is triggened from below. At the same time the voters are growing more vociferous in demanding jobs where they live. They refuse to accept geographical mobility. [15)]

This new approach to the measures imposed from the centre probably explains why service has partly replaced money in the public aid structure. As a way of supporting companies in their technological research and development, or in the marketing and selling of their products, the short-term aid policy seems to have been perceived as ultimately ineffective, a view that has encouraged its discontinuation. Thus the sums allocated today are much smaller than they were a few years ago. The new emphasis is on corporate service and infrastructural action as a way of revitalizing business life. Once again it seems to be a lack of confidence in solutions from above which dictates the form the action takes. It is a question of helping to stimulate self-help. Money does not solve the problems of the small and medium-sized companies. Actors at the regional and local levels declare that the way to stimulate local and regional employment and industry is to provide the appropriate kinds of service. [16)]

POLITICIZATION: ITS MAIN EFFECTS ON BUSINESS ATTITUDES AND BEHAVIOUR

Thus, on the one hand, politicians have become more ambitious to influence corporate activities, and they have pushed ahead at the expense of the market forces. On the other hand, companies and business organizations now take a much greater part in designing public policy in the government and Riksdag, and at the regional and local levels, as well as in implementing the laws and regulations in practice.

Certainly, then, the desire of the politicians to control business companies has increased since the middle of the 1970s, and this may mean that actual political control has also increased. But we know very little about the effects of this steering action on business life. Companies at any rate are always grumbling that their operations are becoming increasingly entangled in regulations and legal provisions. The latitude allowed to them is greatly restricted. People claim that society as a whole has become over-regulated. During the 1970s a new law or decree was introduced every eighth hour, and some new regulation applying to companies every 26th hour. A new law restricting the freedom of business life was said to appear every tenth day. This was the picture by which Swedish business liked to describe the political impact on business enterprise during the 1970s. [17)]

As we have noted this steering action was aimed at circumscribing corporate behaviour in particular areas behaviour which from the point of view of the community as a whole was not desirable. It could be a question of natural pollution, of noise and dirt in workshops and factories, or the transfer of money for investment abroad. As regards the three main corporate functions - product development, manufacturing and marketing/selling - there were elements in all this which could be exploited constructively. The accumulation of controls imposed by the political system has evoked a response. Companies and other organizations in the business world have not remained inactive. Industry has also advanced on three fronts, seeking in its turn to influence (1) legislative action, (2) implementation of policy on the part of the state authorities and (3) the contribution of the regional and local bodies.

First, attempts to influence government and Riksdag have been stepped up. Few Swedish business leaders are active in party politics today. Political activity has come to be increasingly regarded as a full-time job, just as business management has long been regarded. Statistics have shown that since the beginning of the 1970s the number of business leaders in politics has fallen, relatively speaking. The same applies to people active in industry in general. Political assignments go increasingly to public employees, both at the central national level and at the level of the county councils and municipalities. But this does not mean that the industrial interests are not being brought to the attention of the public decision-makers: these interests are expressed by the industrial organizations, which represent industry visavis the political bodies. [18)]

There are approximately 900 organizations representing industry in this way, and they constitute the normal channel through which industry seeks to influence public policy, although over the last ten years or so many large Swedish corporations have also started to act on their own account outside their representative organizations. But private companies have no formal influence over policies as formulated by the government and Riksdag. The formal channels - participation in public commissions or consultative bodies, commenting on proposed legislation etc - are reserved for the official industrial organizations. But an individual company, as the representative of its organization, can of course act in its own interest in these contexts. Another alternative for business management and one that is probably more common, is to act outside the official organizations by way of informal contacts. [19)]

A growing number of large corporations have in the last decade established a strategy for contact with politicians and authorities - a "relations-planning" system intended to promote good relations with public decision-makers, thus making it easier to predict the decisions of the government and to adjust the corporate planning accordingly as well as affording opportunities for influencing the relevant legislation. Many large corporations have thus created or reinforced existing special units for internal and external information. These units generally also keep an eye on any political issues affecting the company.

Behind this growing activity in the business world appears to be a feeling that freedom of action is shrinking. Companies are becoming increasingly dependent on the public decision-makers, and so they try to ensure that these decision-makers are provided with such information as seems relevant from the business point of view. At the same time they themselves want to know about possible winning restrictions, and are therefore anxious to be familiar with commissions, committee work on government bills, and the working of the Riksdag.

Despite all this, however, direct corporate contacts with the policy-makers, and with the ultimate decisions in the Riksdag, generally seem to be rather limited. This, companies appear to feel, is the job of the industrial organizations. Thus medium-sized and small companies have to rely entirely on their representative organizations. Also, over the last few years several firms have been established to advise and support companies in their contacts with authorities and politicians. Lobbying firms and consultants are multiplying. [20]

Secondly, the actual formulation of the laws regulating the conditions of working and business life has served to promote integration between the corporate sector and the public decision-makers. The trend towards skeleton legislation calls for active participation from industry at the implementation stage. In the old days the Riksdag passed the laws and industry followed them. Today it has become more common for the Riksdag to pass blanket laws or frameworks, the details of which are regulated by the government authorities or are negotiated by the authorities and the industrial organizations together. [21]

Further, most of the state regulations require a decision from the authorities in each separate case at the implementation stage. The element of selective measures encourages and sometimes even compels corporate management and the authorities to seek direct contact with one another. Each new selective measure augments the need for such contacts, so that an extensive contact network gradually evalues. In fact most of the contacts between the state and business today are connected with the application of selective action - a company has applied for aid or a permit. The interaction and information exchange thus engendered is necessary for the transformation of political ambitions into practical and functioning operations. The contact is generally between companies and managements on the one hand and government, ministries, the government agencies or the state authorities at the regional and local level at the other. Quite often the interaction develops into negotiations. At any rate negotiations of this kind appear to have become more common as the selective aid policy has evolved. [22)]

Thirdly, regional and local mobilization promotes the integration of politics and business life and encourages companies to be active. The idea underlying such mobilization is of course that the local resources of a community, together with the local companies, will generate corporative development and will thus eventually create the labour market of the future. At present the various local actors - county administration, county labour board, development fund, county council, local governments etc - have various forms of economic aid at their command. At the same time, as we have noted, service activities are being developed in the regions and municipalities, and these also generate integration and further interactions and negotiations between the local authorities on the one hand and the corporate sector on the other. [23)]

As local mobilization evolves, a new type of company also emerges which utilizes the growing integration. This time it is a question of companies which specialize in helping the regional and local actors to formulate policies aimed at the corporate sector, with a view to stimulating enterprise locally. 24)

POLITICAL EFFECTS OF BUSINESS REACTIONS

A typical catchword in the employment policies of Western Europe is "increase appropriations". Governments react to rising unemployment by pumping more money into traditional labour market schemes. There seems to be very little in the way of creativity or experimentation. This was also the case in Sweden during the 1970s. But in a comparative Nordic perspective, Sweden now seems to have struck out in a different direction. There is an ambition at the central level in Sweden to try using more unconventional methods. Political activity at the regional level shows signs of experimentation and new thinking. We would say that the Swedish model of the 1980s consists of just this: a desire to experiment, to allow scope for new thinking, to try out "community experiments". At the same time the centre is interested in stimulating commitment among the regional och local actors, whose ideas and creativity and new thinking can be used to create employment opportunities. This is a spirit which the central politicians are happy to exploit, and one which also meets with response from local companies and entrepreneurs. 25)

Has the gap between politics and business grown wider or narrower during the last decade? In some respects it has certainly increased. Naturally government and business organizations differ in their ideas about the political action needed to tackle the "economic crisis". Business recommends greater restraint in the public sector, for instance, in order to reduce the budget deficit. The public sector is much criticized, and a debate about privatization is in full swing. The pressure of high taxation is also attacked. But the issue which has certainly divided politics and business most fiercely is that of the wage-earner funds. The labour movement has introduced its scheme for wage-earner funds in face of militant opposition from the ranks of business, and the funds actually launched on 1 January 1984 are being fought with every possible means. The three non-socialist parties have also promised to abolish the wage-earner funds if they win the next election in September 1985.

At the same time in their shop-window declarations the industrial organizations oppose all forms of selective measures directed at business. But here it is very much a question of lip service, and if we examine how companies actually behave we find them trying to exploit such resources as can be mobilized from the political system. Here the gap is not growing wider.

At the regional and local levels companies are increasingly collaborating with political bodies. Companies have become significant actors in the regional and local coalitions. On many counts they join the other advocates of regional and local mobilization, supporting political experimentation and working actively with the political bodies. The same applies to the industrial organizations at the local and regional levels. The institutionalization of politicized business seems to be under way. [26]

The regional coalition (the county administration, the county labour board, the development fund, the regional industrial organizations, the parties on the labour market etc) and the local coalition (the municipal politicians and officials, trade union representatives etc) used to feel that their main task was to watch what the central actors were up to and perhaps above all to get hold of resources from the central level in order to help companies in crisis. Now these coalitions do much more in the way of supporting existing business, of providing help for self-help. Local resources together with local companies are to create the labour market of the future. Better coordination of the resources of the political bodies in collaboration with the local corporate sector are to promote vitality and renewal in business life and thus in the long run to create the future labour market. [27] We are moving towards a kind of "businessization" of politics.

CONCLUSION

We have suggested above that a new kind of businessman seems to be appearing on the Swedish stage. If we look at the behaviour of the industrial organizations and the large corporations at the central level, it has to be admitted that the gap between politics and business does look wide. The privatization of public activities, wage-earner funds, and the pressure of taxes have become keynotes of the debate. At the same time attempts on the part of big business to influence the shape of public policy in the government and the Riksdag are becoming increasingly ambitious. But when we look at the interaction between the authorities and the corporate sector, we see the relations between politics and business in rather a different light. The business world, particularly small and medium-sized companies, are taking part in a bargaining game at the regional and local level, in which it is a question of stimulating regional and local industry. Big business often takes part in an intricate bargaining game at the central level. At all three levels resources are available for corporate research and development as well as for production and marketing/selling. The business organizations often collaborate intimately with the political bodies, particularly in implementing government labour market policy and industrial and regional policies. This also applies to the build-up of public corporate service and infrastructure at the regional and local levels.

The selective aid policy makes big demands on companies and on those who work in industry in that they must be familiar with the political decision process and have good contacts with the decision-makers. It is no longer enough to be a competent entrepreneur in the traditional sense. It is also necessary to be capable of interacting with government departments, aid-granting bodies, municipal bodies etc. It is not enough for today's entrepreneur to know about the different kinds of aid that are available; he also needs to know how to obtain it and how to influence its design. He must know about the political decision processes and he must be able to acquire political backing, to look for support in all quarters from the provincial governor and the local Riksdag members to local politicians, trade union official etc.

Turning to the regional and local politicians in Sweden, we find that a new kind of politician appears to be in the making. At the regional and local levels the politicians cooperate closely with the local companies, in order to promote renewal in industry, and in the long run to stimulate the labour market. The politicians' role today seems to consist less of expressing demands visavis the central level and more of taking the initiative, thinking along new lines, and solving problems. The local and regional politicians seem to have decided that solutions are not always to be found in Stockholm; solutions are created in cooperation with the local business world.

Are we thus moving towards greater integration between politics and business in Sweden? The trends which I have described - decentralization, the stimulus of regional and local initiatives, the reinforcement of service thinking at the regional and local levels, and a growing desire to experiment - will probably persist and will encourage further integration. Also the need for close collaboration between politics and business will be mutual, and this interdependence will grow whether people like it or not. Admittedly the central business organizations do not always appear to be supporting developments along these lines. But the political behaviour of the business organizations, particularly at the regional and local levels, presents rather a different picture. The political parties, with the possible exception of the conservatives, do seem to be supporting the kind of developments we have been discussing here. For the rest, it is difficult to think of a single influential political actor who wants to switch to another track.

NOTES

1. Calmfors, L, "The roles of stabilization policy and wage setting for macroeconomic stability - the experiences of economies with centralized bargaining".

2. Elvander, N, "The Swedish Collective Bargaining System".

3. On "Bargaining Economy" see e.g. Henning, R, "Regional Policy - Implementation through Bargaining", in Scandinavien Political Studies 1983:3; Hernes, G (ed) Forhandlingsøkonomi og blandningsadministrasjon; NOU 1982:3 Maktutredningen. Slutrapport.

4. See e.g. Henning, R, "Industripolitik eller sysselsättningspolitik?", in Hadenius, A - Henning, R - Holmström, B, Tre studier i politiskt beslutsfattande; SOU 1981:72 Att avveckla en kortsiktig stödpolitik.

5. This trend is discussed in some detail in Henning, R, "Nordisk näringspolitik".

6. Local and regional mobilization is discussed in e.g. Berger, S - Melin, L, Lokala strategier; Brunsson, N - Johannisson, B (eds), Lokal mobilisering; Fölhammar, S m fl, Så klarar kommunerna jobben; Snickars, F (ed), Beslut för regional förnyelse; Henning, R, "Näringspolitik - ett nytt inslag i den svenska förhandlingsekonomin", in Ekonomisk Debatt 1983:5; Johannisson, B, Vi kan. Vi vågar. Självtillit och handling i Målersås; Kommunal näringspolitik; Lindmark, L, Kommunal näringspolitik. Företagsstöd och kommunalt risktagande; Melin, L - Alsén, G - Berger, S - Nilsson, A, Kommunerna och näringslivet; Näringspolitik på kommunalt vis; SIND 1982:7 Lokal samverkan - fördelar för näringsliv och kommun?; SIND 1983:7 Krisortsgrupper - instrument för lokal utveckling; SIND 1984:8 Kommunal näringspolitik.

7. This trend is described in Henning, R, "Nordisk näringspolitik".

8. See e.g. Henning, R, "Näringspolitik - ett inslag i den svenska förhandlingsekonomin", in Ekonomisk Debatt 1983:5; Henning, R, Industrikampanjen; Melin, L - Alsén, G - Berger, S - Nilsson, A, Kommunerna och näringslivet. SIND 1982:7 Lokal samverkan - fördelar för näringsliv och kommun?

9. Arbetsmarknadsstyrelsen, "Serviceprogrammet".

10. See e.g. Rodriguez, E, Offentlig inkomstexpansion.

11. Henning, R, "Industripolitik eller sysselsättningspolitik?", in Hadenius, A - Henning, R - Holmström, B, Tre studier i politiskt beslutsfattande; SOU 1981:72 Att avveckla en kortsiktig stödpolitik.

12. Henning, R, "Industripolitik eller sysselsättningspolitik?" in Hadenius, A - Henning, R - Holmström, B, Tre studier i politiskt beslutsfattande.

13. Henning, R, Industrikampanjen.

14. The uncontrollability of the social organization is stressed in a good many works, among others in the Norwegian power study (see e.g. NOU 1982:3) and in Swedish implementation research.

15. Se above note 6.

16. See e.g. Andersson, ÅE - Törnqvist, G - Snickars, F - Öberg, S, Regional mångfald till rikets gagn; Henning, R, Industrikampanjen.

17. Tarras-Wahlberg, T, Lagstiftning till döds? pp 11.

18. See e.g. Isaksson, A, "Välfärdsstatens nya politiker", in Tiden 1978:9/10; Henning, R, Företagen i politiken p 104. See also Företagens folk i riksdagen.

19. Elvander, N (ed), Näringslivets 900 organisationer; Henning, R, Företagen i politiken, ch 5.

20. Henning, R, Företagen i politiken.

21. Ibid p 175.

22. Ibid ch 7.

23. See above note 6.

24. SIND 1984:3 Kommunal näringspolitik. Industriella samverkansprojekt.

25. Richardson, J - Henning, R (eds) Unemployment. Policy Responses of Western Democracies, ch 13.

26. See e.g. Henning, R, Industrikampanjen.

27. Ibid.

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THE BRITISH GOVERNMENT AND CIVIL AVIATION 1919-1951

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THE BRITISH GOVERNMENT AND CIVIL AVIATION 1919-1951

Almost since its inception British civil aviation has been linked in a symbiotic relationship with government. It has been an enterprise involving three partners: the aircraft manufacturers, the airlines, and the state. The intimacy of this relationship and its vital significance for each of the partners has not served to make it an especially amicable or satisfying one for any of them. The aviation industry has tended to regard Government as a somewhat neglectful and frequently capricious paymaster, whilst successive Governments have come to regard the aircraft industry as one into which, "large amounts of public money have been absorbed without return" **(1)**.

The dependence of British civil aviation upon government support is by no means unusual for even in the United States, where economic and geographical conditions were almost ideally suited to the development of air services, "it was not until 1950 that US domestic airlines....finally achieved full profitability without subsidy" **(2)**. During the period under review in this paper civil aviation was in its infancy and the economic and technical capabilities of the aircraft available were such that only a very few services (eg London - Paris) offered any prospect of breaking even without some form of public subsidy. Given this dependence upon government support any account of the early development of civil aviation (in Britain or elsewhere) must concern itself not only with technical questions and the operation of market forces, but also with the machinery and processes of governmental decision-making and the political forces acting upon them. The history of civil aviation is as much concerned with the study of politics and administration as with the study of technical and economic change.

The Three Partners

(1) The Aircraft Industry

During the inter-war years the manufacture of civil aircraft was very much a secondary activity for the British aircraft industry. Only De Havilland and Shorts devoted a major part of their resources to making civil aircraft. In general British aircraft manufacturers concentrated upon building military aircraft to meet the requirements of the Royal Air Force. By doing so they were led into a relationship of great intimacy with the Air Ministry which was responsible for aircraft procurement. Normally they would only begin work on an aircraft project after they had received a specification for it from an Air Ministry official, the Director of Technical Development, who kept a list of approved aircraft manufacturers ('the Family') who were asked to submit tenders to meet RAF requirements. Once a firm's design had been approved by the Director of Technical Development work could then proceed with government financial assistance. Such assistance was often vital to aircraft developments for aircraft manufacturing was a somewhat speculative business, so that the manufacturers did not find it easy to raise capital in the City. Even when a firm was willing to risk beginning work upon an aircraft prototype as a private venture without Air Ministry approval, a specification would have to be forthcoming if the aircraft was to go into production for the RAF.

The Air Ministry's technical staff and those of the Department of Scientific and Industrial Research were also able to exercise a more general technical influence upon the aircraft industry, for British aircraft manufacturers generally employed insufficient research staff to meet their needs for basic aeronautical research. As a result a great deal of responsibility for the conduct of basic research lay with government research establishments, in particular the Royal Aircraft Establishment (Farnborough). At a more applied level, the staff at Farnborough and at the Aircraft and Armament Experimental Establishment gave advice and conducted tests to assist firms with their design problems. Thus there were a series of mechanisms whereby government could assist and influence the technical progress of the military side of the aircraft industry.

On the civil side successive governments used a variety of direct and indirect means of guiding airliner developments. Their most obvious method was to insist that Imperial Airways (the major subsidised airline) use only aircraft of British design and manufacture. This condition was laid down in Imperial Airways' contract with the Government in 1924. Imperial was prevented, thereby, from using American, Dutch or German aircraft as some of the small unsubsidised British airlines were to do. More specifically the Government sometimes declared that certain types of aircraft were to be used on the air-routes it subsidised. Even where such a stipulation was not made the Government influenced Imperial Airways' choice of aircraft simply by laying down the routes it was prepared to subsidise and the character of the services to be operated on those routes.

There were two sorts of financial mechanism the Government could use to influence Imperial Airways' aircraft purchases: general provisions to encourage regular fleet replacement; and specific measures to assist with the development of particular aircraft. The more general measures were: firstly, a provision that Imperial Airways depreciate its aircraft at 25 per cent per annum and set aside funds accordingly for their replacement; and secondly, a stipulation that the airline should fly at least 425 million horse power miles per annum (a measure designed to ensure that the airline used larger, more advanced aircraft). To aid the development of particular airliners the Air Ministry either: subsidised development by issuing an appropriate specification and agreeing to purchase one or more of the prototype aircraft designed to meet it (as with the De Havilland Albatross); or provided a financial guarantee for Imperial Airways that it would recover its outlays on the development of a particular aircraft (as was done under the Empire Air Mail Scheme of the 1930s). The Government did not exercise quite such close control over airliner developments as it exercised over military aircraft developments. Nevertheless it was in a powerful position to influence both the general direction of British airliner developments and any particular projects that it thought worthwhile.

(2) The Airlines

In the aftermath of World War I Britain was not especially well placed to develop its air services. Its small size, poor climate and well-developed surface transport links all inhibited the development of internal air services **(4)**. Equally the apparent opportunity offered by the proximity of the major cities of Western Europe was largely foreclosed by the spirit of aerial nationalism enshrined in the Paris International Air Convention of 1919. In addition the low load-carrying capacity of the available aircraft and their technical inefficiency meant that, even where international agreement could be reached for the commencement of a particular service, it was very unlikely to be able to pay its way. If air services were to develop on any scale they would be dependent upon public subsidy, either paid directly or hidden in generous air-mail contracts, and in the free or subsidised provision of airport facilities and meteorological services.

Initially the British Government was disinclined to provide significant financial support for the cross-Channel air services set up by various enthusiasts, such as George Holt Thomas and Frederick Handley Page, in 1919. It was held not to be, "...the business of the Government to carry civil aviation forward by great expenditure of public money" **(5)**. As a consequence by February 1921 all British air services had ceased, unable to face the challenge of heavily subsidised foreign competition. Initially the Government stepped in to tide the infant airlines over with small subsidies for 1921 and 1922. However it soon became apparent that considerable subsidies would be required for some time to come. As a consequence the Government appointed the Hambling Committee on Civil Air Transport Subsidies which recommended, in February 1923, that the Government channel its subsidies through a single large airline with substantial financial backing. The Government agreed and in January 1924 signed a contract with the newly-formed Imperial Airways, which had been formed by a consortium of small airlines with financial support from the British, Foreign and Colonial Corporation. The contract was for ten years and provided that the Government would pay agreed levels of subsidy to the airline which in return would provide air services as agreed with the Government.

(3) The Government

It was in 1917 that the British Government became fully aware that the end of hostilities was likely to followed by attempts to develop commercial air services. As a consequence it appointed the Civil Aerial Transport Committee under the chairmanship of Lord Northcliffe to consider the likely significance of such developments and what should be the Government's response to them. The Northcliffe Report indicated that a number of considerations should lead the Government to take a considerable interest in civil aviation developments and to be willing to support them. These considerations were: an awareness of strategic significance of air power, which a strong civil aviation could assist by helping to maintain a healthy aircraft industry and a body of trained pilots and ground crews; the national prestige to be gained by being seen to be in the technological forefront; and the needs of Imperial communications. Thus the Government was soon made aware of the significance of civil aviation, even if for a short while it was not prepared to provide the financial support the industry required.

With regard to the administrative machinery that would be required for the Government to discharge its responsibilities with regard to civil aviation, the Northcliffe Committee concluded that the, "...advantages of assigning to a single Department of State the regulation of all matters relating to civil aviation are manifest..." **(6)** and that, given the close links that were likely to develop with military aviation, the most appropriate department to take responsibility for the regulation and encouragement of civil aviation was the Air Ministry, whose primary responsibility was for the RAF and military aviation. The Air Ministry was therefore given a wide range of regulatory powers with regard to civil aviation and was empowered to foster internal and external flying, in particular by providing certain necessary pieces of infrastructure such as a meteorological service and wireless aids, and by conducting research into matters of interest to civil aviation.

Civil Aviation as an Organised Interest

As the brief account given above indicates, by 1924 the three partners in the enterprise of British civil aviation had formed a stable relationship the nexus of which was public civil aviation policy. The development of air services was dependent upon public subsidy and upon the public provision of various infrastructural necessities. Furthermore such services took place in a context of government regulation and of inter-governmental agreements.

Given the extent of the aviation industry's dependence upon government it is hardly surprising that even in its infancy steps were taken to ensure that the industry's views were generally well represented both to government and to a wider public. There was in Britain a well-integrated aviation community which linked aircraft manufacturers, the RAF and Fleet Air Arm, the technical officials of the Air Ministry, airline pilots and managers, and private flyers to form, "a strong airborne old-boy network" **(7)**. The integration of this community was in part due to its small size and to a cameraderie derived from the knowledge that they were pioneering a dangerous and technically advanced field of human endeavour. By the mid-1930s many leading figures in British aviation had formed bonds of friendship and of respect for one another's work that stretched back over a period of twenty or thirty years. These men were often rivals (eg for government contracts) and could be very critical of one another, as for example Geoffrey de Havilland was of the aircraft purchasing policies of both Imperial Airways and the RAF **(8)**. But they reserved their most vehement criticisms for those outside the aviation community, whether in government or in the City, who were not 'air-minded' and who failed to give British aviation the support that its proponents felt it merited.

The links binding the aviation community were not simply sentimental and personal, they were also organisational and procedural. A number of organisations were formed to foster aviation in general or to promote various aspects of it. These organisations were inevitably drawn into relationships with the government. The oldest of them was the Royal Aeronautical Society which had been founded in 1866 and was, in essence, a learned society concerned with the advancement of aeronautical science **(9)**. Its meetings, at which technical papers were read and discussed, drew to them representatives from all parts of the aviation industry, the Services, the airlines, the Air Ministry's technical staff and the aviation press. They acted as a clearing house for the latest ideas in aeronautics and aircraft design and as such were a means for the industry to influence the thinking of the government's technical officers and _vice versa_. The less venerable, but still prestigious, Royal Aero Club also took an interest in the encouragement of aeronautics, but its main concerns were the encouragement of private flying and the organisation of air races **(10)**. The Air League of the British Empire was more overtly a pressure group. It had been founded in 1909 with the aims of encouraging the development of British civil aviation, air defence and private flying **(11)**. It brought together leading political, industrial, commercial and Service figures interested in the promotion of aviation, and endeavoured to foster 'air-mindedness' through its various events and publications.

However for the aircraft industry by far the most important organisation representing its interests was the Society of British Aircraft Constructors. It was founded in 1916, shortly after the Government had established the formal procedure whereby all the aircraft it purchased were ordered to meet an official specification. Its ordinary, or full, members had to be British firms manufacturing either airframes or aero-engines, and did not number more than thirty or so. It had a far larger number of Associate Members who were British firms that manufactured parts, materials or equipment used in aircraft manufacture. The inner councils of the Society tended to be dominated by the major airframe and aero-engine manufacturers and it was they who were to benefit most from two government decisions of which the Society heartily approved and which ensured the survival of the aircraft industry between 1918 and the commencement of rearmament in the 1930s. These decisions were: firstly that the Government would manufacture no aircraft itself but would purchase the aircraft it needed from private maufacturers; and secondly, that these aircraft would normally be purchased only from the Director of Technical Development's approved list of manufacturers ('the Family'). 'The Family' consisted of four aero-engine manufacturers and about 16 airframe manufacturers **(12)**. It was meant to embody the best of British aircraft design experience. The Air Ministry's purpose in drawing up the list was to prevent its small volume of peacetime military and civil orders being dissipated over too wide a range of firms and so ensure that Britain maintained a sufficiently large number of aircraft manufacturers to meet its strategic needs. Needless to say this policy appealed to the established manufacturers who dominated the SBAC and who were members of 'the Family'. Equally obviously it was a constant source of complaint for the smaller non-'Family' firms, such as Airspeed and Cunliffe Owen, who claimed that official policy made it even harder for them to become firmly established in what was already a high risk industry. The Air Ministry's policy of favouring 'Family' firms was almost as influential in civil ordering as in military ordering, for work on civil aircraft was seen as being almost as satisfatory as military work as a means of maintaining design and manufacturing capacity for strategic purposes.

Thus, though the SBAC represented the aircraft industry to government, and at times exercised considerable influence, it represented the interests of some of its members better than others and did not always speak with a single voice.

There were, therefore, a number of ways in which aircraft manufacturers could approach the Air Ministry: they could do so individually; they could do so collectively, via the SBAC; or they could do so in concert with broader aviation interests, via the Royal Aeronautical Society, the Royal Aero Club, or the Air League. In addition they could endeavour to influence government policy via the aviation press or the Parliamentary backbenches. Aviation was of considerable interest to the newspapers and newsreels of the 1920s and 1930s, involving as it did high technology, physical courage and national pride. The aircraft manufacturers were not slow to realise the benefits to be gained from presenting a favourable public image of themselves. They were generally able to rely upon a favourable press from the specialist aviation journals, Flight and The Aeroplane, which were dependent upon them for advertising revenue. In addition they lavished a considerable public relations effort upon winning over the aviation correspondents who were appointed by most of the national newspapers at about this time. By the late 1930s aviation was also fortunate enough to have a number of firm supporters in Parliament, mainly on the Conservative side. Civil aviation was not an issue to fill the Commons' Chamber, but there were two dozen or so MPs who took a continuing interest in it, some of whom (eg Sir Oliver Simmonds and Colonel Moore-Brabazon) had direct financial interests in the industry. These good public relations were to serve the aircraft industry well when British civil aviation policy became an issue for public disquiet in the late 1930s.

The airlines were generally much less well served by their public relations. The rivalries between them were too great to enable them to form an association representing all of their interests. Imperial Airways' monopoly of public subsidy was much resented by the smaller airlines which, either independently or as subsidiaries of the railway companies, ran unsubsidised internal and cross-Channel services. Imperial for its part was rather careless of its public image and by the mid-1930s was beginning to create the impression: that it wished to raise its dividends at the public expense; that it was authoritarian with its staff; and that it was unpatriotic and neglectful of its European services. Not all of these impressions were entirely accurate but taken together they dangerously eroded public, parliamentary and official support for the airline. British Airways Ltd was probably the airline most mindful of its public relations. It was formed in 1935 to run services to northern Europe by a number of small independent airlines with strong financial support from Whitehall Securities and D'Erlanger's merchant bank. This airline was especially fortunate to have a forceful parliamentary advocate in Captain Harold Balfour, who was both an aviation enthusiast and a director of Whitehall Securities. By February 1936 the new airline had successfully mounted a campaign to receive a public subsidy for its services. The intentions of the railway companies who ran a number of small airlines were generally regarded with suspicion. It was widely felt that their primary concern was to control the growth of air services so that they did not come to threaten their rail and ferry services. This view was reinforced when, having had rejected their request for a public subsidy for their air services, they used their influence with the major travel agencies to impose a booking ban on British Airways Ltd in an effort to cripple its business. Among the airlines there were commercial rivalries that were sufficiently strong to prevent their being able to present a united front to government and which inhibited their being able to present a wholly favourable public image of themselves.

Commercialism Versus the Public Interest

Throughout the period reviewed in this paper there ebbed and flowed a debate about the proper purposes, organisation and funding of British civil aviation. As has been explained, between 1919 and 1921 the attitude of the British Government was that civil aviation was essentially a commercial venture and that it should fly by itself unaided by public funds. When this position proved untenable given the severity of the competition from subsidised foreign airlines and from established surface transport interests the position was reviewed by the Air Ministry and the Hambling Committee. This led to a modus vivendi being arrived at between government, Imperial Airways and the aircraft manufacturers under which the Air Ministry agreed to subsidise some air services and some airliner developments, though at levels of subsidy that were niggardly compared with amounts being paid for similar purposes in other West European states. The Hambling Committee envisaged that the management of the airline the Government chose to subsidise should operate strictly in accordance with commercial criteria. It was the Government's task to determine which unprofitable air services should be run in the national interest. It should then pay the airline a subsidy for the provision on those services that would allow the airline an appropriate return on capital provided that its services were run efficiently. Imperial Airways management adopted this strictly commercial outlook wholeheartedly and its chairman, Sir Eric Geddes, was quite unwilling to run any services at a loss to the airline. It was Imperial's hard-nosed commercialism combined with the Government's unwillingness to increase its subsidy that played a major part in their joint decision in 1927 that Imperial run only minimal European services and concentrate its efforts upon services to the colonies and Dominions. Imperial had simply found it almost impossible to compete at the fare levels charged by its more heavily subsidised rivals. It was also the Government's view that the national interest dictated that this was the most appropriate use of the limited funds available.

From the mid-1930s the modus vivendi established a decade earlier began to fracture. This break-down stemmed in part from a growing public 'air-mindedness', for national prowess in aviation was seen increasingly as evidence of national economic and technical virility and of modernity. In addition there was an increasing apprehension at the political and strategic importance of air power, in particular of aerial bombing. The significance of civil aviation in this respect lay partly in its military potential but also in the German use of air services for the political and economic penetration of weaker states such as Colombia and Persia. To this growing awareness of the importance of civil aviation was added ample evidence that British efforts in this respect did not match those of rival powers. In particular there was criticism: of the paucity of services to Western Europe; of the slowness of services on Imperial routes compared with those of rival airlines (eg KLM); and of the failure of Britain's aircraft manufacturers to produce airliners with the speed and aerodynamic qualities necessary to win export markets.

Parliamentary criticism of British civil aviation policy reached a crescendo in November 1937 when discussion of Imperial Airways' poor labour relations broadened into a more general backbench critique of the airline and of the Air Ministry. In an effort to deflect its critics the Government agreed to their demand for a public inquiry to consider the present state and the future of British civil aviation. This committee, the Cadman Committee, reported on 8th February 1938. Its report and the Government's responses to it represented a major shift in official opinion with regard to the proper purposes of civil aviation. Imperial Airways' management was criticised for having been, "too narrowly commercial" and for having, "failed to cooperate fully with the Air Ministry and [being] intolerant of suggestion and unyielding in negotiation" **(13)**. It was no longer sufficient to view civil aviation as an essentially commercial activity in need of strictly limited public support whilst it became firmly established. Rather civil aviation was seen as serving vital long-term national political, strategic and economic purposes and as being unable to develop adequately to serve them without substantial and continuous financial support. The Government was enjoined to provide that support and the Air Ministry, in particular, was enjoined to play a more proactive role in planning the coherent development of the industry.

Having generally accepted the criticisms and recommendations of the Cadman Report the Government's responses were:-

(i) to double its annual subsidy for civil aviation to £3 million;

(ii) to place prototype orders for two new airliners;

(iii) to take steps to strengthen the voice and administration of civil aviation within the Air Ministry so that the ministry would be better equipped to play a proactive planning role;

(iv) to explore the mechanisms whereby new airliner developments might best be planned and supported;

(v) to merge and to nationalise Imperial Airways and British Airways Ltd to form a public corporation, the British Overseas Airways Corporation, which was to have a monopoly of all public subsidies for the running of external air-services.

This last step is an especially significant one to illustrate the changing official attitude to civil aviation, for in taking this radical step the Conservative Government went considerably further than the Cadman Committee had recommended. The committee had recommended only that the respective functions of the two subsidised airlines should be clarified and that public subsidies should be substantially increased, with the proviso that as a consequence the airlines' dividends should, "be restricted to those usually associated with public utility companies" **(14).** The Government, having accepted the committee's line of argument that civil aviation must be rapidly developed in the national interest, was prepared to push it further to its logical conclusion. Britain needed "well-founded and substantial" airlines **(15)** that would rely largely on public funds. Imperial Airways was poorly managed and British Airways was very weak financially, having lost £200,000 by this time **(16).** A public corporation formed by merging the two airlines would create the opportunity both for a radical restructuring of the airlines' management and for the raising of investment capital via cheap, low, fixed-interest, government stocks. In November 1938 the Government announced that a new publicly-owned airline would be created and that its chairman would be Sir John Reith, formerly a much respected Director General of the BBC, who was a forceful advocate of the concept of the public corporation and of the principles of public service. The corporation formally came into existence in April 1940 under the auspices of the British Overseas Airways Act 1939. Few acts could more clearly symbolise the growing official recognition of the vital importance of civil aviation to the national interest and of the Government's duty to support it, than the creation of BOAC by a Conservative Government.

World War II and Civil Aviation

The events of World War II served strongly to reinforce the growing importance of civil aviation. Before the war the world's main networks of air services were the domestic services in North America and the international services of Western Europe, from which stretched the tentacles of a few colonial services to Africa, the Middle East and South East Asia. Transatlantic flights were a rarity attracting great public attention. During the war a vast network of transoceanic air-routes was established as a consequence of military necessity. It was based upon improvements in transport aircraft design (made largely in the late 1930s) and upon the building of a large number of military aerodromes with concrete runways stretching aross what had previously been remote and inaccessible oceans and continents. By the war's end the United States' network of military air services encircled the globe.

These advances made it clear to those concerned with the future of civil aviation that the end of the war was likely to bring with it the potential for a great expansion in civil air services based upon war-time route developments and technical advances. Government ministers and officials were most eager to see that potential fully exploited by British civil aviation for, not only had the war clearly illustrated the vital strategic significance of air power in general and of air transport in particular, it had also increased the significance of civil aviation as a potential employer. Furthermore wartime propaganda not only made the public more 'air-minded' it also created the expectation that the British designers, who had created aircraft like the Lancaster and Hurricane and who had developed the jet engine, would be able to create airliners capable of winning a premier place in world markets.

However, the war was not the bringer of unalloyed benefits to British civil aviation. Firstly it brought the rapid foreclosure of the improvements planned following the Cadman Report. The outbreak of war brought all work on new British airliners rapidly to a halt, whilst wartime exigencies caused BOAC to suffer considerably. Since the new corporation's resources were to be used solely in pursuance of the war effort it came under rigid day-to-day Air Ministry control. It was unable to develop a strong, independent management structure and lost a number of its senior personnel to other forms of war work. In particular Reith left in 1940 to become a government minister. Although the corporation greatly expanded its route network and aircraft fleet during the war, there was among its staff a widespread feeling that its potential was never fully utilised, at considerable cost both to the war effort and BOAC's preparations to meet the rigours of peacetime competition. This failure was attributed to Air Ministry and RAF staff who initially underestimated the strategic potential of air transport and who, later on, having realised their error preferred to expand British air services using RAF Transport Command rather than BOAC. The creation of

Transport Command triggered the resignation of almost the whole of BOAC's Board of Directors in February 1943 in a protest both against the Government's current neglect of the Corporation and of its failure to create a climate in which the Corporation could coherently plan its post-war development.

These problems were the more worrying to those familiar with civil aviation because it was clear that although Britain's European competitors would be greatly weakened by their wartime experiences, in the United States civil aviation had gone from strength to strength both in terms of airliner development and of airline organisation and experience. During the years immediately prior to World War II the Americans took a clear technical lead in airliner development, in particular with Douglas DC3. The war allowed them to increase that lead, for when America entered the war it was obvious that given her present lead in transport aircraft developments, her dependence upon such aircraft (given her isolation from the major theatres of war), and her allies' lack of industrial capacity to design or build such aircraft, that she should become almost a monopoly producer of transport aircraft for the Allies. Thus US Government funds were used to develop aircraft which would not only assist the war effort, but would also provide the basis for an assault upon world markets in the post-war years. Equally the Americans' chosen method of developing military air-routes served as a formidable basis upon which to develop post-war international air services. Many of America's military air-routes were run by her airlines which were militarised and under contract to their government. These airlines were able to gain vast experience running air services to different parts of the globe. For many of them it was their first experience of overseas air services and it made them determined to retain and develop their international interests after the war. As a consequence they placed great pressure upon the Roosevelt Administration to conclude a liberal international civil aviation convention with their allies that would allow American civil aviation interests to use their market position to monopolise post-war international civil aviation.

BOAC's problems, especially the threat of severe American competition, allied with the obvious economic and strategic potential of civil aviation made it an issue of increasing political saliency between late 1942 and 1946. In the press and from the Paliamentary backbenches there was an increasingly vociferous campaign to ensure that British civil aviation was properly prepared to meet the opportunities and problems of peacetime. These preparations had four components which between them encompassed the fundamentals of civil aviation policy. These were:-

(i) the development of advanced airliners;

(ii) the future of BOAC;

(iii) the need for a post-war international settlement for civil aviation;

(iv) the administrative responsibility for civil aviation.

Not only did these matters raise fundamental issues, they also served to illustrate that the industry's dependence upon public policy decisions had, if anything, increased during the war years.

(i) The Development of Advanced Airliners

The Government first came seriously to consider the future of airliner development in November 1942, partly as a consequence of its own growing concern with post-war civil aviation and partly because of growing backbench restiveness at the obvious lack of British transport aircraft developments. There was a great deal of confidence that British aircraft manufacturers were capable of producing airliners that could take on the Americans and 'win the peace'. There were some good grounds for this optimism, not least Britain's lead in jet technology, and the fact that Britain's aircraft companies were, by and large, better equipped, better managed and more prepared to do their own research than in the inter-war years. Nevertheless there were major obstacles in the way of British attempts to capture a major share of the airliner market. The British aircraft industry was not well placed to determine the precise direction post-war airliner developments were to take. Its pre-war experience had been mainly of producing small numbers of airliners to meet Imperial Airways' esoteric requirements. It was unlikely that such experience would have much relevance in the post-war market but at the same time it was difficult to determine exactly what the precise requirements of that market would be (eg would the emphasis be on small numbers of first-class passengers flying in luxury, or on high density tourist traffic). Equally the advent of the jet engine, whilst it presented a great opportunity, also presented a major problem of technological forecasting. The jet engines of the early 1940s were both impractical and uneconomical for civil purposes. Though they were obviously going to dominate military aviation there were many uncertainties about their civil uses. In particular the jet engine seemed likely to necessitate major advances in airframe design the precise character of which was as yet unclear. This latter problem was exacerbated by the fact that British airframe design and aerodynamics was not as advanced as that elsewhere and that, British aircraft manufacturers were somewhat reluctant both to admit their deficiencies or to learn from them.

In addition the aircraft industry faced a severe shortage of the resources necessary to design and build airliners. By the end of 1942 the British economy as a whole, and the aircraft industry in particular, was approaching full mobilisation for war production. There simply was not the slack in the industry to undertake such work. In particular there was a severe shortage of skilled labour, especially experienced draughtsmen to do design work. Given that the industry worked wholly under the direction of the Government, which had taken the right to direct labour and other resources, the industry had to turn to the state both for permission to undertake work on airliner development and to obtain all the resources with which to do it. Furthermore it was becoming increasingly clear that even though the Government would gradually relax its controls over the economy in the post-war years the aircraft industry would be even less able to develop aircraft as private ventures than it had been in the pre-war years.

The increased complexity of aircraft designs, especially those of jet aircraft, were leading to major increases in research and development costs which even the larger and more successful aircraft manufacturers were unable to meet without support from public funds. Aircraft design was not an exact science so that the undertaking of any but the smallest and most conventional of development projects involved a considerable risk for the firm concerned. Rising development costs and increasing complexity of design meant that individual projects would absorb a larger proportion of firms' resources for a longer period than pre-war. Thus firms would be unable to spread their risks over more than a small range of development projects. For its part the Government was to find itself able to fund fewer of these increasingly costly development projects and able to purchase fewer of the more expensive production aircraft built as a consequence of them.

From late 1942 onwards the Government came under increasing pressure (from the aircraft industry, the aviation press, and the parliamentary backbenches) to commence work on the development of airliners that would be available to meet the expected boom in post-war air travel. These public advocates of airliner developments found themselves pushing upon what was, at least in principle, an open door. The Government had absorbed the lessons of the Cadman Committee and recognised that it had a pro-active role to play in airliner developments even before the outbreak of war. As has been stated, wartime experience reinforced that outlook. Not only was it clear that civil aviation would be of increased significance both in employment terms and for Imperial Communications, it was also clear that it could be a means of maintaining industrial capacity in the aircraft industry for strategic purposes. It was this strategic consideration that was paramount in the minds of the Ministry of Aircraft Production officials who from 1943 onwards planned the post-war contraction of the aircraft industry **(17)**. They recognised that the post-war aircraft industry was likely to stabilise at between 10% and 20% of its wartime peak capacity. Looking back to the problems of rearmament in the 1930s their aim was to secure the design capacity necessary to ensure that Britain would be able to supply its armed forces with the range of aircraft they would need in a future war and to maintain a pool of skilled labour and a body of aircraft factories that could act as the nucleus for an expansion of the industry (based upon the wider engineering industry) in the event of an emergency. Given that there was likely to be a drastic cut in domestic military demand, it was clear that civil work might well prove vital to secure the economic health, and even the survival, of key aircraft manufacturers.

Taking aboard the Cadman Committee's injunction to adopt a proactive role in airliner development (an injunction reinforced by the extent of the Government's wartime economic controls), the Air Ministry and Ministry of Aircraft Production set up a small committee in November 1942 under the chairmanship of Lord Brabazon who at one time had been a keen critic of civil aviation policy and was a former Minister of Aircraft Production. The committee's function was to state in broad terms the types of civil aircraft Britain would need in the post-war years in order to meet the needs both of domestic and foreign airlines. It was clear that if these airliners were to meet the needs of Britain's airlines and to sell in export markets they would have to be sufficiently advanced, efficient and economical to meet head on the competition of the best American airliners that would be available. This First Brabazon Committee reported in February 1943. It recommended that five types of airliner be designed, ranging in order of priority from a large airliner capable of flying from London to New York non-stop (which was to have top priority) to a small aircraft for use on colonial feeder services.

The Government's response to the report was promptly to accept it and to seek a means of implementing it. The means chosen was very much that proposed by the Harold Brown Committee which had considered airliner development in 1939: the creation of a committee representing the airlines, the aircraft manufacturers and the state, which would generate an agreed programme of airliner developments supported by public funds and resources (18). Brabazon was asked to chair this new committee (which became known as the Second Brabazon Committee). Its membership was somewhat wider than that of his original committee and in particular included two representatives of BOAC. Its primary functions were: to monitor the airliner programme proposed by the First Brabazon Committee to ensure that it remained in accord with changing perceptions of post-war needs; and to produce detailed accounts of the performance demanded of the various aircraft it recommended.

The Second Brabazon Committee monitored the airliner programme from the late Spring of 1943 until late in 1945. During this period it recommended a considerable expansion of the programme as originally approved. In particular its programme of wholly new aircraft was expanded from 5 to 8. In addition, as delays occurred and it became clear that some of the new designs would not be ready by the end of the war, stop-gap measures were proposed. It was recommended that a new fuselage be designed to fit the wings of the Lancaster bomber (to create the Avro Tudor airliner) and that more minor redesign work be undertaken on some bomber designs to create makeshift airliners. The Second Brabazon Committee's recommendations did not include quite all of the British civil aviation effort as work was also being done on civil flying boats (which the committee did not really consider) and a tiny amount of design work was undertaken by firms on civil designs as private ventures.

Once the Second Brabazon Committee had agreed a requirement for the aircraft it recommended, this would be passed to the Ministry of Aircraft Production and the Air Ministry. If they approved the idea in principle, as they generally did, the Director of Technical Development would draw up a detailed specification for the aircraft setting out in some detail what performance and design features would be expected of the proposed aircraft. The Director would then approach those aircraft manufacturers whom he felt might have the available design capacity and the necessary design skills to produce tenders for the work. Given the great shortage of design capacity during the war this would usually involve approaching no more than a handful of companies. Once the firms had presented their tenders (which would include an outline design sketch) the Director of Technical Development, after consulting the Air Ministry, would choose one of the designs and place a contract for one or more prototype aircraft with the relevant manufacturer. A contract for production aircraft would be forthcoming when the Air Ministry (after consulting BOAC) decided that a number of aircraft of a particular type were needed and when the Ministry of Aircraft Production felt that sufficient production capacity was available. This system of ordering ensured the maximum utilisation of the aircraft industry's capacity. However, its appeal to aircraft manufacturers lay not only in its ensuring them a regular flow of work, but also in its familiarity. This system mirrored very closely the system of ordering used for military aircraft. It had much less appeal for BOAC since it gave them relatively little say, and no direct control, over the ordering of the aircraft that would be their main revenue earning asset. However, they were in no position to make strong complaints. They knew military work must take priority and were keen to lay their hands on any aircraft they could get. Furthermore, like the aircraft manufacturers, they were pleased to see the Government reaffirm and strengthen its commitment to British civil aviation.

(ii) The Future of BOAC

The growth potential of post-war civil aviation was obvious not only to BOAC but also to the railway and shipping companies, who saw it as a threat to their surface transport interests and as a potentially lucrative investment, given the improvements in aviation technology. As a consequence they sought, with great success, to reopen the debate about the proper purposes of civil aviation and about the proper role of the state in its development, which the Cadman Report had seemed to resolve some years earlier. Whilst they were prepared to accept, quite naturally, that the state had a role to play in providing assistance for the development of new airliners and providing airports, radio aids and meteorological services, they argued that in essence civil aviation was a means of transport like any other and as such it should be run in accordance with commercial principles by those with experience of running transport businesses. These interests endeavoured to persuade the Government that they were fit organisations to be entrusted with a large share, even a controlling interest, in Britain's airlines. They did not generally advocate the abolition of BOAC but its restriction to a few routes and the entry of private airlines onto the rest of the route system. The public interest would be protected by a regulatory body (based upon the American Civil Aeronautics Board) which would licence operators to run particular services.

Both the railway and shipping companies were will equipped to put their views to government and were able to attract considerable support when so doing. Both interests were well used to lobbying ministers and officials as individual companies and via the General Council of British Shipping and the Railway Companies Association. In addition the railway companies created the Associated Airways Joint Committee to provide them with a vehicle for lobbying on specifically civil aviation matters and which could speak, with some justification, on behalf of the small internal airlines which had run unsubsidised services pre-war. There was also considerable political support for the railway and shipping companies' case. Within the Government their most significant support came from Lord Beaverbrook, who was both chairman of the War Cabinet's Civil Air Transport Committee for much of the period and a close friend of Churchill's. In addition there was vociferous advocacy for the reintroduction of private capital into Britain's overseas air services from the Conservative backbenches. Thus in 1943 and 1944 a considerable clamour developed to allow private capital into the airlines.

However, there were also powerful advocates in support of BOAC who wished to see its monopoly position not simply maintained but enhanced. Under the British Overseas Airways Act 1939 the airline was granted only a monopoly of subsidy for the running of overseas services. Private airlines could run overseas services but could not legally be subsidised for so doing. Internal air services were generally unaffected by the Act. During the war however almost all private air services, internal and external, ceased. The Labour Party and the Air Ministry wished to see the de facto postion become a de jure one in which BOAC was given the legal monopoly of overseas and internal services, not simply the monopoly of subsidy for the former. They argued that this would allow air services to be developed in a coherent, planned way in the national interest. Thus strategic and Imperial needs could be fully taken into account and efficiency encouraged, in particular through the pooling of experience and resources (especially aircraft) between different air-routes and services. Such a scheme would also encourage international cooperation between state-owned airlines (especially those of the Dominions) and even the creation of an internationally owned airline (a scheme with much support in the Labour Party.)

With these contradictory views being aired an impasse rapidly developed within the Coalition Government in which each set of protagonists could block change but could not secure victory for its own position. This debate dragged on publicly and within the War Cabinet for the whole of 1944 in the face of increasing public disquiet at the lack of any coherent policy for the development of Britain's airlines and increasingly urgent warnings from the Air Ministry that a decision was urgently needed if BOAC was to be adequately prepared to run services soon after the cessation of hostilities. A temporary resolution of the issue was arrived at following the appointment of Lord Swinton, a forceful but somewhat unideological Conservative, as Minister for Civil Aviation in October 1944. By 20th January 1945 Swinton was able to propose a compromise plan to his ministerial colleagues **(19)**. The essence of the Swinton Plan was that Britain should have not one major airline but a number, each with its own particular area of operations and each characterised, in some degree, by mixed private and public ownership. BOAC would retain responsibility for most Commonwealth services and for the North Atlantic service but, where appropriate, it might set up subsidiary companies with interested shipping companies to run certain services. Internal and European services would be run by a new company jointly owned by various private transport interests and BOAC (which would have a minority shareholding.) Plans were not fully developed for a number of other services, in particular to South America, but Swinton clearly intended to find a place in them for British Latin American Airways, an airline recently formed by a number of shipping companies.

Swinton argued the case for his plan on grounds of principle not political expediency. It represented a via media drawing into the airlines the commercial acumen and vast experience of the railway and shipping companies, whilst ensuring a proper representation for the national interest. It was approved by the War Cabinet on 24th January, and, after some negotiations with the interests concerned, was presented to the public as a White Paper on 14th March. The plan, despite support from The Times **(20)** was generally badly received. "It was a political expedient from which no sound policy for British Aviation could ever result", commented The Aeroplane **(21)**. On the Conservative backbenches it was widely felt, "...that this White Paper represents no Conservative policy" **(22)**. Whilst in the Labour Party it was felt that the Government had succumbed to a high pressure campaign by well organised commercial interests. Under these circumstances it is unlikely that the Swinton Plan would have survived intact no matter which party was elected in the 1945 General Election.

The Labour Government elected in July 1945 came to office committed to seek international agreement to establish an internationally owned airline and to nationalise internal air services. This internationalist policy appealed to the party's idealistic rank and file, but was thought (quite rightly) to be unrealisable by the party's leaders. As a consequence the incoming Minister of Civil Aviation, Lord Winster, was set to work to devise a less impractical policy in accord with his party's instincts. In October 1945 he proposed to his Cabinet colleagues a variant of the Swinton Plan under which BOAC would remain wholly in public ownership, but that the other two airlines would be mixed enterprises with substantial minority private shareholdings (to be offered mainly to the railway and shipping companies) **(23)**. However, this proposal was unacceptable both to a number of leading Cabinet figures and to the Labour backbenches **(24)**. As a consequence Winster was asked to think again in terms avoiding any participation by private capital in the airlines. This he did, though not without a vain attempt to rally resistance, and his proposals were approved by the Cabinet and announced in outline in November 1945 and in more detail as a White Paper in December 1945 **(25)**. This new plan, known somewhat ironically as the Winster Plan, involved the establishing of three public corporations each with a monopoly of British air services in its own sphere of influence: BOAC, British European Airways (which would also be responsible for internal services) and British South American Airways. It was claimed that, "This policy offers the best guarantee to the public of the disinterested expansion of the nation's air services with economy and efficiency..." **(26)** and that it would allow the Government to develop a coherent civil aviation policy. The creation of three publicly-owned airlines and the breakup of BOAC's effective monopoly of overseas services was defended on the grounds that it would encourage variety and flexibility and the pooling of experience "...in a spirit of socialist emulation" **(27)**. These proposals were generally badly received in the aviation press which regarded them as, "...timewasting and impractical" **(28)**, but they were carried into law under the Civil Aviation Act, 1946. Thus the lengthy debate between 1943 and 1946 about the future of Britain's airlines ended in victory for those who saw the need for civil aviation to be run in accordance with a politically determined interpretation of the national interest.

Whatever one's view of its outcome the debate itself, because of its length and character, had adverse effects upon BOAC and its planning processes. Discussion was frequently heated and involved highly critical remarks being made about the Corporation's management and efficiency. Though these remarks were often justified they had a bad influence upon staff morale, as did the air of uncertainty engendered about the airline's future. Equally this inhibited planning because BOAC senior staff were uncertain whether they were planning the development of new services on their own behalf or on behalf of some other airlines that would receive government support. Again, although the ministers responsible realised that there were managerial deficiencies at BOAC, both in terms of organisation and personnel, it seemed inappropriate to remedy them until there were firm decisions about the airline's post-war status and functions. The failure to reach agreement about these issues imposed considerable costs at a time when clarity and certainty were at a premium.

(iii) The Post-War International Settlement of Civil Aviation

The war destabilised the restrictive international arrangements developed under the 1919 Paris Convention. Air-routes were disrupted by military operations and its signatories became combatants even enemies. The search for an enlightened international civil aviation agreement was an important and often tense facet of broader inter-Allied discussions about the shape and character of post-war international relations. It was generally recognised that, "...some form of international collaboration will be essential if the air is to be developed in the interests of mankind as a whole, trade served, international understandings fostered and some measure of international security gained" **(29)**.

An international regulatory convention designed to serve these aims would need to regulate both technical and economic aspects of civil aviation. By technical regulation was meant the great variety of piloting, navigational, legal and administrative matters that needed to be resolved and harmonised if international air travel was to be safe, efficient and practical. Despite the great complexity of some of the issues involved (eg air traffic control, airworthiness certification, customs regulations, etc) there was little doubt that the Allies would come to an agreement relatively quickly and harmoniously about them. There were few significant points of disagreement and an early settlement of these issues was in everyone's interest. Far more contentious and intractable were the issues of economic regulation. Here there were acute differences of economic interest, especially between Britain and the United States. American civil aviation interests believed that, given their near monopoly of modern airliner production and the vast experience and efficient organisation of their airlines, they could come to dominate world civil aviation provided that they were allowed to compete freely with the minimum of economic regulation. As a consequence they strenuously lobbied the Roosevelt Administration to obtain as liberal an international settlement as possible. Britain, abetted by the Dominions and European allies, was fully alive to this threat and strongly advocated the need for economic regulation that would ameliorate the severity of American competition. There was a whole range of highly contentious issues, including airlines' rights to pick up and set down passengers, the frequency of their services, the fares they could charge and the public subsidies they might receive. In essence the British position was that these matters should be so regulated as to protect the interests of those Allies who would be unable to undertake a full and rapid development of air services as soon as the war ended and, in the longer term, to take into account that each nation might feel it necessary to run some air services for other than solely commercial reasons and would wish to do so without an excessive charge on the public purse.

To resolve these issues the British Government engaged in extensive consultations with its Allies, especially the Americans and the Dominions, throughout 1943 and 1944. By the time an international civil aviation conference was called at Chicago in November 1944 the British view was generally supported in Europe and the Empire, but not in Latin America which was very much under American sway in civil aviation as in other matters. The Chicago Conference predictably reached rapid agreement in the field of technical regulation. These talks were, "an outstanding success" **(30)** and it was agreed that a Provisional Civil Aviation Organisation be set up to deal with these matters. However, the conference broke up, amid some acrimony, unable to agree any scheme of economic regulation.

This break-up was by no means unfavourable to British interests in the short run, for it left the development of economic regulation to a lengthy process of bilateral negotiation which delayed the full entry of American airlines onto peacetime international air-routes. But such instability could not long persist for there was both in Britain and the United States a strong body of opinion that favoured the rapid development of air services and looked upon the British Government's attitude as niggardly and restrictive. Given Britain's dependence upon American economic aid such a disagreement on a subordinate issue could not long be allowed to bedevil Anglo-American relations. As a consequence British and American representatives met at Bermuda in February 1946 to conclude a bilateral civil aviation agreement which would set the pattern for subsequent agreements and so for the regulation of civil aviation world-wide. In the face of overt American threats that Congress would refuse to grant Britain a vital dollar loan it was seeking should no agreement be reached, the Attlee Government reluctantly accepted terms which, whilst accepting economic regulation in principle, seemed to deny its substance by failing to set out precise mechanisms for its enforcement. Events were to prove the Bermuda Agreement rather more favourable to British civil aviation interests than it appeared. In particular the agreement laid down that the fares to be charged and the frequency of services to be operated on particular routes were to be determined under the auspices of the International Air Traffic Association, an association of all the major international airlines established at Havana in 1944. With the assistance of like-minded airlines and governments Britain was able to use this body and its procedures to regulate fares and frequencies so as to restrict the effectiveness of American competition **(31)**. A mixture of skilful negotiation and good luck created a regulatory context which was, by and large, conducive to the development of British air services.

(iv) The Administrative Responsibility for Civil Aviation

Public opinion had never been wholly satisfied that administrative responsibility for civil aviation should lie with the Air Ministry, a department whose primary orientation was military. However in 1938 the Cadman Committee had felt that, because " military and civil aviation [were] two sides of the same coin" **(32)** especially from the point of view of aircraft research and development, it would be as well to leave civil aviation at the Air Ministry for the time being provided that steps were taken to strengthen its voice within the department. Steps were taken in this respect in 1938 and 1939, but the outbreak of war led very largely to their reversal as civil work dwindled. Furthermore the Air Ministry lost part of its responsibility for civil aviation matters in May 1940 when the Ministry of Aircraft Production was set up with responsibility for the research, design and development of all aircraft, military and civil. Thus in 1943 and 1944 when attention began to be given to the future administration of civil aviation there were two questions in need of an answer: should the Air Ministry retain control of the Department of Civil Aviation; and what would be the future of the Ministry of Aircraft Production?

When post-war civil aviation planning came onto the political agenda in 1941 it seemed appropriate even to the Air Ministry, that it should immediately be given an interdepartmental focus. It involved issues of international relations and was bound up with other aspects of economic reconstruction, besides which ministers and senior officials at the Air Ministry openly admitted that they had insufficient time to devote to the matter (33). At first civil aviation issues were considered under the aegis of Cabinet committees concerned with reconstruction, but in June 1943 the War Cabinet agreed to the creation of a committee, the Civil Air Transport Committee, under the chairmanship of senior Conservative minister, Lord Cranborne (the Lord Privy Seal) to take responsibility for post-war civil aviation planning. The creation of this committee in part reflected a growing awareness of the importance of civil aviation and of Churchill's desire to separate it from other aspects of reconstruction planning which he was less eager to foster. However it also reflected a growing dissatisfaction in the press, in Parliament and within Whitehall at the Air Ministry's treatment of civil aviation. Indeed one of Cranborne's terms of reference was, "...to take under review...the

Departmental organisation and Ministerial responsibility for civil aviation matters, and in particular whether any changes should be made before hostilities ceased" **(34)**.

The post-war administration of civil aviation came near to resolution in January 1944 when the Civil Air Transport Committee (by now chaired by Lord Beaverbrook) came to consider the issue in conjunction with the Anderson Committee on Machinery of Government (another Cabinet committee concerned with broader issues of government organisation). The overwhelming view of both committees was that the Department of Civil Aviation (which dealt with civil aviation matters within the Air Ministry) should be moved from the Air Ministry to the Ministry of War Transport. Commercial ties, both competitive and complementary, were held to be superseding purely technical ones in their importance for civil aviation. As a consequence it was felt that civil aviation policy should be developed as a part of transport policy as a whole, and this might best be done under the aegis of a single minister **(35)**. This view was strongly supported by Lords Cranborne and Beaverbrook, successive chairmen of the Civil Air Transport Committee, not least because each of them had found their coordinating role most unsatisfactory and felt that civil aviation needed the strong leadership of a departmental minister if Britain's plans were to be fully developed by the war's end. However this proposal foundered, despite the fact that its only serious opponent was Sir Archibald Sinclair (the Secretary of State for Air). It did so on grounds of timing because Lord Leathers, the Minister of War Transport, felt unable to take on the extra administrative responsibility of civil aviation planning until after the war **(36)**.

An alternative resolution for this thorny administrative problem which had been canvassed as early as July 1943 was the creation of an independent Ministry of Civil Aviation. In favour of such an idea it was said: that it would be very popular in the press and on the backbenches; that it would give civil aviation an independent ministerial voice; that it would give civil aviation a minister with sufficient time to devote to its problems; and that it would locate civil aviation in a department that was both commercially orientated and 'air minded'. However this idea was firmly rejected on the grounds that such a ministry would be small and weak and that civil aviation would sacrifice its technical links with military aviation without gaining commercial links with other forms of transport.

Despite these unpromising auguries a Ministry of Civil Aviation was created in October 1944, despite a lengthy rearguard fought by the Air Ministry. Its creation came from the conjunction of two circumstances: firstly the Americans had called the Chicago Conference and there was an urgent need to send an authoritative and experienced minister to lead the British delegation; and secondly because of ever stronger demands from the Conservative backbenches that the Coalition Government demonstrate its awareness of the importance of civil aviation. The role of the first Minister of Civil Aviation, Lord Swinton, in attempting to resolve the future of BOAC has already been explained. It is fair to add that during his months in office he tried to apply a similar motive force to the development of the various other aspects of civil aviation.

Swinton's four Labour successors as Ministers of Civil Aviation in the Attlee Government were men of less drive and ability. Their collective tenure of office went a long way to justify the fears of those who had opposed the creation of the new ministry during the War. None had a seat in the enlarged peacetime Cabinet and all sat in the House of Lords. They headed a small department, by no means adequately staffed, that was lowly placed in the Whitehall hierarchy. Despite its popularity this new department soon came under threat of abolition and merger both from within the Government and from the Conservative opposition. It was effectively merged by the incoming Conservative Government in 1951 in which a single minister was appointed Minister of Transport and Minister of Civil Aviation.

The other aspect of post-war civil aviation administration, the future of responsibility for the research, design development and production, of modern airliners, was resolved with little reference to civil aviation issues. It was part of a much broader debate concerning the future of military supply and the development of post-war industrial policy. In essence the incoming Labour Government in 1945 determined, despite military objections, to merge the Ministry of Aircraft Production (which was responsible for military and civil aircraft procurement) with the Ministry of Supply (which was responsible mainly for army procurement matters) to form an enlarged Ministry of Supply. This enlarged Ministry was intended to act both as a military supply department and as a sponsor for the development of the engineering industry. In so far as civil aviation was considered in the discussions about the creation of this department, it was generally felt that the new Ministry of Supply would serve it well. Civil aviation would gain the benefit from the vast amount of research and development work to be done for military purposes in the department (which it might not have done if civil aviation research and development had been conducted independently), whilst not being dependent upon the Air Ministry for its aircraft programme.

Events were to prove otherwise, for in the post-war years the airlines found it increasingly irksome to have two government departments, the Ministry of Civil Aviation and the Ministry of Supply, standing between them and the aircraft manufacturers who supplied their main revenue earning asset.

The Failure of the Post-War Airliner Programme

Despite the delays and disagreements in the development of British civil aviation policy during the war, by early 1946 matters seemed to be set fair. The Government was firmly committed to a proactive stance: supporting the expansion of three publicly owned airlines; supporting the Brabazon programme and some other airliner developments; negotiating bilateral international agreements (following the pattern of the Anglo-American Bermuda Agreement) that were generally favourable to British interests; and administering its policies through a Ministry of Civil Aviation whose very existence symbolised the Government's commitment to the development of British civil aviation.

Appearances, however, were deceptive. By the end of 1947 matters had turned sour. The three new airlines were making heavy losses that were bringing into disrepute not only their own managements, but also the whole efficacy of the Government's nationalisation programme. There were clearly managerial problems at the airlines, in particular at BOAC which was seriously overmanned. Equally the airlines' efficiency undoubtedly suffered because of poor maintenance and passenger handling facilities. However the key to their problems lay in the failure of the airliner development programme. The only Brabazon programme aircraft in an advanced state were the small De Havilland Dove (intended for minor colonial services) and the Avro Tudor, which had been intended as a vital stop-gap for BOAC and British South American Airways. By this time the Tudor had been shown to be markedly inferior in performance to its American counterparts and was years late entering service. Indeed one of its key variants, the Tudor II, was performing so badly that it looked unlikely even to enter service. These problems were common over much of the rest of the Brabazon programme. The problems with the Tudor caused matters to come to a head and a furious public row developed between the airlines and the Ministry of Civil Aviation on the one hand and the aircraft manufacturers and the Ministry of Supply on the other. Each side blamed the other for the delays in the programme. There were allegations made of incompetence, of duplicity and even of bribery. Clearly the complex ordering procedure for airliners was breaking down, but there were more deep-seated problems with the Brabazon programme.

The failure of the Brabazon programme can be attributed to four causes, three substantive and one procedural:

(i) It was too large

As has been noted, between 1943 and 1946 the Brabazon programme grew from 5 to 9 specifications for airliners. This was due mainly to a growing awareness of what airlines would require by way of aircraft in the post-war world. This led the 2nd Brabazon Committee to propose a more elaborate (arguably an over-elaborate) programme of developments in order to meet airlines' predicted needs as precisely as possible.

Underpinning this larger programme lay the belief that Britain, as a world power with a major aircraft industry, should produce a range of airliners capable of meeting all the requirements of its national airlines. This belief was also enshrined in the 'fly British' policy adopted by both the Churchill and Attlee Governments, which declared that British airlines would use British aircraft whenever practicable **(37)**.

The policy of producing two or three aircraft to meet similar specifications could be justified given the uncertainties of aircraft design, the second and third aircraft acting as insurance against the failure of the first. Indeed the Vickers Viscount, the most successful product of the Brabazon programme, was one of two aircraft designed to meet the same Brabazon Committee specification, whilst a third aircraft (the Airspeed Ambassador) was designed to meet a very similar specification. The problem was that during the war there were insufficient resources available to begin serious design work on more than one or two airliners. Even after the war design resources remained in short supply, partly because almost all resources were in short supply in post-war Britain, but also because military design work remained relatively buoyant as the RAF ordered new types of jet aircraft. Hence the full Brabazon programme far outstripped the resources available to bring it to fruition within a reasonable time after the war. In doing so it encouraged over-optimism and an unwillingness to make hard choices about which designs should continue and which should be abandoned. This suited those in the Ministry of Supply charged with maintaining capacity in the aircraft industry for strategic purposes.

(ii) It was technically over-ambitious

Given the British aircraft industry's lack of satisfactory experience of producing modern airliners in the pre-war years, and almost total break in airliner design work between 1940 and 1944, British aircraft manufacturers were always going to be in difficulties in endeavouring to build airliners capable of competing against the best the Americans could produce. By the end of the war Douglas, Lockheed and Boeing were entering their third successful generation of major airliners (stretching back to the DC3 and Boeing 247 in the mid-1930s). Catching them up on the basis of so little experience was always likely to be very difficult indeed. Yet the Brabazon Programme, rather than concentrating solely on more prosaic airliners capable of providing efficient and economical European and Imperial services for which there was certain to be demand, devoted large amounts of scarce resources to two very high risk projects, the giant Bristol Brabazon and the jet De Havilland Comet. Both projects ended in failure. Such risks may have been worth taking, in an effort to steal market leadership, but the work done on these projects absorbed scarce resources at the expense of other projects more likely to succeed.

(iii) Neglect of the users' viewpoint

In 1943 and 1944, when BOAC was asked what sort of aircraft it would require for the efficient development of its peacetime services its answer fell into two parts: ideally it would like fully developed airliners capable of entering service at once without serious teething problems and that such aircraft would inevitably be American; but if American airliners were ruled out by the 'fly British' policy, then it would like aircraft capable of meeting Brabazon Specification III (ie designed for use on Imperial services). Of all the Brabazon specifications BOAC regarded flying from London to New York non-stop as the most speculative and least necessary. Yet in practice the giant Bristol Brabazon was given top priority and was built but no aircraft was even built to meet Brabazon specification III. Furthermore BOAC made it clear as early as 1943 that they disliked the Bristol Aeroplane Company's design and preferred a smaller alternative design study from Shorts. Even when discussions took place with a view to scrapping the Bristol Brabazon in 1946, it was decided to keep the project going despite BOAC's advice, largely in order to give Bristols experience of building very large aircraft for strategic purposes.

The ignoring of BOAC's views can be attributed very largely to a lack of respect for the Corporation's senior staff. Its top management was widely regarded as weak and ineffectual after Reith's departure in 1940, whilst its technical staff were regarded as being unreasonably pro-American. Uncertainty about the Corporation's future also detracted from its advice, because until the end of 1945 it was unclear (even to the Corporation's own staff) when they were giving advice about aircraft that the Corporation would use itself and when they were giving advice on behalf of other airlines yet to be created. As a consequence of these problems the user's voice, inadequate and even occasionally contradictory though it may have been, often went unheeded. Largely as a consequence, by 1951 BOAC operated with a fleet consisting mainly of American and Canadian aircraft.

(iv) The Failure to Develop an Adequate Ordering Procedure

The airlines' resentment at having to order aircraft via the Ministry of Civil Aviation and the Ministry of Supply has already been mentioned. During the war BOAC recognised that the Ministry of Aircraft Production had to intervene to plan production and to ensure the fullest utilisation of resources. But in peacetime the airlines wanted to be able to approach aircraft manufacturers directly and order aircraft from them. In so far as the airlines were unable to pay for the research and development costs of prototype aircraft they were prepared to recognise that the Ministry of Supply should have a role in such projects, since it was footing the bill. However the felt that once an airliner was ready to go into production then the airline should make its own contract to purchase the airliners it wanted on the best terms it could negotiate (which the airlines felt would generally be more favourable than those negotiated by the Ministry) **(38)**.

The Ministry of Supply for its part felt that its role in the ordering procedure was vital for two major reasons: firstly it had a duty to ensure that the major aircraft manufacturers received a steady flow of work so that their design and production capacities could be maintained for strategic purposes; and secondly, because it believed that with its expertise and ability to buy in bulk it could secure better contract terms than the airlines **(39)**.

The Ministry sought to make the procedure for ordering airliners work along very similar lines to that for ordering military aircraft. This procedure was approved of both by the RAF and the aircraft manufacturers and seemed to work well and harmoniously. The Ministry found the airlines by no means as compliant. There was a feeling amongst Ministry of Supply officials that BOAC, in particular, wanted American aircraft and so was prepared to do all it could to prevent the ordering system working smoothly (eg by refusing to second liaison officers to the Ministry of Supply). Furthermore it was felt that because the airlines were not footing the bill for prototype aircraft (and sometimes even for production aircraft) they were often cavalier and irresponsible in ordering expensive modifications during prototype developments.

From 1945 to 1950 the ordering procedure for airliners was in a state of flux as the various parties sought a modus vivendi that would recognise their various interests. Matters reached a crescendo in the public row at the end of 1947 between the aircraft manufacturer, A V Roe Ltd, the Ministry of Supply, BOAC and British South American Airways over the problems of the Tudor aircraft. This led to the Courtney Committee of Inquiry into the problems of the Tudor itself **(40)** and more importantly into the Hanbury-Williams Committee inquiry into the general problems of ordering aircraft **(41)**. A resolution, at least of the procedural issues, was reached in 1949 when the airlines were allowed to make more direct approaches to the aircraft manufacturers. This enabled BEA to develop a highly fruitful relationship with Vickers Armstrongs based upon the successful development of the Viscount airliner. BOAC's relations with the British aircraft industry remained somewhat less happy. Each of its ordering decisions in the 1950s, for the Bristol Britannia, the Vickers V1000, the Boeing 707, the Douglas DC8 and the Vickers VC10 became in turn a cause of considerable controversy, in particular those involving American purchases.

It would be wrong to conclude that the Brabazon programme was a complete failure. In many ways it was very courageous to commence it at a time when the war might easily have been lost. Two aircraft in the programme became major successes, the Viscount and the Dove. A third aircraft, the Comet, arguably came very near to becoming a technical success on an even more startling scale. Nevertheless looking back one is struck by the programme's over-ambition and failure to recognise good advice, which led in turn to a good deal of acrimony and dissension centred on the procedural aspects of ordering airliners (which still persists among some participants despite the passage of time).

British Civil Aviation and the State:

Dependence and Dissension

The primary roots of the intimate relationship that developed between British civil aviation and the state in the inter-war years were strategic and technological. The Government was interested in civil aviation because of the military potential of the aircraft industry and the strategic significance of Imperial communications. Civil aviation was dependent upon public subsidy in various forms because of the relatively primitive state of aviation technology which made long flights and large payloads impractical on regular air services, rendering them uneconomic in comparison with other forms of transport. Advances in aircraft design in the 1930s and 1940s greatly improved the economy of air transport **(42)**, but in doing so they reinforced both governmental interest in the industry and the industry's dependence upon public support. To the Government's strategic interest in civil aviation was added a much enhanced awareness of the industry's commercial and economic potential, making it both a more important means of transport and a more important potential source of employment. These technical advances did little, however, to make aircraft development a less risky process. Aircraft became more efficient but also more complex. Lead times lengthened and development costs rose so that firms were required to put more resources into projects that would take longer to complete in an industry whose technology and markets were rapidly changing. Even in the United States, where the aircraft manufacturers were larger, more experienced and served a market with many natural advantages this led to strong pressures for state support for major civil aircraft projects **(43)**.

As has been explained Britain's aircraft manufacturers were quick to perceive their dependence upon the state (in both the civil and military fields) but slow to admit it. From their earliest days the major figures in the aircraft industry soon developed skills and mechanisms that enabled them to represent their interests to government both at departmental level and <u>via</u> Parliament and the press. They were quick both to seek state help and to blame government if projects went badly, but slow to admit the value or necessity of state help when an aircraft development went well. Failures were the Government's, successes were the industry's.

The success of the aircraft industry in representing its interests to government can best be seen in military aviation where a relationship of considerable amity was built up with the Air Ministry, and later with the Ministries of Aircraft Production and of Supply. Though disagreements did occur, especially when defence expenditures were low, in general the aircraft industry was happy that the great bulk of its work should come from orders to meet RAF requirements. The procedure developed for ordering military aircraft generally worked smoothly and ensured both the survival and profitability of 'the Family' firms.

During the inter-war period the aircraft industry did not achieve nearly as much in its efforts to obtain support for civil projects as it did in the military field. In essence this reflected governmental priorities which saw air power as a vital and burgeoning element in the military balance, but which viewed civil aviation as a minor, expensive and risk-laden means of transport with a promising but uncertain growth potential. Furthermore the industry was something of a political liability. It had the capacity to absorb quite large sums of money in a period of economic stringency, whilst at the same time provoking considerable dissension about the purposes that air services were intended to serve and the extent to which they should be publicly supported.

From the late 1930s onwards governmental attitudes changed and civil aviation was seen as having great economic potential and enhanced strategic significance. Following the Cadman Report the Government committed itself to a view of civil aviation as serving a politically determined interpretation of the national interest and to a proactive role in the industry's development. Within two years the Government's good intentions were brought almost to nothing by the exigencies of wartime. Even without this enforced break in civil aviation development the industry would have faced considerable problems in creating a more satisfactory and better managed airline structure and severe problems in developing advanced airliners capable of seizing market leadership from Douglas and Lockheed. The war reinforced governmental commitment to civil aviation but precluded the allocation of resources to the industry that would have given practical expression to that commitment. It also reawakened the interest of private capital in air services and re-opened political controversy as to how they should be organised. This inhibited even that organisational and air-route planning which did not involve the expenditure of vast resources and so could have been carried out in wartime. As a consequence British civil aviation was ill-organised and ill-equipped to meet the competitive challenges of peace-time. The newly reorganised airlines were committed to the purchase of aircraft they did not order and usually did not want, using a procedure designed for military procurement and reflecting military priorities.

Under such circumstances dissension and disagreement were inevitable. However the lines of fissure were different from those prevailing prior to the Cadman Report. In the 1930s the aircraft manufacturers berated the Government and Imperial Airways for parsimony and a lack of interest in airliner development, whilst Imperial Airways made similar charges against the Government vis a vis air routes. In the post-war years the line of fissure lay as much within government as between government and private interests. The creation of nationalised airlines incorporated the users' interest within government, whilst the division of responsibility for civil aviation between the Ministry of Civil Aviation and the Ministry of Supply divided departmental sponsorship for the users and producers of airliners. The understandable and explicable difficulties faced by the aircraft manufacturers in building competitive airliners brought users' and producers' interests into a conflict which focussed primarily upon issues of administrative machinery and procedures and upon the purchase of American aircraft. This conflict could be solved amicably only by the production of competitive airliners or by a more realistic appreciation of the talents of British aircraft designers and of the resources that could be made available to them for civil purposes. For BEA the problem was resolved by the success of the Viscount in the early 1950s. For BOAC the problem was never satisfactorily or amicably resolved except by the effective withdrawal of the British aircraft industry from the production of large airliners in the 1960s, which left them free to buy American.

20. Editorial, The Times, 14th March 1945

21. Editorial, Flight, 22nd March 1945

22. Parliamentary Debates, House of Commons, Hansard, Volume 409, Columns 669 to 687 and Column 708

23. Interview with Ivor Bulmer-Thomas, 24th November 1982

24. PRO CAB 128/1 CM 46 (45) Item 2, 26th October 1945

25. Command 6712, British Air Services (HMSO, London, 1945)

26. Command 6712, as above, paragraph 5

27. Interview with Ivor Bulmer-Thomas, 24th November 1982

28. Editorial, Flight, 8th November 1945

29. Command 6561, International Air Transport, (HMSO, London, 1944) paragraph 6

30. BOAC Staff Handbook (unpublished), Lord Knollys' oral account of the Chicago Conference to the BOAC Board, 11th January 1945

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32. Command 5685, as above

33. Interview with Lord Balfour of Inchrye, 27th March 1981

34. PRO CAB 65/34, WM 88 (43), 24th June 1943

35. PRO AIR 19/401, CAT (43), 10th Meeting, Item 6, 24th December 1944

36. PRO AIR 19/401, MG (44), 3rd Meeting, 31st January 1944

37. Command 6605, British Air Transport (HMSO, London, 1945) paragraph 41 and Command 6712, as above, paragraph 27

38. PRO CAB 129/29, CP (48) 191, 22nd July 1948

39. PRO CAB 129/29, CP (48) 191, 22nd July 1948

40. Command 7307, Interim Report of the Committee of Enquiry into the Tudor Aircraft and Observations of His Majesty's Government Thereon (HMSO, London, 1948) and Command 7478, Final Report of the Committee of Enquiry into the Tudor Aircraft (HMSO, London, 1948)

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Politics and Solar Technology in West Germany and France

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The technological innovation usually is a part of business activity, but specific situations will block this tendency. If there is no economic reason or if the risks are to high even if a production would be profitable, than the necessary technological innovation will not be realized. Within this situation research and technology policies are trials of the state to promote or to effect the innovation of the economy, that is necessary to maintain or to improve the ability to compete and the participation in the world market. In the external relations these state activities represent the competition between industrialized countries and threshold countries, and in the internal relations they are the result of political system structures and basic attitudes as well as of the framework of the opportunities for political action.

The development of solar technologies in West Germany and France points out the state's importance within this context. The R&T-policies thereby vary according to the different relations between politics and business. They follow from the political concepts, as well as the different conditions of state policies are formed by the stage of solar research and solar industry. In the context of the development of solar technologies state activities and R&T-policies in particular are expected:

- to realize the political aims for the innovation of the economy that is not generated by the economic interests of the business,
- to compensate the deficits of scientific and technological research of the economical oriented enterprises,
- to assure the development of technologies being appropriate to the needs and not done by the firms, and
- to assist to the export of complicated technology as a part of the innovation of the industrial structure.

Although these policies are generated out of the same context, the fulfillment of these expectations is based on different national conditions and leads to different political concepts. The need for technological and industrial innovation West Germany and France have in common and that is realized by the business itself require for different instrumentalization of R&T-policy; thisway different relati[ons] between politics and business and tendencies of interrelationships within the specific national conditions are basic to the development of solar technologies.

1. Conditions of State Policy in West Germany and France

In West Germany and France national policy is formed under different conditions represented in the political and socio-economic systems. France shows the dominance of political decisions over the national economy. Intensive interventionism and the existing dominance of state owned enterprises in the key industries, which become a typifying structural element, and the limited importance the market has in comparison with state policies (Papon, 1975, pp.240-242) are characterizing the context of French policies. Simultaneously the state's latitude is set by the development in industry and research; as the independency of development in both field is very limited (Cavard/Criqui, 1979, p.365; Papon, 1975, p.240) the French state has to establish the conditions for his successfull policy.

The German state has no chances to intervene thisway. Although policy and economy have a systematic relevance to each other there exists a long-range autonomy of these fields. State policy was bound to the conditions of the framework, which have been formed out of the structures of research and industry and out of the processes of development in science and economy. In West Germany the success of state policy depends on the ability to utilize these relatively autonomous subsystem to the political aims.

1.1 Political Concepts in France and the State of Solar Research and Solar Industry

In France the policies rely on the central importance of the state. The economic conditions and chances therefore form the starting-point for trials to technological innovation; this situation is not organized around the economy, but around the chances and mechanisms of the state's functions.

In the field of solar industries induced by policy making indirectly the technological innovation follows to the changes of the world market for energy sources and energy technologies. Because of the integration of the conditions of the world market into the policies for technological innovation and because of the orientation of the managerial decisions in the state policies, the connection between the world market and the technological innovation exists only very indirectly.

The immediate transformation of changes in the world market into the development of new solar technologies fails because of the enterprises' lacking intention to innovate; as a consequence no solar industry and no solar research following the mechanisms of the market is set-up (Cavard/ Criqui, 1979, p.365; Papon, 1975, pp.239-240). The realization of technological innovation by the development of solar technologies therefore has to be focused on the state as the centre of the development - the more as political and administrative tradition form the supposition for the again existing interventionism.

The French concept for technological innovation consists of three fields of political activity: the organization of solar industry, the organization of an appropriate solar research structure and the organization of export markets with the there existing need for solar technologies. The French solar industry includes a greater number of enterprises and branches. There are twenty-one enterprises participating in this new industry that belong to the branches of aerospace and space travel, glass manufacturing and chemical industries, electronics, energy, car building and the national oil industry (Hoez, 1978; Cavard/Criqui, 1979). Each of these enterprises possesses technological knowledge and research potentials which are important to solar technologies; but this does not enable these firms to remarkable self-supporting technology development and self-contained engagement in this field of technology.

In France solar research too is done because of state policies. The inefficiency of university research (Brickman, 1981, p.482; Berques, 1982, p.93; Papon, 1973, p.231) hinders a systematic adjustment to new scientific and technological themes, and the dominating state research organizations, depending directly on political decisions, require for state interventions. The solar research is dominated by the C.N.R.S., where half of all scientists engaged in this field are working (Rodot et al., 1980, p.248). This position of the C.N.R.S. enables the state to set-up a national solar research structure, that is dominated by the conditions and interests of state R&T-policy aiming at the technological innovation.

Furthermore the state analyzes the need for solar technologies in the Franc-Zone, that forms a "chasse gardée" to the French solar industry (Schwarzbeck, 1981, p.4; Desprairies, 1980, pp.21-23). The contracts on cooperation with the former colonies are securing the market and destine the analyzes on possible use of solar technologies. This information gives a material determination to the French solar industry and solar research and thisway out of state policies a concept is formed: technological innovation in the field of solar technologies by state analyzes of the need in reserva-ted markets and an appropriate organization of the solar industry and of the thereon oriented solar research structure.

1.2 Political Concepts in West Germany and the State of Solar Research and Solar Industry

In West Germany the state's policies for technological and economic innovation follow the conditions that are set by the market. The policies therefore are formed according to the chances to influence, that are possible in the context of a capitalist economy and of the mechanisms of the market respectively that are needed because of the state's and economy's orientation on the world market. The technological innovation on the domain of the solar industry follows to changes in the world market and to growing new markets for new and profitable technologies; state policies can influence merely indirectly only insofar as the instruments are used to promote the enterprises' ability to compete and their participation in the world market (Keck, 1976, p.128; Scholz/Thalacker, 1978, p.291). This assisting and promoting R&T-policy unfolds its importance to technological innovation, if it forms the suppositions to successfull technological development.

The instrument of R&T-policy is used to promote the transformation of policy for technological innovation into strategies of enterprises. It is the state's promotion of solar technological research and of the development of technologies that renders possible the production of the needed proto-technological knowledge, reduces R&D-costs of the enterprises and that thisway becomes an essential - and financially basical - condition of technological innovation.

The German concept to develop solar technologies is structured in three fields of political activities: the promotion of the solar industry's strategies to innovate, the promotion to develop a non-industrial solar research structure and the cooperation with consumer countries in the development of appropriate solar technologies. Here the German state is able to reduce his role on promotion, as by the economy itself the new solar industry is formed out of the most innovative German firms. Siemens and AEG are already possessing basic know-how on solar cells, MBB and MAN are known as enterprises capable in plant construction and are forming the structure in the part of the branch for solar thermals. The information thisway in the solar industry is highly concentrated; the field state R&T-policy that promotes technological innovation aims at is clearly structured.

Concerning the non-industrial solar research state policies aim at the development of a capable infrastructure. Thereby the already existing structures can be used. State activities aim at the promotion of an independent solar research that is appropriate to the dynamism of development. The solar research thisway remains free of direct intervention, although the R&T-policy has an essential importance to the production of proto-technological knowledge.

Within the political concept for solar technological innovation the scientific and technological cooperation with the consumer countries is of basic importance. Thisway solar research and solar industry are enabled to harmonize their R&D-activities to the existing needs. In the field of solar industry the conception of German R&T-policy connects the technological innovation with the market in the consumer countries. Because of this connection between solar research and the market for solar technologies the R&T-policy is formed to a concept: technological innovation in the field of solar technologies by state promotion of market oriented research and of cooperation in R&D.

2. The Relation between State and Business in the Development of Solar Technologies

2.1 The French Case: Organization by State

In France state policy meets a specific situation for solar technological innovation and for the development of solar technologies. The French R&T-policy is adapted to a specific situation that is formed out of a lacking national solar industry, the state's extensive competences in economic planning and - therein included - in research planning, and furthermore out of the state organization of a reservated market in the Franc-Zone. Insofar the technological and industrial innovation, the set-up of a new branch and the development of these new technologies is not to be realized by business activities itself. It is necessary that the state uses his all-embracing organizational capacity; in the case of solar technologies to take the economic chances in France is also a question of the expansion of government and policy fields.

2.1.1 The Organization of Technology Development in France

The organization of solar technology development in France first of all is characterized by the lacking industrial research.[1] Besides the lack of capable industrial institutes a self-supporting cooperation between the firms of the solar industry is lacking. Coincidently there is no university research that is appropriate to the need for technological innovation by research objects and structures (Brickman, 1981, p.482; Berques, 1982, p.98). On the domain of solar research top research exclusively is concentrated on the activities of state research organizations; so the French tradition in organizing research and its concentration on the C.N.R.S. and the C.S.T.B. (Cavard/Criqui, 1979, p.349) is continued.

The C.N.R.S. in particular plays an important role. In 1980 thousand scientists have been working in the French solar research, thereof 500 engineers were engaged in this research organization (Rodot et al., 1980, p.248). The other half was made-up by industrial institutes, the state organization COMES (that was absorbed by the A.F.M.E. in 1982) and by the C.S.T.B. that is engaged in applied research. The C.N.R.S. therefore has a central position in the organization of solar research and in the process of technology development. Because of this situation the ministry of industry (to which the C.N.R.S. is placed under the command) is able to transform state policy into solar research. Solar Research has an administrative structure that is introduced by the domination of a single state institute (C.N.R.S.) and by the completion with further state institutes. This hinders to unfold an independent scientific dynamism and substitutes it by politically introduced themes. Now, the scientific production of proto-technological knowledge that has relevance for technology development is politically induced.

State R&T-policy expands its importance for technology development by solar technological programmes, in particular by the programme "Sahel Energie

Nouvel". Here the state analyzes the Franc-Zone's need for energy technologies and organizes the technology development according to this need (Desprairies, 1980, p.22). This intervention into solar research and technology development is completed by contracts of cooperation on this field. Basic and applied solar research therefore lacks the chance to unfold developments introduced by an internal logic of research. R&T-policy here leads to an fast adjustment to specific conditions of use.

Corresponding to this adjustment of technology development to external conditions state R&T-policy introduces a close organizational implementation of solar research into the concrete development of technologies. Here the C.N.R.S. again is of high importance and central to these processes. Within the context of solar technologies it is no more oriented exclusively on basic research. Additionally to research on solar thermals, to model-building and systematic studies in housing the C.N.R.S. is engaged in the development of solar thermal plants (Cavard/Criqui, 1979, pp.349-351). This intensified activities of the C.N.R.S. in application and in the increase of the cooperation with the industry represent the general aims of French R&T-policy (Rodot et al., 1980, p.249). Dissolving the division of labour in the national research structure (basic research by the C.N.R.S.; applied research by the C.S.T.B.) with regard to solar research (Cavard/Criqui, 1979, p.349) the state is able to organize an early orientation on application. This effect of state R&T-policy is reinforced by the organized cooperation between the C.N.R.S. and the CETHEL-Group[2)] in the development of large-scale solar thermal technology (Hoez, 1978, p.90). An organization of industrial research is tried by the promotion in the context of PIRDES. As the distribution of this budget is part of C.N.R.S. activities, what again upgrades its importance to the French solar research, an organic connection of the solar industry with solar research (as the basis of the technological innovation) is managed.

In France thisway it is the state R&T-policy that organizes the development of solar technology. These interventions show the expansion of policy fields and moreover the state's dominance over independent tendencies in research and development of science is demonstrated. Now the development of solar technologies has to be regarded as politically introduced. R&T-policies are analyzing the need for solar technologies and are organizing the development of appropriate plants.

2.1.2 R&T-Policy and the Dominance of Industrial Policy

In France there was not only a lack of a solar research structure that produced scientific proto-technological knowledge, that is relevant to technology development, but there was also a lack of an industry able to develop and to produce solar technologies. State R&T-policy therefore additionally to the industrial policy organizes the industrial cooperation to prepare the production of solar technologies. Within this context the C.N.R.S. again plays an important role; it cooperates with the E.D.F. in planning and production of solar thermal plants (Hoez, 1978, p.90) and it is directing the research done in cooperation with the CETHEL-Group. The activities of the COMES have a limited importance when it tried to promote industrial research from 1974 to 1982 (Desprairies, 1980, p.6; Descours-Desacres, 1980, p.33). In 1979 the COMES had a budget of only 12.5 million FF to realize this aim (Cavard/Criqui, 1979, p.362). The orientation of the French R&T-policy on the aims of industrial policy became clearer when the A.F.M.E. started to organize the state promotion in 1982. This state agency actively tried to intervene into the modification of the industrial structure and it was expected to be an organizer of a new key industry (A.F.M.E., 1982, p.27).

R&T-policy makes a part of industrial policy and is integrated in this concepts of innovation. There a litte chances to promote sophisticated technological concepts independently besides the political planning of industrial development. The dominance of industrial policy increases as much as research fields and research programmes are more and more oriented on the five-year plans of the Ministère de l'Industrie et de la Rechèrche (Papon, 1979, p.394). The state financed research work first of all aims at the adjustment of the industrial research institutes to the industrial policy (Schnell, 1974, p.36) but it does not aim at autonomous research and the development of technologies the enterprises regard as able to compete. Because of the importance the five-year plans have to R&T-policy (ibid.) the research is integrated into the French system of economic planning (Papon, 1973, p.232).

Within this context consequently the development of solar technologies is organized with regard to it use; the Programme "Sahel Energie Nouvel" demonstrates the dominance of industrial policy. The orientation on the Franc-Zone as a reservated market for French solar industries reduces the number of possible subjects treated by solar research to technologies suitable for the needs of the Sahel countries (Desprairies, 1980, pp.22-23). First of all technology development is oriented to the need of these arid regions (decentralized supply by solar thermal plants for pumping, irrigation and generation of electricity).

In France state R&T-policy is caused by the aims of industrial policy. Its functions are not independent, but under the dominance of industrial policy it aims to transform political decisions into the structure of technology development. Planning of industrial policy thereby appears as a long-range invariable determination, what makes it necessary to change technology development and solar research in a way that makes it appropriate to the political requirements. On the domain of solar research this relation introduces a specific form of R&T-policy: instead of the promotion of most appropriate technological concepts and of the dynamic processes of scientific research, the aims of industrial policy are to be realized by organizing and administrating interventions.

2.1.3 The Organization of Solar Industry as a New Branch of State-Owned Enterprises

The French basic problem in solar technological innovation existed in the lack of a developed solar industry. The little tendency of French firms to innovate and national industry's high dependency from the state's decisions in economic policy is reflected in the little extend the enterprises and their research institutes were engages in solar research until there have been the basic political decisions. Thisway there is the dilemma that the French state because of his economic importance has to organize the complete solar industry, that means the solar research and the technology development included.

Within this situation R&T-policy gets a specific function. It cannot base on an existing developed or a tendentially existing structure but first of all it has to generate it; and because of the basic importance of a solar research structure and of the technology development to the solar industry the R&T-policy is an essential part of its set-up.

The relation to industrial policy and the harmonization with its aims follows out of this situation. The dominance of industrial policy in France thisway by the use of R&T-policy functions to compensate the lack of an already existing solar research structure; so this dominance of industrial policy is not purely a result of the French tradition in economic planning, but it is also a consequence of making rational use of political instruments to realize the technological innovation. If there is no organization of industrial policy and R&T-policy within one concept, than it could happen that R&T-policy promotes solar technological developments that may be advanced but is not appropriate to the chances, needs and markets of the French solar industry. Therefore, to effect an efficient technological innovation the French R&T-policy has to be related to the conditions industrial policy introduces to solar industry.

The state consequently starts to organize cooperation between state-owned enterprises in the field of industrial research. It is industrial research and technology development that forms the basis for the production of solar technologies and on this way a concentrated solar industry can be organized. Here between three elements it has to be differentiated: solar collectors, solar thermal plants and solar cells. The technology of solar collectors is regarded as one of the less complicated ways in utilizing solar energy; here extensive cooperations are not required. Whereas on the domain of solar thermals and photo voltaics intensive research is necessary. French R&T-policy first of all in the field of solar thermals tries to organize a branch by cooperation in R&D. The scientific and technological lack in the development of solar cells is tried to be compensated by the industrial cooperation with foreign enterprises. Here two firms are established, the SFP (where Philips is engaged with 14% and the state-owned French firms C.G.E. with 51% and ELF-Aquitaine with 35%) and France Photon (here Exxon's subsidiary company SOLAREX grants the licence and holds a share of 30%, the state-owned French enterprise Leroy Somer participates with 70%) (Cavard/Criqui, 1979, p.357).

On the domain of solar thermals the thirteen firms that take part are interconnected by five cooperations and the French system of subsidiary companies. This collaboration is centred on the CETHEL-Group. A further important cooperation is realized between the E.D.F. and the C.N.R.S. in the development of the solar-tower concept of THEM and THEMIS. Together with the CETHEL-Group they are forming the G.I.E.. With this heart of the French solar industry the S.N.I.A.S. is connected in the THEM-project. In the development of middle-scale solar thermal plants there are cooperations of P.U.K. and Bertin with SERI-Renault, that belongs to the CETHEL-Group. This relation of Bertin to the CETHEL-Group finally is the basis of the connection with the S.G.P.M. that is engaged in thermo-dynamic projects.

The structure of the French economy relates further enterprises to the CETHEL-Group that are not engaged in cooperations: Saint-Gobain-Solaire is a subsidiary company of Saint-Gobain, Régie-Renault is related to SERI-Renault by their common parent company, and Babcock-Wilcox and Babcock-Fives are interrelated with Fives-Cail-Babcock by the Babcock-Group (to the whole context see Fig. 1). In the field of solar thermals it is purely Bechtel that is not included in the system of cooperation. All the other firms of the solar industry are either engaged in photo voltaics or in the technology of solar collectors like G.D.F. and SEP-Sofefil.

By the use of R&T-policy and the chances of influences on state-owned enterprises the French state succeeds in forming a structure of industrial research and because these cooperations are oriented directly on the development of technologies a solar industry is formed that by fact integrates the participating enterprises. The simultaneously existing engagement of the C.N.R.S. in the organization of solar research additionally assures the development of a non-industrial solar research structure that is appropriate to this solar industry. The integration of science into the state's five-year-planning and its orientation to the dominating industrial policy point out the interrelation between the two policies, that occured because of the engagement of the C.N.R.S. that effected the interweaving of solar industry and solar research.

The French concept to develop solar technologies implys a far-reaching and all-embracing state organization in solar industry and solar research. To realize the technological and industrial innovation there is an expansion of the policy-fields and an expansion of the public sector. But the development of this new branch (that concerns its generation as well as its further development) depends on the government and an on-going reduced business autonomy.

2.2 The German Case: Promotion of Economic Development

In West Germany the framework of R&T-policy is formed by a developed solar industry capable to innovate an established solar research and the lacking capabilities of the state to intervene directly into science and economy. Simultaneously the German solar industry has no already reserved markets. including specific needs that require for the development of certain solar technological concepts. State policy and R&T-policy in particular has to accommodate to this situation. Although the chances of state activities are limited by these conditions they are also opening up chances to develop a concept that is relatively independent from political influence and aims at solar technologies that are able to compete. If the state wants to influence solar research and the set-up of solar industry its instruments have to be used in the promotion of the economic development. As a money-holder the state is able to effect this technological and industrial innovation, and the state expands its policy-fields by activities according to the business' engagements.

2.2.1 The Organizational Structure of Solar Research in West Germany and the Effect of State R&T-Policy

In West Germany the research structure is characterized by parallel existing industrial and non-industrial research. Both fields are eluded out of political intervention and are to be influenced merely by indirect activities. The here included division of labour can be described by the orientation to application and the development of the technology in industrial research and by the basic research which is done in the public financed non-industrial research. These two parts of the national research structure are interrelated by the process of the development of science - that is represented in the scientific discussion they participate in - and by the orientation of science policy to the needs of the economy - pointed out in the promotion of economically relevant research. The transformation of this structure into technological progress, into the development of new technologies, depends on the working transfer of proto-technological knowledge that is appropriate to the economy. The need for advanced solar technologies therefore is expanding the need for the transfer of proto-technological knowledge inside the national solar research structure; thisway there is a growing demand for relevant results of the non-industrial solar research.

In West Germany R&T-policy therefore has a twofold aim: on the one hand the promotion of industrial research in the context of profitable solar technologies that can compete and on the other hand the promotion of non-industrial research in the production of proto-technological knowledge that is needed for the transfer. State activities thereby can make use of the already advanced research that Siemens and AEG have done on solar cells, that is done by Wacker on the production of silicon and that is done by MAN, MBB and Dornier in solar thermals and plant production. The structure of the branch and the state of industrial solar research are forming the framework of state R&T-policy; additionally it is the enterprises' orientation to the world market that gives the chance to such solar technologies that have been developed with regard to their ability to compete. The existing dialog between science and economy (Dommer, 1982, pp.44-45) and the existing scientific discussion between industrial research and non-industrial research assures the treatment of scientific subjects that is of importance to the solar industry.[3] This connection that is realized by the logic and the structure of the development of science gives chance to the R&T-policy (assisted by the state's science policy) to promote the existing tendencies in development and the adjustment of solar research to the conditions of the solar industry.

The infrastructure of solar research in West Germany is characterized by the participation of the universities in top-research. An extendend discusion including as much scientists and institutes as possible avoids an early reduction of alternative concepts. Additionally the advantages of research centres are used by the promotion of thematic concentration; this is done in the case of the research faculty on photo voltaics (sponsored by the German Research Community) at the University of Constance and by the engagement of the German Institute on Aviation and Space Travel (DFVLR) and the Fraunhofer Company (FhG) in the solar collector technology.[4] The this way structures solar research and the already existing state of scientific research are forming a framework wherein R&T-policy can promote technological innovation best possible.

By the use of the "Programme for Energy Research and Energy Technologies" the government is able to develop the existing structure of solar research further, to expand it and to intensify its relation to the solar industry.[5] The solar research gets more and more organized appropriate to the economic and technological needs, and its dynamism of development is functionalized complementary to the existing deficits of industrial research. This programme established by the government in 1974 assures that university research participates in this research process being of technological relevance, assures the production of knowledge for technology development, and on the domain of solar research it assures a temporary limited integration of non-industrial research into technology development (but not the development of the concrete form of the technology) and the organization of a research infrastructure that is characterized by research centres.

The instruments of state R&T-policies can be used flexible because of the developed state of the national solar research, its structure and its appropriateness to industrial needs. Because there are no chances to intervene into science and economy the national solar research structure can unfold their implicit dynamism free of a political influence and the later realized politicization by the R&T-policy follow along the economic and technological logic: the R&T-policy promotes the adjustment of the organizational structure of solar research and its subjects of research to conditions of a solar industry that is oriented to the world market.

2.2.2 The Relevance of R&T-Policy for the Development of Solar Technology

The influence of R&T-policy on the development of solar technologies is bound to the indirect generation of effects, because of the lack of chances to intervene into science and economy. Within this context it is essential that it is often the state's promotion that make the technology developments possible. Even in the case of the absence of direct interventions far-reaching the technological innovation depends on the R&T-policy. The promotion of technological concepts that are particularly competitive and marketable reinforces the existing concentration in the solar industry. In the field of photo voltaics the two leading firms get 87% (AEG 74%, Siemens 13%) of the funds of the "Programme on Energy Research and Energy Technologies" that are given to private institutes. These funds are also assisting the structure of the branch in solar thermals: MAN receives 39%, MBB 25% and Dornier 19% of the money given to private institutes. The R&T-policy thisway contributes to the development of the branch and to the development of solar technologies by the leaders of the branch, which possess the scientific and technological knowledge and the international trade relations that are needed.

Solar technologies - in particular the most advanced on the basis of photo voltaic and solar thermal processes - can be made optimum use in the countries of the Third World; therefore the knowledge of the conditions under which they will be used in the future consumer countries plays an important role. In West Germany R&T-policy includes the scientific and technological cooperation with countries that represent an important potential market to solar technologies (BMFT, 1979, p.433; BMFT, 1979a, p.143). West Germany has made contracts on scientific and technological cooperation with a number of threshold countries with a considerable future need for large-scale solar technologies; scientific and technological collaboration makes an early orientation of the technology development to the future needs possible (BMFT, 1979b, p.61). R&T-policy enables the national industrial research to develop solar technologies that are able to compete with regard to the utilization.

The third field of state activities by R&T-policy is the non-industrial research.[6] By means of the "Programme on Energy Research and Energy Development" the state promotes the production of proto-technological knowledge and the adjustment of research to the needs of solar industry. The importance that is given to non-industrial research by state policies on technology development depends on the state of industrial research. The younger the technological concept is the more research is required, and the less established industrial research is in this field, the more university research is participating. On the domain of photo voltaics more than 40% of the research projects are given to institutes of public science; thisway they get about 29% of the here distributed funds. On the domain of solar collectors and solar thermals, that require less research and are closer to technology development, universities and non-industrial institutes carry out only about 25% of the research projects. Here the dominance of industrial research is pointed out when the non-industrial research participates in the funds with about 20% (solar collectors) and 9% (solar thermals). According to the different importance of non-industrial research the participation in the concrete technology development differs with the fields of research. While only 10% of the research projects given to science in the field of solar collectors and 25% of the funds here given to science are used in technology development, in the field of photo voltaics these shares are up to 50% respectiveley nearly 90%.

The public science's participation in the research projects predominantly is carried by the research centres. Following to the internal dynamism of the development of science and to its forming of thematic main-points localized at certain institutes the distribution of research projects reinforces this centralization. The 40% of the projects that are given to the two largest centres in the field of solar collectors concentrate about 70% of the money given to public science; in the field of photo voltaics these are about 60% of the projects and 95% of the funds. R&T-policy thisway forms the research structure that is necessary to realize the industrial technology development.

Although the West German state has no chance to intervene into technology development, by the use of the instruments of R&T-policy he succeeds in influencing sustained and basically the development of solar technologies and the circumstances that are necessary. The promotion of industrial research on marketable technologies here is the main aim; to realize it the cooperation with consumer countries has to be promoted and to unfold the effects of industrial innovation it is necessary to adjust the non-industrial research to the industry's needs for proto-technological knowledge. Even if the state does not intervene into the process of technology development the instruments of the German R&T-policy have basic importance to the development of solar technologies: the development of markatable solar technologies becomes efficient by the international cooperation that assures the technology's appropriateness to the needs and by the organization of a solar research structure that is adequate to the technology development.

2.2.3 R&T-Policies as Instruments for Technological Innovation

The effect of German R&T-policy on technological innovation on the domain of solar technologies cannot be assured without additional external policies. Contracts on cooperation made with threshold countries additionally to scientific and technological cooperation they include industrial collaboration; thisway serve to technology development appropriate to the needs and furthermore they are expected to ensure the opening of markets. The West German policies are directed on developing and threshold countries that represent large potential markets for solar technologies (BMFT, 1979, p.433; BMFT, 1979a, p.143). The state aims at the "opening of large and substantial markets", that make possible large outputs and thisway leads to low costs of production (BMFT, 1979b, p.79). The economic relations with India, Egypt, Mexico, Brasil, Argentina and Indonesia include important parts of the world market for solar technologies. In these regions solar technologies are suitable and the intensive processes of industrialization, urbanization and growth of population are forming a situation of progressively growing demand for large-scale technology to supply densly populated regions of high energy densities. The German government in the first instance expects a demand for solar-tower technologies (BMFT, 1979b, p.61).

This future demand for large-scale solar technologies is confronted with an actual demand for small-scale technologies adequate to the existing decentral supply situation. Because the consumer countries cannot develop and produce the technologies appropriate to these needs, they are interested in the transfer of suitable technologies and the assistance of industrialized countries in setting up national productive capacities for less complicated small-scale energy technologies. These interests of the industrializing Third World countries are met by the policy of the German state and its offer of bilateral scientific and technological cooperation. The cooperation with countries which have large markets but scarcely efficient scientific potential is integrated in the strategies of the German government to open several national markets to risky large-scale technologies (BMFT, 1979c, p.72; BMFT, 1979a, p.144) and substitutes not only for the lack of an internal market but reserves also early in time large parts of future markets for the German solar industry.

In the case of the supply of rural regions German enterprises are cooperating with consumer countries in the development of different solar technologies. In the field of solar villages (these are villages with a solar technological infrastructure to realize an autonomous decentralized energy supply) West Germany is collaborating with Egypt, the Peoples's Republic of China, Indonesia and Mexico (BRD, 1981, p.30); in photo voltaics the number of partners is increased by cooperations with the Sudan and the Philippines. Cooperations with India mainly are concentrated on solar thermal concepts. Here the collaboration on a 10-kW experimental plant near Madras has to be pointed out; the Indian partner is Bharat Heavy Electricals (BHEL) that shares with the production of solar receivers and the German MBB delivers the mechanical apparatus (Kleinhans/Schammer, 1983, p.19; AGF, 1979, p.181). This cooperation aims at the set-up of a proto-type for decentral supply with electricity and is suitable to the villages, where about 400 million people live what is more than the half of the Indian population (ibid.). This collaboration opens a considerable market in decentral supply to solar apparatus of MBB. It continues a certain tradition of German cooperation with BHEL that started in the field of nuclear energy (Sid Ahmet, 1980, p.35).

Furthermore there are industrial cooperations in small-scale technologies; here the German solar industry produces the profitable elements and the consumer countries take part in the manufacturing of the less complicated elements (Simonis/Häusler, 1980, p.52). More important than the export chances are the thereof resulting interweavements of the German solar industry basing on the division of labour, that leads to a sustained opening and reservation of markets for large-scale solar technologies.

R&T-policy thisway forms a far-reaching framework to technological innovation in West Germany. It promotes the innovative capability of the enterprises and the concentration in solar industry on the technologically leading firms that are internationally well established; in addition it aims at an expanding participation in the world market. By means of scientific and technological cooperation, that assure the participation of the consumer countries and their interest in German solar technologies, it induces the increase of economic conditions basic to technological innovation - that means R&T-policy makes possible its far-reaching realization. The economic success of policies on the domain of the solar research structure and the technology development is assured by the use of the instruments of international scientific and technological cooperation.

The German state expands his policy-fields in particular by his capacity as a money-holder. He organizes the framework and the conditions of the development of suitable solar technologies and of the set-up of the solar industry; he promotes the economic development of the solar industry and - by cooperation - of the consumer countries in the Third World. Because of these state organized interrelationships the markets are expanding with on-going linkages to the German solar industry. The state thisway follows to the industrial tendencies and reinforces them; that means he does not generate the development of solar technologies and solar industry but he is deeply influencing the further developments and the growth of the branch.

3. Politics and Technological Innovation: Politicization of Business vs. Businization of Politics

In West Germany and France state R&T-policies have different functions. The structures of the political system, of the economy and of scientific research are basically different. Both countries therefore differ in the use of the instruments of the R&T-policy; but additionally the R&T-policy itself is instrumentally in basically different contexts. It underlies different contexts of politics and technological innovation; to realize a technological innovation that turns out as an industrial innovation the conditions formed by politics and business and the relation between them has to be taken into regard. The national concepts for technological and industrial innovation therefore follow to the already existing and established form of interrelation between politics and business - even on the domain of a new type of technology like solar technologies. The case of the conditions and organization of the development of new and innovative technologies points out to what extent the already existing relationships between politics and business are reproduced.

In France the promotion of technological innovation by R&T-policy is a part of the state's industrial policy. According to the French tradition it functions as an organizational means to form a national solar industry. Here technological innovation first of all is regarded as a problem of administration to transfer political aims into the sphere of economy. Thisway a dependency of the solar industry arises, that was also pointed out by Papon (1973) for these case of technological progress. It is because of the dominance of the state and the reservation of markets that the importance of the ability to compete in an international situation decreases. The problems of the French economy are recured in the case of the solar industry: the enterprises' little intentions to innovate because of the reserved market and the management's orientation on state policy instead on the world market (Sirbu 1978; Zysman 1975), administrative problems in organization and technology development (as already pointed out by Callon, 1980, in the context of the development of an electric vehicle) and because of the enterprises' orientation on the industrial policy the blocking of innovations oriented on competition and of the development of technologies that are geared to the market (see Molitor, 1980). The French political system, characterized by its all-embracing economic planning and organization of science according to the aims of industrial policy and its neo-colonial policies against the Franc-Zone, forces the insertion of the solar industry into the established system and orients the development of solar technologies according to the needs of the Franc-Zone - a region that is neither typical for the structure of the world market nor is offering a remarkable demand for large-scale technologies. The opportunities, that are included in a state-organized set-up of solar research and solar industry (e.g. fast technological adjustment, industrial cooperation outside of a competitive situation), are hindered by the existing conditions that are reproduced by R&T-policy. That means the existing politicization of business, research and technology development corresponds to the conditions of technological and industrial innovation but it establishes a relation between politics and business that finally is limiting economic development and economic growth.

On the contrary the West German state is in the situation to harmonize the R&T-policies on a solar industry oriented on the world market that is innovative and structurally developed. According to the principe of "follow the leader" that was already pointed out by Hirsch in 1970 (p.223) the state complements effectively the R&D-strategies of the big enterprises. This form of R&T-policy was already highly accepted by the industry in the case of data processing and nuclear programmes; this way the decentral decision making and the autonomy of the enterprises is continued, the politically and socio-economically required technological innovation is effected (Meyer-Krahmer, 1981; Rubenstein et al., 1977; Keck, 1980). The R&T-policy functioning as a promotor of the technological innovation at least in the case of the solar industry unfolds the structural effect which is denied by Hockel (1981). On the domain of the solar industry it functions as the far-sighted policy on the industrial structure that Hauff/Scharpf (1975) regard as necessary to adjust to the changes in the world market (p.12) and to reorganize the economy (pp.36-41). Because of the autonomous tendencies of development in solar research and solar industry and the here existing orientation on the competition in the world market, the state is in the position to make flexible use of the R&T-policy's instruments to promote appropriate developments. The use of this instruments and of the R&T-policy itself depends on the conditions that are formed by this new branch.

Insofar we have a businization of politics to which the state responds influencing technological and industrial innovation by means of funds; its activities as a money-holder are following to the conditions of managerial decision making.

Comparing West Germany and France there are two completely different concepts of R&T-policy and of technological innovation on the solar domain. The conditions formed by research and industrial structure require specific forms of nationally differing policies, and the orientation on specific export markets effects the development of partially different technological concepts. Comparing the different relations between politics and business within this context tendentially there is to identify a politicization of business in France and a businization of politics in West Germany. But this is only one point of view; the other side shows that in France the state has to take into regard that his policies must fit into the national industrial structure - and thisway business interest are included into policy and have to be included if the policy is expected to be successful - and it shows that in West Germany the enterprises within their decision making take into account that there are funds the state distributes in his role as a money-holder. Therefore politicization in France and businization in West Germany are topics to growing interrelationships between politics and business that point out typical structures. The case of solar technologies demonstrates that technological and industrial innovation require for an intensification of the interrelation between politics and business.

Notes

1) Although there have been activities in the field of solar research in France for more than 25 years (Rodot et al., 1980, p.226) the organizational structure and the relations to managerial strategies have been so little developed, that there was no chance to start the development of technologies and solar industry simultaneously with the need for solar technological innovation.

2) The CETHEL-Group was founded by state intervention to set-up a capable solar industry and industrial cooperation in R&D. It is formed out of state-owned enterprises: SERI-Renault, Fives-Cail-Babcock, Heurtey and Saint-Gobain.

3) This is clearly pointed out by the greater number of congresses on the domain of solar research; here scientists of industry and university do not only have a meeting, but they try to have reciprocal benefit of their studies - that

means they effect a harmonization of solar research that is organized in the structural division of labour.

4) The research faculties (SFB) sponsored by the German Research Community (DFG) are generally regarded as a highly efficient means to adjust university research to the needs for knowledge the users have (see Steck, 1975, pp.366-369; Schmidt/Stoltenberg, 1978, p.704). The Fraunhofer Company (FhG) represents the trial to interrelate the applied research and such research that has relevance for technology development but is not directly oriented on application (Mertes, 1982, pp.694-696). This research company is financed by industrial research orders and its form of organization assists the orientation of research work to the industrial structure.

5) This and the following see Hilpert, 1983.

6) This and the following see Hilpert, 1983.

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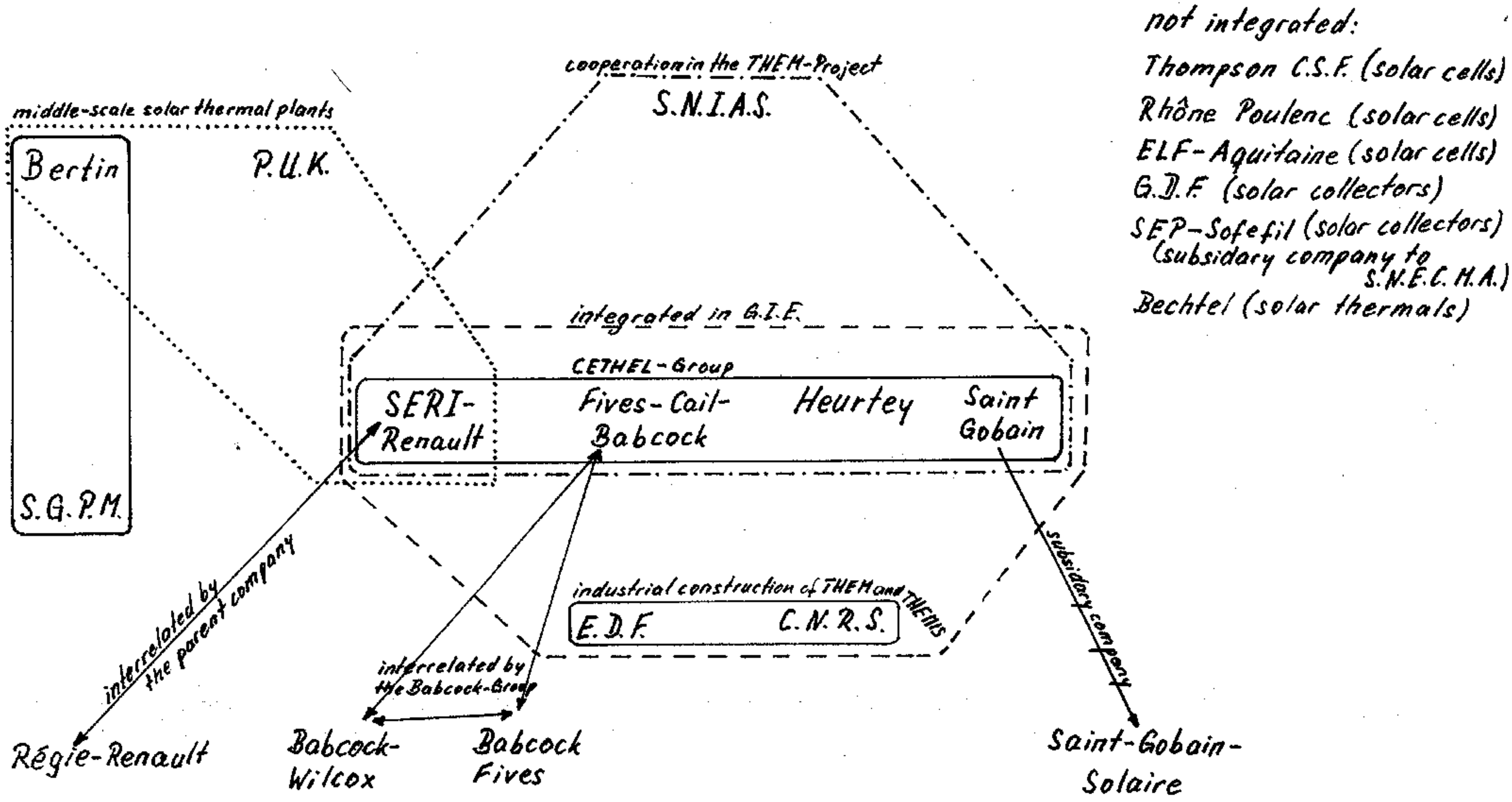

Fig. 1: Organization of the French Solar Industry by State Introduced Cooperation in Industrial Research

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ECONOMIC GOVERNANCE:
A FRAMEWORK FOR UNDERSTANDING
THE RELATIONS BETWEEN GOVERNMENT
AND BUSINESS AND
THE ROLE OF THE STATE
IN THE AMERICAN ECONOMY

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As we understand it, the principal objective of the project on "Politics and Business in Western Democracies" is to develop a framework for describing and explaining recent changes in, and the likely further evalution of, the relationships between business and government. In particular, the project asks if "a new businessman" has emerged in "reaction to the rise and dynamics of government's interference with business." The tentative proposed framework for the project seems to assume that businessmen's behaviors are shaped primarily, or at least increasingly, by changes in their political environment, i.e. by the impact of "politics" on the functioning of business. It is further implied that "governmental interference in the business world" (legislation, regulation, public expenditure, growth of the public sector, etc.) is exogenously determined; i.e., that it is driven not by economic factors but by developments internal to government or the policy process. Finally, the appropriate unit of analysis in mapping businessmen's responses to their changing environment, and to political interference, appears to remain the national political economy.

We suggest that these initial orientations to the problem of business-government relations basically perpetuate the dichotomous perspectives of the dominant paradigms of the role of government in the economy. Our paper argues for the usefulness of casting the business-government relationship in terms of a broad conceptualization of economic governance that endogenizes the factors for change and that identifies the industry or sector as the most appropriate unit of analysis and comparison.

This perspective suggests that, in spite of the undeniable expansion of the public sector, businessmen don't live in a mainly political world, but that their behavior is determined by the effort to efficiently and adaptively coordinate the structure and activities of their firms to uncertainties created by a <u>variety</u> of forces in their "relevant environments", that is to customers, suppliers, competitors, labor, technology generators, capital providers, as well as government agencies. These interactions between firms and their environments can be analyzed in terms of four distinctive mechanisms of economic governance or coordination, namely, markets, private and public hierarchies, clans, and associative behavior.

Of course, public hierarchies or "the state", are more than simply one governance mechanism among others. Because it monopolizes legitimate authority and coercive capacity, the state ultimately defines the political and legal contexts within which all economic activities and transactions are coordinated. Still, changes in public policy are only one source of environmental uncertainty. Of equal or greater importance are changes in core technologies, evolution in the product cycle, inter-industry and foreign competition, and the structure and strategies of other firms.

One advantage of our perspective is that it conforms to the empirically undeniable fact that a range of non-market institutional mechanisms for deriving collective economic decisions is central to the dynamic evolution and efficient functioning of any modern capitalist economy. The mix of governance mechanisms will vary across economic sectors and over time. So does the role of the state vary both as an agent of hierarchical coordination of economic activities <u>and</u> as a legitimator or validator of coordination <u>via</u> markets or <u>via</u> collective action by "capitalists" in the form of corporate hierarchies, clan-like networks, or formal business trade associations or cartels. Viewing these government roles as "interference with business" does not seem to advance our understanding of the actual or appropriate role of the state in the modern capitalist economy.

This paper applies the governance perspective to the American economy in an admittedly preliminary way. It demonstrates, nevertheless, that governance arrangements in the American economy are far more complex than most of the scholarly literature would have us believe. Non-market mechanisms for the coordination of economic activities are much more extensive and central to economic performance than the conventional wisdom suggests. We find that the mix of governance arrangements in the American economy varies sharply from sector to sector. And we propose a typology for classifying economic sectors as one step towards explaining these distributions. We conclude with a few thoughts on policy implications.

Economic Governance

Governance refers to the several institutional mechanisms through which firms as complex organizations have come to deal with other organizations or actors in response to problems of <u>resource scarcity</u> (uncertainty with respect to the availability of capital, raw materials, human resources), and <u>information complexity</u> (uncertainty with respect to competition, products, markets, technology and government regulation). Specifically, governance in regard to various sectors addresses the following type of questions: what are the mechanisms by which prices are set and demand stabilized, production levels determined, the activities of production and distributing units coordinated, relations with labor managed, product innovation and development occur, capital is allocated, information about product quality is disseminated, and norms of fair competition and product standards are generated. In order to understand the governance of specific economic sectors, the strategy employed herein is to integrate the general political and sociological theoretical insights of Streeck and Schmitter (1984) with those of other scholars who have studied the structure of American industry in recent years: Chandler (1962, 1977), Ouchi (1977, 1980, 1984), Williamson (1975, 1981), Hage and Clignet (1982), Lawrence and Dyer, (1983). From this literature, one learns that the governance of the economy occurs <u>via</u> a variety of mechanisms: <u>markets</u>, <u>hierarchies</u>, <u>the clan or community</u>, and <u>associations</u>. Of course, each of these mechanisms, despite common elements, operates according to a different logic. Markets provide the arena for buying and selling, with prices supposed to convey the information for the efficient allocation of goods and services (Ouchi, 1977: 540; Zysman, 1983: 17). Under some conditions, however, there are market failures, and when this occurs, prices fail to convey the necessary information. However, there are alternative mechanisms for allocating resources and coordinating activities, one of which is hierarchy. There are two forms of hierarchy which may replace market mechanisms as devices for the coordination and the allocation of resources. These are the state and the modern corporation. Of course, the modern corporation and the state are by no means functional equivalents, but with both, economic actors are dependent upon hierarchical coordination for economic activity. Of course, the state has much more legitimate authority and coercive capacity than the corporate structure. And while oligopolistic and monopolistic types of corporate structure often take the place of markets in coordinating economic activities, it is rare that a corporate firm becomes totally independent of markets. Within both the state and the corporate structure, however, bureaucratic structures operate according to systems of hierarchical surveillance, evaluation, and direction.

Drawing on a long sociological tradition, Streeck and Schmitter (1984) employ the concept community as a mechanism which is involved in the governance of total societies. Focusing at the sectoral level Ouchi (1977, 1984) employs the concept clan; he sees the clan as a loose form of organization in which the members are bound together over a very long time, and in which there is mutual understanding, and the expectation of mutually rewarding long-term involvement. Clans often substitute not only for markets but for hierarchies as well. For example, market prices are a relatively sophisticated form of decision-making, but "correct" prices are often difficult to establish because of technological interdependence, novelty, and other forms of ambiguity. Hierarchies perform well insofar as there are established rules to cover contingencies. But decision makers within hierarchies must be familiar with the structure of rules in order to apply the correct one in any specific situation. Exceptions to rules are either denied or referred up the chain of command in the hierarchy. But in situations of considerable uncertainty and complexity, the number of exceptions can overload the hierarchy. Shared norms among different actors, however, are alternative mechanisms to markets and hierarchies for governing behavior (Ouchi, 1980). Clans are mechanisms for reducing differences among individuals and organizations. In a society with high levels of technological complexity with technology changing frequently, close communication is necessary in closely integrated industries. But if markets and bureaucracies cannot provide effective communication among individuals and organizations with different goals, clans do have the potential to mediate differences and to promote goal congruence. In a society as heterogeneous and as mobile as the United States, however, the effectiveness of clan activity to cope with economic problems is lower than in societies with greater ideological, ethnic, and racial homogeneity.

Associational behavior is still another mechanism involved in coordinating economic activity in a modern economy. This form of governance is distinctive in that it involves structural negotiations among a limited set of business firms that mutually recognize each others' status and entitlements and that seek to reach and implement relatively formal and stable compromises in pursuit of their interests (Schmitter and Streeck, 1981, 1984). Such associations and systems of interrelated associations may become highly developed vertically and horizontally across a range of the activities of firms in any given sector. Association staffs may over time develop a certain autonomy from member firms that facilitates the pursuit of long-term strategies for the management of the problems of a sector, and that stabilizes relationships with the state and other forces in the environment of a sector. In these ways business associations may provide an institutional basis permitting firms to define a set of common interests and to develop a sufficient consensus to resolve disputes. It is through such arrangements that business frequently attempts to regulate or govern itself, and it is here that business often develops its most active and continuing interface with other organized groups and the state.

Business associations are less important in governing the American economy than they are in several European economies, and the importance of associations as a governing instrument varies from sector to sector in the United States, as it does in most societies. Similarly, the role of markets, hierarchies, clans, and associations varies from sector to sector. Each of these mechanisms is in varying degree involved in the governance of each sector of the economy. The primary concern of this paper is to offer a preliminary description of the variation in the role which these mechanisms play in the governance of a representative array of sectors of the American economy. In this sense, the purpose of the paper is quite modest, it is only a beginning of an effort to study the governance of the American economy.

It is not enough to know that the governance of the economy occurs as a result of these four different mechanisms. We must try to understand what sectors of the economy tend to be coordinated or governed by what specific mechanisms. In order to advance our understanding of how these mechanisms operate in specific sectors of the American economy, it is expedient to do two things:

(1) To develop a typology of the American economy (See Figure One).

(2) To specify the relative importance of the four types of governing mechanisms in various sectors of the American economy.

The typology will help us to understand some key differences among various sectors of the economy. Our strategy is to lay the groundwork for a more complex research agenda which will confront the following type of problems: why do markets, hierarchies, clans, and associations vary in their capacity to coordinate economic activity across sectors of the American economy? Why do different forms of governance develop in different sectors? How does the mix of governing mechanisms influence performance? Is there in some sense an optimal mix of governing mechanisms in view of the resource scarcity and information complexity characteristics of different sectors? What does this imply as far as government efforts to improve economic performance?

A Typology of the sectors in the American Economy

There are, of course, many dimensions along which one may compare various sectors of the American economy. However, the typology portrayed in Figure One captures some of the broad contours that seem to be most important in conditioning firm behaviours across the different sectors. These dimensions permit the development of a four cell table into which one may fit the various sectors of the contemporary American economy. The dimensions along the horizontal axis are the size of the firm, the size of demand at the firm level, and the level of investment required by a firm for entry into the sector. The dimensions along the vertical axis are the level of technological sophistication and the rate of technological change. Note that the horizontal axis captures variation across firms and their environments in particular sectors, while the vertical axis captures variation across products. The various sectors of the economy are arrayed within each of the cells.

FIGURE ONE

A TYPOLOGY OF THE AMERICAN ECONOMY

Size of Firm
Stability of Demand at the Firm Level
Level of Investment

<table>
<tr><td></td><td colspan="2">LOW</td><td>HIGH</td></tr>
<tr><td rowspan="4">Technological Sophistication and Rate of Technological Change

LOW</td><td colspan="2"><u>Cell One</u>: Relatively Small Firms With Low Technological Complexity</td><td><u>Cell Two</u>: Large Firms With Low Technological Complexity</td></tr>
<tr><td>A</td><td>B</td><td rowspan="3"><u>Examples</u>:

Autos
Steels
Canned Foods
Soft Drinks
Producers of Fabricated Metal Products</td></tr>
<tr><td>Firms Producing Undifferentiated Products</td><td>Firms Producing Differentiated Products</td></tr>
<tr><td><u>Examples</u>:

Agriculture</td><td><u>Examples</u>:

Residential Construction
Printing
Publishing
Apparel
Textiles
Furniture
Banking
Savings Institutes</td></tr>
<tr><td rowspan="2">HIGH</td><td colspan="2"><u>Cell Three</u>: Relatively Small Firms With High Technological Complexity</td><td><u>Cell Four</u>: Large Firms With High Technological Complexity</td></tr>
<tr><td colspan="2"><u>Examples</u>:

Pharmaceuticals
High Performance Plastics
Ceramics
Specialty Steel
Radioisotopes
Various Electronics Industries</td><td><u>Examples</u>:

Mainframe Computers
Nuclear Energy
Aircraft Firms
Telecommunications</td></tr>
</table>

At this point, it is important to point out that this typology deliberately does not attempt to address the issue of why firms within the same sector vary in their performance. That question would require a fundamentally different set of variables, ones which would capture structural as well as social psychological variables at the firm level.[2] Rather, the typology here attempts to capture variation across sectors of the economy, acknowledging that there will be considerable variation in the behavior and performance of individual firms.

Cell One is simply called Relatively Small Firms with Low Technological Complexity. Sectors within this cell are made up of firms which are relatively small, which require relatively little capital in order to enter the industry, and which tend to be quite competitive. Sectors in Cell One should be distinguished as to whether they produce undifferentiated products or differentiated products. The agricultural sector would be the former, while the latter would consist of publishing, printing, textiles, apparel, housing, furniture, banking, savings and loan associations, as well as others. Industries in these sectors require little energy and relatively small amounts of complex machinery, as they are quite labor intensive. The volume of output is relatively low at the firm level, and mass advertising is relatively unimportant for these industries. In the American economy, workers in these sectors have a relatively low level of unionization. And when they are organized, they tend to be organized into craft instead of large industrial unions. In general, wages, job benefits, and job security among workers in these sectors tend to be low, while job turnover rates are relatively high.

Of course, the technological complexity of industries is not static, and for this reason, industries may historically move from one cell to another. The four cell table tends to capture the variation in the American economy around 1980.

Cell Two is called Large Firms with Low Technological Complexity. Sectors within this cell are made up of firms which are relatively large and which require considerable capital in order to enter the industry. The sectors tend to be oligopolistic in nature. Whereas some of the sectors in Cell One attempt to produce customized products (eg. housing, banking, etc.), sectors in Cell Two tend to specialize in the production of standardized products. In the production of consumer durables, large sums of money are spent on advertising, and firms have sizeable sales forces. Of course, there are many types of industries in Cell Two. There are (1) mass producers of low priced, semiperishable packaged products which adopt large-batch and continuous-process technology (eg. manufacturers of canned foods, soft drinks, beer and liquor, breakfast cereals), (2) processors of perishable products for national markets (eg., large meat packing and processing firms), (3) manufacturers of mass produced consumer durables which use continuous process technology and which require specialized marketing services in order to be sold in volume (eg., manufacturers of automobiles, heavy farm equipment, sewing machines, etc.), (4) makers of somewhat complex producer goods which are standardized (eg., manufacturers of elevators, heavy electric motors, etc.), (5) producers of primary metals (eg., steel, copper, aluminum, etc.) (6) producers of fabricated metal products (eg., manufacturers of cans).

Industries in Cells One B and Two were well developed prior to 1945, and by contemporary standards, these are industries in which the level of technological complexity and rate of technolgical change has not been very high. A high proportion of the manufacturing sectors in these two cells consist of industries which are either in decline or are in a stage of transition. Many of the newly industrializing countries have enormous labor cost advantages over firms in Cell One B and Two, meaning that a number of firms in these cells must reduce their output, exit from the industry, or seek governmental protection. However, there are few sectors in which decline is inevitable. Instead, most manufacturing sectors in Cells One B and Two are in a stage of transition. Firms in these sectors are faced with the same choices as those which are declining, but with the additional choice of altering their products and/or production processes. In part, the mix of markets, hierarchies, clans, and the associational structure determines the strategy which manufacturing sectors in transition will employ (Zysman, 1983, Ouchi, 1984, Lawrence and Dyer, 1983).

Cells Three and Four contain industries which are based on scientific knowledge, especially on the application of scientific theory to product development. Cell Three would include firms producing pharmaceuticals, specialty chemicals, specialty steels, high performance plastics and ceramics, radioisotopes, and high technology electronics. As in Cell One, firms in Cell Three tend to be highly competitive and relatively small. Entry into this sector tends to be based more on knowledge than on capital. The life of most products is relatively short, and the survival of firms in Cells Three and Four is very dependent on considerable investments in research and development. And as Hage and Clignet (1982:82) point out, the high technological sophistication of these sectors has tended to enlarge the range of products. Hence, firms in Cell Three have the potential to develop many more product lines than those in Cell Two.

Also in contrast to Cell Two, firms in Cell Three have a much smaller proportion of the labor force organized into trade unions. On the other hand, many of the employees in this sector are highly educated, enjoy considerable work autonomy, and receive attractive wages and work benefits.

Firms in Cell Four are involved with technologies having relatively short lives as far as markets are concerned. Similarly, the level of technological complexity is quite high and firms spend considerable sums of money on research and development. Barriers to entry are based on both knowledge and large sums of capital. Examples of industries are those involved in the production of mainframe computers, aircraft, telecommunications equipment and services, and nuclear power plants. Because of the vast capital required to operate in this sector, entry is difficult and market price competition is not very important. Indeed, sectors in this cell tend to be either oligopolistic or monopolistic.

For firms to perform well in Cell Four sectors, harmonious work conditions are essential. In general, a high proportion of employees are unionized and are well compensated.

THE ROLE OF GOVERNANCE MECHANISMS

Obviously, firms vary greatly in their capital requirements and their need for governmental intervention, a high quality labor force, extensive research and development funds, and countless other resources. Most everyone seems to know this. Even so, the bulk of the scholarly literature fails to recognize that if there is great variation in the structure and in the resource needs across sectors of the American economy, there is probably great variation in the way in which sectors of the economy are governed. True, there is a strong ideological predisposition among Americans to prefer market solutions. American legal norms and constitutional doctrines further elevate a liberal conception of the state and a separation of the public and private spheres. Partly as a result, there is insufficient recognition that the governing mechanisms that actually shape economic activity are quite complex. For example, the political economy literature places great emphasis on the weak American state, stressing the way in which its executive authority is dispersed and is vulnerable to interest group pressure (Krasner, 1978; Lowi, 1969; Katzenstein, 1978). While it is true that the weak state/strong state formulation is helpful in comparing the political capabilities of states in cross national research, this perspective is somewhat overly simplistic and fails to recognize that the American state's ability to act in one policy area is very different from its ability to act in another (Zysman, 1983:297). Similarly, the political economy literature on the nature of markets in the United States misses important variations. For example, John Zysman (1983) in his very informative comparative study of financial systems argues that there are basically three models of finance in advanced industrial societies and that the American model is a capital market-based system in which security issues (eg., stocks and bonds) are the predominant source of funds for American firms. However, contrary to what Zysman argues, all three of his models are present in the American system. As we will try to show below, financing in some sectors is credit-based with government administered prices, while in others, the flow of long-term credits is bargained or determined by other organizations. Only a more in-depth analysis across a number of sectors of the American economy will reveal the more diverse nature of financial institutions in the United States.

In short, the nature of markets, the state, clans, and associative behavior is far more complex in the governance of the American economy than most political economy scholarship has recognized. By focusing on several economic sectors in each of the four cells in Figure One, the remainder of this paper is designed to provide examples of this complexity and to make a modest first step in the specification of what mix of markets, hierarchies, clans, and associative behavior occurs in each of the four cells.

<u>Cell One A (Relatively Small Firms with Low Levels of Technological Complexity, Producing Undifferentiated Products)</u>.

Agricultural sectors seem broadly representative of this category. Even so there is diversity in the way they are governed. Many agricultural sectors have the characteristics of a market economy. For example, in most meat and vegetable sectors, there are large numbers of sellers, no one of which can affect market prices. Entry into the industry is relatively easy. Within modest limits, prices are determined by markets in which offers from sellers and bids from buyers are made. Prices are determined in a highly competitive way, and on a given day, prices change frequently. It is not unusual for the total value of output of some agricultural sectors to vary as much as 20 percent from year to year. In these sectors, the state plays a very modest role in intervening in markets, and clan type activity and associative behavior are not well developed.

On the other hand, there are agricultural sectors which are governed very differently, sectors in which prices are very stable, government intervention is extensive, and clan type activity and associative behavior are pervasive. A good example, is the dairy industry. The key to understanding the the dairy industry is to be found the vast system of dairy cooperatives. Cooperatives function extensively in certain sectors of agriculture because of the Capper-Volstead Act of 1922 whereby Congress granted agricultural marketing cooperatives partial immunity from federal antitrust laws.

Cooperatives have tended to develop in those sectors of agriculture in which the size of firms is relatively homogeneous, as in dairying and wheat farming. Moreover, in those geographical areas where cooperatives have been extensively developed, there has been a common culture among the producers -- a culture which has often been ethnically based. On the other hand, farms in the meat and vegetable sectors have been much more heterogeneous in size and there has been little common culture among producers. As a result, cooperatives have been much less common and very competitive markets have been the dominant method of shaping prices.

Cooperatives play a very important role in shaping economic activity in the dairy industry, handling approximately eighty percent of milk produced in the United States. Cooperatives bargain with milk processors for the price to be paid to producers, represent dairymen at hearings for federal milk marketing orders, and provide for the transfer of milk from the farm to the factory. Some cooperatives are even processors, producing cheese, butter, and other dairy products. The functions of dairy cooperatives extend far beyond the marketing of milk. Indeed, dairy cooperatives have become the functional equivalents of business trade associations. In this respect, cooperatives lobby for dairy legislation, provide insurance for their members, provide advertisements to increase the demand for dairy products, and disseminate to members information designed to create greater efficiencies on dairy farms.

The state and the dairy industry have combined to influence the price of milk by creating federal marketing orders and dairy price support programs. Under federal marketing orders, milk processors are required to pay dairy farmers <u>via</u> their cooperatives a specified price for the milk which is used in the fluid milk industry and a lower price for the milk which is left over and which is processed into such manufactured items as ice cream, cottage cheese, skim milk, dry milk, etc. Under a marketwide pooling agreement, each producer receives the same blend-price for his milk, whether the milk goes into the Class I fluid milk classification or a manufactured milk classification.[3]

The federal government also intervenes in the dairy industry with a price support program. In order to support milk prices, the federal government, through the Community Credit Corporation agrees to buy cheese, nonfat dry milk, and butter at designated prices. Because the prices of these commodities are tied to the price of all milk through the milk marketing orders, the net effect is to support the price of all milk.

The dairy industry in the United States, like that in Canada and most West European countries, can be described as "neo-corporatist" in nature, because of the importance of associations and clans and because of the extent to which public and private sectors are intricately intertwined. As a result of extensive governmental involvement, prices in the dairy industry are highly stable and producers and processors have relatively high returns on investment. In comparison with the prices of steers, hogs, broilers, corn, potatoes and oranges -- i.e., those sectors in which cooperatives are not well developed -- there is very little variation in milk prices. And the key variable in explaining variation in behavior between the dairy industry and the meat and vegetable industries is organizational structure. Where there are extensive cooperatives, trade associations, and clan type activities involved in governing an industry -- as in dairying -- there is much greater price stability and much closer government-industry collaboration than in those sectors in which cooperatives are poorly developed and trade associations have little autonomy to represent the interests of the industry. Sectors with the latter characteristics have prices determined much more directily by the market.

We have seen that there is considerable variation across agricultural sectors in the role the state plays the pricing of agricultural commodities. The state is a major player as well in other economic activities in the agricultural arena. For example, the state is very much involved in providing capital for agriculture and in promoting agricultural research. Largely as a result of the role of the state, the United States is one of the world's most efficient producers of agricultural commodities and the world's leading exporter of agricultural commodities, and there are a number of indicators which suggest that its comparative advantage is growing (Evenson, 1982). In providing direct expenditures and credit, the state is heavily involved in the entire agricultural economy. The federal government, through the Commodity Credit Corporation, provides extensive support to agricultural producers when the national average market price for a commodity is below the target price set for it. The state, also through the Commodity Credit Corporation, provides credit in the form of loans to agricultural producers to finance their crops. Credit programs are distinct from price supports and other direct expenditure programs in that non-governmental financial institutions are often involved in implementing the federal program. Basically there are two forms of agricultural credit programs: direct government lending and government loan guarantees (e.g. promises by the government that it will repay principal and interest in the event of default by borrowers (Bickers, 1984)). It is the powerful role of major farm organizations (eg., American Farm Bureau Federation, National Farmers Union), as well as cooperatives and trade associations in individual sectors interacting in a close symbiotic manner with the U.S. Department of Agriculture, which has led to heavy involvment of the state in providing of capital to the various agricultural sectors.

Research conducted in the agricultural sector is of special interest. It is the interaction of the state, associative organizations, and clans that has contributed to making American agriculture so remarkably innovative. More specifically, the federally supported experimentation stations in affiliation with land-grant state universities and farmer interest organizations constitute the world's most complex system of agricultural research. While much of the research is funded at the federal level, very little research takes place in federal institutions. Throughout the country, there are 52 State Agricultural Experiment Stations which are integrated with state universities, state extension programs, and local farm groups. The research, extension, and teaching programs are generally state specific in nature. Thus, farmers are able to see to it that particular technologies are advanced as quickly as possible (Nelson, 1982:466-467). The close clan like relationship which exists among farmer organizations, state and federal government officials, and university researchers to promote and to dissiminate agricultural innovations has been highly successful. Indeed, in no other sector of the American economy do agents of the state, industry representatives, and members of the research community work so closely in order to keep their sectors at the forefront of technological change.

Cell One B (Relatively Small Firms with Low Levels of Technological Complexity Producing Differentiated Projects).

Manufacturing sectors in this cell are made up of firms which are highly competitive and market oriented, although hierarchies play some role in shaping prices and production quotas, in allocating capital, and/or in providing funds for research and development. Under certain conditions, hierarchies have become more extensively involved with sectors in this cell, via the corporate conglomerate-type firm. When large conglomerate firms have acquired ownership of firms operating in Cell One B, one finds a tendency for the corporate office to allocate capital to firms with a high yield and to monitor the efficiency performance of each firm. Because the central office can monitor the internal operations of a firm more effectively than external financial markets, there is some evidence that conglomerates have more efficient resource allocation properties than banks or financial institutions external to the firm (Williamson, 1975).

The overwhelming majority of firms in this cell are not part of conglomerate operations, however. Because sectors in this cell are involved in labor-intensive production processes with low skill requirements, it has been relatively easy for less developed countries with only modest amounts of capital, technology, and skilled labour to enter the American market, meaning that firms compete vigorously not only with other American but with foreign firms as well.

The textile industry is fairly typical of manufacturing sectors in this cell. In order to promote stabilization and cooperation in the industry, firms have developed business trade associations. However, the trade associations have never been able to match the effectiveness of the bureaucracy of oligopolistically oriented sectors (eg., those in Cell Two) in achieving stability. Because of anti-trust legislation, business associations in this cell have also been unable to regulate prices and production levels. Nevertheless, manufacturing firms have engaged in associative behavior in the standardization of products, the testing of materials, the promoting of markets, the development of industry codes of ethics, and the influencing of governmental policy.

Governmental policies are much more at arms-length in these sectors than in agriculture. In general, these are policies not designed to prevent problems, but policies designed in response to difficulties. The American government's use of Orderly Marketing Agreements (OMA), as a form of protectionist policy, is an ideal-typical example of the role which the American state has played in the governance of several manufacturing sectors in Cell One B. An OMA is an agreement between two countries about the nature of their trade in regard to specific goods (eg., shoes, textiles, apparel, etc.). OMAs are generally used as protection against foreign competition in order to help well-organized, highly visible and vocal interest groups at the expense of consumers who are very diffuse. Because alternative policies, such as direct subsidies and credit policies are much more visible and more easily resisted, protectionism is preferred as a low cost, workable political stragegy where direct state involvement and associative capacities are minimal. In the short term, plant closings are avoided and jobs are saved, though the long-term effects in terms of efficiency are another matter.

Whereas the associative structure of industry and state-industry relations is quite well developed in sectors in Cell One A, this is somewhat less true with sectors in Cell One B. As a result, firms, associations, and the state in Cell One B appear to have limited capacity to develop policies designed to promote sectoral innovation and readjustment. Partly because of the way in which American agriculture is governed, it is as efficient as any in the world. However, the weak associative structure, the lack of well developed state policies, and a poorly developed set of networks (eg., clans) tying together the key actors in the manufacturing sectors of Cell One B have meant that the market has been left with the major responsibility for governing these sectors. And it is problematic whether market forces have the potential to provide the readjustment required by mature industries in a stage of decline or transition.

The residential construction industry is another major sector in Cell One B, and its governance machinery is somewhat different from that in the manufacturing sectors. In both manufacturing and construction, the sectors are coordinated very much by market forces. Because of variation in consumer tastes, the construction industry is highly decentralized and fragmented into many different firms. For example, in the 1977 census of construction, there were approximately 100,000 firms in construction. Most firms were quite small, as more than 90 percent of the firms employed fewer than 10 persons full time.

However, mechanisms other than market forces are also important in governing this sector. Indeed, it is a mixture of market, hierarchical activity, and clan type networks, exemplified by the relationships which exist between general contractors and subcontractors. Because general contractors and subcontractors usually tend to work together over a long period of time, the relationship is somewhat clan-like in nature. In keeping track of materials and equipment, there are a variety of bureaucratic practices between contractors and subcontractors and because contractors and subcontractors work autonomously, their relationship is also governed by market forces.

While the state plays some role in this sector, its activities are less prominent than the market as a coordinating mechanism. Because of decentralized political jurisdictions and the diversity in the climate, there is great variety in building and zoning codes, meaning that construction regulations tend to be local rather than national in nature. Given the fragmentation of the industry and the large number of firms, the federal government has had little capacity to regulate the industry. The central government's main influence in the housing industry has been more indirect, resulting from its macroeconomic policy. As a result, the construction of residential housing has been subject to short term cycles of three to five years, eight such cycles occuring between 1950 and 1980. The leading cause of this volatility has been a result of fluctuating interest rates. Of course, the federal government has also influenced the housing market, through massive mortgage loan guarantees and by subsidizing interest rates through VA and FHA housing loans.

While national level business associations have been generally weak, there are in the construction industry several of real importance: notably the Associated General Contractors Association and the National Association of Home Builders (Lawrence and Dyer, 1983). But the most important form of economic coordination of an associational nature in this industry is at the local level, in the form of employers associations.[4]

Not only do local employer associations negotiate labor contracts, but they provide the following services for their members: public relations, lobbying, legal services, insurance. Of course, it is not only in the construction industry that employer associations play an important role in coordinating economic activity. They are also important in the following industries in Cell One B: hotel and restaurant, apparel and shoe, metal fabrication and scrap metal, printing, beer and liquor, food processing, retail trade. This is very much in contrast to the model of collective bargaining in the mass production industries with very large, nationally organized firms (See Cell Two). Those firms (eg., automobile, steel, rubber, oil refinery, among others) tend to conduct their own labor relations rather than rely on associational representation. But in the highly competitive sectors of Cell One B, dominated by small and medium sized firms, multiemployer bargaining at the local level through employer associations has been a common practice (Derber, 1984; Lawrence and Dyer, 1983).

Cell Two (Large Firms with Low Technological Complexity).

While market forces are of some importance in the governance of sectors in this cell, most governance takes place through the hierarchical structure of the oligopolistic type firm or by what Chandler (1977) has called "the visible hand". Firms in many of these sectors are vertically or horizontally integrated so as to monitor and to evaluate complex economic activity, to allocate capital, technology, and personnel not only within the firm but also across industries and functional activities. Whereas historically transactions took place between firms at different stages in the production - distribution process or in different geographical areas, salaried managers within a single giant firm have taken over basic economic functions that had previously been carried out through market mechanisms. Refiners of products merge backward into exploration and production of raw materials, while manufacturers move forward into marketing and distribution.

The hierarchical structure of the firm (and managerial elites) enjoys substantial autonomy in the governance of these sectors. External controls from boards of directors, owners, banks, institutional investors, and government regulators are all relatively weak. Where firms cannot finance investment out of retained earnings they tend to rely on capital markets in which stocks and bonds are the dominant source of industrial finance. Instead of exercising direct influence on the management of firms, investors and financial institutions tend to exit (eg., sell their securities) if they are dissatisfied (Herman, 1981). In this way, financial markets somewhat paradoxically reinforce both the autonomy of managers and hierarchically organized firms and make them highly sensitive to short-term rate-of-return considerations as management seeks to prevent investors from exiting (Zysman, 1983).

Where there are oligopolistic sectors, there are also trade associations, but their functions are not as important in the coordination of economic activity as is the case with associations in Cells One A and One B. In the oligopolistic sectors, giant firms can carry out their own technical and market research, advertising, lobbying, and cost benefit analysis, whereas the small and middle sized firms in Cell One rely more heavily on business trade associations to carry out these functions. Most large firms in Cell Two have their own public affairs office, with many even having offices in Washington, while the smaller firms in Cell One B are much more dependent on trade associations in order to conduct public affairs.

Even if business trade associations are less important in the governance of oligopolistic sectors, the business elites of firms in these sectors are quite active in various types of informal networks (e.g., interlocking boards of directors) and in organizations which cut across many sectors of the economy, such as the Conference Board, the Business Council, the Committee on Economic Development, the Council on Foreign Relations. Somewhat clan-like in nature, these organizations attempt to transcend company, regional and sectoral considerations, and play an important role in influencing economic policies of an aggregate nature -- policies affecting the entire economy instead of policies which are sector specific (Useem, 1984).

In Japan, steel, auto, and other firms in Cell Two industries have strong clan-type relationships with banks, suppliers, and politicians. In the United States, however, relationships are more arms-length among firms in these sectors. For example, in Japan, there are very close clan-like ties between auto companies and their suppliers. This relationship promotes close communication out of which there is a steady stream of new ideas from which innovative products emerge. In the United States, however, auto firms and suppliers lack this clan type of relationship. Instead, the ties between auto companies and suppliers are primarily contractual, formal, and rigid in nature. And this more formal relationship at the sectoral level seems to lead to less innovativeness and greater standardization on the part of American producers (Zysman, 1983).

Because clan-like organizations (such as the Business Council and the Conference Board) which transcend specific sectors are far more influential than sectorally specific business associations in the shaping of state policies, it is not surprising that state policies tend to reflect the interests of the former more than the latter.

Insofar as there are sectorally specific policies designed for sectors located in Cell Two, they tend to be regulatory in nature (eg., auto safety, fuel emission control, pollution standards for the metal industries, pure food in the food industries). Insofar as non-regulatory policies are concerned, business firms in this sector and the state have tended to prefer policies with aggregate objectives, believing that economic coordination should be handled primarily by the firm or by market forces. There is a distinctive "industrial culture" (Dyson and Wilks, 1983) shared by the business elites of this cell (just as there is a different type of industrial culture operating in some of the agricultural sectors). As Kurth (1979) demonstrates, the expectations of government are shaped very much by the stage in the product life cycle at which the industry first developed. In the U.S., these sectors were well established before they were mature industries vis-à-vis the world economy. Hence, they developed without strong state assistance, and there has grown up among government and business elites involved the expectation that the state's role should be kept to a minimum. As these sectors have matured on a world wide level and American firms have become threatened by exports from foreign countries, business, and government elites involved have found it difficult to re-define a role for the state to play in the restructuring of these sectors.

Aggregate oriented polices, especially the manipulation of interest rates, influence the sales of steel, autos, farm equipment, etc.. In addition, investment tax credits have some benefits for capital goods industries. Aggregate policies are designed to enhance market mechanisms, not to replace them. They are consistent with a widely shared belief that government intervention should not overtly discriminate among sectors and/or firms. On the other hand, there are protectionist policies which are sectorally oriented, but they are perceived as exceptions to policies which are legitimate to this sector and are generally ineffective in restructuring particular industries. Distressed industries or firms seek help from government in an ad hoc manner, while successful firms or industries prefer to remain quite autonomous from government.

Because of the type of industrial culture which is typical among sectors in Cell Two, the Department of Commerce does not have the close ties to these sectors which the Department of Agriculture has to various agricultural industries. Hence, the state does not systematically support research and development, nor does it play an active role in reporting to firms the type of innovations which are taking place in other countries.

Of course, there are limits to the power of corporate hierarchies to coordinate economic activity. For example, anti-trust laws present an obstacle to sector wide collaboration on production, commercial, and trade matters. Firms cannot by joint agreement fix or stabilize prices, allocate territories, limit market entry, or regulate production. Moreover, anti-trust activity regulates the pooling of research and development, as well as the pooling of technical and marketing information. While the Capper Volstead Act has exempted many functions of agricultural cooperatives from anti-trust legislation, trade associations in these sectors, as well as in sectors in Cells One B, Three, and Four are also very much constrained by anti-trust legislation.

In sum, Cell Two sectors are very much coordinated by the visible hand of large corporate firms, though limited by anti-trust legislation. Markets, particularly financial markets, are of some importance in economic coordination. Most state policy is regulatory in nature and is interventionist in specific sectors only on an _ad hoc_ basis at times of distress or crisis. In general, state policy is sectorally neutral with aggregate rather than sectorally specific goals.

Cell Three (Relatively Small Firms with High Technological Complexity)

As suggested above, the technology of sectors in this cell is quite complex and changes very rapidly. On a world-wide scale, American firms in these sectors have performed very well. However, the governing mechanisms have been quite different from those in Cells One and Two.

Because most firms in these sectors are in the early stages of the product life cycle, business trade associations are not very well developed, and their functions are somewhat less important in the overall coordination of these sectors than is the case with associative behavior in Cells One A and One B. Rather, a great deal of economic governance in this cell occurs primarily as a result of market activity. And in contrast to Cell Two, most companies in Cell Three are too small for the visible hand of the corporate firm to play an important role in governing an entire industry.

On the other hand, the state through its research, development, and procurement policies, as well as through its patent policies has played an important role in governance. However, the American state has no systematic set of policies for intervening in fast-growing high tech sectors. Indeed, there is a policy for the state not to be actively interventionist except when national security interests are defined as being involved. However, a number of such sectors have fallen within this category, particularly those involving military and space program activities.

The semiconductor industry is an excellent example of how a sector in this cell is governed when it is alleged to involve national security considerations. In comparison with sectors involving aviation and agriculture, the role of the state in the development of the semiconductor industry has been modest. Nevertheless, the procurement of electronic components and systems by the American military, and public support for research, development, and production engineering by the military, NASA, the National Science Foundation, and the National Bureau of Standards (Levin, 1982:9; Borrus, Millstein, and Zysman, 1983) have been very important in advancing the industry. However, the bulk of innovative work in the development of semiconductor technology has taken place in private firms, with government labs playing an insignificant role.

In contrast to the structure of industry in Cells One B and Two, there are numerous clan-like networks in most of the industrial sectors in this cell. For example, in the semiconductor industry, there have historically been close networks among people in government, industries, and universities. Indeed, it is not an exaggeration to suggest that clan-like activity has been pervasive in this industry. Networks have been so close that Levin argues that one can easily trace a geneology of the industry. For example, Bell Labs begat the Shockley Transistor, Shockley begat Fairchild, Fairchild begat Signetics, General Microelectronics, and Intel, among others, and each of these fourth-generation firms has numerous progeny of its own (Levin, 1982:28). And throughout the semiconductor industry, there is a strong professional culture which has facilitated the free exchange of technical information and the mobility of personnel. A clan of university researchers has been very much involved in these networks from the beginning. In fact, it was the electrical engineering faculties of Stanford University and nearby University of California Berkeley which were responsible for the location of numerous semiconductor firms in the Santa Clara Valley of California. But despite these extensive networks, the commercial potential of the industry was not understood well in the early years of the semiconductor industry. However, the military and NASA were willing to provide substantial money for research and development as incentives for companies to enter the field. Moreover, the large procurement orders by the government provided a cummulative production experience for contractors, facilitating the learning necessary to reduce costs. While few major innovations emerged directly from government-funded research and development, the government did move flexibly in response to each new technology early in the life cycle with substantial research development funds. Because the government was not a disinterested player but was the major consumer of the new technology, it was in a strategic position to evaluate alternative forms of technology and to provide valuable feedback to contractors. Of course, the government's willingness to purchase high volumes of the industry's output at very attractive prices did much to accelerate the pace at which the industry developed. However, the government was willing to lead the industry by specifying clear technological objectives without rigidly specifying the means to achieve them (Levin, 1982:89).

By 1980, the industry had reached a more mature stage, and the state was no longer in a position to direct the industry's technological changes in accord with its needs as a consumer. Indeed, commercial users have become more important than the military and NASA. Meanwhile, the technological advances have become incremental and rather predictable. In sum, the history of this sector is one involving the state in high and complex technology before the commercial potential of the sector was well understood. Significantly, an alternative set of government policies was not likely to have had a major effect in developing the industry in such a short period of time. For example, the government's patent policies were relatively unimportant in the development of the semiconductor, and they had little potential to develop the industry. Large-scale integrated circuits could not be patented because they could not be described in the form of a valid patent claim. Also, the technology was changing too rapidly for firms to benefit significantly by the monopoly conferred by patents. Moreover, there is no reason to think that tax credits for research and development or some other form of undirected state subsidy would have been highly productive in a relatively short period of time.

In the pharmaceutical industry, however, patents are an important part of the innovative process very much in contrast to the semiconductor and several other technologically complex industries. In theory, patents provide firms a stimulus to engage in innovative activity by granting them monopoly rights to exploit their inventions. In addition to providing patents, the state is involved in the pharmaceutical industry in several other respects. First, the state provides funding for basic research in the medical sciences, some of which is channelled toward pharmaceutical research. This has been the case in such diverse fields as immunology, molecular biology, and enzyme chemistry. Even so, the state's direct role in the development of new pharmaceuticals has been limited, in contrast to the semiconductor industry. An area in which the state has been directly involved in the development of new drugs has been in cancer research under the authority of the National Cancer Institute Drug Development Program with an annual budget in excess of $ 200 million. Another has been in the development of so-called "orphan drugs." These are drugs for rare diseases, but because there is such a limited market for them, it is unlikely that commercial firms will attempt to develop them.

Markets and the state are the two most important mechanisms involved in the governance of this industry. Aside from its patents policies, the state is heavily involved in regulating the pharmaceutical industry. By law, the Food and Drug Administration is required to certify that each new drug is not only safe but is efficacious as well. As a result of extensive governmental regulations, numerous studies have postulated that the costs of discovering and developing new drugs have increased so much that there has been a decline in the number of new drug innovations in the United States. While the overall consequences of the regulatory process is open to dispute, there appears to be little doubt that the regulatory process has more than doubled the costs of developing new chemical entities in the pharmaceutical industry since 1962. Moreover, government has delayed the introduction of new drugs into the American market in comparison with countries with a different regulatory process. Of course, the length of time required to test for the safety and the efficacy of new drugs reduces the effective time that a company may enjoy the monopoly privileges conferred by a government patent. Partly as a result, the average effective patent life for new chemical entities declined in the United States from 13.6 years in 1966 to 9.5 years in 1979 (Grabowski and Vernon, 1982; Wardell, 1979; Wardell and Lasagna, 1975).

Business trade associations are relatively unimportant in the governance of most industries in Cell Three. In the United States, associative behavior tends to be more important in declining industries -- or those in a stage of transition -- rather than in those which are in the early stages of the product life cycle. On the other hand, clan-type activity is important throughout industries in Cell Three. Where the state is involved in a regulatory or adversarial role, however, the state is generally not part of the clan-like network -- as was the case in the semiconductor industry, or in the agricultural sector. However, there are close networks involving the personnel of major pharmaceutical firms and university researchers. Many of the clinical studies required for FDA approval of new drugs are conducted at university medical centers, and major pharmaceutical firms provide substantial research grants to universities. Moreover, business and university personnel attend many conferences together and are active in many professional and scientific associations. It is as a result of this close interaction that scientists in many pharmaceutical companies frequently collaborate with university scientists on joint research projects.

In sum, associative behavior is not very important in the governance of sectors in this cell. The state is important in product development, either through patent policies, research and development funding, or procurement policies. Finally, clans, or networks are important in most every sector in this cell. It is through informal networks that scientific and technical information flows horizontally among firms and various elements in their environments. Moreover, these informal networks provide the kind of links among sectors which permit the rapid diffusion of information about new markets and technologies.

Cell Four (Large Firms and High Technological Complexity).

Like the sectors in Cell Two, governance among the sectors in Cell Four is done very much by hierarchy, both by firms and by the state. However, clan activities are also very pronounced in some sectors. Trade associations, however, are relatively unimportant as coordinating mechanisms because, as suggested earlier, American trade associations generally provide fewer governance functions where oligopolistic firms dominate. The following discussion of the aircraft and computer industry are suggestions of how some sectors in this cell are governed.

In both sectors, federal research and development funding as well as procurement have been important in product development, as in the semiconductor industry. For example, a large proportion of the innovations in commercial aircraft design were originally developed by manufacturers for military application. Such a list would include the DC-3, as well as the DC-8, DC-10, the L-1011, and the Boeing 747 jumbo jet.

Because of the high degree of complexity of the products used in the aircraft industry, there is considerable borrowing from other industries. And this has meant the development of close, clan-type relationships among firms in complementary industries. The aircraft industry has developed such relationships not only with firms in the metallurgical and electronics industries but also with firms in the manufacture of equipment involving communications, navigation, radar, and instrumentation. While the aircraft industry is not vertically integrated, it is through clan-like networks that very close relationships have developed between manufacturing firms and their major subcontractors. Most major airframe producers lack all the in-house expertise to develop and produce aircraft. Hence, clan-type relationships through subcontracting have become increasingly important in the industry. For example, in the 1930s, subcontracting constituted less than 10 percent of the industry's operations. By the 1950s, Lockheed was subcontracting for almost 40 percent of its major products, while at the present, Boeing in the production of the 747 jumbo jet subcontracts for almost 70 percent of the assembly costs. And increasingly, the subcontractor and the prime contractor share substantially in the development costs. But it has been the state through its research and development funding which has been responsible for each new major innovation in the American aircraft industry. In general, it was the assurance of a market for military aircraft which provided manufacturers with the incentive to develop highly complex and costly new technologies (Mowery and Rosenberg, 1982; Rae, 1968).

A comparable process was also quite evident in the history of the mainframe computer industry. In the face of imperfect market information and technological uncertainty, the state through research and development funding, was directly and intimately involved in the development of the first and second generation mainframe computers. However, in the early stages of the industry, there were well developed, clan-like networks. For example, in the late 1940s there were frequent conferences involving key players, the participants coming from the Departments of the Navy, Army, and the National Bureau of Standards, the nation's leading universities, and from about a dozen major corporations. Many of the participants knew virtually everyone in every major organization interested in research on computers.

But the key to the early development of computers was the influence of the Department of Defense, for until the middle 1950s there was no commercial market for main frame computers. Moreover, the first attempts to develop computers for a commercial market were basically by-products that were developed in response to government funding. It was only after 1960 that there was a decrease in the state's influence on the development of the computer industry. Throughout the '60s and '70s, however, the state, as a major consumer of computers, continued to have a substantial effect on the industry's future. Eventually, however, a few firms were able to survive whether or not they had government funding. But in the early stages of this industry, public and private hierarchies, operating through clan-like networks, were far more important than markets and associative behavior as mechanisms driving the industry (Katz and Phillips, 1982; Goldstine, 1972; Hurd, 1980).

State and corporate hierarchies have also predominated in the governance of industries in the telecommunications and nuclear power sectors, although the efficiency and adaptability record differs sharply between the two. Both are what we might call infrastructure sectors in that their development is closely tied to the dynamic evolution of other economic sectors or they provide essential services to all consumers. Both sectors involve closely coordinating the activities of numerous industries, each based on highly complex and volatile technologies of great public salience. For these reasons both sectors have been subject to extensive state regulation and general participation in financing research.

The coming of electric and electronic communications transformed the structure of American business, making possible the growth of large-scale hierarchical enterprise (Lawrence and Dyen, 1983:197-198). Furthermore, the industry was itself a pioneer in the evolution from family-owned small firms to the large bureaucratic organization dominated by professional managers. After early stages marked by chaotic competition and instability (i.e. price wars, duplication of equipment, shoddy construction, bankruptcies and predatory competition), monopoly firms began to emerge as early as the 1860's and 1870's: first Western Union, then Western Electric, Bell Laboratories and the AT and T system. Between 1913 and the 1930's the telephone business came to be considered a public utility and natural monopoly, and these large firms were granted virtual national monopoly status, combined with public regulation of rates of return and competitive practices.

Until the 1970's this combination of state regulated national monopoly and the hierarchical structure of AT and T effectively supplanted markets, as well as associations and clans as governance mechanisms in this sector. During this period of market dominance, AT and T (and Bell Labs) chalked up an impressive "sustained record of innovation and efficiency" and were "responsible for most of the significant inventions and new technologies in the communications industry during this century" (Lawrence and Dyer, 1983:222).

In the 1970's, however, new transmission technologies and the development of increasingly sophisticated terminal equipment spelled the virtual disappearance of the distinction between data processing and data transmission. New competitive products and services emerged outside of the AT and T system to meet rapidly expanding demand. These forces have provoked major changes in the governance of the sector. Pressures from competition, combined with government initiated and court ordered reregulation, to produce the partial break-up of the AT and T system. Whether hitherto relatively weak associational activity and clan structures (Ouchi, 1983:162-163) will evolve to take up the slack in coordinating activities in the increasingly interactive network linking government regulators and procurement agencies, to transmission, terminal and switching equipment and service industries, remains an open question. Some expect such giant firms as IBM and the revamped AT and T to gradually restore a pattern of hierarchical governance to the sector.

In the nuclear power industry the state's role as regulator, political sponsor, and research and development funder has been closely bound up with the military origins and public safety implications of the technology. The whole development of the nuclear reactor industry, which has been dominated by General Electric and Westinghouse, is closely linked to federal government political and policy initiatives and to research carried out in a network of government laboratories (often managed by private contractors). But coordination mechanisms <u>across the sector</u> have not been able to stabilize relationships among relevant actors, as is exemplified by the declining fortunes of several of the component industries since the mid-1970's. The technology has proven to be singularly "unforgiving" in terms of admissable error and public reaction. Intra-industry competition prevented agreement on a standardized reactor design, and free rider behavior by the industry left open the back end of the fuel cycle (nuclear wastes). Successful development of the industry seems to require a degree of vertical and horizontal integration among capital markets, architect engineers, reactor vendors, providers of nuclear fuel and waste disposal services, reactor operators (investor-owned public utilities), and regulators at the state and federal levels, that corporate and state hierarchies in the United States have to date been unable to provide (Campbell, 1984). Clan structures and associations like the Electrical Power Research Institute, the Nuclear Power Forum, and the Edison Electrical Institute have been unable to fill the gap.

CONCLUSION

Figure Two presents a summary of the relative strength of the various governance mechanisms in the American economy. The particular mix that prevails in the United States is of course conditioned and constrained by general political and institutional factors: The pattern of inter and intra-industry competitiveness, the relatively low capacity for collective action, the distribution of power and ideological persuasion; institutional fragmentation, the character of the financial system, the selective strength of the American state, and established constitutional and legal norms.

FIGURE TWO

STRENGTH OF GOVERNING MECHANISMS IN VARIOUS SECTORS

OF AMERICAN ECONOMY

CELL ONE A	CELL ONE B	CELL TWO
Small Firms with Low Levels of Technological Complexity Producing Undifferentiated Products	Small Firms with Low Levels of Technological Complexity Producing Differentiated Products	Large Firms with Low Levels of Technological Complexity
Markets[1] Hierarchy State[1] Corporate Structure* Clans[1] Associations[1] [1]In this cell, either a)markets are **** and the following relationships exist: state***, clans*, associations*, or b) markets are, * and the following relationships exist: state****, associations****, clans***.	Markets**** Hierarchy State* Corporate Structure* Clans* Associations***	Markets* Hierarchy State* Corporate Structure**** Clans* Associations*
CELL THREE	CELL FOUR	
Small Firms with High Technological Complexity	Large Firms with High Levels of Technological Complexity	
Markets*** Hierarchy State*** Corporate Structure* Clans*** Associations*	Markets* Hierarchy State*** Corporate Structure*** Clans** Associations*	

The strength of various governance mechanisms:
Very Strong****, Moderately Strong***, Of Some Importance**, Quite Weak*.

The State.. While the state is somewhat less involved in the American economy than is the case in most highly industrialized societies, its role in governance varies (1) across sectors and (2) with the level at which regulation occurs (national, regional, local). The state has been a very active player in the development of technology in industries involving agriculture (Cell One A), semiconductors, and pharmaceuticals (Cell Three), aircraft, computers and nuclear power (Cell Four). In agriculture, much of the state's involvement has been very decentralized, with the consequence that farmer organizations have played an important role in shaping the state's research and development programs through active university and extension research programs. In the aircraft, semiconductor, nuclear, and computer industries, the state -- at the central level -- has supported complex technologies early in their product life cycle. Because the state was a major consumer of the technology, it was intimately and directly involved in evaluating and developing alternative types of technology in each industry. Once viable commercial markets existed in these sectors, however, the government's role declined in the shaping of technological change.

The state's patent policies have been quite important in shaping technological change when there are specific products which have somewhat stable lines. However, an industry such as the semiconductor is so unstable that patents have provided firms with little incentive for technological development. Moreover, patents are of little consequence in the computer, the automotive, or the aircraft industry, for in these industries it has been the engineering of an entire product that has been important. However, the government's patent policies have been of great importance in promoting new products in the pharmaceutical industry.

Of course, the state is very much involved in regulating economic activity. Local governments regulate the construction, restaurant, and numerous other industries in which local officials can efficiently obtain information. In some industries in which the firms are national in scope, however, the federal government is the major regulatory agency. Thus, the federal government is very much involved in regulating air and water pollutant emissions from factories, workplace practices which impinge on the health and safety of workers, product safety, and so on. While there has been considerable discussion about the negative consequences of state regulatory practices on performance, there is very little evidence that state regulations, measured in the aggregate, have had much of a negative impact on the economy (Christiansen and Haveman, 1982).

Corporate Hierarchies seem to develop where market coordination is allowed to prevail in monopoly or oligopoly sectors. They have to a substantial degree internalized many of the functions of markets, clans, and associations in sectors in Cell Two. In Cell Four interdependent corporate and state hierarchies predominate over markets and associations as governing mechanisms. Cell Two sectors and industries seem to have developed managerial hierarchies where demand has been sensitive to marketing instruments, where capital and energy intensive technologies allowed economies of scale in processing and assembling large volumes of raw materials and semi-finished goods into equally large volumes of standardized producer or consumer goods, where a relatively high share of fixed costs makes profits volatile, or where products are perishable and processing and distribution time are central to profits (Chandler and Daems, 1980).

In Cell Four, the infrastructural character of the goods and services provided, the complexity of products, the pace of technolgical change, and the dependence on research and development have encouraged the development of stable hierarchically organized firms enjoying monopoly or oligopoly positions. Here too, we have seen the development of the large industrial research laboratories (or state-owned, industry managed public labs) where research activities need to be closely linked to marketing and production operations.

The allocative and dynamic efficiency effects of such corporate hierarchies have been generally neglected by economists. Some scholars (Piore and Sabel, 1984) now suggest that the mass production industries represented in Cell Two may be irretrievably in decline unless they change their structures, due to changes in technological and competitive conditions that render their internal and external governance arrangements dysfunctional. Similarly, several Cell Four sectors that have been government-regulated monopolies are being transformed by competitive pressures and by government deregulation or reregulation. Whether these changes will improve their efficiency and adaptability remains to be seen.

Associative behavior.

If coordination by corporate hierarchy developed later and somewhat less extensively in Western Europe than in the United States (see Chandler and Daems, 1980), associative behavior in the form of horizontally and vertically integrated systems of associations (or government-sanctioned cartels) have been much more important in most sectors of European economies. Government policies and constitutional constraints, and the prevailing preferences of managers, are important factors explaining such differences. In the United States associational behavior is most developed in Cells One A and One B. Business associations are least important in the governing of sectors which are very early in their product life cycles (eg., Cell Three). Moreover, the oligopolistic type firms in Cell Two and Cell Four fulfill many of the functions of business associations: that is they conduct much of their own advertising, research, lobbying, public relations, etc.

In general, peak associations are very weak -- almost non-existent in the United States. Of course, there are ad hoc alliances, joint task forces, and the sharing of facilities among associations in all cells. American associations tend to enjoy very little autonomy from their members, with the exception of a few sectors in the agriculture area -- notably the dairy industry.

Even though there is a low level of organizational development among business associations in the United States, the role which business associations play in the governance of the economy varies over time and across sectors of the economy, depending on a host of characteristics. Schmitter and Brand (1979) have argued that capitalists organize in response to (1) the prior organization of workers; (2) conflicts with and the prior organizational efforts of other capitalists in competing sectors; (3) changes in the division of labor, market complexity, the structure of product competition, and the stage of the product life cycle; (4) changing conditions of international competition; (5) changing imperative of public policy; (6) and unforeseen events such as war, production failures, and product substitution.

Clan type coordination. Although coordination through clans is not as well developed overall in the United States as in some other countries, notably Japan (see Ouchi, 1984), there are important sectoral variations. Clan-type coordination is far more involved in the economic activity of Cells One A, Three, and Four than in Cells One B and Two. In industries with high levels of technological complexity, there are serious efforts to develop effective communication among suppliers, researchers, fincanciers, management and workers. Individuals in complementary firms have a fairly high capability to converse and to think in highly specialized languages and dialects. In more mature industries (Cells One B and Two), however, clan type activity is less common. Partly as a result, American firms producing more standardized products find it far more difficult to adjust rapidly to product changes than their Japanese competitors who are firmly embedded in clan-like networks.

Thus, while the corporate hierarchy plays an important role in governing the American economy in sectors located in Cell Two, firms in this cell are not integrated into effective clan like networks. As a result, information about innovations is often slow to percolate up the chain of command in the hierarchical structure of the American corporation. Observers who have studied the failure of American steel firms to invest in the latest technology in the 1960s place considerable emphasis on the lack of a clan like structure which could have facilitated the communication of information about the latest technology (Adams, 1971).

Markets, although widely held to be the most important mechanisms coordinating the activities of firms and their relevant environments in the American economy, in fact operate very unevenly. Indeed, they appear to predominate only in Cell One B. Firms in that cell, in contrast to those in Cell Two, have historically had a high ratio of variable to fixed costs, have been more labor intensive, and have had relatively low potential for scale economies in either production or marketing. As a result, small firms with price and production flexibility have historically been able to enter industries in this cell . In all other cells market coordination is supplemented or mediated - in some cases supplanted - by other collective decision arrangements. The analysis presented in this paper suggests that these "non-market" governance mechanisms emerge as part of an ongoing process of adaptation by complex organizations to technological change and to changes in business structure and competitive conditions.

In some sectors, at some stages of the product cycle, under certain conditions of technological complexity and firm structure, allocation and coordination by markets proves inefficient or non-adaptive or produces "market failures." Government responds to fluctuations in economic conditions, or to business or consumer pressure, or to its own policy priorities, by means of some mix of positive incentives and regulations designed to support or supplement markets, or government responds with various measures to encourage (or constrain) private coordination <u>via</u> corporate hierarchy, clan mechanisms, or associational behavior. Figure Three summarizes what American experience suggests about when particular governance arrangements prevail or are subsumed.

FIGURE THREE

When Governance Mechanisms Prevail
or are Subsumed

Governance Mechanism	Advantages or Situations in which seem optimal	Disadvantages or "failures" that induce a search for alternative means of coordination
markets	Taste and price are important, neither financial nor technological barriers to entry. Multiple buyers and sellers.	Lack of information leads to underutilizatin of resources. Unstable demand produces high failure rates and insufficient investment in capital stock and new research and development.
corporate hierarchies	A few suppliers and large barriers to entry. Large and stable demand needed to fund investment in capital stock. Organizes complex and routinized activities where products are linked to each other.	Low motivation of workers and managers to innovate. Information problems constrain handling rapid changes in competitive conditions or in technology.
associational behavior	Workers are well organized, or conflicts with capitalists in other sectors. Aggressive state regulation. Industry response to changes in division of labor, product competition, or international competition.	Prisoners dilemma problems limit effectiveness of technological and market research. Lobbying limited to protectionist and reactive measures.
clans	Individuated markets require rapid response to change in demand in demand and technology. High technol. complexity and rates of tech.change require informal controls and cooperation among competing units and with universities, local governments and research communities.	Less appropriate to later stages of product cycle or where large and stable flows of capital are required.
state hierarchies	Very large technical, economic and financial barriers to entry. Pro active policy required to coord. and sustain complex projects, or to stabilize demand <u>via</u> government procurement or investment subsidy. Infrastructure industries.	Where demand is volatile or product life short or unstable. Workers and managers motivation necessary for quality and innovation. Centralized controls too rigid.

Future theoretical elaboration and empirical research must be devoted to refining this analysis and to the effort to determine which mix of governance forms may be optimal under what sets of sectoral conditions or circumstances, given the political and institutional constraints of the American political economy. Such efforts may prove useful in guiding public and private sector efforts to improve the performance of the American economy. If a major problem of the American political economy is a tendency to swing from excessive reliance on market mechanisms (or metaphors) to rigid government regulations, then a "governance approach" has the advantage of drawing attention to the roles government can play in creating, reinforcing, or permitting the spontaneous emergence of a range of other forms of collective decision-making through which specific choices about economic allocation and coordination can take place. Discussions about industrial policy are a case in point. Until these debates are extracted from the artificial dichotomy of "free markets or centralized government planning and regulation", they will remain diffuse and basically ideological. We would propose that the industrial policy debate needs to be informed by an understanding of how different sectors of the economy are in fact "governed" and how these governance arrangements are performing under current conditions.

FOOTNOTES

[1]In the development of this four cell table, we are indebted to Jerald Hage for numerous stimulating conversations on the subject. See Hage and Clignet (1982).

[2]For cholarship which confronts the issue of performance at the firm level, and which operates at the social psychological level, emphasizing informational perspectives, leadership characteristics, decision making processes, and methods of organizational learning, and conflict resolution, see Argyris and Schon, 1960; Fiedler 1967; March and Olsen, 1976; March and Simon, 1958; Sherif, 1962; and Weick, 1980. For studies which address performance by focusing on the structural characteristics of firms, see Chandler, 1962, 1977; Hage 1980, Minthberg, 1979; and Lawrance and Lorsch, 1967. For an effort to integrate both perspectives, see Lawrence and Dyer, 1983.

[3]This discussion of the dairy industry is very indebted to the unpublished papers by Young (1984) and Vander Schaaf (1984).

[4]As a result of thousands of collective bagaining agreements between local craft unions and employers associations, there did emerge however in 1978 the National Construction Emplyers Council which was designed to parallel the AFL-CIO Building and Construction Trades Department for unions. As a result of anti-union or open-shop activities in the construction industry, there is also a national association of non-union contractors, the Associated Builders and Contractors, consisting of 45 local or state chapters representing some 8,000 construction firms.

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Politics and Business: Partners and Antagonists?

A Comparative Approach

by

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POLITICS AND BUSINESS: PARTNERS AND ANTAGONISTS?

A comparative approach

Introduction

The relationship between politics and business is a much neglected field in political science. The present-day structure and political economy of governments create new tensions between the public and private sectors of society. It is our contention that by single-country and cross-national analysis it is possible to arrive at better descriptions of, and insights about, the empirical relationships between these two sectors. It is important to analyze the processes of interaction between government and business and the impact of such interactions today, because solutions and proposals for government involvement in the economy need to be based on the best theoretical and scientific information.

While politics has always played a substantial role in business, recent years have witnessed a resurgence of hostile criticism of relationships which exist. Clearly, government activity is pervasive throughout society. As R.G. Menzies, former Prime Minister of Australia, put it, the lines between politics and industry have "not merely blurred", they have "disappeared under the pressure of modern complexities".[1] Or, as Sir Geoffrey Vickers stated many years ago, the relations between industry and government are "symbiotic".[2]

Government intervention in the economic life or western states ranges from general economic management to precise arrangements with particular firms. And this intervention has led to increasing degrees of interdependence or interpenetration, and the close relations have gradually become more institutionalized.

These relationships are both accomodating and antagonistic. Government regulates business and yet also subsidizes and protects it. But, at the same time, businessmen tend to condemn political activity. David Vogel wrote "The most characteristic, distinctive and persistent belief of American corporate executives is an underlying suspicion and mistrust of government".[3] Equally, politicians and bureaucrats respect and despise businessmen for their alleged lack of concern for social goals. As A. Lee Fritshler and Bernard H. Ross describe the situation, there is a mutual "love and hate" relationship which requires business executives to be "critical and supportive" at the same time.[4]

Our research is to describe and analyze the interdependencies between politics and business. It will also focus on whether there is a changing nature to these relationships because of an increase of government interference in the economy. Is new corporate behaviour emerging from what has been called the "business reaction" against politics, politicians and civil servants?

These are difficult problems and this essay is unlikely to resolve them. It should, however, clear away some of the conceptual underbrush which impedes work on this topic - a subject which is both central to political science and has wide ramifications for society.

Preliminary observations

Many popular stereotypes persist in the teaching and study of the relations between politics and business. The standard one is that governments are increasing the scope and depth of their control over business. As the argument goes, politicians have enhanced their own power at the expense of the market forces. However, the contrary belief is also held. It is said by some bureaucrats that business has increased its control over government decision-making.

In the real world such contradictions may only be illusory. Politics and business may not present "zero sum" but "variable sum" situations which may be leading to greater interaction without significant loss of control by either partner. Using Charles E. Lindblom's analogy, the sterotypical argument is not better than the inference that, if people job for exercise, then swimming must be on a decline, as if one cannot have both interaction and maintain autonomy.[5] But, businessmen tend, nevertheless, to agree with Andrew B. Gollner, that the growing interdependence between politics and business has produced a "greater adversity" and "frequent paralysis" ... "The Achilles heel of our current political-economic system is the inability to manage the dynamics of interdependence".[6]

The three most persistent empirical propositions lurking behind these last-mentioned perceptions seem to be:

(1) There is an increasing political intervention in business;

(2) These actions cause disadvantages or diseconomies for business;

(3) Business cannot alleviate the situation.

The validity of these propositions has not been established to the satisfaction of all social scientists. First, there are a host of conceptual, theoretical and empirical problems inherent in the nature of such an investigation. And secondly, lurking behind these methodological difficulties are ideological or world-views which make agreement on the proper investigatory procedures difficult to obtain.

The core fundamental conceptual problem resides in the very words "politics" and "business". The standard boundary problem of distinguishing between the "societal" and the "political" which exists through the social science literature is prevalent here as well.[7] Politics permeates business and business is everywhere in politics. Each sector wishes to influence the environment or decision-making of the other, and each creates problems of boundary control for the other. Therefore, these two macro or summary concepts cannot easily be distinguished. There simply are not clear demarcation lines between public and private organizations.[8] In Canada, for example, the government has its own businesses - Air Canada, Canadian National, etc. - and business has a government department - the Department for Small Business.[9] Sometimes the two interact to the extent that there actually is <u>no</u> difference between them. And, yet commentators persist in speaking about politics and business as if they were distinct, separate and coherent actors.

This problem is overlooked by commentators interested to show the difficulties of business/government management, but also by those academics who have attempted to compare the similarities and dissimilarities in the way in which governments handle business. The dominant paradigm remains that of an almost unbridgeable gap between politics and business, an incongruence of goals and values shaping decision-making, and a marked antipathy between the two types of organization. The entanglements between the two aspects of society are such that these assertions can only be weighed by employing a methodology which breaks down or re-analyses this over-simplified dichotomy.

Disaggregation

In order to indicate more precisely the intertwining of the two sectors the most straight forward approach would be to disaggregate the concepts of business and politics. The disaggregation of politics/government and the state is a well-tried method in political science. Breaking down the institutions into international, central governments, provincial (or territorial) and local governments, and then noting and analyzing the similarities and differences in political behaviour is one of the standard procedures in the discipline. Categorizing political actors into types of politicians and bureaucrats or partisan and non-partisan is another popular device. The results have usually shown that each level of organization (and type of actor) must be examined separately, since its behaviour is dependent on its degrees of power and influence (and on the individual's roles and perceptions of them). It is at least a century ago since scholars considered it proper to write in terms of the "organic fallacy", which aggregated all of these institutions into one particular institution, such as found in the charge "government interferes with business".[10]

In business administration, too, the standard approach has been to disaggregate the concept of "business" into production units (enterprises, firms and parts) or as organizations (trade associations or umbrella organizations Or analysts have distinguished between public and private enterprises, between various sectors, or even between managers and workers. In political science this approach has only recently received the attention it deserves. Contemporary case studies of government-business relations in particular sectors of the economy have tended to discover a surprising complexity, leading observers to the conclusion that "business" is such a multi-faceted phenomena that it must be disaggregated for analysis.[11]

Disaggregation and Interaction

A second conceptual problem exists with the term interaction (or, if the reader prefers, interference). Of what do these activities consist? Interaction may be based on influence on the actual power of one organization to force compliance from another. Yet again, interaction may consist only of the representation of one sector into the other. In other situations there is a meshing of actors (a network of participants) - some working for government agencies and others for non-government agencies - but all committed to the same basic result. These examples should suffice to indicate that the term "interference" is biased. It means "interaction one does not like". But interaction can mean any means or combination of activities, suggestions, communications, regulations and control, etc.[12]

Moreover, interaction may result in: (a) enlarging the degrees of freedom of 'the other', or (b) restricting them. While businessmen often complain about government "interference" with business, that does not mean they wish to "deregulate" those legal devices which protect them - such as patent and contract law or private property itself. Governments also provide desirable funds, subsidies and contracts. They monitor banking and currency regulations, customs and duties - all of which are desired by business without being labelled "interference". Nevertheless, businessmen's ideology remains lodged on this point. They will not admit their "dependency" on politics.

In Diagram I, we show how politics and business can easily be sub-divided into their basic units and then the various interactions become noted. The points of intersection each represent different inter-relationships and fields of problems (both empirically and conceptually). Since the diagram is only two dimensional it omits the multiple interactions that single firms or associations within sectors have with politics, and, of course, these interactions could be disaggregated into single decisions and single instances as well.

This diagram makes it clear that disaggregation to the level of individual industries and particular instances will lead to historical analysis and the discovery of immense complexity and uneven development. The application of over time (diachronic) models will confirm that many of the everyday statements about politics and business are essentially static. However, reasoning will

DIAGRAM I*

NETWORKS OF POLITICS/BUSINESS INTERACTIONS

Business (examples only)
Firms and/or Associations

Government (examples only)	Big or Small Types	Industry Chemical, machine tools, etc.	Banking	Agriculture	Insurance
International					
National Governments					
Provincial					
Local					
Government Agencies					

* The different interactions between politics and business within sectors (such as with individual firms or types of firms) would require at least a three-dimensional diagram.

also lead researchers into an endless trail of historical cause and effect and reduce the possibility of generalization. No one doubts that there is great variability of political impacts on business over time, across states, between sectors, between firms, and even between policy arenas. Case studies illustrate this to be valid whether the subject is institutional arrangements, production rules, methods of determining prices or productivity levels, allocating capital or even managing labour relations.

And yet, this disaggregation is unsatisfactory to social scientists because its results are fragmentary and unconnected to theory.[13] A higher level of abstraction is necessary to analyze the macro-effects of politics on business and vice-versa. Various approaches to this problem have been taken in the social sciences - political economy, managerial theory, theory of complex organizations and institutional economics. Here we shall discuss only a few political science approaches to this diaggregation/aggregation problem.

Political Science Approaches to Aggregation

Three approaches to this problem of aggregation may be dismissed fairly quickly. Normative observations about political "interference" in business or the ethical responsibilities of politics or business are unlikely to be very helpful in our analysis of the complex patterns of interaction between the public and private sector. They are normally avoided in political science. Two other extreme, but empirical, approaches are the single case study and the grand theory or whole system comparison. Single-case studies of the political impact on specific sectors of the economy do provide much needed information for theory-building but in themselves are without widespread interest to the discipline. Efforts to sum up case studies which have not been developed for comparative purpose usually conclude only with suspicious generalizations. The most superficial argument is that the more case studies on hand, the better one can generalize.

Grand theories - as in systems analysis and structural-functionalism and Marxism for example - are too general and vague to be useful to our problem. The core variables in these theories are rarely stated with enough precision to allow operationalization. And, lastly, the criteria for judging the validity of these models is highly contentious.[14]

Middle-Level Anaysis

Situated between these extremes of hyperfactionalism and high-flown general theories is an array of middle-range theories. None are fully accepted as guides, but they are all currently being used for comparative purposes.[15]

I. Access or Contact Points

The most standard approach has been and remains, the examination of contact or access points between politics and business.[16] Interest group studies, for example, tend to concentrate on lobbying, conflicts of interest, and the work of public relations or public affairs organizations. Of course, much of the theoretical literature in the field concentrates on the origin, development and representativeness or interest groups.

The implicit model is usually a systems analysis input/output design with the research focussed on the input side. A recent example is Wyn Grant's research. He indicates the importance of the growth in the government relation function in UK firms during the 1970s.[17] In fact, more interest group studies confirm the tendency of business to establish permanent offices in capital cities and, in some, a growing importance of law firms, public affairs offices and associations as liason agents between politics and business.

II. Dimensions/Degrees of Government Activity

In western democracies the period since the second world war has witnessed more government intervention in the economy than ever before.[18] This activity may affect business generally and indirectly, as when governments set central bank lending rates, or the governments' actions may be directed specifically towards business as for example in direct subisidies or regulation. The governments actions may range from incentives to compulsion. This provides a four-celled dimension to government-business interaction as shown in Diagram 2.

DIAGRAM 2

Government Policies

Types of influence	General (for all society)	Specific (directed at businesses)
Inducement	Policies to generate economic well-being Examples: fiscal and monetary policy	Policies which induce business to take actions but without the threat of legal compulsion Examples: subsidies, contracts
Compulsion	Policies to protect sectors of the economy Examples: customs and duties	Regulatory policies which restrict the freedom of businessmen to choose certain options or circumscribe their actions Examples: industrial pollution regulations, worker participation, compulsory insurance

This simplified diagram of the interaction of politics with business has, of course,many shortfalls. It omits, for example, the difficulty of governments adhering to uniform policies for all sectors, firms and associations. It does, however, indicate how business may be more or less autonomous from government, depending on the type of regulatory activities and their scope. Of course, it is also possible that more autonomy may mean more "self-regulation" in anticipation of possible government action.

III. Corporatism

The neo-corporatist literature focusses on the state's role in promoting private associations and organizations, for the purpose of mediating class conflicts and implementing pu-lic policies.[19] The ways this is done, are segmented by common interests between one branch of government and one branch of business. Each common interest organizes and institutionalizes itself into a more-or-less autonomous and authoritative segment of society, producing its own regulations and policies. Here, there is no distinguishable borderline between 'the public' and 'the private'.

In many western democracies agriculture provides an outstanding example. Individual farms may have obligatory membership of agricultural associations, which by the government have been allocated powers to make binding decisions for their members. This authoritative process is not a decentralised way of government decision making, but it is at the same time governmental as well. Often the minister of Agriculture and his chief civil servants are directly recruited from - not to say nominated by - the agricultural associations. Departmental policies are prepared by concerted and cooperative action between the public agencies and the farmers' associations, usually leaving 'the others' (non-agricultural interests) out. In such a corporatist system the analytically 'public' and 'private' parts have fully controlled their boundaries, not by mutual actions and reactions, but by osmosis of the two parts, creating one common boundary against other interests.

Other interests in society may show basically similar patterns of behaviour, although usually less developed than the agricultural interests have. These patterns are favoured by the specialist orientation many political subsystems have and by the way business usually organizes itself. At the political side, administrative systems tend to be diffracted by specialised goals, such as Trade, Traffic, Education, Communications,Labour etcetera; many a parliament has a specialised committee-system and specialised party-members; advisory committees almost always have a specialised orientation and consist out of representatives from specific interest organizations. At the business side, enterprises and other 'private' organizations tend to organize themselves around their common goal: trade by trade, industries by industries, mass media by mass media, etcetera, by which they create their own umbrella organizations. As a result, both politics and business are segmented by specialised interest and each sector may have characteristics of a 'middle level world' of its own. This is being indicated by overlapping networks of political subsystems and business' subsystems, sometimes even 'interlocking directores', joint platforms of policy-making, and the exercise of formal discretionary powers by the 'private' business subsystems themselves.[20]

IV. The Organization of Business Interests

Philippe C. Schmitter and Wolfgang Streeck's international project on business associations focusses on their role as intermediaries between government and industrial firms.[21] They have investigated four industrial sectors - construction, food processing, chemical and pharmaceuticals and machine tools. This eleven nation study has shown that the functions of business associations are important in Austria, West Germany, Sweden, Switzerland and the Netherlands. However, significant variation has been found within each country and within each sector. In this project, variation in the function of these trade associations is explained by various industrial conditions in each sector, labour conditions and the manner in which government relates to each sector of the economy.

In Canada and the United Kingdom business associations are found to be less "organizationally developed"[22] and yet still perform an important set of functions for members' firms. However, there seems to be even more variability by sector in these countries.

Our basic hypothesis is that associations which can coordinate activity across wide areas of economic production and are relatively autonomous from their members and the state will be able to participate in "an associative order" that mediates among the state, the market and the social community.[23] This argument is made even broader by Leon Linberg when he calls for research which specifies "to what extent and why economic coordination within a given sector takes place through markets, state regulation, managerial hierarchies (Chandler's visible hand), "clans", community-like networks among producers, or self-regulation in formal cartels, "federation", or trade associations".[24] In other words, there are other mechanisms besides trade associations which may coordinate economic activity.

The major thrust of the Schmitter/Streeck project is not about politics and business, but is centered on studying the business associations themselves. Using business associations as the dependent variable, they avoid other actors in politics/business interaction such as firms, consultants, think-tanks and so on. By assuming that associations are the chief instrument of business in dealing with government, the authors have foreclosed many important options - such as some big firms may be much more powerful than some trade associations.

V. Politics and Business - Theoretical Case Studies

Concentration on the study of associations assumes that the important factor in politics and business relations is organizational, and that satisfactory empirical research has already been carried out to know what factors account for the differences found across states, sectors and firms. Our comparative research is based on the belief that research must go on at both the conceptual and the empirical levels. It is for that reason that our approach continues to be open-ended.

The following list of goals and questions illustrates our interest and the scope of the investigation. Both conceptual and empirical assumptions are drawn in as wide and exclusive categories as possible.

1. Our first aim is to describe the political environment in which businessmen find themselves. This should provide indicators of the impact of politics on the functioning of business. Examples could include government legislation dealing with business and the proportion of the GNE consumed by the public sector. This could also include such subjects as the government's impact of production factors, the quality of products and services, wage negotiations, and government and labour participation in management.

2. The second aim is to describe the changes and dynamics of government's interaction with business. In most western industrial countries, governments "seem to interfere" more than before and in a more dynamic way. This suggests that the 'normal (old) amount of tensions' between politics and business has increased and that, in effect, business is becoming "politicized".

Several reactions have been common; shifting corporate investments to new countries; spending money on special interest groups; participating more in politics (putting up candidates, setting up new corporate structures, expanding lobbying activity), etc.

3. The third aim is a discussion of the explanation for these changes and dynamics: the description and analyses of the factors behind these developments. On the political side the factors might include the turnover of political

leaders; unstable decision-making; the recruitment of politicians without business knowledge, connections or experience; the attitudes of politicians towards business; the changing nature of the networks between politicians and businessmen; and the dominant political culture towards business. On the business-side the factors might include the social impact of industries (polution); the impact of "foreign" corporations on the public consciousness; the level of businessmen's lack of knowledge about the political system and their attitudes towards it; business organization of its public relations and lobbying with politicians; and the competitiveness in the business which make cohesive action difficult.

4. The fourth aim is to study the businessmen's reaction to the rise and dynamics of government's interference with business. How are they reacting to the new environment? Are there differences between the reaction of large and small firms? Trade associations and individual enterprises? Do they shift their investments to other countries? Are they improving their knowledge about, and their networks, with government? Is there a process of setting up new lobbying firms, public affairs agencies, political brokerage houses? Is there a change in the recruitment of businessmen? How are they counting the new political interference with business?

In short, is there a new businessman; one who is conscious about the role of politics in business and who knows how to use it and be effective in influencing political decisions? In this final section questions should also be answered about how business could improve its effectiveness in dealing with government and politicians. In western countries business is part of politics and politics is part of business; the two should learn to interact and communicate with each other, reducing their mutual tensions and interdependencies to 'normal' levels.

Resistance to Analysis

A synthesis of this complexity is only part of the solution to an understanding of politics and business. In order to put the various materials back together novel methods of aggregation are required. To an economist this problem is solved by resort to economic modelling of the environment. To an organizational theorist the problem is resolved by an examination of the essential "organizational" aspexts of the activities under investigation. Both of these approaches, however, leave out the essential "political" aspects of organization and human behaviour. The essential question remains: can a comprehensive framework be developed, which accounts for the political factors impact on differences found among sectors and firms in different nations? Until this question is satisfactorily answered the conundrum of whether "politics and business" are "partners or antagonists" will remain. The following framework is a preliminary answer to the question and has to be refined through the suggested approaches of political science middle-level analysis.

Preliminary Framework for Politics and Business Analysis

1. Describing the Politicization of Business

* The Government as Legislator on Business
  - absolute and percentage of total legislation
  - the contents of laws and regulations: supported or not by business
  - the non-legislation: business proposals that fail
  - dynamics of specific legislation.

* The Government as Money-Holder
  - percentage of GNE consumed by public sector
  - taxation of business
  - taxation through business (collecting of 'premiums')
  - the allocation of public money: subsidies, business share
  - the relationship between public debt and interest rates (impact on investment).

* The Government as Employer
  - percentage of employment, changes over time
  - the government's position on labour-business negotiations
  - labour conditions of civil servants as trendsetters for workers and employees
  - the government and the trade-unions.

* The Government as Expander of policy-fields
  - changes of business' autonomy; concerning employment, investment, product development, export, marketing, advertisement ...
  - the role of EEC/GATT.

* Other political (dis-)economies for business
  - the significance of business in political (parliamentary, party manifesto) activities
  - provincial and local governments, competing pressure groups, mass media: support or lack thereof.

2. <u>Explaning the Politicization of Business</u>

- philosophical and educational differences
- legislation
- expenditures: 'the welfare issue'
- employment
- expansion of government: the growth of public sector
- public support for business' values and vice-versa
- business' backgrounds of political decision-makers/ political background of businessmen
- crises/business cycles.

3. <u>Politicization: its effects on business' attitudes and behaviour</u>

- is there developing a common business identity or ideology
- political culture of businessmen, attitudes, knowledge and expectation of government/politics
- political participation of businessmen
- political behaviour of business' organization
- economic reactions of businessmen

  investment policy

  capital formation

  product development

  territorial policy
- economic reactions of business' organization; commitment to agreement with government and trade unions

- the rise of brokers between politics and business lobbying firms, consultants, political risk analysts.

4. Political Effects of business reactions

- the institutionalization of politicized business
- the gap between politics and business: widened or bridged
- towards a 'businization' of politics
- effects on business and government structures, attitudes and future action.

5. Outlooks

- 'the new businessman'
- 'the new politician'

NOTES

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Concerning the effectiveness of subsidies to industrial firms in France

This paper describes the main information and ideas presented in a French working paper :"Les aides à l'industrie :critères d'évaluation et efficacité" January1985.

Industrial policy is a complex matter.Many public decisions in different fields, such as tax policy, research and training, have direct or indirect effects on industrial firms. Furthermore, we have in France an old tradition of direct intervention by a powerful central government in the field of industrial production.

In our study, we consider only a part of the national policy concerning industry : that is the financial aids decided by the central government for the direct benefit of manufacturing industries .

In the first part we describe the different kinds of subsidies and their main trends between 1970 and 1983 .In the three following parts, we explain for which public aims these subsidies have been granted and their effects in five fields : on the subsidized firms, on the other firms of the same sector, in regional development, in the balance of payments and in the Budget.In the last part we present some elements for a macroeconomic assessment of these subsidies.

1. Description and main trends in French subsidies

As there are many definitions of subsidies, we must first define our subject. Then we will present the figures relating to four types of subsidies from 1970 to 1983 and point out the main characteristics of this evolution.

1.1. Different kinds of public aids

There are many kinds of public aids to industrial firms, so there is always a part of arbitrary choice when defining and calculating the subsidies decided every year by the government of a country. The simplest example is clearly the grant described in the national budget: then anyone can know how much is spent and which firms receive the grants. Many aids are substantially more complex, and a large range of public decisions should be studied to see if they involve aids: regulations on the safety of workers or on pollution, the prices of utility companies such as railways or electricity, public purchases, and many subjects discussed in the international organisations (O.E.C.D., G.A.T.T.,..) as non-tariff barriers in international trade.

In this study concerning France, many kinds of subsidies are taken into account, all of them being characterized by an allocation of funds from the national budget or central agencies to industrial firms:

-all the grants and loans with low rates of interest which are made known in an annual report to Parliament on public spending allocated in the form of aid to industrial firms (Rapport au Parlement sur les fonds publics attribués à titre d'aides aux entreprises industrielles.): grants and loans for regional development, for research and innovation, in order to reduce the consumption of oil, and mainly to develop investment.

- the annual cost for the National Budget and the Central Bank of many aids linked to exports: guarantees and insurances, low rates of interest (O.E.C.D. consensus), loans to foreign countries,... These aids are generally considered as aids to Developing Countries, but they also allow more manufactured goods to be sold to these countries.

- budget spending to increase the capital of state-owned industrial firms. Generally these payments are not considered as public aids: the state is a shareholder in just the same way as private ones are.

- some derogatory tax incentives, but as far as manufacturing industries only are concerned (in regional policy for instance.)

Generally, as regards loans, we calculate the budget cost as the difference between the effective interest and a hypothetical interest which would have been paid according to the market rate (annual average rate for public bonds).Two exceptions are made for economic reasons : loans to the steel industry and to foreign countries are in their entirety taken into account the year they are paid.

1.2 Main trends in industrial subsidies from 1970 to 1983.

We present here a simplified table and a chart showing the evolution of four types of subsidies (in constant 1983 Francs) :

-subsidies to four specific activities: steel, shipbuilding, aircraft and computer industries; their ratios of aid to sales is traditionally high,

-budget spending to increase the capital of nationalized firms (other activities than the four above),

-subsidies linked to exports,

-others (regional development, research and innovation, investment, small or fragile firms,...).

The table also shows two ratios:

-the share of these subsidies in the added value of manufacturing industries,

-their share in budget spending.

Table 1. Subsidies to manufacturing industries

annual averages in thousands of millions of constant 1983 Francs

	1970-72	1974-76	1979-80	1982-83
Steel,ships,aircrafts and computers	8,7	10,9	7,2	13,5
Capital increase of other nationalized firms	1,2	0,7	0,8	5,0
Exports	3,2	6,3	11,9	17,9
Others	3,0	3,2	4,7	7,5
TOTAL	16,1	21,2	24,6	43,9
Subsidies/Added Value of Manuf.Industry(%)	2,1	2,4	2,6	4,6
Subsidies/Budget Spending (%)	2,9	3,2	3,1	4,8

1.3. Five main characteristics

These figures show five main characteristics of industrial subsidies for the last fifteen years:

1_the increase of these subsidies during the seventies, especially during the first oil crisis, and even more after 1981. Their share in the added value of manufacturing industries and in public spending has enormously increased in the last four years.

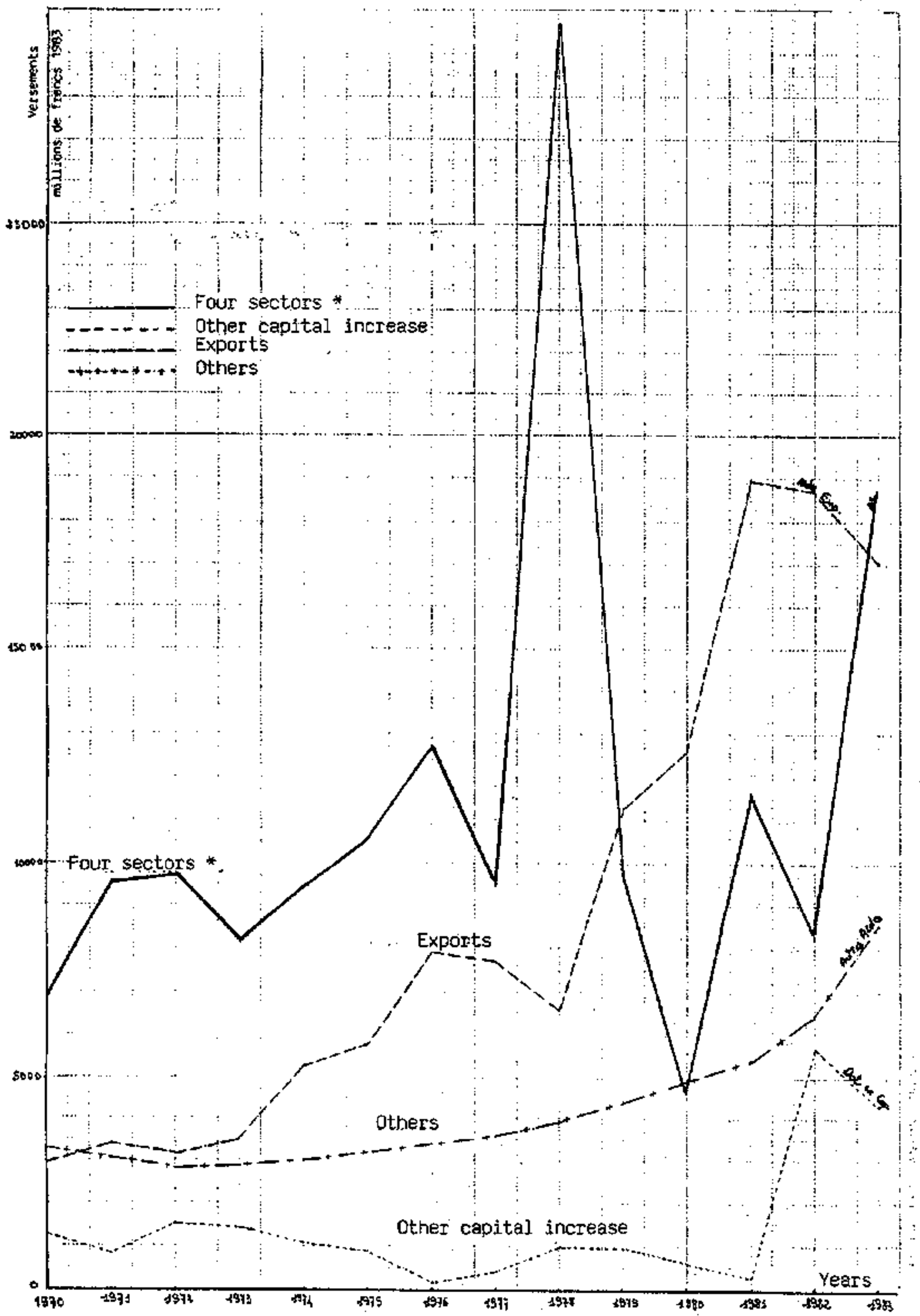
2_ the very important share of four specific activities during all that period: steel, shipbuilding,aircraft and computer industries which make up more than half of the total subsidies till 1979.It is interesting to note that a part of these products is bought by the Defense sector, so there is a public control on these activities in many countries. In France the largest firms have been nationalized in three steps: just before the Second World War (aircraft industry), in1978 (steel), and in 1981 (many other major industrial firms).

3_the huge growth of subsidies linked to exports during the whole period, first the guarantees and then the low rates of interest.

4_in other fields, there have been various kinds of aids, but to a limited extent. Subsidies have mainly been granted to help fragile firms or firms which have temporary difficulties. Only a small amount has been used to adapt industry to new demands until 1981: a few hundred million francs a year for innnovation and research, for new materials and in order to reduce consumption of energy or to create new firms.These sums have increased since 1982 but their percentage in the total stays approximately at the same level.

5_when we study the four kinds of subsidies shown above in more detail, we see that the largest amount is given to a small number of very large firms. This is clear for the aids to the four specific activities stated above and those for the capital increase of nationalized companies (about fifteen parent companies are concerned); it is also the same for exports and for research and development because the largest subsidies are linked to industrial goods for transport, investment and defense.

Chart 1. Subsidies to manufacturing industries



* steel, shipbuilding, aircraft and computer industries

2 . Subsidies and public aims

When we study the effectiveness, and more specifically the efficiency of public subsidies,two important questions concern public aims: what are these aims when the government decides to grant subsidies? Are subsidies the right means to achieve these public objectives? It is difficult to answer because:

-generally, the aims are not precisely defined,

-there are many ways of achieving each aim,

-each method can be applied to several aims,

-as far as the means the government can use are concerned, subsidies are not among the most important.

We have to point out that in order to achieve its general aims,the government can influence industry in several ways through economic and fiscal decisions,training, transport and regulations in many fields, as we said before. Subsidies are used to achieve aims in specific fields, especially when the government considers there is a conflict between collective interest and some private interests, in the case for instance of national independance, pollution, risky projects, long term projects or firms with acute financial and social problems.

In some cases, the government may have conflicting aims regarding industry:

-laissez-faire as opposed to backing some leaders,

-recovering the hold on home market versus international specialization,

-having more responsible businessmen versus developing systems of insurance and guarantee.

Nevertheless we can assume that financial subsidies are all the more efficient as the industrial firms concerned have not been able to grow as they wish because of financial constraints : lack of ready cash, low profits expected from new projects, financial risks. But the development of companies can be slowed down for other reasons such as the macro-economic situation,or a lack of qualified workers for instance, and in this case financial subsidies can help only temporarily and with limited effects by substitution or a shift in factors.

3. The effects on the subsidized firms

On this micro-economic level, everyone knows many examples of subsidies granted in very specific situations. It is difficult to know their actual effect on each firm because it is difficult to imagine what would have happened without the subsidies; and different conceptions might lead to different conclusions.

Whatever the case may be, even with specific restrictions imposed, more money will modify the relative profitability of the projects. If we suppose the businessmanto have a rational behaviour, there are two possibilities:

-firstly, projects which would have been rejected without subsidies, turn out to be profitable after all and they can be carried out according to the wish of the government ; so there is a shift in the right direction , but those projects have a smaller profitability than non-subsidized projects;

-secondly, independently of the subsidies, the firm has activities and projects which are profitable and furthermore correspond to the public aims.If that firm receives public subsidies, it will increase its profitability but not necessarily modify its activities and decisions.

Besides, we should remember the channels through which subsidies are granted are becoming permanent and complex. They can create curious links between businessmen and civil servants in charge of these subsidies. Thus opposite effects may again occur:

-the industrial firm becomes an executive body, all the main decisions are taken outside it,

-on the other hand, with risks being shared, financial ressources increased, the economic situation better analysed, the firm may adopt a more dynamic attitude and carry out more ambitious programs.

Obviously, it is important to give public subsidies mostly to firms of the second group.

4. Other effects resulting from the granting of subsidies

We consider here four kinds of indirect effects occuring outside the subsidized firm ,and concerning:

-the other firms of the same sector,

-regional development,

-the balance of payments,

-the public budget.

4.1. Effects on the other firms of the sector

On this level we can again have two opposite effects :

-positive effects, increasing production in many firms contracting with the subsidized ones;

-negative effects on firms in competition on the same market,especially when the subsidies to non competitive firms limit the development of other more competitive national firms.

So, for the analysis of the effectiveness of subsidies, there is a very important ratio to be taken into account,it is the market share of all the national firms of the same sector.

4.2. Effects on regional development

In many countries there are regional policies including different kinds of incentives and subsidies. In France these specific subsidies are not very important. They have been in existence for a long time and have had a significant impact on the development of the West and South West parts of the country. But three points should be taken into consideration:

-1) we have to point out that the kind of shifts and substitutions noticed above are very important in the present case: the first aim of many incentives is often to attract new plants which would have been built elsewhere in the same country.

-2) many tax incentives are taken by local authorities and paid for out of their own budget: what is done for new plants has to be paid for by other firms of the same region, or by the local population of this region, and these taxes limit the development of the firms already in the region.

-3) some aids to specific activities are decided upon because they are important activities at the local level, and where the ratio of unemployment is higher (shipbuilding, coal,...). This social aim is an important one ,but we can wonder if the same amount given to new activities would not have given better results.

4.3. The effects on the balance of payments

In France, the exports of manufactured goods represent about 70 % of all exports. The permanent problem of the balance of trade explains the increase of the subsidies in this field since the first oil crisis. Export aids have accounted for more than half the total aids since 1980. This important amount has undoubtedly a large effect on annual exports, particularly the sales of goods for investment, transport and defense to developing countries. Nevertheless, we have to notice three points showing bias introduced by these subsidies:

-in fact, this subsidy is equivalent to asking a lower price from the foreign customer: we can assume that it is more efficient with basic goods than with more sophisticated ones such as goods for investment and defense.

-as these subsidies are important for sales only to developing countries, we can assume that they discourage the efforts of many French firms to increase their sales to developed countries. Is this one of the reasons explaining the huge deficit France has in its trade with the United States, Japan and Germany ?

-the main part of these subsidies corresponds to low rates of interest; so a part of the positive effect on the balance of trade disappears when we look at the balance of payments.

4.4. The effects on the Budget

As we showed in the first part, subsidies now reach about fifty thousand millions of French francs, that is about 5% of the national budget. It is not an unbearable cost but it is nevertheless significant for tax-payers.

Very often the total cost of all the subsidies for a specific program is not accurately known when the program is decided upon; and this for many reasons:

-many institutions and many kinds of subsidies may be involved in the same program,

-the cost affects a period of many years but the people in charge are very often only concerned with a few years ahead.

- the actual cost depends on the success of the program.

This last point is very important when we study the case of fragile firms: is it better then to grant subsidies to enable the firm to go on producing or to stop the production altogether and grant subsidies to the new unemployed? It is an acute problem in areas where unemployment is already very high.

5. Elements for a macro-economic assessment

In the three parts above, we discussed various kinds of effects public aids can have, but each subject was studied separately and without any data. With econometric models concerning the whole national economy, we can improve the analysis from two points of view :

-the models take into account many links between income, expenditure,...and especially between prices and demand,

-econometric models can give an approximate evaluation of the global effect of public aids on these main econometric aggregates...

Many studies have been carried out in France during the last five years on this subject using three macro-economic models conceived at the I.N.S.E.E. and at the Direction de la Prevision and named METRIC,COPAIN and D.M.S. So we know better now the interest and the limits of these tools in this field of evaluation of public aids.

5.1. Problems of method

Basically these three econometric models are macro-economic and neo-keynesian ones:

-their analysis of the industry is very simple: only oné group of manufactured goods (or activities) in METRIC and COPAIN , three groups in D.M.S. (non-durable goods for the production, goods for investment, goods for household consumption). So when we want to study a specific subsidy at a more detailed level,we have to know the differences between this level and the group studied in the model (or to assume there is no difference).

-they are mostly models of demand.The main effects of public aids are to lower prices ,which increases demand. So all the direct supply-side effects of the subsidies have to be introduced as exogeneous data.

In other terms, two questions have to be answered before we use one of these models :

-how do the industrial firms use these new financial resources :to increase their investment ,to lower their prices ,or to reduce the amount of their liabilities ?

-what is the counterpart of these subsidies in the budget : more taxes for other firms or for individuals ,or a larger deficit ?

5.2. Some results

According to these keynesian models, granting subsidies to industrial firms by increasing the public budget deficit has generally three positive effects and a negative one:

-investment and gross national product grow faster, and more jobs are created,
-prices grow less,
-the budget deficit is smaller than the cost of these subsidies,
-but the balance of trade is deteriorated.

Comparing the results of the three models as far as grants for investment are concerned, we notice that in order to obtain a plus in investment of one franc after five years, the grant has to be of:

-four or five francs according to METRIC or COPAIN,
-two or three francs according to D.M.S..

The results given by METRIC and COPAIN are not very different . The results given by D.M.S. are better because in this model profits have a more important effect on prices and investment.If we remember that subsidized firms represent only a part of the industrial firms we can see that, according to these models, the efficiency of grants for investment is not very high.

If we sum up what has been studied in this paper, three levels in the economic analysis of public subsidies to industrial firms can be pointed out :

- the description and the account of their actual cost (it is not the easiest nor the best known!).

-the study of the specific effects on all parts concerned is a wide opened field with many debated questions,

-the econometric and macro-economic approach help answer two important questions: how subsidies work on the whole economy of a country and how much their total effect is in the short and medium term .

Draft: Not for Quotation

BUSINESS AND GOVERNMENT

IN

THE REPUBLIC OF IRELAND

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THE CHANGING RELATIONSHIPS BETWEEN BUSINESS AND GOVERNMENT IN THE REPUBLIC OF IRELAND

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The budget of January 1985 and the start of a new round of wage negotiations provided the backdrop for a number of events which characterised the changing relationship between business and government in the Republic of Ireland. First, the country's most popular talk show hosted a "discussion" in which representatives of business were first allowed to outline the "problems" of the economy and then to call representatives of the parliament to account for their failure to solve them. The programme structure was highly prejudicial to a balanced discussion first because the business side, led by a former head of the Irish Management Institute whose recent book *Government and Enterprise* (Kenny, 1984) calls for a more aggressive ideology of capitalism in Ireland, was allowed, in the absence of politicians, considerable time to present their version of "problems" and immediately three political representatives were called from the wings to answer the challenges of the politicians in yes or no terms. As so often happens in such circumstances the differences between the two sides concerned their assumptions more than their assertions. The programme format however, sought to preclude any discussion of assumptions. Furthermore, when the politicians, one, by profession an economist and the other a sociologist, sought to point to obvious simplifications and factual errors in the business presentation they were so rudely shouted down by some of their opponents that the station was deluged with mail objecting to the treatment of the politicians.

The main complaints registered by business against government were that taxation was too high to allow business to be competitive and that because the public sector was inefficient and there should privatisation of many of its enterprises. Privatisation and control of public sector finance was the theme also of a statement issued by the Confederation of Irish Industry in mid-January. About the same time the journal Business and Finance, the most widely read journal of the business fraternity,in its leading article made a blistering attack on the state-supported Economic and Social Research Institute-even suggesting "*It is far from clear whether the ESRI performs any useful function at all and it may be that the Exchequer's best interests might be served by not funding it at all*". This outburst was prompted by a postscript to one of the Institute's reports which referred to this "*quasi-moral*" debate and asserted that it was "*simplistic nonsense*" to view all private employment as productive and all public employment as unproductive.

The final example of the changing relations between business and politics was the insertion of a large advertisement in all national newspapers by the Federated Union of Employers which asserted "*We can compete successfully with the best-working together.*" The caption under a large picture of fellow countryman John Tracy winning in the Los Angeles Olympics read "*Who says the Irish can't compete successfully in the international arena?*" The text then urges that in order "*to succeed in today's competitive world we must become more cost competitive*", "*avoid industrial disputes*", "*be* *profitable"*,*"introduce tax reform" and "work it out together"*. In appealing directly to the public at a time when a new round of wage negotiations had commenced with an award of six percent to public sector workers, the employers were signalling their continuing pursuit of a recent departure in the relationship between business and politics in Ireland.

Business men, it will be argued, have developed a new resolve to stand firm against the political and social pressures imposed upon them by their former relationship as social partners in a quasi-corporatist structure. These changes are associated with the change from prosperity to depression. In the current circumstances, business realises, it can no longer gain from the obligations imposed by corporatism and it now seeks to renegotiate relationships more favourable to its current interests. This paper will examine these changes and the factors which limit and shape the new relationship between business and politics.

II

BUSINESSMEN & POLITICIANS

The key to an understanding of the general context in which Irish business operates today lies in the peripheral and post-colonial status of the country. Ireland was peripheral to the political economy of the British isles and, since 1973, to the European Economic Community. Even today almost a quarter of the population of 3 million are engaged in agriculture and the value of industrial exports exceeded those of agriculture for the first time as recently as 1969. In 1976 the agricultural exports represented about 42% of all exports the highest in Europe and over four times the average of the nine countries in the European Community at this time. Most businesses are small family businesses and because most farms are family farms, employers, self-employed and family workers comprise a very large proportion of total employment 29.3%. The European average was 16.7% in 1976.

The Irish business class is small in number and comprises 2 - 3% of the population. There are about 3,000 industrial enterprises in the country, 5,000 construction companies and 6,000 businesses in the service sector. The commercial sector is very small - with less than one hundred concerns involved in financial operations. (Peillon, 1982. 21). Those who are involved in ownership and or management at a senior level can be identified as a separate social category by their specific identity and distinct role. Family size, lower geographic mobility within Ireland (owners mainly) but higher geographic mobility among managers, little interest in local politics and indifferenct to party politics generally are important distinguishing characteristics of these owners of businesses and senior managers. There is however, considerable mobility into this group and employers tend to come from a highly diversified background despite the fact that 25% operate family firms. A tendency toward closure is indicated however by the fact that in 1974 28% of Irish managers had a university degree. (Peillon 1982, 23).

A number of characteristics which distinguish this group from the average politician are important for the theme of this paper. The class present a much greater religious heterogenity in that more than a quarter of them are non-Catholic where as less than 5% of the population generally fall into this category. The historic origins of this difference lies in the fact that many of the business elite prior to the foundation of the state were Protestant. This class generally were then oriented toward Britain not only because of their trade contacts but also politically. These characteristics were generally sufficient to distance them considerably from the politicians of new regime, particularly from those who adhered to a brand of "populist" nationalism which emphasised protectionism. The cultural outlook of the business elite even today seems to portray the continuation of this difference which is most remarkable when one compares lists of names of the business elite with those of the civil service. Many of the latter use a Gaelic version of their names (I.P.A. 1984. 19-64) while the former almost never do. These differences often indicate also a considerable divergence in educational and social experience. The outlook of the civil servant reflects his educational attainment often in the humanities and classics while businessmen have a wide variety of backgrounds in commerce accountancy engineering or other physical sciences. Many of course have no university qualifications (Gorman, 1974). It is remarkable that with such high investment by multinationals in Ireland that only a small proportion of management is of foreign origin (Peillon. 1982. 24).

When we turn to politicians in Ireland it must first be pointed out that the majority of them (90%) belong to the two major centrist parties which owe their origins "to differences over national independence" (Chubb. 1970. 70). Both are very favourable and often enthusiastic supporters of the business class. However, although thirty-three deputies elected to the Dail (lower house) in 1973 might have described themselves as businessmen only six of them did so. (Peillon. 1982. 46). In the past ten years a small number of businessmen have entered politics and achieved ministerial appointments but the vast majority have no special interest in the promotion of business. The labour party and the two members of the Workers party - with one independent make up 10% of the members. Labour with 14 members however forms part of the coalition government of the present. Irish legislation in regard to business has been summarised as "more kisses than kicks" (McMahon 1976, xiii) and such regulatory legislation as there is, has often been applied with great lenience. The general tone of politics when it comes to business is highly favourable in a diffuse way and businessmen are eagerly courted as a source of jobs for constituents. In recent times politicians have turned more to "high fliers" from business to solve the problems of organisations in the public sector.

III

BUSINESS AND POLITICS IN AN AGE OF TRANSITION BETWEEN COLONIALISM & INDEPENDENCE

The history of the relationship between business and politics in Ireland since 1922 can be divided into three phases, the first a period of relative stagnation which persisted until about 1958, the second until about 1978 and the third until the present time. The late 1950s and early 1960s saw the introduction of a policy of industrial expansion which heralded the end of a long period of protection and self-sufficiency. This change was associated with the great post-war expansion of the international economy the arrival of a new generation of politicians who gradually replaced the nationalist revolutionaries who had won independence and with the trauma caused by the massive emigration during the 1950s of 447,000 out of a population of less than three million. The policy of encouragement of export-oriented industry achieved considerable success and the decades of the seventies saw the ending of emigration and even the return of some ten thousand emigrants from Britain. This period saw the growth of a large complex system of structures which provided the environment in which business operated, involving employers and trade unions, farmers and government. This corporate system based on a mutually acceptable ideology of expansionism (Roche, 1972, 51) continued as long as the expansion lasted i.e. the end of the seventies. The continual deterioration of the economy and the growth of unemployment in the 1980s has led to a general realisation on the part of the public in general, and business in particular, of the incapacity of government, despite huge foreign borrowings, to solve the problems of the economy. Furthermore, business, began to feel that the concessions extracted from it by its corporate partners in expansionery times were beginning to outweigh considerably the -meagre advantages it could win in times of recession. A process of withdrawal started toward the end of the seventies. This process has been characterised by a growing hostility towards government, politics and politicians, accompanied by demands for less government interference with business and simultaneously for more assistance in such areas as marketing abroad. Finally many of the larger companies have set up subsidiaries abroad,mainly in the United States. This section will examine the first of these three phases in the business-politics relationship in Ireland.

The first historical period i.e. from 1922-58 is of relevance to our topic mainly because it demonstrates the origins of the persisting differences in approach to economic matters taken by the major political parties in the state. The first government of Cumann na nGaedheal (the ancestor of the major partner of the coalition now in power) initially pursued a policy of free trade which favoured the larger farmers and businesses. This policy was successful but very soon trade was affected by the depression. Politicians of this party were content to follow the advice of their bureaucrats who insisted on the pursuit of orthodoxy and the maintenance of free trade long after most countries in Europe had abandoned it (O'Carroll 1983, 17-34). The need for stability after a period of civil war, unwillingness to erode the goodwill of their main trading partner, Britain, and the presence in the party of the more conservative elements of the country such as large farmers and members of the professions all rendered the politicians unwilling to adopt the long accepted nationalist policy of protection of agriculture and industry. (Kennedy. 1971, 28). As so often happens in newly independent societies an opposition party was founded in 1926 which came to power in 1932 by putting forward policies with far wider appeal and which were capable of offering hopes for a better future to many who had been hitherto excluded by the previous policies. This party remained in power almost continuously throughout the period under discussion (1932-58). It pursued a policy of protectionism and economic self-sufficiency which despite considerable limited success e.g. a .250% increase in the volume of industrial production in 20 years was an unmitigated failure. Emigration continued throughout the war years and culminated in a disastrous outflow of population in the 1950s. Nevertheless this party (Fianna Fail) has achieved for itself the distinction of being known as a party which can be depended on to offer "hope and confidence" to business when it is faced with "crisis". In opposition today it is successfully projecting itself in exactly this role.

A theoretical explanation for the above paradox is to be found in the discussion by Gellner (1967, 47-20) of the relationship between polity and economy in newly independent societies. His essential point is that in such societies the building of a national identity and the associated creation of a political community are the crucial tasks of political leadership and are necessary if development is to proceed. In such circumstances politics takes precedence over economics which becomes considerably politicised - to the horror of many including the bureaucrats. One very senior mandarin at this period lamented

> "Its not so much that financial considerations are forgotten as that they are completely ignored and if thought of at all are dismissed as irrelevant and even important" (Fanning, 1978,274).

National pride takes precedence over concerns such as gross national product. This process is associated with a reorganisation of the economy more in line with the populist support sought. Such an approach avoids one of the more usual dilemmas of post-independence politics, the shattering of a fragile legitimacy in the pursuit of economic development. When we look at Fianna Fail and Fine Gael the two major parties in Irish politics, we can see that the style of the former is directed toward economic policies which lead to the creation of hope and confidence which sustains a political following and "saves" them in times of crisis. It has therefore expanded its support from the business community. On the otherhand Fine Gael and its ancestor Cumann na nGaedheal have a style which on the balance, tends toward emphasis on fiscal orthodoxy, balanced budgets and economic conservatism. The former is suited to the process of nation building particularly in expansionery times, the latter is more suited to a stable and secure political community in which there are no problems of political identity and where the economy is in a state of stability or retrenchment. Fine Gael has only in recent years (1984-5) managed to break out of this mould by the production of a thoroughly political national plan and a budget deemed "stolen" from Fianna Fail.

IV

FREE TRADE, EXPANSION, THE CHANGING ENVIRONMENT OF BUSINESS AND THE CORPORATIST STATE 1958-1980

The publication of the first programme for economic development in 1958 is seen to represent a watershed in Irish economic development. Although it did not set up a structure sector by sector for its execution it did provide a conceptual framework which placed the major sectors of the economy within a single framework. Its psychological impact was considerable since the previous year had seen a negative growth rate in G.N.P. and in 1956 it had been almost zero. A mood of national despair had descended upon the country. The limited industrial expansion of the period since independence had saturated the home market and the need for a new departure involving an emphasis of export-oriented industrial development using foreign capital corresponded with the buoyant international situation. An institutional framework was begun with the setting up in the early 1950s of an Industrial Development Authority, a Tourist Board, The Irish Management Institute and an agency for support of trade abroad. The package was completed with the removal of the ban on ownership and control of industry by non-nationals, the provision of tax reliefs for export and a system of industrial grants. This package comprised the essentials of a policy which has persisted to this day.

At this stage of development it is fair to say that the major thrust for development came from the bureaucracy. Business was conservative, demoralised, quite unorganised and unprofessional. The founding of the Irish Management Institute of this period by a small number of business men heralded the growing awareness among a minority of the business sector that all was not well. However, after decades of protection, the indigenous business class proved considerably resistant to the efforts of the government to mobilise them for an era of free trade which included entry into Europe. In this context the low level of politicisation of the process of industrial mobilisation was to be expected. The first programme for economic expansion was completely devoid of the "flamboyant political identity" (Whitaker, 1978, 22) of similar documents in recent years. Only a minority of the cabinet were deeply involved with civil servants in the production of the planning documents. The majority of backbenchers, largely representing rural areas, were not involved. Of course the amount of largesse by way of grants and concessions was miniscule by todays standards. The large and almost exhaustive clientelist system, so important in its consequences for the business-politics relationship today, had, then, very little real patronage at its disposal. It was mainly involved in purloining credit for expediting the delivery of services such as pensions to which people were entitled by right (Bax, 1976, passim). This phase of the relationship between business and politics can, therefore, be characterised as one in which a small number of bureaucrats and a minority of politicians acting on a non-partisan basis were faced with the job of mobilising a largely conservative,unorganised and indifferent business sector into a working partnership designed to prepare themselves for an era of free trade.

The nineteen sixties will be long remembered as the golden days of business in Ireland. It was a period of "glad (if naive) confident morning" unsullied by international depression, inflation, budget deficits of worry over the scale of foreign borrowings. Gross National Product grew by an average of 4%, twice the expected rate, emigration declined, there were no major balance of payments problems and price rises were moderate. Foreign borrowings were mainly used for productive purposes both in the public and private sector and it was felt these could be repaid by rising exports. This expansion was fueled by an impressive package of tax reliefs on profits for exports, capital grants, grants for training of labour, leasing and preferential share financing arrangements. This set of incentives naturally attracted many businessmen into a relationship with government and politics. Gradually the influence of politics became all pervasive at two levles, first the negotiation of government grants the allocation of which were not controlled by any administrative law (McMahon 1977, xiii) and second through the clientelist system of politics. The local political representative acted as a mediator for those seeking jobs in grant-aided businesses and in return for his services he received electoral support.

On this and on the industrial relations front the relationships were open and voluntary. As the rising tide lifted all boats, government, trade-unionists and employers maintained their traditional relationships. Indeed, the re-affirmation by the government that the private sector would be the principal source of new productive projects and that the principal function of the state was to stimulate new productive ideas (Whitaker, 1978, 12) was the source of public confidence in these development proposals. Neither did the State enter into the arena of industrial relations. Free collective bargaining was the order of the day.

By the end of the 1960s however, the environment of industry had changed considerably. Inflation continued to rise and by 1972 had reached 8%. After the oil crisis it peaked at 21% in 1975. Free collective bargaining which was satisfactory in times of moderate inflation or stagnation now began to be blamed for the high inflation rates. This was the second set of factors in the environment of business which set the scene for change in the relationship with politics. Along with the need for state incentives for industrial expansion, the need for the control of industrial relations now led business into a closer relationship with government.

The groundwork for this relationship had been created by the enticement of the unions into a number of consultative bodies associated with the planning process (Roche, 1982, 53-56). The air of confidence created by the initial success of the new policy of free trade and the considerable expansion in social investment of the 1960s gave rise to an ideology of national economic expansion in which the balance between conflict and cooperation on the part of the unions tilted in favour of the latter. Consultation, Roche argues (p.54) was a response to essentially technical problems and all parties could benefit from their resolution. Labour appointed representatives to the Irish National Productivity Committee. (INPC), the Committee on Industrial Organisation (CIO,) the National Industrial and Economic Council (NIEC), and the National Employer and Labour Council (ELC). The policy of non-distributive technical co-operation did not suffice to provide a basis for control of wages and both the NIEC and the Federated Union of Employers (FUE) soon drifted towards the advocation of centralists policies (p.56).

The decade of the seventies saw an almost fullblown corporatist type structure develop. The state, the trade unions and the employers entered into a series of negotiations which were characterised by the politicisation of what in the past had been a largely market relationship. Collective bargaining now gave way to a tripartite negotiation in which non-market factors such as tax concessions and government budgetary policy were considered. In this way trade unions and employers were drawn often quite willingly into the web of politics while government extended its control into the domain of business.

By the early 1980s this new relationship had turned sour. The Federated Union of Employers "were openly resentful of 'undue political pressure' brought to bear on them and responded by commissioning three experts to review national bargaining since 1970". (p.65) Business have shown a strengthening resolve not only to resist further extensions of the corporate compromise but even to disown many of the sacred cows of the previous system. The attack on the taxation system, the call for privatisation and the resistance to the creation of a National Development Corporation are but part of this stance.

The state itself has reason to have second thoughts about the price paid for union cooperation. The range of bargaining issues has widened into many areas of a politically sensitive nature. For example attempts to tax farmers, although derisory, brought threats to rural deputies of the major government party. Pay settlements have usually been in excess of the terms sought by the state. The demands for redistributions, Roche also notes (p.66), "raise problems for the incentive system embodied in the strategy of industrial and agricultural development". To explain the origins of these developments we must examine in some detail the context in which they were generated and the changes in internal and external environment associated with them.

V

THE SOCIAL FORCES WHICH SHAPED THE BUSINESS-POLITICS RELATIONSHIPS

Although the above discussion portrays an evolution of relationships between business and politics similar in many ways to that which occurred in Britain (Middlemas, 1979, 371-463). The similarities are in many ways superficial. No doubt the Irish system was shaped by many of the same forces as operated in Britain. In addition, there was a tendency on the part of state, trade-unions and, to a lesser extent, business, to imitate British practices and institutional structures. A proper understanding of the dynamics of the evolution of the relationship between politics and business, however, cannot be achieved unless one understands to what extent imitation fell short of the British model and also the extent to which indigenous developments unique to Ireland influenced the course of events.

The main indigenous factor consisted of a powerful but diffuse notion of the state as an agency which could be relied on, to subsidise all sectors of the population and to cushion them from the hazards of encroaching capitalism. This notion was powerfully implanted by various benevolent policies of British governments in Ireland in nineteenth century such as education, land reform and the provision of positions at the lower bureaucratic level of the empire. The newly independent state provided a wide range of opportunities, subsidies and pensions. The image of society projected to all and sundry by de Valera from the 1930s to the 1950s was that of the benevolent local community writ large and the state was the deus-ex-machina for all crisis situations. (O'Carroll, 1980, 4), (Moynihan, 1980,passim). This very successful rhetoric of community served the two-fold function of effectively playing down class differences and enabling the hearers to conceptualise the new state in familiar and friendly terms. The gradual development of an all-embracing clientelist system completed the package. This diffuse corporatist model was a more likely ancestor to the corporatism of the 1970s than the more elitist proposals of the 1930s of creating a vocationally organised society along the lines suggested by papal encyclicals such as Quadragesima Anno.

The key significance of this model of society is that it envisages a populist regime which will provide subsidies to all classes whether interested in productivity or not. Large sectors of the petit-bourgeoisie and bourgeoisie looked on the state mainly as a provider of professional employment for family members who were surplus to the requirements of the family business. In the 20 years from 1960 to 1980 the percentage of the workforce in public employment increased from 16.5 to 26 percent. In addition a large proportion of small farmers had for generations looked on subsidies, intended by the state for farm improvements, as income supplements rather than as aids to increasing production. This mentality, encouraged by clientelist politics, by the increasing state aid to industry and the politicisation of trade union negotiations which greatly expanded the "social wage' in the 1960s and 1970s from 3.6 percent of GNP to 7.6 percent, turned out to be one of the trojan horses within the system which emerged by the end of the 1970s.

The other trojan horse was triggered by the initial success of industrialisation itself. The expansion of job opportunities quickly brought about a major modification of demographic patterns. During the 1960s the marriage rate of 18-24 year olds trebled and the median age of marriage for females fell from 26 years to 22 years. Furthermore, the rate of outflow from agriculture was greater than expected. (Central statistics Office, 1971). This dramatic change in demographic behaviour, which was also associated with an ending of emigration, presented the state with a problem unprecedented in hundreds of years - the responsibility of job creation for the first full generation to remain in the country. The result is the highest unemployment rate in Europe,now 18 percent.

By the mid 1970s the state had run into spiralling energy prices, rapid inflation, mounting unemployment and had begun borrowing heavily abroad for both current and capital purposes. No statutory controls on incomes were introduced but the "voluntary" National Wage Agreements were reinforced by the government in the Regulation of Bank Acts 1973, 1976, which prevented the banks from making pay increased in excess of national wage criteria. (McMahon, 1977 xiii)

By 1975 exchequer borrowing requirements had risen to 16% of G.N.P. (Raftery, 1982, 131-146) and to 31.5% in 1980 (Kennedy, 1983, 62) and current policy once again is to reduce this very high ratio. The cost of running the public sector has spiralled total government expenditure rose from 29% of G.N.P. in 1960 to 51.2% in 1975 and has now reached 66%. The highly unionised public sector, comprising over 50% of all trade unionists (I.P.A., 1979, 227) have done much better than other sectors. Their average income is estimated at £10,000 per capita while those in services generally are estimated at £7,000 and agriculture at £3,500 (McCarthy and Duńkan, 1980) and (Raftery, 1982, 144). The wide coverage which the unions insisted be provided by the services which constitute the "social wage" e.g. health and education have ensured that despite their mounting costs their redistributive effect has been minimal (Barret, 1979). Competitive party politics has oscillated between the expansionist policies of Fianna Fail who achieved power in 1977 by a programme of tax cuts and expansion of public expenditure, which raised the borrowing requirement to 15% of G.N.P. an increase of 5% over that which their more fiscally orthodox predecessors had managed. The main implication for the business sector of this rapidly deteriorating environment lies in its implications for taxation. Tax has increased from 23% of G.N.P. in 1961 to 37% in 1980 (Kennedy, 1983, 62). Although capital, wealth and property taxes contribute only 5% of total tax now, and have decreased from 21% in 1961, business feels very aggrieved that the cost of employment has risen largely because of inflation - some 27% in 5 years. Industrial relations were not improved by the fact that the employee's take-home pay decreased some 6% in the same period. At the same time the fiscal policies of the government increase interest rates considerably.

The position of the businessman now can be summed up as follows. Because of the recession the wide range of incentives offered to him, particularly if he is not in the export arena, cannot be availed of at present to any considerable degree. The increasing costs of the public sector are increasing costs of production and the role of the government on the domestic financial markets incrcases interest rates. Taxation is increasing the costs of labour while lessening employees take home pay. The next sector deals with the reaction to these problems.

VI

BUSINESS REACTION POLITICIANS RESPONSE

The period of the 1960s and early 1970s was one in which the public in general, the bureaucracy and business accepted without question the ideology of expansionism which quickly diffused throughout society, in the wake of the initial successes of free trade. The success of the introduction by the government in the early 1970s of Keynsian techniques of management of the economy quickly anointed the politicians with an air of infallibility which persisted almost until the end of the 1970s. This belief persisted despite a number of years of increasing disemployment and large scale unemployment.

Simultaneously the power of the government to take effective action became more limited,mainly because the locus of change was not within their control. The growing depression has caused the curtailment of the budget of the Common Agricultural Policy of the E,E,C, and resulted in the drastic "milk levy". The consequent chaos, rage, and despair in agriculture was tremendous. In the domain of industry the effect of the depression is to be seen at two levels first the large multinational sector. Here the greater efficiency, huge tax concessions and low labour content of the final products e.g. electronics and pharmaceuticals,has led to continued expansion despite some remarkable closures. The multinationals are greatly insulated from the problems which beset the indigenous businesses.

The latter have had time to reflect on the rapidly deteriorating economic situation and many have begun to turn on their erstwhile partners, government and labour. The general tone of the attack on government and politicians is that they have saddled business with all types of extra costs and regulations for political expediency. In their view business and the country would recover if only government would remove these burdens and allow business to get on with the job of "creating wealth". They point to the "significant fact" that eighty percent of the population are "supported" by the wealth created by them. A second major theme in the "inefficiency" of the public sector with the obvious corollary that the private sector is efficient. Privatisation is in their opinion the logical solution to the problem of inefficiency. The final item of faith in this ideology is that the state should provide incentives to business for "productive" enterprises "which give employment".

The attack on the government also implies an attack on labour who are seen to be responsible for encouraging expansion of costly social services thus increasing taxation and state borrowing and making workers less industrious (Wrigley, 1983, 19). Labour is also seen to be responsible for high wages which price products out of the market. Encouragement of emigration has also been mentioned as a solution to unemployment.

At a more upmarket level there is some awareness of weaknesses of business itself e.g. lack of a longterm market strategy, lack of "coherence", and some the need for "great improvement in management training" (Wrigley 1984,15-20). However, the failure of Ireland to develop her people for industry as Japan has done,the lack, on the part of industrial leadership, of a coherent perspective "to discipline the nation", the distortion of moves to reallocate resources" "by short-term political thinking" are also part of this perspective (Wrigley, 1983). Ireland, this view holds, can be classified with the U.K., Canada, Sweden and Norway "that is, where egalitarianism holds sway, where income from welfare is high and income from work is low". "In that company, Ireland is off her natural base" (p.19).

The response of politicians to the above ideology is to point to some of its false assumptions and inconsistencies. But they have also changed their ways slightly. First, inefficient semi-state companies are being forced to show a profit and trim their work forces. The national chipping company for example, has been allowed to go into receivership because of a major financial blunder. Second, the whole strategy of industrialization through multinationals has been criticised, first, because of alleged overgenerous incentives offered, and second because it does not do enough, it is believed, to encourage domestically based industry. Third, while there is no attempt to introduce statutory wage controls, stringent efforts (not greatly successful) are being made to limit increases in public sector pay. Finally, efforts have been made to control foreign borrowing by the exchequer but, given that there are now a quarter of a million unemployed and that backbenchers fear for their seats if some reinflation does not occur soon, this resolve could very soon disappear. No matter what the outcome, tomorrows politician will be much more conscious of the interests of business than in the past. This awareness will not be reciprocated by business who have yet to discover that running a country is a much more complex operation than running a business.

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POLLUTION CONTROL POLITICS AND BUSINESS IN THE NETHERLANDS

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CONTENTS

Introduction

In this paper I want to describe and analyse the nature of the relationship between politics and business in the field of pollution control in the Netherlands. I will not restrict myself to the political level, but merely put attention to the relationship between business and the whole public administration. By business is meant: individual firms, especially industrial firms and organisations that represent the firms.

The central questions in this paper are: what is the development of the pollution control politics in the Netherlands? what are the consequences of these politics for business? what factors stimulated those politics? what behaviour did business show when it was confronted with the politics measures? what are the main charasteristics of the interaction between public administration and business? did the politics create a new kind of businessman, politician or bureaucrat?

Pollution control is indeed a very dynamic field of government-intervention in the private sector. This is illustrated in the first sections of this paper (sections 1 and 2). Then some consequences for business are described and some factors that stimulated that government-intervention will be presented (sections 3 and 4). In the sections 5 and 6 the effects of pollution control politics on business and the relationship between public administration and business are analysed. This paper concludes with some remarks which might stimulate the discussion on the question whether we may speak of new businessmen, new politicians or new civil servants.

1. Pollution Control: Growing State Intervention

In the Netherlands legislation on pollution control in its present form is a rather young fenomenon. Until 1969 the only rigorous provisions for pollution control were in the Marine Oil Pollution Act of 1958. The major instrument of control until that time was the Nuisance Act which existed since 1875 and in a revised form since 1953 (1). The Nuisance Act (NA) dealt primarily with neighbourhood nuisance and its scope proved to be insufficient to cope with the increasing scale and extent of environmental disruption. (Bennett, 1981) Only after the Surface Water Pollution Act(SWPA) passed the Dutch Parliament in 1969, did the pollution control legislation develop rapidly:
1970: Air Pollution Act (APA)
1975: Marine Pollution Act (MPA)
1976: Chemical Wastes Act (CWA)
1977: Wastes Act (WA)
1979: Noise Nuisance Act (NNA)
1983: Soil Cleaning Interim Act (SCIA).
The Nuclear Act of 1963 was put into effect in 1970. At this moment there are a few drafts awaiting to be passed into laws, namely those concerning environmental dangerous substances and soil protection. Finally there is a procudural law: the Environmental Health General Provisions Act of 1980. Summarized there are 11 acts in operation and two will be drafted in the near future.

Most of the laws are accompanied by further legislation, e.g. the so called General Administrative Orders (GAO) (or decrees), in which the Minister for Environmental Protection can give more detailed and concrete rules for the implementation of the laws. An example of an act with many decrees is the Noise Nuisance Act (NNA). In that act 85 decrees are announced. Until now there

are 55 decrees in operation.
Another form of rulegiving within the framework of a law is the Ministerial Circular. In those circulars the minister gives guidelines to the local and regional geoverments for the inplementation of the act. Up to this date there are 15 circulars of the NNA in function. Before the act was borne, there were four circulars which provided guidelines to the subnational governments in the framework of the Nuisance Act. Besides ministerial circulars, there are provincial circulars addressed to the municipalities.
The laws, decrees and circulars constitute a large, dense and growing web of rulegiving (see Appendix A).

Another indication of the development of the growing government interference with environmental protection is given bij the growing expenditure of the central government. Table I gives an overview.

Table I - Government expenditure on pollution control and as a percentage of the Dutch GNE

Year	Expenditure (in mln. guilders)	Percentage of the GNE
1971	61.8	0.05
1975	96.9	0.05
1980	210.8	0.07
1981	294.7	0.08
1982	447.8	0.12
1983	512.8	0.15
1984	594.2	0.17

Sources: National Budgets 1971 - 1984

Linear to the growth of the legislation and the budgets is the growth of the civil service personel in charge of developing and implementing the policy. To give an indication we present some material of one of the eleven Dutch provinces in which we did a pilot study: Gelderland (2). In the Netherlands the implementation of pollution control politics is delegated to the provinces and the municipalities. The provincial level is of growing importance in this policy field, because more and more tasks are delegated to that level. The development of the number of civil servants on pollution control is given in table II.

Table II - Civil servants on pollution control in Gelderland

Year	Number	Year	Number
1971	2	1982	64
1975	5	1983	70
1980	46	1984	82
1981	56		

Sources: Annual reports of the Province of Gelderland 1971 - 1984

Without hesitation we can conclude that the policy field of pollution control is a growing field. It is only very recently that the rising tide is about to ebb. It is not certain though that the ebb will actually happen. Of course not all of the legislation have consequences for industrial business, because the most important instruments of environmental policy affects business. In section 2 more attention will be paid to the instruments of environmental politics.

1.1 Example: An Electricity Company

To give an illustration of the consequences of this increase in pollution control politics, we will look at an electricity company. Although there are only 20 electricity establishments in the Netherlands, they take up a relative large part in the pollution of the environment (see Appendix B).
Nearly all pollution control acts apply to these industries. The production process can be described in the following (simplified) way. The fuel (mainly coal) is burned in a kettle; the heath turns water into steam.

Then a turbine is driven which is coupled with a generator that generates electricity. This productionprocess has its impact on the quality of the natural environment. Steamgas which is evaporated into the air contains fly-ash and sulpherdioxide. As off 1985 these injurious substances are partly transformed into gypsum in a special installation. The remnant substances this production process produces are fly-ash, soil-ash, gypsum and mud. The Chemical Wastes Act and the Wastes Act are of relevance at this point. A very important and hazardous emission via the chimneys are sulpher dioxide (SO2) and nitrogen dioxide (NOx). The substances cause acid rain. The Air Pollution Act is applied. The productionprocess also needs water for cooling off the steam so that it can be used again. The water is dumped into the river near the factory. This causes thermic pollution of the river water; the Surface Póllution Act is here applied. The final pollution category, that will be mentioned here, is the noise that the establishment produces, in which case the NNA is of relevance.
At this moment the electricity company has a capacity of 902.9 MegaWatt, produced bij three coal-burned turbines and one combined gas-steam turbine. In 1992 the aproximated capacity will be 934,2 MegaWatt, produced by one gasturbine and two coal coal-burned turbines. Some parts of the establishment will be newly built and others will be dismantled. Every change which takes place, demands a change of licences. So the electricity company is continually applying for new licences. Most licences are granted by the province, and to get a licence, the company has to pay a fee. In the period 1981 - 1984 the company paid a total amount of 600,000.- Dutch guilders on fees.
The major costs that must be made, are those for the application of installations and provisions to reduce the emission of remnant substances and to reduce the

total amount of injurious substances. For example desulpherization-installations, fly-ash absorbtion installations etcetera. For the company these installations costed hundreds of millions guilders.
There are however a few subsidies. For instance, the building of an installation that filters nitrogen dioxide out of steamgas is financed with 100% government-money (of the central government).

The electricity company has ten employers who are specialised in dealing with problems of pollution control. The pollution control aspect is seen as an integral part of the decisionmaking in the company concerning investments, the productionprocess etc.

2. Policy Instruments that Influence Corporate Behaviour

To implement pollution control laws, the government has four kinds of instruments, which are present inalmost all the laws in more or less the same form:

1 physical instruments
2 financial instruments
3 supervision and inspection
4 sanctions.

Physical instruments are prohibitions and injunctions the licence system, the norm-system and also instruments like zoning. Financial instruments are levies, indirect taxes, retributions, subsidies and tax-expenditures. Furthermore there are supervision and inspection methods to see wether polluters infringe some of the physical instruments. Finally there are sanctions, varying from fines to imprisonment which will be applicated if polluters offend licence prescriptions.
In this section we will mainly pay attention to the physical and financial instruments.

2.1 Licences

Ten of the thirteen acts that were mentioned in section 1 contain a licence-system. The national, provincial and local goverments grant licences. When a government grants a licence, it can attach conditions to it. A few common conditions are:
- the application of certain techniques to the production process in order to prevent or reduce nuisance;
- the maximum amount and concentration of substances that may be emitted;
- the obligation to conduct pollution control-technical measurements in favor of the government;
- the obligation to provide information about the buildings, installations and other production means and procedures and products to the government.

There are all kinds of conditions. In the Handbook Nuisance Act, we counted more than 1500 model-prescriptions.
The licences and their conditions are a form of direct governmentregulation, or as Mitnick calls it: regulation by directive. (B.M. Mitnick, 1980) They are meant to restrict the freedom of choice of the addressed ones (i.c. industrial companies) or to lead them in certain directions. On one side certain alternatives are cut off, on the other certain alternatives are added. The licences contain prohibitions, disjunctions, permissions, dispensations and claimpermissions. The licence-prescriptions are primarily directed to prevent and reduce nuisance and damages and are not connected with economical considerations according to the existence, continuance and growth of firms.

A company has to invest time and manpower to apply to a licence. In the licence-procedure attention is paid to the carefulness of the content of the licence and the participation of firms and citizes to whom the licence might have consequences. Not only firms and citizens are consultated. There is also a consultance of the Labour Inspectorate and the Health Inspectorate. To give an illustration of the procedure-terms, we give an example of APA procures.
Most APA licences are applied for by chemical industries (58 %), elcetricity companies (8 %) and other industries (19 %) - the other 15 % concern non-undustries.
There is a statutory procedure-term of 12 months. In practice 48 % of all licence procedures in the period 1972-1982 exceeded that term. The terms vary per sort of licence: for a licence to establish a factory the mean term is 15.9 months, for enlarging and altering the factory 13.9 months and for a total revision of the licence 20.4 months. In only 8 % of the cases the term is shorter than 6 months.(Van Muyden, 1982)

The consequences of the length of the procedures are that firms are for a certain period operating without a licence or they can not operate because they have no licence at all. The manpower that is needed for the application increases as the terms are longer. The activities that must be undertaken, are:

- gathering information about the conditions of the installations, the buildings and the productionprocess;
- negotiation with the government.

This manpower-utilization can be seen as unproductive in the sense that it is not utilized for maximizing profit.

2.1.1 Fees

As mentioned before, firms have to pay a fee (a retribution) to get a licence. Although these fees are not very high, we have seen that in the case of the electricity company the total amount of fees over a few years can be substantial.
The fees are fixed in different ways. The province grants licences for the APA, NA and NNA. For the APA and the NNA the fees are statutory-fixed: ƒ 175,- respectively ƒ 5,150.-. In the case of the NA-fees there are provincial by-laws that give rules for the determination of the fees. Relevant determinants are for instance built area, capacity of the installations, content of the tanks and the power of the engines.
The central government has stimulated the increase of the NA fees - and all fees in general. In 1974 there was in the province of Gelderland a standard fee of ƒ 10.-. The by-law was changed that year and since then the fees increased very rapid.
The central government stimulateds the subnational governments to make the fees covering the costs of the licence-granting. This has lead for instance in a muni-

cipality to an NA-fee increasing in one year (1979 - 1980) of 750 %.

2.2 Charges

A charge is a so called indirect regulation instrument. It works market-conform which means that it stimulates or restrains activities of firms on the market. The firms maintain their freedom of choice; they can weigh alternatives against each orther, given the economic costs of the charges. (Mitnick, 1980)
In the Netherlands there are charges that are meant to cover the costs of administration. The basic premise is the within the EEC accepted "the polluter pays principle"; firms that cause damage and nuisance have to pay the costs that the government has to make to prevent and to reduce the damage and nuisance, The incentive-function of the charges is not of primary importance here. That function is important for the so called regulating charges. Seven of the thirteen acts that are mentioned in section 1 contain a charges-system. The levie-tarifs and calculation vary per pollution control act. The total amount a firm has to pay per act varies from firm to firm. Table III gives an overview of the development of the revenues of the in favour of the central government collected indirect taxes, including charges.

Table III - Marked charges of a few pollution control acts, 1975, 1980, 1981, 1982 in mln. Dutch guilders

act \ year	1975	1980	1981	1982
SWPA	106	179	169	151
APA	50	61	74	86
CWA	-	2	4	3
NNA	-	-	27	70
(total indirect taxes)	23,157	35,406	35.637	36.036

Source: CBS Statistical Yearbook 1983

Although not all revenues originate from industrial companies, most of them do. We see that the total amount of revenue is increasing. When a new act is put into effect, there is a substantial growth of the total amount of revenues. Especially the NNA is seen as a rather expensive law. The costs are high although noise is not considered as the most important pollution problem.(3)

2.3 Other costs

In the case of the electricity company in section 1.1 it was mentioned that the highest costs of firms were those to establish buildings-alterations, installations-alterations, procedures- and products alterations. The alterations have to be realised beacause of the licence-prescriptions. Recently alterations were made possible because the technical developments in the pollution control industries. In Holland there is a market for pollution control products with at least 120 producers. Ullmann and Zimmermann signalize a rapid growing industry and counted 1100 producers. (Ullmann and Zimmermann, 1981)
We were not able to give an indication of the amounts of pollution control investments. These investments have become in most cases an integral part of the total investments of industrial firms.

2.4 Allocation of Government Money to Industrial Business

Not only does government withdraw money from business, there is also a money flow from the government to the business via subsidies, premiums and indemnities. Every pollution control act has its own money dissemination system. Moreover there are general financial support measures that have a pollution control component, that is they stimulate investments in environment-frienly installations and productionmeans. In the Netherlands the following measures exist:

a. Indemnities. In some pollution control acts indemnities are fixed to prevent that competition among firms is disturbed or that pollution control measures put a strain on firms . ,
b. Air Pollution Fund. This fund is used to compensate those who suffered dammage.
c. Contribution regulation reorganisation nuisant firms.
d. Environmental bonus of the Investment Bill Act.
e. Framework regulation environmental investments in the Galvanic industry 1981.
f. Environmental Credit of the National Investment Bank.
g. Stimulation regulation development and demonstration projects environment friendly technology.
h. Subsidium-regulation development clean technology.
i. Contribution regulation abatement polluting national rivers.

2.5 Environmental costs of business

This section is closed with an overview of the total costs that industrial business bears as a consequence of the pollution politics in the period 1970 - 1980. The figures are taken from the CBS-publication "Industrial costs for the protection of the environment" (1979, 1980 and 1981).

Table IV - Industrial investments for the protection of the environment

	1971	1975	1978	1979	1980	1981
	mln hfl					
Waste water	60	110	206	223	209	121
Cooling water	4	20	2	14	33	13
Groundwater and soil	2	11	9	11	13	13
Air pollution	85	77	95	95	151	278
Waste	15	6	7	15	8	4
Noise and vibration	14	34	45	39	41	35
Nature and landscape	0	2	13	7	9	0
Total environmental investments	180	261	375	404	464	466
	%					
Environmental investments as % of total investments	2,0	2,6	3,4	3,6	3,6	3,8

Source: CBS Industrial costs for the protection of the environment 1980 and 1981

Table IV shows that the costs have increased during the last ten years. The costs of air pollution and water pollution are the main pollution control costs that firms have to face. Let's have a closer look at the total air pollution and water pollution costs, to get an indication of the cost-compartiments; (table IV showed only the investment-costs).

Table V - Air pollution and Waste water: total environmental costs in 1980, according to costs-compartiments (in millions of guilders)

Cost-Compartiment	Pollution compartiment Waste Water		Air Pollution	
Fees and charges	185.7		17.5	
Cleaning cost	5.7		-	
Sulpher-poor fuel	-		191.7	
Exploitation of pollution control provisions				
- intrest	62.3		36.0	
- depreciation	142.2		109.9	
- net costs	142.3		112.2	
(personel)*		(62)		(42)
(savings)*		(-33)		(-20)
Subsidies	-13.3		-13.8	
Yotal	549.7		455.8	

* some of the net costs are specified in this table.
Source: CBS Industrial costs for the protection of the environment, 1980 and 1981

Which branches in industrial business face high environmental costs? Table VI summarizes per branche per pollutioncompartiment the costs.

Table VI Environmental costs 1981

SBI-code	Group of industry	Water	Air	Waste	Others	Total environmental costs
		min hfl				
1	Minning	6	1	19	60	84
20/21	Manufacture of food, beverages and tobacco	196	21	21	26	264
22	Manufacture of textiles	13	1	3	1	19
26	Manufacture of paper and paper products	35	1	5	4	44
28	Petroleum refineries	61	45	7	9	122
29/30	Chemical industry and manufacture of man-made fibres	228	94	48	69	438
32	Manufacture of building materials and non-metallic materials	5	17	8	3	32
33	Manufacture of basic metals	20	107	7	10	145
34–38	Other metal industry	38	13	43	24	118
var.	Other industry	10	5	12	3	30
40	Public utilities	16	231	8	36	290
	LESS: subsidies received from yields of levies	45	40			85
1–4	Mining, industry and public utilities	582	494	182	243	1 500

3. Consequences of Pollution Control Politics

In the preceding sections the figures gave an overview of the growth of the pollution control politics in the Netherlands. The consequences of the politics differ per firm and even per branche. There are a few factors that have to be kept in mind.
In the first place the market position of a firm is important. For instance the electricity company (section 1.1) is a monopolist.. Monopolists can roll off the environmental costs completely on the consumers. But most business are not in such a position, so there the costs influence the profit-making.
In the second place there is a distinction between firms that operate on an international market and experience competition from foreign business that face other pollution control politics, and firms that produce for a domestic market. In the latter category the competing firms are in principle confronted with the same politics, so that the politics have no major consequences for competition-relations. This has to be shaded because of differences in local circumatances, conditions of installations etcetera.
In the third place we have to distinguish among firms that are directly affected and those that are indirectly affected by environmental politics. By direct affected firms we mean firms that are licenced or have to pay charges. Firms that deliver goods to or buy goods from those firms may experience consequences because they have to deliver goods under certain conditions or experience that environmental costs are rolled off on them. The indirect involved firms do not directly interact with pollution control authorities, but do face the consequences.
Finally there are companies that are frustrated in their striving for profit-maximazation and those that are stimulated in their profit-seeking. With that latter

catagory we mean producers of pollution control products. Except for the environment-technology industries, nearly all corporations experience cost-increas. However environmental costs are not the most important business costs business faces in the Netherlands. Labor costs, social premiums and taxes are far more important. In a survey of 402 Dutch entrepreneurs the factors mentioned in table VII are seen as threatening business.

Table VII - The amount that factors threat Dutch business, percepted by Dutch entrepreneurs (N = 402)

	high threat	some threat	no threat
energy position	42 %	37 %	21 %
social premium	74 %	25 %	1 %
intrest-rate	72 %	26 %	2 %
taxes	56 %	35 %	8 %
competition of low-wages countries	42 %	36 %	21 %
competition of industrialised countries	16 %	29 %	35 %
environmental costs	17 %	53 %	28 %

Source: Lagendijk, 1981

The costs of pollution control is only experienced by a small number of Dutch entrepreneurs and a substantial number has the opinion that environmental costs aren't a threat at all. This does not mean however that these costs aren't important: more than half of the respondents think that the costs form some kind of threat. Moreover: each additional cost does frustrate an entrepreneur in his striving for profit-maximazation.

Furthermore some pollution control measures, such as licences, are of vital importance to the existence of firms - under the fulfilment is inspected and if necessary sanctioned. The consequence is, that for big polluters, like electricity companies, pollution control is an integral part of planning and decisionmaking of the firm.

In some cases pollution control politics have contributed to the change of products. For instance more producers are bringing more phophate-free detergents on the market. Another well known example can be taken from the automobile-industry. Here the new policy is to produce clean motors which are environmental friendly. Product-change means research and development costs and investments in new capital goods and new production techniques.

To conclude this section we can say that pollution control politics in the Netherlands - and in other countries as well - have had great influence on the action-possibilities of business. There is no part of the Dutch industry that is not confronted with pollution control politics. The politics and with that the government have stepped into the business cycle and have become an nearly integral part of the industrial sector of society.
What were the factors that have influenced the development of pollution control politics?

4. Factors that have influenced the Development of Pollution Control Politics

4.1 Environmental Consciousness

In the Netherlands the natural environment has beeen a problem for some time. In the beginning of this century the first environment protection association was fpunded It lasted until the 1960s and 1970s when there came a wide consciousness. The reports of the Club of Rome (Meadows etc.al. 1972, Mesarović and Pestel, 1974) were of great importance to the development of such a consciousness. The reports were published in a spiritual climate that was sensitive to new impulses.
In 1972 several environmental associations concentrated their forces into the Nature and Environment Foundation. From then on more associations and pressuregroups at national, regional and local level were founded. Also the media played an important role. They reported thoroughly about the Club of Rome reports, pollution problems and technological innovations (see for instance Appendix C). This huge interest in environmental problems and the environmental consiousness resulted in pollution control policy and laws on national and international level.

4.2. International Policy: EEC-directives

The international policy in the field of pollution control has developed very rapid the last twenty years. There are a lot of treaties on the field of marine pollution control, pollution of rivers that cross country boarderlines etcetera.
The activities of the European Community are of direct importance to the Netherlands. In 1973 there was a first action programme which mentioned preventive control mechanisms. In the second programme (1976) pollution control goals and principles were formulated. But even before 1973, there were EEC-directives, meant to accomodate national laws to international standards, especially concer-

ning pollution by road traffic. Nowadays there are directives for industry concerning waste substances, dangerous substances, noise production of machines, the use of fuel-oil, dumping of toxygen substances, waste water etcetera.
All lawgiving activities of the member-states have to be reported to the EC Commission. Furthermore there has to be conformity between national and communitory directives for preventing financial instruments to influence the competition among business in the member-states or influence the free trade within the Community.

4.3 Organisational Setting at the National Level

To understand the development of the pollution control politics, one has to view developments at the national level. Until 1971 the health and environmental policy was under the jurisdiction of the Ministry of Social Affairs and Public Health. In 1971 a new department was created: Public Health and Environmental Protection. It was expected that this new ministry would give direction to the pollution control policy as a whole. It was meant to develop as a coordinating ministry, responsible for environmental-parts of other ministries as well.
The young department grew rapid and turned out to be very productive. The production has been shown in section 1. Table VIII illustrates the personel growth of the pollution control sector of the ministry.

Table VIII - Personel of the Ministry of Public Health and Environmental Protection, 1972, 1975, 1980, 1983

Year	Personel	Year	Personel
1972	37	1980	177
1975	106	1983	265

Souces: State almanacs, 1973, 1976, 1981, 1984

The staff consists of relatively young academics who in most cases had their first work-experience within the department.

In 1982 the ministry was devided whereby the environmental sector became a part of the Ministry of Housing, Spatial Planning and Environmental Protection.
In the last 14 years it turned out to be very difficult to construct comprehensive environmental legislation. So a sectoral-approach was chosen with the sectors air, water, bottom, waste and noise.

4.4 Scientific Discoveries of new Health Challenges

There is a growing knowledge about the effects of air, bottom and water polution and noise nuisance on man and nature. Environmental biology, -chemics, -toxology and health sciences are disciplines that have developed during the last two decades. More and more substances that bring damage to our health are discovered. Some examples of such discoveries are:

- injurious effects of cooldioxide (CO2) on the radiation balance on earth;
- injurious effects of polychlorinbifenyles (PSB's) on man and animal;
- vegetative disturbances (especially high blood pressure) as an effect of noise nuisance.

These discoveries stimulated policy-makers to develop pollution control politics, because negative effects of industrial production were demonstrated dramatically.

4.5 Pollution Calamities

Disasters always have great impact on politics. That is also true for environmental politics. International examples are the poison disaster in Soveso (Italy - 1972) and several disasters with oil-tankers like the Amoco Cadis (France - 1980).
In Holland the discovery of polluted ground on which houses are built, is a recent example. The first case was that of Lekkerkerk (1980). The media put a lot of attention to it (see Appendix C)and huge amounts of money were spent to clean op the dirt ground. Soon after, the govern-

ment did a national inventory to see wether there were more cases of polluted soil. More polluted grounds were discovered and the government hurried to make an interim-act (SCIA). But even before the Act was accepted by the Parliament (1982), soiled grounds were cleaned up. For the first 108 projects in 1981 the government spent ƒ 48 mln. On the budget of 1985 a sum of ƒ 185.5 mln. is reserved.
At this moment the top priority of pollution control politics is becoming acid rain. In the next few years millions of guilders will be spent to solve that problem.

4.6 Wide Parliamentary Support for Pollution Control Politics

When the parliamentary discussions of the bills of the environmental acts are viewed, it can be noticed that there is a wide parliamentary support for the environmental politics. The bills were accepted with a large majority and sometimes - as in the case of the NNA - with unanimity. The need to reduce or prevent damage or nuisance is common. It crosses political space. Although the right-winged parties (VVD and CDA) are more critical about the bills than the left winged parties, all parties subscribe to the demand that pollution control politics must prevent us from harming the environment for present and future generations.
To give an indication of the wide support we will refer to the next case.
In the beginning of 1982, some members of the Second Chamber introduced a motion meant to stimulate economic recovery. The motion suggested that the process of economic recovery demands the enlightment of financial obligations to existing and starting firms, expecially with reference to energy-, fiscal-, capital- an pollution control costs, (Second Chamber, 1981-1982, 17 000 no. 89). The motion was widely supported after it did tot speak of pollution control costs (to be reduced) but of speeding

up pollution control procedures. In that way there could be no misunderstanding that pollution control norms could not be replaced. (Van Ditmars, 1984)

4.7 Countervailing Powers

When we look back at the sections 4.1 - 4.6 we can see that there were a lot of powers that stimulated the increase of pollution control politics. There were however also countervailing powers.
Business did not like the increase. But the tide was against them during the last 15 years. The tide was changed after the second oil crisis of 1979. Business became more and more supported in its calls for more room to act; higher profits it became believed, are a must to stimulate investments.Economists on both the right and left side became supply-side economists. On the political level the change came with the present Cabinet Lubbers (1982 - ...).
In this changed situation there is in fact no room for pollution control politics that restrict the acting of business and that increase production costs. However the effects of the legislation of the 1970s are felt at this moment. For instance the NNA was created and developed in the "firms-unfriendly" period and is now being implemented. Maybe it will partly be deregulated, but that will require an amount of time.

5. Effects of Pollution Control Politics on Business Attitudes and Behaviour

5.1 A Common Ideology

In this paper we will not give a representative picture of the common attitude towards pollution control. Instead we interviewed 20 business representatives from firms, Chambers of Commerce, entrepreneurs organisations and 25 bureaucrats of the province of Gelderland.
The business representatives accept the fact that pollution control politics are necessary. The negative external effects of production are noticable and have to be internalised some way or another. At the same time they are unanimous in the perception that regulation in the Netherlands has gone too far. There is a close web of regulations and prescriptions that has bounded business acting too much. It is also thought that some regulations do not deal with real pollution problems. For instance five respondents think that the part of the NNA that deals with industrial noise has a great weight within the Act although road and air traffic noise is the real noise nuisance problem in society.
An unanimous mentioned problem of the Dutch pollution control politics is the length of the procedures to get a licence. Because of the fact that every change within the establishment needs a change of the licence, the production process is delayed. Sometimes it takes years before a firm can get the necessary licence and can make the planned investment.
Another point which is often mentioned concerns the fact that pollution control politics is too much directed to short term improvements. Industrial firms are forced to invest in capital goods that reduce the emission of dangerous substances etc., without paying attention to the economic depreciation of the capital goods. In that way optimal economic firm policy is frustrated.

One answer to high developed government intervention in the private sector is deregulation. In the Netherlands deregulation is propagated by the employers organisations (business organisations) and the ministry that traditionally is concerned about the intrests of business, the Ministry of Economic Affairs. Special attention is paid to the deregulation of formal procedures (licencegranting procedures, appeal procedures etc.). Employers organisations have asked for the abolition of some appeal-possibilities in pollution control acts and for the simplification and shortening of the procedures.

5.2 Expectations and Attitudes

Most business representatives in our sample belief that most of the development of Dutch polluttion control politics is behind us. Some urgent porblems, like acid rain, will now and then intesify the politics but most policy frameworks are fixed. Licence-granting is a continuing process because every change of establishments needs adjustment of licences, but there won't be much new types of licences.
The business representatives aknowledge that the business-voice was not much heard in the past. But they think that there is much to be saved int he implementation stage of the environmental laws. In the interaction with the public administration bureaucrats there are many possibilities to pay attention to business interests.
The pollution control policy terrain is very complex. Most etrepreneurs admit that they have lost the overview. But commonly they say they know what regulations are relevant to the individual firms.
This picture is affirmed by the civil servants at the provincial level who we interviewed (N=25). More than half of them think that entrepreneurs know the relevant regulations rather well. Seventy percent of the respondents percept an increase in the habituation of entrepre-

neurs to the environmental politics.
However 90 % of the bureaucrats percept the problems that entrepreneurs have with dealing with the procedures within the public administration, although most of the respondents think there is an increase of the bureaucratic competention of businessmen.
A big difference is signalised between the knowledge, skills and attitudes of big business and those of small business. The latter have much more trouble with dealing with pollution control politics.

5.3 Reactions on Pollution Control Politics

In principle we can distinguish the following possible options that firms have, when they are confronted with pollution control politics. (see also Hirschman, 1971)

1. Exit : closing (a part of) the establishment
removing (a part of) the establishment
2. Voice : protest direct or indirect via business organisations against the politics
3. Offence : neglecting licenceprescriptions, not paying charges etcetera.
4. Conformity: changing the investment policy
changing the production process
changing the product.

5.3.1 Exit

The exit option is a very strong option. But both business respondents and civil servants notice that this option is seldom chosen. Firms do not voluntarily close their establisments. There are other ways. When there are business economical problems they can get in contact with the civil servants. These bureaucrats are able to listen to the businessmen and do something about the problems (a term delay etc.). There is yet another way. That goes via political actors (officers) at the local and provincial level. They can give dispensations.
In Holland, were pollution control is a matter of natio-

nal legislation, removing a firm means going to another country. This option is also very seldom chosen - at least when pollution control is seen as a motive. The stap is too big. Notice that the country nearest to the jurisdiction of Gelderland (were we interviewed the civil servants) is Western-Germany. In that country pollution control politics are also highly developed and they put burdens to the activities of business. Maybe a research in the southern part of the Netherlands will show other results, because entrepreneurs may percept advantages of the politics in Belgium.

5.3.2 Voice

This option is very common It can be divided in:

a. direct protest of the individual firm in the direction of the public administration;

b. indirect protest via business organisations.

There are a lot of direct contacts between individual firms and the public administration. The most important reason for contact is the licence-application (see also Hanf and Van der Gronden, 1983). This contact is purely an individual matter between a firm and a contact-bureaucrat. The licence is granted in a process of negotiation between these two. The civil servant can pay attention to the wishes of the firm, the economical situation of the firms and to the local situation. When a firm is not ssatisfied at the bureaucratical level it can apply to the political level.

The possibilities to protest are wider for a big firm than for a small firm. Important factors to this are the economic importance of a firm - politicians are very anxious to increase unemployment - and the knowledge, skills and attitudes of businessmen that stimulate the entrance of big business to the public administration. In sector 5.4 special attention is paid to the role of business organisations.

5.3.3 Offence

The possibilities that firms can chose the option to offend the pollution control policy depend on the possibilities of the public administration to uphold the rules by monitoring and sanctioning the activities of the firms. Offence was a very reasonable option under the Nuisance Act. Only 40 % of the firms that had to have a nuisance licence did not have one in 1979. And only 25 % had a licence that fitted to the situation. The ultimate sanction of the act - closing the establishment - was almost never utilised. (Bennet, 1981, Aalders,1984)
The Dutch government is paying more and more attention to the upholding of environmental laws. Very recently the police is equiped with means to deal with pollution-delicts.
The offence option was attractive to the firms for quiet a long time, but now it is decreasing.

5.3.4 Conformity

To conform to pollution control politics means to alterate things in the firm.
The alteration of the investment-policy - like giving up planned investments - because of a pollution control measure, does appear sometimes. Investments that are necessary from a point of production-technical-view are seldom changed. Plans for totally new investments are sometimes cancelled.
Seventy percent of our bureaucratic respondents percepted that alteration of the production process happens often. The licence-prescriptions sometimes constrain the alteration of the process. Other times a change of the process makes dealing with the prescriptions more expensive.
The alteration of the product e.g. the substance of the product does not happen very often, according to most of our respondents. The product is very often the "reason d'etre" to a firm.

These reactions appear more often when they are stimulated by positive incentives (subsidies and premiums). The effects of negative incentives (charges fees, prescriptions) are not that clear.

5.4 The Role of Business Organisations

Dutch business is relatively high organised. The organisation grade in 90 %. There are no firms with 30 employees or more, which are not organised. (Vroom en Van Waarden, 194) Beside the organisations with voluntary membership, there are Chambers of Commerce with obliged memberships.

5.4.1 National Busines Organisations

Concerning pollution control, the two umbrella entrepreneurs-organisations in Holland cooperate with one anothe. Since 1971 there is a joint Bureau for Spatial Planning and Environment (BSPE) that assists diverse workshops of the entrepreneurs onrganisations. The bureau monitors the national politics, tries to influence politics, gives information to the branch-organisations and to individual firms and gives advice when firms ask for it.
There is regular contact with members of the Dutch Parliament. The MP's, especially those of the right winged parties, are stimulated to ask questions to the government and to introduce motions and amendments to bills.
Furthermore there is a regular contact with the Ministry of Housing, Spatial Planning and Environmental Protection (before 1982: with the Ministry of Public Health and Environmental Protection).
In the first years of its existence, the sector Environment Protection did not show much intrest in the BSPE. Until the mid 70s, there was a one-way-correspondence. Concerning the designing of the NNA the Bureau tried to get information and make suggestions. The Ministry did not respond . This situation escalated in a conflict which was settled in 1976 when the chairman of one of the umbrella organisations mr. Van Veen met the minister mrs. Vorrink. Since then there is a regular deliberation on the field of pollution control.

In advising the members of the business organisations several chanels are used. In the first place the BSPE has its own publication periodicals which alle firms can subscript to. In the second place there are circulars that go to all branch-organisations. These organisations can decide by theirselves whether they disseminate the information to the firms. Finally there are several work shops. In those workshops representatives of diverse branches and regions do participate. Although the work-shops primarily have a bottom-up functions (because the representatives bring in the experiences and viewpoints of the firms) they emanate information to the firms.

5.4.2 The Chambers of Commerce

In the Netherlands there are 38 regional Chambers of Commerce. The Chambers could play an important role in the field of pollution control politics, since the Dutch provinces are important in the implementation process of those politics. The jurisdisctions of the Chambers do not cross he boarders of the jurisdictions of the provinces. In practice the meaning of the Chambers differentiate per chamber. Some Chambers are not more than units that organise meêtings between the public administration and the firms within the jurisdiction of the chamber. Others play a very active role. They hire experts to give advice to individual firms when these firms are applying for a licence. They also act as deliberation partners of the business.

Potentially the Chambers can fulfill an important function. A survey on the relation between local governments and firms shows that firms do get information about government measures via the publications of the Chambers. These publications are more important to the firms than government publications or talks with civil servants. More than half of the respondents think that they get enough support from the Chambers on general policy matters. (VNO, 1983)

5.5 Pollution Control Experts in Business

Whether a firm has one or more pollution experts, depends on the size of the firm and the way and amount that a firm is confronted with pollution control politics. The size is the most important factor. Most firms that are confronted with pollution control measures and that have more than 50 employees do have full-time or part-time experts. In nearly all cases these experts are technicians who implement technical measures within the company. Only the very large firms (more than 1000 employees) have juridical administrative personel at their disposal.

Pollution control is more or less a technical matter. The more juridical aspects of the politics are rather restricted. Within the public administration the juridical side of the politics is however very important. The juridical apects that business is confronted with concern mainly procedures. Juridical knowledge and skills do come into picture when there are appeal-procedures. Firms then usually hire lawyers.

At this moment we cannot give a complete picture of pollution control experts in business. (see e.g. Grant, 1984)

The positions of the experts within the firm differ per firm. It depends on the amount that pollution control considerations are of vital interest to a firm. In the case of the electricity company of section 1.1 no alterations are made before the necessary licences are granted. Pollution control is an integral part of the decision-making; the experts have direct entrance to the important decision-makers. Hanf and Van der Gronden found that pollution control problems are treated on a rather high level in a company: by production leaders, heads of technical services or laboratoria and/or management level. (Hanf and Van der Gronden, 1983)

6. Effects on the Relation between Politics and Business

6.1 Political and Bureaucratical Competence of Business

Did business learn from the government interventions? The civil servants we interviewed percepted a development in contacts between business and government. During the first five years of the modern pollution control politics (1970 - 1975) the contacts were not optimal. Especially the bureaucratical procedures were a problem to business. Nowadays businesmen have got used to these procedures and know how to handle them.

There is a big difference however between big firms and small firms. Small firms see pollution control as a troublesome constraint to fulfill the primary function: production of goods and profit maximazation. Most of the interviewed civil servants think that the hiring of specialists helpt firms in dealing with control-problems and in the contacts with the public administration. Specialists within business and within the public administration communicate with each other on the same level.

The increasing political and bureaucratic competence on field of pollution control is merely a matter of hiring specialists. Their function is primarily dealing with pollution control problems of the firm and the relevant politics and/or dealing with the public administration.

6.2 The attention that politicians and bureaucrats pay to business interest-aspects of pollution control politics.

The degree in which politicians and bureaucrats pay attention to business interest-aspects of pollution control politics variates strongly.

In the first place there is a distinction between politicians at the national level and those at the subnational levels. At the subnational levels business interests are more interwoven with other interests - even personal interests of politicians. Business problems that lead to unemployment are more deeply felt at the local level than

at the national level. Hundred unemployed people are of greater weight at the local level. Politicians at the local level are more amenable to business-interest-arguments. A second factor of importance is the influence that the second oil-crisis (of 1979) has had. The decreasing profits gave no room for pollution control investments that were considered as unproductive investments. Politicians and bureaucrats accepted that and did not press the firms to invest in pollution control. So the economic trend has influence on the attention that politicians pay to business interests.
Bureaucrats always have to take business-interests into consideration. Although the environmental interest was of primary importance in the past, the civil servants have increasingly paid attention to the interests of the firms. If they do not pay attention to those interests, the firms have the option of appealling to the politicians and the administrators.

6.3 Contacts between Business and Government

It is not possible to say something about the interaction between government and business without paying attention to the size of the firms. Small firms (less than 50 employees) do not take initiatives. Managers of those firms await the things that come from the government. As one civil servant told: "they wait and see wether it is necessary to oppose the measures that come, or not."
Big firms anticipate developments and try to adapt to them. They have a long term policy of their own to apply to pollution control politics.
The interviewed bureaucrats percepted unanimously a more stiff attitude of small firms. Apparantly small firms think that opposition pays itself back.
Big firms react more flexible. Such a reaction is possible because among other things, the pollution control costs per unit of production are often less than those of

small firms. Furthermore "big polluters" are often more aware of the necessity of control measures and accept them. They know themselves they are polluters. Small firms often do not see or want to see that they pollute.
Big business representatives take time to get to an acceptible solution for both business and administration. They see that being on familiar terms with civil servants has certain advantages. These advantages do not concern the fact that certain pollution control provisions have not to be realised but do concern the terms in which the provisions have to realised. Sometimes the strict upholding of norms is delayed; good deliberation might accomplish that a firm gets the benefit of the doubt.

7. Conclusion

After World war II government-intervention has expanded increasingly. The intervention in the private sector on existing policy fields increased and new policy fields were developed. In the Netherlands the pollution control politics are an example of a strongly increasing state intervention. Business managers were faced with a new dimension of the environment of the firm. Someway or another they had to internalize these effects. (see Lawrence and Lorsch, 1967). Did that lead to a new businessman? The reaction of the big firms was that they hired specialists who had to deal with the pollution control problems. These specialists are the ones who interact with the public administration. These specialists are new to the business-sector. Their primary task lies not in the production line. As a matter of fact they are part of the overhead costs of the production of firms. Their primary concern is dealing with pollution, pollution control and pollution control politics. Business production and profit-seeking is a constraint to them.
This is in contrast with the other actors within firms who are primarily concerned with production and profit-seeking and who experience pollution control and the pollution control politics as constraint to their acting. The managers of big firms cannot deny the impact of the pollution control politics on their policy-decisions. They also have to deal with the pollution control aspects which the specialists put into the decisionprocess. But there is not much evidence that the dynamic field of pollution control politics and the government intervention that goes along with it, has changed the attitudes and activities of the managers.
When we look at small firms, we can see that the managers are primarily concerned with production and profit-maxizing. Pollution control and the politics are seen as

(troublesome) constraints. The constraints cannot be denied, but do not change the attitudes and activities of the managers.
We can conclude that there is no new manager. There are however new experts within the big firms and within the business organisations. They posess a relatively important position because some business-activities cannot take place without paying attention to pollution control. The pollution control politics have created a new kind of professional within the business-sector of society.

That same conclusioncan be drawn for the public administration. There have been political pressures to develop policies for relatively new problems. And administrative apparatus was created to implement the policies. The new civil servant faces pressures from within the public administration to implement the policy as determined. On the other hand they visit business and have to deal with the striving for continuity and profit maximazation of firms, whereas that striving is influenced by the policy the civil servants have to implement. In their decisions they have to find an optimal mix of policy arguments and business arguments. There are not much civil servants outside the pollution-control sector who find themselves in such a position.

Finally politicians are more sensitive to business the last five years than they were in the 1970s. The second oil crises made them pay more attention to effects of pollution control politics on business behaviour and the profit-seeking of business.

NOTES

(1) The last revision stems from 1981

(2) Gelderland is one of the eleven provinces of the Netherlands. We chose that province for a pilot study because it is the province inwhich the University of Nijmegen is situated. The choice for this province is arather pragmatical one.

(3) In an earlier study, respondents in the public administration thought bottom, air and water pollution a much bigger environmental problem (Potman, et.al. 1984)

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APPENDIX A

POLLUTION CONTROL LAWS, DECREES AND CIRCULARS

Total amount per year (1975, 1980, 1984)

Act*	number of articles	number of circulars			number of decrees		
		1975	1980	1984	1975	1980	1984
SWPA	40	-	-	-	4	5	9
APA	104	-	-	1	10	18	24
MPA	22	-	-	-	1	1	1
CWA	63	-	-	-	-	25	27
WA	99	-	-	6	-	7	17
NAA	186	4**	8**	16**	-	3	55
SCIA	41	-	-	2	-	-	4
Nuclear Act	89	-	-	-	13	14	15
MOPA	15	-	-	-	1	1	1
Nuisance Act	44	3	6	13	2	2	6

* De full names of the pollution control acts are mentioned in section 1.

**Including the circulars of 1972, 1973 and 1974.

APPENDIX B

CONTRIBUTION OF THE ELECTRICITY COMPANIES TO THE POLLUTION OF THE ENVIRONMENT

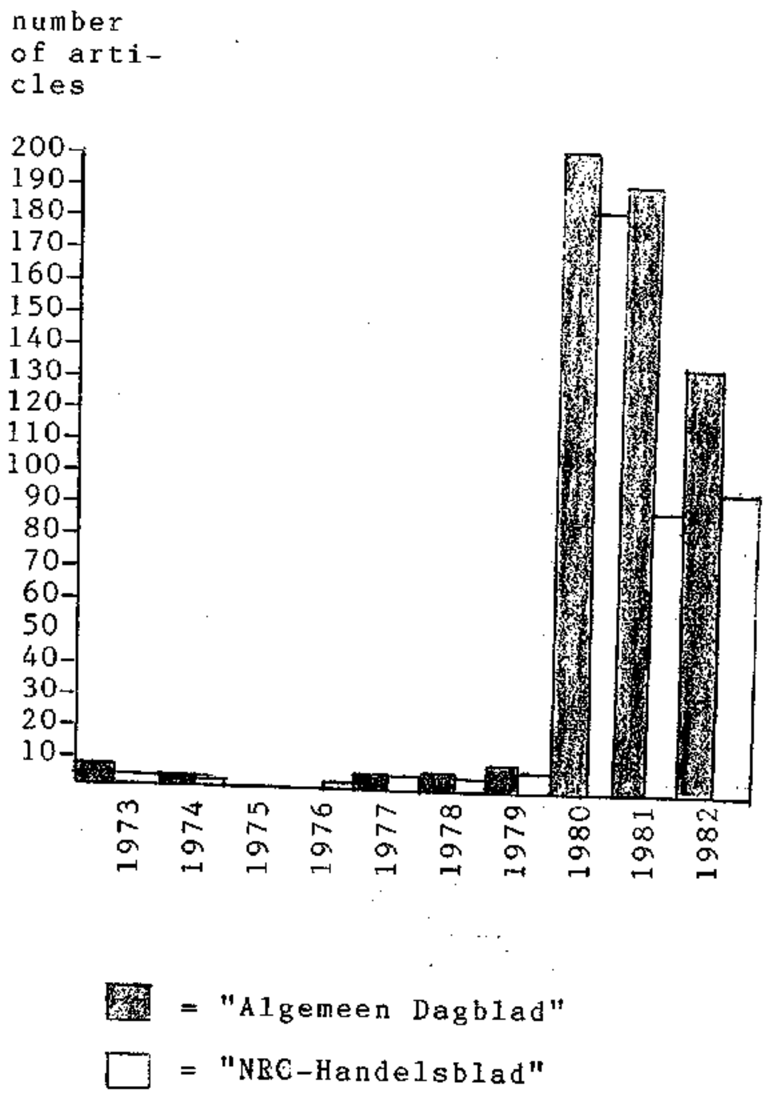
Emission of substances bij electricity companies and the total industry in the Netherlands in 1982 (in pollution units)

	cool monoxyde	nitrogen oxydes	sulpher dioxydes	aerols	alde hydes
Electricity companies	2.0	85	214	11	1.8
Total emission of the industry	11	168	374	18.8	4

Source: Statistical pocketbook 1984

APPENDIX C

THE ATTENTION THAT TWO NATIONAL NEWSPAPERS PAID TO SOIL POLLUTION



POLITICIZATION OF BUSINESS: CORPORATE RESPONSES TO UNEMPLOYMENT

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(1) Introduction

This paper attempts to describe and explain what seems to be a significant change in business attitudes and responses to what is widely perceived as a major problem facing the UK: unemployment [see Moon and Richardson, 1985]. We are attempting to analyse a rapidly evolving process, in part illustrated by a myriad of local initiatives its conclusions must inevitably be rather tentative. However it does seem that the nature of the developments taking place suggests something more fundamental than a series of ad hoc unconnected responses. There is a movement of corporate responsibility in the UK which is directly addressing itself to the problem of high and persistent levels of unemployment and the economic collapse of a number of communities.

We begin by setting this new dimension of corporate 'politicization' in context, indicating firstly that it is not unique to the UK and secondly that different types of interaction between government and business have become a well established feature of the British policy process. What is new is the involvement of major corporations in local economic development initiatives with the primary objective of generating new employment opportunities. A significant number of UK companies are moving beyond a traditional conception of their economic responsibilities to a more outward looking view which connects corporate economic viability with the wider economic, political and social environment in which that company functions. The argument is then not that politicization of business or corporate responsibility are new phenomena, but that in critical respects they are coming to embrace new concerns, with important implications both for the businesses themselves and for local and national political environments.

The bulk of the paper is concerned with examining this movement or shift in the corporate attitudes or 'mind set' [Schacht and Powers, 1980] at three levels: (1) individual corporation (2) national 'umbrella' organisations and (3) local partnerships. Whilst these levels provide convenient units of analysis it must be emphasized that in practice they overlap. Individual corporate concern has crystallised into a coordinated umbrella movement which has in itself stimulated more local initiatives. Drawings on findings from our current research we will examine one major local initiative in the UK which illustrates a number of major themes and points to some critical issues concerning the future development of this new aspect of corporate responsibility.*

(2) The Context

In order to illustrate the nature and scope of the changes occurring in conceptions of corporate responsibility it is necessary to map out the established terrain of corporate social involvement and politicization. The idea of the 'company town' where one major employer dominated the local economy and took on a wider social role in creating a planned community goes back to the C19th with companies like Cadbury's (Bournville). More common was the social concern of individual entrepreneurs expressed in a tradition of private philanthropy, for example Rowntree's of York.

*We are conducting a comparative research project into public-private local employment initiatives in Britain, funded by the Neath Development Partnership (see Moon, Moore and Richardson,] forthcoming.

The political involvement of business is also not a new development. Individual business leaders have long been politically active through membership of political parties and general contacts with Government at ministerial and official levels. Many major UK companies make donations to political parties.

Individual personal and corporate involvement in the political process has become highly organised, particularly through the channel of 'peak' representative associations like the Confederation of British Industry (CBI) [Grant and Marsh, 1977]. With the growth of Government intervention in the economy since 1945 in a variety of roles from facilitator and promotor to director and controller, the linkages between business and politics have become a permanent feature of public decision making [Abrahams, 1974; Richardson and Jordan, 1979).

The development of a corporate policy towards political or governmental demands and interventions in the economy has been an established feature of American business [Vogel and Bradshaw, 1980]. These authors have identified three dimensions to 'corporate social performance': (1) philanthropy, (2) 'responsibility' focusing on the way the corporation conducts its business operations and (3) 'policy' meaning the articulated position of corporations on issues of public policy affecting business and wider society. It is this third element that has been identified as the growing phenomenon and it extends the number of 'stakeholders' to which the corporation feels some accountability. R.E. Thomas (1977) has described this increasing complexity confronting business management as the 'negotiated environment'. The corporation is not simply looking to satisfy its shareholders but also its employees, consumers, environmentalists, residents of its locality of operation, and a range of public agencies at local and central level. Some corporations have responded by creating identifiable organisational units or staff with responsibilities for developing its 'policy' [Grant, 1981]. What might have once been seen as a reaction to the external environment has become an attempt to anticipate social changes by developing linkages and forecasting and scanning of the operational environment, not just items of the market place but also wider political and social processes.

At the same time as these developments of corporate responsibility and politicization have taken place there has been a growing interest in the potential of local economic initiatives to help resolve some of the adverse impacts of structural change, especially high unemployment, in industralised countries. The limits of macro-level public sector responses and traditional policies of trying to attract new inward investment to declining regions have led to a variety of new localised responses and initiatives aimed at indigenous growth. The EEC launched its own programme of local consultations on such initiatives in Spring 1982 mainly designed to collect information [CES, 1983]. This led to a Commission Communication to the Council of Ministers in November 1983 [EEC, 1983]. A Council resolution adopted in June 1984 now constitutes the EEC's policy on these developments, calling upon member states to create a more supportive policy environment for the growth of local initiatives [EEC, 1984]. The EEC itself has used the European Social Fund to support individual projects and is continuing the process of local consultations.

Within the EEC countries it seems that the concept of local economic initiatives embraces two broad trends. One is that of the 'social economy' where alternative structures of enterprise are supported like community businesses as cooperatives. This is apparent in the work of the Botique de Gestion in France [Le Marois, 1983] and the community business movement in the UK [Moore and Skinner, 1985]. The second approach is based on the 'market economy' but focusing on how to support new small businesses which will revitalise the market in declining local economies and help tackle the problem of unemployment. It is within this second approach that corporate involvement in the UK has developed. Whilst this particular approach may be more pronounced in the UK there are examples of major corporations in other EEC countries taking a similar line, for example, the Philips project in the Hague [Todd, 1984]. More recently a European wide initiative involving UK umbrella agencies has been announced designed to assist new businesses and job creation through technological innovation [BIC, 1985i].

(3) Individual Company Postions

Whilst the concept of corporate social responsibility has been an established feature of US business enterprise and is spreading in the UK, the degree to which a wider responsibility is consciously articulated is variable. As part of our own research programme we contacted over 100 major UK based corporations in the manufacturing and service sectors (including major financial institutions) in order to gain information about their attitudes to corporate responsibility and their activities in this field with particular regard to economic regeneration and employment. Thus whilst we recongise the value of corporate sponsorship of artistic and sporting events and support for charities and voluntary organistions, we were primarily interested in whether they had widened this more traditional conception in the face of mounting levels of unemployment. The responses revealed a variety of ideal type orientations which we categorise below.

(a) <u>Traditional conception</u> of corporate role. For example:

'What possible distinction can one make between being 'involved in the employment field' and being a large employer?'

'We do not have an explicit corporate policy regarding our role in the employment field nor have we been involved in specific projects. Our involvement in this area is purely that of an employer of labour'

'... we are not involved in the 'employment field' beyond employing and maintaining a staff of around 2,000 in the UK'.

(b) <u>Narrow definition</u> of corporate responsibility:

'this company has ... for many years had an unusually high profile in terms of a progressive approach to personnel matters and employee relations generally ... However we have never wished to publicise our position in this respect and certainly we are not a political company and do not wish to become so involved'

(d) <u>Fragmented response</u> where the corporate centre has no explicit policy beyond general moral support for involvement by local management and plants. This can both embrace firms which genuinely are active at the devolved level without having a corporate capacity or knowledge of such activity, and those who use this as an excuse for non-activity:

'Community involvement is generally considered to be a divisional or even an operating company matter'

'The plank of central policy is indeed that executive control in operational matters ... is devolved to the General Manager of each of our subsidary operating companies which number over 100'

'In keeping with our devolved structure, these efforts are for the most part initiated and pursued by individual management who are best placed to assess the needs of the area and what they can do to help'

Another example of a fragmented approach is where the centre reacts to proposals on a case by case basis with no explicitly stated policy framework.

'While there is no specific statement of policy we examine any requests received on their merits and as sympathetically as possible'

(d) <u>Concerted but internalised</u> response. Many UK firms are involved in providing work placements as part of the Manpower Services Commission (MSC) training programme for school leavers, the Youth Training Scheme (YTS). Thus they are making available their own resources for a broader training purpose than the company might itself require but the activities take place within the organisation rather than the wider community.

Another example of this response is support for individual employees about to be made redundant by the company. Whitbread's have for some years run an internal counselling scheme helping workers re-train and apply for alterenative employment. This scheme was considered to be worth using on a wider basis outside the company by the London Enterprise Agency (LENTA) which in association with Whitbread launched the Forum for Counselling and Unemployment Services (FOCUS) in 1982.

(e) <u>Concerted and externalised.</u> The most committed level of corporate involvement is to be found in those companies with an explicit policy position, an identifiable organisational unit with responsibility for implementation and a range of projects based within the local community where the company is based.

We would hesitate to draw any firm conclusions on the basis of a limited and relatively simple survey. However we can report that most of the responses fell into the fragmented category, with a small sample at the traditional end of the scale of commitment and an equally small sample in the highly committed category. In most cases a fragmented response did not suggest non-involvement although a further survey of operating subsiduary plants would reveal to what extent such activity occurred at the local level.

One of the longest established corporate responsibility programmes of any UK based company is that of IBM. This long predates the recent upsurge of local initiatives. IBM's Public Affairs Department was set up in 1967 as a:

> 'formal recognition that it was no longer enough for IBM to contribute to the economic wealth of the country solely by meeting its basic organisational responsibility. It was felt that it should be participating at another level, devoting resources to help solve problems in society which may appear quite unrelated to IBM's basic interests' [IBM, undated].

Such involvement had to go beyond 'token handouts' to a 'real investment' in the community. Whilst IBM was not suggesting that private corporations should assume responsibilities of Government it clearly regarded itself as a social partner in meeting emerging needs and problems. IBM believes that corporate involvement requires a 'business rationale' linking it to the mainstream of its operations and not something on the periphery of the organisation. The emphasis is on a planned response to social change and anticipation of problems and how the corporation can contribute to their solution.

IBM's main contribution has been through a secondments programme running since 1970. This programme involves formal agreements between the participants - the corporation, individual secondee and the receiving organisation - setting out terms and conditions of the secondment, planned re-entry back into the corporation on completion and the maintenance of regular communications between secondee and corporation. Over ten years IBM calculates that it has seconded 110 full-time places on community projects. Secondment policy has developed to focus on a number of identified key areas of concern, namely: inner-city regeneration; training for the disadvantaged youngster; support for the disabled; and industry - education links. IBM aims to second one employee per 1,000 per annum which translates into about 25 secondees every year and in 1983 the company spent over £2.2m on community projects. These have included support for the several local Entereprise Agencies, MSC training schemes and the promotion of information technology training, and voluntary and charitable organisations like Help the Aged or Manchester Council for Voluntary Service.

Another example of a major corporation with an explicit position regarding its social responsibility is BP. Whilst being a highly diverse organisation with numerous separate trading companies under the corporate identity there is still a central framework within which policy has developed. BP produced its latest corporate statement on this issue in November 1984 signalling the growing importance of economic and employment projects alongside more traditional corporate support of charities and the arts [BP, 1984].

The company put forward five guiding principles governing its involvement in individual projects. These were: (1) the involvement of local staff, (2) responding to local needs and priorities, (3) a local BP operational presence, (4) the use of secondments as a realistic alternative to direct cash funding and (5) partnership with other local agencies.

Within the company implementation of policy is located in a Corporate Community Affairs Group with 16 staff under an Assistant Manager within the Government and Public Affairs Department. The main spheres of activity are: community projects, including economic and employment initiatives; donations and sponsorships; and education and training. Expenditure by the BP group of companies in 1983-84 under the Community Affairs head was £2.6m. In 1983 Group profits were £866m.

Some companies have developed a focus on particular areas of community support. For example, the Midland Bank set up its own Small Business Unit in 1979 to act as a focal point for clients and has supported a number of Enterprise Trusts like LENTA. In 1984 the Bank established a network of eleven regional business advisers to provide a free service to small growing firms. This type of activity by banks can be viewed really as an extension of their main operational objectives as well as part of any community involvement programme.

BAT Industries set up a subsidiary company called BAT Industries Small Business Ltd, under the Group's Deputy Chairman, which has developed two managed workshop projects in inner city areas in Liverpool (Toxteth) and London (Brixton) both scenes of urban disturbances in 1981. Whilst these projets are expected to break-even they are not seen as strictly commercial investments. By making full use of Government grants and tax relief and by arranging leasing deals with the property owners, BAT has in fact avoided direct capital commitment however its role as a local stimulator and packager of resources may have been indispensable. These two developments are seen as flagship projets supported by corporate headquarters to act as a catalyst for its local operating companies to assist local projects.

Two corporations merit special mention for their long standing involvement in specifically local economic development and because in their respective ways they have provided subsequent organisations with model approaches.

One of the first companies to sponsor an Enterprise Trust in the UK was Pilkingtons of St. Helens in Merseyside. The St. Helens Trust was established in 1978 with backing also from the local council, other local firms and trades unions. Like subsequent Trusts it concentrated its activities on helping new small businesses through a range of services including: advisory and consultancy support; financial help, both directly through its own venture capital fund and as an agent for the County Council and European Social Fund; provision of managed workshops; and business training. In 1984 the Trust had an operational budget of £100,000 of which Pilkingtons contributed £40,000, other local firms £35,000 directly in grants or through secondments or consultancies, with the balance being met from public sources, principally through Urban Aid provided by the Department of the Environment and local authority. Not surprisingly given this lead in promoting the concept of Enterprise Trusts, Pilkingtons' Chairman, Sir Alistair Pilkington, has been a prominent supporter of the growing Trust movement in the UK.

A different approach and more ambitious in scale has been the role of British Steel Corporation (BSC) through its specially created subsidiary company BSC (Industry) Ltd. established in 1975, with the specific objective of helping stimulate new enterprise and employment in declining steel areas. This initiative has been described as the first substantial corporate effort in Europe specifically directed to this end [Todd 1984, pp 13-25]. BSC (Industry) has operated through local teams in each area providing a range of business advisory and support services. One of its most significant contributions has been the provision of managed workshops, using redundant steel sites, to promote small enterprises. Since 1975 BSC (Industry) has received nearly £50m from its parent company, although its aim is to become increasingly self-financing through investment in new enterprises and the provision of other services.

Finally when looking at the attitudes of individual companies to wider corporate responsibility there are some firms who cited the impact of the recession as a reason for either non-involvement or withdrawal. For example:

> 'In general the effects of the current recession have been so severe that we simply do not have the resources free for 'corporate responsibility' activities at present.'

Our own survey of the involvement of major UK based corporations in social responsibility activities points to similar conclusions to a study undertaken in 1983 on behalf of BP Chemicals [Dichlian, 1983]. This was based on a sample of nearly 90 companies and found that only 25% had developed formal policy statements or implemented coherent plans for corporate responsibility, although all were 'acutely aware' of their responsibility to be 'good citizens'. However once prompted into thinking about their involvement from outside agencies this tended to produce a positive response and approximately 60% saw their involvement in social issues as being a developing aspect of their operations, especially within their localities of business activity.

The survey calculated that the average contribution firms made to charities and non-commercial sponsorship amounted to £200,000 per annum, although the largest contribution was £1.5m. (A survey of corporate donations of UK firms in 1980-81 indicated that about 0.1% of profits was given, compared with 0.8% in the USA. [Financial Times, 13.4.83] A more recent study of the top 200 British firms in 1984 suggested slightly higher UK giving levels of 0.21% [Charities Aid Foundation]). Only 50% of the interviewed firms made secondments, and generally this was a reaction to requests by individual staff members rather than the result of a coherent policy. The survey concluded by arguing the need for more external direction and prompting, which it believed would stimulate an untapped potential to give more concerted support to activities like providing YTS placements.

So whilst UK corporations are becoming more involved in wider community activities the picture is still uneven in terms of any well developed policy in many cases. Indeed in some cases commitment seems to take the form of a very high profile response which may obscure the actual level of resources being released. For example Shell's 'Livewire' scheme in Strathclyde generated radio, television and newspaper publicity calculated to represent the equivalent of £46,000 worth of advertising. The commitment Shell was in fact making, apart from administering the scheme, was to provide business advice to new firms started by young people which were entered for a business competition, and to give prices worth £900 [Shell, undated]. The catalytic role of umbrella organisations has thus assumed particular support their own objectives, whilst Government seeks the support of 'peak' social groups to legitimise policies and provide necessary information and expertise to formulate those policies. Increasingly this linkage has in certain policy areas become highly formalised and business has become more of a policy actor giving rise to the concept of the 'Corporate State' and 'tripartism' [Grant and Marsh, op. cit.].

A major example of this policy style is in the field of industrial training where the main public agency charged with responsibility for implementing Government programmes, the MSC, is structured so as to co-opt key interest groups, including the CBI. The introduction of major new training programmes like YTS have depended upon securing support from industry both to formulate acceptable policies which reflect the expressed needs of industry, and in the implementation of such policies [see, Moon and Richardson, 1984]. It was the specific requirement for firms to provide training placements for such schemes that led to the creation by the CBI of its SPU at the <u>request</u> of Government in 1979.

The objective of the SPU was to mobilise maximum private sector participation in the scheme thereby making it 'relevant'. This promotion and marketing role opened up the scheme to more influence by business. Thus the SPU was proclaiming that active involvement would:

> 'Help to produce a Government policy that is founded on the realities of the mid 1980's workplace and make sure that it will facilitate what we believe will be the position towards the end of the century' [CBI/SPU, 1983].

The Unit was staffed by some 30 secondees from CBI member firms and operated on a regional basis throughout the UK. In its first full year of operation it provided some 40% of work experience placements under the MSC youth training programme.

Although set up originally to specifically promote Government training schemes within the private sector, the SPU widened its remit with the initiation of a series of Community Action Programmes (CAPs) from March 1981. This reflected a growing concern within the CBI about unemployment as opposed simply to training provision [CBI 1981 and 1982]. The SPUs experience in marketing training schemes had revealed an absence of any longer term thinking about employment prospects at the local level. This led the SPU to test the possibilities of launching local initiatives firstly by arranging for a number of town studies sponsored by individual firms. Initially four locations were selected on the basis of perceived problems and the potential for an integrated community response. By 1983 the number of CAPs had reached 21 with a further 20 planned for 1984, and the objective had become to set up such studies in all communities with unemployment exceeding 12% and an employee population of 100,000. One of the most significant findings of these initial studies was the relentless growth of unemployment, in particular for young people, to be expected on the basis of known projections about employment opportunities in each locality. These surveys revealed that a large number of firms could increase output substantially without increasing jobs [see, Richardson, 1983].

These studies were not simply designed to meet the information gap about employment trends at a local level, but more critically to create a basis for some concerted local response to improve economic performance through a variety of initiatives supporting indigenous business growth. Thus the SPU had moved towards the kind of activities engaged in by BIC in promoting a network of Enterprise Trusts.

(b) BIC and the Enterprise Trust movement

BIC was established in 1981 following an Anglo-American conference of major corporations chaired by a Government minister and the report of a subsequent working party. It was created to provide a means of promoting the concept of corporate responsibility and involvement in economic and employment initiatives and to provide a loose national framework to guide local projects, particularly those based on the Enterprise Trust model.

BIC's membership was initially based on the most senior representatives from 25 major corporations plus the Trades Union Congress, CBI, voluntary sector and local government. It has a small Executive Unit staffed by secondees from the private and public sectors. By 1984 membership has grown to 100 organisations. The network of Enterprise Trusts spread rapidly following the launch of BIC and currently numbers nearly 200. Whilst local trusts are autonomous bodies over which BIC has no control, it has acted as a promoter, adviser and general forum for discussions about future directions and needs. The emphasis however is very much on local initiative and control. Organisations like the CBI/SPU and BIC simply provide a framework within which local initiatives can develop. The real drive comes from below and to understand the 'movement' it is vital to look at what is happening at the grassroots.

(5) The Frontline: Local Responses - the Neath Study

The Neath Development Partnership is one of the most heralded local initiatives in the UK. Neath is an old industrial town of some 66,000 people in South Wales. Its economic history and structure reflects the old dominance and subsequent decline of the basic industries of the area like coal mining and steel and metal manufacturing. The local economy has a relatively narrow base both in terms of sectors represented and the number of firms providing significant employment. Whilst in the early 1970s unemployment in Neath was below national and regional averages, the town suffered from a series of closures and rationalisations during the late 1970s which led to an unemployment rate of 16% or 4,296 people in November 1981 at the start of the Partnershp initiative.

It is not our intention here to detail the activities of the Neath Partnership since its formation, but rather to focus on the development of its strategy for local economic regeneration, organisational structure and resourcing, and thus draw out the critical features of this experiment.

The Neath Partnership arose from one of the original rounds of CAP studies in 1981. It was sponsored by the International Thomson Organisation (ITO) which, through one of its subsidiary companies, owned the local newspaper. The study recommended the setting up of a Partnership involving major employers in the area, local authorities and trades unions which would carry out a series of programmes to promote the economic revival of the town, and specifically help create new job opportunities to widen the employment base. The major sponsors of the Partnership were ITO, BP OIl, Metal Box and Neath Borough Council. In addition a number of individuals from a variety of organisations were invited to sit on the Board, including the County Council, Welsh Development Agency (WDA), individual trades unionists and former Welsh Office civil servants.

The fundamental objective of the Partnership is to help regenerate the Neath economy through supporting new job opportunities. An initial target of providing for 1,400 jobs by 1986 was set by the Partnership. The major strategic programmes for achieving this target involved: (1) promotion of small enterprise by the provision of advice and managed workshops; (2) promotion of MSC training schemes like the YTS and information technology training programme (ITEC); (3) promotion of MSC funded temporary job creation projects for the long term unemployed; (4) promotion of tourism; and (5) general marketing of Neath as a place to do business, both locally and to the outside world.

It is noticeable that the Partnership has had relatively little involvement in attracting major new inward investment with significant employment potential for Neath. This is primarily the responsibility of central government and regional development agencies. The Partnership has also tended to focus heavily on supporting new small enterprises, rather than helping established larger firms in the area, because of perceived problems in gaining access to such firms and of the resource implications of offering a specialist advisory service of this nature. The overall strategy comprises two basic approaches. Firstly, indigenous development of new economic activities, conventional small businesses or more cooperative based ventures arising out of the temporary job creation schemes sponsored by the Partnership. Secondly the attraction of new investment and wealth to the area, principally by promoting Neath as a tourist centre through a variety of individual projects welded together in a tourism strategy.

The impact of the Partnership's activities are, like any similar local initiative, difficult to assess accurately. Whilst the Partnership says it has helped to create 800 jobs since 1981 with a further 500 'positively predicted', plus the provision of some 600 full-time training or work experience placements, over the same period some 1,000 jobs have been lost from established businesses. It is clear that the economic regeneration of Neath leading to a sustained reduction of local unemployment will be a long term process, given both the existing structure of the economy and the general impact of low demand and the introduction of new technologies. In the short-term the Partnership is managing to hold down the rate of increase in local unemployment.

The Partnership has aptly illustrated the concept of the Enterprise Trust as a catalyst extracting and packaging the resources of a variety of agencies in the public and private sector. This leverage assumes many forms for example: direct sponsorship of the Partnership itself; provision of assets for the Partnership to promote and manage, like small business workshops; a variety of MSC funded schemes; the skills and resouces of private sector managers within the Partnership office and sponsoring firms; and encouraging direct new private sector industrial and commercial investment in the area through its development strategies. Much of the actual physical development of Neath under the umbrella of the Partnership, like the workshop programme, environmental improvements, training and job creation schemes, are underpinned by public sector money, although the objective of most development is to encourage commercial investments. For example the development of the small workshop programme has cost some £1.5m of public funds so far in order to provide accommodation for about 60 new enterprises employing 200 people.

The packaging together of a number of resources and programmes to form an integrated strategy for development is best illustrated in the proposed Special Project, combining an inner urban renewal scheme with an integrated linear tourist programme throughout the Vale of Neath. The general concept of Special Projects is that a given level of public sector pump-priming investment will lever substantial new commercial private sector investment. The programme is being promoted by the WDA in selected localties. Neath Development Partnership siezed on the idea and put together a proposal to the WDA and other public funding bodies based on an integrated area development project, linking together Neath Borough Council's plans for a mixed commercial and residential development in the town centre with its own plan for promoting tourism in the area. The total cost of the Special Project amounts to nearly £20m, of which over £12m is expected to come from the private sector, although the ratio of public to private investment is clearly more orientated towards commercial investment in the inner urban development. The public sector contributions include commitments from Neath Council, Welsh Water Authority, Welsh Tourist Board, MSC, West Glamorgan County Council and the EEC.

The construction of such a package of investments involves the Partnership in a process of what might be called 'policy entrepreneurship'. Whilst the Partnership itself directly has no significant financial resources to invest in such ideas in its own right, it negotiates and promotes these ideas with those agencies with the funding. It is fundamentally concerned with unlocking these resources and packaging them together in a coherent development strategy. The skills required are those of negotiating and marketing more typically associated with commercial enterprise rather than direction and control characterising traditional local government.

This dependency on the resources of others, both to sustain the Partnership's own existence as an organisation and to carry out specific development projects, does raise problems. Negotiation does not always overcome blockages from those who control the necessary financial and physical assets. In the longer term the existence of the Partnership as a distinctive agency may depend on widening its resource base. The present commitment of sponsors to supporting the Partnership over the next few years is not clear. Over-dependence on any one organisation could lead to a weakening of capacity to think up new schemes, to bring together a wide variety of backers and tap a range of skills.

A central aspect of the Partnership's relationship to its network of sponsors and project partners is its links with Neath Council which is the single largest direct provider of resources to the agency. As a result the Partnership in some cases is acting directly as an agent of the authority, for example in managing the small entereprise workshops or promoting the town as a business and tourist location. The Council is well represented on the Partnership's Board.

The balance between accountability to its primary financier and the freedom to pursue ideas and put together development packages is a delicate one. There is also the wider issue of the implications for local democracy and political control in delegating responsibilities and resources to a non-elected agency. On the one hand the Council finds the Partnership a useful means of extending its own impact on local economic development, principally by bringing in new skills which can lead to new developments, like the tourism strategy and Special Project. On the other hand because it does provide the major direct financial contribution there is a danger that the authority will exert too much control over the activities of the Partnership, and subject it to going through the full decision making procedures of say a functional department. This would generate clashes of operational style. In some ways local authority support for this type of set-up does involve more than simply a financial commitment. It also requires an attitudinal change, since the Partnership can be viewed by people within the authority as encroaching on their spatial and functional responsibilities. The responsiveness of local authorities to private sector intervention and partnership in the field of economic regeneration is likely to be highly variable, partly depending on the local political environment. For example some UK local authorities like Liverpool have tended to reject the intervention of specially created agencies sponsored by central government and the private sector, arguing that resources should be given to the elected and accountable political authority. In other cases, like Sheffield and the Greater London Council, the authority has a highly articulated vision of how economic policy should be developed which emphasises the leading role of the public sector in steering investment and creating job opportunities. It thus becomes critical to the equilibrium that both partners recognise the contributions and expertise of the other. The relationship is close and undoubtedly the Partnership is involved actively in the local political process, based on negotiation with and lobbying of not only the local authority, but regional and central levels of government.

(6) Motives

Why have a number of leading corporations through their own programmes, and by sponsorship of national and local umbrella organisations, become more involved in wider community development issues, in particular economic development and employment? There are probably a number of personal and organisational explanations for any particular firm, but in looking at the arguments advanced by the leading actors themselves there is a strong sense of enlightened self-interest rather than vague notions of charitable altruism. Indeed the dynamic of involvement seems to be fundamentally based on a functionalist model, which relates the organisation's own survival to the wider political, economic and social environment.

At one specific level when discussing the involvement of the CBI/SPU in marketing YTS we referred to the political lobbying role of the peak business pressure group in the UK seeking to influence and shape public policy. An extension of this influence is active involvement in implementing policy, which is clearly of critical importance in the success of public training programmes. The CBI/SPU by encouraging firms to become involved in providing placements offered the expectation that this would lead to a greater influence over how YTS developed to the benefit of business.

Widening the focus to more general political concerns, there is a strong element of belief that the private sector must become involved in the employment issue because the consequences of doing nothing are too dangerous. Firstly it may be that Government feels impelled to directly intervene on the economy in ways which run counter to the private sector's perception of its own interests:

> '... companies fear that if they make no attempt to find solutions to community problems, the government may increasingly take on the responsibility itself. This might prove costly to the employers both in terms of new obligations and greater intervention in the labour market. Many companies prefer to be one step ahead of government legislation or intervention, to anticipate social pressure themselves and hence be able to develop their own policies in response to them' [CBI, 1981].

Ultimately the future of the private enterprise system may be underminded. As Lord Sieff of Marks and Spencer's has argued:

> 'If we who manage do not appreciate the value of, and pursue in this day and age with patience and tenacity, a policy of good human relations and constructive involvement in the community then we must not be surprised if we wake up one morning to find ourselves members of a society that few of us want, where democratic values no longer operate and there is little freedom. Then we shall only have ourselves to blame' [BIC, undated].

In other words companies and business leaders are increasingly adopting an anticipatory mode of thinking to political and social changes generated by economic problems, partly to diffuse possible reactions against the interests of the private sector. In a number of instances of corporate involvement at local level there is an implicit acknowledgement that business has a responsibility when it is generating part of the unemployment problem through rationalisations. This was a specific factor behind the involvement of Pilkington's in St. Helens where the company had halved its workforce with the loss of some 8,000 jobs due to productivity improvements. Similarly the rationale behind BSC (Industry) was clearly to address the consequences of BSC's major restructuring programme launched in the mid 1970s which led to significant job cuts in steel towns like Shotton (North Wales) where 7,500 jobs were lost, Consett (Durham) with 3,700 redundancies, Scunthorpe with 9,000 and Corby with 6,000. In many of these communities because the steel plant was such a significant local employer, the secondary impact for other local businesses and for the spending power of the community was immense.

Many major corporations face this dilemma. To operate more efficiently and compete in the market, companies feel it is essential to rationalise operations and displace labour. This creates a growing social problem, especially in those communities significantly dependent upon one company or industry. This issue is currently of great significance in the UK as can be witnessed by the problems facing the coal industry, and it is interesting to note that one response of the National Coal Board to the impact of its pit closure programme is to follow BSC's example and establish a subsidiary job creation company [Financial Times, 30 Jan, 1985].

Not all companies involved in local initiatives have such a direct relationshp with the community. The policy statements put forward by major corporations like BP and IBM emphasise a more general interdependency between corporation and community. This interdependence is partly an issue of economic viability - the decline in buying power brought about by high unemployment, for example. BP whilst having an established community involvement programme in supporting charities and developing links with schools perceived a significant shift in the economic and social environment during the 1970s which demanded a rethink of its existing policy. The critical components of this change were the growing use of new technologies, rising unemployment and the major restructuring of industries. This led BP into thinking about what ways it could make some contribution to managing this change within the community, since if nothing was done there would be social and economic disruption which could lead to rejection of existing cultural and social values [BP 1984]. The experience of urban riots in the UK had illustrated the potential dangers of allowing inner cities to decline. Involvement was enlighted self interest not altruism.

IBM argued that corporate responsibility programmes were an integral investment for business not some peripheral activity. The company reflects very clearly the widening perception of corporate responsibility from the established stakeholders in the corporation - its customers, employees, supplieres and investors - to embrace 'the fifth dimension' of the larger community [IBM, undated]. Thus IBM clearly regarded this activity as a 'function of survival' for the company itself, but more critically 'to society's continued acceptance of the private enterprise system'. The emphasis is on planned response to change, anticipating problems and consciously seeing how the corporation can contribute to a solution.

It is certainly apparent that in the extension of corporate responsibility the role of leading individuals in the corporate hierarchy is crucial in placing the issue high on the policy agenda and mobilising the organisation's resources [Vogel and Bradshaw 1980; Dichlian 1983]. Yet what these individuals are saying in explanation of their own and their company's commitment to the widened view of responsibility is that it is rooted in an enlighted self-interest which fundamentally has a functionalist imperative, that is corporate survival both individually and systemically.

As Lord Carr, Chairman of BIC and of the Prudential Assurance Company has urged:

> 'To pick up this responsibility is not just a public duty it is also in business' own self interest, because persistent large scale and long term unemployment undermines the opportunities for business success just as surely as it threatens the country's social and political health and stability [BIC, 1985ii].

Whilst emphasising the recognition by corporations of the need to adopt a new approach to their responsibilities to wider society, it is important to note that there is a strong external push by the present UK Government to secure an active corporate involvement in urban and employment policy. Following the 1981 inner city riots in England, the Government was concerned to make some visible response to social disturbances. This reaction was seen at its sharpest in Liverpool where the Secretary of State of the Environment became the unofficial 'Minister for Merseyside'. He set up an inter-departmental Task Force which also included a number of managers seconded by the private sector to work in the area, bringing different public and private organisations together and seeking ways to accelerate projects and encourage new developments.

At a broader level the Secretary of State also established a public-private body called the Financial Institutions Group (FIG) comprising officials from the Department of Environment and seconded managers from major financial institutions. This group was charged with examining existing inner area initiatives and in stimulating new ideas. The Group visited the USA to learn from the experiences of US cities following the race riots of the 1960s. This influenced some of the recommendations which FIG produced including: the creation of the Urban Development Grant designed to lever substantive private investment for a range of urban projects through the provision of some public sector pump-priming funding; and the establishment of a company, Inner City Enterprises Ltd., to identify investment opportunities for the private sector.

The Government's emphasis on public-private partnership and increased corporate involvement in urban policy does not preclude major public expenditure or initiatives. Alongside the FIG and Merseyside Task Force, the Government created the Merseyside Development Corporation which has been described as the largest single urban renewal project in the UK this centry [Heseltine, 1982] with an annual budget of £24m and control over some 900 acres of derelict dockland.

There are thus two dimensions to this growth of corporate activity. The drive from within the private sector as expressed by individual business leaders, company policy statements and programmes of involvement and the umbrella organisations explicitly aiming to increase this activity. This is supported by an external push from a Government committed to the private enterprise economic system and to trying to re-establish or reinforce that system in areas where the market has become weak and where the Government feels itself to have a limited direct role in stimulating regeneration. It is ironic although at the same time an indication of the Government's commitment, that it should play a very active role in inducing the private sector to respond by creating the post of a Minister for Small Firms who has strongly promoted the idea of Enterprise Trusts in association with BIC. It is not surprising that the Government has firmly supported corporate initiatives and established new forms of partnership adding new dimensions to the concept of Urban Partnership as understood in UK urban policy, which has been largely based on co-operation between different levels of government (HMG, 1977).

Whilst the shift in corporate attitudes may be uneven the establishment of organisations like BIC and the myriad of local initiatives like the Neath Partnership suggest an important movement beyond the traditionalist modes of corporate responsibility. The development of partnerships at local level and the increasing interaction between government and business at a national level in the formulation of policy (e.g. FIG) and its implementation (e.g. CBI/SPU) cements established relations between the public and private sectors and adds new dimensions to that interaction.

(7) Prospects

This review of the development of organised corporate involvement in local economic development and the unemployment issue in the UK reveals a dramatic increase in activity over the last 3-4 years. From a number of isolated high profile company programmes there has developed a much more broadly based 'movement' promoted from within the business community and enthusiastically supported by Government. The motivating factors have been a mix of political, economic and social which have pushed corporations to adopt a more overtly outward looking and anticipatory approach to community responsibility. The underlying dynamic is not altruism, but a conscious connection between economic viability of the individual corporation and the private enterprise system to the state of the local economy and the wider political and social order. Business is moving even more firmly away from being a client of public programmes, designed to encourage industrial relocation or training schemes for example, to being a policy actor at the formulation and implementation stages of public policy.

However our study of the variety of initiatives being spawned in the UK under this corporate involvement raises a number of questions concerning future directions which we would like to outline here as a way of promoting further discussion:

(a) Is this involvement a permanent feature of economic and urban policy or a temporary reaction to specific political, economic and social crisis? We have seen how incidents like urban riots and plant closures have been an important factor behind the growth of corporate responsibility. The development of organised umbrella groups and Government encouragement would suggest that rather than witnessing a short-term reaction we are looking at the establishment of a longer-term response.

(b) This above question may have significant implications for local governments: will they continue to tolerate encroachment of their 'traditional territory'; or learn to apply the entrepreneurial skills which they have generally lacked hitherto and apply these to their traditional functions. We would expect continued variation in business-local government relations partly as a result of local political attitudes. These may hinge on whether local councils are content with the new injection of flexibility created by partnership and can tolerate 'stretching' lines of accountability.

(c) The nature of that response is very much rooted at the local level and emphasises creating employment opportunities, particularly through promoting small scale indigenous enterprise. Is this becoming a substitute for public sector or macrolevel policies or is it complementary? Already within the Enterprise Trust movement there is some concern that the focus on new very small firms may be an inefficient use of scarce resources [CEI, 1985], or a case of too many 'company midwives' and not enough 'company doctors'.

(d) The rapid growth of local initiatives also raises resourcing problems. Is there a limit to how many partnerships and projects the private sector is prepared to support? Are resouces already too thinly spread and can we expect to see some initiatives collapsing? Our own research in South Wales indicates some concern amongst sponsoring agencies, like the WDA and Welsh Office, that there is too much emphasis on forming new Enterprise Trusts and not enough on making sure existing ventures are adequately resourced and working effectively.

(e) Whilst Enterpise Trusts are developing quickly all over the UK it is noticeable that the network is spatially skewed towards established industrial and urban centres, leaving behind many of the most deprived areas, for example remote rural communities or the peripheral housing estates on the edge of the inner cities. Indeed in these area business led responses supporting conventional enterprise may be less adequate than alternative community based initiatives [Moore and Skinner, 1985].

(f) To what extent can employment and urban policy be 'privatised'. The Government is clearly keen to push corporate involvement in a variety of ways but corporations still see their overriding responsibility as being to operate efficiently and competitively, even at the expense of jobs. Resources for secondments or direct funding of local projects are still a very minor element of the corporate budget and public funding remains a critical component of many ventures and may become even more critical over the longer term.

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POLITICS AND BUSINESS:

LOCAL INDUSTRIAL POLICY IN FRANCE

by Lee Schlenker

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If a great deal of literature in the French social sciences has been devoted to the study of French national planning, relatively little has examined the economic strategies and programs of local administrative government. This neglect can be explained by the the nature of the French social and political systems which has led French planners and researchers alike to prefer economic models based on the assumption of "development from above".[1] As such, French indicative planning has been patterned in theory after variations of Perroux's hierarchical development models, and in practice by state subventions and grants to the <u>grands</u> <u>groupes</u> and regional growth poles.

In the last decade several events have put such practices to question. In sharp contrast to the era of economic expansion of the "trente glorieuses", in the nineteen eighties the French economy has stagnated. The inappropriateness of former State planning models based upon the assumptions of redistributive politics has proven particularly glaring in a period of economic scarcity. In searching for solutions out of this quagmire, the government has taken a new interest in the small business sector and given new responsibilities to local administration. These trends are at the very core of the recent "lois de decentralisation". Three years after the pubication of the first of these reforms, an evaluation of a new wave of local economic strategies can be undertaken.

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1. As opposed to that of "development from below". See, among others, W. B. Stoehr, "La crise économique demande-t-elle de nouvelles strategies de de´veloppement regionale?," in Phillipe Aydalot, <u>Espaces et Crises</u>, Paris:Economica, 1984.

Three propositions will be developed in the pages that follow. First, the current reforms, while revolutionary in theory, mostly legitimate former local practices. Second, since the "lois de decentralization" have greatly politicized the administrative process, their eventual impact will depend upon the willingness of local leaders to innovate upon or circumvent their new responsibilities. Finally, direct public intervention in the economy, the one truely innovative feature of the reforms, has quickly become outdated. In support of these hypotheses, the first section of this paper offers a description of the legal bases and former practices of local authorities, the second an examination of the "lois de decentralisation" and of current practices of several localities, the third cases studies of relations between local authorities and the U.D.C.A. cooperative, the Yumbo corporation, and the Pechiney group.

I

Local Industrial Strategies

Ever since local authorities in the Ancien regime built communal ovens and cleared public pastures, local government has implemented economic policies. However, the French judicial system didn´t recognized the autonomy of local authorities, and thus such efforts were largely extra-legal, sporadic and spontaneous responses to local needs. The underpinnings of local economic policy must thus be examined not only in reference to the legal texts, but by their interpretation by the Conseil d´Etat and local authorities.

Five legal texts have been traditionally cited as defining the scope of local public intervention in the French private sector. Article 7 of the Allarde decrees of March 2-17, 1791 states categorically that "All people will be free to exercise whatever trade or profession that he pleases...,"[2] In contrast, Article 61 of the Law of April 5th, 1884 authorizes the municipal council to "regulate communal affairs by its proper deliberations". This apparent conflict was partially resolved with the Decrees of November 5th and December 28th, 1926, which legitimatized local action "when the communal interest so justifies". Finally, thirty years later, the law of May 20, 1955 specified the forms that such local economic intervention might take,[3]

> "...in the social and economic domains, notably by means of direct participation (by local authorities) or simply by their financial engagement in (para-public) agencies or private concerns....having for an objective the execution of work serving the public interest: ravitaillement, the housing of the population, social assistance... and urban or rural renovation."

The point of contention over the years has turned around the interpretation of the notions of "communal affairs", "local public interest", and "defaillance".[4] The Conseil d'Etat has proposed

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2. The text was intended to eliminate the corporations of the Ancien regime. As several critics over the years have pointed out, to guarantee each individual the right to practice a trade is not necessarily to forbid local government from providing an economic service.Elie Alfandari and Herbert Maisl, "Les conditions juridiques des interventions économiques," Les interventions économiques, Paris: GRAL, p. 40.

3. Article 1 of the decree 55-579 of May 20, 1955. Article 3 extends the same possibilities to departmental authorities "when the 'departmental interest' so justifies."

4. Defaillance: the failure of the private sector to meet the demand for a public good.

conflicting interpretations over the years, its conclusions seeming to privlege the political climate of the times than any concept of judicial precedence.[5] The great number of administrative decrees and directives pertaining to these laws only complicated the matter further, giving little leeway to local authorities. The "Poniatowski" directive of 1976 is characteristic of the lot, allowing the prefects to approve local economic initiatives, but reminding them that,

* it may create competition between municipalities;
* it conflicts with the principle of the liberty of free enterprise;
* most local authorities are unable to soundly judge the health of the local economy.

In practice, local authorities often circumvented the law, or just plain ignored it, whenever local conditions "justified" public action. Though much publicity has been given to the early attempts of municipal socialism and the recent failures of the Lip corporation in Besancon and Manufrance in Saint-Etienne, the nature of such operations on the whole left few documented sources of the extent to which local authorities have intervened in the local economy. We can note a few examples here of the practices that seemed more or less common in the years preceding the decentralization reforms:

One method was to stretch the idea of the "local public interest" to the point where a para-public agency could be formed for commercial activities. In November 1977, for example, the mayor of Coublanc

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5. Compare for example the decisions rendered in CE Chambre syndicale de Nevers, May 30, 1930; CE June 23, 1933, Larabre s 1933, 3, 31; CE June 12, 1959, Syndicat des exploitants de cinemas de l'Oranie, D 1960, 402.

activities. In November 1977, for example, the mayor of Coublanc refused to accept the closing of the town's three textile factories and the resulting unemployment.[6] The Municipal Council created an Association de gestion et de developpement de l'emploi en milieu rural, which in turn negotiated a subcontracting agreement with the Majorette corporation for piecework for the town's unemployed. Using one of the abandoned factories as a depot, the association soon employed one-fourth of the commune's work force. Similar practices had been noted in Hasparren (Pyrenees-Atlantiques), Archigny (Vienne), Saint-Vallois (Vosges), and by the department of the Savoie.[7]

Another broadly applied practice was that of "industrial hotels": the purchase or construction of factories which were in turn rented out at below market prices to prospective clients. In Grenoble, the Socialist municipality of Hubert Dubedout lanced the "Cemoi operation" in 1978. The intervention consisted of buying a recently abandoned chocolate factory, and then refurnishing it for use by small industrial firms. The city owned the property, its management was subcontracted out to a parapublic agency (a Societe d'economie mixte.) The factory soon housed thirty-seven of the towns PMI (small and middle sized industrial firms) and assured a level of employment equal to its former occupants. Besancon, Angers, Marseille, and Toulouse were among the many cities to have adopted this practice of usine-relais.

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6. Coublanc is a village with a population of 750 in the Saone-et-Loire.

7. Michel Herblay, "Quand les communes font des affaires, L'Expansion, Apr. 17, 1983, p. 86.

Finally local authorities engaged in a wide variety of less spectacular actions whose legitimacy was generally accepted by the state. Such actions included public works projects, legal counseling, and business prospecting by the local officials. Dominique Lorrain, noting that 576,000 employees were included on municipal payrolls in 1979, has argued convincingly that employment practices of local government in and of themselves were an important instrument of economic policy.[8] Municipal councils, often in coordination with local Chambers of Commerce, offered a wide range of technical and legal counseling to industrial and commercial clients. Alfandari and Maisl note the active attempts of the municipal councils of Metz, Nancy, Marseille, and Toulouse who went prospecting for perspective industrial clients.[9]

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8. Dominique Lorrain, "Le secteur public local entre nationalisation et decentralisation," Annales de la recherche urbaine n. 13, 1981.

9. Alfandari and Maisl, p. 49.

II

The Decentralization Reforms and Current Local Policies

The previous dismussion demonstrates that the decentralization reforms of 1982-1984 did not invent French local economic policy.[1] The economic recession that hit France in the end of the seventies, however, forced government planners to search for new models of economic development. As alternative models pointed out the possibilities of regulating micro-economic systems at the level of the employment basin, pays, or region, their attention shifted to local administrative government and the small business sector. The "lois de decentralisation" can be examined as a a continuing state attempt to better coordinate the economic prerogatives of officials at differing levels of government. The second section of this paper outlines the basic provisions of the reforms for each level of government, examines the extent to which local authorities have exploited them, and comments upon their impact upon French administrative government.

The State

The present reforms do not "decentralize" industrial policy. The State explicitly "maintains responsibility for social and economic

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1. There are two keystones of the present reforms: the Law of March 2, 1982 and that of the 7th of January 1983. The first text seeks to limit the judicial, administrative, and financial tutelle of the State; the second attempts to redefine the distribution of responsibilities between the differing levels of administrative government.

2. Article 5 of the Law of March 2, 1982.

policy".[2] The reforms do however modify the division of responsibilities between state actors and local officials in the economic domain. Moreover, ever since the adoption of the Fourth National Plan in 1960, French indicative planning has more or less taken into account regional interests.[3] What sets the Ninth National Plan (1984-1988) apart from its predecessors is the explicit recognition that local authorities should help what these regional interests should be.

The contrats Etat-region, drawn up jointly by government representatives and local officials, are meant to define middle-term investments in the economic sector.[4] The recent negotiation of these contrats points out a certain number of the peculiarities of French administrative government relations today. To begin with, the negotiations were quite long, especially in regions dominated by the governmental opposition, due to local councils' concern over the intentions and potential stakes of such negotiations.[5] Further, the nature of the contract, which legally binds the region's investment priorities for five years stands out in stark contrast to the state's annual budgetary allocations. Moreover, the contracts as a whole

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3. Two contrasting studies among the variety of works on this subject: Pierre Durand, Industrie et regions, Paris: La Documentation francaise, 1974 and Sylive Biarez, Dix-sept ans d'amenagement du territoire, Grenoble: CERAT, Nov. 1984.

4. Article 18 of the Law of January 7th, 1983.

5. At present, twenty-one of the twenty-two regions have signed contracts. The following comments are drawn from a study by Sylvie Biarez, Maurice Croisat, Pierre Kukawka, Jean Tournon and myself commissioned by the Commissariat general au plan of the implementation of the "lois de decentralisation" in the regions of Alsace, Bretagne, Languedoc-Roussillon, Limosin, Nord-Pas de Calais, and Rhone-Alpes.

propose only broad guidelines for public action, actual attempts at their implementation since are proving quite difficult.

It is also interesting to note the strategies employed by both local public officials and businessmen during the negotiation process. The reforms are not clear on the extent to which the regional council should "consult" local political and economic leaders. Several regional councils held largely advertised public debates, inviting the "man in the street" to participate in the public policy-making process. By setting up town meetings in each of the major cities. such a strategy allowed the regional council of Languedoc-Roussillon to bypass politically hostile departmental councils. Contrastingly, businessmen prefered overwhelmingly a more cautious route, lobbying behind closed doors for particular projects and investments. The nationalized banks, critical actors in the French economy, apparently boycotted the negotiations all together. As a result of all of these factors, the "contracts" often propose a hodge-podge of projects designed more to reflect the delicate balance of political and economic forces in each region than to chart out any concrete economic strategies.

Adding to the confusion are the national political implications of local policy options. The government's recent decision to build the European Community's synchrocyclotron in Grenoble contradicted a pledge it made to the region of Alsace in the "contrat Etat-region".

The national opposition has charged that political considerations are responsible for the change of heart.[6] Whatever the reason, the decision puts to question the state's willingness to abide by its contractual agreements.

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6. Louis Mermaz (PS), president of the National Assembly may lose his majority in the Isere's departmental council in this March's election, while Alsace's public officials (overwhelmingly in the opposition) have been among the government's harshest critics.

The long delay in fixing the date for first regional council elections only cloud the picture further: few can assure that either of the contractual parties will be willing to keep up their end of the bargain in 1987.[7]

States efforts to induce industrial development are concentrated around a newly formulated regional development grant, the Prime d'amenagement du territoire (PAT).[8] This subsidy replaces a number of former subsidies concerning industrial decentralization, industrial reconversion, and employment. The PAT is available to industries creating or maintaining 20 jobs in disadvantaged zones designated by the State. With few exceptions, regional or departmental councils distribute the PAT, and within certain limits may modify the conditions and sums of its attribution.[9] This schema reflects new preoccupations of state authorities: clarifying the link between the means and objectives of territorial planning that had accumulated over seventeen years of French indicative planning.[10]

This new approach towards amenagement du territoire reflects a new philosophy towards territorial planning. French amenagement du territoire, based upon various models of hierarchical growth, was

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7. After announcing in the decentralization reforms the direct election of regional councils, a series of electoral setbacks (the communal elections of May 1983 and the 1984 European elections) gave the Socialists food for thought. The government recently announced that these elections will be held concurrently with those for the National Assembly in June 1986.

8. Article 19 of the Decree of May 6, 1982.

9. Article 8 of the Decree of May 6, 1982.

10. See Biarez.

founded on the unique proposition of better distributing the gains of France's rapid economic growth during the three decades following the end of World War Two. Such a distributive policy makes little sense when faced with a economic recession like that that has plagued the French economy since the mid-seventies. Thus missing from the ninth national plan are the pilot projects like Fos-sur-Mer, Dunkerque, and Feyzin, explicit references to territorial planning are few and far between. To the contrary, the government has lightened the restriction prohibiting large firms from setting up shop in the Paris region, shifted its priorities from the quantitative dimensions of economic development to its qualitative aspects (vocational training, the modernization of the industrial structure, regional eco-systems, etc.), and increased government transfers to local administration to finance local initiatives. Though many question whether the government transfers are sufficient to finance such projects, their is little doubt that local economic strategies can become an integral part of the French planning process.

The Region

The region will undergo the largest transformations once the current reforms are implemented. The law of July 29, 1982 intricately weaves the regional council into the elaboration, approval, and execution of the national plans.[11] During 1983 and 1984, regional authorities, in concertation with the Prefecture and departmental and communal officials, set out the general guidelines of public investments in the plans regionaux.

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11. Law 83-653 of July 29, 1982.

These plans were developed in consulation with the departments, cantonal capitals (chef-lieux de canton), the large cities, and "other (regional) economic and social actors".[12] They include middle-term goals for economic, social, and cultural policy, and serve as the basis for the negotiations of the contrats Etat-region.

The current reforms, beyond delegating discretionary authority to the regional councils for the PAT, authorize two wholy regional grants, the Prime regionale de l'emploi (PME) and the prime regionale a la creation d'entreprises (PRCE).[13] The texts foresee the attribution of such grants to industrial activities that create or recuperate thirty jobs, and to the service sector if 10 research positions are created. The funds are provided by the State to the regions as a block grant, with certain guidelines as to the maximum amount permissible for each particular demand. The Council decides which type of activities will be eligible for aid, and in which areas the subsidy may apply.[14] Moreover, it is free to decide the rules for the attribution, the funding, and the abrogation of these subsidies. Finally, the law of January 7th, 1983 states clearly that direct economic aid is the prerogative of the region: it is the role of the departments and communes to complement regional policies.[15]

Actual practices in the six regions studied varies with the history and

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12. Article 27 of the law of January 7, 1983.

13. The decrees 82-807 and 82-808 of September 22, 1982.

14. Article 6.

15. Article 6 of the Law of January 7th, 1983.

political composition of regional government. In general, regional institutions have taken the initiative in creating parapublic agencies for economic development. In the Languedoc-Roussillon, the Faculté des sciences et techniques, the private sector and local officials created in the last year a SEM for technology transfer, and together with the Chamber of Commerce and export houses another for exportation. Societés de développement regional like the the SEPREX in the Rhone-Alpes and ALSABAIL in Alsace have helped small and middle sized firms over the last five years in obtaining investment capital. In Nord-Pas de Calais, the Regional Development Agency provides technical studies and advice on middle term growth prospects for the region. Interviews of local businessmen in these regions as to the effectiveness of these organizations reveals opinions running from guarded optimism (for the Languedoc's Exportations Agency) to downright disappointment (in the Rhone-Alpes SEPREX).[16]

Moreover, all of the regions allocate the above-mentioned state development grants to small businesses (petites et moyennes entreprises) based on employment criteria in economically disadvantaged areas. Subsidizing interest rates on bank loans is another common practice: it constitutes, for example, 90% of the total regional aid in the Bretagne region. Most regional councils offer additional aid to those firms engaged either in high technology ventures or export activities. Many also offer an exoneration of the regional

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16. See infra, "The Yumbo Corporation."

17. A tax long regarded by the business sector as an impediment to economic expansion.

professional tax (taxe professionnelle) for a period of three years.[17] In practice however, regional authorities rarely fully exploit their legal possibilities: the Rhone-Alpes grants only 50% of the legal minimum, the Limosin limits regional aid to the state financed development grants. Of note is the Languedoc-Roussillon's impending decision to drop the development grant schema altogether in favor of a 400 million franc fund destined to subsidize bank interest rate loans.[18]

If it is generally acknowledged that the regional council holds the key to eventual success of local economic policy, it should be kept in mind that for the moment its actions are relatively limited. If regional budgets for economic development have increased between 10 and 12 percent for the regions as a whole since the decentralization reforms, these investments still constitute only 5 to 10% of the expenditures of local government.[19] Moreover, the majority of investments continue to be those in transportation, water and agricultural projects: investments priorities that well precede both the recession and the decentralization reforms. Finally, and most importantly, as long as the regional councils are composed of departmental and communal officials they will continue to reflect the policy prerogatives of the weighted majority of communes rather than truely regional interests.

The Department

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18. Interview with M. Bertin, Director of the Division of Economic Affairs for the region of Languedoc-Roussillon, January 10, 1985.

19. Biarez et al. L'Intervention economique des collectivites territoriales, preliminary report, Grenoble:CERAT, Nov. 1984.

Of all the territorial institutions, the Department has the fewest specific responsibilities concerning economic policy. The law of March 3, 1982 states that the Departmental Council (conseil general) may "take necessary measures to protect the economic and social interests of the population of the department." Moreover, most of the means authorized by the current reforms for the communes are also available to the departmental institutions. Departmental authorities' greatest influence derives from the size of departments, for in general they are small enough to be receptive to the needs of particular business concerns, and yet large enough to produce the funds needed for industrial development.

The Departmental Council may supplement State subsidies given to the region. It may set up its own grant program (given that it doesn't conflict with regional priorities), from which money may be allocated to communes for industrial development projects. The Council is also authorized to subcontact out to the private sector for the provision of public services.[20] Finally, the Council is charged with the overall coordination of communal policy: and the decentralization reforms encourage it to set up a technical agency to counsel the communes on the technical, legal, and financial aspects of public economic intervention.

In practice, departmental economic policy has largely mirrored that of the regional authorities. The PRI and the PCRI are often complemented up to the legal limit by the conseil general. The majority of public

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20. Article 8 of the decree of January 23, 1983.

works projects are found at the departmental level; they often directly employ several thousand workers and contribute several million francs to the local economy in each department. Several departments have also instituted fonds d'industrialisation to subsidize industrial projects and fonds de garantie to guarantee bank loans contracted by the private sector. Some have adapted formal structures-- like the BIEN (Isere) the COURLY (Rhone), and the District of Montpellier (Herault) to coordinate public investments and to prospect for new business activities.[21] Others have preferred informal structures--like the departments of Aude and of Ain-- and prefer to work behind the scenes without administrative guidelines to promote economic activity.

Since the department is still effectively the second tier of French government, meetings of the conseil general often provide a forum for national political issues to the detriment of local economic initiatives. The public debate surrounding the elaboration of the contrats Etat-region, as well as that involving the definition of public investments in the regions studied, proved riddled by national political squabbles. In the Languedoc-Roussillon, the regional council was taken to administrative court by the leader of the opposition in the department of the Herault on a precederal matter.[22] In the Isere, the special session devoted to the departmental economy on May 19, 1984 was transformed by the opposition into a trial of the

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21. All of which were set up before the decentralization reforms.

22. La Lettre "M", Montpellier(?), Sept. 5, 1984.

23. Special session of the Conseil general, May 19, 1984. Departmental Council President Louis Mermaz, as President of the National Assembly is the third highest official in the French government.

Socialist government's first four years.[23] The French practice of cumul des mandats and the almost annual election schedule (municipal, cantonal, legislative, presidential) simply adds to the confusion: political leaders on all levels are jockeying for position for the 1985, 1986 and 1988 elections. A far cry from times of an "ambiguous consensus"...

The commune

Although the State maintains the responsibility for economic policy, the recent reforms authorize the communes to intervene in the economy if they a) respect the right of the "freedom of commerce and industry", b) maintain the principle of the "equality of all citizens before the law", and c) observe the rules and orientations of national indicative planning.[24] The accompanying administrative circulars elaborate a wide range of possibilities for communal authorities to participate in urban planning, the creation and the maintenance of industrial and commercial activities.

The law of the 7th of January 1983 modifies two existing forms of intra-governmental cooperation: the schema directeur and the plan d'occupation des sols. In the proposed schemas directeurs, communes are encouraged to elaborate plans "presenting a community of economic and social interests". The commune, rather than the Prefectural services, have the initiative for the elaboration of the plan d'occupation des sols (POS) and the "Intercommunal charts of territorial planning and development", which sets out the communes'

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24. Article 5 of the Law of January 7, 1983.

zoning and construction regulations. The municipal councils discuss and approve the plans, the mayors authorize construction permits. To implement communal policies, the mayor henceforth dispose of a block grant, the Dotation globale d'equipement, equal to the previous allocations of the various state ministries.

Local authorities may intervene indirectly (subsidies, loans, and loan guarantees) in the economy when their actions favor local economic development. The commune may act alone, or in coordination with other local and departmental actors. Local subsidies and loan guarantees may not normally exceed 70% of the local budget allocated to administrative expenses.[25] Local authorities may also buy, restore, or build industrial buildings and then lease them to industrial concerns.[26] Local officials may moreover subsidize the sale of industrial buildings to perspective clients in regions targeted by the national plans.[27] Finally, the local government may exempt new businesses from either or both of the business tax (taxe professionnelle) and property tax (taxe fonciere) for a period of three years.[28]

Local authorities may intervene either directly (public participation) in the economy when their actions are intended to protect the social and economic interests of the locality. Such action typically involves

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25. Article 4 of the Decree of July 5, 1983. Article 81 of the Law of January 7, 1983 places the limits of departmental and regional guarantees at 40% and 60% respectively.

26. Article 1 of the Decree of September 9, 1982.

27. Ibid, Article 2.

28. Article 1 of the Law 83-609 of July 8, 1983.

action designed to help firms in financial straits vital to the "local" economy. The only legal restrictions on municipal action are the limits of the communal budget and the interdiction to buy stock in a profit-making venture. Local authorities can get around the latter restriction by forming a para-public agency destined for regional planning, construction, or the exploitation of "public" services.[29] The definition on what constitutes financial difficulties is broad enough (bankruptcy proceedings, layoffs, or simply declining profits) to give local government a virtual free hand in the local economy.[30]

In practice, communal economic policies range from the relatively conservative policies of industrial and commercial promotion (most large cities now send special delegations to industrial fairs throughout the world) to more direct financial engagements in parapublic agencies.[31] Most communes that can afford to do so offer counseling services, tax exemptions, and lend-lease agreements for industrial sites. Local governments themselves are liberal or conservative (*interventioniste* or *libéral*) in name only: policy options appear to be based more on economic realities than philosophical positions.

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29. Article 1 of the Law 83-597 of July 7, 1983. The legislation requires an initial investment of 10 million francs, and requires public agents to hold the majority of both the shares and of seats on the Board of Directors.

30. Directive 82-102 of the Minister of the Interior, June 24, 1982.

31. See the following case studies.

LOCAL ECONOMIC POLICIES

PHILOSOPHY	ACTIONS
conservative	"selling" the town technical counseling urban plans recruiting business
moderately conservative	industrial parks public contracts public works tax exemptions
moderately liberal	small business grants research subsidies employment grants loan guarantees
liberal	lend-lease agreements para-public agencies bailouts financial participation in a business

A study of the municipal policies in the Rhone-Alpes region demonstrated that the differences of opinion on policy options between political parties within a commune is generally smaller than that between communes themselves.[32]

The urban plan, or POS, has become a fundamental tool in local economic policy. For the largest communes, a more subtle approach to zoning ordinances can help create an environment for economic development or industrial reconversion. In Lyon, for example, the six-year long negotiation for the revision of the POS demonstrated the importance attached to such a strategy by both the private sector and public officials. Most towns and small cities add the inducements of a three year exoneration of the professional tax and lend-lease agreements for "industrial hotels" (usine-relais) to attract established firms from other communes. As the recent examples concerning the firms Thompson, KIS, and Hewlett-Packard in the Rhone-Alpes amply demonstrate, business leaders can often use intra-communal bidding to obtain every possible legal advantage.[33].

The communes have proven both the biggest winners and the biggest losers of the decentralization game. The winners are the wealthier communes with the political and economic resources to implement a truely local economic strategy. These resources are political (personal networks within the administration and government,

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32. Lee Schlenker, Territorial Economic Policy: problems and prospects in the Rhone-Alpes region, Doctoral Thesis for the University of California, Santa Barbara, June 1985, pp. 148-222.

33. Ibid

getting-along with neighboring communes and departmental and regional authorities, and the size and stability of the local mandate); and economic (the health of dominant industries and the structure of the service sector, the nature of subcontracting relationships between local businesses, regional enterprises, and the grands groupes, the dynamism of local businessmen, the structure of the work force).

III

Three Case Studies

To this point the paper has hinted at the history of local economic strategies and described the current proposals for local economic policy, but hasn't examined concrete policy decisions concerning individual firms in the private sector. As is the case in administrative government in general, a gap exists between the legal possibilities, the political philosophies, and the decisions actually in any particular instance. Moreover, recent public policies aimed at indirectly affecting the economic environment, such as employment grants and industrial promotion, are almost impossible to measure at this time. None-the-less, in the three years following the first of the decentralization reforms, there have been a number of attempts at direct public economic intervention which permit an evaluation of the effectiveness of certain policies.

Three case studies, concerning the U.D.C.A., the Yumbo corporation, and Pechiney group in the Rhone-Alpes region. have been chosen for the present analysis. Representative respectively of regional. national and multinational firms in France, each possesses varying degrees of access to and influence in the governmental process. The choice of these particular firms reflects both their importance to the regional economy and the significance attached to the firm by the elected officials involved. Each study offers an indication of the possiblities of local economic policy integrating "politics and business".

The U.D.C.A.

The U.D.C.A. (Union Departmentale Cooperative de l'Ain) was created in 1964 as a farmers' cooperative designed to produce animal feed for local production. The cooperative prospered during the following decade, expanding into most phases of the department's agro-business: setting up subsidiaries for farm supplies, and the processing and resale of pork, beef, chicken, eggs, and rabbits. By the end of the seventies, the UDCA handled 70% of departmental production, and began a extensive expansion program in adjoining departments.[1] Its administration, two slaughterhouses and an egg-processing plant employed 1200 workers in 1979.

The company's decline was more spectacular than its rapid expansion. As early as 1975, the company's books showed a deficit of 880,000 francs.[2] By 1981, when the departmental Credit Agricole demanded bankruptcy proceedings, the cooperative's accounts were 18,000,000 in the red.[3] The first attempts to salvage the U.D.C.A. began with a change in the cooperative's management and an ensuing modernization proposal in late 1982. The management staff resigned when faced with the irreconcilable demands of the unions who struck to prevent the planned layoffs and of the Credit Agricole who threatened to withhold

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1. Interview with Henri Bejoint, Mayor of Saint-Paul de Varax, former Director of the UDCA.

2. "U.D.C.A.-U.C.A.R.A.: le parti socialiste s'inquiet", Le Dauphine Libere, January 1, 1983, p. 6.

3. "Le plan de restructuration de l'UDCA," Le Courrier de l'Ain, May 6, 1983, p. 1.

the finances of the cooperative if the plan was not immediately implemented. A new director, Claude Fromont, presented the three axes of his own restructuration plan at the stockholdér's convention in March 1984. He proposed that the U.D.C.A. be split up into four SICA (Societé d'interet collectif agricole), its non-essential holdings sold, and that local government be called on to form a Societe d'economie mixte to buy the cooperative's Bourg slaughterhouse.

Before the cooperative's collapse in the Fall of 1984, several efforts had been undertaken by the cooperative's members, and union and party officials to engage all levels of government in the company's bail out. Each level of local government had a explicit stake in the functionning of the Cooperative. The "lois de decentralisation" gave local officials ample authority to intervene to save the U.D.C.A.. Financial considerations, ideological positions, and political struggles prevented local government from effectively acting. These factors can be examined at each level of administrative government:

The Municipal Councils

Local government was put on the front line of the U.D.C.A. affair. Each commune of the department was affected by the cooperative's decline, either directly by the 1000 employees of the firm, or indirectly through the 6000 farmers that used their services. On the surface, intercommunal cooperation in this affair seemed to be dictated by economic logic. None-the-less, some communes were more directly affected than others. Claude Froment, then Director of the cooperative, is also the mayor of Viriat. Henrí Bejoint, former

Director of the cooperative, is the mayor of Saint Paul de Varax. M. Musy, an accountant of the firm, is a member of Bourg-en-Bresse's Municipal Council. One hundred twenty of the firm's employees lived in Bourg, and this commune alone profited from the business tax on the U.D.C.A.'s slaughterhouse.

It is thus seems natural that Bourg-en-Bresse should have led the way in this affair. After coming to the agenda in June 1983, the City Council accepted Mayor Louis Robin's proposal to participate in the creation of a SEM for the purpose of buying the slaughterhouse, and then leasing it back to the U.D.C.A. until such a time as the firm was once again on its feet. The vote was far from unanimous, with the dissention reflecting both political and ideological differences. M. Benoit (P.C.) suggested that the city try to persuade the Credit Agricole to offer low-interest loans to the cooperative to lighten its debt load. M. Blanc (RPR) expressed the Right's concern over the "municipalization of the economy". When the votes were counted, however, the Council voted 125,000 francs toward the constitution of the S.E.M. (30 for, 4 against, 4 abstentions).

Bourg's mayor was much less successful in persuading the city's neighboring communes to follow suit. Other than Viriat and Polliat, no other commune offered to participate in the S.E.M. Christian Deihl (RPR), Municipal (Bourg) and Departmental council member, offered several possible reasons for the communes' passivity. One reason was ideological, several mayors argued that local government should not participate financially in the private sector. Another reason was practical, the smaller communes of the area worried about the fiscal repercussions of a financial stake in a failing business. Further, participation didn't make economic sense for the majority of the communes of the department, for each individually housed few of the firm's workers and perceived none of the business taxes.[4] Jean Maureteau (PS), Deputy Mayor of Bourg, suggested a final possibility: Bourg is a Socialist ilot in a traditionally conservative department.[5] These observations highlight the difficulties in France of any administrative reform eliciting inter-communal cooperation in the economic domain.

The Departmental Council

The resident and the Director of the U.D.C.A. met with Roland Ruet, (U.D.F.), President of the Conseil general, for the first time on June 13th, 1984. After reviewing the case, he submitted a "favorable" report to the Conseil general, and slated the item for discussion on October 31rst. M. Boissy presented the case for the Departmental Majority (UDF-RPR) in proposing to subsidize the town of Bourg-en-Bresse 200,000 francs on behalf of the U.D.C.A.. M. Pepin (RPR), Vice-President of the Council, then expressed the Majority's views, "If the city of Bourg wishes to pursue an active economic policy, let them do so. But its out of the question that the Department participate in an SEM."[6] He reminded the Council of the policy stance it had voted in February, that the Department would not participate directly in the private

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4. Interview with Christian Diehl, March 19, 1984.

5. Interview with Jean Maureteau, March 19, 1984.

6. "U.C.A.R.A.: vers une societe d'economie mixte?", Le Progrès, November 3, 83, p.7.

sector. M. Diehl has since stressed the extraordinary nature of the Majority's proposal, since the Departmental majority well realized the contradictory nature of its position.

M. Ravassard (P.S.) felt that the Majority was simply camouflaging its intentions: he argued that if the Department wanted to help the U.D.C.A. subventioning Bourg was "going about it the long way around." Dr. Janal (P.S.) laid the cards on the table, "If we (the Conseil general) refuse to participate in the S.E.M., it guarantees the project's failure." The Majority's proposal was more than fancy footwork, for in subsidizing Bourg rather than the U.D.C.A., they withheld any financial responsibility in the future of the cooperative. Bourg had already declared that it would not accept alone the financial risk of the operation.[7] The final vote (27 for, 9 against, 3 abstentions) was both for the Majority's proposal and against the future of the U.D.C.A.

The State

The reactions of State actors has differed greatly over the last two years.[8] All concerned parties have greatly praised the efforts of the former Prefect of the department, M. Loiseau, in addressing the social and political problems created by U.D.C.A.'s difficulties. M. Loiseau met early and often with union, cooperative, and the bank's

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7. Declaration by Louis Robin, "Premier grand debat public et politique sur l'U.D.C.A....," Le Voix de l'Ain, June 6th, 1983, p. 12.

8. The Conseil regional has neither been approached, nor taken a position on the U.D.C.A., a fact which is perhaps significant in itself.

representatives, as well as local and State officials. It appears that he played the role of mediator perfectly, providing a forum and an incentive for communication among the concerned parties.[9]

The Prefect's efforts conflicted sharply with the State ministries. Union representatives contacted the Ministry of Agriculture in May 1982 concerning the eventual restructuration plans. Louis Robin went to Paris March 15, 1983 to try to persuade the Ministry of Agriculture to pressure the Credit Agricole into offering low-interest loans to the cooperative.[10] Guy Jacquin, Departmental secretary of the PC, wrote a letter May 19th to Jack Ralite, then Minister of Social Affairs and National Solidarity, expressing his concern over the cooperative's future. Andre Lajoinie, leader of the Communist Party in the National Assembly, addressed a written question to the government on the subject.[11] It appears that the only interpretation of the State's three year silence on this affair was the low priority the government had assigned to public intervention in this particular instance. The SEM was eventually authorized in September 1984 (with the Municipal

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9. The role of the Prefect, now officially the commissaire de la Republique, in French administrative government today is unclear. Though a fundamental link between local officials and the state in classical French studies on the subject (i.e. Worms, Crozier, and Gremion), as well as in this case study, he appears only sporadically in the other cases we've studied. A hypothesis beyond the scope of this paper is that his influence today is inversely proportional to the national standing of his eventual local contacts.

10. "Un intervention du député Louis Robin hier au ministre de l'Agriculture," Le Progrès, March 16, 1983, p. 5.

11. "Jack Ralite: 'Je suis pret de me faire representer à une table ronde,'" Le Dauphiné Libere, June 08, 1983, p. 5. As the title of the article indicates, Ralite responded positively to Jacquin's letter June 3rd. Unfortunately the meeting never took place.

Councils of Bourg, Viriat, and Polliat underwriting the project), a month before the cooperative folded.

The Yumbo Corporation

Disinterest hardly characterizes State efforts to bail out the Yumbo corporation, one of the French leaders in the design and fabrication of construction equipment. Founded in 1954, the state's numerous public works projects in the sixties fueled the firm's rapid expansion. By the end of the decade the firm employed 700 workers in two plants in Chauffailles (Soane et Loire) and in Genas (Rhone). The firm was purchased in 1970 by International Harvester, and then integrated into the former's world-wide production system. Escalating losses by the American firm provoked the sale of Yumbo to its management staff in 1982. The French firm, in need of funds for its own restructuration, turned first to the banks and then to local government for help. After two years of negotiations, the needed funds were allocated during the first quarter of 1984.

The Yumbo corporation's difficulties are the result of both its former relationship with International Harvester and the evolution of the international market. After three months of negotiations, the future management proposed officially on September 15, 1982 to restructure the firm's operations. The plan, as presented by G. Ayel, called for the diversification of the company's product lines, the rationalization of production in the factories of Chauffailles and Genas, the suppression

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12. Xavier Hamelin, minutes of the Departmental Council meeting (Rhone) of September 27, 1982.

of 278 jobs, and the negotiation of a loan for 63 million francs.[12]

The Societés de Developpement Regionale agreed to finance 5 million francs of the loans contingent upon the signatures of the corresponding local authorities. The Yumbo corporation was thus led to seek the aid of the Municipal Councils of Chauffailles and Genas, of the Departmental Councils of the Soane et Loire and the Rhone, and the Regional Councils of Bourgogne and the Rhone-Alpes. Paragraph 2 of Article 48 of the law of March 3rd, 1982 authorizes local government, when the interests of the community are threatened, to cosign loans for firms in the private sector. The actions of the different instances of local government in the Yumbo affair is a second indication of the possible directions such action may take.

The Municipal Government

Georges De Vauganey, Deputy Mayor of the commune of Genas in charge of economic affairs, met in later May, 1982 with two members of Yumbo's management to discuss International Harvestor's eventual plans for the firm. Former classmates in a "Grande Ecole" in Lyon, they discussed alternatives to the firm's closing, including a possible government bail out.[13] Paul Pervangher, Mayor of the commune, was contacted officially by the direction of Yumbo about a loan guarantee in late July 1982. The importance of the corporation to the commune was never in question, Yumbo employs 10% of the commune's work force, and contributes a large share of the town's business tax.[14] The matter was brought to the Council's attention August 31rst, six weeks after the restructuration plan had been discussed by the Minister of Industry.[15] An "accord in principle" was unanimously approved, the loan guarantee hinging only upon a review of the company's books.

Several factors contributed to Council's decision. First, decisions of Genas' Municipal Council are almost always unanimous, due to an overwhelming Council majority (26 of the 29 members of the Council belong to the "Union of the Opposition" --R.P.R/U.D.F). Second, the Council hadn't an official position on economic policy at the time,

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13. Interview with Georges De Vauganey, May 30th, 1984.

14. Genas has a population of 5400. Fifty-one companies operate within the commune, assuring 2200 jobs for the citizens of the area's communes.

15. Minutes of the Municipal Council session of August 31, 1982.

16. De Vauganey, op. cit.

facilitating an "exception to an eventual rule". [16] Third, the "accord in principle" was relatively cost-free for the commune: the actual loan guarantee was dependent on the financial situation of the firm, and a potential loss would only be incurred in case of bankruptcy. Finally, the Council was informed that the Commune of Chauffailles, the Department of the Saone-et-Loire and the Region of Bourgogne had already given their accord to co-sign the loan.[17]

The Departmental Council

Mayor Pervangher wrote to Jean Palluy, president of the Departmental Council, inquiring into the possibilities of the Department guaranteeing a part of Yumbo loan on July 29th, 1982. President Palluy, after acknowledging receipt of the letter, requested more information and advice from the Departmental Prefect (September 7th) and the Tresor-Payeur-General (November 4th). The Yumbo corporation informed the Council of the conditions of the loan agreement on September 15th, and the Prefect recommended a favorable decision two days later.[18] The Tresor-Payeur-General, in warning of the risks of public

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17. The claim was apparently erroneous. Although the commune of Chauffailles voted for the guarantee August 25th, the Department of the Saone-et-Loire didn't give its approval until September 29th, and the Region of Bourgogne waited until November 23rd. Minutes of the respective Councils of August 25th, September 29th, and November 23rd, 1982.

18. Letters from M. Ayel to M Moutin of September 15th, and from the Prefect to M. Palluy on September 17th.

intervention, finally recommended positive public action on April 22nd.

The proposition of a loan guarantee was presented to the Council by Xavier Hamelin, rapporteur for the Commission on Economic Affairs on May 27th, 1983.[19] At this date, the Departmental Council was the only instance of local government that had not taken a position on the loan. The Council's debate would bring to light the sharp divisions within the Council regarding economic policy. Roger Fenesch, President of the Commission on Economic Affairs, though voting for the loan guarantee, proposed that the Department build its economic policy rather around the notions of territorial planning, economic innovation, and promoting exportations than sinking battleships (vaches à lait). He questioned why local government should be forced to co-sign private loans, when the State financial institutions would earn all the interest while accepting none of the financial risks.[20] Others questioned the economic logic of loaning 63 million francs to save 300 jobs.[21] Louis Vericel (R.P.R.) broke completely with the majority in voting against the measure, and severly questioned the contradiction between the Majority's philosophy and its vote on the issue.

The Departmental Opposition was in a delicate position. Pierre Moutin,

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19. Minutes of the Departmental Council meeting of May 27th, 1983.

20. Francis Geng (Deputy from the XX-R.P.R.) would address a written question to the Minister of the Interior on November 29th, 1982 concerning the logic of such banking methods. The Minister responded that the law did not intend that local government should take such risks, and addressed a note to the Minister of the Economy warning of the problems created by such a practice. "Questions et Reponses" # 23744, L'Assemblee Nationale, April 4, 1983.

21. Ibid.

president of the Socialist group of the Departmental Council, was hardly opposed to a measure aiming to help his own constituency. In addressing the "exceptional" nature of the matter, Moutin demanded that the Council outline the criteria upon which the decision was taken, in order to set guidelines for future action in similar cases. René Chevallier, President of the Communist Group, strongly supported the measure in the interests of "Yumbo, the Department, and the Nation." Rather than arguing that the case should be exceptional, Chevallier argued that such actions could contribute to the needed industrial modernization of the department. When the final vote was taken, the measure passed overwhelmingly.

Why did the Council vote the loan guarantee in spite of its own position regarding direct economic intervention? The lengthy debate that would consume the Council meeting authorizing the President to sign the loan convention with Yumbo in February 1984 demonstrated the fragility of the position taken. The Majority continued to stress the "exceptional nature of the matter". During this evening, Louis Chaine, First Vice-President of the Council, offered one explanation of the vote, "solidarity with the other instances of local government."[22] After the council meeting, President Palluy offered two others, "pressure from State authorities....(and) we could hardly be the only ones to vote against the firm."[23] Clearly apparent in the Departmental majority's reasoning was that for a loan guarantee of 500,000 francs it wasn't worth giving the minority leader an issue for

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22. Minutes of the Departmental Council meeting of February 8th, 1984.

23. Interview with Jean Palluy, March 10, 1984.

the 1985 cantonal elections.

The Regional Council

Mayor Pervangher wrote to Charles Beraudier, President of the Regional Council, about the financial situation of the Yumbo corporation on July 29th, 1982. The "Commission du Groupe Mixte" discussed the project and recommended the loan guarantee on April 28th. The matter was presented to the full council on May 27th. The Council ~~overwhelmingly~~ approved the loan guarantee (45 for, 7 against, 17 abstaining) upon the condition that all other instances of local government decide to participate fully in the project.

The Council's action fell well within the regional policy concerning the "fonds de guarantee". It appears however, given the political interdependence of the actor's involved, that the Council could hardly have voted any other way. Beraudier is president of the "Groupe mixte pour l'emploi." Vice-President Michel Noir, Deputy Mayor of Lyon, is an active member of the National Assembly's "Commission on Economic Affairs". Roger Fenesch, Vice-President of the Regional Council, is the President of the Departmental Council's "Commission on Economic Affairs". Internal notes in both the departmental and regional councils stressed how "political" the affair had become,-a failure to approve the loan guarantee would have had national repercussions. The Yumbo affair is a good example of how the French practice of the cumul de mandats "nationalizes" local administrative decisions.

The State

Critical to the eventual "success" of the Yumbo loans was the early and constant intervention of state authorities. Bypassing local government, Yumbo's management directly addressed the Ministry of Industry concerning the firm's future. On July 13, 1982, representatives of the Ministry met with the management to discuss a possible bail out of the firm. On September 29, 1982, representatives from the Finance Ministry met with the major stockholders, the banks, and officials from the para-public financial organizations to piece together a financial package. It was at this time that the major lines of the management's restructuration plan were discussed, finalized, and adopted.

The intervention of Jean Poperen, Mayor-Deputy of Meyzieu, number two in the hierarchy of the Socialist Party, played an instrumental role in the affair.[24] Poperen contacted the Prime Minister several times about the Yumbo situation, encouraging active state action to a "firm vital to the region's infrastructure." In a letter of July 5th, 1982, the Deputy expressed his concern for the loan obligations that would be demanded of local government.[25] Prime Minister Mauroy responded on August 13th, assuring the Deputy both of the active participation of

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24. Meyzieu is situated about 7 miles to the east of Genas.

25. The letters of July 5th and September 3rd, 1982 between the M. Poperen and M. Mauroy allude to several informal contacts concerning the Yumbo corporation.

his administrative staff, and of the limited intervention that would be eventually demanded of local authorities. The extent of the Prime Minister's influence can be clearly seen in the rapidity with which negotiations were undertaken in the Ministry of Finance that September.

The impact of the state's actions went much further than simply uniting the interested parties. The "Commission charge de l'emploi" of the Industrial Ministry followed the affair from beginning to end. As the major stockholder of the nationalized banks, the government was in a privileged position to dictate the conditions of the bail out. The SDR's, as para-public agencies, provided another forum for the state's opinion. In comparison with the situation of the U.D.C.A., interviews with the concerned parties offer every indication that the state considered the case to be a national priority. None-the-less, even with the state's influence, and a general acquiescence of local government authorities, the needed loans were two years in coming.

The Pechiney Corporation

One of France's grands groupes, the Pechiney corporation's roots date to the Second Republic. Her chemical holdings began the Kuhlmann firm in 1825, her interest in special metals stems from the efforts of Henri Gall and Paul Girod in the Rhone-Alpes region at the turn of the century.[26] Diversification and parallel investment strategies led over the years to a series of consolidations, capped off by the mergers of Ugine and Kuhlmann in 1966 and Pechiney and Ugine-Kuhlmann four

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26. Michel Baud et. al., Une multinationale francaise: Pechiney Ugine Kuhlann, p. 22.

years later. As a result, Pechiney Ugine Kuhlmann (P.U.K.) became one one of the world's largest industrial groups in chemical and metal processing, with holdings on five continents and over one hundred factories and one-hundred thousand employees in France.[27]

In the last decade, a world-wide recession in the chemical, aviation and auto markets largely affected the firm's investments in the Rhone-Alpes region. The group responded by cutting its aluminum production in half (from 90,000 tons to 40,000) and relegating a large majority of its regional work force to technical unemployment.[28] Division plants specializing in chemicals were either shut down or sold in Lyon (1974 and 1975), Yvours (1980); and in metals in Grenoble (1973, 1975, and 1980) Annecy, and Bourg (1978). The firm divested the quasi-totality of its mechanical construction activities, selling operations in Sallanches, Belley, Saint-Priest, Montbrison, Charvanoz, Pont-de-Cheruy, Charvieu, and Annecy. Overall, the firm's regional work force declined from 28,260 in 1973 to but 19,978 by 1980.

Matters went from bad to worse in 1982 as the firm plunged three bilion francs in the red.[29] The Socialist government reacted swiftly, nationalizing the firm, providing it with 5.5 billion francs in new capital, and imposing through a "contrat-enterprise" a draconian rationalization plan. These efforts have since modeled Pechiney into

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27. North and South America, Europe, Africa, and Australia.

28. "Second souffle pour Pechiney Aluminium," Le Dauphine Libere, February 8, 1984.

29. "Le groupe Pechiney-Ugine Kuhlmann a perdu 3 milliards de F en 1982," Le Monde, July 7, 1983.

the "star pupil" of the state's efforts at economic efficiency. In 1983, the firm reduced its losses to 463 million francs, and in 1984 the firm posted first quarter profits surpassing 307 million francs.[30]

Local officials in the Rhone-Alpes view the "success story" from a different perspective. Though the "rationalization efforts" will translate into important investments for one aluminum factory in the region (Saint-Jean du Maurienne), they cast a long shadow on the rest of the region's industrial base. In special metals alone, the subsidiary Alliagnes Frittes Metafram will transfer activities (metallic pral filters and stellugine replacements products) from Grenoble to factories in Pont-de-Claix and Creusot during the first semester of 1985.[31] Plans at the CEBAL subsidiary in Froges call for a 50% reduction in the work force (90 pre-retirements and 60 reclassements). Finally, the group will shut down altogether three factories in La Praz and La Saussaz (190 workers), and Argentiere (320 workers). Though negligible on the national level, such actions in these mono-industrial basins will devastate the local economies.

To what extent can local officials influence the decision making of a "nationalized" corporation? A study of the actions of local officials to prevent the partial closing of the CEBAL factory in Froges offers

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30. Among the multiple causes of this turnaround, Besse gives three-fifths of the credit to the economic cycle, one-third to the group's rationalization efforts, and the rest to the dollar exchange rate."Pechiney sort du rouge grace a l'aluminium," Le Dauphine Libere, October 16, 1984.

31. "Alliagnes Frittes Metafram", Le Dauphine Libere, April 21, 1984.

food for thought.

The Municipal Councils

Communal officials throughout the region have proven powerless in modifying Pechiney's modernization plans. In the valley of the Gresvaudin, the communes' mayors have spoken often and decisively on the corporation's plans. They were among the first to congratulate themselves on "persuading" Pechiney to invest in Saint-Jean-de-Maurienne. Their mood changed as the months went by and the long-term consequences of the group's modernization plans became clear. The municipal councils of the valley soon voted publically to condemn the contrat etat-entreprise, and demanded immediate action to assure the continuation of the firm's activities. A declaration of the Mayors of the canton of Goncelin, as well as the communes of Sainte Agnes, Laval and La Terrasse is indicative of the lot. In the document they,

* "express their 'wholehearted support' for those workers faced with inevitable layoffs;

* judge 'unacceptable' the reconversion and re-education measures announced by the corporation;

* consider that the government can not let a corporation, even a nationalized corporation, disrupt the social and economic framework of an entire region;

* deplore that not only that a plan could be negotiated without the consulation and collaboration of the local officials and worker's unions most directly concerned, but that the documents and studies justifying this plan were never made public."[32]

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32. Motion of the "Association des Maires et Adjoints du Canton de Goncelin" dated January 16th, 1984.

Hidden between the lines of this and a dozen similar documents is the fact that in spite of the decentralization reforms, local officials still lack of access into the decision making process. This situation is due in large part to a history of neglect of local input in French corporate decisions. Traditionally, the Pechiney hadn't any regional representatives at all, the corporate framework has been built around functional, rather than geographic, criteria. Armand Roullier, appointed Pechiney's regional representative three years ago, admits readily that his role is one of explaining company policy to regional officials, and not one of acting as an intermediary or ombudsman for local interests.[33] All financial decisions, as well as company policy, rest well within the jurisdiction of the corporate headquarters in Paris.

The Departmental Council

Given that the north of the Isere is the most heavily Socialist area of a Socialist-run department, we can readily expect departmental officials to take a keen interest in Pechiney's projects. True to form, Odile Sicaro (Deputy of the North of Isere) led a group of Socialist officials to meet with then Industrial Minister Laurent Fabius on May 6, 1983.[34] Augustin Giraud, Departmental Counselor from Goncelin, made early and frequent contacts with Louis Mermaz to arrange

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33. Interview with Armand Roullier, Director of Regional Affairs, December 7, 1984.

34. Le Dauphine Libere, May 7, 1983.

negotiations between the multinational's management and local representatives. Louis Mermaz, president of both the Departmental Council and the National Assembly, wrote publicly to Fabius on October 28th, expressing his concern and personal interest in the situation. It is interesting to note that both officials, regardless of the importance of their local positions, turned to the party structures for the first contact with the nationalized firm. Regardless of the decentralization reforms, the use of personal networks doesn't seem to have changed.[35]

The effectiveness of public intervention on the departmental level is quite difficult to judge. President Mermaz met with George Besse during the week of March 7th, 1984. On May 19th, Besse met behind closed doors with Giraud, Sicaro and Roullier in Froges.[36] A second working meeting took place on October 16th with the participation of Giraud, Mayors Francillard (Mayor of Tencin), Garcin (Champ-pres-de-Froges), Cerantola (Froges), and Jean-Pierre Ergas, president of the Cebal affiliate. At this occasion, Ergas announced that the fabrication of fine metals and certain intermediate products will continue at the factory in Froges. Moreover, the firm will invest a sum equivalent to its previous five year's investments in the coming year as a sign of its long term commitment to the region.

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35. Which leaves open the question of how effective personal networks may be for in dealing with a nationalized firm for the parties out of power. In this particular case, the national opposition in the region has had very little to say on Pechiney's plans.

36. "Dix-huit millions de francs pour que Froges vive", Le Progres, May 22, 1984.

None-the-less, the modernization of the firm's laminage capabilities will reduce CEBAL's work force by nearly two hundred.[37] After two years of efforts by departmental officials, the company's plans have not been sensibly altered.

The State

State aid and intervention in the fortunes of France's holding companies has been inseparable from the goals and objectives of French indicative planning the last twenty-five years. From priviledging "vital industrial" sectors in the first two national plans to creating national leaders in the fifth, the state has always been a more than silent partner in France's largest firms. Further, as the major client of the majority of firms, the state has always been ready to exercise its weight in the pursuit of national objectives. After all, the nationalization of five major holding companies (CGE, Pechiney-Ugine-Kuhlmann, Rhone-Poulenc, Saint-Gobain, and Thompson) and the major banks in the wake the Left's triumph in the elections of May 1981 followed a dozen others in preceding decades (including the SNCF, Renault, EDF, and GDF). As one group's Chairman of the Board pointed out in early 1983, "there is no more dirigisme than before (the arrival of the Left) regarding our principal policy options and policy

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37. "Les elus en reunion de travail", Le Dauphine Libere, Oct. 17th 1984, p. 13.

38. Quatrepoint, Jean-Michel, "Gerer les nationalisations," Feb 5, 1983.

choices."[38]"

The government's involvement in Pechiney's modernization plans can be analyzed from three angles. Financially, the state has invested heavily in the corporation to finance the needed structural changes. Pechiney received 2.4 billion francs in public grants in both 1982 and 1983, and another five hundred million the following year.[39] These sums compare with the 1.67 billion francs invested by the private sector from 1976-1981 in the six major French holding companies, and the 30 billion francs invested by the government in 1982-1983.[40] Furthermore, the government passed a series of measures to lighten the fiscal pressure on the major groups, including a modification of the business tax (taxe professionnelle) that left an additional five billion francs in company coffers in 1982 alone.

Structurally, the state encouraged the holding companies to pursue rationalization policies in the negotiation of contrats Etat-entreprise. After forcing the hand of Pechiney-Ugine-Kuhlmann in its negotiations with Occidental Petroleum, the government convinced the group to sell off its chemical holdings to Elf-Aquitaine (halogens), Rhone-Poulenc (chemicals), and CDF-Chimie (organic chemicals and plastics). In return the state leaned on the nationalized electrical company (EDF) to find an arrangement that would ease the energy bill of the rejuvenated Pechiney corporation. In March

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39. Interview with Michel Parollaz, Union delegate for Pechiney, November 15th, 1984.

40. The five recently nationalized companies plus CII-Honeywell-Bull. The figures were provided by the former Industrial Minister Jean-Pierre Chevenement. See Quatrepoint.

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1983, the two firms signed an agreement in which Pechiney pledged to participate more fully in the construction of French nuclear power plants in return for a substantial discount on its energy bill. Finally, the state reinforced the blanket of public social coverage to aid in the reclassification and redeployment of the workers who would lose their jobs once the restructuration plans were implemented.

However, the government has shown few visible signs of the persuading Pechiney to heed local interests. On one hand, the state may have quietly convinced the corporation of the economic benefits of reinvesting in Saint-Jean-de-Maurienne rather than transfering production facilities to the more modern plants in Becancour (Ontario, Canada) and Tomago (Australia). On the other, the government has often repeated its intention to respect "the autonomy of (both) decision-making and action in the nationalized corporations." In responding to a question on this subject, Armand Roullier once again stressed the distinction between "social policy", which the corporation was quite willing to pursue with public authorities, and "industrial planning" which would always remain the sole prerogative of company officials.[41]

To what extent can the state influence the corporate decision-making process? In the much discussed, but never disclosed, contrat Etat-entreprise, the holding companies were much less than willing to

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41. Ibid.

42. The contrats Etat-entreprise are not in the public domain. Of the dozen people interviewed for this case study, no one admitted to seeing more than certain passages of the contract concerning Pechiney.

discuss industrial strategy.[42] As one PDG admitted openly,

> We're not going to discuss, in a document distributed to twenty-five individuals, certain of our major policy decisions where secrecy is essential. There are certain matters that we are willing to discuss orally with a few members of the administration, but its (simply) imprudent to put them on paper.[43]

Certainly, the state continues to actively intervene in the private sector. None-the-less, Several practical considerations will continue to define the limits and effectiveness of its intervention. In juxtaposition to Michel Crozier's classic propositions concerning French administration, the private sector guards just as jealously the information vital to its own survival.

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43. Quatrepoint, Jean-Michel, "La 'vertu pedagogique' des contrats d'entreprise", Le Monde, Feb 4, 1983.

IV

Business and Politics

To what extent does current local economic policy in France elicit cooperation between public officials and the private sector?

Over the last decade, for several reasons French planners have been forced to reexamine the traditional models of indicative planning. To begin with, the attention paid to "national leaders" in privileged industrial sectors has come at the expense of internal competitiveness and a more diversified economy. Second, the resources spent in developing regional "metropoles" has proved counterproductive both to the Parisian region and the peripheral economies. Third, the reliability of hierarchical development models is questionable, the choices made in the _trente glorieuses_ seem quite out of place in an era of political and economic scarcity. The decentralization reforms are an explicit recognition of the need to open up economic planning to new perspectives and new realities.

Local economic policies in and of themselves are nothing new. As we have seen, French municipal officials have traditionally acted as "firemen" periodically coming to the rescue of local firms and economies. What is new is the priority given to micro-economic strategies in the elaboration and implementation of French public policy. This tendancy benefits local government, which is put in the middle of the public policy making process, and small and medium sized firms, which are becoming privileged actors in the French economy.

Local economic planning, as foreseen in the decentralization reforms, is a step beyond that of "municipal socialism": it demands the coordination of objectives of public and private actors at the local and national levels.

Explicitly, the decentralization reforms legislate specific responsibilities to the each level of territorial government. Although the state "maintains responsibility for social and economic policy", local government is encouraged to participate in the formulation and the implementation of particular policy options. We have seen that coordination and concertation are theoretically the key words of the contrats Etat-region, the negotiations for which are intended to assimilate social, political, and economic actors at all levels into the decision-making process. Moreover, the lois de decentralisation are a call for action: they lay out specific conditions in which local authorities can intervene either directly or indirectly in the private sector. Finally, the texts legitimate local economic strategies, bringing them from the fringes of legality to the mainstream of the policy planning process.

Implicitly, the reforms shift a great measure of responsibility for the health of the economy to local decision makers. Such responsibility has inevitably politized the policy making process. With regard to failing businesses or industrial sectors, local leaders are electorally obliged either to address the questions of employment and reconversion, to accept the responsibility for the failing to find solutions, or to pass the buck on to their hierarchical rivals. The responsibility is not shared equally by the business community: the decentralization reforms offer little incentive for business leaders to work together with local officials. As a result, communication between the public and private sectors takes place mainly between private firms on the verge of failing and local government officials who fear the social consequences of their failure.

Can such measures eventually produce economic policy reflective of local interests? One fundamental issue is whether the objective economic and political conditions permit the needed cooperation. Though the goal of full employment unites decision-makers at all levels, there is little agreement as to its acceptable costs. In the short run, if the decentralization reforms facilitate communication in certain instances, are they beneficial for administrative government and the private sector as a whole? If such cooperation depends on the confidence of each actor in the others, do the decentralization reforms encourage each to play the game?

The local economic policies reviewed here reveal a wide range of answers to these questions. Local economic strategies range from the relatively "liberal" policies of industrial and commercial promotion to direct public participation in the private sector. The effectiveness of these policies seems dependent upon their complementarity with both the economic structures and political climate of the locality in question (commune, department, region). Concertation and cooperation appear much more likely within relatively stable and productive economic and political structures than in those isolated either economically or politically from departmental, regional and/or national decision-makers.

Subsequent research needs to be conducted in a number of areas:

First, attention can be directed towards communes directly under the political and economic tutelle of France's largest cities. In urban centers with relatively diversified industrial structures, effective economic policy is more of an electoral preoccupation than a local necessity. Such is far from the case for the smaller local governments in their immediate vicinity, where a lack of cooperation between the business sector and local officials will create modern day ghost towns. Paradoxically, these smaller communes haven't the political or financial resources to implement local economic policy. Before the current reforms they could attempt to ally themselves with the departmental Prefects, decentralization has left them more than ever at the mercy of large corporations and large city politics.

Second, efforts need to be undertaken to analyze the motivations and objectives of a greater diversity of economic actors. This study has made an effort to incorporate the views of the intervening actors in three contrasting case studies. The case studies, however, are overly representative of the traditional sectors of the French economy. An examination of the contacts with local officials of firms who are not seeking public funds, and especially in the service sector, would certainly be quite revealing of the what interests the whole of the private sector may have in cooperating with local government authorities.

Third, further research needs to be done on the more subtle forms of local economic strategies. Direct economic intervention by local authorities, as brought out in the case studies examined here, are the most visible consequences of the current decentralization reforms on the French economy. The relative failure of such efforts seems likely to push local policy makers more and more towards economic strategies designed to influence the general industrial environment of the locality. Moreover, since formal administrative structures are not particularly adapted to implementing rapidly such policy options, informal "work groups" may increasingly provide more appropriate vehicles for the types of actions needed to promote economic activities.

In conclusion, this study suggests that the ability of local economic policy to elicit cooperation between the public officials and the private sector depends on a number of fundamental variables. Local policies are responses to the economic environment. The industrial infrastructure, with its accompanying financial networks and economic cycles, entails a certain number of economic constraints and provokes social demands to which economic policy must respond. Local policies are also responses to increasingly politicized territorial government structures. The staggered election system, put together with the <u>cumul de mandats</u>, exposes local politicians to constant electoral judgement. The decentralization reforms, in proposing joint responsibility between local and national authorities for economic policy, have tended to nationalize local decisions as much as the state's <u>tutelles</u> ever did. The future of local economic policy will depend on the ability of administrative government to reconciliate local demands and national politics.

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POLITICS AND BUSINESS:
SOME DANISH EVIDENCE

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POLITICS AND BUSINESS: SOME DANISH EVIDENCE

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INTRODUCTION*

The research behind this paper has not been sufficiently systematic and comprehensive to sustain very solid conclusions concerning the relations between politics and business, i.e. the importance and effects of various aspects of politicisation and the explanations of and reactions to these aspects of politicisation. The prime purpose of my paper is, therefore, to put forward and to discuss some assertions with regard to different types of politicisation, the immediate and desired alternatives for business on this development, and the importance for and effect on business of different types of politicisation. This sub-theme is concluded by the identification of some indicators of politicisation. Subsequently I try to conceptualise various aspects of the explanations of and business and political reactions to the generally increased interaction of politics and business.

In the second substantial part of the paper, these indicators are used in a concrete analysis of explanations, business reactions and reactions of the political system concerning the, usually supposed, increased politicisation of business. This concrete analysis intends to combine quantitative data with more qualitative data, although this combination produces some problems of measurement which cannot be handled in this context. Accordingly, the conclusions ought to be scrutinised.

The assumptions of the paper can be summarised like this.

1) Increased interaction of politics and business is not necessarily tantamount to increased politicisation of business. Empirically, the former is evident, but

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*) My participation in the ECPR Joint Sessions is supported by the Danish Social Science Research Council.

even if that conclusion applies to the latter too, you have to emphasize that it is less developed and of a more ambiguous nature.

2) Generally, the economic explanations predominate, although political and ideological elements of explanation carry some weight, too.

3) The reactions of business - organisations and firms - are primary political and ideological, whereas the economic reactions are of little importance.

4) The reactions of the political system are primary political and ideological, but - to some extent - also economic.

5) In general, what might be called "strategic" politicisation, i.e. politicisation with heavy and long-term effects on the autonomy and decisions of business and, accordingly, on its relations with politics, seem to be rather limited within a much more comprehensive arena of politics-business interactions.

Finally, a word on terminology. The paper uses the words "state" and "general government" interchangably, i.e. they both encompass the activities of the central state institutions, the counties, and the municipalities.

PROBLEMS AND CONCEPTS

A fundamental question concerning the increased interaction between politics and business is if it is fruitful to talk about politicisation without qualifications, i.e. without differentiating between different types of politicisation. The point of departure of this paper is that you have to specify the substance of the accumulating evidence of increased interaction of politics and business to avoid the risk of grouping apparently like phenomenons, thus overlooking relevant divergencies and possible divergent political, economic and social implications. To be a little more precise, the assumption of this paper is that different types of politicisation affect business differently and therefore form its reactions differently, too.

What typology should be used, then? One simple way would be to separate new areas of politicisation from old areas (with perhaps changed ways of politicisation). This typology could, however, run into the problem that the old areas of politicisation have witnessed different types of politicisation, implying that the description of the changes is not exhaustive. Generally, I find it appropriate to distinguish between state actions with direct effects on the performance of business and those state actions which more generally encircle the scope of manoeuvre of business. I find it necessary, however, to differentiate even more, thus ending up with four types of politicisation: general activities and functions of the state; state inference with (potential) business tasks, including the issue of state enterprise; state intervention concerning the performance of business, i.e. industrial policy including state procurement and purchasing; and, finally, state regulation of business.

These four types of politicisation might be perceived as generalisations of certain aspects of the empirical interaction between state and business. They express the assertion that, primarily, business is politicised in two ways. The first concerns the autonomy and strategies of business, i.e. its potential for making decisions concerning production process, products and marketing. Accordingly, the more the political system regulates business or the more it makes an inroad into the traditional sphere of business, the more business performance is politicised. The second way of politicisation concerns the manner in which business attention and activity is diverted from the market place and its priority of economic performance and directed against the political system with its diverging rules and procedures. Accordingly, the more business performance is subjugated to political schemes, rules and procedures, especially if they involve a potential of dirigism, the more business is politicised – even if it profits from this type of interaction.

On the following pages I have defined these concepts of politicisation in connection with some variables that together specify the implications of each type for business. The first variable is business alternatives: What is the economic and political interest of business with regard to the different types of politicisation? The second variable is importance for business: How important is it for business to reduce or alter the specific type of politicisation? The third variable is the effect of politicisation on the performance of business. The point of departure is the likely or possible development of each type of politicisation which opens for different effects on business and opens for different effects on firms compared to the effects on business organisations. Fourthly, I put forward some indicators of politicisation, some of which will be used in the analytical part of the paper.

General activities and functions of the state refers to the fact that the modern state has provided preconditions for the functions of business or has institutionalised solutions to more general problems of society. These activities and functions differ from country to country and from time to time within each country. Within each country, however, the institutional settings of such activities are not changed overnight as this aspect of the division of labour between the state (politics) and the economy (business) is an integral part of a complex political and social culture. Examples of this type are the educational system, the health system, the construction and maintaining of the physical infra-structure and part of the energy supply system.

The alternative to the present institutional setting of these activities and functions is some sort of privatisation, i.e. that the production of the "general conditions of the reproduction of society" is made profitable for business. As far as I can see, business has not been very interested in carrying through this kind of change. As to the effect on business, the likely status quo has no effect, whereas some kind of privatisation is followed by an increased competition for orders and concessions. It is impossible, however, to say if this differs from the politicisation of business caused by the existing state purchasing and licensing. Relevant indicators are aspects of the general role of the state in economy and employment.

The second type, **state interference with (potential) business tasks,** primarily concerns part of the production of goods and services in society. For many reasons the state may organise the production of some goods and services through nationalisations or through the establishment of state enterprises, and in many countries this is of great economic importance and a hot political issue. Another activity of this type is the production of goods and services necessary for the daily functions of general government institutions, e.g. cleaning, catering and repairing, the institutional setting of which is a much debated matter in Denmark.

Seen from the corner of business, a fair and equal competition is demanded, with the implication, of course, that business will prove more competitive than its politically advantaged competitors within general government institutions. As business perceives these state activities as some kind of undermining of business' total area of profits, the demanded alternative is privatisation of the carrying out of these functions. The importance for business is supposed to be great. The effect on business depends on the actual process; if it conforms to the general assertion of increased politicisation, the interference will increase and this will create confrontation between the political system and business, but also result in state negotiations with business organisations. If interference is decreased, i.e. privatisation developed, the effect will be a combination of depoliticisation and a more vaguely increased awareness of the general government sector due to the increased competition for orders. Indicators of this type of politicisation could be the scope of state enterprise and the production of goods and services within the state sector.

State intervention concerning the performance of business refers to the many state actions inducing business to perform in certain ways, i.e. to develop in specific directions which are perceived or motivated as beneficial for society. Part of these actions is the state's position as purchaser and the connected procurement policies. My point is that these state actions do not necessarily direct or force business to perform in the desired way. Examples of this state intervention might be suggestions of wage increase limits, subsidies for investments or technological innovation which can be utilised only through the initiative of business, and systems export which leaves the production and management functions to business implying that the role of the participating state agencies is rather limited.

The alternative to this state intervention might be some kind of disintervention or disengagement; the alternative could, however, also be perceived as an increase of this intervention as long as it does not really undermine the autonomy of business. I would suppose that business organisations are often more negative to this type of intervention than are those who benefit economically from the intervention - the organisations' members, the firms. The importance for business seems to vary according to the nature of the state intervention and to the ideologies connected to it.

Concerning the effect on business, three alternatives seem possible. A change of procedures and rules of this state intervention will greatly affect business, possibly leading to confrontation but also to negotiations with business organisations and firms. Increased intervention will affect business, because the competition for orders, subsidies and contracts is strengthened. This effect will thus politicise business by shifting its attention from the more ordinary market places to the political scene with divergent values and norms. Lastly, a decreased intervention is thinkable, e.g. through a reduction of the subsidies for business, the effect of which is hard to determine. By implication of the just said, this should lead to depoliticisation of business; the question is, however, what will happen when this development is not really wanted by business, or maybe wanted by business organisations but not by their members?

That the role and attitudes of business organisations do matter in this context is partly a function of the Danish industrial structure with very few big firms (in absolute terms) and the dominance of business organisations vis-à-vis the firms in the political decision-making process. If, therefore, these organisations succeed in hampering the extension and intensification of this type of politicisation, the need and temptation for the firms to develop closer contacts with state institutions is relatively limited as is its feasibility.

Indicators of state intervention could be procedures and rules of industrial policy, state efforts of expanding Danish labour, supplies etc. in connection with big general government projects, and the actual interaction between firms and state institutions.

It goes without saying that the borderline between the above-mentioned third type of state actions and the fourth type, **state regulation of business**, is rather vague. This especially holds for state suggestions of wage increase limits, but in some instances for state subsidies, too. The problem of distinguishing between the types seems limited when we talk of regulation in the word's proper sense: Business is forced to act in specific ways or prevented from carrying out certain activities. Examples might be demands on the working conditions of factories and a ban on the use of specific additives in the food processing industries.

The direct alternative for business is deregulation, but not without reservations. Business may perceive regulations as unfounded or as dislocating business' ability of competition compared to the foreign competitors, and accordingly business wants deregulation. On the other hand, however, business does not want status quo ex ante as the change is often due to public pressure, e.g. through environmental groups, implying that a return in itself would politicise this issue in a very unfortunate way for business. This issue could be characterised by divergencies in the viewpoints of business organisations on the one hand and the firms on the other. The importance of state regulation for business thus seems to be great in any case.

The effect on business of increased regulation seems great and it often leads to confrontation with the political system; but very often it also leads to negotiation and compromise between the state, the business organisations and the firms. The effect of deregulation - if this is politically possible at all - is supposed to be improved economic performance, at least in the short run, but maybe also problems of legitimacy. Relevant indicators of this type of politicisation seem to be regulating procedures in legislative and executive actions.

In order to get beyond the intended description of the politicisation of business, i.e. in order to explain that politicisation and analyse its dynamic effects, I shall introduce some other concepts and assertions. As I find it illuminating to discern between economic, political and ideological modes of explanation, business reactions and reactions of the political system, I shall start by defining the three concepts with regard to the modes of explanation.

By economic I refer to events within the economic structure or connected to the economic performance of society, e.g. socio-economic crisis of society (unemployment, increased deficit on the balance of payments etc.), societal problems more or less rooted in the economic sphere of society, and the increased role of the state as purchaser of (privately) produced goods and services. **Political** refers to the features and substance of the state apparatuses and of the decision-making process, e.g. the role of the organisations - whether this is perceived as corporatism/concertation or segmentation, the weight of the welfare issues in state expenditure and the recruiting of MP's (their occupational background). Finally, **ideological** refers to the attitudes, the sympathies and antipathies of the population, or maybe rather the way these attitudes are channelled to and affect the political system and its decisions, e.g. through issue pressure groups.

The **economic reactions of business** to (increased) politicisation primarily concerns the investment decisions of firms with their future implications for capital formation, technological innovation and employment. The **political** reactions refer to the changed position of firms and business organisations within the political process or their changed attitude to this process, e.g. increased or decreased participation and lobbying, organisational coalitions in order better to confront and roll back the unwanted politicisation. **Ideological** reactions refer especially to the many ways business - firms and organisations - may try to change public opinion as a means of changing the attitudes and priorities of the politicians, e.g. through newspaper campaigns, information to the educational system, and booklets.

The **reactions of the political system** can - at least theoretically - be seen as reactions to two types of development. They can be perceived as reactions to the increased politicisation per se, e.g. the increased significance of the state for total employment and the possibly changed perceptions of the relations between state and economy that follows from this, and they can be seen as reactions to the economic, political and ideological reactions of business to this increased politicisation. Evidently, it may be rather difficult to distinguish the former reaction from the latter, which seems to presuppose some kind of "net-compliance" in order to be identified.

It is also evident that there may be several, intertwined causes to any specific reaction of the political system - some current economic problems and genuine ideological perceptions may for example cooperate in shaping a certain political reaction. More generally, I find it necessary to say that the three types of reactions are intertwined, strengthening each other in the ongoing process of politicisation or depoliticisation. But despite these problems, I shall present some assertions concerning the reactions of the political system. In this context, the reactions to politicisation per se are named "1", whereas the reactions on business' reactions are named "2".

The **economic reaction**[1] of the political system seems to concentrate on a (continued) expansion of state enterprise or rather state activities in general. This may be carried out in order to further shift the balance between the state and private spheres, just as it might be initiated as the (only) perceived way of improving the performance of the economy. The **economic reaction**[2] could be a reduction of the state economic activities or a change of the procedures and rules guiding these activities, in short some kind of privatisation.

The **political reaction**[1] of the political system is likely to be a change of the features of the political decision-making process in order to reduce the weight of business associations and firms. The reaction may also involve some kind of change of the structure, procedures and competence of the state apparatus in order to perform the state institutionalised "business functions" more efficiently. The **political reaction**[2] could be some change of procedures and rules in order to commit business more closely to the affairs of the political system in order to augment business autonomy. The reaction may also involve some transfer of functions to private government institutions.

Finally, the **ideological reaction**[1] of the political system seems to be an intensification of the politics-economy/state-private issue in the political debate in its narrow as well as in its broad sense, and this will clearly be connected with an underlining of the ideological profiles of the political parties which again is supposed to lead to increased confrontation on the issue. **Ideological reaction**[2] is supposed to involve government efforts at explaining the feasibility and maybe even the necessity of a changed/reduced state sector; and this ideological statement is further supposed to intensify the state vs. the private issue in the political and public debate.

TYPES OF POLITICISATION, EXPLANATIONS AND REACTIONS

In this part of the paper I shall successively analyse the four types of politicisation, thus trying to connect the quantitative indicators with evidence of more qualitative explanations and reactions.

The **general activities and functions of the state** can be measured in several ways which all present a rather high level of general state activity and, at least in many instances, an increased level throughout the period. In 1973/74, general government expenditure as share of GDP amounted to 43.7%, but in 1983 it amounted to 62.3% (Statistisk tiårsoversigt, 1983: 101, 117; 1984: 103, 119). General government consumption expenditure increased from 20.9% in 1973 to 28% in 1983 of total domestic consumption expenditure, whereas private consumption expenditure increased only slightly in that period, i.e. from 53.5% to 55.6%, thus "leaving" a significant decrease from 25.6% to 16.4% to gross capital formation (Statistisk tiårsoversigt, 1984: 113).

Likewise, in 1973 the number of persons employed in public services, electricity, gas & water and communications was 552,600, whereas in 1983 it was 822,700, amounting to 23.3% and 34.1% respectively of total number of persons employed (Statistisk tiårsoversigt, 1984: 124). If, finally, we look at the bills passed by the Danish parliament, Folketinget, those concerning more general activities in 1972/73 amounted to 67.9% and in 1982/83 to 67.2% (calculated from Folketingsårbog, 1972-73; 1982-83).

Do these figures really indicate an increased level of politicisation of business? Maybe, but not without reservations. On the basis of the previously outlined assertion concerning the more fundamental ways of politicisation of business, I would be careful to exaggerate the politicising effects of these state activities. And this might be supported by the figures of appendix 1, clearly showing the weight of the general welfare issues, which are of only limited significance to business, and the rather small importance of the economic services.

From appendix 1 an economic explanation on the increased state activity could be inferred, too. I am referring to the effects of the dramatically increased unemployment, which in 1973 amounted to 0.9% and in 1983 to 10.8% of the labour force population (Statistisk tiårsoversigt, 1984: 40). But although I generally would assert the predominance of the economic-rooted problems as cause of the increased level of the general activites and functions of the state, this does not imply that political and ideological factors of explanation are without any value.

The unemployment issue, for instance, is but part of a more general welfare issue which has political aspects, too. It seems, however, far more difficult to demonstrate that the activities of the organisations, especially those of the publicly employed, have caused the expansion of general government than it is to connect that extension with the changed position of women in the labour force, the increased prosperity of society throughout the 1960s, and the socio-economic crisis of the late 1970s. At any rate, I do not accept the more or less explicit assertion that the current opposition of the publicly employed against cuts in the activities of general government proves that these groups were the main cause of the extension of these activities.

This is not to deny that features of the political process, structure of the state apparatuses and role of the interest organisations have contributed to the expansion of general government. But this has to be seen on the basis of a predominant attitude of most of the Danish population in the 1960s and early 1970s that the welfare institutions should be collective and a common cause, i.e. for all practical purposes organised by or in close connection with general government. Of course, this attitute has been especially advanced by the Social Democratic Party and the leftist parties; but it is worth mentioning that the liberal-conservative government of 1968-1971 accomplished a considerable expansion of public expenditure - and of direct taxes.

The reactions of business on the increased state activity have only to a limited degree been economic, I think because of the relatively small burden which the general activities and functions puts directly on business. This can be demonstrated by the corporation and other production taxes and the employers' social security contributions, which in 1973 amounted to D.kr. 3,118-million and in 1983 to D.kr. 11,929-million, that is 4.2% and 5% respectively of total taxes and duties (Statistisk årbog, 1984: 462-63). The relative increase is due to a doubling of the share of social security contributions.

A comparison of these business expenditures to industrial value added minus wages implies an increase, of course, without supporting the assertion of increased politicisation, however. Thus, in 1973 the share was 21.3%, whereas in 1982 it had only increased slightly, to 22% (Statistisk årbog, 1984: 462-63; Statistisk tiårs-oversigt, 1984: 71-72).

Nevertheless, business has complained over the increasing and troublesome burdens put upon it by the state, but these reactions are political and, in particular, ideological. Thus, the retail trade and the handicraft organisations have made the (unpaid) administrative functions for the state a political and ideological issue, but - as far as I can see - without much success.

More generally, part of business has criticised the unbounded expansionism of general government and its effects on business, e.g. the interest raising effect of the financing of the increasing deficit of the state budget. But, by and large, I would say that this business criticism did not until about 1980 really attack the total expenditure of general government. Rather, business has attempted to stop the growth of state expenditure and to reallocate public money for other general government purposes.

Within the political system, economic, political as well as ideological reactions can be identified, but the latter seem to predominate. Some parties want to activate general government institutions in combating unemployment (job-creation, municipal business activities etc.), but generally, these activities are of little economic importance. Contrary to this, other parties have attempted to promote some privatisation of services which are traditionally publicly produced; the slow progress of the idea of a "charge health system" indicates difficulties for this type of reaction.

It may be possible to find examples of political reactions that attempt to exclude business organisations from political decisions in which they are by tradition included, just as you may find efforts to change administrative apparatuses. But still, one characteristic of Danish policy-making is the intensive involvement of organisations, and especially business organisations, even in areas in which their interest is rather limited. To this corresponds the fact that only few, if any, of the general government activities and functions have been transferred to private government institutions throughout the period.

In contrast, with the "middle-of-the-road" reactions just mentioned, the ideological reactions of the political system have been far more extensive. Defeating the words of the prime minister of the liberal-conservative government of 1968-1971 that "ideologies are dead", the landslide election of December 1973 demonstrated the discontent of part of the constituency (the tax refuser and neo-liberalist Progress Party gathered 16% of the votes), i.e. it demonstrated the vitality or rather vitalisation of anti-statist attitudes.

This "political innovation" provoked several reactions, of which two are worth mentioning in this context. First, the anti-statist attitudes spread to most of the bourgeois and centre parties, some of which were the (solid or ad hoc) political partners of the Social Democratic Party. This change of attitudes evidently made it more difficult for the Social Democratic minority governments of the 1970s to combat the economic crisis with consistency and effectiveness. Even today, when the Progress party is without any political and ideological significance, much of the neo-liberalist idea remains in the bourgeois parties, especially in the Liberal Party.

Second, the reaction within the social democratic labour movement (party and trade unions) was somewhat ambiguous. One group attempted to combat the neo-liberalist attitudes by suggesting change and modernisation of the state institutions, thus containing more vigorous attacks on general government. Another group attempted to combat the economic crisis by changing the perception of the division of labour between politics and economy, i.e. by suggesting new or extended state activities within the sphere of production and marketing. But, as a consequence of the changed ideological climate, these suggestions have never been very far-reaching and offensive, implying that today - within the framework of an intensified ideological debate - some moderate and pragmatic variant of the neo-liberalist model seems to advance.

Compared with the first type of politicisation, the scope of **state interference with (potential) business tasks** is far more difficult to indicate, primarily because we do not have any detailed statistics of the composition and volume of public enterprise and of general government production of goods and services. In spite of this, and in spite of the much more limited scope of this type of politicisation compared to the above-mentioned, its importance for business is much more marked as are, accordingly, the reactions of business.

Public enterprise is rather limited and in 1972/73 and 1982/83 only one bill concerning this issue was passed by Folketinget. Outside traditional general government activities within energy and communication (public utilities, post- and telegraph services, and the Danish State Railways), you do not find many publicly owned firms, and in particular not within industrial production. A status of December 1979 only contains 38 joint stock companies in which the state participates as shareholder (Statsrevisorer, 1980: 36-37), and of these firms only 5-8 qualify as industrial production units. Although this list is somewhat outdated (e.g. the state, in 1981, became shareholder in Det Danske Stålvalseværk A/S), the pattern is unambiguous: In general the state does not act as industrial entrepreneur; and when it does, the performance is without any strategic plans for reshaping industrial structure and improving industry's adaptive capabilities (Sidenius 1982a; 1983).

General government production of goods and services is (inversely) indicated by state purchase of goods and services as share of gross general government consumption expenditure. This calculation shows that in 1973/74 and 1983 state purchase amounted to 32.6% and 31.1% respectively, i.e. a slight increase in general government production of goods and services (Kristensen, 1985: 105). If we, instead of this measure, compare general government purchase of goods and services from the private sector with the sum of gross general government consumption expenditure and real net investment, the development is somewhat different. In 1973/74 the share was 41.8%, but in 1983 35.8% only; and by extending the period, we find that the share was as high as 47.5% in 1970/71 (Kristensen, 1985: 109). - This type of state interference is not regulated by the legislature, but by government and the administrative agencies. It is therefore next to impossible to gather a systematic picture of the decision-making concerning this issue.

How do we explain this? With regard to public enterprise, I think that much of an explanation can be found in the industrial structure and the pattern of political decision-making and the ideologies connected with it. Denmark does not possess many of those raw materials which elsewhere have very often constituted the basis for state enterprise. Furthermore, the structure of size of Danish industry is marked by the great number of SMEs, whereas the large firms, although relatively important, are limited in number and small compared with firms of other countries (Sidenius, 1982a; 1983). In my opinion, this explains why state enterprise never reached the scope it did in other countries and actually only in periods has been an issue on the political agenda.

Moreover, this feature of the industrial structure was partly caused by the prevailing decision-making process and liberalist ideology, which it strengthened further: The involvement of business organisations instead of firms and the attitude of non-interference except in cases of increased competition from abroad evidently favoured the maintenance of the border-line between public and private enterprise.

The level of general government purchase of goods and services from the private sector, which is not especially low compared to other countries (Kristensen, 1985: 196), and the decrease of that level need to be explained, too. In this case, and in contrast to the first type of politicisation, I find it well-founded to assert that the interest of the bureaucracy is one major reason for the extension of general government production, which, of course, has worked together with the ideology of state-institutionalisation of functions in society. The assertion is partly supported by the fact that the decrease in general government purchase of privately produced goods and services is especially marked with regard to real net investment, which above all involves private firms. Cuts in public expenditure seem to be carried through more easily in areas where the expenses are transferred to private enterprise (Kristensen, 1985: especially chapter 3).

Business reactions to this increased - although with regard to state enterprise rather low - level of politicisation have been political and ideological. Politically, business - organisations as well as firms - has increased its efforts of influencing, i.e. reducing, general government production of goods and services, but due to the lack of detailed statistics systematised as time-series it is impossible to say where these efforts may have succeeded. Ideologically, business has launched campaigns against the increased exclusion of private firms from the production of goods and services to the public sector, that is business has tried to change the procedures of general government both directly and more indirectly by changing the popular opinion.

Concerning state enterprise, business has not really attempted to accomplish any kind of privatisation. But it has, especially in the case of Dansk Olie og Naturgas A/S, vigorously combated the extension of state enterprise into new areas and new functions. In this endeavour, business has been partly successful.

Reactions of the political system seem to be very similar to those concerning the first type of politicisation. One economic reaction has been an attempt by the present bourgeois government to privatise the state share (50%) of an industrial and mining company, but although this decision is clearly within the competence of government, it has not been accomplished yet. Politically and ideologically, the efforts have aimed at either a moderate extension or a ditto privatisation of these general government activities and functions, and, accordingly, focussed on ideas of restructuring the state sector in order to make it better able to manage one or the other intended situation. It would be an exaggeration, however, to say that these ideas have materialised in any significant way.

State intervention concerning business performance is of a somewhat ambiguous nature in its importance for and effect on business. The ambiguity is caused by the fact that industrial policy and purchasing and procurement policies as an integral part of this are in the economic interest of business - provided that the rules and procedures of that policy do not constrict business autonomy. Accordingly, this type of politicisation (founded on e.g. subsidies, tax reliefs and development contracts) may develop some kind of basis for an economic dependency of business on state intervention; but real dependency does not follow by necessity as the rules and procedures may not support such dependency or may even counteract it. Nevertheless, it may be asserted that the multiplication of interventionist schemes and the increase of capital connected with it generally politicise business performance.

In this context, it is necessary to distinguish between business organisations (umbrella organisations in particular) and individual firms. The former may attempt to restrict state interference because it contains a (potential) danger for business autonomy, whereas the latter, which profit from the interventionist schemes, may disregard this perspective and go for the money.

Although the relevant share of bills passed by Folketinget decreases from 20.4% in 1972/73 to 18.4% in 1982/83 (calculated from Folketingsårbog, 1972-73; 1982-83), it is beyond doubt that the industrial policy issue has become more salient throughout the 1970s. This can be demonstrated by reference to the absolute number as well as the relative weight of industrial policy bills passed by Folketinget (Sidenius, 1982b), the number of industrial policy schemes (Sidenius, 1982a), and the capital allocated for this purpose, which is demonstrated in appendices 2 and 3.

These figures of direct state support is not the whole story, however. It has been calculated that the subsidising value of tax reliefs more than doubles that of direct subsidies: Direct subsidies to agriculture (13%) and industry & handicraft (17%) amount to 31%, whereas indirect subsidies amount to 69% of a total of D.kr. 22.1-billion in 1982 (Arbejderbevægelsens Erhvervsråd, 1984: 26-27).

And even this is not the whole story, which is, however, difficult to tell in details due to the lack of homogeneous figures systematised as time-series. The labour movement, which has an interest in demonstrating the importance of industrial subsidies as a basis of the claim for increased state intervention with industrial performance, has thus calculated the following figures concerning the direct industrial subsidies in 1982:

1) Direct industrial subsidies amount to almost 5% of industrial value added.

2) Subsidies for technological innovation amount to 25% of industrial expenditure for research and innovation.

3) Investment subsidies amount to 31% of total industrial investment and to 6% if shipbuilding is excluded.

4) Export subsidies amount to 1% of total export value (Arbejderbevægelsens Erhvervsråd, 1984: 28; cf. also Carlsson, 1984).

The Federation of Danish Industries, whose interest is opposed to that of the labour movement, has calculated figures for the early 1980s, cf. appendix 4, and estimated the following figures of direct industrial subsidies for 1985:

1) State subsidies for research and innovation do not amount to more than 10% of industrial expenditure for this purpose.

2) Likewise, state subsidies for export promotion does not amount to more than 10% of total industrial export promotion (Industrirådet, 1985: 5).

The figures are not directly comparable, and of course the percentages increase when subsidies are related to the performance of those firms that actually receive state subsidies. Anyway, I find it well-founded to say that the amount of state subsidies to industry is of relatively small importance for the politicisation of business. And, although this aspect of industrial and procurement policies in itself is important for the concept of politicisation of business, I think a more important aspect are the rules and procedures guiding this interaction between politics and business. These procedures and rules can be summarised like this:

1) Most of the supporting schemes, and especially the indirect support, is of a general nature, i.e. open to all industry.

2) The utilisation of the schemes is almost completely decided upon by the firms and not by the administration, i.e. the firms initiate the interaction.

3) Most of the schemes are based on a claim of profitability and working support is for all practical purposes not possible.

4) Most of the interventionist schemes are partly administered by boards composed of representatives from ministries and business organisations, thus institutionalising some kind of fence against potential more dirigist state initiatives.

5) Even the latest interventionist schemes - development contracts, systems export, the national information technology programme, elements of public procurement, and a more coordinated approach to public purchasing - do not really exceed the outlined norm of Danish industrial policy.

The explanation of this type of politicisation of business is very similar to that of the second type of politicisation. Here, the increased weight of industrial policy within the political system must definitely be seen as a consequence of the economic crisis, as a way of counteracting it. But the still relatively small economic weight of that policy, cf. appendix 2, indicates its inferior position vis-à-vis the more general and traditional economic policies, a position which is explained by the political decision-making process and the connected liberalist ideology, and - as a consequence of this, by the undeveloped administrative capacities for a more active and dirigist state intervention.

Generally, the reactions of business have corresponded to this moderate extent of politicisation. No firm has moved abroad or let its investment decay because of this policy. Business, and especially its organisations, has participated "as usual" in the political decision-making process, and it has only reacted politically with some strength if the procedures and rules were changed or attempted changed, e.g. by other segments of the administration (cf. Sidenius, 1984: 128 + 151, 152). Likewise, business has reacted ideologically by explaining its viewpoints and by extending its information functions (e.g. Industrirådet, 1977; 1983), reactions which are primarily caused by the generally increased interest in industrial policy in the labour movement and the political system.

The reactions of the political system are very much formed by the consensus and tradition of compromise between the older parties and some of the new centre parties. Thus, with the exception of direct state participation in firms, these parties have more or less agreed to turn down propositions of the Socialist People's Party to extend the scope and "dirigism" of this state intervention.

Likewise, the proposition of the Socialist People's Party to reduce the position of business in the administrative boards concerning industrial policy has been rejected, implying that the political majority does not intend to further politicise the issue and - as a perspective - business. And in accordance with a proposal from the industry and handicraft organisations, the present bourgeois government has privatised the administration of one of the old industrial schemes; but - characteristically of Danish industrial policy - the financing of that scheme is not privatised (Sidenius, 1984: 135). - As a curiosity I will mention that the Left Socialist Party, as its contribution to the privatisation campaign of the present bourgeois government, proposed a "privatisation of private enterprise". The government did not accept the offer, however.

Finally, the ideological reaction of the political system, especially the parties, has been relatively moderate, i.e. without contesting the prevailing consensus. However, some viewpoints, in particular concerning the proper role of general government agencies in industrial policies, have recently been sharpened, see e.g. Socialdemokratiet (1984: 7-11).

State regulation of business is by far the most important type of politicisation of business: It goes directly to the core of business autonomy concerning the production process and the products, and regulation has expanded throughout the 1970s, e.g. in the area of environmental protection. I am not at present able to review that type of politicisation in its totality, but will try to illustrate some features, using the policy of environmental protection as an example.

In general, the share of regulating bills passed by Folketinget has not increased, as it in 1972/73 amounted to 4.6% and in 1982/83 to 4% (calculated from Folketings-årbog, 1972-73; 1982-83). The validity of this figure is rather low, however, because most of the regulating statutes, e.g. within environmental protection, are not specified in the same way as are most other statutes, implying that much of the substance of these statutes is specified through implementation processes more or less beyond the reach of legislature.

Perhaps the best, although not the only, way of indicating the increased importance of this type of politicisation is the expansion of the administration concerned with environmental protection. This indicator is not without its problems, but I think that it fairly well indicates at least the potential for state regulation of business, especially industry. In 1973, the Department consisted of 3 officies with 15 academic employees, the Environmental Agency of 4 offices with 34 academic employees, and the Institute of Food had 37 academic employees; in 1983, the Department consisted of 6 offices with 45 academic employees, the Environmental Agency of 18 offices with 153 academic employees, and the Institute of Food had 70 academic employees (Kongelig Dansk Hof- og Statskalender, 1973; 1983).

This remarkable increase in number of employees and in the diversification of functions evidently reflects the changed attitude to environmental protection in the broad sense of the word, implying that most statutes of this policy area attempt to reduce the strain on environment through various kinds of regulation. In some contrast to the other types of politicisation, this development is explained by economic, political as well as ideological factors.

The awareness of the strain on the environment caused by the modern industrialised society (and this also includes agriculture) became more widespread in the late 1960s as it was felt that the future of society in some respects was threatened by the excessive use of resources and by the increase of pollution. This awareness of the ecological basis of society and the future ecological and economic effects of a perpetuation of the current ways of production and consuming expressed itself in several environmental movements that throughout the 1970s gathered a notable strength and effect on the political system. These movements evoke a response within government and within parts of the administrative system: There definitely was a job to be done, and the resources were devoted to it. And this specialised and committed part of general government administration was rather successful in its efforts to successively increase its resources.

When a bill which included a strengthening and coordination of the efforts of environmental protection was proposed by the Social Democratic government in the early 1970s, industry opposed it fiercely, but at the same time it tried to change the bill, not to refuse it completely: Industry apparently realised the necessity of some kind of environmental protection. Through a coalition with the Conservative People's Party, industry was successful in changing the bill, which was reproposed and carried through Folketinget in 1973.

The founding coalition of this statute, the Social Democratic Party, the Conservative People's Party and the Federation of Danish Industries, has ever since stuck to this unity. The consequence of this has been that industry has proved successful in promoting its viewpoints whenever the statute has been changed or implemented.

But industry has also been forced to give up some of its initial viewpoints, e.g. concerning the inclusion of other vested interests in the decision-making process in this area, forced by a combination of committed specialists in the administration, the environmental movement and their activities, and the popular opinion concerning environmental protection, which throughout the 1970s has currently been encouraged by environmental "accidents" and the discovery of previous actions by industry straining the environment. So, this duplicity of influence and relinqueshed positions forms the dilemma of business organisations.

The reactions of the industrial firms have been a little different. Some firms have started to produce equipment for environmental protection, whereas others - but as far as I know not many - have threatened to move their factories abroad due to the difficulties of obtaining an environmental approval without too much expenditure. Most firms have reached a solution with the municipalities, the result of which is, it is often asserted, that environmental protection has not reached the intended level. And this, in the hands of the environmental movement, becomes an argument of strengthened regulation and administration.

In order to impede this development, or rather to change popular opinion and the attitudes of the politicians, business organisations and some large firms placed in an unfavourable light have initiated information campaigns founded on the argumentation that there must be some kind of moratorium with regard to new statutes and administrative rules and that the damage on the environment will now be countered efficiently, cf. e.g. Information (1984) and Økonomisk Perspektiv (1985). The effect of such campaigns is difficult to estimate, however.

The reaction within the political system has been to oppose the viewpoints of industry by maintaining the necessity of an increased level of environmental protection, but also attempts to comply with the economically founded demands of industry by proposing some halt for further strengthening of statutes and rules. A more political reaction has been, as it is already suggested, to include new and more or less "industry-opposed" actors in part of the relevant decision-making processes, and another attempt has been to change the administrative procedures in order to increase the influence of the (central) Environmental Agency at the expense of the (decentralised) municipal authorities. An attempt in favour of industry has been to facilitate the procedures connected to business complaints of administrative decisions. Finally, the decision-making process of this area could be perceived as a reaction to the criticism and demands of business, the political purpose of which is to bind business organisations to (the currently changed) status quo.

Ideologically, there has been some controverse over the freedom or regulation of business, but if we exclude the most leftist and rightist parties, the position of the parties and the saliency of the issue seem to contain themselves within relatively narrow limits. This is more or less due to the early establishment of an enduring coalition of parties and organisations which at any moment, but not necessarily over a longer period of time, develop "middle-of-the-road" solutions, and thus partly depoliticise the issue.

SOME TENTATIVE CONCLUSIONS

Concerning the effects on business of the increased politics-business relations, the analysis has supported the assumption that there are notable differences between the four types of politicisation. The most extensive type does only encircle the activities of business, whereas the more limited, state interference and state regulation, affect business profitability and autonomy much more directly. Thus, the indicators on the development throughout the 1970s more than imply that business activities are increasingly regulated, i.e. business autonomy is restricted. It also seems relatively well-founded to say that the attention of business with regard to the effects of state activities has increased; but as this increased attention is concentrated within business organisations, I am at present not able to say how far the attention of firms has been diverted from the economic market place to the political scene.

The economic explanations seem to predominate as they were supposed to, but with notable divergencies between the types of politicisation. The general activities and functions of the state are primarily economically explained, whereas state interference, state intervention, and especially state regulation are explained with reference to political and ideological factors, too. The reactions of business are analysed as primarily political and ideological as are the reactions of the political system.

If these conclusions are watertight, they offer a rather gloomy perspective to industry - even if more "strategic" politicisation and offensive statist ideologies are of limited importance. This gloomy perspective is founded on the assertion that the most radical type of politicisation, state regulation, is very much based on political and ideological factors which seem more difficult to change than are the economic factors. The implication is that the urge for state regulation of business may persist even when its initial economic cause is removed. And increased business attempts to moderate this process of regulation may just serve to politicise its activities and restrict its autonomy even further.

The other part of the gloomy perspective is that the political system does not really seem to change those types of politicisation that matter most to business, state interference and state regulation. Instead, the political parties seem more interested in sharpening their ideological profiles on the type of politicisation that does not matter so much to business, general activities and functions of the state.

One implication of this conclusion is that the political system has not really changed in order better to handle the demands of business, nor has it changed in order to interact more efficiently with business. Another implication is that business has not really tried to change the rules and norms of the political system, e.g. by having industrialists elected as MPs, although this possibility has been debated several times within industry. There are several explanations to this, e.g. the limited number of big firms with traditionally close relations to the political system. To this corresponds the assertion that although many firms have enlargened their information functions, it is not possible to identify firms with proper government-relations divisions, the existence of which could be the best indication of a changed attention of business with regard to general government. Thus, the new business man does not seem to have been generated yet -- at least not beyond the scope of a spare-time occupation.

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Appendix 1. **General Government Expenditure By Function, Per Cent**

	1973/74	1983
General public service	9.7	9.6
Defence	5.2	4.7
Education and research	17.3	14.9
Health	12.8	10.4
Social security and welfare services	35.5	41.0
Housing and community amenities	3.3	3.3
Recreational and cultural services	3.3	3.0
Economic services	13.0	13.1

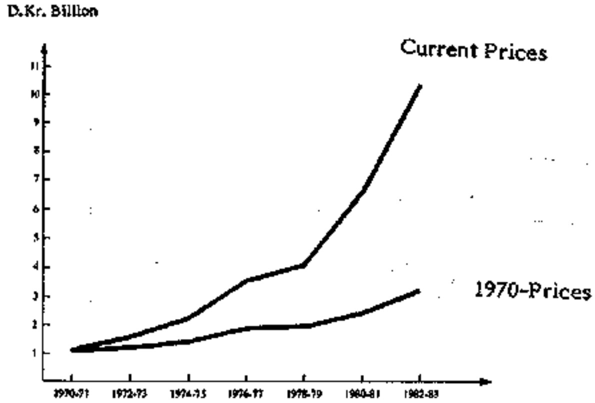
Sources: Statistisk tiårsoversigt, 1983: 105; 1984: 107.

Appendix 2. **Subsidies, Capital Transfers and Economic Services, Billion D.Kr. and Per Cent of General Government Expenditure by Type of Transaction (1-3) and by Function (4)**

	1973/74		1983	
1) Subsidies	5.509	7.3	17.285	5.4
- to private enterprises	4.508	6.0	13.295	4.1
- to public enterprises	1.001	1.3	3.990	1.2
2) Capital transfers to enterprises owned by the sector	1.114	1.5	4.340	1.4
3) Capital transfers to other public and private enterprises	183	0.2	2.300	0.7
4) Economic services	9.384	13.0	36.273	13.1
- Business conditions in general	671	0.9	9.833	3.5
- Manufacturing and construction etc.	1.586	2.2	1.957	0.7

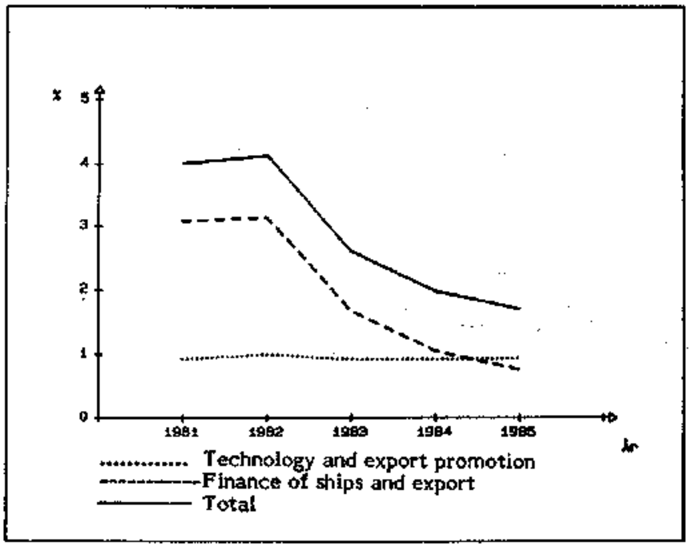
Sources: Statistisk tiårsoversigt, 1983: 101, 105; 1984: 103, 107).

Appendix 3. **State Transfers (Grants and Loans) to Industry, 1970-1983**



Source: Finansministeriet, 1983: 241.

Appendix 4. **State Subsidies, Per Cent of Industrial Value Added, 1981-1985**



Source: Industrirådet, 1985: 5.

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POLITICS AND BUSINESS
The Case of West Berlin

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INTRODUCTION

The question of the relation between politics and the economy has a long tradition in Germany. Not the least to remember is the debate about "organized capitalism" in the Weimar Republic (Hilferding 1923). After World War II this discussion stagnated. In the Midsixties and the beginning Seventies only the political left raised the issue of state capitalism (Staatsmonopolistischer Kapitalismus) (Rudzio 1977; Ebbighausen /Winkelmann 1974). In the last years however the question of the interdependencies of economy and politics in general had a renaissance: the issue of the relation of citizen representation and functional representation came up again.

This discussion did not start with an inquiry of parlamentarism or democratic theory, but was dominated by the new paradigm of neo corporatism (Beyme 1983; Schmitter /Lehmbruch 1979; Alemann/Heinze 1979). In the beginning of this discussion the corporatist subsystem was seen as relatively autonomous. Somewhat later the problem of the relation between party system and the corporatist system became more prominent. If corporatism is regardes as a special structur of interest relations, some consequences for the party- and parliamentary system are implicated. The following positions are reported in the literature (Halle 1984):

- Neo-corporatist arrangements emerged at the expense of the parliament and the party system. This thesis, for example, is pointed out by Harrison(1980), Jessop (1979) and Offe (1982).
- Neo-corporatism supports the essential mediation function of the parties. If parliamentarism and the

corporatistic system are positively coordinated a raise of power for the party system is even possible (Wilnsky 1976; Schmitter 1981; Lehmbruch 1981, 1982; Panitch 1979; Beyme 1983).

Most of the studies in corporatist policy making focus on the macro level of interest mediation. However corporatism is not only a macro structure for negotiations of organized interests (labor unions, employers' associations) but also a structure of institutionalized channels of coordination with a tendency to produce compromise. Neo-corporatist policy making can also take place on levels smaller than the nation level, like in communities or cities.

A community power structure can be called corporatistic, if a three-cornered configuration of conflicting social and economic interests and state intermediation exists (Beyme 1983). However politics and business can also have a direct relation without the involvement of a third conflicting group. In this case the structure cannot be named corporatistic. We suggest that one should speak of corporatism only in the case when the state is not dealing solely with a single association that holds a monopoly on "representation".

In this article we like to picture and to analyze for the economic sector what Domhoff (1979) calls the policy planning network. The corporate network of institutionalized relations between parliament and business in West Berlin will be our test-case.

In general the businessmaking of a city is affected by several decisions of the government: Income and tax policies, investment and subsidy policies, city planning and land-use control.

Several generations ago, businessmen occupied most of the elective offices in many cities (see for example New Haven in the period 1875-1880: Dahl 1962). Much more often however they stood in the shadow of the political bosses, supporting or corrupting politics for their own and their companies' purposes. Today the political role of business has changed in some way. Political parties and the political administrations of a city or a state are very complex machineries and up to a certain degree autonomous forces, which are, in a way, controlled by the mass public. So business must limit istself to demands which are in some sense regarded as legitimate. Mostly, the politics of business and large corporations are in effect a defense strategy against government decisions (Banfield/ Wilson 1967, p. 261-276).

This does not mean that businessmen are politically inactive. In a community influence system it is possible to influence political decisions not only via informal channels of information and cooptation, but also by occupying elective positions. One of the central representative institutions which offer this opportunity are the parliaments. In general, in democratic systems political decisions have to pass parliament. Here the parties and experts work out projects in specialized boards. The boards prepare the decisions and the plenum ratifies these decisions.

Here the possibilities to influence the course of politic are large, to say the least. In addition, leading party positions provide a good chance, to influence government projects.

In this article the system of institutionalized influence and negotiations for the economic policy planning network of West Berlin is analyzed. We explorate the structural preconditions of corporate policy making.

Thus, the question is: do we find a structure of what Lehmbruch (1982) calls "parliamentary corporatism" and what does this mean for business and the political system or do we find the classic pressure group relations between the economy and the state.

DATA AND METHODS

The data base for this study originally originates from a study of the Berlin city parliament and its relation to the network of societal interests (Wessels 1985; Herzog /Klingemann et al, forthcoming). It was extended and modified for the purposes of this paper.

All members of the Berlin city parliament (Abgeordnetenhaus) have to announce their positions in profit and nonprofit organizations. This information is available from the handbooks of parliament (Handbuch des Berliner Abgeordnetenhauses, Teil II). Given this source we developed a data set, which contains the information about the interlocks between organizations.

In this analysis the sociological function of interlocked organizations is conceptualized as information sharing and the creation of common viewpoints. It can be also regarded as a basis for cohesion and consensusbuilding within the corporate community.

Normally persons are seen as actors in community affairs.

The alternative approach conceptualizes organizations as the important political actors. It has been successully applied for large cities in the United States (Turk 1977). In this new approach for analyzing processes of influence, organizations are seen as holder of ressources which are used by the agents of the organizations. Agents of the organizations are directorates, acting in common with their role task and in common with the interests of the organization (Weber 1972, p. 25; Colemann 1982). For this analysis two data-sets are used for the economic policy planning network: (1) one for the legislation-period from 1979 to 1981 and (2) one for the legislation-period from 1981 to 1985. Table 1 shows the organizational groups, contained in these data-sets.

The first intercorporate economic network (1979-1981) was built from 604 interlocks between organizations . The second intercorporate network consists of 476 links.

Links are measured as bipartite graphs. A link or line between organizations is defined with the existence of at least one interlock. In other words: the multigraphs of interlocks is reduced to a single graph of lines.

How strong a relation between two aggregates of organizations is, can be measured by bipartite density. The bipartite density gives the proportion of observed lines actually connecting aggregates of organizations of the maximum number of possible lines to that type. The maximum number of lines between different sets of organizations is defined by the number of organizations of the first set, multiplied with the number of organizations of the second set ($n_{s1} * n_{s2}$). Within one set of organizations this figure is defined by ($n_{sn} *(n_{sn} - 1))/2$.

The average density in the two economic policy planning networks is very similar, with a realization of 13.3

Table 1: Sets of Organizations in the Economic Policy Planning Networks 1979 - 1981 and 1981 - 1985

	1979 - 1981	1981 - 1985
PRIVATE:		
Banks	3	1
Financial Organizations	4	3
Insurance Companies	1	-
Small Service Enterprises	6	5
Large Service Enterprises	5	5
Small Production Enterprises	2	1
Large Production Enterprises	17	20
Labor Unions of "DGB"	1	4
White Collar Unions (Employee, Civil Servants: DAG,DBB)	3	-
Economic Interest Organizations	4	3
PUBLIC:		
Banks	4	4
Insurance Companies	3	3
Public Service Enterprises	3	2
Public Enterprises (Öffentliche Betriebe)	11	3
Public Housing Construction Companies	3	1
POLITICAL ORGANIZATIONS:		
Economic Boards of Parliament	3	3
Boards of Public Enterprises/ Financial Holdings	3	3
Principal Board/ Council of Elders	2	2
Boards for Social and Cultural Affairs	12	15
Executive Committees of Parties	3	3
Executive Committees of Caucuses (Fraktionen)	3	3

percent of possible relations in the period of 1979-1981 and 13.7 percent in the second period.

In both periods 35 respectively 39 percent of the links realize a connection between private and public owned corporations, firms, unions and interest groups on the one hand and the political boards, the executive committees of the parties or the caucuses (Fraktionen) on the other hand. The other links consists of relations within the set of political organizations or within the set of economic organizations.

In the first section the article gives some information about the situation in West-Berlin. In the second part we shall elaborate the the structural aspects of the network concerning economic policy coordination and in the third part the problem of stability of such networks and its consequences for business and politics will be discussed.

IS WEST BERLIN A SPECIAL CASE ?

West Berlin is a city and a constituent state (Land) of the Federal Republic of Germany. There is a formal divisions of functions between the federation (Bund), the constitutional states and the local authorities. Local administrations in the municipalities depend directly on the Länder-governments. The main responsibilities concerning administration rest with the Länder. Legislative power is devided between the federation and the constituent states as defined in the Basic Law (Grundgesetz). A similar division of functions pertains to the tax system. For example some taxes or share of taxes go directly to the municipalities, while other taxes go to the Länder or to the Bund. Some taxes are shared between all three levels of government.

In general, the states posess autonomous power of decision making in specific areas.

Berlin, as well as the city states Hamburg and Bremen, differs in some way from the other eight Länder. The Senate (city-state-government) exercises both state and municipal functions. In addition, Berlin differs from all other states of the Federal Republic: Berlin is situated as an island within the German Democratic Republic and is devided by a 45-kilometre long wall into an Eastern and a Western part. Organized as a city state, the current status of West Berlin rests on the wartime agreements of the Allied Powers and the important new aggreements of 1971. The 1971 agreement has led to a process of normalization. Since then trade to and from West Berlin through corridors to the Federal Republic has increased. The disappearance of acute tensions has enabled West Berlin to concentrate on economic problems which emerge as consequences on its isolated location.

Today, the developement of the city's economy shows the same trends as other large cities in West Germany and the Federal Republic (Mensch 1980). Since 1971 the rate of investment is very similar to that of the Federal Republic; the increase in productivity is quite the same. The raise of the national product is only somewhat smaller (Ruschemeier 1979).

The economic development can be regarded as a result of political actions taken by the cities government. Like in other structurally handicaped areas, West Berlin tries a strong investment- and subsidy policy. There is a special publicy owned company which provides information for companies which want to settle down in the city. Every year a congress of chairmen of large companies in the Federal Republic headed by the German Minister of the Economy is held, to convince corporations to invest in West Berlin.

As pointed out by many authors, the most interesting point concerning the Berlin economy is the "mixed economic structure" (gemischtwirtschaftliche Struktur). The city owns 32 stock corporation and 21 other companies and holds about 803 Million Deutsch Marks of their capital. The money held by the government in the case of the stock corporations reaches 760 Million Deutsch Marks. Compared to the capital of all stock corporations this amounts to about 15 percent. Therefore, the involvement of the state in the market economy is remarkable. This, however is not only true for West Berlin. Schleswig-Holstein, for example, owns about 100 Million Deutsch Marks of stock corporations. This amounts to about 16 percent of the stock capital of all stock corporations of this state. In Hessen we find nearly the same proportion. Unfortunately, for the city states of Hamburg and Bremen no data are available to compare the stock holding of the state with that of the market economy. We would hypothezise, however, that a certain mixture of public owned companies and private owned companies in the current economy of West Germany is quite normal.

Furthermore it could be hypothesized, that there is a relatively strong integration of business and political interests in all states of the Federal Republic.

INTEGRATION AND STRUCTURAL DIFFERENTIATION OF THE ECONOMIC POLICY PLANNING NETWORK

General Aspects

The Berlin city parliament (Abgeordnetenhaus) consists of 134 MP's in the 8th and of 132 MP"s in the 9th legislation period. In both periods about 25 percent of the MP's held leading positions in corporations, business firms, unions or economic interest associations.

In sum, they occupied 103 leading positions in economic organizations in the first legislation period and 79 positions in the second term. About a third of these positions are in private economic organizations; the rest of the leading positions are in publicy owned companies. In the field of politics these persons held additional 81 respectively 79 leading positions in boards, executive commitees of the parties and in the caucuses (Fraktionen). Thus about a half of all positions of these MP's belong to the economic sector.

The Network of Politics and Business

These MP's constitute a network which connects economic and political organizations.

In earlier analysis it has been shown, that the sector of economic interests can be regarded as a separate arena in the power structure of all integrated societal interests (Wessels 1985). In this paper we want to present a more detailed description of this very economic network. Figures 1 and 2 show the general structure of "strong" links between the sets of organizations in the two periods.

Figure 1: "Strong" Links in the Economic Policy Planning Network 1979 - 1981

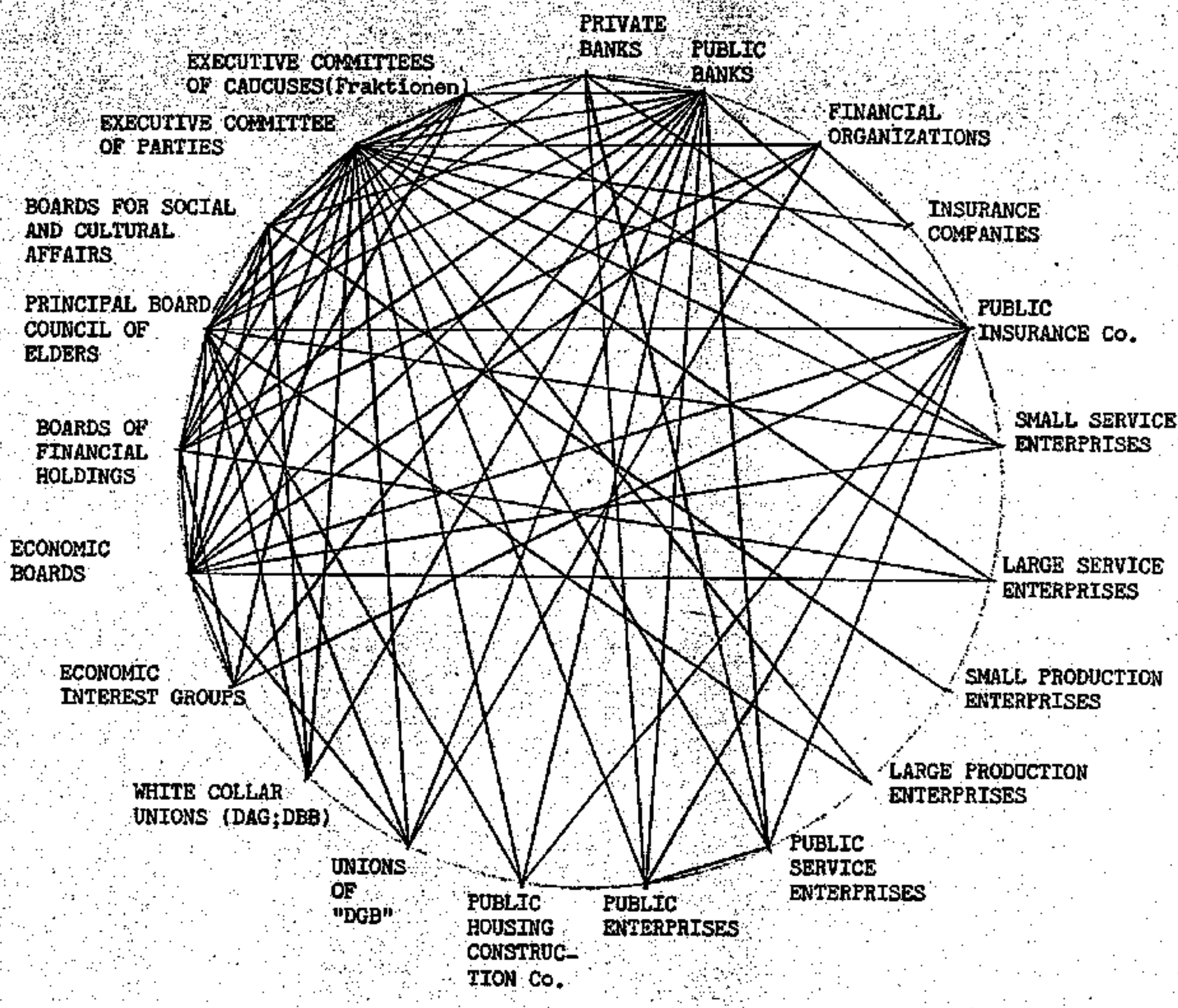
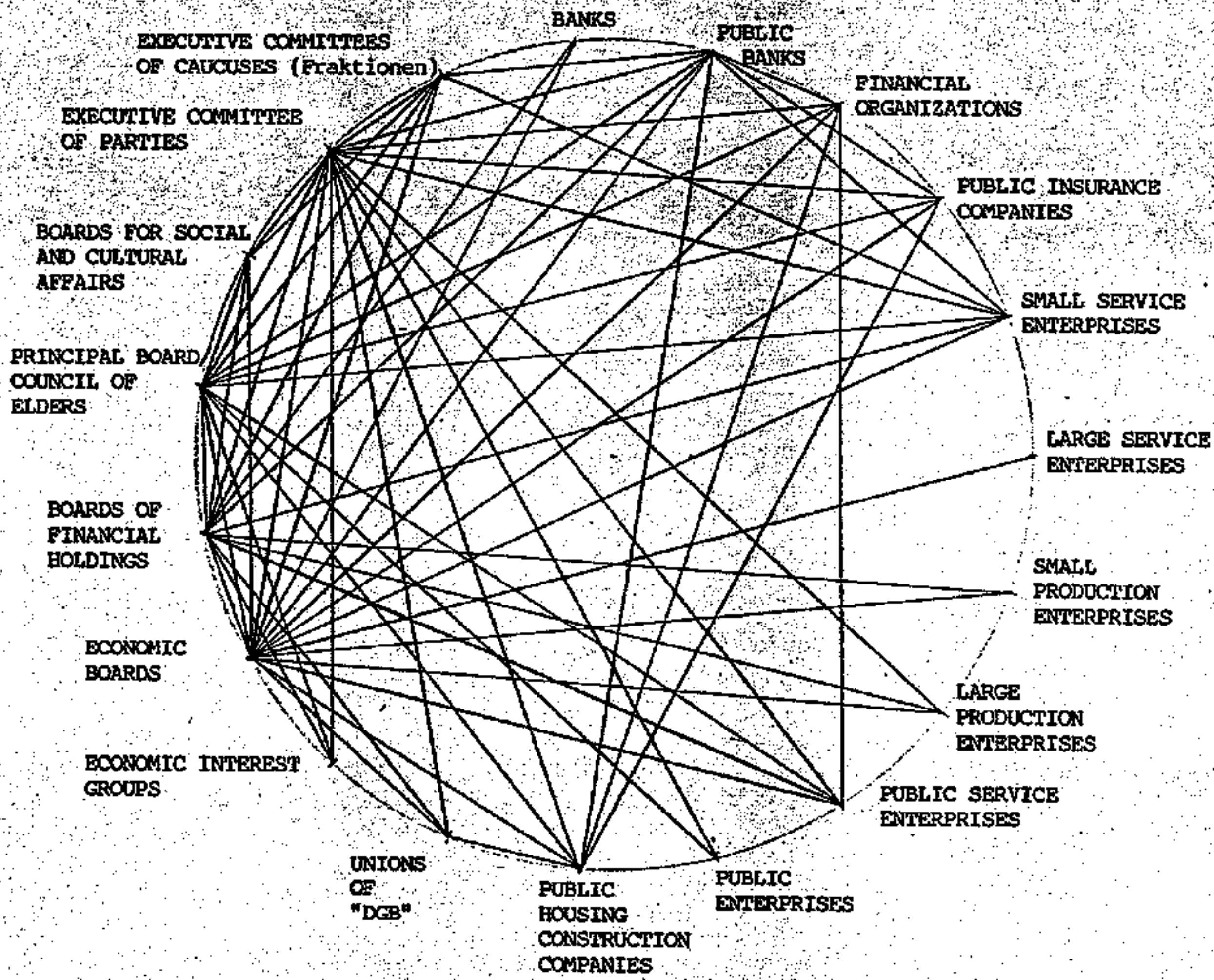


Figure 2: "Strong" Links in the Economic Policy Planning Network 1981 – 1985



Each line represents a relation with a bipartite density stronger than the average which means for the first legislation period stronger than .166 and for the second legislation period stronger than .164 .

The general impression is, that the structure is relatively equivalent in both periods: The number of strong symmetric links in the first legislation period connecting 21 sets of organizations is 71. In the second legislation period there are 19 sets of organizations and the number of links is 62. This ammounts to an average of about 7 per set of organizations concerning the incoming or outgoing relations. However, these relations are not equally distributed within to the sets of organizations. Strong links exist within the sets of economic organizations, but most of the relations connect political institutions and economic organizations.

In the second legislation period (1981-1985) the structure looks more open and shows a much stronger orientation of the business to the political organizations.

To get clearer view of the structure, the unfolding of the density matrizes by a smallest space analysis is a heuristically useful method. The programm MINISSA as developed by Coxon, Jones and Tagg (MDS (X) Series 1981) was used for the analysis. The metric is euclidean and ties are handled as ties.

For both periods we get a two-dimensional solution, with a stress coefficient which is not too good, but can be tolerated (Borg 1981). The stability of the solution is acceptable too,however, some problems are caused by local minima, especially with respect to the second legislation period. Although the solution is not the best one, it can be used for heuristic and descriptive purposes.

In both periods a strong sectoral differentiation between public owned companies and private enterprises can be observed. Both sectors are located at the peripherie while the political organizations and institutions form the center. The two sectors are separated by the economic interest groups: by the blue collar unions of the DGB on the one hand, and by the economic pressure groups, and in the first period also by the white collar unions (employee, civil servants), on the other hand (see Figure 3 and 4).

With the exception of some details the configurations of the economic policy planning network of both periods are structurally equivalent. The important role of public corporate enterprises and companies within the economic policy planning network can be conceptualized as a result of the economic system in Western Germany.

In general, the economic system of the Federal Republic can be characterized as basically market-oriented, with a strong element of government intervention, mainly for social reasons. So public owned housing, public insurance and other services guaranteed by the state play an important role in the economy. Public enterprises guarantee the supply of households and industries with energy, they provide public traffic, garbage removal and other services.

This part of economy, however even it it is owned by the state is a profit oriented business. It is evident that

Figure 3: The Structure of Intercorporate Relations in the Economic Policy Planning Network 1979 - 1981

Smallest Space Analysis, Euclidean Metric, Stress1: .248

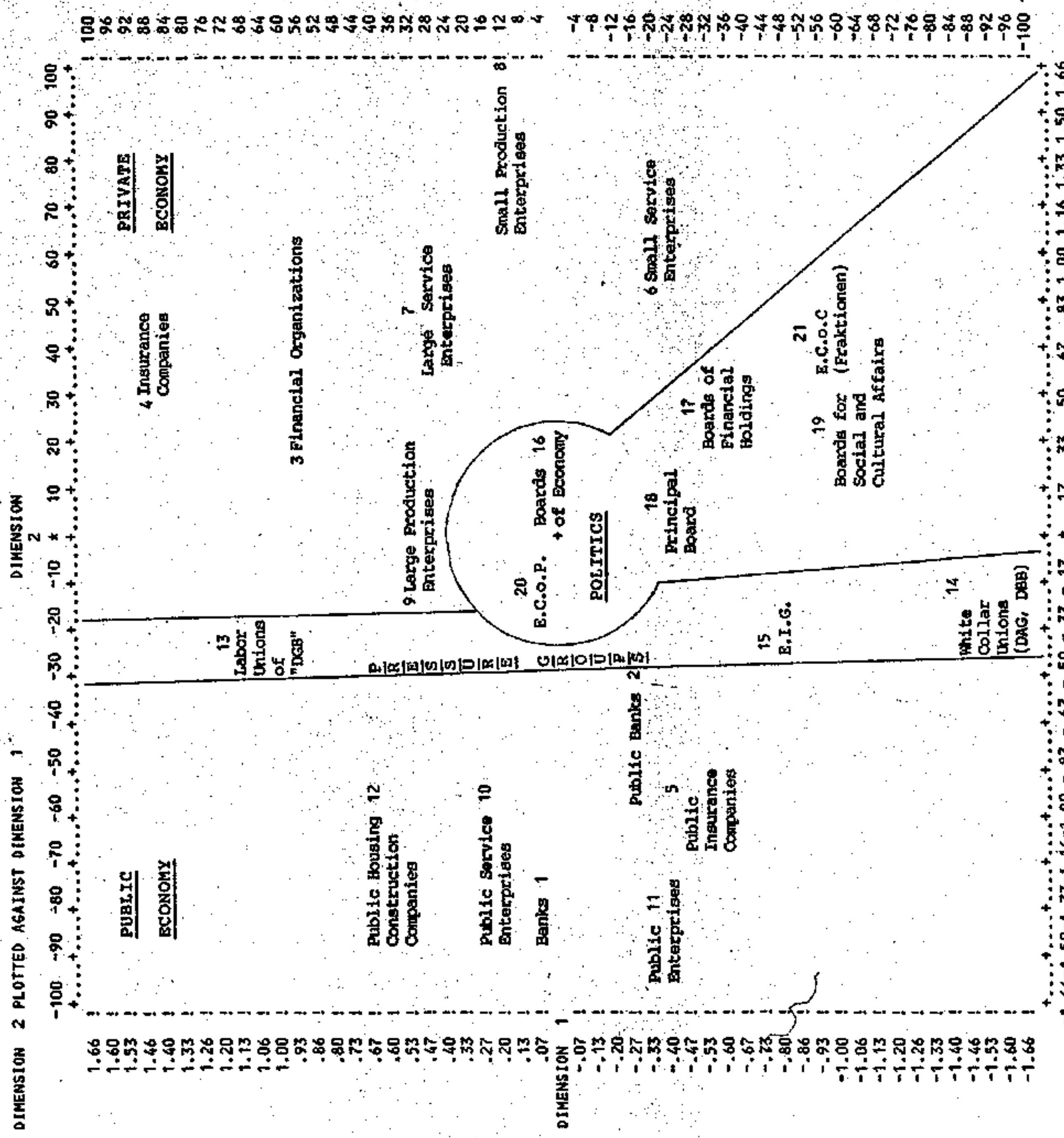
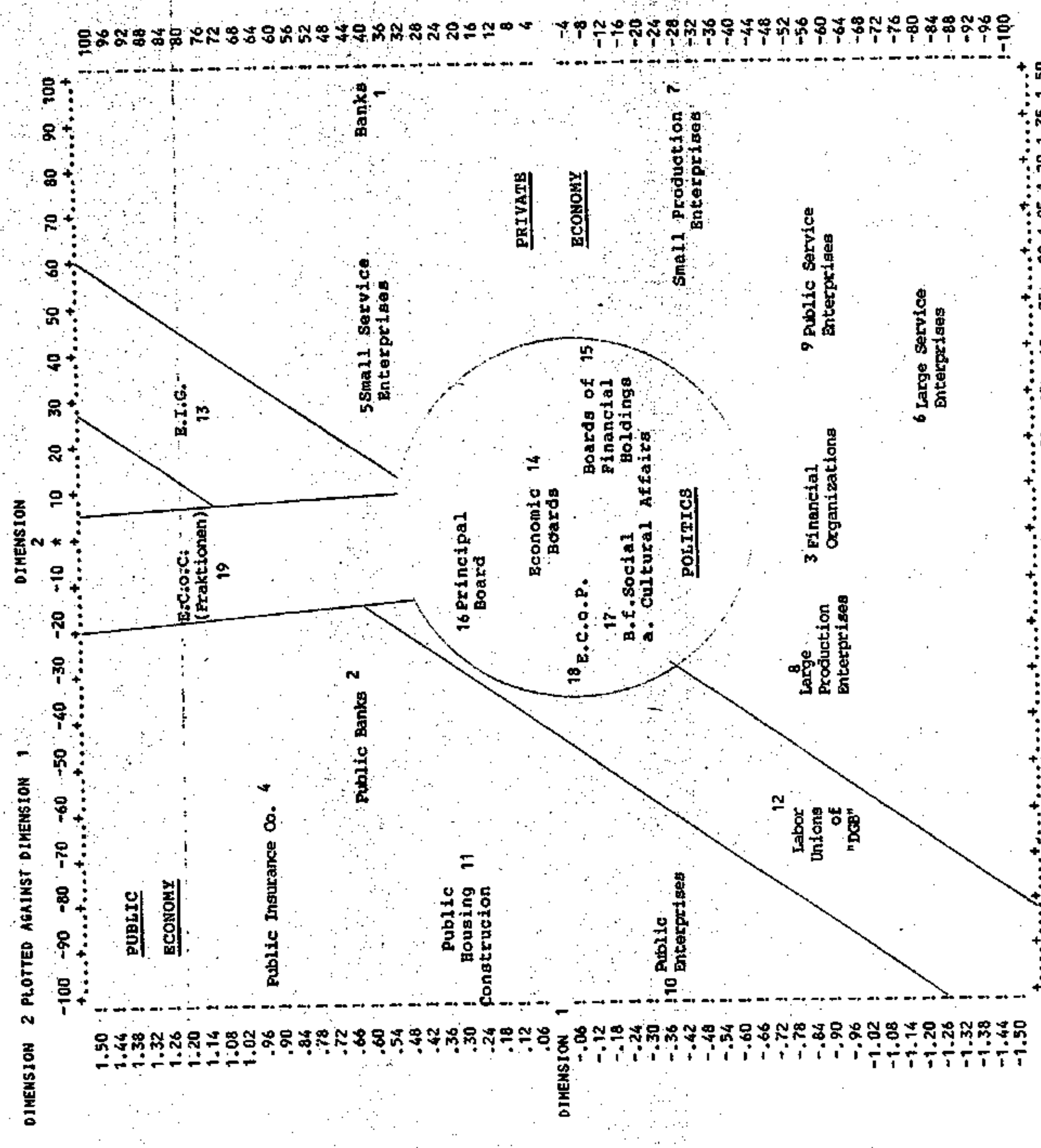


Figure 4: The Structure of Intercorporate Relations in the Economic Policy Planning Network 1981 - 1985

Smallest Space Analysis, Euclidean Metric, Stress1: .260



these companies play an important role in policy planning.

The integration of the private companies in the policy planning network is even more interesting. Together with the integration of unions results indicate what Lembruch (1982) calls "parliamentary corporatism". It should be emphasized, that there is a specific pattern of negotiation, coordination and influence between politics and business. But the companies of the private economy are not the most central set of organizations.

More differentiated information about the centrality of single organizations than smallest space analysis can provide a centrality score, which is computed as follows:

$$C_i = \sum_{\substack{j=1 \\ j \neq i}} r_{ij} * C_j$$

where $r_{ii} = 0$; C_i = the centrality of corporation i; r_{ij} = the intensity of the interlock between corporation i and j; C_j = the centrality of corporation j; n = number of corporations (Mariolis 1975).

Centrality refers to the positional importance of a corporation, based on three dimensions: (1) the number of firms with which corporation i interlocks; (2) the intensity of interlock between corporation i and corporation j, which in our computation is represented by 0 or 1, e.g. carrying the information of whether there is a connection or not; and (3) the centrality of the companies with which corporation i interlocks. The centrality of sets of organizations is computed by summing up the individual scores for all organizations within one set and taking the mean score.

In general political institutions are the organizations which are most central in the economic policy planning network. This is particularly true for the executive committees of the parties, whereas the executive committees of the caucuses (Fraktionen) are the least central within the set of the political organizations.
The public companies are more central than the organizations of the private economy are, with public banks ranking first. In general this structure is dominant in both periods.
However, there are certain changes in the centrality rank order of sets of organizations. This is already visible in the smallest space analysis. How stable is the structure of the economic policy planning network over time?

The Fragile Stability of Intercorporate Networks of Politics and Business: Some Causes of Change

A look at the rank order of sets of organizations within sectors shows stability as well as change. Within political organizations the rank order is nearly the same in both periods.
In the sector of public companies we find about the same picture, but there is a change asfaras the second rank is concerned: public insurance companies loose this position in the second period; they are replaced by public housing companies. Most of all change takes place in the rank order of the private corporations and interest groups (see Table 2).

Table 2: Rank Order of Sets of Organisations within Sectors by Centrality Score

PRIVATE ECONOMIC COMPANIES		PUBLIC ECONOMIC COMPANIES		POLITICAL ORGANIZATIONS	
1979 - 1981	1981 - 1985	1979 - 1981	1981 - 1985	1979 - 1981	1981 - 1985
Banks	Financial Organizations	Banks	Banks	Executive Committees of the Parties	Executive Committees of the Parties
White Collar Unions (DAG, DBB)	Unions of DGB	Insurance Companies	Housing Construction Companies	Principal Board/ Council of Elders	Principal Board/ Council of Elders
Economic Interest Organizations	Small Service Enterprises	Service Enterprises	Insurance Companies	Economic Boards	Economic Boards
Unions of DGB	Large Production Enterprises	Public Enterprises (Öff. Betriebe)	Service Enterprises	Boards of Social and Cultural Affairs	Board of Financial Holdings
Large Production Enterprises	Large Service Enterprises	Housing Construction Companies	Public Enterprises (Öff. Betriebe)	Board of Financial Holdings	Boards of Social and Cultural Affairs
Financial Organizations	Economic Interest Organizations			Executive Committees of the Caucuses (Fraktionen)	Executive Committees of the Caucuses (Fraktionen)
Small Sevice Enterprises	Small Production Enterprises				
Insurance Companies	Banks				
Small Production Enterprises					

First of all we have to mention, that there is no organizational link of the economic policy planning network to the employees' unions and the associations of the civil servants and to the insurance companies. They dropped out in the second period.

Furthermore private banks loose their centrality totally. They change from the first place to the last rank. The centrality of economic interest groups decreases also. On the other hand financing agencies increase from rank 6 to rank 1. For the other 5 sets of organizations the rank order rests almost the same.

This change is consistent with the political development before the last elections in March 1981. In 1980 a great political scandal took place, in which the Berlin government, the Berliner Bank and a private construction company have been involved. Two senators, members of the board of this largest bank of Berlin, were not able to hinder the loss of more than 100 Million Deutsch Marks, the Berliner Bank had credited to the corporation. This was money the city had said good for.

This scandal together with a second political developement caused an untimely election. The second problem of the city was related to housing politics, which was highlighted by a strong squatting movement. Among the consequences were a lot of mass demonstrations, confrontations between squatters and police and a widespread distrust in governmental politics. Initiated by the Christian Democratic Party (CDU) and the Green Party "Alternative Liste" (AL) more than 300.000 inhabitants signed a petition for new elections in 1981.

These elections took place in March 1981 and presented the bill to the governing Social Democratic and the Free Democratic parties: for the first time since 1955 the Social Democrats had to occupy the hard benches of the "Opposition", for the first time since 1950 a fourth party was able to meet the 5-percent-hurdle of the election law and therefore enter the Berlin city parliament (Klingemann 1982).

Looked at from this angle the decline of the banks on the one hand and the raise of public housing corporations on the other hand in the network structure finds a good explanation: The most important bank, the Berliner Bank, dropped out, because the relation between politicians and the bank was no longer seen as legitimate.

The higher centrality of the public housing companies has to be seen in relation with the political problems of solving the housing issue.

The drop-out of the insurance company and the white collar union (DAG) and the associations of civil servants is a consequence of the decline of the Liberals, which lost 4 of 11 seats in the 1981 election.

Functionally spoken, however, a change in government has not took place. The banks have been replaced by financing organizations, the white collar union DAG has been replaced by the white collar union ÖTV, which is an organization of the DGB. The financial organizations in the private as well as in the public sector retain their first position. The unions are next in line, followed by production- and service companies. In spite of the political change and developement, the structure of the functional cooperation between politics and business rests the same.

CONCLUSIONS

The institutionalized network of business and politics in West Berlin is of a fragile stability. On the one hand it is affected by political developement. Up to a certain degree the structure of the economic policy planning network depends on the result of elections. On the other hand it has a very stable functional structure, despite of the fact of change in government and change in parliamentary majorities.

This indicates the necessity of functional cooperation between politics and business, especially concerning finance companies whether they are public or private, unions or parties.

However the different configurations revealed by smallest space analysis and the analysis of centrality suggest that there are four sectors of the economic policy planning network: private companies, public corporations, economic interest groups (unions, associations) and political institutions.

The political institutions are located at the center, the other set of organizations are located at the peripherie. But this hierarchical differentiation is not a picture of influence, rather it can be regarded as a picture of orientation. The political institutions score high, because they are connected to all kinds of economic organizations, and not because they are the most powerful, whereas the economic organizations are principaly more orientated towards political institutions than to other business organizations.

Therefore it seems that especially the most central executive committees of the parties play the role of mediators of the diverse political interests of the economic organizations on the one hand and between these organizations and politics on the other hand.
This to some extent three-cornered configuration of conflicting societal interests (private companies, unions) and state (party) intermediation would suggest that one could speak of what Lehmbruch called "parliamentary corporatism" (1982). This network structure indicates efficient cooperative modes of consensus formation and conflict management. That is also sustained by the high ideological consent within the political elite of West Berlin, which has been shown even in the conflicting situation of the 1981 election campaign (Herzog 1982, 1985).
However, the cooperative modes within the economic policy planning network has to limit its political actions to legitimized goals and to legitimat decisions. Otherwise the strong ties of intercorporate communication could break off, as the example of the Berliner Bank shows.

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APPENDIX

Table 3: Adjency Matrix for Sets of Organizations of the Economic Policy Planning Network 1979 - 1981

Private Banks	333																				
Public Banks	500	667																			
Financial Organizations	000	125	0																		
Insurance Companies	0	0	250	0																	
Public Insurance Companies	444	583	0	0	333																
Small Service Enterprises	0	42	42	0	111	67															
Large Service Enterprises	67	0	150	0	0	33	200														
Small Production Enterprises	0	0	0	0	0	0	0	0													
Large Production Enterprises	39	162	44	59	118	10	35	0	59												
Public Service Enterprises	444	500	83	0	444	56	67	0	59	333											
Public Enterprises	222	500	0	0	333	0	0	0	49	222	227										
Public Housing Construct. Co.	111	583	83	0	222	0	0	0	59	111	139	0									
Unions of "DGB"	0	500	250	0	0	0	0	0	58	0	0	333	0								
White Collar Unions (DAG,DBB)	0	250	0	0	0	0	0	0	0	0	0	0	0	1000							
Economic Interest Groups	83	250	63	0	167	42	100	0	29	83	104	83	0	83	0						
Economic Boards	0	500	250	0	222	222	267	0	137	111	0	111	333	0	167	333					
B. o. Financial Holdings	0	167	167	0	0	111	333	0	137	111	0	0	0	111	250	778	667				
Principal Boards	167	750	125	0	500	333	100	0	206	0	0	333	500	500	125	833	833	1000			
B.f.Social a. Cultural Aff.	0	167	0	0	56	28	50	167	29	0	14	0	0	222	63	583	333	667	727		
Exec. Com. of the Parties	556	583	333	333	444	222	400	0	196	444	583	333	333	667	333	444	222	667	528	0	
Exec. Com. of the Caucuses	0	167	0	0	0	167	0	0	39	0	0	0	0	0	83	333	222	1000	361	556	0

Table 4: Adjency Matrix for Sets of Organizations of the Economic Policy Planning Network 1981 - 1985

Private Banks	0																		
Public Banks	0	667																	
Financial Organizations	0	167	0																
Public Insurance Co.	0	583	0	333															
Small Service Enterprises	0	200	67	133	100														
Large Service Enterprises	0	0	133	0	40	100													
Small Production Enterprises	0	0	0	0	0	0	0												
Large Production Enterprises	0	50	50	33	10	40	0	74											
Public Service Enterprises	0	0	167	0	100	100	0	25	0										
Public Enterprises	0	0	0	0	0	0	0	0	0	333									
Public Housing Constr. Co.	0	500	333	667	0	0	0	50	0	0	0								
Unions of "DGB"	0	125	83	0	0	0	0	100	0	0	250	333							
Economic Interest Groups	0	83	0	0	67	0	0	0	0	0	0	0	0						
Economic Boards	333	417	444	333	200	200	333	283	167	0	333	333	111	333					
B.o.Financial Holdings	333	250	111	0	200	67	667	267	167	0	0	333	222	778	1000				
Principal Boards	0	750	167	500	200	0	0	75	500	333	500	125	167	1000	833	1000			
B.f.Social a. Cultural Aff.	0	67	44	22	40	133	0	47	67	89	67	50	44	511	311	700	590		
Exec. Com. of the Parties	0	333	222	222	267	133	0	167	167	444	333	167	222	444	444	667	556	0	
Exec. Com. of Caucuses	0	250	0	111	200	0	0	33	0	0	0	0	111	333	444	1000	178	444	0

Table 5: Centrality Scores for Sets of Organizations

	1979 - 1981	1981 - 1985
PRIVATE:		
Banks	315.67	50.00
Financial Organizations	137.00	146.67
Insurance Companies	50.00	—
Small Sevice Enterprises	127.67	136.00
Large Service Enterprises	115.29	96.40
Small Production Enterprises	34.00	77.00
Large Production Enterprises	139.29	114.60
Labor Unions of "DGB"	204.00	145.50
White Collar Unions (DAG, DBB)	278.33	—
Economic Interest Groups	221.75	85.67
PUBLIC:		
Banks	561.50	268.00
Insurance Companies	393.67	141.67
Public Service Enterprises	312.33	130.00
Public Enterprises (Öff. Betriebe)	289.42	103.33
Public Housing Construction Co.	252.00	199.00
POLITICAL ORGANIZATIONS:		
Economic Boards of Parliament	458.00	480.67
Boards of Public Enterprises/ Financial Holdings	338.33	438.33
Principal Boards/ Council of Elders	604.50	598.50
Boards for Social and Cultural Affairs	370.38	363.60
Executive Committees of the Parties	894.50	604.00
Executive Committees of Caucuses (Fraktionen)	320.00	275.33

The Industrial Development Authority and the Politics of Industrial Subsidization in Ireland: The Case of Raybestos Manhattan

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Introduction

The purpose of this paper is to examine critically the body responsible for industrial development in Ireland, namely the Industrial Development Authority (IDA), in the process of the industrialization of Ireland since the 1960's. Ireland is a country that provides the most dramatic, and is often presented as the most successful, example in Europe of 'industrialization-by-invitation'. The IDA is usually presented as simply implementing policy that is generated at the political or governmental level, a level which is considered 'outside' of the IDA's frame of reference. This paper examines the validity of this claim, arguing that the IDA is, rather, a political actor, with political aims which it achieves through the use of political tools, including ideology. It thus calls into question the understanding of the IDA, and indeed of any authority responsible for attraction of foreign direct investment, or for industrialization policy in general, as being mere 'technocratic' bodies and seeks rather,to situate these bodies inside the wider political context within which they operate.

The interpretation presented here will be illustrated by an example of the IDA's response to opposition to certain of its policies. During the 1970's in Ireland, opposition began to develop to specific firms that had been atracted to Ireland by the IDA. This opposition came from a number of different sources, from both environmental and political groups, and was directed against these firms for a variety of different reasons. Gradually it extended into a questioning of the whole policy of industrialization-by-invitation, which was seen by some of these groups to be leading to an unsound dependence on multinational companies (MNC) in Ireland.

Normally, the IDA is kept well hidden, out of the range of political discussion. During this period, however, it was forced to defend its policies, a defence which reveals its aims, goals and functions. Out of the many possible cases of opposition, one has been chosen, that of the opposition to a factory in the Cork harbour area, namely Raybestos Manhattan in the 1970's.

Raybestos Manhattan is just one of the many factories that have generated heated controversy and debate and the issues involved in these debates go well beyond the confines of the particular problems generated by any one of these factories. Raybestos Manhatten is taken as a case study, although many others could have been chosen, because of the particularly articulate and, from the opposition's point of view, successful nature of the campaign against them. This forced the IDA to react and defend itself and this reaction affords us, while not an unique, but a particularly clear insight into the nature and role of the IDA. The campaign against Raybestos Manhatten took place at a time when the IDA was launching into a new phase of its industrialisation drive and thus at a time when its policy was most sensitive to public and political opinion. But the relevance of the issues involved is still present, not only because the Raybestos Manhattan case opened up an opposition that is still present today, but also from the wider political point of view, it signaled the first phase of opposition to the overall IDA investment strategy of industrialisation-by-invitation. It is hoped that through an examination of the response of the IDA to the opposition directed against Raybestos Manhattan's presence in Ireland that a contribution can be made to the analysis of the politics of industrial subsidization.

Section 1: The Historical Background To The IDA

Before we can begin this analysis it is necessary to say something about the period during which the IDA was established. The IDA cannot be understood outside that contextual framework, for it receives its direction and its legitimacy from the orientation towards industrial policy that was prevalent at the time of its establishment, and that still prevails today.

The IDA was established in 1950, just after the Second World War. This was a time in Ireland when we find the first, admittedly still uninstitutionalized and undeveloped, active policy towards the attraction of foreign direct investment into the economy. But, what is more interesting here for our analysis is the period that immediatly followed this, the period that gave the IDA an institutionalized and articulated legitimacy. This is the period that began with the conscious opening-up of the economy to foreign direct investment after the (First) Programme for Economic Expansion in 1958 (1). This programme was introduced by the Fianna Fail Party, under the direction of Sean Lemass and drew its inspiration from the work of a senior Civil Servant, T.K.Whitaker (2).

The programme set the tone for a new departure in Irish economic policy. The implied intention of this programme was the opening of the economy to foreign direct investment and the removal of import restrictions and tariff barriers. Thus it implied the dismantling of the policy of economic nationalism, an economic policy that had predominated in the State almost since its foundation. These new policies only came to be fully implemented in the late 1960's and 1970's, but by that time the notice served by the 1958 Programme concerning a probable new departure in policy had already come to be accepted. What was important in this First Programme is that it was more concerned with the ideological legitimation of State intervention into the economy, rather than with the actual organisation of such intervention itself. This has important consequences for our understanding of the IDA.

Firstly, it affords us an understanding of the purpose of the IDA. The IDA was established in order to give expression at the level of actual policy formation and implementation, to the shift in orientation with regard to the way by which Ireland should be industrialized. The very fact that this was established before the 1958 programme emphasises this. This programme was an attempted ideological legitimation of a an orientation towards industrialisation that the IDA already implemented. Thus the IDA was established to give expression to an orientation long before that orientation had been politically and coherenly developed by political parties and the State.

This 'head start', as it were, of the IDA, coupled with the State's later preoccupation with legitimizing as opposed to concretizing this policy orientation, affords us an insight into the reason for the position of power of the IDA. The IDA filled an existing policy vacuum and was thus able to quickly monopolise industrial policy. As Wickham has argued, the IDA is effectively the sole agency of industrial promotion for the whole of the Republic (3). This is an agency in which power is centralized and it has not, until recently, and certainly not in the early 1970's, been challenged by any other power centres inside or outside the State in its formulation of industrial policy. This lack of challenge to the IDA, or what may otherwise be stated as its legitimacy, brings us to our third point.

The IDA is an apparatus of the Irish State and thus finds its legitimacy , or is legitimised, through its reference to particular sections of the ideology of that State. Through an examination of the State's ideology one discovers an ideology or set of ideological arguments, that refer directly to a defence and a legitimacy of its industrial policy. Because the IDA was created to concretise an ideological re-orientation that the State underwent it must, minimally, accept and defend the ideological presuppositions of that State's argumentation with respect to industrial policy. If one wishes, therefore, to argue, as this paper does, that the IDA is a political actor which operates at the political level then an examination of the accepted ideology of the IDA, done through an analysis of the contents of its ideological argumentation, is an extremely useful, and even necessary, way to proceed.

Let us at this stage clarify what we mean by ideology. We understand by 'ideology' a set of ideas by which people explain, justify and defend social and political action and also explain, justify and defend the ends for which, as well as the means by which, this action is undertaken. It is through the fact of the use of ideological argumentation by any actor that one finds a way by which an actor can be defined as being a 'political' actor, and through an analysis of the content of that ideological argumentation one obtains an important way to ascertain the nature of the political framework that that political actor accepts and acts within (4).

This ideological position is best understood in relation to the political party principally responsible for the orientation towards economic planning, namely Fianna Fail. Fianna Fail represented the period following 1958 as being the phase where the Irish nationalist revolution could be vindicated. In the words of the then Taoiseach (Prime Minister), Seán Lemass, what this period represented was "the building of the economic foundations of Ireland's political independence"(5). This ideology equated rejection, or even mere passive acceptance, of the new policy of industrialisation with anti-patriotic feelings. Industrialization was to be a national endeavour, and required, by virtue of its being a national task, the full active and positive participation of all the citizens (6).

It is inside this ideological context that the IDA finds its legitimacy. The behaviour of the IDA, its policies and its plans are defended through reference to nationalist ideology and the national endeavour of building the economic foundations of Ireland's political independence. The IDA thus must be seen as both a major actor in the current phase of development of the Irish economy, and as a body that legitimizes itself and is legitimised through reference to that set of ideological arguments. Its legitimacy is thus guaranteed by the State but this strength is, paradoxically, its weakness for when the State's legitimacy on economic matters is threatened so too is that of the IDA. We will see the significance of this when we come to examine Phase two of the opposition to Raybestos Manhattan, a phase during which opposition was directed towards the State and where the IDA's interdependence with that State's legitimacy was clearly seen.

Having outlined our three major points about the IDA's domestic position one further issue needs examination. This is the IDA's position in an international context. While it is certainly true that the IDA has monopoly and power in relation to domestic economic policy this is not the case when one situates the IDA in relation to international power structures. The IDA is an apparatus of the Irish State, but that State has a dependent position vis-a-vis international economic forces. This has important bearings on our analysis and more so because our case example is concerned with a multinational company. The position of Ireland prior to the Second World War could be said to have been that of a classically dependent economy, and I use this term in the sense in which it has been used by the dependency theory literature in their examination of Latin American countries (7). Since, roughly speaking, the mid-1970's Ireland can be said to be a dependently developed economy. By this I mean that Ireland has gone through an industrialization process that places it in a dependent position vis-a-vis international capital. This is a dependency that gives it a subsidiary role in the decision-making processes that accompany the movements of that capital. The period in which the IDA was established and began its drive to attract foreign capital, in the form of foreign direct investment, into Ireland is the period during which the transition from a classically dependent economy to a dependent developed economy took place. This dependent development was a development because an industrialization and modernization of the Irish ecomony took place. It was dependent insofar as the industrialization process and the level of economic activity in Ireland became (more and more) to be dependent on the continued presence of multinational companies in Ireland.

The IDA's part in that transition process was that of an agency that cleared the way for the smooth entry of these companies into the economy and its success and continued existence came to be related to the degree to which that entry was effected. Again we wil see the significance of this in our case example, when the IDA saw a threat to one multinational company as, not only a threat to all multinationals, but as a threat to itself. It thus became urgent for the IDA to defend that multinational's presence in Ireland and the analysis of this defence by the IDA gives us an insight into its nature.

Something needs to be said at this stage about the function and activities of the IDA. This will help us to understand the position of the IDA in the political and State system. It is to this we now turn.

Section 2: Function and Activity of the IDA

The present IDA is an autonomous state-sponsored body outside the Civil Service. It was constituted thus by the 1969 Industrial Development Act, an Act which rationalised the system of industrial promotion and grant incentives that had existed over the previous two decades. The IDA's mandate is that of the promotion of industrial development in Ireland. This can be undertaken either through the expansion of existing industrial units or through the establishment of new ones. Despite shifts in emphasis at various times, the IDA had tended to concentrate its efforts on the establishment of new industries, achieved through the attraction of foreign direct investment into Ireland (8). In 1972 the IDA Executive Director, T.S. O'Neill, stated:

> " for more than a decade, the establishment of IDA-assisted new industries, most of them owned by overseas interests, has provided the bulk of the expansion of manufacturing output, exports and employment in the Irish economy. This broad pattern is likely to continue over the next decade; that is, a significant source of industrial expansion will continue to be the attraction into the economy of new overseas-sponsored indusrial projects " (9).

The IDA proceeds with this attraction through the offering of a variety of grants and incentives to foreign direct investors, especially to those investors who are export-oriented producers. These grants and incentives have been modified and developed during the period since the IDA was established. They now include a complex package, geared to suit individual needs, of grants, low-interest loans, and tax-free periods for the profits generated on exports, advanced factory building, re-equipment and labour training grants. In this context the IDA has stated that:

> "Our job is to promote the rapid build-up of the industrial sector by providing information, guidance and encouragement, and financial inducements and assistance to existing Irish industry and overseas manufacturing firms willing to invest n Ireland "(10).

Snce the 1970's the IDA has adopted what it terms a "forward - looking policy" i.e. it proceeds through a process of identification of both firms and industries that are in, or about to come into an expansionary and development phase. It then locates and approaches their representatives and as T.S. O'Neill stated:

> "The focal point of these activities is direct approaches to selected companies with specific proposals for location of their investments in Ireland. Such proposals are in effect 'intercepting' on-going investment planning in the candidate companies ... and which may be leading the company to decisions on new locations for its activities "(11).

To do so the IDA maintains overseas offices in most industrialised countries where direct promotional contact can be made with industrialists. It also engages in promotional work through other channels, e.g. banks, financial journals, consultancy firms, and works in close contact with the Irish Department of Foreign Affairs representatives abroad.

A useful summary of IDA activity has been provided by Mr. R.J. McLoughlin, the Research and Planning Manager of the IDA, who lists the items of possible relevence to the IDA and argues that there are five major categories within which its activities fall. These are:

"(1) The identification and definition of numerate targets of an economic and social nature....
(2) An integrated planning activity which defines: the IDA philosophy and policy on economic growth, its specific objectives and priorities.
(3) The initiation of such action as is necessary to arrange that the level pf planning resources and resources such as infrastructure, skills, factories, etc., will be sufficient to meet the rising demand by close contact with these organisations whose job is to provide these resources.
(4) The marketing of Ireland as a location for industrial development...
(5) The negotiation process in which the leaders emerging from the marketing/selling activities are converted into jobs..."(12)

These activities, while certainly helpful for our understanding of the function of the IDA, reveals little about how the IDA views its own position vis-a-vis the political and State system. It is to this we now turn.

Section 3: Self-Perception of the IDA

The IDA sees itself as "... but an agent of government..." (13). By this it means that its role is that of a public technocrat, implementing policies and programmes aimed at Irish industrialization, a neutral actor, as it were, in a field of domestic political considerations in which it has no input beyond that of carrying out policies, the overall direction of which is outside its control. However,the IDA does admit that "There is no natural facility which identifies in any detail what the range of appropriate IDA activity should be "(14). Faced with this difficulty they argue that

> "It is IDA policy to gear itself to discharge the total process to the limit of its legislative permit, and while it will not encroach on areas which are clearly the responsibility of other State organisations, <u>it will err on</u>

the side of doing rather than not doing when the returns on effort appear to be high "(15).

This 'erring on the side of doing', the extension of IDA activities into areas that may well be the responsiblity of other State organisations is the important point here, for it is through an examination of this activity that we can gain an interesting insight into the nature of this body. While acknowledging this extension of its activities, little is said about the implications that this has for the IDA's nature nor indeed for its whole position in relation to the political and State system. We have already argued that the IDA is indeed more than just a mere agent of government, insofar as it actually defines and formulates State industrial policy, an activity that is far removed from the passivity implied by the IDA's claim that it is but an agent of government. Furthermore we have argued that the IDA is legitimised and legitimises itself through reference to nationalist ideology, and it must, therefore, minimally, accept the presuppositions of that ideological argumentation. But the question which we must now ask is whether the IDA goes beyond that minimal positon of acceptance to an actual use of and active appeal to that ideology. This is an activity which we argue would allow us to throw some light on whether the IDA is or is not a full political actor with access to the range of apparatuses that such an actor would have at its disposal. In order to examine this we will turn to our case example.

Raybestos Manhattan

Raybestos Manhattan started production in Ireland at its Ovens plant in 1978. Its presence in Ireland was marked by controversy, a controversy that began long before Raybestos Manhattan actually started production and that continued right through its life in Ireland. From the time the IDA, in line with its forward looking policy, sought out Raybestos Manhattan in America and urged it to establish a production plant in Ireland in 1973 concern as to the possible environmental problems that Raybestos Manhattan would generate were expressed (16). By 1978, when Raybestos Manhattan went into production, this concern had intensified into a bitter opposition. This opposition took many forms and was directed against Raybestos Manhattan in different ways.The purpose of this paper, however, is not to analyse this opposition as such, even though this would be an interesting undertaking in itself, but rather to make an empirical analysis of the use of ideology by the IDA, which in turn leads us to an understanding of the political nature of thet body. The opposition groups, therefore, are examined only in relation to this.

While united in opposition to Raybestos Manhattan these groups were, however, united in little else. Disagreement existed on a whole range of issues: some were opposed to the location of the Raybestos Manhattan plant; others completely rejected Raybestos Manhattan's presence in Ireland; there was opposition to the lack of safety in Raybestos Manhattan's production process and a de facto rejection of any toxic industry in Ireland;and from opposition to the way in which Raybestos Manhattan disposed of its waste asbestos through to a rejection of any, monitored or unmonitored, toxic dump in Ireland. These opposition groups can be divided into two different types, what I shall call 'ad hoc single issue groups' and 'political/ideological groups'. The political groups linked their analysis of events surrounding Raybestos Manhattan to the wider problems generated by the presence of multinational companies in Ireland and to the role of the IDA in that process. These have a permanence in that they were not set up specifically to oppose Raybestos Manhattan. Their opposition to that company was only part of a wider programme and was based on either a conscious or an implicit ideological opposition to Raybestos Manhattan. Raybestos Manhattan was, for these groups just one example of the problem. The ad hoc single interest groups, on the other hand, while aware of the wider issues involved, concentrated their analysis more on Raybestos Manhattan as such and expressed and directed their opposition to that particular plant and not necessarily against all MNC's, and to the IDA's behaviour in relation to the Raybestos Manhattan case. (this is not to deny that a progression of thought took place in some of these groups, e.g., moving from a critique of the IDA in relation to Raybestos Manhattan to that of a critique of the IDA and its industrialization policy in general, but this was not the reason for their establishment, and often this progression came at a much later date in the campaign). Many of these groups existed prior to Raybestos Manhattan's presence in Ireland but their concerns were, prior to that date, with issues of a community nature such as amenities, bus services etc. in their locality and who rarely, if ever, became involved in such controversial political/ economic issues as those involved in the Raybestos Manhattan case.

A number of appendices have been added which lists these opposition groups, classifying them according to whether they are ad hoc or ideological,and situating each group according to their positions vis-a-vis the totality of issues involved in this case. A further classification is also added in order to get a more general picture of their position in relation to such issues as multinational companies, the State, etc. As can been seen from the appendiçes, a close correlation exists between the nature of the group and the position adopted by that group in the controversy.

The importance of these distinctions lies in the fact that the IDA responded to each in a different way and if we are to analyse the significance of that IDA's response then we must take into consideration the fact that the IDA changed the nature of its discourse depending on whom that discourse was directed towards. This will be seen in the analysis.

The opposition to Raybestos Manhattan may be periodized into two phases: Phase 1 which began before Raybestos Manhattan started production, but which intensified after 1978 and chiefly related to the question of the disposal of the waste asbestos that was generated in the production process; Phase 2 , which roughly lasts from April to December 1978, and relates not just to the continuing question of the toxic dump but to the conditions inside the plant itself and, ultimately, to the plant's existence in Ireland. In Phase 1 the ad hoc single issue groups predominated and in Phase 2, the political/ideological groups .

Before 1978 Raybestos Manhattan proposed to dump the waste asbestos generated from its production in the Ovens area. Faced, however, with the mounting opposition to its plant already existing in the area it decided in the interests of community harmony, to locate this plant elsewhere. The area chosen was that of Ringaskiddy, an area in which the IDA owned a large amount of land. The people of the Ringaskiddy area, however, were already objecting to the IDA's ownership of the land in the area, not wanting it to be turned into an industrial estate or a dump site by the IDA. The residence associations in the area wanted the site turned into an amenity area for the fast growing population of Cork Harbour. From 1973 until Raybestos Manhattan left Ireland in 1980 this problem of the disposal of the toxic waste was to plague