

# Industrial Policy: Lessons from the North Sea

*N. J. Smith*

The task of 'rebalancing' Britain's economy toward production, particularly manufacturing, has so far seen little progress. The first half of the current Parliament's life produced a policy aimed at creating a supportive business environment with minimal government intervention while maintaining a level playing field between sectors. Though some areas were singled out for a degree of special treatment, the level of support was not large. Recreating a productive economy will require a great deal more.

Despite the commonly expressed view that the interventionist government policies of the 1970s were all unmitigated disasters, it is clear that some were in fact successful. The aerospace industry is one such example, though it is seldom mentioned that the industry's strength results from considerable government support 30 years ago. Another example of positive intervention, discussed below, is that applied by the Offshore Supplies Office (OSO).

After the discovery of oil in the North Sea in the 1970s, the OSO was created to help Britain take full advantage of the finds. A concerted effort was made to build the capacity for Britain to extract the oil domestically, instead of turning to established foreign companies. A whole new sector and supply chain were subsequently created, bringing many new jobs for the UK, particularly in Scotland and north-east England, and a raft of new skills. The UK achieved and has maintained a local content in excess of 70 per cent of North Sea expenditures and, like aerospace, the oilfield supply and service industry is a substantial net exporter.

Though there were some less successful ventures undertaken by the OSO, its successes provide a positive model for a modern industrial policy. Applying the core principles of the OSO to offshore wind farms today, for example, would have seen the UK attempt to build its own supply chain rather than import or subsidise foreign companies (the default policy of successive governments) to build the wind turbines here. Instead, the UK content of wind farm developments stands at about 30 per cent, despite a great deal of technology developed in the UK for North Sea oil having been transferred to it.

The OSO experience also provides a lesson on how Britain might do better by ensuring fewer businesses are lost to companies based overseas, a longstanding problem created by continued lack of equity finance for promising young companies in the UK. While foreign investment in the UK is welcomed, we should be better at growing companies ourselves without relying on it, let alone remaining an acquisitions hunting ground for savvy multinationals. In a few sectors such as energy and defence, foreign take-overs should be especially restricted in the wider national interest.

## Introduction

The financial crisis of 2007/8 exposed the extent to which the British economy had come to depend on the prosperity of a single sector – financial services – and since then politicians of all parties have referred to the need to rebalance the economy. They have not always spelt out what they mean by the term, clearly capable of more than one meaning.

However, what they most commonly imply is a need to offset a decline in the share of financial services in the economy by an increase in that of the production industries, particularly manufacturing, and those non-financial services with international markets. Success with this endeavour will, it is claimed, bring such collateral benefits as lessening regional disparities, increasing investment and improving the trade balance. There is so far little progress to report.

Inevitably, there are those who argue that a successful rebalancing is unlikely to be achieved in a reasonable time, if at all, without the adoption of an industrial policy, or strategy, aimed at accelerating the growth of promising sectors. Despite government claims to the contrary, the scars of the past and the constraints of the present have, for a long-time, seemed to prevent anything resembling a coherent and specific industrial policy from surfacing, despite words of encouragement to manufacturers, talk of ‘partnerships’ and some small targeted R&D schemes.

Instead we were presented with a ‘rag-bag’ of separate measures, which could be seen as loosely directed towards rebalancing the economy overall. There have been efforts to increase lending to SMEs; improve skills; commit the government to a greater involvement in export credit; backing for a number of collaborative research and development (R&D) centres as well continued funding for university science research; initiatives to assist small start-ups; a Growth Accelerator programme to mentor fast-growing SMEs; and the idea of a state supported Business Bank. This will take over existing government industrial support schemes and attempt to catalyse the financial institutions into offering new funding structures. Like the majority of existing government schemes, it appears the focus will be on support for companies at the lower end of the SME scale. Most recently, we have seen the launch by the Technology Strategy Board (which supports research and innovation in companies of all sizes) of seven Catapult Centres that are

supposed to accelerate the commercialisations of early-stage ideas in the Board’s priority areas. The Board is increasingly the main focus for government support for innovation through R&D.

The overall flavour over the first half of the current Parliament’s life has been that of a policy aiming to create a supportive business environment with minimal government intervention while maintaining a level playing field between sectors. Though some areas have been singled out for a degree of special treatment, the level of support has generally not been large.

## Self-selection as a Tool of Industrial Policy

But more recent events have shown that is not the whole story, and the bare bones of a more focused industrial policy, built around the concept of strategies developed jointly by government and particular industry sectors, can also now be discerned and is even increasingly being talked about. It is best described as being one of ‘self-selection’ of sectors based on a portfolio of favourable characteristics. Although there are several others, it perhaps can be most clearly seen in the case of the aerospace industry. At the 2012 Farnborough Airshow, the government announced an increase in support for aerospace R&D, bringing its commitment to £120 million, including £40 million for research into advanced low-carbon aero-engines and £60 million towards a new UK Centre for Aerodynamics, which will combine existing capabilities at a new facility. It will aim to support development of new technologies such as novel wing design concepts and environmentally friendly aircraft in order to deliver more sustainable aviation while keeping the UK internationally competitive. The Aerospace Growth Partnership, established by the UK industry and government to create a vision and strategy for the industry, sees these developments as furthering its aims.

It is not difficult to argue that the aerospace



industry effectively selected itself for government support by virtue of such characteristics as:

- ◆ its position as number one in Europe and number two in the world, with a 17 per cent share of a growing market
- ◆ exports representing 75 per cent of its £24 billion revenues
- ◆ an industry structure which (unusually for the UK) still includes the top-tier of the supply chain (i.e. the delivery of complete aircraft largely assembled from domestic components)
- ◆ a reputation for innovation and a high level of internally funded R&D across firms of all sizes
- ◆ a sufficiently large component of British-controlled companies of all sizes to ensure that domestic as well as foreign players can take part in any industry consolidation, thus helping to protect lower tiers of the supply chain
- ◆ provision of a large number of mainly highly skilled and well-paid jobs distributed across the country

Admirable as this may appear from a PR viewpoint, it is as well to recall that this is an industry that has had almost continuous public sector support since its foundation a century ago. Indeed a number of its current success stories can be traced to specific government funding initiatives 30 or more years ago.

### **An Earlier Self-selection: the North Sea Supply Chain**

The offshore oil and gas supply and service industry was an earlier example of self-selection as the subject of a specific government policy. However, in this case it was a question of addressing a business that scarcely existed domestically and was still small and immature globally.

The exploitation of gas fields in the southern North Sea from the mid-1960s was relatively small-scale and evoked little industrial interest. Of the investment goods and services deployed, it was reckoned that only about 30 per cent was sourced domestically. Beyond some exhortation to the oil

and gas companies to consider British suppliers, and concern that the (nationalised) British Steel Corporation was an unreliable source of steel for sub-sea pipelines, the government remained

**Though the UK had a long established oil and gas industry supply chain, it was small, with very limited offshore capability and heavily committed to export markets.**

essentially passive, as did most of British industry. Though the UK had a long established oil and gas industry supply chain, it was small, with very limited offshore capability and heavily committed to export markets, principally those provided by the British oil majors (then BP, Burmah and Shell) in the Middle East and elsewhere. It had limited involvement with the southern North Sea, which also attracted few local new entrants.

The high overseas content resulted largely from the activities of a US company (Brown & Root) and a Dutch company (Heerema), working either in joint venture

or independently. The former was the leader in its fields in the established Gulf of Mexico and Middle Eastern offshore provinces and provided engineering design services and sub-sea pipelaying, while the latter carried out offshore installation. They also were responsible for most of the structures installed in UK waters being sourced in the Netherlands. However, these arrangements were to shatter in the early 1970s from a combination of:

- ◆ the unexpected discovery of large oil fields in the northern North Sea;
- ◆ events in the Middle East leading to doubts about the security of the supply of oil and a sharp rise in its price, threatening to exacerbate further a difficult balance of payments situation
- ◆ the threat to domestic energy supplies by labour militancy in the coal mining industry
- ◆ growing evidence of declining viability in the heavy engineering and shipbuilding industries (concentrated in the high unemployment areas of central Scotland and north-east England)
- ◆ the rise of nationalist sentiment in Scotland

As the oil companies moved to exploit their discoveries, both main political parties concluded

that a crash programme (which soon reached almost war-time intensity) could resolve the security of supply issue, improve the balance of payments and provide collateral for foreign borrowing. It was apparent that huge capital expenditure would be incurred and that, if the experience of the southern North Sea were to be repeated, this would largely be met by imports. On the other hand, if a much higher local content could be achieved, not only would imports be reduced but also there should be job creation opportunities in Scotland and north-east England, fortuitously the depressed areas closest to the discoveries. This might provide at least a partial answer to the nationalist slogan: *'It's Scotland's oil'*.

The expenditure actually incurred vastly exceeded early estimates, partly because it soon became apparent that the move into the harsh environment of the



northern North Sea raised unprecedented technical problems, which proved expensive to solve or circumvent, particularly in an era of high inflation. In 2010 terms, total expenditure by the oil and gas industry on its United Kingdom Continental Shelf (UKCS) operations rose from about £1 billion in 1970 to nearly £14 billion in 1976, the peak of the

**If a much higher local content could be achieved, not only would imports be reduced but also there should be job creation opportunities in Scotland and north-east England.**

first North Sea investment cycle. Employment creation diffused across the UK, with the London area joining Scotland and north-east England as a major beneficiary.

It was inevitable that the market would move faster than the government could react but, by the autumn of 1972, the Heath administration had published the IMEG Report on the potential industrial benefits of North Sea development. By then, the North Sea had already sucked in manufacturing and installation contracting resources from around the world. For the next decade or so, in excess of 35 per cent of

the global resources of offshore equipment and manpower were deployed in the North Sea, a figure which peaked at around 50 per cent in the late 1970s, with the UK sector as the main focus.

The IMEG Report had concluded that, without rapid and significant government action, the UK content of expenditure on the UKCS would continue to stagnate at about 30 per cent, whereas there was the potential for it to rise to 70 per cent. IMEG's numerous recommendations were interventionist but not protectionist in nature, seeking to address the fact that foreign suppliers were already well established, without creating a high-cost industrial sector. Many of the recommendations were never adopted, particularly those relating to direct or indirect financial incentives to encourage the creation of UK capability where it was lacking and characterised by capital intensity and high risk.

However, six recommendations were adopted:

- i. Establishment of an organisation, accountable to a minister, dedicated to improving the performance of the British offshore industry
- ii. Provision by offshore Operators and contractors of a confidential quarterly return on their purchases, staff employment and use of contractors and subcontractors, together with an explanation of purchasing and tendering practices and an outline of future

requirements

- iii. Incorporation into the (then discretionary) UKCS oil and gas licensing system of an assessment as to whether or not an applicant had given British firms ‘full and fair opportunity’ (FFO) to compete for business
- iv. Provision of subsidised credit for British supplies to counter cheap export credits from overseas suppliers
- v. Promotion of joint ventures with established foreign suppliers to ‘plug’ gaps in British industrial capability
- vi. Provision of an information and advice service to British suppliers

The response to the first recommendation came in January 1973 with the formation of the Offshore Supplies Office (soon to be known as OSO) based within the Department of Trade and Industry in London. The other five items became OSO’s initial portfolio, to which exports and R&D, matters mentioned only briefly in the IMEG Report, were subsequently added. Recommendation (iv) was implemented but short-lived due to objections from the European Commission. The importance of (v) and (vi) declined with time.

In 1974, the new Wilson administration created the Department of Energy to which OSO was transferred. At the same time, its headquarters were moved to Glasgow and it was given more resources. The London office remained and an Aberdeen one opened. Support for OSO continued under the Thatcher government. In 1992, the Department of Energy, including OSO, was reabsorbed into the Department of Trade and Industry. At much the same time, measures associated with the introduction of the European Single Market brought OSO’s activities in the UK market to an end.

## OSO in Action

Soon after OSO’s formation, the country experienced an economic crisis stemming from the miners’ strike and manifested by the three-day week. A substantial part of OSO’s limited resources became detached from its stated aims and dedicated

to ensuring that firms on the critical path of a North Sea project could continue to work normally, a role extended to keeping ministers aware of possible time-table slippages, in some cases allowing government intervention. The value of such a task at that time is self-evident, if unquantifiable.

Despite this diversion of effort, OSO was able to make substantial early progress in what was its single most important function in support of British industry – the use of confidential quarterly returns of orders placed to assess whether or not an exploration and production company or consortium had given British firms ‘full and fair opportunity’ (FFO) to compete for business. An FFO clause was present in the terms of all licence application

rounds from the fifth (1976/77) until the ninth (1984/85) when it was dropped, with little effect on policy, as a result of pressure from Brussels.

The returns and their audit did not become fully established until late in 1975, following an agreement between the Department of Energy and the United Kingdom Offshore Operators Association (UKOOA), representing the oil companies, on a non-statutory Memorandum of Understanding (MoU) and Code of Practice (CoP). Responsibility for implementation lay with individual UKOOA members. The MoU contained an undertaking that it would be employed in a way consistent with the EEC Treaty.

The MoU and CoP gave OSO not only greatly enhanced knowledge of procurement processes and an agreed means of intervening in them (though not the power of decision) but also formally committed the offshore oil and gas operators to FFO. The Code provided that tender documents were to be in a form that did not disadvantage UK companies (which themselves had to adjust to the way the international oil companies conducted their business), allowed OSO to suggest additional UK bidders, made bidders provide UK content estimates, established criteria for bid evaluation and required the operator to inform OSO before announcing a major non-British contract award. Additionally, OSO was to

**The European Single Market brought OSO’s activities in the UK market to an end.**

**OSO was able to make substantial early progress in what was its single most important function; to assess whether or not an exploration and production company had given British firms ‘full and fair opportunity’ to compete for business.**

have prior access to information on anticipated procurement programmes, specifications and tender documents, lists of proposed bidders and bid summaries. The MoU and CoP enabled both sides to believe they had achieved their essential objectives. OSO saw formal acceptance of a key government policy, providing both the right and the mechanisms for it to intercede in procurement decisions. For the Operators, a voluntary code was clearly preferable to legislation and their right to take the final procurement decision and order with a foreign supplier was confirmed. Most recognised that the aim was not to rig the market in favour of British suppliers but to allow them to compete more effectively in what remained essentially a free market. As industry executives and OSO’s audit engineers became familiar with the CoP, its operation soon became embedded in industry practice. Though there were occasional difficulties with individual companies (most typically small American independents), on the whole the arrangements operated harmoniously for many years.

Before ‘British content’ could be measured, the question of defining a British supplier had to be resolved, an issue which surfaced as soon as OSO was established. Many US oil industry suppliers ranging from major contractors to wellhead manufacturers had been established in the UK long before the North Sea was explored. Such firms were generally anxious to point out that they employed mainly British personnel, paid British taxes, exported from the UK and had sometimes received such accolades as ‘Queen’s Awards’. The US government was quick to come to their support. Moreover, it had always been British policy to maintain an ‘open door’ to overseas investment, treating all firms equally regardless of ownership. Initially, the foreign investment came mainly in the form of the establishment of new facilities to which few objections could be made and which provided the domestic supply chain with

an invaluable supplement to the various domestic new entrants and joint ventures of the time. Later, as the market grew and the UK became a centre for technical innovation, its nature changed and the acquisition of existing local companies holding valuable technological assets and/or strategic market positions increasingly became the main

focus. Foreign predators avoided acquisitions in sectors favoured by domestic new entrants, such as module fabrication yards, supply bases and low- to medium-tech maintenance, which they recognised as locationally-determined businesses with few barriers to entry and often limited long-term potential.

Despite the difficulties it created on other fronts, OSO had no option but to agree that a firm would be treated as British for FFO purposes if it had substantial operations in the UK. This enabled purely sales companies to be treated as foreign suppliers, leaving it open to OSO to encourage

their principals genuinely to invest in the UK (and many did). OSO also encouraged foreign-owned companies in general to carry out development work in the UK and promote British nationals.

If the FFO policy was relatively easy to implement, OSO had a more difficult task when it came to expanding locally controlled capability. In

line with the IMEG recommendation, considerable early effort – much of it seemingly initially successful – was devoted to establishing joint ventures between British firms and experienced foreign partners. Few lasted very long. In most cases, the British partner sold out to the foreign, often because it could not maintain the necessary capital investment. In low capital intensity but high-skill areas (such as sub-sea well control systems), it was sometimes the British partner that took control, soon selling on to an unrelated foreign owner, often Scandinavian. Such issues highlighted two of OSO’s long-term

problems, doubtless inter-related: unavailability of domestic capital and the acquisition of immature British enterprises by foreign companies, which had identified them as sources of potential growth.

There had been a flow of domestic equity capital into the offshore supplies and service industry in the early 1970s, some to investment intermediaries

**OSO saw formal acceptance of a key government policy, providing both the right and the mechanisms for it to intercede in procurement decisions.**

**Most recognised that the aim was not to rig the market in favour of British suppliers but to allow them to compete more effectively in what remained essentially a free market.**

but much of it to a few significant start-ups; it dried up after the secondary banking crisis of 1973, precisely the time when pioneering North Sea entrepreneurs most needed it. It was not to revive until well into the 1980s when the chances of founding dedicated businesses underpinned by a still-growing domestic market were far fewer, but buy-outs and development capital opportunities were more readily accessible. Public sector capital was never much available as an alternative. Whilst OSO could sponsor applications for discretionary funding under the Industry Act, the sums available were too small for most opportunities and it was rarely used. A total of about £23 million (in 2010 terms) was committed in the 1973-1976 period and little, if any, thereafter. During its short life, the National Enterprise Board probably committed a similar amount, mainly during the late 1970s. The main source of government financial assistance came through regional development grants, unrelated to the existence of OSO. Some public money was also expended on acquiring potential sites for use as concrete platform yards.

In these circumstances of capital constraint in a capital-intensive industry, OSO had to rely to a considerable extent on established firms outside the industry to help bolster British content. This was often problem-prone due to lack of understanding of the offshore business by their directors and because some, particularly those from shrinking industries such as shipbuilding and heavy engineering, already faced serious difficulties. These problems were compounded by an understandable focus on the home market opportunity and great uncertainty over how long this would last.

While OSO was established to address the home market through import substitution, it was soon under political pressure to stimulate export marketing by the domestic offshore supply chain. Initially, neither the OSO itself nor the industry it existed to support had the capacity to divert significant resources to export activity, particularly because the large Norwegian North Sea market, both geographically close and highly technically analogous, was difficult to access due to a high level of protectionism, much of it covert. However, as both the OSO and the industry matured and the North Sea lost its dominant position in the world offshore service and supplies market, export

promotion became an increasingly large part of OSO's activities, particularly from the mid-1980s onwards. These efforts, facilitated by OSO's access to both the international oil companies and foreign

governments, had some success, but the UK lagged behind the USA, France and, eventually, Norway in international markets, whose offerings were frequently more specialised and high-tech than what the UK had to offer.

OSO was not originally much concerned with R&D activity, but from the late 1970s it became increasingly involved in selecting commercially directed projects partly financed by the newly established Offshore Energy Technology Board (OETB). Funding for commercial (as opposed to regulatory) purposes was limited and rarely, if ever, exceeded about £5 million per annum in 2010 terms. OETB was not the sole source of official funding for offshore-related

R&D, with both government support for science and engineering at UK universities and Scottish Enterprise playing a part. In addition, many British firms received R&D funding support from the European Commission (EC).

The largest recipient of OETB commercial funding in its early years was the Vickers Offshore Engineering Group (with about 14 per cent of the total) which also received some EC and oil company R&D funding. This prominent position did not reflect a 'chosen vehicle/national champion' on the part of OSO, but the fact that of all large technically based British companies, Vickers had a unique portfolio of attributes suited to offshore engineering in general and underwater engineering in particular. It also had a successful (for a time at least) underwater services business and a team of innovative engineering designers with a vision (broadly correct) of how the offshore oil and gas industry would develop. It was, therefore, almost inevitable that it would come up with a number of R&D proposals of potential merit. Sadly, the combination of political events (the nationalisation of its main trading divisions, naval shipbuilding and aircraft manufacture), a sharp downturn in the underwater services market and some managerial misjudgements forced it to close its Vickers Offshore Engineering business in 1978. Its teams dispersed

**While OSO was established to address the home market through import substitution, it was soon under political pressure to stimulate export marketing by the domestic offshore supply chain.**

and much of its intellectual property eventually fell into foreign hands, as was also true of the OETB programme in general. However, the sums of public money lost were modest and Vickers left a substantial legacy. At the time of its offshore demise, the demand for underwater engineers was rising fast and ex-Vickers personnel were rapidly ‘snapped up’, by oil companies in particular. A number moved to Norway, then virtually without an underwater engineering capability. In helping to create one there, they were in part instrumental in founding a powerful competitor for UK-based firms, which critically lacked the support of state-controlled oil companies, of which Norway by now had two (Statoil and Norsk Hydro). Other ex-Vickers personnel became entrepreneurs and by 1986 in excess of 20 specialised companies founded by them could be identified. Many survive to this day, either as independent entities or as divisions of larger companies.

Public R&D funding of commercial projects was never of more than marginal importance and industry was overwhelmingly the main source of R&D funding, particularly after 1982 when government introduced the undertaking of R&D by licence applicants in the UK as an additional licensing criterion. Indeed, OSO estimated in 1991 that offshore R&D expenditure totalled (in 2010 terms) as much as £250 million, with over 85 per cent per cent provided by the private sector.

The following year, as a result of the impending introduction of the Utilities Directive as part the Single European Market legislation, OSO withdrew the MoU and abandoned the collection of procurement statistics. In 1993, the Utilities and Works Regulations implementing the relevant European Directives came into force, with services added the following year. The new regime introduced transparency through the publication of oil industry calls for tenders and contract awards, banning all forms of differentiation by country of origin.

Thus ended a twenty-year bipartisan policy, though OSO itself was to survive, at least as a ‘brand name’, for a few more years. Its complement of personnel had fluctuated but probably averaged

about eighty. In its early days, a significant proportion of the senior people came from the private sector, mainly on secondment or short-term contracts. Thus two of the first three OSO Director Generals were from the private sector. This alone made it unusual for its time and may have partially explained occasional incidents of hostility from other civil service departments, notably the Department of Trade and Industry (especially when OSO was not part of it), the Treasury and the Foreign and Commonwealth Office.

### ■ **Assessing OSO**

Since we do not know what would have happened had OSO never existed, it is not possible to make a rigorous assessment of its effectiveness. However, there are some things that can be said

with reasonable confidence. It did help British companies to overcome barriers to entry and thus to compete in a new market, though it was less effective in this activity where ‘track-record’ and proprietary technology/‘know-how’ were the key to winning orders.

In terms of its initial target of increasing UK content to at least 70 per cent, OSO first passed the barrier in 1979 and stayed above it thereafter, with the sole exception of 1981. The peak figure, 87.2 per cent, was achieved in 1987 and the last published (for 1991) showed 78 per cent. Though there was an undoubted contribution from newly established specialist companies, British success was critically dependent on two things: locational advantage and the modification of existing products by

companies not previously involved in the offshore oil and gas business.

OSO’s statistics were sometimes challenged. Most external criticism focused on the failure of OSO to distinguish between orders gained by British-owned companies from those gained by UK subsidiaries of foreign-owned companies, though definitional differences were also sometimes involved. The alternative British content offered mostly lay between the upper 30 per cents and the lower 50 per cents. An informed guess suggests British-owned companies accounted for about 50 per cent, with the balance split roughly equally between imports and foreign-owned companies operating in the UK. OSO was frequently criticised for failing to

**As a result of the impending introduction of the Utilities Directive as part the Single European Market legislation, OSO withdrew the MoU and abandoned the collection of procurement statistics.**



discriminate in favour of locally owned firms but in practice it had no alternative. Perhaps a more telling criticism was that OSO's approach failed to pay sufficient regard to qualitative factors and thus did not prevent oil and gas companies satisfying their UK content needs as far as possible with commodity and other low-value items, so that orders for higher-added-value products could be reserved for preferred foreign suppliers.

OSO had success over and above UK content. By familiarising foreign oil companies with potential British suppliers and supporting the latter's marketing efforts at home and abroad, it not only helped UK employment, but also increased the international oil industry's procurement choices, in some cases reducing costs in the process. It also accelerated the rate of technical progress by raising the amount of R&D undertaken. Even the unsuccessful experiment of venture management left one long-lasting legacy in the still independent Expro International Group, now one of the world-leaders in drilling and well services, whose start-up finance OSO brokered. It also assisted the development of two prominent British contenders in the international oil and gas contracting business, AMEC (or more strictly its precursors, William Press and Mathew Hall) and, to a lesser extent, the John Wood Group, both still prospering. Finally, by being able to announce a long string of large contract awards to fabrication yards in Scotland and north-east England in the years when those areas were suffering from job losses in other heavy industries, OSO's ministers were able to offer a badly needed 'good news service'. Despite periodic claims to the contrary, there is little to suggest OSO acted as a brake on North Sea development and on occasions it helped maintain the pace.

In some ways it is easier to characterise OSO's failures than its successes. It failed to establish and sustain either a British-owned mobile drilling fleet or an offshore installation capability, although it can be argued that the window had closed on those opportunities before OSO came into existence. Given that the UKCS was for long the world's largest and most technically advanced sub-sea market, its failure to establish and maintain in British-ownership world-class companies in sub-sea (and indeed sub-surface) products and services

is much more telling. Indeed, only a few world-class British offshore companies of any type came into existence, despite the long period of high offshore activity in the North Sea. As a result, the UK industry has lacked the potential domestic consolidators so important when market segments and technologies move towards maturity. That role was enthusiastically taken on by foreign firms.

Nevertheless, it seems self-evident that the OSO was a much more cost-effective means of industrial support than the other policies of the time, with a more tangible legacy than either the National Enterprise Board or Industrial Reorganisation Corporation, which were vastly more expensive operations. OSO's achievements became recognised by resource-rich countries around the world, many of which have established local content promotion agencies of their own broadly modelled on OSO. Unlike OSO itself, most are still functioning.

**OSO's achievements became recognised by resource-rich countries around the world, many of which have established local content promotion agencies of their own broadly modelled on OSO. Unlike OSO itself, most are still functioning.**

### ■ Constraints

Any attempt to gauge the effectiveness or otherwise of OSO must start with recognition of the constraints under which it operated. Some have already been mentioned, such as its subservience to the greater objective of developing North Sea oil as rapidly as possible and to the long-established principle of treating all 'British' companies equally regardless of ownership. Unlike its French, Italian and Norwegian competitors, no government inspired symbiosis existed between the British oilfield supply chain and national oil companies, denying OSO many opportunities. Though BP and Shell followed the rules and thus were 'good citizens', for the most part their overall behaviour was little different from that of their major multinational peers. The British National Oil Corporation (BNOC) was too short-lived to have much impact on the supply sector.

A particularly severe limitation arose from timing issues. By the time OSO was 'up and running' in early 1973, the original North Sea boom was already over two-years old and many critical decisions, some irreversible, had been

taken. Foreign suppliers were already well-entrenched, with many coming in on the ‘coat tails’ of international oil and gas companies, earning ‘first mover advantage’, before local capability could be demonstrated and indeed permanently closing some opportunities. This situation was exacerbated by a long-running debate over how long significant North Sea activity would last. The general oil company line at the time was ‘not very long’, making it difficult for potential suppliers to commit the management time and investment capital to a challenging new business area, which might be ‘here today and gone tomorrow’. Competition with the defence, aerospace and nuclear industries for the limited supply of professionally qualified engineers had an adverse effect across the offshore industry from the regulators, through the oil and gas companies themselves to suppliers and to OSO itself. Some potential ‘high-tech’ suppliers avoided the offshore industry simply because they found it more remunerative to retain their limited engineering resources for other markets, particularly defence.

Most critical of all was the lack of development finance available at the time, let alone venture capital to provide the equity for start-up ventures and their subsequent growth. These deficiencies frustrated not only many of the rich supply of entrepreneurs and technical innovators but also some competent and ambitious corporate managers. The equity ‘bottle-neck’ led to a range of problems ranging from ‘still-born’ ventures, chronic undercapitalisation and a widespread over-dependence on overdraft finance. This adverse combination, from which foreign competitors seemed not to suffer, rendered British businesses less robust and prone to seek survival through a premature sell out, usually to a foreign buyer. In consequence, OSO was often compelled to work through established British companies, many with existing problems leaving them risk-averse, short of investment funds, unable to evolve into industry

consolidators and prone to abandon the sector during its periodic downturns.

The combination of a lack of domestic consolidators and an absence of long term capital meant OSO had no means of preventing promising new firms (or technologies often developed with part-public funding) passing into foreign hands,

**The equity ‘bottle-neck’ led to a range of problems ranging from ‘still-born’ ventures, chronic undercapitalisation and a widespread over-dependence on overdraft finance. This adverse combination, from which foreign competitors seemed not to suffer, rendered British businesses less robust and prone to seek survival through a premature sell out, usually to a foreign buyer.**

as they constantly did. In the early days, this was usually via a direct trade sale. However, there was little they could do except occasionally attempt to find a domestic trade buyer, almost invariably frustrated by risk aversion and/or lack of long-term finance. When private equity capital did eventually become somewhat more available, it soon became set in in a particular business model – that of the financial institution acquiring a promising local company in an attractive market sector, refinancing it and holding it for a few years (typically less than five) and then selling it on to a foreign trade buyer, usually North American or Scandinavian. Such a model persists to this day.

Foreign direct investment in new enterprises was almost always welcomed by OSO which sometimes depended upon them to increase ‘UK content’, but there was usually less enthusiasm for foreign take-overs of established existing businesses, particularly where these are deemed to be of ‘strategic’ importance, with attractive growth prospects. Privately some OSO staff were unhappy with the prospect of the UK supply chain being transformed into a largely ‘branch plant’ economy, frustrating their hopes to see the UK develop a

global leadership role in at least some segments of what was clearly going to grow internationally into an extremely large market (now worth something in the range of \$250 billion to \$300 billion annually – 30 to 40 times larger than it was when OSO was established).

They knew few, if any, major countries had as open an attitude towards foreign inward investment or the foreign take-over of established domestic businesses as the UK, where virtually everything is permissible, save possibly some foreign take-overs of the major companies in the ultimate strategic industry, defence. All major political

parties continue to support this position. Most other countries have controls, but confine them to those relatively small elements of the economy concerned with activities that affect national security, a position recognised by the EU. In the majority of cases, these would include defence and energy supply. The means of maintaining domestic control of key firms varies. Some countries ensure state majority or blocking minority ownership or use a controlling 'golden' share or a limitation on the proportion of shares which can be foreign owned. Other countries intervene on an ad hoc basis. Many countries, including Australia, Canada and the USA, maintain agencies which review potential foreign acquisitions and recommend whether or not they should be allowed. Even though it knew that most other countries would probably seek to ensure that foreign ownership did not come to predominate in at least some of their key areas of activity, OSO had no means to prevent this happening in the UK.

Rightly or wrongly, they saw three main reasons to be worried about 'too much' foreign control. First, where businesses are dependent on the exploitation of a non-renewable natural resource (e.g. North Sea oil and gas), the eventual decline of local activity is more likely to lead to the ultimate withdrawal of a foreign rather than of a domestic owner, which will normally maintain its corporate functions and can seek additional overseas business without fear of intra-group conflict. Secondly, major decisions relating to marketing, research, development and design and investment are almost always made in the country of control, usually also that of ownership, raising the issue of where available resources are to be deployed if they are insufficient to meet all demands. Thirdly, though it is increasingly common to have non-nationals as directors of international companies, they are invariably a minority and the company's culture remains rooted in its country of origin, which can work against the interests of foreign operations. Today, another reason could be advanced: the more widespread a corporation's operations, the less likely it will be fully taxed in any of the countries in which it operates. In the past, national self-respect might also have been evoked.

The current British government has no doubt

become painfully aware of points two and three in its attempt to ensure that new nuclear power stations are constructed in the UK. The withdrawal of two of the previous 'front runners', the British subsidiaries of German companies EON and RWE, reflects an inability to respond to the investment requirements of both British and German electricity generation policies simultaneously due to capital constraints. As is to be expected, it is not the needs of the British market that have been given priority, leaving the British government policy perilously over-exposed to EDF, a company controlled by the French state.

OSO was responsible for some of its own difficulties. Its R&D function was, in the early days at least, not properly embedded in the organisation and sometimes did not ensure that proper commercialisation plans were in place when R&D support was provided. OSO's effectiveness was also closely linked to the attitude of the minister of the

day to whom it was responsible, particularly in the periods when it did not have the support of other government departments. It probably did not always approach EC regulations in the 'creative ways' employed by other member states such as France and Spain, though, in its defence, it was subservient to other government policies in such areas.

### ■ Post-OSO

Today, the British offshore service and supply industry continues to dominate its home market, with a share much the same as that achieved during the days of OSO, although a direct comparison is not strictly valid. With North Sea production in long-term decline, operating and decommissioning expenses, with their strong locational determination, now dominate the scene to an even greater extent than in OSO's time. In the global export market place, Britain probably occupies fourth place behind the USA, France and Norway, all of which exhibit a lower proportion of foreign-owned companies and a higher proportion of proprietary technology than the UK.

**In the global export market, Britain probably occupies fourth place behind the USA, France and Norway, all of which exhibit a lower proportion of foreign-owned companies and a higher proportion of proprietary technology than the UK.**

The USA's pre-eminence is easy to understand. The offshore industry started there and from the outset there was a large and diverse client base of oil and gas companies of varying sizes and degrees of vertical integration, leading to the swift evolution of a contractor-led supply chain. When the large British oil companies – all then highly vertically integrated – entered the offshore industry in various parts of the world a few years later, they turned primarily to the US contractors to fill the many gaps in their much less developed supply chains. During the peak years of North Sea development, the UKCS became more important to some major US service and supply companies than their domestic market.

France built its strong place from an entirely different starting point. It has never had a domestic offshore oil and gas market. It owes its position to an early recognition by parastatal bodies of the growth potential of the offshore oil and gas market, leading to a focused R&D programme, which eventually span-off a number of specialist companies at the higher technology end of the industry. Most of the R&D was conducted through the Institut Français du Pétrole (IFP), funded since 1946 by a small levy on hydrocarbon sales.

Among the outcomes of this policy has been Technip, now one of the world's largest offshore contractors and suppliers. Its Coflexip division is the world leader in the manufacture and installation of flexible sub-sea pipelines and control lines, indispensable to the deepwater oil developments now so critical to the major oil companies. A recent estimate by Infield Systems put the global sizes of these markets at about \$4.1 billion for product manufacture and about \$4.5 billion for installation expenses, and they look certain to continue to grow in the years ahead. It is sobering to recall that these markets could have been a British rather than a French fiefdom. Flexible sub-sea pipelines were invented by British engineers, first manufactured in Britain and first laid sub-sea by British vessels, all as part of the PLUTO (Pipeline Under the Ocean) Project designed to supply fuel to the allied forces that invaded France in 1944. Though OSO could not be held responsible for this, it does illustrate

how long-standing is the UK's neglect of its indigenous technological innovations.

As for Norway, the history and scale of its North Sea interests are not dissimilar to those of Britain, though somewhat longer and larger. However, it differs from Britain in many important respects. Its population is less than 10 per cent of the UK's

**France built its strong place from an entirely different starting point. It has never had a domestic offshore oil and gas market. It owes its position to an early recognition by parastatal bodies of the growth potential of the offshore oil and gas market.**

and, prior to the arrival of the offshore industry in the 1960s, it had had no experience of oil and gas exploration and production, a business in which Britain had been at the forefront almost since its inception. Nevertheless, Norway succeeded in creating a supply chain as dominant in its home market as Britain's and probably slightly more successful in international export markets – major achievements for such a small country. Their origins lie in the policy of successive Norwegian administrations, which were in marked contrast to those of their UK equivalents. First, field developments were 'paced' to avoid overheating the Norwegian economy and its offshore service and supply sector. On occasions, delays and increased costs were tolerated in order to create a missing element in Norwegian

capability.

Secondly, a view, which proved essentially correct, was taken on the future needs of the offshore oil and gas companies, revealing the rapid growth and new demands to come for deepwater exploration and development, for which Norwegian (and British) waters were well suited to proving. The result was a targeted R&D effort intended to ensure that Norwegian companies emerged leaders in key areas of underwater products and processes, with the clear intention that they would remain under Norwegian control. The state oil companies, Statoil and Norsk Hydro, were primarily responsible for enforcing these policies, though the government used licensing to see that the international oil and gas industry met much of the cost. The result has been a vibrant export sector for hi-tech goods and services.

Hi-tech goods and services, especially for underwater activities, also figure highly among British exports, but they tend to occupy niches lower in the supply chain than their Norwegian (and French) counterparts. Generally, British exports are quite diverse, reflecting the number of major contractors based here. Overall, sector direct

exports from Britain are probably around £7.5 billion to £8 billion annually, a market share of four to five per cent, and some 30 per cent of a total sector turnover of around £26 billion.

Meanwhile, the transfer of domestic companies with proprietary technologies and/or strategic market positions to foreign owners continues at a steady pace. Recently, over two-thirds of the acquirers have been American. Perhaps surprisingly, in view of its maturity and reduced levels of R&D expenditure, the industry continues to generate vibrant new companies.

The UK Oil and Gas Industrial Strategy was published by the government in early 2013. Its main interest is unashamedly in the maximisation of future oil and gas production with the concomitant tax revenues, which of course is to the advantage of the supply chain. However, although the supply chain itself generates the over-whelming majority of the 400,000 plus jobs attributed to the UK oil and gas sector, it warrants only three of the twenty-nine pages of the main text and much of that mirrors sentiments already expressed many times over the last forty years. As such, the Strategy is unlikely to much alter the facts on the ground for the British offshore supply chain, though the indications that there are to be muted attempts to return to the notion of FFO and to increase the industry's current low level of R&D are to be welcomed.

### ■ Some Conclusions

Today's world is a very different from that of the 1970s. If an active industrial policy is adopted as a means of trying to accelerate rebalancing, sector self-selection is a good starting point, always providing it is not backward-looking and embraces both global demand and a supply analysis that identifies British comparative advantage, actual or potential. It will most usually manifest itself in the form of an existing industry (e.g. aerospace). Sometimes, like the offshore wind market, it will be created by government 'fiat'. Rarely, as in the case of the offshore oil and gas supply chain, it may arise unexpectedly. Theoretically, it might arise from a scientific discovery or an innovation widely perceived to be of fundamental significance, nanotechnology and grapheme being recent examples. However, such is the risk that expert judgement will be wrong that such opportunities should only be pursued with public support and

with the greatest of caution, if at all.

Whatever the starting point, the OSO story is a source of valuable lessons. For instance, it is as well to start developing a supply chain before any period of rapid growth. OSO's effectiveness was limited by its late start. Regrettably, this principle was not observed in respect of the current vast and heavily subsidised offshore wind generation and transmission programme, the world's largest, despite its having been signalled well in advance. As a result, in an attempt to prevent the industry gaining a reputation for providing (expensive) 'green' electricity for the British population and highly skilled

and well-paid jobs for foreigners, the government resorted to its customary, and so far unsuccessful, default policy of subsidising foreign manufacturers (principally of turbines) to establish satellite plants here, though there is also a low level of innovation support for domestic component manufacturers.

So far, these efforts have yielded remarkably little, as is made clear in the recently published Offshore Wind Industrial Strategy. In some ways, it paints a supply chain picture even more depressing than that of North Sea oil at its outset, pointing out that a decade after the first UK offshore wind farm came into operation, and at a point where UK installed capacity now exceeds that of the rest of the world combined, the industry directly employs only 4,000 in the UK and that the UK content of current offshore wind farm developments is only 30 per cent – a ratio far exceeded by the British North Sea oil and gas supply chain by the end of its first operational decade by when it had reached 62 per cent. The Strategy aspires to increase these figures to 30,000 and 70 per cent respectively.

**If an active industrial policy is adopted as a means of trying to accelerate rebalancing, sector self-selection is a good starting point.**



It is clear that the aspiration can only succeed if turbine manufacture (or at least assembly) can be brought to the UK, leading not only to direct jobs but also to increased employment among component manufacturers. Despite several years of trying to attract foreign manufacturers with financial inducements, nothing, beyond expressions of interest and as yet unfulfilled planning applications, has been achieved. There no longer is a purely domestic option, though if action had been initiated a decade or more ago, there could have been. In the absence of progress with turbine suppliers, attention has belatedly been switched to large wind farm developers, which in future will be required to submit 'supply chain plans' before applying for the latest round of subsidies. The developers will doubtless have their attention drawn to their deficiencies in creating jobs in the UK in the hope that, following verbal chastisement and exhortation, they will bring pressure to bear on their chosen turbine (and other) suppliers to set up in the UK. In practice, the government seems to have no sanctions it can enforce if the desired result is not achieved, so that too much should not be expected from a policy that is in any case 'too little and too late'. The irony is that, unlike the unsubsidised commercial business of North Sea oil, the offshore wind market has been created and is driven by the state and is liberally subsidised by British energy consumers.

An early start demands an initial vision and strategy, but they must be interpreted flexibly since successful industrial strategies require implementation over decades rather than years, so it is inevitable that some things will change. This long timescale for effective policy implementation demands cross-party support, indispensable to the French and Norwegian offshore successes. The OSO experience shows this is possible here, despite the adversarial nature of British politics. However, it would be a great deal easier if the political class in general could be led to understand the time and complexity involved in building successful and significant enterprises trading globally, particularly in technically based industries. Clear responsibility and support from an influential senior minister who genuinely believes that the UK has an industrial

future is also essential, if only to ensure adherence to policy across departments, which does not necessarily come automatically. OSO's high and low points reflected the support offered by the minister of the day.

Effectiveness does not depend on large budgets. OSO was small, costing relatively little to run.

**The role of government in simply acquiring and disseminating information should never be underestimated and nor should its role as a broker.**

The role of government in simply acquiring and disseminating information should never be underestimated and nor should its role as a broker. Whether a specialist government unit or a joint industry/government body (the current fashion) is the policy delivery vehicle, it is critical that it understands needs and constraints of both the demand and supply sides, following the supply chain back to the point of non-differentiation. It must have at least a stable core staff who have sufficient background experience to be accepted as peers by the people with whom they work. OSO was around so long

that some of its staff became widely respected for their expertise, even though they may never have worked directly in the oil industry themselves. However, particularly in its early days, OSO had also benefited from the use of secondees and short-term contract personnel from the private sector.

Policy delivery commonly involves addressing issues through specific initiatives. These must be tracked transparently, so that it is clear whether they have been completed, are on-going, have been modified or have been suspended or abandoned – not always the case with OSO. Where numerical targets are introduced, it is important that they are appropriate and do not have unintended consequences, such as OSO's under-emphasis on qualitative factors.

A major function of such a vehicle must be to act as a finance broker, since lack of adequate long-term industrial finance appears to be a systemic problem in the British economy. It certainly considerably hampered OSO's efforts. If resolved, it might reduce the risks that companies with attractive products and good prospects will pass prematurely into foreign hands, as has so often happened in the offshore industry and elsewhere, leaving foreign owners to determine the extent to which future growth will benefit the UK. OSO had only limited success as a finance broker owing to the lack of new equity and even less in slowing the pace of overseas take-overs, to which there was often no practical alternative.

Whilst improved access to bank finance is clearly important, many promising businesses are faced with the need to take risky decisions and long-term investment commitments for which debt is an inappropriate source of finance. Hence there must be adequate sources of equity capital available in realistic tranches prior to a business being sufficiently established to access public markets. The recent establishment by three major clearing banks of the Business Growth Fund as a modern proxy for the original Industrial and Commercial Finance Corporation (ICFC) (founded in 1945 and effectively transformed from a long-term finance provider for unquoted companies to a management buy-out specialist in the 1980s) is an encouraging development. It has already made a number of significant equity investments in growing companies, including several in the oilfield service and supply service sector. However, much more is needed, and remedying the equity gap should be very high on any government's priority list, particularly when the need is from £10 million upwards, where there are virtually no providers. The equity gap's continued existence, 80 years after it was originally recognised, reflects badly both on the political elite and on our large and supposedly sophisticated financial services industry. The new Business Bank seems unlikely to address the need, since its equity remit is likely to be directed mainly at the market below the £10 million level, reflecting a general over-emphasis on truly small companies in government policy. For technically sophisticated products and services, at least, £10 million does not go very far in the drive to address global markets, something very necessary if the trade deficit is to be reduced and world-class companies developed.

In all business areas, there is a minimum economic scale of operation, usually far larger than initially appreciated. To reach this scale companies, however good their product or service and adequate their finance, also need exceptionally good managers and management systems if they are to prosper in the long-term. Those that do not exhibit such features are not deserving of support, a lesson that OSO soon learnt the hard way. Any tendency to devote excessive resources to very small firms, particularly those with charismatic or merely very persuasive leaders, should be avoided. They are unlikely to repay the effort. OSO was not always

successful in this respect.

Policy should aim to ensure that all firms involved in the upper tiers of the supply chain do not fall under foreign control. If they do, export prospects may diminish, lower tiers of the supply chain may be threatened and the chances of UK influence weakened internationally by the absence of consolidators whose strategic view reflects a UK base. This problem would be much diminished by more readily available long-term finance. In its absence, it could entail the largest firms in an industry, either individually or collectively, holding stakes in key companies (as oil companies have sometimes done in the past) though this would be contrary to the prevailing core-business philosophy of financial markets.

**A major function of such a vehicle must be to act as a finance broker, since lack of adequate long-term industrial finance appears to be a systemic problem in the British economy.**

'Near-market' R&D expenditure should be incurred by industry itself wherever that is feasible. Where commercially directed government R&D funding is provided, it should be linked to a plausible commercial strategy based on a scenario analysis. Changes of ownership likely to lead to exploitation of publicly funded R&D other than from the UK should trigger capital payments (cash or contingent) to the government appropriate to the scale of the potential market and the probability of a successful outcome rather than the public funds expended. Such a policy would have the added benefit of deterring opportunistic foreign predators.

While the door should remain welcomingly open to foreign investment, a market price for the results of public R&D investment and better financing options for companies with good growth prospects may make the UK marginally less attractive as an acquisitions hunting ground for 'savvy' multinationals. However, something more is needed if British innovations and market positioning are to be exploited primarily for the benefit of the British population. Thus there is an undoubted need for a foreign investment review process to test whether overseas acquisitions in a few key industries, such as energy and defence, should be blocked as not being in the national interest. The absence of such a process makes the UK almost unique among developed countries, which is tantamount to saying that the UK is the sole holder of some priceless economic insight that others cannot see. Were

that to be true, a more stellar relative economic performance would surely have been expected. Nevertheless, the use of any blocking powers should be carefully considered and only rarely employed, with the long-term aim of maintaining a balance between local and foreign control in strategic sectors.

Provided a programme such as that outlined above was implemented without discrimination by ownership except in limited cases of strategic interest, it is unlikely to fall foul of EU rules. The balance of advantage would be with locally controlled SMEs if only because they are the most vulnerable to the equity gap and foreign takeover. It would nevertheless be prudent to undertake a forensic analysis of the industrial policies of our EU partners, since there is plenty of evidence that the UK has been over-zealous in its interpretation of how restrictive the rules actually are or at least unaware of the amount of 'wriggle-room'.

All in all, there is some evidence in recent sector industrial strategies that the current administration has recently revisited elements of the OSO experience. It may even have begun to question

the wisdom of a purely laissez-faire approach in a world where that is almost universally rejected by our competitors. However, much more needs to be done even to match OSO's modest achievements, let alone to exceed them, which should surely be the aim if economic rebalancing is to be attained. In particular, the 'equity gap' must finally be closed, the importance of technology and who controls it always should inform policy-making and a team of civil servants who understand commercial imperatives should be established.

## Principal Sources

*The Sea of Lost Opportunity: North Sea Oil and Gas, British Industry and the Offshore Supplies Office* by Norman J Smith, Elsevier, 2011.

[www.adsgroup.org.uk](http://www.adsgroup.org.uk) (website of UK Aerospace, Defence & Security Industries trade association)

[www.gov.uk/government/organisations/department-for-business-innovation-skills](http://www.gov.uk/government/organisations/department-for-business-innovation-skills)

[www.oilandgasuk.co.uk](http://www.oilandgasuk.co.uk) (website of UK offshore oil and gas industry trade association)

*Study of Potential Benefits to British Industry from Offshore Oil and Gas Developments* by the International Management and Engineering Group of Great Britain Limited (The IMEG Report), HMSO, 1972.

Norman Smith holds degrees from Oxford University (M.A.), the City University (M. Phil.) and Aberdeen University (Ph.D.). He has participated in management development programmes at Harvard and CEDEP. He is a Fellow of the Energy Institute and of the Society of Business Economists. His career began in engineering manufacture where he first became involved with the offshore oil and gas industry. After a spell in merchant banking, he was seconded to the Department of Energy where he became Director General of the Offshore Supplies Office (OSO), the government agency

which supported British suppliers to the North Sea oil and gas industry. On his return to the private sector, he co-founded and managed an energy consulting company and served as director of eight private companies in the oil and gas industry, becoming chairman of three. After retirement, he researched and authored an extensive study of the British supply chain supporting exploration and production activities in the North Sea: *The Sea of Lost Opportunity: North Sea Oil and Gas, British Industry and the Offshore Supplies Office*.

CIVITAS is an independent social policy think tank. It has no links to any political party and its research programme receives no state funding. The aim of CIVITAS is to deepen public understanding of the legal, institutional and moral framework that makes a free and democratic society possible.

Our object is to revive civil society, that network of voluntary social institutions, charities, mutual aid organisations and other collective bodies that lie between

the individual and the state. We believe that in social affairs the alternatives to government are not exhausted by commercial services alone.

We have established a reputation for work on social issues that transcends party boundaries. Our authors examine, analyse and report on views about the best way forward on particular issues. The object is to raise the quality of informed debate. For further information about CIVITAS and how

you could become a member, please email us at [info@civitas.org.uk](mailto:info@civitas.org.uk) or call +44 (0)20 7799 6677.

**CIVITAS: Institute for the Study of Civil Society**  
55 Tufton Street  
London SW1P 3QL  
Phone: +44 (0)20 7799 6677  
Fax: +44 (0)20 7799 6688  
Email: [info@civitas.org.uk](mailto:info@civitas.org.uk)

Charity No. 1085494