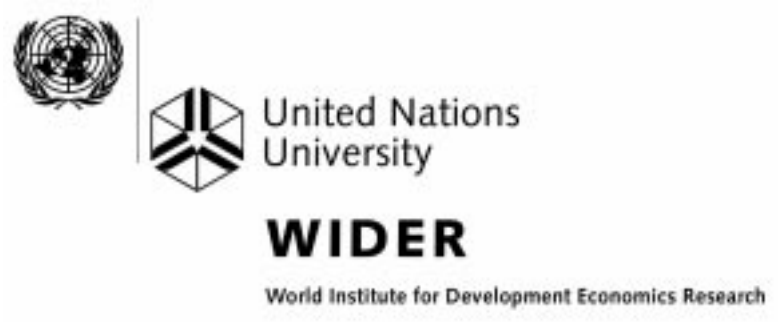

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UK Utility Reforms

Distributional Implications and Government Response

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Abstract

The UK was one of the earliest countries to undertake utility reform, which included changes in ownership, in the regulatory regime and in market structure and competition. While most agree that the programme has had beneficial effects on efficiency, there has been increasing concern about the distribution of these benefits between and within stake holder groups, resulting in a second phase of reform under the Labour Government elected in 1997. This paper reports on the effect of the initial programme of reforms, and on the response of the British public, the government and the regulators. While the UK is very different from most Latin American countries, this second phase of reform may hold lessons for other countries at an earlier stage of utility reorganization.

Keywords: distribution; boundaries of public and private enterprise; privatization, contracting out; economics of regulation; utilities

JEL classification: D30, L33, L51, L97

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1 Introduction

Privatization and deregulation are now under way in many countries, including those in Latin America, which have often been in the forefront of developments, as other studies in this project report. In many places a new phase of reform has been reached, when the initial effects are assessed, often by governments that did not themselves instigate the reorganization, and the general legitimization of the arrangements is reviewed. The UK, also a pioneer in this field under the Conservative governments of 1979 to 1997 has now reached this second phase. By the end of the period virtually all the formerly nationalized industries were privately owned: telecoms, water, electricity, gas, railways, as well as coal, iron and steel among others. This study concentrates on the effect of reform on the first four of these industries, their impact on different household groups and the response of the incoming Labour government since 1997, particularly the Utilities Act passed in 2000. While the UK is very different from most Latin American countries in terms of level of income and income distribution, provision of social security services and the penetration levels of utilities, its use as an exemplar by many enthusiasts for reform makes its pioneering privatization policy, its effects and subsequent political reaction an interesting case study.

Section two describes the difficulties faced by some British citizens in gaining access to utility services. Section three gives a summary of how the four utilities were privatized and competition introduced and describes the variety of payment methods. The fourth section reports the effects of price changes in the residential sector from the time of privatization (between 1984 and 1990) to 1997.[1] We consider both changes in price levels, assessing where these can be attributed to changing ownership or regulation, and relative prices, and discuss how prices have changed since 1997. Section five considers the public response to the original reforms, and the Labour government's attempts to introduce further reforms in utility regulation. Section six identifies in more detail the response of the various regulators, and section seven concludes.

2 Characteristics of vulnerability

Under the privatization legislation, regulators have had a responsibility to take account of the needs of those of pensionable age, the chronically sick and disabled, and those living in rural areas (for electricity and water). The Utilities Act 2000 added low-income groups to this list for the energy regulator. Though the UK is a rich country compared with many in all parts of the world, increasing inequalities have given rise to concerns about those citizens in low-income groups, who while they may not seem to be very deprived by international standards, are much worse off than the average in their own country. During the 1980s and 1990s, income distribution in the UK became markedly more unequal, something which was not true of other European countries (Atkinson 1997). Between April 1979 and April 1995 the real earnings of the bottom decile grew only 11 per cent, while those of the top decile grew by 50 per cent. From 1975-85 the proportion of families without income from work grew from one fifth to one third. A Treasury document estimated that almost 8 million more people than in the 1970s have incomes below half average (HM Treasury 1999)

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[1] These results were first published in Waddams Price and Hancock (1998).

Such relative deprivation of a large section of society—often labelled 'social exclusion'—includes problems in affording utilities. Access to heat, light, water and telecommunications are a necessary condition of participation in a modern society. In view of the British climate, adequate heating is often given a high priority; deaths from hypothermia are commoner in the UK than in Scandinavian countries with a harsher climate where housing is more energy efficient and social security support more generous. Expenditure on energy is a disproportionate item in the budgets of poor pensioner households and those of single parents. Social security benefits for families with children are insufficient to sustain a basic standard of living (DTI 1998b: 94). Other vulnerable groups include the disabled, sick, and the elderly in large houses. Paying for water and telephones may also present difficulties for all these social groups. The introduction of competition into utilities, which implies the erosion of long-established cross-subsidies, prompted public debate on the impact of this reform on the groups mentioned above. The Labour government elected in 1997 has made attempts to redress the balance in their favour, a policy discussed later in this study.

Though affordability is an issue for a sizeable proportion of the British population, the cost of access is really only an issue for remote locations. Virtually all households are connected to an electricity supply, and lack of connection to gas, water or sewerage is predominantly because of geographical characteristics rather than affordability. Telecommunications may be rather different because of the advent of competition in networks and mobile telephones, and the consequent move towards cost reflectivity in prices to reflect the higher costs of access in remote areas may be a particular problem for the rural poor.

3 UK utility reforms

All the major UK utilities were privatized between 1984 and 1991. The first to be sold was British Telecom (BT) in 1984. Unlike those which came later, when the government's motivation was often to gain control of the proceeds, this sale was motivated primarily by the difficulty of raising sufficient investment while it was in public ownership, because loans to nationalized industries were classified as part of the public sector borrowing requirement (PSBR). Macroeconomic orthodoxy of the time placed great emphasis on reducing this figure, and the investment needs of new technology in telecommunications posed a particular problem. Though almost 80 per cent of households were connected to the monopoly telephone system at the time of privatization, the service was poor and there was rising demand for modern equipment and new data transmission services that required greater capacity than was available. It was the largest flotation ever made on the stock market, and there were real fears at the time about its feasibility.

Given the subsequent success of privatization in the UK, it is difficult to recall the trepidation that accompanied this innovation at the time. To ensure a successful sale, therefore, shares were offered at low prices, with almost 40 per cent reserved for small share holdings by the general public and BT employees. A regulatory regime was somewhat hurriedly devised, a new incentive scheme designed by Stephen Littlechild (1983), originally as a temporary measure until competition was established. Initially competition took the form of a protected duopoly, to encourage the entry of the second company, Mercury, into the market. However this was not a great success, and after

1991 there was more open access, with considerable entry during the 1990s, facilitated by developing technology as well as the regulatory regime. Despite extensive entry and loss of market in some areas, BT still retains 80 per cent of the residential market (Oftel 2000b). Regulation of final prices is now restricted to the sub-group of this market for which there is least competition (those with the lowest usage levels), with increasing focus on regulating inter-connection agreements between companies rather than retail prices. The regulation itself consisted of a constraint on overall revenue, with a separate (slightly laxer) constraint on the line rental element until 1997. This constraint was virtually always binding, i.e. the company wanted to raise this charge within the overall limit by more than the amount permitted. The price cap was on a base-weighted average of prices.

British Gas was the next utility industry to be privatized, in 1986. Like British Telecom, it was sold as a totally vertically integrated company (from North Sea to burner). The government and the company argued that no regulation was needed in the large user market, because gas to gas competition was theoretically possible (though non-existent) and there was competition from other fuels. Few commentators were convinced by this argument, which was widely seen as lax regulation to ensure the cooperation of the industry and a quick sale before the forthcoming election. Competition in the bulk market developed only after considerable pressure from competition authorities, following two Monopolies and Mergers Commission enquiries (1988, 1993) and a report by the Office of Fair Trading in 1991. Eventually the company was subjected to restrictions on price offers, to be relaxed only as it lost pre-set proportions of its market. In 2000 the regulator agreed that it has lost enough of the industrial market (88 per cent by volume) that it could return to operating under confidential pricing arrangements like its competitors, with no additional restrictions (Ofgem 2000b: 18).

The Gas Act granted an indefinite monopoly to the company in the small user market. Price cap regulation was applied to this market, which consisted of the residential sector, and small to medium-sized industrial and commercial users; as with BT, there was a separate constraint on the fixed charge, but this was never binding. In 1997 the restriction on overall revenue was amended to caps on individual tariff elements, reducing the incumbent's ability to rebalance prices in response to new entry.

Competition in the small user market required new legislation, enacted in 1995. Choice of supplier was introduced gradually across regions between 1996 and 1998. There are about 16 entrants to the gas market, mainly existing electricity incumbents, though not all operating in every region. By 2001 just over 30 per cent of households had switched supplier, with a rather higher proportion among those paying by direct debit, and a much lower proportion (about 10 per cent) amongst prepayment consumers. In April 2000 the price cap was removed from the direct debit market, with the promise that the rest of the residential market would follow a year later.

Throughout the period, the monolithic company privatized in 1986 came under increasing regulatory pressure, particularly as competition was introduced, and the regulator imposed 'Chinese walls' between the monopoly pipes business and the supply business (responsible for acquiring gas, selling and billing) which was competing with

new entrants.[2] Having survived several recommendations that it be forcibly split up, the company demerged voluntarily in 1997 into a retail business, with some North Sea gas supplies, and a pipes business that included exploration and international business. This latter company further separated in October 2000 into the Lattice group, responsible for pipes in the UK, and BG International.

The next two utilities to be sold off, water and electricity, already had elements of regional organization, and therefore regional monopoly electricity distributors and water suppliers were set up in England and Wales. In Northern Ireland and Scotland, however, water remained in public ownership and the electricity industry was differently organized. The water industry, sold in 1989, was the most fiercely contested of the four, both in parliament and in the country at large. The chief argument brought forward in favour of this sale was that consumers would benefit from greater efficiency. There were ten regional water authorities, in effect ten local natural monopolies, whose responsibilities included environmental regulatory functions as well as the supply of water and sewerage services and, in addition, a number of smaller water-only companies. European law would not permit the transfer of these environmental responsibilities to private companies. Consequently, the regulatory functions were transferred to a National Rivers Authority, later incorporated into the Environment Agency. Though the water and sewerage companies were set up as vertically integrated monopolies, the legislation also included the possibility of competition for large users in the form of 'inset appointments' that could be permitted on the boundaries of water areas, but there were few instances of this. However the enforcement of the Competition Act (1998) in 2000 offered the possibility of a much more positive regulatory attitude to competition, even of the regulator being forced by prospective entrants to introduce competition. Whether the new regulator, appointed in August 2000, will take a pro-competition view and how far competition will be viable, given the lack of a national water grid, remains to be seen.

Though perhaps less controversial than the sale of the water companies, the privatization of the electricity industry was far more complex and took place in several stages. Formerly a vertically integrated monopoly consisting of a Central Electricity Generating Board that generated and transmitted power, and 12 area boards which distributed and supplied electricity, the English electricity industry was fundamentally restructured. Two generating companies were floated (National Power and PowerGen), the former much larger than the latter, since it was intended to bear the burden of nuclear liabilities. The original intention to sell the nuclear generators as well had had to be postponed at an early stage. Transmission became the responsibility of the National Grid Company under the direction and ownership of the 12 Regional Electricity Companies (RECs), which were floated in December 1990. The National Grid Company in turn was sold by the RECs on the stock market in 1996. Shares in the generating companies were sold in two tranches, in 1991 and 1995. The market for electricity generation was supposed to be competitive from the outset, with the regional companies permitted to generate a limited amount of power themselves. The influence of the two big generators remained significant since they had far greater capacity than

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2 'Chinese walls' is the term for an artificial separation of functions within companies to prevent cross subsidy and inappropriate exchange of information. This will usually include financial ring fencing and separate reporting to ensure transparency, and even restrictions on movement of staff between buildings.

the new entrants. New entry was almost entirely geared to running baseload, and variation in output was mostly provided by the plant owned by National Power and PowerGen who consequently set the price in the pool (see Green and Newbery 1998 for a review of this process). In 2001 the pool in which electricity was bought and sold is due to be replaced by new trading arrangements, but some scepticism remains about their effectiveness in counteracting the monopoly power of the generators.

The Electricity Act (1989) provided for the phased introduction of competition in the retail market. Very large consumers were given a choice of supplier from the outset, medium-sized users had a choice from 1994, and choice was extended to all residential users by 1999. As each of the first two groups was opened to entrants, the price cap was removed from the incumbents. Price control was also removed from direct debit payers in April 2000, with the expectation that the credit and prepayment tariffs would follow two years later. In Scotland different arrangements were put in place; two vertically integrated companies were established which performed all the functions which in England and Wales had been broken up into four separate operations.

3.1 Payment methods

The UK has traditionally operated two payment methods for energy. The most usual has been a quarterly bill, payable in arrears after a meter reading. This extends credit to the customer and thus carries a risk of non-payment. Partly in response to this, an alternative, prepayment system was developed where smart cards or keys are charged in advance and inserted into meters to release a flow of energy (coins were previously used). Where there is debt—the most usual reason for being on a gas prepayment meter —the meter can be set to reclaim a proportion of the debt each week. Such payment methods were predominantly used for those with lower incomes and a higher risk of debt.

Immediately after privatization the disconnection rates for non-payment of gas bills in the residential market rose sharply, resulting in regulatory intervention which prevented disconnection unless a prepayment meter was offered as an alternative. The company responded by increasing the number of prepayment meters, leading to accusations that it was replacing disconnection with ‘self-disconnection’ for consumers unable to afford fuel. The numbers of both gas and electricity prepayment units have been rising, so that in 2000 about 8 per cent of gas consumers and 17 per cent of electricity consumers were paying in this way.

Prepayment, since it involves frequent small cash payments, is the most expensive method of payment for the company. The metering equipment is also more expensive, particularly for gas. This is reflected in higher charges to the suppliers by the network owners. The cheapest system for the companies is regular monthly direct debit payments from a bank, with an annual reconciliation. As competition approached, the incumbents in both gas and electricity were increasingly anxious to reflect these cost differences in their tariffs, which had hitherto contained some cross-subsidy by the direct debit customers of those who used prepayment and quarterly credit. Because it operated against the interests of low-income consumers on average (see sections below), this became a sensitive political issue. The payment method in telecommunications, like the traditional methods for energy, was by quarterly bill, made up of line rental and call

charges which varied according to distance, time of day and day of the week (cheaper at evenings and weekends).

Until privatization, households in the rented public sector did not have to pay for water and sewerage services as a separate item, since they were included in the rent, which in many cases would have been covered at least partly by social security payments. Most households now pay for their water on the basis of a property tax of thirty years ago; the supply is unmeasured, so the marginal cost is zero. A minority have a metered supply and pay for the water they use as well as a fixed charge. Despite encouragement by the regulator for metering to relay economic signals about water usage to households, only about twenty per cent of the total have a meter. Though committed to the principle of charging by volume, the government has not pushed ahead with this because the effects would be so regressive. One early concern of the regulator was to ensure that metered consumers were charged a fair price in relation to others. Legislative changes for water introduced by the 1997 Labour government are described below.

4 Tariff changes and their distributional impact

UK utilities have thus been subjected to three major reforms since 1984. They have been moved from the public to the private sector and as a result their objectives have been transformed from a somewhat vague 'public interest' to a much more specific profitmaking one. At the same time, to counteract these profit maximizing incentives, explicit economic regulation has been introduced—a further contrast with the unclear and unenforced constraints of earlier decades. Thirdly, competition has been introduced into markets where this seemed unthinkable even twenty years ago. The effect of each of these changes on prices is rather different, both in theory and in practice.

Most utilities inherited a pattern of prices that contained considerable cross-subsidies. The general ethos while they were in public ownership was that prices should reflect average costs of supply, so that high-cost consumers (those using prepayment, living in rural areas or imposing large demands at peak) would not pay more than those who were less expensive to supply. Privatization and regulation exerted two influences on prices. There was a new incentive to lower costs because the savings could be retained under price cap regulation, at least until the next price review, and the lower level of costs would be reflected in lower price levels after the review. Additionally, more cost reflective prices would increase profits. Some price rebalancing was possible under the average price constraints applied to most of the industries. As a result of privatization and regulation, the levels of prices in telecoms, gas and electricity did fall. In some cases this took several years because of price rises just before privatization, and lax initial price caps. In water, average prices have risen, largely to accommodate the additional investment needed to meet higher quality standards imposed by the EU. Productivity rose in all industries, though the benefits were not always shared with consumers.

However, companies responded very little to the incentives to rebalance between prices within the price cap (Giulietti and Waddams Price 2000). Regulated monopolies were much more responsive to informal guidance from the regulators than to the theoretical incentives of the formal price constraint, and it was only the prospect of competition that initiated major rebalancing between prices (Giulietti and Otero 1999). We,

therefore, concentrate here on the changes in residential prices and the impact on telecoms, gas and electricity prices, since there is as yet no competition for residential water supply. We do comment on the impact of different changes in water bills in different areas and identify the effects on these groups where applicable. The effects depend on use and payment methods, which are reported in Tables 1 and 2 below.

Table 1
Use of telecoms, gas and electricity

	Telecoms		Gas		Electricity
	Use %	Call-rel £pa	Use %	av cons kWhpa	av cons kWhpa
All	87	135	78	20,300	3,018
Pensioner h'hold	90	89	73	16,400	2,977
On disability benefit	87	130	76	20,300	4,062
On income support	66	140	74	18,800	3,604
Lowest income quintile	71	137	74	18,800	3,437
2nd income quintile	83	112	75	17,900	3,400
3rd income quintile	91	127	78	20,200	3,928
4th income quintile	94	133	80	20,800	3,909
5th income quintile	95	163	81	28,300	4,171
Household nos		17,621		16,155	6,717

Source: Waddams Price and Hancock (1998).

Table 2
Payment method for gas and electricity
(Percentage in each household category paying by each method)

	Gas			Electricity		
	Pre-payment	Credit	Direct debit	Pre-payment	Credit	Direct debit
All	4	59	38	11	62	27
Pensioner households	3	70	27	3	79	18
On disability benefit	7	55	38	16	60	24
On income support	12	54	34	29	49	22
Lowest income quintile [1]	9	58	33	26	54	20
2nd income quintile	6	60	34	11	66	23
3rd income quintile	3	57	40	7	62	31
4th income quintile	2	57	41	5	64	31
5th income quintile	1	61	38	2	68	31

Note: [1] The numbers of low-income customers paying by direct debit for gas are higher than reported in Hancock and Waddams Price (1995), which used 1991 data. However they are consistent with a survey of the gas market in south-west England in November 1997 which reported 37 per cent of low-income consumers paying for gas by direct debit (Waddams Price 1998) and analysis of the most recent Family Expenditure Survey for 1995-96 which shows 30 per cent of the lowest-income quintile pay for gas, and 17 per cent pay for electricity by this means.

Source: Waddams Price and Hancock (1998).

The main change in the structure of telecoms charges has been an increase in line rental, especially dramatic in the context of falling overall bills. Between 1984 and 2000, line rentals virtually doubled in money terms, while the average price for residential telephony (BT and other providers) stayed about the same. In real terms, the line rental has stayed about the same and the price of telecoms services as whole have fallen by 46 per cent. The main losers from this rebalancing are those who use the telephone little (mainly elderly people) and those who cannot afford connection to the system. Over the period 1984 to 1997, Waddams Price and Hancock (1998) calculated an average real reduction in telecoms bills of £73, but a relative loss for pensioner households amongst users of £10.50. Low-income households are much more likely not to have a fixed phone line. The proportion of such households has remained steady at about 5 per cent over the last five years, though the figure for Northern Ireland is about twice this. The majority of those without a fixed phone are low-skilled workers living on low incomes in rented accommodation, but about half of them use prepay packages with mobile phones. About one in five of those who do not have a fixed line cite affordability as the reason; they are predominantly middle aged and living in small households. Thus about 1 per cent of the population do not have a fixed line phone because of its cost (Oftel 2000a), a relative disadvantage which will be exacerbated by continuing increases in line rental. Tables 3 and 4 show the cumulative effects of price changes on various household groups up to 1997.

Table 3
Real gains and losses for telecoms, gas and electricity since privatization, 1996 £s

	Telecoms		Gas		Electricity		Aggregate	
	Gain, £pa	Propn inc %	Gain, £pa	Propn inc %	Gain, £pa	Propn inc %	Gain, £pa	Diff from average
All	73	0.32	124	1.61	43	0.66	240	0
Pensioner households	44	0.75	102	1.82	34	0.68	180	-60
On disability benefits	70	0.84	122	1.60	45	0.59	237	-3
On income support	77	1.56	111	2.44	42	0.94	230	-10
1st income quintile	75	2.67	112	4.03	42	1.59	229	-11
2nd income quintile	58	0.91	110	1.78	39	0.66	207	-33
3rd income quintile	66	0.64	123	1.18	45	0.44	234	-5
4th income quintile	72	0.50	129	0.89	46	0.32	247	7
5th income quintile	92	0.41	142	0.64	47	0.22	281	41
Prepay			75	1.28	43	0.77		
Credit tariff			105	1.47	38	0.58		
Monthly			159	1.88	55	0.78		
Household nos		17,621		16,155		6,717		

Note: The table includes only users of gas and telecoms for these industries, and for electricity only those households for whom we can identify electricity suppliers, so the samples for each utility vary.

Source: Waddams Price and Hancock (1998).

Table 4
Mean gains from price rebalancing, separately for each industry since privatization, 1996 £s pa (consumers only)

	Telecom	Gas	Electricity	'Indicative total'
All	0.0	0.0	0.0	0.0
Pensioner household	-10.5	-1.7	-1.2	-13.4
On disability benefit	-1.3	0.0	-1.6	-2.9
On income support	1.9	-0.1	0.0	1.8
Lowest income quintile	1.6	-0.7	1.1	2.0
2nd income quintile	-5.0	-0.4	-0.9	-6.3
3rd income quintile	-2.5	0.4	-0.3	-2.4
4th income quintile	-1.2	0.7	0.6	+0.1
5th income quintile	6.8	-0.2	-0.7	5.9
Prepayment	n/a	-3.1	-0.1	
Quarterly credit	n/a	-8.9	-1.7	
Monthly	n/a	14.2	4.1	
Household nos.	17,621	15,906	6,717	

Source: Waddams Price and Hancock (1998).

In gas and electricity the fixed charge was not a major element in rebalancing. However in April 2000 British Gas introduced new tariffs for both the 75 per cent of gas consumers they still supplied, and their new market in electricity, with no standing charge, but a higher rate for the first few units. This reflected the unpopularity of standing charges, but moved against the pattern of underlying costs. Overall only 11 per cent of consumers gained (about £20 a year on average, with the remainder losing a smaller amount, about £2.56). While the move helped low-income groups disproportionately (because consumption increases with income), low-income groups with high consumption, who had recently become a high priority group for government policy (see below) were adversely affected (Bennett, Cooke and Waddams Price 2000).

The main rebalancing in energy was between different payment methods. While all consumers saw lower prices through the operation of price caps, prices fell much faster for direct debit payers than for prepayment consumers. The latter are predominantly lower income, so they benefited far less. After the removal of price caps, the prices charged by the incumbent to direct debit and prepayment users will be 'tied' for at least a year to protect low-income groups.

In water there was rebalancing between residential and non-residential consumers. As competition became feasible for large consumers, their prices were lowered, allowing higher prices for residential consumers within the cap. The regulator dealt with this by separating the two groups into different capped baskets so that such rebalancing was not profitable. Among domestic users there was also some rebalancing between those paying for a measured water supply and those whose supply was unmeasured. For the former, the fixed element of the charges has come down since privatization, rather than increased, responding to the regulator's exhortations and political pressures rather than the economic incentives (Giulietti and Waddams Price 2000).

In addition, there have been considerable regional differences in the water charge increases. In particular the southwest region, with a large length of coastline, has had to invest heavily in sewerage treatment plants to meet bathing water directives from the European Union. Though this region is a popular holiday area, income levels are below average, and some hardship has resulted.

Table 5
Average charges for domestic water and sewerage, 1989-2000

Water and sewerage company	Water and sewerage bill Average £pa, 2000-2001 prices		% increase in real water and sewerage bill 1989-2000
	1989-90	1999-2000	
Anglian	237	280	18
Welsh Water	226	304	35
North West	168	250	49
Northumbrian	164	246	50
Severn Trent	161	228	41
South West	223	360	62
Southern	189	278	47
Thames	154	211	37
Wessex	211	276	31
Yorkshire	187	246	31
Industry average	182	250	38

Table 6
Regional impact of price rebalancing in gas and telecoms (consumers only)

	Mean gain £pa		Percentage of group in quartile of gains			
			Lowest		Highest	
	Telecom	Gas	Telecom	Gas	Telecom	Gas
All	0.0	0.0	25	25	25	25
North	-6.1	0.2	31	26	18	24
Yorks & Humberside	-6.0	-1.5	34	30	20	19
NWest	-2.2	-1.3	27	28	22	20
East Midlands	-4.6	-3.5	29	41	21	11
West Midlands	-2.8	-4.9	30	44	21	8
East Anglia	-1.8	-0.5	28	23	23	23
Greater London	13.4	0.1	21	20	36	24
Rest SE	3.1	2.5	24	17	27	35
SWest	-2.0	2.3	26	14	23	32
Wales	-3.3	1.6	25	19	23	32
Scotland	-0.3	4.2	23	17	21	31
Number	17,901	15,906				
Boundary			-£24.05	-£8.78	£9.03	£12.02

Source: Waddams Price and Hancock (1998).

There was a regional effect from the differential changes in gas, electricity and telecoms prices, mostly caused by different patterns of usage (incumbent gas and telecoms prices are uniform across regions). Because of difficulty in identifying regional electricity suppliers, only the regional effects for gas and telecoms could be reliably estimated.

The changes reported in Waddams Price and Hancock and discussed so far in this paper are the effect of changes in the incumbent's prices. This seemed reasonable, given that incumbents retain at least 75 per cent of their residential market. However, most of the price changes themselves have come about through competition or its threat, and consumers may have a choice of tariff structures. In practice consumers seem to have difficulty in finding information about alternatives, and are not always aware of their options (Giulietti, Waddams Price and Waterson 2000). In telecoms higher income consumers are marginally more likely to switch, but in energy these groups are slightly less likely to change, so there seems to be little serious bias in terms of barriers to switching. But while there are some innovative tariffs among new entrants, many act as price takers, seeking to undercut narrowly the basic prices of the incumbent. It is interesting to note that in both gas and electricity, entrants offer much less reduction (if any) on the incumbent's prices for prepayment meter users than for direct debit payers, suggesting that regulatory controls may have depressed the incumbents' prices for these consumers so far that there is very little profit margin to be exploited (Otero and Waddams Price 2001a and 2001b). Where there is more innovation in pricing options, suppliers may deliberately package their prices in a way that makes them difficult to compare with those of competitors. This trend has led both the telecoms and the energy regulators to institute systems to make comparison between the prices of different suppliers easier for consumers (see section 6 below).

One complicating factor in comparing prices is the development of utilities selling more than one utility product, and bundling these together, especially the so-called 'dual fuel' offers for gas and electricity. These originally developed as a response to the asymmetric regulation for incumbents and entrants in each market, where an incumbent electricity supplier had more freedom to price in the gas market, and vice versa. Moreover a number of innovative new tariffs have been developed in response to the social agenda described below, which may offer better deals to low-income households.

For the government, the complex issues of how to deal with the disadvantaged presented both economic and political problems. After the Labour government was elected in 1997, it rapidly became clear that the previous emphasis on pre-payment meter (PPM) customers was inadequate. By the end of 1998, the focus had shifted towards the problem of fuel poverty (DTI 1998a). This was a comparatively recent concept, but reflected a long-standing concern about fuel expenditure in the UK. A combination of climatic conditions and poor housing stock leads to a high proportionate expenditure on energy, particularly among low-income households. Thus while the average household expenditure on energy is about 4 per cent of disposable income, the poorest tenth of households spend an average of 9.9 per cent, but for single pensioners who receive social security benefits this can rise to 13 per cent or more (DTI 1998b: 83). A particular target group has become those £pa who need to spend more than 10 per cent of their income on fuel in order to achieve the prescribed ambient temperatures.[3] Estimates of how many households fall into this category vary between a

3 Ambient temperatures recommended by the WHO are 21°C in the living room and 18°C elsewhere.

tenth and a third, and depend on definitions of income, and calculations of unfulfilled need. (It is comparatively easy to measure expenditure, but very difficult to measure self-disconnection and self-rationing which prevent the recommended levels of comfort being reached).

5 Public response and new legislation

At the time of privatization, the main objective had been a successful sale of the four industries. Consumer needs, especially those of the disadvantaged, were not a priority in the legislation that established the new regulatory regimes, even though the starting point for regulation was ostensibly the protection of consumers, large and small, against monopoly power.

In the first few years after the industries had been sold off, consumers did not perceive that their lot was improving in terms of lower prices or better standards of service, even though most prices fell in real terms. The exception was water prices, which rose steeply and companies and shareholders made large profits. A series of notorious episodes had followed each other. These included the 1995 water crisis in Yorkshire when the company was obliged to transport water by truck at a cost of £1m per day; a public furore over large salary increases for directors and chief executives; and the humiliation of the electricity regulator who was obliged to reopen his price review of the distribution companies, causing large falls on the stock market. There was also considerable dissatisfaction when the domestic gas market was opened up in early 1996. Although by September 2000 nearly 30 per cent of customers had switched supplier, difficulties in completing the necessary formalities and problems over 'doorstep selling' as well as some evidence that the new entrants were attempting to avoid recruiting the less well-off and elderly brought further opprobrium on the companies involved and on the regulator. As a result of all these events, by the mid-1990s the utilities were very unpopular.

The resentment which had thus been generated was put to good use by the Labour opposition, which in 1995 had reversed its previous opposition to privatization. The party decided to accept with reservations the reforms of the Conservatives, including the introduction of competition into the gas and electricity markets. The likely impact of this reform, especially on lower income groups became a matter of debate among consumer groups as well as politicians. The distributional implications of competition were not addressed before the 1997 election but were subsequently to become an important focus for the party (Currie 1997: 7). The Labour position therefore was one of broad continuity with previous government policy, combined with a modicum of change. An important election pledge was the introduction of a 'windfall tax' on utilities which was to be used to finance employment opportunities for the young.[4] In addition, utility regulation was to be reformed so as to redress the balance in favour of the consumer. One strand of the new government's policy was to tackle social exclusion, a

4 A measure to which the Labour party was committed well before the 1997 general election, intended to redistribute some of the profits made by the former nationalised industries and as a riposte to large salary increases for utility directors and generous dividends received by shareholders.

significant component of which was to make utility services available to all at affordable prices, in particular the less advantaged.

Questions of equity had already made their appearance on the political agenda before Labour took power. As noted above, during the 1980s and 1990s income distribution in the UK had become markedly more unequal, something which was not true of other European countries (Atkinson 1997). The issue of fuel poverty had first been brought to public attention in the mid-1970s at the time of large rises in the price of oil. As we have seen, the announcement of competition in the domestic gas market led to the immediate introduction of discounts for direct debit payers and this gave rise to lobbying activity by consumer groups. A parliamentary select committee (TIC 1997) also recommended that regulators should monitor the vulnerable customers and take into account the needs of those on low incomes. Once the new government had come into office in May 1997, an early move was to set up a full-scale enquiry into the utilities.

The Green Paper setting out the results of the government's review of the utilities was published in spring 1998. Entitled *A Fair Deal for Consumers,* it had three main strands (DTI 1998a). 'Guidance' would be issued to regulators so their duties would be more clearly defined. Consumer needs would be paramount and new improved organizations for customer representation would be set up. More help would be offered to low-income customers, so that they too could receive the benefits of competition. But the document, though it identified a social dimension for which the government not the regulator should set the agenda, failed to make progress on the practical aspects of helping low-income groups and had nothing to add on how or indeed whether the tax and benefit system should be used in this context.

The energy regulators were instructed to develop a social action plan. Produced under time pressure, when it appeared in June 1998, it too had little to contribute. The declared aim was to ensure that the disadvantaged customers, as well as others, benefited from improved efficiency, but fairness was to be equally important: no easy task in a competitive market. The regulator's role therefore was to achieve a balance between efficiency and social equity; see section 5 below.

Fuel poverty became a major (if ill-defined) focus, with an inter-ministerial working group set up to define, measure and identify policies to alleviate the problem. Though already a familiar concept, it now acquired a new currency and altered the emphasis of policy. It had the appeal of being open to practical solutions based on energy efficiency. As a result, the Home Energy Efficiency Scheme (HEES) set up in 1991, which provided for insulation and heating improvements, was extended. HEES had the virtue of relatively simple targeting, since eligible households were those in receipt of an income- or disability-based benefit.

The government also made other moves to help the fuel poor. Pensioners living in large houses are particularly likely to fall into this category. The 1999 budget included provision of £100 for each pensioner household, nominally for heating needs for the next winter, in advance and regardless of the weather. This was raised to £150 and then £200 in the following year. The 1999 Labour party conference saw a pledge by the Chancellor to install central heating systems in homes of low-income groups free of charge, through the 'Affordable Warmth' agreement with Transco (*Utility Week*, 8 October 1999). This was put into effect in the budget of March 2000. In August 2000

the Secretary of State at the Department of Environment Transport and the Regions (DETR) announced further pledges on fuel poverty. This particular initiative was intended to benefit more than 3 million households by improving insulation with grants of up to £2000 and thus speed up the ending of fuel poverty by 2010. Definitions of fuel poverty are not static, however, and the government carried out in summer 2000 a consultation on whether housing costs should be included in the income calculations to determine whether fuel expenses absorbed more than 10 per cent of household income (*Utility Week*, 18 August 2000). Clearly how income is defined will have a crucial effect on the numbers of households who are classified as fuel poor. In addition to these direct attempts to reduce fuel poverty, the government also prepared legislation to change the way in which the utilities were regulated. Two separate policy strands were thus being pursued simultaneously, with considerable inter-departmental tensions over responsibilities.

This new focus was reflected in the Utilities Act's new principal objective for the energy regulator 'to protect the interests of consumers', though in the context of the desirability of competition. The consumer councils set up at privatization, which had had a very low public profile, represented all consumers, large and small, domestic, commercial and industrial. The new energy council, instituted by the Utilities Act, was intended to be more independent than those previously existing for electricity, water and telecommunications, which had been to all intents and purposes part of the regulator's office. Reflecting the amalgamation of the gas and electricity regulatory offices, OFFER and Ofgas, a new combined Gas and Electricity Consumers Council established by the new Act is intended to be a highly visible, partisan consumer advocate, a 'trusted guide'. But fears were expressed in some quarters that independence might mean impotence, especially since the regional organization was to be severely cut back and the research capability possessed by the former Gas Consumers Council was not to be replicated. The proposals were not welcomed by the representatives of consumers of electricity and water, some of whom felt that they had benefited from the close relationship they had had with their regulator. Other criticisms included the potential conflict that might arise with the regulator, now also charged with consumer protection and representation, and the danger that companies might block publication of some information.

The withdrawal at an early stage of the sections of the Bill dealing with water and telecommunications provided an opportunity for councils for these industries to be further debated—and at the same time made it an energy Bill in all but name. Similar reforms are proposed for water in the draft Water Bill published in November 2000. A clearer distinction between representation and advocacy is needed. Different consumers have different interests. Unlike the better off, who may demand higher service standards, vulnerable customers may want cheaper prices and easier payment methods, in other words, affordability and access. They may be more interested in how debt is handled and avoiding disconnection than service standards or mechanisms for consumer representation.

A further provision of the Act was the possibility of a cross subsidy for the disadvantaged, a power given to the Secretary of State. Guidance from the Department of Trade and Industry was also to be taken into account by regulators, who for the first time became obliged to give reasons for their decisions, something which had been a point of controversy a number of times in the preceding years, but on which the Conservative government had refused to yield. In addition, companies breaching the

licences and regulations would become liable to fines, which could be large. Some aspects of the legislation, therefore, apparently bestowed greater powers on the regulators, and some appeared to increase the likelihood of government intervention. The Utilities Act transferred power to the Gas and Electricity Markets Authority, of which the regulator became executive chairman, though no such change was included in the draft Water Bill.

Before the full-scale reform intended in the Utilities Bill, the Water Industry Act 1999 had been passed. This was a response to a judicial ruling in 1998 that the use of budget payment units, an innovation for water, were illegal, as indeed was disconnection of domestic water supply for non-payment. The Act allowed for government to issue regulations on tariffs for the disadvantaged and this was done in September 1999. Low-income customers on a metered supply who have three or more dependent children or certain medical conditions may apply for means tested special help, but this has been criticized for imprecise targeting and lack of clarity. As a measure to help the worst off it has shortcomings because it does nothing for those whose supply is not metered. It provoked negative reaction from the council representing water consumers which argued that it was undesirable for customers in general to subsidize those with low incomes or special needs, adding that 'the water charging system should not be used to achieve the government's social policy objectives' (Ofwat National Consumers Committee, Press Release, November 1999). Low user tariffs are being considered by many companies, and implemented by some, but again targeting is imperfect, for example providing help to owners of second homes. Further guidance in February 2000 made it clear that charging schemes should take into account ability to pay and address the needs of those on low incomes especially where metered. The government went further in asking companies to develop innovative social tariffs including some with no standing charge and low user tariffs.

6 Regulatory response

The first version of the Social Action Plan appeared in 1998 shortly after the Green Paper, which set out the framework the regulators were to follow. Subsequently the new regulator of both electricity and gas, who took office in January 1999, showed a greater willingness than his predecessors to take up the issues involved. A series of papers appeared from May 1999 to March 2000, the results of extensive research and consultation on the nature and extent of disadvantage in the UK population. The framework consisted of a series of five objectives:

- To reduce costs and improve the efficiency of meters, especially pre-payment meters;
- To increase the choice of tariffs and payments mechanisms for less well-off customers;
- To help consumers in managing debt;
- To provide better services for pre-payment customers; and
- To share the benefits of competition among all consumers.

These aims were to remain fairly constant throughout the next months, but putting them into practice was a slow and difficult process. The new regulator announced that the issues must be looked at afresh and that there were no easy solutions. He refused to take responsibility for the whole effort: 'Dealing with them requires a range of responses from government as a whole' he said, including the DETR and the Department of Social Security, local authorities, suppliers of electricity and gas, providers of banking services to low-income households, voluntary organizations and consumer representatives (OFFER/Ofgas, Press Release, February 1999).

A discussion document of May 1999 revealed the 'multi-faceted' nature of disadvantage. It became clear that of five causes of fuel poverty, only one was within the power of the regulator to remedy. They were listed as low income, condition and size of the property, the efficiency of the heating system, and lastly the price of fuel (Ofgem 2000a: 2). What *was* within Ofgem's power was to push for improvements for those who wanted to make frequent payments, better information for pre-payment customers, services for the elderly etc, and energy advice, and some of these were achieved in May 2000. The lack of clear and comparable price information, requested by consumer groups for years, at last began to be remedied. Ofgem now produces fact sheets for gas, electricity and 'dual fuel', so customers can make price comparisons between British Gas and its competitors. The calculations are quite complex, but the tables illustrate clearly that for most prepayment users, the opportunities for price reductions are extremely limited. New energy saving schemes, targeted mostly at the poor and financed by a levy on all customers, will put £100m. into insulation and other improvements. The energy regulator also sees competition as an instrument to assist consumers, and has expressed an ambition to move from an 'ex ante' regulator to an 'ex post' competition authority, using his powers under the Competition Act 1998. But we have seen that this may bring short term costs through price rebalancing, with a difficult choice for the regulator to make between short-term protection for consumers through regulated prices which may deter entrants and the long term benefits of competition. Many areas, however, remained to be properly tackled, notably self-rationing, helping people to switch from prepayment to cheaper tariffs and access to financial services.

The water industry, where competition is still embryonic, presents a different picture. Not only are water companies still virtually monopolies, water is unique in its 'essentialness' and in the way it is charged for. In addition, unlike energy or telecommunications, prices have gone up not down. Indeed rebalancing between metered and unmetered customers has taken place so that the former do not get charged excessively. This is a complex situation, in which the regulator till 2000, Ian Byatt, correctly perceived the large political element. He was content to be directed by the government on water charges, but argued against being allowed discretion under government guidance (Ofwat 1999). The easy payment methods, which present problems in energy, are available in water with no extra charge. Cross-subsidies are therefore well entrenched and indeed are being extended by the special tariffs for those on low incomes mentioned above; several water companies had already introduced tariffs for large low-income families and single households. Considerable reluctance on the part of the water companies to go any further along this road means that little further progress seems likely in the near future.

Social obligations in telephones are well established and have been extended over the years. They include public call boxes and emergency services. Special schemes exist for those on low incomes or who are low users. A residential limited service with incoming calls only, low rental and free connection was not widely taken up. The Light User Scheme available since 1993 to the bottom 20 per cent by usage offers cheaper line rental, but here again there is the possibility of its benefiting the better off (Cave 1999). The 'unphoned' represent a very small proportion of the population in comparison with those with inadequate heating or large water charges, about 5 per cent, though up to 500,000 people with no fixed line would like one (Oftel 2000a: 6). This is a situation where new technology can bridge the gap for the less well-off. A pre-pay mobile phone represents a reasonably cost-effective way of keeping in touch for this group as well as for many others and three out of five of this group, i.e., those with no fixed phone on low incomes, have a mobile. New developments in higher bandwidth services are likely to raise the question of universal access to the internet, now available to 25 per cent of the population at home, college or work, but extending the Universal Service Obligation (USO) is not likely in the immediate future. As Professor Martin Cave commented, 'A USO that bites is essentially a tax and benefit system that operates inside the telecoms sector' (1999).

7 Conclusions

7.1 The importance of targeting

Even though the UK has an extensive benefits system and almost universal connection levels for utilities, the social dimension of regulating utilities continues to be a major political issue. Those who speak on behalf of the disadvantaged stress that a blanket approach is unlikely to be effective, and argue that a distinction needs to be made between different age groups and subgroups of social classes. Though 50 per cent of pensioners qualify as fuel poor, only one in ten chooses a pre-payment meter, but a third of single parents use this method, while almost half of the very poorest do not have a pre-payment meter for electricity or gas. Thus any plan to apply differential charges to reduce the burden on PPM users would not only be unfair but artificially increase the demand for such meters (Bennett, Cooke and Waddams Price 2000).

7.2 The limitations of regulation

The ability of the regulator (or authority) to deal with what are ultimately questions of social policy is limited. The social action plan final document of March 2000 makes it clear that the basic cause of fuel poverty is lack of money: the various problems which need solutions, such as pre-payment, debt management and disconnection are largely problems of poverty and are common to other products, such as financial services.

7.3 The conflict between competition and social policy

There is a constant conflict between efficiency and fairness. For instance, opening up metering to competition should yield efficiency gains, but it could also have the effect of making customers bear a larger part of the cost of their meter, which could mean higher PPM tariffs. The regulator's new duty to 'take into account the needs of those on

low incomes' may mean that he, however reluctantly, may be obliged to ensure that cross subsidies are used to limit the disadvantage to the poorest. The willingness of customers to subsidize others may not extend very far. Such a cross subsidy would be the responsibility of the government, but the quantity of detailed information required would involve the regulatory authority and the companies. The suggestion that the supply of services to these consumers should be paid for in a different way, that is through the tax and benefit system, makes the cross-subsidies much more of a political issue than they were in the past.

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