY-MAKING

3.1. A note on attempts at definition in the existing literature

With the growth of state intervention in private industry during the 1960's and 1970's the body of literature on the relationship between state and industry has expanded considerably. At the same time the concept of "industrial policy" has neither become widely established, nor has it been, up to now, adequately and precisely defined. The basically institutional analyses (for example, E. MOONMAN (1971), E. DELL (1973), N. ABRAHAM (1974), A. KNIGHT (1973)) consider Government and Industry as two different organisational systems. Each is analysed in terms of its own objectives, mode of operation, and historical development. Then common interests, mutual interdependencies and the historical decline of "laissez faire" are more closely examined as factors responsible since the inter-war period for the experienced growing intensity and scope of interrelation between these two entirely different institutional structures. Each of the authors mentioned proceeds with concrete case-studies to show the contradictory nature of this relationship which, while being essentially one of mutual dependency, is frequently dominated by conflicts of interest.

Their institutional perspective allows only a description of the most apparent developments in industry which on such a level of generalisation

are valid for other economies as well. They abstract from any problems peculiar to U.K. industry. Furthermore, neither Abraham (1974) nor Moonman (1971), for instance, use the term "industrial policy" at all. Instead they prefer the more general "Government intervention/involvement in industry" or "Government-Industry relation", referring usually to a wide range of government activities, including education, arbitration in industrial relations, fiscal and monetary policies, and so forth. Only Dell (1973, pp. 46) actually introduces the concept of "industrial policy," but defines it so widely and vaguely, as to include almost the whole range of government policies affecting industry.

The so-called economic liberals concentrate their writings on a strong defence of the "free market" economy and are consequently principally opposed to any extension of government activity in the economy.(1) To varying degrees they may acknowledge the existence of market imperfections, such as oligopolistic market structures, which justify limited government activity to safeguard the "public interest." But any extension of state intervention in industrial affairs beyond that is usually, as in S. Brittan (1971, pp. 19-20), assumed to be either politically motivated, unfairly discriminatory or aggravating the situation by preventing the market forces from properly functioning. To use and elaborate on the term "industrial policy" implies the acknowledgement of contradictions and problems that cannot be resolved by private industry and the market mechanisms alone. The term is therefore beyond the scope of and in opposition to the rationale of "economic liberalism."

At the other end of the political spectrum are those arguing the case for a transition to socialism, often on the basis of contradictions, irrationalities and injustice within the capitalist type of market economy. In their view direct state intervention in industry is a vitally important part in any overall transition program.(2) They all stress, for example, the potential of recently introduced industrial policy tools, such as the National Enterprise Board (NEB) and Planning Agreements, for any such transformation and regeneration of industry. But despite its key role in their programs "industrial policy" once again does not exist as an established concept. Instead, the use of alternatives, such as "socialist planning strategy" in S. Holland (1975, Ch. 8), "industrial strategy" and "democratic planning" in A. Benn et al. (1975), and "planning" in M. Ellman et al. (1974, Ch. 3), reflects the emphasis on an all embracing program to transform the economic system governing U.K. industry.(3) "Industrial policy" in this context is clearly seen as too restricted a concept

in as much as it refers to a more narrow sphere of intervention and basically implies measures within the given confines of the existing system.

The only group of literature to explicitly introduce definitions of "industrial policy" is the one dealing with specific phases or measures of that policy.(4) But these "partial analyses" (of measures and/or phases) do not usually look at the development of industrial policy as a dynamic process over the last 15 years. They therefore ignore the connection between various measures, as experience led to more refined and/or stronger policy initiatives. Moreover, they lack an overall assessment of industrial policy, while in some cases there is not even a conception of "industrial policy." F. BROADWAY (1969) refers, for instance, only to "intervention" or "interventionism" and as a sub-category to "policies towards capital investment, industrial structure and technology." The various articles in R. Caves (ed.) (1968) separate different parts of industrial policy and discuss these without a single reference to an overall "industrial policy." Thus fiscal policy, "specific interventions in industry" (p. 317), or policy on science and technology are all terms used to cover specific industrial policy measures.

Other authors in this category use "industrial policy" in a very general sense, including regional, manpower, competition and other policies affecting private industry in the widest sense. Such a broad interpretation of the concept, as for example used by A. SKUSE (1972), or OECD (1971), disregards important characteristics of each specific policy in terms of objective, type of policy tools and measures, administration and implementation. It is much too general and superficial to be of any use for our purpose which is to discuss a specific range of measures that all have as a common objective the removal of growth constraints within private industry's production conditions.

The few, more specific definitions of industrial policy, such as in S. Young (1974, p. 16) and A. Graham (1972, p. 182), that are confined to a narrower range of measures, are neither based on nor related to any theoretical framework or empirically tested hypotheses about the major difficulties inherent in private industry. There is consequently no explanation why these policy measures were necessary or how they could be of help in solving industry's problems. Furthermore, without a theoretical basis it is difficult to assess the impact of various measures within industry. They are no more than descriptive ex-post definitions arrived at by simply looking at different measures after they have been introduced and summing up their respective objectives.

This brief comment on the existing literature covering the subject of state intervention in industry points to the need of a more comprehensive definition that is related to an underlying analysis of industry's major internal difficulties or short-comings. Only on that basis can the objectives and effects of industrial policy be evaluated.

3.2. Industrial policy defined

In Ch. 2 we investigated the main factors within private industry which constrained the achievement of higher growth-rates and international competitiveness. The state will not only be concerned with these factors, because of the Government's social and political obligations to ensure full employment, price stability, higher personal income, the generation of wealth, better regional balance, and so on. Nor will the state only intervene, because the balance of payments and the capacity to finance public expenditure depend both ultimately on the strength of private industry. In addition to all these considerations state intervention in industry becomes necessary, because individual firms themselves are often incapable of carrying out the necessary remedial action on their own. They may lack the required framework of planning to carry out large changes because of the predominance of more short-run profit considerations. They may not have the financial resources, the technical knowledge, or the organisational capacity necessary to take steps that would improve performance. Such steps may involve considerable risks and/or costs which firms may be unwilling or incapable of facing. Or the problems they face may be beyond the scope and influence of individual firms, such as limited access to external finance, bottlenecks and delays in sectors that supply industry with essential goods and services, or unfair practices by foreign competition. For all these specific reasons the state validly intervenes in the interests of private firms.

Industrial policy is one specific part of state intervention in private industry. It can be defined in relation to the previous chapter's analysis of supply-side determinants of growth. In reference to that theoretical and empirical framework industrial policy comprises all those measures by the state that are explicitly and directly concerned with improving the production conditions within private industry and aim to influence management decision-making in this direction.(5)

More specifically it includes measures that will: a) try to improve the provision of internally generated funds for the purpose of investment

(such as double taxation of dividends, investment incentives); b) increase the supply of external investment funds (for instance, through the state offering grants, loans, equity participation to private companies); c) improve business confidence (such as government purchasing policies assuring firms of sales, risk-sharing through joint ventures between the state and private firms); d) change the structure of industry to facilitate the achievement of economies of scale and/or growth (promoting mergers and sectoral reorganisation towards a more rational structure of a particular industry, taxing employment in some sectors, whilst paying premiums for employment in others); e) accelerate reorganisation of a particular firm by promoting rationalisation, financing modernisation and expansion of production facilities, facilitating the cutting down of product ranges, lengthening production runs, integrating the flow of production processes, improving management techniques and pushing for changes in the management personnel; in other words, deal with the organisational aspects of production efficiency; f) support the improvement of production technology and its application in industry, the promotion of product development, design and quality, and the expansion of "high technology" industries.

All these objectives concern increasing investment activity and/or production efficiency as preconditions for higher growth and improved international competitiveness. They all are designed to tackle identified problems within U.K. industry's production conditions. Industrial policy can therefore be viewed as part of supply management at the more disaggregated level of sectors and individual firms. We confine ourselves here to measures directed at the private sector only, even if these lead to the eventual take-over of private firms into public ownership. We exclude the traditional nationalized industries because of the wider scope of state regulation and different modes of operation in these activities (for ~~example, as licensed monopolies, or with considerations that~~ are predominantly non-commercial).

Although most measures have more than one of the objectives specified above, we can group and classify them according to their principal objective into the following categories: general investment finance (see a) and b) above), industrial restructuring (see c) to e) above) and science and technology promotion policy (point f)). As a form of direct state intervention in private industry the following problems concern industrial policy and determine its effectiveness: a) the expansion of the state apparatus to carry out such a policy; b) the gathering and processing of information to form a picture about the extent and type of problems that

need to be tackled and about the priorities expressed by representatives of industry; c) the formulation of policy measures that are adequate and effective responses to problems and expressed priorities, and the learning from experience by the state authorities as a method of policy improvements, d) the degree to which measures contain powers to influence and direct decision-making in private firms; e) the need to control and monitor progress in industry after use had been made of measures; f) the possible opposition and resistance by private firms to industrial policy which they may consider to be "outside" interference; g) the coordination of measures within industrial policy and also with other policies not only to maximize the overall effectiveness of economic policy and its flexibility, but also to avoid policy contradictions; and finally h) the extent to which industrial policy can be applied selectively, so as to differentiate between and correspond to the specific characteristics and needs of a firm's or a sector's production conditions. Each of these problems has played a major role in the evolutionary process of industrial policy. And each will contribute to the failure or success of any particular initiative in this area of policy-making.

With this preliminary clarification of the concept of "industrial policy" we can now proceed to discuss its application in the form of different measures. But before that we will briefly deal with the international dimension of industrial policy in as much as it concerns policy-making in the U.K.

3.3. The International Dimension of Industrial Policy

Industrial policy has a much longer tradition and is more extensively applied in other countries, whilst in the U.K. this policy has only been fairly recently developed in response to unsatisfactory performance and growth in industry. In countries such as Austria, France and Italy, rapid growth of industry has resulted at least partially from the extensive involvement of the state in the private sector since the end of the war.

In Austria, for example, consistently high growth rates and investment activity with expansion mostly in growth sectors and a strong export position have been achieved largely on the basis of successful development and marketing of specialized products. This strategy had been made possible by the combination of a very centralised and strongly state-controlled financial sector, a large public sector run strictly along

commercial lines, State-funds for specialised and applied R&D, and in particular the very active public share-holding agency OelAG.

Italy has the most developed system of public share-holding agencies and industrial development banks. IRI was founded in 1933 and, together with ENI, established in 1954, was until the late 1950's mostly concentrated in basic industrial and natural-resources sectors. But its success in running its industries profitably allowed its gradual extension into building up import-saving and export-oriented growth industries or advanced technology sectors, such as communications equipment, computers, nuclear power plants, cars, aerospace. IRI has also been engaged in countercyclical investment activity during recessions (in particular between 1968 and 1971) and in bringing major investment projects to the less developed South. It has increased competition in otherwise extremely concentrated sectors, such as cars where it took over Alfa Romeo to challenge Fiat. It has also acted to prevent foreign take-overs in the food-processing and nuclear engineering industries. ENI was initially formed to secure Italy's autonomy in the energy field. It was responsible for the exploitation of natural gas in Italy and for the importation, refining and distribution of oil and petroleum products. Later it expanded into other sectors, such as the textile industry. GEPI, created in 1971, is primarily a state-holding agency providing funds and organisational support for smaller and medium-sized firms in financial difficulties.

"Planification" in France has given the state apparatus wide central powers over industry to direct and distribute industry's investment activity both sectorally and regionally. Until the early 60's this has been successful in reducing industrial backwardness through very rapid expansion. During the last 10 years industrial policy efforts have initiated large-scale restructuring and modernisation in several key sectors, such as iron and steel. In addition "national champions" have been created through centralisation of production into one or two giant companies in high-technology growth sectors such as computers, aerospace and nuclear energy. The French state also extended its control over direct investment of foreign multinational companies through state-supported joint ventures of these with French firms.

These few examples indicate that industrial policy is by no means an isolated phenomenon in the U.K., but has been applied even more widely and earlier in other countries often with noticeable success.(6)

A. WHITING (1976, p. 46) points out rightly that because of each country's specific industrial environment measures, which were successful

in one country, might not work anywhere else. Despite this limitation on the standardised use of policies across borders, industrial policy in the U.K. has been affected by measures being carried out elsewhere. For example, the success of "planning" in France in the late 1950's was partly responsible for the adoption of "indicative planning" in the U.K. during the early 1960's. The extensive range of activities and intervention possibilities of para-governmental agencies acting as holding companies or industrial development banks in other countries certainly influenced to some extent U.K. policy-makers when they designed and then set up the National Enterprise Board (NEB) between 1973 and 1975.

Apart from specific measures in certain countries U.K. industrial policy is increasingly also affected by the initiatives of the EEC-Commission. Despite the considerable powers given to the EEC Commission in the Treaty of Rome the EEC had made very little progress over the last 20 years. Its most serious constraint has been the principle of having to approve all major policy decisions of the EEC Council of Ministers on a unanimous basis rather than by majority vote. This has not only blocked many initiatives, but has made it nearly impossible for the EEC to move against the national interests of any member state. But recently, and again as a result of the international recession, the EEC has become more active and capable of undertaking its own industrial policy initiatives, especially since the EEC Industry Directorate has now been upgraded. Under the new leadership of Industry Directorate Davignon the EEC Commission has been active over the last two years in setting up so-called "crisis cartels" in sectors which suffer in all member-states from long-run excess capacity and losses. These were made possible, because the overcapacity in those sectors threatened each member and its companies in the wake of massive losses and price-cutting. These cartels usually contain agreements by all EEC-firms covering specified price and production levels, intra-EEC trade levels, quotas against imports from outside into the EEC, capacity reduction or limitations on expansion by firms, and sometimes even detailed outlines of major readjustment plans or proposals. The EEC Commission not only initiates, but also monitors these agreements, and can impose fines and other sanctions in case of violation. Such cartels now exist in synthetic fibres and steel, while similar proposals are currently in progress for shipbuilding and chemicals (especially plastics and base petrochemicals).

With increasing competitive pressure from Japanese and U.S. companies and because the scale of operations is moving more and more beyond the capacity of individual national firms, the EEC Commission has recently

ing the 1950's was almost entirely carried out by the Treasury-Bank of England nexus, reflecting the lack of any policies other than fiscal and monetary ones. As a result the economic policy priorities were strongly biased towards reflecting the interests of the financial sector to make the currency convertible, attract foreign depositors through high interest rates and a strong exchange rate and react with adequate policies against balance of payments deficits and/or international speculation, if those threatened the stability of the currency. In this way the international importance of the City as a world financial centre and of the sterling as a world reserve currency could be maintained.

We have already mentioned above in sec. 2.2.4. the institutional separation and conflict of interests between private industry and the City as one element of structural weakness in the U.K. economy. This element was extended into policy-making. In the interests of the City periods of deflation were necessary in an attempt to contain inflationary pressures and to prevent balance of payments crises from undermining confidence in sterling. These were regularly interrupted by short-lived reflations to maintain high employment and to increase the government's popularity with the electorate before elections. These "stop-go" cycles underscored, however, the inadequacy of the state apparatus and the lack of committment on the part of policy-makers to tackle the underlying problems in industry. They also involved frequent policy reversals, a committment to keep the domestic level of interest-rates above that of other countries to attract depositors from overseas and an exchange-rate which in the interest of maintaining a "strong" currency led to cheapened imports and inflated export prices. The combined effect of all these consequences of "stop-go" policy was positively harmful to industry. As pointed out by J.C.R. Dow (1965, pp. 207-211), even depreciation allowances, company taxation and conditions of borrowing from banks, which all affect investment finance, underwent frequent alterations as part of the "stop-go" cycles.(9)

In 1960 pressures to alter this policy began to build up. The return to full convertibility of the currency in 1958 had been accompanied by three years of demand deflation. During that period other European economies had expanded very rapidly. France, in particular, had been successful after establishing a system of "indicative planning". In the wake of yet another deflation the Federation of British Industries (the predecessor of the CBI) urged the Government in November 1960 to adopt a policy with growth as the top priority and within a "planning ahead"-framework to avoid rapid switches of policy. This position was reinforced by a re-

port in 1961 of the influential and usually conservative Council on Prices, Productivity and Incomes. The failure of exports to rise despite depressed demand conditions at home and buoyant world trade in 1960/61 and the sterling-crisis of July 1961 followed by additional deflation finally forced the Government to consider an alternative to its policy of reactive, destabilizing, short-run "stop-go" measures.

After exhaustive discussions with representatives from industry, including the TUC, the National Economic Development Council (NEDC) was finally set up in 1962 as a "planning bureau". The structure of the NEDC included a) the Council as the central tri-partite communication forum to formulate the overall direction of policies, b) the sector-specific and equally tri-partite Economic Development Committees (EDCs) to study particular problems and growth conditions of industry on a sectoral basis, and c) the Office (NEDO) to carry out research work and act as a counter-weight to the Treasury. The NEDC-framework has since then managed to act as a communication network between industry and government ensuring an ongoing and continuous dialogue between all parties concerned. As such it also became the principal body within the state apparatus to gather information on the problems of industry and the specific constraints, weaknesses and needs of different sectors within industry. At the time of its establishment it filled a major gap in the state apparatus which up to then had not been equipped to carry out analyses of industry's activities in order to develop policy measures in response to identified difficulties. The NEDO thus opened up the era of "indicative planning" in the U.K. After setting a growth target of 4% p.a. with approval from the Government, industrial inquiries were carried out in various key sectors to study the implications of the growth target in the production sphere. These inquiries were subsequently expanded into EDCs and were thus given a more permanent existence. On the basis of this concerted effort to analyse the underlying difficulties of U.K. industry it published its first report, NEDC (1963 A), which was subsequently supplemented by NEDC (1963 B), containing policy recommendations with regard to such matters as education, labour mobility, taxation, balance of payments, regional development, etc. Subsequently NEDC (1964) dealt with ways to increase exports. Although the Government did not commit itself to carrying out any of the proposals of NEDC's "Plan", the latter had some limited impact on economic policy-making. The 4%-growth target was accepted marking a shift in policy priorities towards growth followed by demand reflation. The Board of Trade responsible for sponsoring private industry was strengthened and

thus became the first inside-challenge to Treasury-Bank of England control over the formulation of policies within the state apparatus.(10)

3.4.2. The National Plan

Labour's election victory in 1964 ensured a significant expansion of "indicative planning". Even before the NEDC-structure was set up, Labour had undertaken a first commitment to planning in H. WILSON (1961). In H. WILSON (1962) and T. BALOGH (1962) it had attacked NEDC's "plan" as too weak, too general, and ineffective because of lack of government commitment to specific policy actions. Economists and businessmen sympathetic to Labour Party policies argued, as for example in T. BALOGH (1963), LORD SAINSBURY (1964) and R. HARROD (1964), for a more extensive form of "planning" carried out by the Government itself with a commitment to undertake specific actions. And in a series of pre-election speeches the Labour Party developed a comprehensive "new policy" program around a "plan" which included support for science and technology, incomes policy, and incentives to accelerate modernisation of industry.

After the election the necessary changes in the state apparatus were carried out in order to diversify the process of economic policy formulation beyond the Treasury. The Department of Economic Affairs (DEA) was set up to carry out the planning exercise, the Ministry of Technology (Min Tech) was created to promote science and technology, and incomes policy became the responsibility of the new National Board for Prices and Incomes (NBPI). Using the NEDC-structure and the concept of Industrial Inquiries to study on a sectoral basis the likely consequences and problems of trying to achieve a specified growth target, the DEA finally published in September 1965 the "National Plan" (see DEA (1965)) as the climax of these "planning" efforts.

On the basis of a growth target of 3.8% p.a. for 1964-70 the Plan set sub-targets for investment, productivity, exports, etc. The findings of the Industrial Inquiries formed the basis for specific policy initiatives, summed up in a "check list of actions" (pp. 17-21). Each particular set of policies, such as manpower policy, investment, prices and incomes policy, measures to contain the balance of payments problems, regional policy, was then dealt with in separate chapters. Part Two of the Plan contained the Industrial Inquiry Reports on different sectors.

Although the Plan was to be only a relatively short-lived exercise and considered as such a failure, it was in retrospect nevertheless an important step in the evolution of industrial policy in the U.K. It pro-

vided the first detailed and sectoral inquiry by Government into the problems of private industry and identified in DEA (1965, pp. 44, pp. 55, 62-64) the lack of adequate investment and of industrial efficiency as key constraints on growth. It concluded the accelerating shift away from the previous economic policy of "stop-go." As an alternative to sole reliance on fiscal and monetary policies it proposed the expansion of the state apparatus and range of new economic policies to allow for direct and selective state intervention in private industry, with higher economic growth as the top policy priority. The Plan thus prepared the ground and acted as a catalyst for the actual carrying out of new types of policy, such as incomes, manpower, regional, and industrial policy, after 1964/65. The measures proposed in the Plan and subsequently introduced had a life-span beyond that of the Plan, and in many cases they formed the basis for continued expansion and refinement of policy-making.

But the Plan also had serious shortcomings. Its insights into the depth and complexity of industry's problems were admitted to be limited. This is why it emphasised the need for further EDCs to be set up in many more sectors in a fact-finding and policy-recommending role (p. 44ff). The whole question of inadequate investment levels, for instance, was dealt with only in relation to external constraints (regional balance, other demands on resources, output target) without analysing the internal conditions determining investment decisions, as done in Ch. 2 (see p. 55).

The Plan had neither a fully worked-out strategy nor a defined concept for industrial policy. Its various areas of intervention (see our definition in sec. 3.2.) were treated by the Plan in isolation from each other without connecting them into an overall approach. Instead areas, like efficiency in industry, technological change and investment, were understood and rationalised solely in relation to external factors, such as the need to reduce the balance of payments deficit. While there was general agreement that efficiency, capacity utilisation or the industrial structure all needed to be improved, there was no attempt to analyse why these were unsatisfactory in U.K. industry.

In addition policy recommendations were mostly expansions of already existing policies or leaned on already previously developed ideas. "Indicative planning" itself was borrowed initially as an idea from France and then institutionalised by the Conservatives. Labour only expanded it. The same was true for the NEDC and its EDCs which it had inherited from the previous administration, but which had been unsuccessfully proposed as early as 1948 (see footnote 8). The proposed Selective Employment Tax (SET)

can be traced back to a discussion on a payroll tax in 1961. With regard to investment incentives and company taxation the Plan proposed only reforms of already established systems.

The really innovative initiatives, which in the coming years became the central parts of industrial policy, were at this stage (1964/65) still only very vaguely formulated intentions. The policy towards science and technology, although often mentioned, relied in this early phase mostly on expanding the resources of already existing research bodies and on reducing defence R&D in favour of civil R&D. The Government had at that point already set up Min Tech, but had only given it largely co-ordinating and information providing powers, while keeping its intervention powers in specific industries initially to a minimum. The phenomenal expansion of Min Tech's influence and range of intervention began only after mid-1966. The IRC, after 1966 the centrepiece of industrial policy, was confined to a very short and vague reference in the Plan (p. 49).

Not surprisingly, the Plan did not define the concept of "Industrial Policy." The term is used only in reference to measures relating to import substitution, standardisation, rationalisation and export promotion (pp. 46-48). Measures aiming at an increase of overall investment activity were excluded and instead termed "investment policy" (pp. 62-64), while science and technology-related measures were also seen as distinct from industrial policy (pp. 48-51).

The most widely discussed criticism of the Plan addressed the nature of "indicative planning" itself. Such a method of planning gave the Government neither sufficient powers of implementation nor controls to determine decision-making in private industry and thus ensure the realisation of the planned targets. Instead the Plan merely "indicated" to industry how much investment was required and which bottlenecks had to be overcome in order to achieve the growth target. Unlike "regulatory planning" the Plan's only powers lay in persuasion, in the creation of confidence and in raising expectations designed to produce a change of attitude within industry. From this should follow efforts to achieve a higher growth rate. Industrialists, however, did not have to commit themselves to any particular action and were free to ignore the Plan altogether. It was therefore not surprising that up to 1970 none of the targets (except productivity) were actually met -- a clear indication of the limited impact of merely Indicative planning on industry.[11] The Government itself abandoned the Plan de facto in July 1966 when another sterling crisis led once again to the adoption of deflation measures. These buried any remaining hopes of

achieving the Plan's growth target.

The real importance of the Plan was not in terms of its direct results. As the climax of the "indicative planning" era as a transition period of change in economic policy-thinking the Plan's historic significance was that it spelled out the Government's commitment to implement for the first time new forms of policy, including industrial policy, which from then on became significant features of overall policy-making.(12)

CHAPTER 4: THE AREAS OF INTERVENTION AND OBJECTIVES OF INDUSTRIAL POLICY

Our analysis in Ch. 2 of the production conditions in U.K. private industry identified the lack of adequate levels of investment to carry out large-scale modernisation and capacity expansion and the existing limitations on efficient organisation of production as two main problems with adverse consequences for domestic growth and international competitiveness. Defining the concept of "industrial policy" as a series of policy measures designed to deal with these problems and the underlying factors that cause them, we distinguished in sec. 3.2. such measures according to their specific objectives to assist private companies in their attempts to improve their respective production conditions in different ways. We concluded that industrial policy measures focused either on (internal or external) investment finance, industrial restructuring (of single firms or whole sectors), or more rapid and widespread application of new technology in production. In all these areas of intervention policy-makers will aim to introduce measures which are expected to have a beneficial impact on business confidence and thus influence managerial decisions in a desired direction. This latter objective has, as we shall see in the following sections below, frequently been a major factor in determining new policy initiatives and their particular form and content.

Such categorisation of industrial policy according to objectives not only serves the purpose of structuring the arguments of our analysis, but reflects also the actual evolution of the policy during the 1960's. As pointed out in sec. 3.4.2., the Labour Government did not start out with an integrated concept of "industrial policy," nor did it present in the National Plan of 1965 a coherent and coordinated strategy of direct state intervention in private industry. Instead the Plan proposed sets of measures to deal separately with the problems of industrial restructuring and efficiency, investment activity, and technological change. Consequently

policy initiatives after 1965, reflecting this lack of coordination and this degree of separation, remained in their initial stages of implementation confined to either one of these categories, as discussed more extensively in Ch. 4 below. The development of industrial policy towards more far-reaching measures with multiple objectives that cut across these categories was therefore a gradual process. As pointed out in Ch. 5, it did not fully materialise until the Industry Act 1972 , although the establishment of the Industrial Reorganisation Corporation (IRC) in 1966 and the enactment of the Industrial Expansion Act 1968 were major steps in this direction. This is why we discuss in Ch. 4 the various industrial policy measures of the 1960's and their succeeding initiatives and modifications during the 1970's in separate categories according to their different objectives, while focussing in Ch. 5 on the expansion of industrial policy since 1972 through multi-objective measures.

4.1. Measures to increase investment finance

4.1.1. Labour's Reforms 1965/66

The measures to increase sources of finance are confined in their objective to raise the amount of funds available to private firms and to influence corporate decision-making by linking the level of benefits to expenditure on fixed assets. These measures consisted up to 1964 principally of: a) changes in the level and in the structure of profits taxation to increase profit retention as a form of internal investment finance; b) depreciation allowances which allow firms to set a specified amount of their investment expenditure against their taxes;(1) c) the supply of funds for investment projects in industry through financial institutions, namely the ICFC and the FCI, which were partly owned by the Bank of England and were thus only to a limited extent policy instruments.(2)

One of Labour's first initiatives after 1964 in the area of industrial policy aimed at a substantial reform of these measures. In April 1965 the previous system of taxing profits through a combination of the income tax at the standard rate and a profits tax was replaced with a new Corporation Tax. Under the previous system any change in the income tax also affected company taxation and had to be compensated by a change in the profits tax. With the new tax wage-earners and companies were taxed separately which was seen as a step towards potentially greater distributional equity and simpler administration. But more importantly, the re-

form was to encourage the retention of profits by double-taxing dividends. With industrial investment in the U.K. mostly self-financed such a move was intended to raise the proportion of internally generated funds available for investment expenditure.(3)

Between April 1958 and April 1965 both retained and distributed profits had been taxed at the same rate which before the 1965 reform had stood at 53.75%. With the new Corporation Tax retained profits were only to be taxed at 40%, while share-holders had to pay twice for dividends received: 40% corporation tax plus the income tax standard rate of 38.75% on the remaining 60%, giving a tax total of 63.25%.

The objective of this new tax, namely to lower industry's pay-out ratio and to encourage a larger retention of profits, seems, however, not to have been met. Empirical evidence suggests that dividends were not lowered. They continued to grow between 1964 and 1969 by about the same amount as undistributed income before depreciation and stock appreciation. The only major effect of the tax differential might have been to redistribute post-tax profits to firms with a low pay-out ratio that were growing rapidly and needed high profit retention to finance their capacity expansion.(4)

The 1965 Reform also abolished tax exemption for overseas profits in order to discourage U.K. firms from investing abroad. In isolated instances this might have instigated companies to expand domestic capacity as an alternative to overseas investment, as was for example the case with the British Aluminum Corporation's decision in 1968 to build an aluminum smelter in the U.K. Combined with the old and at that time still operating system of allowances the new Corporation Tax at 40% reduced the value of investment incentives because of the lower tax liability base. Hence, while profits were taxed at a lower rate, the incentives to invest in the form of allowances at any given rate declined as well, because there was less profit tax to deduct them from. Only when the Labour Government completed its reform in January 1966 by replacing investment allowances with Investment Grants were the benefits to industry restored to at least previous levels (see D.E.A. (1966)).

Although the grants were set initially at a level (national rate of 20% of capital expenditure incurred), which in absolute terms did not yield noticeably larger benefits to industry, they were for a number of reasons designed to make the incentive system more effective. First of all, many firms did not take investment allowances into account when deciding where and how much to invest. This is clearly a consequence of management ineff-

to the Board of Trade (and later Min Tech) of information on the project for assessment. Sec. 8(5) entitled the Government to authorise inspectors with power to enter and inspect any premises where the asset in question was supposedly installed. And Sec. 8(6) regulated offences, proceedings and fines. Thus the grants increased the degree of monitoring by the Government with regard to the use of public funds in private industry.(6)

For all these advantages over the old system the grant system involved major expenditure of state funds. The annual total payments for investment grants increased steadily from £288 m. in 1967/68 (the first full year under the scheme) to £544 m. in 1970/71 with a constant decline afterwards as a result of a decision by the newly elected Conservative Government in 1970 to phase the scheme out. The distribution of grant payments is specified in Table 4.1. below.

Table 4.1.: Investment Grant Payments 1967/68 - 1972/73 (in £ '000)

(sec. 1 of Industrial Development Act 1966)	standard rate	development area rate	total
Plant and Machinery			
a) manufacturing, ship repairing and generation of energy	947,401	1,045,779	1,993,180
b) extraction of minerals	42,738	42,293	85,031
c) construction and civil engineering	88,686	38,392	127,078
Totals a) - c)	1,078,825	1,126,464	2,205,289
Special Qualifying Assets			
a) Computers (sec. 2)	140,821	4,224	145,045
b) Hovercraft (sec. 3)	2,182	nil	2,182
c) Ships (sec. 5)	394,166	nil	394,166
d) Mining Works (sec. 6)	35,525	8,958	44,483
Total	1,651,519	1,139,646	2,791,165

SOURCE: DTI (1973 A , App. C, p. 36)

Hence, the grant system cost between 1967/68 and 1972/73 £2.8 bn. with over 40% of it spent for investment in the development areas.

In evaluating the impact of this expensive scheme on investment behaviour we have found the various econometric studies because of their restrictive stochastic assumptions concerning the estimation of invest-

ment behaviour and the often admitted difficulty in finding adequate data to be only of limited usefulness.(7) Other studies, such as G.C. HARCOURT (1966) and T. STARK (1966) compared the grant system with the old system of allowances by comparing their effects on the DCF-value of specified investment projects. On that basis they both found that grants should have slightly more impact on the level of investment activity. But given the limited use of the DCF-method in industry there are considerable doubts whether firms acted as these studies predicted.

The initial reaction by representatives of industry was scepticism and opposition. "Unfair discrimination" and fear about delays and administrative uncertainties were frequent worries. They were expressions of industry's suspicions towards Labour's return to office after 13 years in opposition and of its hostility against the then still unusual use of grants as a form of assistance and of selective intervention. Later, however, many firms favoured grants over allowances.(8) Both G.C. Harcourt (1966) and T. Stark (1966) showed that grants were more beneficial than allowances even for profitable firms and projects with high rates of return which countered the frequent objection that grants promote non-profitable investment.

The selective use of the grant system certainly had some beneficial effects. Evidence from the Expenditure Committee (1972) and DTI (1970, para. 8) suggests that grants for ships helped the order books of ship-building firms. Of similar help were grants paid for the purchase of computers. ICL estimated in SCST (1971, vol. 2, Q. 887-8) that without grants the computer market would have been reduced by 20% in 1971. Other computer firms confirmed that grants helped their cash flow positions (ibid., vol. 1, para. 150). P.V. ELLIS (1969, p. 186) pointed out that because of grants computer firms could reduce the proportion of equipment, which had to be rented rather than sold, and thus also increase their cash flow further. The study by Min Tech (1970) found that firms responsible for over 50% of the investment covered by its survey increased capacity and capital expenditure in the development areas because of the regional grant differential. But, as argued by D. BURN (1970, p. 51) many of the projects in the development areas were capital-intensive, as those types of investment benefitted especially from the higher grant rate. Therefore the grants had very little effect in raising employment levels in those regions.

Finally, A. Graham (1972, p. 206) notes that despite pessimistic forecasts investment in manufacturing fell much less in the recession

1967 and also in 1968/69 than in previous cyclical downturns. This, he argues, may very well have been as a direct result of the grant scheme -- a point made also repeatedly in the evidence presented in Expenditure Committee (1972).

We can safely conclude from the evidence mentioned that grants were more effective in promoting investment than the previous combination of initial and investment allowances. From the point of view of the evolution of industrial policy their introduction established the concept of grants as a form of assistance which in the light of its later expansion was an important step. Equally significant was the concept of selective intervention applied for the first time through the grant scheme. On the other hand it was a very expensive scheme and it is far from clear whether its impact justified the costs.

4.1.2. Policy Changes under the Conservatives 1970-74

When returning to office, the Conservatives (as part of a more fundamental reversal of Labour's policies, discussed below in sec. 5.1) decided to phase out the grant scheme. This step was justified on the grounds of its public expenditure costs, its preference for "uneconomic investment", its "unjustifiable discrimination" and its administrative burden on the government (see DTI (1970), para. 2). Instead a first-year initial allowance of 35% and a writing-down allowance of 25% (valid already from first year of expenditure onwards) was introduced so that 60% of capital expenditure could be written off immediately and 25% of the reduced balance of expenditure successively in later years. Discrimination in favour of the assisted areas was maintained by allowing free depreciation for expenditure on new plant and machinery and a higher initial allowance on industrial buildings. Free depreciation, where firms were free to choose the timing of claiming their allowances. and which took mostly the form of a 100% initial allowance, was also provided across the U.K. as a whole for ships and capital expenditure on scientific research.

These changes of policy were clearly disadvantagous to industry. A. Brown calculated with the DCF-method that on a five-year project with a 10% expected return the grant-scheme resulted in a post-tax return of 19% while the new allowances only gave a 10%. On the basis of the same project the old scheme gave £156 worth of incentives by moving into a development area for each £100 worth of incentives outside the assisted areas, compared to only £111 under the new system (see Expenditure Committee (1972 , vol. 3, Q. 2766-2768)). With such a reduction in the benefits of

the regional differential it was not surprising that the number of inquiries by industrialists about investment into the assisted areas fell from 2400 in first quarter of 1970, when grants were still in full operation, to only 1083 one year later (after grants had started to be phased out) (see Trade and Industry, 19/5/1971, p. 352). The Government openly admitted that this change had led to a "liquidity gap" which was to be compensated by a staged reduction of the Corporation Tax rate by 5% (see Trade and Industry, 14/4/1971, p. 70).

When investment activity in 1971 and 1972 was significantly lower than in previous years (as indicated in Table 2.4) pressure grew on the Government to reverse its policy on incentives once again to provide larger benefits to investing firms. After gradually increasing the rates of the various allowances from the summer of 1971 onwards it extended free depreciation (100% initial allowance) from the assisted areas to the whole of the U.K. According to the survey by Min Tech (1970) this form of incentive is even more popular with private firms than grants.

On top of this firms were to receive a Regional Development Grant (Part 1 of the Industry Act 1972) of 20% in the Development Areas and 22% in the newly created Special Development Areas for expenditure on both Industrial buildings and plant and machinery. In the 1972 Budget the Corporation Tax system was reformed to end discrimination against dividends. Under the new so-called "imputation system" a firm paid one single basic tax rate for all profits, whether retained or distributed. In the case of dividends it paid in addition an Advance Corporation Tax measured by reference to the amount of profits distributed during the financial year which could later be set off against the regular corporation tax. The reform included also a lower tax for the profits of small firms which introduced a series of measures up to 1978 aimed at easing the tax burden on smaller firms.

These measures more than compensated industry for the decline of benefits caused by the abolition of the grant scheme and the reintroduction of depreciation allowances in 1970. They established the most extensive system of incentives so far: free depreciation, which provides for speedy recovery of benefits, easy administration and maximum flexibility for firms to optimize the timing of their claims, supported by the return of a grant scheme applied for investment in assisted areas. The double-reversal by the Conservative Government reflects, together with other similar examples, the failure of the "disengagement" strategy with its emphasis on reducing the role of the state in favour of market forces.

The recession of 1971/72 forced the return to a more pragmatic approach and justified the existence and extension of industrial policy. Furthermore the importance of experience with previous measures for the formulation of subsequent policies, which was a vital element in the development of industrial policy, was once more underlined here.

4.1.3. The extension of measures under the Labour Government 1974-78

In principle the system of incentives established in 1972 was preserved by the Labour Government. During 1974/75, however, U.K. firms faced, over a wide range of sectors, their worst liquidity crisis since the depression of 1929-1934 (see Table 2.4). Not only had profitability declined considerably and the debt burden increased (see 2.2.4.), but accelerating inflation had rapidly pushed up the replacement cost of fixed assets and of stock. Representatives from industry started a publicity campaign on the basis that inflation seriously distorted the level of "real" profits. The method of calculation based on historic cost was seriously underestimating the value of capital stock and reducing the real value of investment incentives. The profits made on stock appreciation should not be considered real as stocks will eventually have to be replaced at higher cost.

As a result of the liquidity shortage and these arguments the Government introduced in November 1974 stock relief to exclude profits made on holding stocks now worth more because of inflation from the corporation tax. Between 1974 and 1977 this measure alone was estimated to have reduced the tax liability of U.K. firms by about £3 bn. To correct the overestimation of profits by valuing capital stock at historic cost ignoring the fact that the replacement of assets has become much costlier, a public debate was started to introduce a system of inflation accounting. Progress in this direction of replacing the historic cost-method with one that is based on current cost has been slow. Under the presently adopted Hyde guidelines firms publish three figures in their accounts to correct their profits for the impact of inflation. Once the current cost accounting method is fully established, it will further reduce the tax liability of profits. The most ambitious recent initiatives in the area of increasing investment finance concerned the institutional relationship between private industry and the financial sector. In Ch. 2 we identified this as an element of structural weakness in the U.K. economy. The much closer relationship between banks and industry has most likely contributed to the high growth rates of the German and Japanese economies.. This shifted the

attention in the U.K. to the availability of long-term borrowing facilities for industry.[9]

During 1975/76 political pressure by the unions and from within the Labour Party (with a National Executive Council-proposal to nationalise the largest banks and insurance companies) against the City and for growing government intervention in financing investment increased. In response to this and in the aftermath of the liquidity crisis of 1974/75 the Government decided in 1976 to set up a "Committee to review the functioning of the financial institutions," chaired by Sir Harold Wilson. On the basis of evidence from all parties concerned and research studies the Committee is undertaking a detailed study of the relation between financial institutions and industry with a final report expected for 1979. In the interim report of December 1977 the Committee discussed the lack of external finance for small firms, the growing power of investing institutions, such as pension funds and investment trusts, and their threat to the proper functioning of the stock-market, and the limits and difficulties for industry to get long-term funds at reasonable rates. While noting that there was otherwise no shortage of funds for industry, the evidence presented reveals a lack of communication between industry and lenders, a strong risk aversity of companies to borrow extensively and of banks to lend for projects with uncertain outcomes. Furthermore, compared to other countries such as Germany and Japan, U.K. financial institutions are resisting involvement in industrial management, such as holding equity, appointing directors, or evaluating projects for possible support.

It is yet unclear what the results and effects of the inquiry will be in the end and what policy initiatives will follow from it. The TUC demands the establishment of a £1 bn. investment fund, financed partly out of industry's profits and partly with public money to support projects and companies with long-run viability but lack of institutional support. More likely is the establishment of a central monitoring commission with participants from industry, finance houses and the Government to look after the various aspects of the City's activities. More minor institutional changes and adjustments in certain specific areas, such as special lending facilities for small firms, will probably be recommended as well. The Inquiry is, however, not expected to have the far-reaching implications for U.K.'s financial and policy-making institutions of the report by the Macmillan Committee on Finance and Industry in 1931, in which the Government's goals and control mechanisms in the sphere of monetary policy were defined for the first time.

4.1.4. Concluding remarks

The measures discussed above under the category of the general provision of investment finance have, in relation to the expansion of other parts of industrial policy, become increasingly less important. Their impact on raising the level of investment activity was always hampered by a variety of factors, such as their dependency on the extent to which firms respond to the benefits offered. Nevertheless, their evolution reflects some of the most important problems involved in the formulation of industrial policy.

One of these problems concerns the ability of policy-makers to influence management decision-making. In the case of investment incentives private firms have complete power to determine on their own whether and to what extent to use benefits. Given the already discussed lack of use of effective investment appraisal methods the entirely voluntary character of these measures left the Government with little power to extend the use of benefits against this constraint of management inefficiency. The measures were also restricted because they allowed little public monitoring over the choice and realisation of investment projects by private firms. Their degree of selectivity to take into account different production conditions in specific sectors was very limited. All these factors (public control, monitoring, selective use) are important conditions for any effective industrial policy measures. And in all these aspects general investment incentives were less developed and forceful than the subsequent measures. Given these limits they are by and large a very expensive method of assisting private industry.(10)

The various reforms and changes made with regard to investment incentives are also indicative of the forces that determined the evolution of industrial policy as a whole. For instance, drastic changes and reversals characterised not only this group of measures, but were a destabilising element on a more general scale. Investment incentives during the 1950's frequently had their rates varied in the wake of short-run stop-go policy considerations. After 1965/66 not only rates, but the whole system of incentives was repeatedly altered. The discontinuity of measures and/or short-run changes in the levels of benefits considerably reduced the predictability and security required in long-run investment planning.

On the other hand, with a more interventionistic policy and improved information gathering, measures, such as the grant scheme, could be introduced that were considerably more suited to meet industry's needs and had a greater impact on firms. In addition, despite the uneven application of

these measures, policy-makers managed to expand, refine and coordinate them ultimately into a comprehensive system of free depreciation and grants. This gradual evolution of policy measures towards a higher level of integration, despite temporary interruptions, was typical of industrial policy as a whole between 1965 and 1978.

4.2. Measures to encourage "industrial restructuring" in the 1960's

4.2.1. Introductory remarks on the SET and the Shipbuilding Industry Act 1967

After the "indicative planning" era ended with the deflation measures in July 1966 and even more after the sterling devaluation of November 1967 raised the potential for increasing exports and import substitution the Labour Government shifted its attention and policy efforts towards promoting directly the reorganisation and modernisation of private industry. This area of industrial policy, known as "industrial restructuring," involved measures aimed at facilitating changes in the production conditions of various industrial sectors that would lead to higher production efficiency, modernised production processes, a more rational range of products and better management quality as means to higher growth and improved international competitiveness within U.K. industry. This shift of emphasis marked a turning-point in the evolution of industrial policy. Previously that policy was confined mostly to information-gathering (NEDO, National Plan) and financial support to industry through general investment incentives which involved only a limited degree of selectivity, public control, monitoring, and influence over management decisions. Measures in this category, however, expressed a more directly interventionistic, selective and forceful policy approach towards industry's problems, carried at the level of individual firms or sectors. Financial aid was in general made conditional on some specified course of action by the companies affected and was not any longer the prime objective and end in itself, but became the means to realise other objectives. In addition public monitoring and follow-up checks to evaluate the progress made and to see a project through as intended were also emphasised. All these characteristics increased the power and control of policy-makers over the use of public funds by private firms.

The Shipbuilding Industry Act 1967, one of the measures in this category, was based on a detailed Parliamentary Inquiry into that declining sector in which a strategy of reorganisation was spelled out (in the

Report of the Committee of Inquiry into the Shipbuilding Industry, Cmnd. 2937, 1966). It established the first sector-specific para-governmental agency, the Shipbuilding Industry Board (SIB), for the purpose of carrying out and supervising the restructuring of a particular industry. It was the first example of a coherent government strategy, combining a series of different measures, for a single sector outside the "advanced technology" industries. And its subsequent failure to achieve the intended results provides important insights with regard to the limitations and difficulties, but also potential of industrial policy. For all these reasons measures concerning the Shipbuilding Industry will be discussed more fully as a case-study in sec. 6.1.

Another measure concerning "industrial restructuring" was the Selective Employment Tax (SET). This will be dealt with here only briefly because of its limited importance for subsequent industrial policy developments and its lack of lasting impact on industry. As a tax on the employment of labour it was introduced in 1966 primarily to broaden the State's revenue base. It gave manufacturing industry a refund in excess of the initially paid tax (in other words, a premium to firms for the employment of labour), but at the same time did not provide the service sector (and construction) with any refund. One reason for this selective discrimination was to compensate manufacturing industry for its relatively heavier tax burden based on indirect taxes that did not apply to the service sector. As a measure promoting "industrial restructuring" it was the brainchild of N. Kaldor who at that time was economic advisor to the Labour Government. His work, as pointed out above in sec. 1.2, concentrated then on the role of manufacturing as a source of higher productivity and for that reason also of higher growth. In this context the SET was designed to a) induce labour-saving in the service sector to improve productivity and growth there and b) to redeploy within manufacturing labour set free from the service sector as an incentive for capacity expansion.

In assessing SET's effects it seems to have increased productivity both by improving efficiency in the service sector and also by shifting to some limited degree output into industries with high productivity levels. But the precise extent of this effect is hard to calculate and was the subject of heated debate. It is also likely that the SET somewhat slowed down the expansion of the service sector's output share while increasing manufacturing's share in total output and employment. But the actual shift of labour from services into manufacturing was probably rather minimal. Instead the SET caused a reduction of vacancies in the service sec-

tor This meant that the labour typically shed in manufacturing during recessions was no longer after 1966 finding employment in the services sector, but remained unemployed or dropped out of the labour market altogether. Such a hypothesis identifies the SET as one contributory factor in the above-trend rise of unemployment and the remarkable decline by over 1/2 m. workers employed in the private sector during 1966-70. Its overall impact, however, seems both in terms of productivity gains and labour market shifts to have been rather insignificant.(11) It was certainly a very indirect method to achieve a shift of resources between sectors and to improve productivity and growth. In 1971 it was abolished as part of the "disengagement" of the Conservatives.

We will now discuss in some detail the two other measures established by Labour during the 1960's in this area of intervention, namely the IRC and the Industrial Expansion Act 1968.

4.2.2. The establishment of the IRC as a para-governmental agency

The termination of the planning exercise in mid-1966 left the government without any significant policy tool to intervene in the production conditions of private industry on a major scale. In particular there was no policy measure capable of promoting industrial restructuring. To fill this gap rapidly the Government decided to accelerate the setting up of the IRC. Hardly mentioned in the National Plan previously and still only very briefly and tentatively outlined in a White Paper at the beginning of 1966 (Cmnd. 2889, Jan. 1966), the IRC was to become within a short period of time (in December 1966) the most ambitious and powerful industrial policy project of the 1960's.

As a para-governmental agency the IRC was a novelty in the U.K. -- a body outside government departments but publicly financed. The Government's control over the IRC was limited to determining its legal powers and duties, setting its overall budget limit, demanding the presentation of regular reports and accounts and in giving the IRC occasional directives to act in legally specified circumstances on the Government's behalf. The day-to-day running of the agency and the decision-making with regard to support for projects in industry was otherwise entirely the IRC's own responsibility. This relative independence from Government interference and control was designed to increase IRC's effectiveness to initiate changes in industry. It could in contrast to Government act without being subject to political pressures and without having to take into account non-commercial factors. This was in line with the Government's intention

to support only commercially viable rationalisation projects with public funds channelled through the IRC. By staffing the corporation with experienced managers, industrialists were supposed to be reassured. At the same time the IRC could thus concentrate a higher level of expertise and thereby respond more effectively to the needs of industry.

The concept of a paragovernmental agency located state intervention very close to industry by creating an independent corporation with powers to intervene in the equity and credit markets and alter the structure of an industrial sector. The IRC was envisaged and designed to establish a continuing dialogue with individual firms. This would allow a more detailed gathering of information, a more flexible intervention and improved monitoring of projects than was possible with sole reliance on government departments.(12)

The functions and powers of the Corporation were set out in the IRC Act 1966. Its basic functions were to "(a) promote or assist the reorganisation or development of any industry; or (b) if requested to do so by the Secretary of State, establish or develop, or promote or assist the establishment of, any industrial enterprise" (sec. 2(1)). Sec. 2(2) gave the IRC the legal entitlement to gather information and to decide by itself in which industries to intervene. According to sec. 2(3) the IRC had the "power to do anything...calculated to facilitate the discharge of its functions." More specifically this section mentioned the acquisition and holding of equity, loans and loan guarantees, the setting up of new companies and the acquisition (or disposal) of buildings, plant and machinery as possible methods for the IRC to achieve its objectives. Sec. 7 gave the IRC a budget of £150 m. to carry out its activity.

The Act defined the functions of the IRC rather vaguely and gave it very wide and general powers of intervention. This was partly a result of the rapid introduction of the IRC after the July 1966 crisis which had prevented the Government from clarifying its role and operations more precisely.(13) In addition the Act's rather unspecific terms of reference were intended to maintain a high degree of flexibility for the possible range of its initiatives. They made it possible for the IRC to gradually develop its modus operandi and to expand the scope of its activities through "experience in office."

The IRC initally met with strong opposition from many industrialists who feared its wide powers and its obviously significant intervention potential. Its ability to obtain equity holdings in private firms created the suspicion that it might be a means for "backdoor nationalisation."(14)

In response to this hostility the Government restricted the operations of the IRC in a number of significant ways to gain initial wider acceptance of the IRC in industry. For instance, the IRC had no compulsory powers to take action against the will of the companies concerned. Assistance for the rationalisation and/or expansion of an individual firm, as distinct from aiding the reorganisation of several firms in a particular sector through mergers or sector-wide investment schemes, could under sec. 2(1) only be provided at the request of the Secretary of State. This was clearly a restriction of its activities and led to directing its principal efforts at merger projects. Sec. 2(3) excluded grants as a form of IRC-assistance to dispel industry's suspicion that the IRC was a "soft option" lender. The IRC repeatedly rejected this criticism and stressed its role as a "lender of last resort" imposing stringent conditions on its loans to firms (see IRC (1968), p. 7), B.R. CANT (1969, p. 46), and M.E. Beesley and G.M. White (1973, p. 79)). In this role funds were only offered by the IRC if a) all reasonable alternative sources of finance were exhausted, b) the project was commercially viable and expected to earn the IRC a commercial return on its contribution, c) the management of the assisted firm appeared sound and able to complete the project successfully, and d) the company concerned agreed to IRC's monitoring and follow-up conditions.[15]

Furthermore, the IRC clearly was not designed to act as a state holding company (like Italy's IRI). So there was no danger of backdoor nationalisation. Its equity holdings were supposed tc be only temporary and to be disposed of after the successful completion of the project. As a form of support equity financing was only to be used when the size of assistance demanded a higher degree of control or when a firm's gearing ratio was stretched to the upper limits of sound financing. In general the restrictions of a rather limited budget of £150 m. and ability to borrow in financial markets only temporarily forced the IRC to turn its funds over as quickly as possible. It aimed therefore to recover them rapidly so that they could be put to work elsewhere. This imposed a certain limit to its degree of using more long-term equity finance.

In addition to these operational restrictions the small IRC-Board was purposely composed mostly of industrial managers and merchant bankers with good success records, and a reputation for strong opposition to nationalisation. The first Managing Director of the IRC, Grierson, was known to favour a more passive, limited and less interventionistic role for the IRC.

Finally, because of the vague terms of reference and the initially

narrow interpretation of its powers by the IRC-Board the Agency started very slowly and cautiously. In its first year of existence the IRC concentrated mostly on gathering more information about various sectors and establishing a two-way communication network with a large number of firms. In this way it tried to build up confidence among industrialists about its usefulness and intentions. The only setback came when the Government requested in January 1967 that the IRC should take a share in the troubled car producer Rootes in order to maintain some U.K. control over the firm when it was acquired by the U.S.-multinational company Chrysler. S. Young (1974, p. 92) and A. Lejeune (1973, p. 100) describe the frustration of some members of the IRC-Board that its first intervention (i.e. the Rootes case) strengthened industry's fears about the IRC being basically a Government tool to achieve its political aims and acting as a prop for firms in financial difficulties.

But apart from that the legal restrictions, the composition of its Board and its cautious beginning soon helped to convince many firms that the IRC was a potentially useful source of assistance. However, during its lifetime the IRC never stopped being controversial and on many occasions firms resisted its attempts at intervention. But all in all there was no shortage of firms asking for its help or expressing their willingness to cooperate.

4.2.3. The formulation and implementation of IRC's initiatives

In order to select promising projects in private industry for possible support the IRC had to gather and process information so that it could determine where assistance was required and in what form. As part of this exercise industrial sectors were identified which were of major importance for the U.K. economy as a whole and which could benefit significantly from IRC support. Once this was done companies and potential projects within high-priority sectors had to be examined.

The most important external source of guidance and information in this research activity was the government itself. For example, during the earliest phase (1966/67) the IRC worked on a DEA-list of problems and of industries that needed attention, including wool, footwear, cables, pumps, scientific instruments, turbines and transformers. Later the government asked the IRC on a number of occasions to study specific problems and possibly intervene in sectors, such as vehicles, ball bearings, industrial process control and automation, numerically controlled machine tools. Throughout its existence it maintained a close relationship with other

Government departments and agencies, such as Min Tech and the National Research Development Corporation (NRDC), and used their information resources and advice. In addition, it obtained information through frequent contacts with merchant banks in the City, employers associations and the EDCs.

But most of the search activity for possible projects was, according to IRC (1969, p. 8), carried out by the IRC itself through desk research of available statistics and visits to companies for detailed discussions with management. In assessing sectors the IRC would look at indicators, such as their respective export-import balance, size distribution of firms, the employment of qualified scientists, value-added-ratio, productivity, relation between demand and capacity and international comparison of industry in terms of structure and performance. IRC's thoroughness and depth of analysis in its research on sectors has been repeatedly stressed by authors familiar with the agency, as for example in W.G. McClelland (1972, p. 26) and in M.E. Beesley and G.M. White (1973, p. 78). In general sectors characterized by either substantial balance of payments contributions, high value added, high technology content, large productivity potential or significant proportion of employment in assisted areas were all considered to be high priority cases for intervention.

With regard to the more detailed research concerning individual firms particularly important indicators were the quality of management (see sec. 2.3.2.5. for assessment criteria), research and development expenditure, investment plans, profitability, company liquidity, productivity, capacity utilisation. This evaluation would precede any negotiations on the terms of a scheme.

This process of information gathering and the expertise to make use of it, combined with the availability of funds and intervention powers, secured the IRC a strong position to ~~initiate~~ changes within a variety of sectors. Its generation of knowledge and experience at the level of company appraisal and its access to confidential information from firms under protected secrecy was unmatched by any Government department. Various parts of the Government machinery started to make increasing use of the IRC's fact-finding abilities and growing experience in assessing companies by asking the agency to conduct inquiries and make policy recommendations in complex industrial situations, such as a study on the relation between telecommunication industry and Post Office, proposals to build aluminium smelters in the U.K., study of the bacon curing industry's structure. From 1968 onwards the IRC was also increasingly asked to implement its

recommendations after it reported on its findings (e.g. in the case of reorganising the nuclear power industry, helping Rolls Royce and Cammell Laird to overcome their financial difficulties). Thus one of the functions of the IRC which developed through experience in office was to act as the government's merchant bank.

Every project undertaken by the IRC involved not only extensive preparatory research but also the establishment of monitoring procedures and controls to examine the progress made and to check whether its funds were used as intended. Usually conditions were attached to the offer of financial assistance. These covered to a varying extent, depending on each particular case, repayment terms, performance targets, and the time-table necessary to complete a restructuring scheme, and the follow-up procedure. This gave the IRC considerable power vis-a-vis assisted firms. It could ask for changes to be carried out, steps to be implemented and standards to be met over a wide range of issues. In certain cases, where the IRC was not satisfied with the quality of management it insisted, for instance, on sweeping management changes, as was according to S. Young (1974, p. 76) the case with Kent, Ransome Hofmann Pollard (RHP), Rolls Royce, Cammell Laird and Brown Bailey.

After assistance had been granted for a specific project, the follow-up procedure allowed the IRC a continued dialogue with the firms concerned and gave it control over the implementation and fulfillment of the initially agreed conditions by those firms. As IRC (1970, pp. 12-13) points out, the IRC standardised this monitoring procedure during 1969-70. It then consisted of follow-up visits on a twice-yearly basis and reports on these visits (all carried by one and the same IRC-member B.R. Cant) to the IRC Board. In addition the companies had to regularly supply the IRC with their accounts and information on specified items (sometimes on a quarterly or even monthly basis, usually only twice a year). By early 1970 follow-up arrangements covered 48 projects involving IRC-assistance which was a substantial majority of all its initiatives.

To strengthen its control even further the IRC sometimes offered companies stand-by facilities for later use or phased its loans in different stages subject to the achievement of specified targets, such as in the case of British Insulated Callenders Cables (BICC), the Steel Group, Samuel Osborn, Marvin. This was designed as an incentive for firms to meet their performance targets. Rootes, Herbert Ingersoll, the Laird group, Kearney & Trecker, and the nuclear power construction firms were all examples where the IRC took minority shareholdings as an additional method

of control. S. Young (1974, p. 77) mentions that in 11 such cases involving the IRC in equity participation it appointed its own director to the board of the assisted company to make its monitoring even more effective.(16) Apart from loans and equity participation as forms of assistance the IRC could often generate action on the parts of private firms as a "catalyst" by bringing together companies and persuading them to take appropriate steps. This could bring desired results without any financial aid. To create the necessary pressure on firms the IRC from time to time used what W. McClelland (1972, p. 34) called "stimulation of third parties," by approaching, for instance, the media, a firm's customers or shareholders to bring them into the negotiations.

To conclude this section, the IRC not only raised the level of information gathering involved in an expanding and increasingly selective industrial policy, but also broke new grounds in policy-making with regard to the exercising of control and monitoring procedure over the publicly funded activities in private industry. And the use of a variety of different forms of assistance gave the IRC also an improved degree of flexibility to adapt its support to the specific conditions of each particular case.

4.2.4. The scope of IRC's activities

The most important concern of the IRC was to tackle identified constraints on growth, competitiveness and efficiency by promoting "restructuring" within the private sector. W. McClelland (1972, p. 24) points out that during the late 1960's this was "...an euphemism for creating larger units." According to IRC (1970, p. 5) "...the bulk of IRC's work has been devoted to effecting reorganisation through company mergers." This equation of "reorganisation" with "mergers" was based on the somewhat dubious assumption that the principal "structural weakness" in many U.K. sectors was a high degree of fragmentation compared to other countries and to what was considered to be optimal size of a firm in those sectors. B.R. Cant (1969, p. 5), when discussing this problem, stresses the competition ("mutual attrition") between U.K. firms which "confront each other with comparatively small competing production units ranged across a wide front of manufacturing activities." In such a situation only few companies can take full advantage of the production volume to accelerate the installment of automatic processes and product development. G. ROBINSON (1970, p. 76) argues that the problem in this context is not so much one of an inadequate degree of concentration in a particular sector, which ex-

ceeds in the U.K. often that of other countries, but instead should be viewed in terms of diversified activity at the product end. Even the larger U.K. firms do not aim at large production runs of a few products, but remain conglomerates producing too many products at relatively small volumes. Our findings in sections 2.3.2.1. and 2.3.2.3. support this argument.

The IRC, as stated clearly in IRC (1969, p. 7), considered the question of company size only relatively in the context of international competitiveness and the size of a sector's largest firm in other countries or as determined by technological considerations. Especially in the "advanced technology" sectors (such as aerospace, nuclear power, computers, telecommunications, other parts of electrical engineering) R&D expenditure, product development and other overhead costs have accelerated considerably in the wake of international competitiveness which has pushed up the minimum viable size of a company. In sectors with a large balance of payments contribution and/or a high technology content the IRC concentrated therefore on the creation of "national champions."(17) This involved the merging of already large domestic firms into a single, nationally dominant company to improve international competitiveness by achieving greater economies of scale in marketing, product development and investment.

In other sectors characterized by many small firms, obsolete equipment, inadequate management and a long-run decline (such as wool textiles, pumps, paper and board) the IRC also pushed for mergers to reduce fragmentation.(18) It justified its merger-promotion by claiming that market forces alone would not bring about these changes at all or only to an insufficient degree, because no finance was available, or shareholders lacked information, or managers rather followed their vested interests of preserving the status-quo. Mergers were never considered by the IRC to be an end in itself, but as a means to facilitate the necessary rationalisation that had to follow.

With the conclusion of the "merger phase" in September 1968 (when the GEC/EE-merger created the last "national champion") the IRC's efforts shifted towards the provision of assistance for selective investment schemes, as regulated in sec. 2(1) of the Act. As opposed to mergers those were rationalisation schemes yielding early results and beneficial to the national economy in the form of promoting technological change, import substitution, exports, additional capacity creation and new jobs. Judging from IRC (1971) this activity became the most important one in the last phase of IRC's existence, covering 11 projects out of a total of 15

since February 1970 alone. In this context the IRC filled, according to W. McClelland (1972, p. 25) and G. Robinson (1970, p. 78), a "credit gap" caused by generally tight credit conditions, and an unwillingness of banks to support rationalisation projects through medium- and long-term loans. In addition, the IRC unlike the City-institutions got involved in the management of industrial firms, undertook active search activities to identify projects, played the role of a "catalyst" approaching firms, and established follow-up procedures. For all these reasons the IRC filled an institutional gap, which we have identified (in 2.2.4.) as one of the elements of structural weakness in U.K. industry, by supporting selective investment schemes. Without IRC-funds these would not have been undertaken.

In IRC (1969, p. 7) the corporation emphasised that the success of mergers and selective schemes depended largely on management efficiency to carry out the necessary (post-merger) rationalisation process. its close ties with a number of firms, its follow-up procedures and its use of minority shareholdings as a means of control gave the IRC ample opportunity to determine the quality of any given management by assessing a firm's marketing strategies, financial control, product development, industrial relations and other areas of management responsibility. In accordance with our hypothesis in 2.3.2.5. the IRC found that inefficient management was frequently a reason for a company's unsatisfactory performance. Especially in rescue cases and with regard to ill-run companies the IRC proposed the introduction of changes in management personnel and techniques. W. McClelland (1972, p. 25) termed this activity of the corporation its "stimulation" function.

Another activity of the IRC was checking foreign multinational corporations (such as Chrysler, SKF, Rank, Phillips) in their attempts to gain control over U.K. companies.[19] The IRC was also set up to take into account regional policy considerations, but this never became one of its major concerns. Politically more problematic was its role with regard to industrial relations and trade unions. In IRC (1969, p. 7) it clearly considered this an important area for change. Furthermore, according to statements by IRC-executives Grierson and Roll in Expenditure Committee (1972, vol. 2, Q. 1260), the policy-makers believed that the injection of public money and the Labour Government's backing through the IRC would help to generate trade-union support for private industry's rationalisation. As a token measure the IRC had one trade union member on its Board. But when certain IRC-supported mergers resulted as part of the post-merger rationalisation in mass redundancies, as was the case in Woolwich and Merseyside

with GEC-workers or in Chelmsford with RHP-workers, it became clear that the IRC had never considered it necessary to draw up any contingency plans. These would have included provisions for labour redeployment in case of redundancies, proposals to reform the industrial relations system in firms with the approval of unions affected, and evaluating the social effects of rationalisation on regions and employment. After growing opposition by unions and the labour-force against redundancies in IRC-supported firms talks were started with the TUC in 1968/69 to draw up a code of good practice in merger situations.(20)

All in all, the scope of IRC's activities was considerable and grew with "experience in office." Its initially rather vague terms of reference and the unspecified definition of its role left the IRC a high degree of flexibility to develop and determine the range of activities itself.

4.2.5. The assessment of the IRC in terms of its impact on industry and its role in the overall development of industrial policy in the U.K.

According to W. McClelland (1972, p. 33) 54 IRC-projects out of a total of 70 were in early 1971 proceeding satisfactorily. Another provisional evaluation conducted by the IRC in late 1971 showed that out of 90 projects 75 were considered successful. Except for a first year loss the IRC achieved between 1968/69 and 1970/71 annually a surplus of income over expenditure. In 1971/72 it earned gross profits (before interest, tax and dividends) of £7.07 m. on capital assets and investment expenditure of £107.6 m. (a gross pre-tax profit-rate of almost 7%). This indicated that the IRC could be commercially viable with its returns covering its borrowing costs and administrative expenses.

In a wide context however the capacity of the IRC to engage in profitable and successfully proceeding projects was not sufficient. As is evident from Tables 2.1. to 2.4., the IRC failed to halt the decline of capacity expansion, profitability and growth in the private company sector. Given a small budget, short life, limited intervention powers (which ruled out compulsion, use of grants, permanent holding of equity, or assistance to single firms other than by government directive) and an overriding emphasis on commercial viability rather than social objectives, the IRC was not equipped to produce the far-reaching long-run initiatives required for any reversal of the industrial decline.

This is not to deny its impact on specific economic variables, such as the level of concentration in industry or improving medium-term loan financing of industrial investment projects. With company mergers as its

principal activity the IRC played, for example, a key role in the "merger boom" of the late 1960's.

Table 4.2: U.K. acquisitions by large companies (with net assets above £0.5 m.) in U.K. company sector

	number of companies acquired	expenditure on acquiring subsidiaries in £ m.
1964	939	502
1965	995	507
1966	805	447
1967	661	883
1968	598	1653

SOURCE: Industrial Policy Group (1970, p. 14)

Table 4.2. shows that during 1967/68 the number of acquisitions fell compared to the previous years, while the scale of transactions rose at the same time dramatically. This was primarily a result of IRC-support for a number of very large-scale mergers. As a result of the merger boom 1964-1968 the degree of concentration increased noticeably in many sectors of private industry.(21) There is, however, at the same time considerable doubt whether mergers as such or a higher degree of concentration actually lead in general to higher productivity, improved efficiency, and other claimed benefits. Over time, as in IRC (1970, p. 6), the agency itself became increasingly aware of the limits and difficulties involved in getting tangible benefits out of mergers. And in sec. 2.3.2 we have pointed out that compared to other industrialised economies the U.K. has a high degree of concentration among its industrial companies, while at the same time suffering from constraints, such as small production runs, "defensive" investment and management inefficiency. These reflect a failure of firms to take advantage of mergers through adequate rationalisation.(22)

When assessing the sectoral impact of the IRC there can be no doubt that its intervention caused significant changes in the structure of a number of industries. For a complete summary of IRC's projects see its annual reports and S. Young (1974, p. 231-236). We will concentrate here only on the more important ones.

Reorganisation in electrical engineering was probably the most far-reaching and successful example of IRC-induced structural change. In June 1967 the IRC supported as its first major initiative as "catalyst" the merger between English Electric (EE) and Elliott Automation (EA) with a £15 m. loan in order to overcome a liquidity problem as the last remaining

hurdle in the negotiations. This helped to create one of the largest and best-equipped European firms in the field of automation and industrial control systems. The merger gave EA's R&D-skills the necessary financial back-up structure, while allowing EE to diversify out of the declining heavy engineering sector, and reduced the duplication of effort. In September 1967 the IRC decided to support the General Electrical Company (GEC) in an outright take-over bid for the weaker, but strategically important Associated Electrical Industries (AEI), after previous merger talks had failed. To overcome the resistance of the AEI-management the IRC had to act as an "accelerator," by successfully using pressure on the AEI through the media and shareholders. This acquisition promised the reduction of duplication of effort in sectors with rapid technological change and major economies in R&D and in production, such as telecommunications, switchgear, transformers, turbogenerators, microcircuits, process control and domestic appliances. Thus resources could be set free for more investment and more rapid product development, enabling GEC to carry out its planned export offensive. Finally, when Plessey made a bid for EE in August 1968, the IRC pushed instead successfully for a merger between GEC and EE in September 1968.(23) Thus the IRC helped to create a combine that controlled 40% of the whole electrical engineering market in the U.K. In sectors such as turbine generators, transformers, switchgear, radar and aerospace aids, and communication equipment the GEC's U.K. market share exceeded 60%.(24)

After the mergers the GEC, as envisaged by the IRC, carried out massive rationalisation. From the Census of Production in BUSINESS MONITOR (1976, T.1, pp. 2-23, and 1978, T.1, pp. 2-37) it is evident that all sectors with substantial GEC presence were characterised between 1968 and 1971 by a significant decline of employment and strong increases in productivity. G. HAYS (1972, pp. 76-77) points out that during the period 1968-71 the GEC made 36,000 of its initial workforce of 265,000 employees redundant. An additional 40,000 workers were called upon to switch their jobs within the company. Thirty-two plants had been closed down and a further seven plants were in the process of closure by mid-1971. At the same time GEC's earnings per share had gone up by 50% in those three years. The public debate sparked off by the mass redundancies in GEC at Woolwich and at Merseyside emphasised IRC's dilemma of promoting commercially successful rationalisation that inflict social costs and contradict some of its aims in the areas of industrial relations, employment and regional policy.

The mergers centering around the GEC satisfied another IRC-objective, namely to create "ripple effects" in related sectors. EE's computer activities were hived off and went into the newly created International Computers Ltd. (ICL). The GEC/AEI-holdings In C.A. Parsons were merged with A. Reyrolle & Co. into Reyrolle Parsons which later also acquired Bruce Peebles with IRC support. Later (1976/77) the Government tried however to reverse this hiving off by bringing Reyrolle Parsons back into the control of the better managed GEC. Apart from this intervention in the power plant industry the IRC also provided funds in the merger between the boilermakers Clarke Chapman and John Thompson. All these moves were part of an overall reorganisation of the heavy engineering sector necessitated by the decline of orders from the Central Electricity Generating Board (CEGB). After a study in close consultation with the CEGB of the resulting overcapacity in the supplier industries (power plant and boilermakers) the IRC decided to promote the mergers described above. As in the case of its support for establishing two consortia in the nuclear power industry (see below in sec. 4.3), which were later (in the mid-1970's) merged into one with the GEC again in overall control, these interventions by the IRC marked only the beginning of a long-run process of structural change and paved the way for continued government involvement in heavy engineering.[25]

Other successful "national champions" with significant market shares in the U.K. were created in mechanical engineering, such as the steam turbines and diesel engine sector, where the IRC supported mergers to create in January 1968 Amalgamated Power Engineering. In the compressors and hydraulic equipment sector the IRC helped to merge firms into International Compressed Air Corporation in April 1968. In 1972 this new firm employed a workforce of 37,000, with an average 4-year growth in capital employed of 8% p.a. between 1968 and 1972 and a post-merger increase of the pre-tax profit-rate from 14.1% in 1967/68 to 24.0% in 1969/70 despite stiff competition from larger U.S. and Swedish multi-national firms and their U.K. subsidiaries.

Similarly successful were its intensive and elaborate efforts in the ball bearing industry where the IRC prevented the Swedish multinational firm SKF from gaining a dominant position in the U.K. market and instead promoted the setting up of a sufficiently large and competitive domestic firm, the RHP. As part of post-merger rationalisation which the IRC helped to finance, RHP improved its management structure, substantially reduced its product range, achieved a 20% productivity increase and shortened the delivery times for most types of bearings from up to one year down to 8-16

weeks within two years. This allowed the RHP as one of the few remaining local producers to face the growing competitive pressure of the Swedish and Japanese multinational firms in a declining market plagued by world-wide overcapacity.

However, some mergers promoted by the IRC turned out to be subsequent failures. This was especially true in the car industry. Its equity holding in the Chrysler/Rootes acquisition was not sufficiently utilized to monitor or initiate rationalisation despite an IRC-nominee on the company board. Later the IRC-shares were sold to Chrysler and thereby the government lost all control to oversee and direct the affairs and strategies of the company. In December 1975 the Government had to accept a very costly rescue operation after Chrysler had threatened closure of its loss-making U.K. operations (see below in sec. 5.2.1.1). This could have been avoided had the Government maintained a continuous measure of control.

The creation of British Leyland (BLMC) through a merger between Leyland Motors and British Motors Holding Corporation in January 1968 required the IRC to put pressure on the BMH-management. It also provided a £25 m. loan for a £200 m. investment plan to deal with outdated plant and machinery, the overloaded product range, comparatively small production runs, the lack of quality in product development, the widely dispersed network of plants and a poor industrial relations record. The IRC was convinced of the quality of management in BLMC and thus confined its monitoring role to a minimum. But the rationalisation efforts were never completed and BLMC continued to loose its market share until 1975, when the Government was forced into another expensive rescue operation. Only now, after 10 years, are there finally first concerted efforts of substantial reorganisation in the company supervised and financed by the NEB.[26]

Failures of IRC-induced mergers which marked the beginning of a long series of government interventions, occurred also in the machine tool industry. There the IRC-support for Marvin, Kearney & Trecker, and Herbert Ingersoll had to be followed up by additional public funds to overcome in each case serious financial difficulties. Both in the fields of scientific instruments and instrumentation (G. Kent) and of steelwork plant and pressure vessels (Davy-Ashmore) the IRC had supported mergers that failed to result in the intended economies. In both cases the IRC had to provide more funds combined with stronger monitoring, detailed rationalisation plans and new management personnel and techniques. This helped both firms to succeed in recovering.

At the end of its existence the IRC was asked by the government to

look into the liquidity problems of Rolls-Royce (aero-engine producer) and Cammell Laird (shipbuilders) (see also sections 4.3 and 6.1). In both cases the IRC undertook detailed investigations with proposals for far-reaching changes covering management techniques and rationalisation plans as conditions attached to providing financial assistance. The abolition of the IRC in 1971 prevented it from seeing both projects through, and subsequently both Rolls Royce and Cammell Laird had to be bailed out shortly afterwards at far higher cost to the public than the original IRC-assistance.

There were other examples, such as the Textile Re-equipment Scheme in the cotton and allied textile sector, where promising and important IRC projects were prematurely interrupted by its abolition.

In some cases attempts to promote sectoral restructuring in usually fragmented industries failed to materialise because of management resistance and IRC's lack of compulsory powers. This was the case in plastics machinery, textile machinery and computer software, while initial suspicions in the pumps and wool textile industries were overcome after a slow start with the IRC supporting in the end a number of proposed mergers. Less difficult for the IRC was the promotion of structural change through merger-support in the construction equipment, private steel, mining machinery, yarn bulking and household textiles sectors.

IRC's mixed fortunes reflect both its potential as an instrument of industrial regeneration in a variety of sectors and its limits to intervene effectively in a low-growth economy with constraints imposed on its legal powers, limited lifespan and capacity to combine commercial with social goals. Its importance in the overall development of industrial policy, however, should not be underestimated. In many sectors its activity marked the first step in a series of industrial policy initiatives to follow (cars, machine tools, nuclear power plant, etc.). It provided a model for para-governmental agencies in other countries (e.g. Belgium) and in the U.K., where especially the initial proposals in 1973-75 to set up the NEB reflected a learning-process to avoid the shortcomings of the IRC and to build on its strengths and benefits (discussed in Ch. 7). Its selective investment schemes, such as the Textile Re-equipment Scheme, were a model for later initiatives of that sort under the Science and Technology Act 1965, the Industrial Expansion Act 1968 and sec. 8 of the Industry Act 1972 (see below sec. 4.2.6, 4.3. and 5.2.1).

Its capacity to intervene selectively, gather information from individual companies, monitor the activities of assisted firms, and push through management changes and/or rationalisation plans made it the most

important industry policy initiative of the Labour Government 1964-70. In all these aspects the IRC filled an institutional gap in a state apparatus which up to then had had neither the expertise, nor the legal framework to carry out such activities. It was also the first policy instrument with the expressed objective of intervening in the production conditions and to address some of the underlying elements of structural weakness in U.K. private industry (credit gap, management inefficiency, fragmentation of production -- see Ch. 2 above). Its "expansion in office" proved the need and potentials of government intervention on that level.

The IRC also improved the level of coordination between various government agencies and economic policies. The mergers it supported were not to be referred to the Monopoly Commission (MC) and thus exempted from the Government's competition policy. The justification given was that resulting benefits in production efficiency more than compensate any possible decline in allocation efficiency caused by increasing monopoly power.(27) The IRC was required to maintain close contact with the MC which had to be consulted in order to approve specific schemes in advance. Because of the Corporation's interest in supporting "high technology" sectors it established an ongoing exchange of information with relevant EDCs, the NRDC, and in particular Min Tech which by 1969 had become responsible for sponsoring most industries and giving directives to the IRC. Government departments, such as the Ministries of Defence, Agriculture, Power, etc., made use of the information-gathering abilities of the IRC by asking it to undertake studies of particular sectors. Where private firms supplied state-owned firms, the IRC considered the preferences and plans of these public sector consumers and thus used public purchasing or procurement policy as a factor to promote the reorganisation of supply industries. Examples were the mining machinery firms and the National Coal Board (NCB), the boilermakers, power plant producers or nuclear power consortia and the CEGB, telecommunications manufacturers and the Post Office, private steel firms and British Steel Corporation (BSC).

Given all those different aspects involved in the evaluation of IRC's impact its importance as a major step forward in the historical evolution of industrial policy and as a point of reference for future policy initiatives was significant. Its effects in some industrial sectors were far-reaching. But while it pointed to the potential of intervention in industry by Government or independent public agencies, it emphasised at the same time through its limits and failures the need for a much more comprehensive policy approach vis-a-vis private companies.

4.2.6. The Industrial Expansion Act 1968

In January 1968 the Government announced its intention (in the White Paper "Industrial Expansion," Cmnd. 3509) to provide itself with interyention powers as a possible substitute for the IRC because of its slow start in 1967. Added to this objective was the need felt by the Government to support in the aftermath of the sterling-devaluation in November 1967 selective schemes that would generate benefits in a short period of time, would not necessarily have to be commercially viable if compensated by results in the "national interest" (import-saving, export promotion, job creation, expansion of capacity in strategically important sectors or regions, etc.), and would otherwise not go ahead early enough because of lack of available external finance.(28)

These so-called "industrial investment schemes" could according to sec. 1(2) and 1(3) of the Industrial Expansion Act 1968 be proposed by any government department and had to be approved by Parliament. They had to satisfy the vaguely formulated condition that they were "likely to benefit the economy of the United Kingdom," defined in terms of higher efficiency and/or profitability, additional productive capacity, or technological improvements in processes or products of an industry or parts of it (sec. 2(1)). The forms of government assistance for these schemes were specified in sec. 2(2) as loans, grants, credit guarantees, under-writing of losses, purchase of goods and services from the companies in question, share holdings and outright purchase of the undertaking or of part of it. Sec. 2(3) made the financial support of the government conditional on the company's consent and thereby excluded any compulsion powers.

In addition sec. 3(1) and 3(2) covered so-called "general schemes" setting up boards for specific sections of private industry to make recommendations to or carry out administrative functions on behalf of any government department concerning the selective investment schemes. Min Tech and other departments were on the basis of sec. 5(1) and 5(4) to be advised regularly by an Advisory Committee consisting of representatives from industry, IRC and NRDC. Sec. 5(5) regulated the relation between IRC and NRDC with the Industrial Expansion Act by allowing explicitly the IRC and NRDC to carry out investigations and negotiations for the purpose of formulating and administering investment schemes. In that way the government could make use of their expertise and ties with industry. Aggregate expenditure on these schemes was limited in sec. 4(2) to £100 m. with a possibility of being raised to £150 m. under sec. 4(3).

But the considerable legal powers thus enacted in 1968 were subse-

quently hardly utilised. Only two such investment schemes were ever put before and approved by Parliament. Both were however major initiatives, covering a variety of measures to support the establishment or expansion of two industries. On their own the two schemes are good indications of the potential force and extent of a comprehensive industrial policy.

The first such scheme was put forward in MINISTRY OF TECHNOLOGY (1968). It established the largest European commercial and scientific computer hardware producer, International Computers (Holdings) Ltd. (ICL), in a three-way merger supported by Min Tech through equity participation and a research and development grant. This scheme which marked the start of an increasingly extensive government involvement in the U.K. computer industry and which involved Min Tech in detailed monitoring procedures will be discussed more fully in our case-study on computers in 6.2.

The second scheme (in BOARD OF TRADE (1968)) covered government support for the building of three aluminium smelters in the U.K., each of which was envisaged to produce up to 120,000 tons annually at full capacity from 1971 onwards. As in the case of shipbuilding or computers, this scheme was an example of a more coherent industrial policy approach which combined different measures into an overall strategy for a particular sector. For instance, all the smelters were to be located in development areas so that the companies involved could benefit from the higher investment grants. The government agreed to supply the aluminium smelters with cheaper electricity to help in cutting down their operating costs, as the huge amount of electricity required would otherwise constitute a major cost element. The scheme therefore included Special Electricity Contracts between the British Aluminium Corporation (BAC) and the North of Scotland Hydro-Electric Board, and between the CEGB and Rio Tinto Zinc (RTZ) which in a consortium with BICC had set up the Anglesey Aluminium Metal Corporation (AAM) to build and operate the Anglesey smelter.[29] To get this cheap supply of power from the most modern nuclear reactor type (the Advanced Gas-Cooled Reactors (AGR) then still under construction) the aluminium companies were made to pay a capital charge (for the production of the power stations and transmission grids) plus an annual payment to cover the reactors' operating costs, without receiving in return any claims or ownership rights with regard to the power stations and their products. To be able to pay their share of the reactors' construction and operating costs the BoT provided under the scheme loans of £30 m. to BAC and £33 m. to RTZ, with repayment over 30 years at a fixed interest rate of 7%.

The third smelter was to be built by Alcan Aluminium (U.K.) Ltd. which

had its own generating station using cheap coal supplied by the NCB. No BoT-loan was needed in this case.

All three smelter proposals had been analysed beforehand in a study by the IRC on behalf of the Government to which it reported in January 1968. The scheme therefore combined investment grants, cheap supplies of basic inputs from the nationalised industries (coal, electricity), government loans and an IRC study to set up a domestic aluminium industry and save imports in the post-devaluation period.(30)

After initial difficulties the three U.K. smelters are now running at full capacity. They produced in 1977 350,000 tons of aluminium. This leaves the U.K. still with annual imports of 100,000 tons, worth £60 m. But the direct balance of payments savings of the smelters now amount to circa £210 m. annually. Initially heavy capital outlays and a slump in demand during the crisis of 1974/75 meant that only now, 10 years after the introduction of the scheme, has the operation of the smelters become profitable. Alcan (U.K.), for example, achieved after years of losses from its investment finally a pre-tax profit of £10 m. in 1976 and of £24 m. in 1977. The major advantage of the scheme was that the smelters were constructed before the major cost and price explosion of the early 1970's. If built today the smelters would cost about three times as much to be installed and operated. Apart from the import savings, the government found the scheme, however, to cost more than originally envisaged. Because of major delays in the construction of the nuclear reactors more expensive power from less cost-efficient plants had to be supplied to the smelters at the agreed subsidised rate. The aluminium companies are currently planning to expand their smelters' capacity pending negotiations with the government about another beneficial agreement to guarantee the supply of cheap electricity. These plans have been prompted by the optimistic demand forecasts, the now profitable operation of the smelters, the high costs of building a new smelter and the fact that the U.K. is still a net importer of this material.(31)

The powers under the Act to introduce "industrial investment schemes" were used very little, because the IRC expanded its activities during and after 1967/68 and included many of the potential schemes under the Act. Furthermore, industry was frequently not willing to cooperate, while the schemes depended on the consent of the affected firms. For example, Min Tech was forced to abandon a scheme under sec. 3(1) of the Act to set up a Machine Tool Industry Board in 1968 because of the opposition from the Machine Tool Trades Associates. Finally, the Act was repealed in 1971.

interests against management's proposals. Obviously, the industrial labour force will oppose technological change if it leads to higher productivity and possibly more intensive work efforts without any proportional wage increases or if it involves redundancies (or even the closure of certain old plants) without any redeployment or new job opportunities elsewhere. Participation by the work-force in corporate decision-making and a more democratic corporate organisation are therefore not only necessary preconditions for the successful completion of projects to restructure and modernize industry, but are also very likely to directly benefit U.K. firms by unleashing the talent of working people, by improving their motivation, and by including their knowledge and experience in production as a resource, as an asset. Labour's proposals covering planning agreements with the leading firms and the disclosure of information on company activities and plans set the framework for increased union and shopfloor participation. Workers would also benefit from the activities of the NEB or other state holding companies (as described above in footnote 1 of this chapter) aimed at redeployment of redundant labour and creation of new jobs in the wake of strengthening regional economies and rationalizing small or medium-sized firms in declining sectors. In addition to those new policies NEB's subsidiaries, representing a new type of public enterprise also in this respect, were to encourage union-appointed worker directors or other forms of participation and changes in the structure of the Board of Directors acceptable to the work force and the unions. This may well have a "pull effect" on other competitors, if the unions demand the practices in the new publicly owned firms to be introduced by the private firms as well. In this way the NEB could help to make a reality of any eventual legislation concerning industrial democracy. Among the other long-term objectives of the NEB specified in The Labour Party (1973, pp. 14 - 20) were its functioning as an agency in a national purchasing

government's contributions through the NEB and sec. 8 of the Industry Act 1972. More specifically, in addition to the existing overdraft facility of £200 m. (partly guaranteed by sec. 8 of the 72 Act) and the £200 m. of equity (provided by the BL Act 1975), DoI (1975, para. 15.23, p. 70-71) foresaw loans of £500 m. between mid-1976 and mid-1978 and a further £500 m. in loan or loan/equity from late 1978 onwards, made available under the Industry Acts 1972 and 1975. The Report recommended (in para. 9.9 and 15.23) that the injection of new finance by the government should be staged (£100 m. in 1976, £200 m. each in 1977 and 1978) and at each stage be made dependent on evidence "that some tangible contribution is being made both by BL's work force and its management to the reduction of industrial disputes and the improvement of productivity" (ibid., para. 9.9, p. 33).

As the basis for extensive reorganisation of a major U.K. company and detailed guidelines for intervention and assistance by the NEB the Report constituted a new level of industrial policy. It did not any longer rely on the formulation of investment projects by the companies themselves and confine the role of state institutions to the approval of proposals, their funding and the monitoring of progress, which characterised industrial policy up to 1975. Instead, the Ryder-Report and following NEB-involvement reflected a more active approach, in which the specification of reorganisation and its implementation on the company-level was initiated by bodies set up by the government to carry out industrial policy. In retrospect, however, the Report's assumptions about BL's capacity to achieve progress in terms of productivity, industrial relations reform, competitiveness, time-scale of investment and self-generated funds proved to be overoptimistic and consequently unrealistic.

Despite a record export performance and a return to profitability during 1976 BL suffered from continued industrial relation problems, lagging productivity and a deteriorating home market share.(7) The major difficulties for BL concerned the number of strikes and the achievement of satisfactory output levels. After a wave of strikes in the last quarter of 1975, during which 1,11 m. manhours were lost, the NEB ordered in December 1975 a temporary halt of BL's investment program. This pressure led to a decline of industrial disputes during the first half of 1976, with the exception of April, when 1,06 m. manhours were lost through strikes. In July 1976 the NEB agreed after a review of BL's position to supply BL with the first £100 m. tranche, of which £30 m. would be drawn from the funds of the 72 Act under sec. 3 of the 1975 Act and later repaid

to the NEB by the DoI.[8] At the same time the NEB re-emphasised that its approval and financing of any new project would be made conditional on commitments by the work force to achieve specified productivity targets. Taking the £100 m. loan as a sign of NEB's willingness to support BL in the long-run, the work-force seemed to have felt less pressure to maintain discipline and the number of strikes again began to grow during the second half of 1976. As a result of internal and external disputes leading to frequent disruption of production, BL Cars fell badly behind production targets. Although the losses in man-hours and output due to strikes and consequential lay-offs were in 1975/6 below those of 1974/75, BL could not raise its production levels high enough to stock and supply enough vehicles to meet booming demand in 1976. Output was estimated by BL-management to have been between 20 and 23% below the target required from existing facilities. With fewer new BL-cars on the market and longer waiting lists BL's U.K.-market share fell during 1975/76 from 32% to 27% and the market leadership in the U.K. was for the first time lost to Ford (U.K.).

Progress on new arrangements for employee participation during 1976 was also slow. Despite commitments by union officials to participate in the newly created joint union/management committees, many stewards complained that, with management's "right to manage" in the absence of consensus, shopfloor representatives had no power of decision-making or veto. This and the widely-shared belief that managers and directors could still be appointed without prior consultation of the shopfloor and could still decide on major issues among themselves, rather than through the committees, led many stewards and some union officials to refuse participation. Negotiations on reforming the collective bargaining system proved difficult and time-consuming. The start of new investment projects in 1976 was frequently delayed because of initial unwillingness of the work-force to give the productivity assurances required by the BL-managers and the NEB and because of public controversies over the pro and contra of specific projects.[9]

1977 began with encouraging signs of much improved output figures, the go-ahead on the Mini-project after a productivity committment at Longbridge and the approval of NEB and DoI, and, most importantly, an agreement with union officials on a comprehensive reform of collective bargaining.[10] But in February a series of strikes erupted, culminating in the month-long tool-makers' strike. These were only ended through management

threats of dismissal and a NEB/DoI-ultimatum that, unless industrial peace was restored immediately, future projects and thus jobs would have to be substantially cut. These strikes, leading to a lay-off of 39.000 workers, the loss of vehicles worth about £150 m. at showroom prices and a shortfall of £70 m. on projected cash flow, further reduced consumer confidence in the company. The assumptions of the Ryder Report became in this situation clearly obsolete. The market share of BL-cars in the U.K. fell in the first quarter of 1977 to 23%. Because of the losses of BL Cars the company could not any longer expect to generate the cash flow required for its contribution to the investment program of the Ryder Report. Its liquidity shortfall came after delays in the projects over the last 18 months had further pushed up the estimated project costs and the NEB had publicly stated its unwillingness to raise its financial assistance beyond the originally planned £500 m. up to mid-1978. The output targets of 20.000 units a week had up to March 1977 not been achieved even once, and there was little progress in improving industrial relations. Tensions between the BL-management and the NEB/DoI-officials grew during the strike wave over NEB-demands of a temporary investment freeze and a review of BL's plans, as well as over threats by NEB and DoI to BL's workers of possible cancellation of projects, trimming down of operations, and redundancies. The review by the company of its activities in April 1977 continued to argue the case for the Ryder-Report's program of expansion, but doubts in government circles about the latter's feasibility failed to be dispelled.

The turning-point and with it the abandonment of the Ryder Report came in the late fall of 1977, after the resignations of Lord Ryder as NEB-chairman in July 1977, and of BL's leading manager in October 1977 had removed the two most dedicated proponents of the initial strategy. Its reversal had become inevitable, when the NEB had to provide BL in October 1977 with £50 m. out of the funds allocated for later to overcome the firm's liquidity shortage and finance its working capital. The appointment of Mr. Edwardes, up to then Chairman of the Chloride Group and part-time member of the NEB, to head BL and subsequent replacements of BL-managers in the last months of 1977 marked the beginning of a new corporate strategy for BL with the approval of the NEB. In November 1977 the package of industrial relations reforms was finally accepted by the majority of BL-workers in a ballot, establishing the principles of a single company-wide bargaining unit, pay parity for the same job regardless of plant, a common starting date for all agreements, and in response to union demands also an

incentive scheme. At the beginning of February 1978 Mr. Edwardes announced a new management structure for BL, based mainly on a separation in the car division between volume cars and specialist cars and on the reorganisation of BL International. There were to be in addition some changes in product development to strengthen BL especially in the markets for models with higher profit margins, while at the same time maintaining its position in the volume car market. A number of investment projects, planned on the basis of the Ryder-Report, were trimmed down or shelved.(11)

The changes of management and plans included also some more immediate savings, achieved by tough action. The loss-making Speke plant was closed in the spring of 1978 to reduce the assembly overcapacity of sports cars at a loss of 3000 jobs. In line with a lower forecast of BL's U.K. market share of 20-25% up to 1980 the new management anncunced that the labour force of BL Cars would be reduced (from its level of 130.000 at the beginning of 1978) by at least 10.000 during 1978 and a possible further 20.000 in 1979-80 to achieve more realistic manning levels. There would also be major redundancies among BL's administrative staff. Unprofitable manufacturing operations in Australia, Scandinavia, and South Africa were further rationalised and the U.K. production of Triumph 2000/2500 and the XJ Coupe discontinued.

To provide BL with a more sensible debt/equity ratio, which would give it more freedom of manoeuvre and reduce both debt and future borrowing, the NEB agreed to a reorganisation of the company's finances. In April 1978 the NEB provided £450 m. in new equity, of which £150 m. came from funds of the 1972 Act transferred to the NEB under sec. 3 of the 1975 Act. But the total financing of BL by the NEB and the 1972 Act up to 1980/81 is expected not to exceed the predictions of the Ryder-Report, i.e. £1000 m. from 1976 onwards. Linked to the new infusion of equity was also a change in the relation between the NEB and BL, which will leave the subsidiary much more independent. The Board admitted the failure of advancing money on the basis of recent good performance and promised to end this method of putting pressure on management and workers. The reviewing process was shifted on to an annual basis to create more certainty and less worry about BL's financing a year ahead. This reversed the trend during 1977 of growing NEB-involvement in BL's affairs.

It is still too early to assess the effects of all these recent measures. The implementation of the industrial relations reforms, the changes of the corporate structure and the investment plans are not yet completed, and the new management had during 1978 to intervene repeatedly in conflicts

and disputes that arose from these issues. In the short-run BL is not expected to improve its present U.K. market share of circa 22% or to raise pre-tax profits above the 1977-figure of only £3 m. But there is optimism in the firm and the Board that the new strategy, if carried out as envisaged, will lay the foundations for expansion and competitive strength of BL in the 1980's. What has already become clear is the extent of NEB's involvement in the company and its willingness to intervene actively in the management, structure, product development, industrial relations, and investment plans of its subsidiaries, supported by continued, close monitoring.

7.2.2. : Rolls Royce (RR): This is NEB's other major, wholly-owned subsidiary with large funding requirements.[12] The relationship between the NEB and RR, as specified in the Memorandum of Understanding of February 1976, committed the firm explicitly to locate expansion in development areas and to further worker participation in line with NEB's social obligations under sec. 2(1)(c) and 2(2)(d) of the 1975 Act. The Board was to control RR's forward plans, capital spending decisions above £5 m. and management appointments. But the Memo did not resolve the contradiction that RR was likely to continue requiring as in the past government funds on non-commercial terms as launching aid for new engines in conflict with NEB's statutory requirement of applying commercial standards on its investments. One possible solution to this mixture of "national interest" and commercial considerations would be to provide launching aid outside NEB's direct budget, either through sec. 3 of the 1975 Act or the S&T Act 1965. If the NEB were to provide all the launching aid not any longer as a subsidy, but confined to projects with a clear financial pay-off within a time scale acceptable to a commercial lender, the consequence would be either a run-down of RR to a commercially self-supporting size and/or collaboration with European or U.S. firms on a risk-sharing basis. This would represent a change of government policy away from technological independence.

With the long-term future of RR thus undecided, the company was struggling in 1976 to overcome more short-term liquidity problems, caused by the depression in the aeroengine market and cost inflation of some of its development projects. It ended the year with a loss of £21.9 m. on sales of £620,2 m., compared to a 1975 pre-tax profit of £4.5 m. on sales of £602.1 m., as stated in NEB (1977, p. 15). To reverse these losses the company engaged in a rationalisation program with the objective of reducing

Judging from table 7.2. the NEB's rescue operations seem to have involved mostly loss-making firms in arbitrary sectors. But a closer look reveals a clear purpose, both in terms of NEB's interest in these firms and overall NEB-strategy. Sinclair, for example, is U.K.'s biggest producer of calculators and an acknowledged world leader in the design of micro-electronic consumer articles based on semiconductor technology. Since October 1977 the NEB has taken action on Sinclair's worst problems, namely its electronic digital watch (which as a market failure has been abandoned), its overreliance on the calculator business, where it had to directly compete with the giant U.S.-firms in a price war, and lack of cost control. After massive reorganisation of production and strengthened management, Sinclair successfully launched in 1978 a mini-TV and established a market for this product, returning thus to profitability. Thwaites & Reed, a long-established clockmaker and U.K.'s most important firm for servicing special clocks was sold by the NEB in November 1978 for a mere £78.000, after injections by the Board of over £0.4 m., a change of management and an expansion program failed to make the firm profitable. British Tanners Products, the most serious persistent problem in this category, has been established in a joint venture with the U.K.-multinational Barrow Hepburn Group to rescue the latter's tanneries from closure. It is U.K.'s largest tanning operations and after plant closures, massive redundancies, debt reduction, and a strengthened marketing network during 1978 is expected to return to profits. Bull Motors, which NEB acquired for £0.34 m. from U.S.-multinational A. O. Smith, is a world leader in the manufacturing of lift motors and after redundancies in late 1977 is expected to end 1978 with a profit. Fairey Engineering was acquired by the NEB in a take-over battle with Trafalgar for £20.5 m. and then set up as a new holding company and NEB-subsidiary, while Fairey's loss-making aviation business was hived off. Before Fairey went into receivership, its engineering activities had been constantly profitable (£4.5 m. in 1976/77, for example). The new subsidiary should therefore boost NEB's income in the future. But even more importantly, its activities in hydraulics, pumps and valves, and nuclear engineering provide the NEB with a first base for future sector-wide initiatives in industries, where the Board wants to produce some structural change. Therefore we can conclude that these rescues concerned firms of major strategic importance to both U.K. industry and the NEB, with the subsequent rationalisation measures likely to restore their profitability.[20]

necessity for public assistance, made manifest by the repeated calls of private companies for public funds to help them overcome both cyclical and structural difficulties, seem to refute the critics of selective intervention by the state in industry, industrial policy has clearly failed to halt, let alone reverse, the industrial decline over the last 15 years. According to the empirical evidence presented in Ch. 2, the production conditions of the private company sector deteriorated since 1964. There are, however, methodological difficulties inherent in any conclusions about the impact of micro-economic policy measures which rely on aggregate macro-economic data such as those used in Ch. 2. It is therefore very difficult to evaluate the combined effects of industrial policy as a form of micro-economic supply management on the macro-levels of private industry or the economy as a whole. (4) Nevertheless, given the undeniable acceleration of industrial decline, it is clear that, as actually carried out between 1964 and 1978, industrial policy had at best (if any) only a limited effect on industry in general. On the basis of the arguments and evidence in the thesis, our conclusions regarding the relevance, effectiveness and justification of industrial policy in the U.K. since 1964 are therefore of a twofold nature. On the one hand, its record of implementation and its contributions towards strengthening specific sectors and firms seem significant enough to allow for arguments in its defence against the demands of its critics and the current plans of the Conservatives aimed at its reduction or abolition. This is the objective of this section (i.e. sec. 8.2.). On the other hand, however, its failure to achieve a reversal of the trend decline with regard to growth and competitiveness in industry as a whole begs the questions whether industrial policy, as conceptualized and defined in sec. 3.2. and carried out through a series of limited measures discussed in Chapters 4 to 7, was adequate to address industry's fundamental problems and, if not, whether it should

be replaced with what type of state intervention. These questions form the subject of sec. 8.3. and 8.4.

Throughout the thesis we have argued that private industry's difficulties and the existing constraints to achieve higher growth and improved competitiveness have justified the adoption of various industrial policy measures since 1964. For example, the ability of firms to invest depends partly on the availability of finance to fund their projects. Many companies, especially the smaller, but rapidly growing ones, have found their internally generated cash flow insufficient to undertake major investment projects. Institutional constraints on the supply of external funds, which have been recently analysed by NEDO's Roll Committee and the Wilson Committee (sec. 4.1.3.) and have been caused mostly by the costs and restrictions for firms to have access to the capital markets by issuing new equity, selling bonds or borrowing from banks, added to the limits on investment funds. In response to this problem, various governments over the last 15 years have offered increasingly generous measures to raise industry's internal investment finance. These, as shown in sec. 4.1., took mostly the form of tax allowances, investment grants or relaxation of company taxation. In addition, grants, loans and equity were offered on a gradually increasing scale under such Acts as the S & T Act of 1965, the IRC Act 1966, the Industrial Expansion Act 1968 and the Industry Acts 1972 and 1975 to act in substitution for the stock market and the City-institutions. But even with adequate levels of finance available, private companies may not want to increase domestic investment activity, if, as emphasized in sec. 2.2.2., expectations about future demand levels, capacity needs and/or profits do not justify it. More profitable and/or less risky alternatives can often be found when investing in fixed assets overseas or in the domestic or international markets for liquid assets. (5) Recent

8.3. The limits of industrial policy in the U.K.

So far we have focussed on the contributions of industrial policy after 1964 to assist the private company sector's efforts towards achieving improvements in competitiveness and performance. We have argued that the measures, which were applied under the category of "industrial policy" over the last 15 years have been objectively necessitated by the ongoing process of deterioration in industry's "production conditions." (14) Looking at the evolution of industrial policy measures between 1964 and 1978 we have noted a process of quantitative growth and qualitative refinement which enabled policy-makers to achieve successful intervention in a number of sectors and firms. We have tried to show in our thesis that this expansion of industrial policy has on the one hand been a result of growing pressures arising from the gradually worsening position of domestic industry, which forced governments since 1964 to introduce and then increase public assistance in more and more sectors. On the other hand it has been the product of "learning from experience" which permitted the introduction of more effective measures, made possible the correction or avoidance of previous policy shortcomings and led to improvements in information-gathering, in monitoring and in the degree of selectivity necessary to address industry- or firm-specific problems. All these factors involved in the evolution of industrial policy, namely the necessity for public assistance to grow in a period of accelerating industrial decline plus the ability of policy-makers to improve intervention and achieve at least partial success in aiding the industrial reorganisation or expansion of some sectors or firms, indicate to us that this type of intervention, despite its limits discussed in this section, is a more realistic, more constructive and more effective approach to the problems of private