EXECUTIVE SUMMARY

- In the light of robust criticism of privatization "selling off the family silver",
 "rip offs" and "a scam" among others this paper assesses the various utility
 sales, which took place in the 1980s and 1990s. It focuses on telecoms, gas, water
 and electricity companies and studies how the three main stakeholders government, shareholders and customers actually fared.
- For the government, various general benefits accrued, such as a pronounced surge in investment. It benefited financially, both from one off sales proceeds and from ongoing sizeable corporation tax receipts. Privatization also provided the catalyst for the creation of an international telecoms market.
- Shareholders, with a few notable exceptions such as Railtrack, the collapsed British Energy and British Telecom, have generally done very well, with many privatizations particularly the 12 RECs heavily outperforming the FTSE 100. Privatized water stocks, too, have powered ahead. Consequently, pension fund returns have been much enhanced.
- For utility customers, the benefits of privatization are less tangible. Whilst there have been much needed improvements in customer service, only telecom prices have fallen materially. Domestic energy prices have risen sharply, mainly due to much higher gas input costs and not because of private sector ownership.
- Importantly, utility investment levels are now far higher, especially in the electricity distribution and water sectors. In the latter case, substantial real price increases have helped finance this investment which had been woefully inadequate prior to privatization in 1989.
- Although price regulation has made a key contribution in curbing price increases by long-term monopoly businesses, there have been serious shortcomings, not least the botched 1994 REC distribution price review and Railtrack's sudden collapse in 2001.
- Despite its many benefits, utility privatization has also revealed certain weaknesses, notably the lack of competition in many utility sectors. Furthermore, it has discouraged long-term power plant investment, especially new nuclear build, as well as innovation. And some businesses were grossly undervalued, most obviously the 12 RECs, when they were floated in 1990.

BACKGROUND 2

The election of the Conservative Party into government in 1979, under the leadership of Margaret Thatcher, heralded fundamental changes on many fronts. Her period as Prime Minister, which lasted until 1990, proved highly controversial but undoubtedly brought about fundamental changes to the UK.

On the economic front, one of the most eye catching initiatives was the policy of privatization, whereby state-owned companies were sold off to the private sector. Where obvious monopolies were manifest, a system of price regulation was established.

Whilst some relatively modest and low profile privatizations were undertaken in the first term of the Thatcher government, the momentum changed sharply after the reelection of the Conservative Party into government in 1983.

During the following year, the part-privatization of British Telecom took place: 50.2% of the shares were sold in the first mass privatization in UK history.

The privatization hype probably reached its zenith with the high profile Tell Sid campaign, which underpinned the marketing of the sale of British Gas in 1986.

Subsequently, the pursuit of privatization enabled the sale of the English and Welsh water sector and then – from 1990 onwards – of the UK electricity supply industry.

On the transport front, both British Airports Authority (BAA) and Railtrack were sold. And, as recently as 2013, 60% of Royal Mail was floated.

During this near 30-year period, various other businesses were privatized. However, this paper assesses only those companies which are widely considered to be utilities and which, in most cases, are heavily impacted by regulatory price determinations.

As such, privatizations covering telecoms, gas, water, electricity, transport and postal services are analysed – a group that can be loosely defined as the UK utilities.

It is also significant that the UK's privatization policy was adopted by many other countries, most notably in the EU, where swathes of the telecoms and electricity industries were privatized. By contrast, water privatization proved markedly less popular.

Beyond the EU, many countries have implemented privatization policies, ranging from New Zealand and Australia to Russia, Mexico and Brazil internationally. For many of these countries, privatization has brought major financial benefits.

Whilst some companies, including the renamed BAE Systems and Associated British Ports (ABP), were privatized in the early 1980s, along with the sale of a large minority stake in Cable and Wireless, it was the unprecedented 50.2% sale of British Telecom in 1984 that kickstarted the mass privatization of utility stocks.

Between 1984 and 1996, 32 utilities – on the wide definition used in this paper – were privatized. Table 1 below lists the companies concerned – under their name at flotation – along with the sale date. It also includes the much later part-privatization of Royal Mail, which took place in 2013.

TABLE 1: PRIVATIZED UTILITY STOCKS

COMPANY	SALE DATE
British Telecom	1984
British Gas	1986
British Airports Authority	1987
Anglian Water	1989
Northumbrian Water	1989
North West Water	1989
Severn Trent	1989
Southern Water	1989
South West Water	1989
Thames Water	1989
Welsh Water	1989
Wessex Water	1989
Yorkshire Water	1989
Eastern Electricity	1990
East Midlands Electricity	1990
London Electricity	1990
Manweb	1990

Source: Nigel Hawkins Associates

In undertaking the trailblazing majority-privatization of British Telecom, two specific features merit comment.

First, this sale took place just two years after the incorporation of Vodafone as a subsidiary of Racal Electronics; within a decade, Vodafone had become a leading mobile telecoms company.

Undoubtedly, the advent of mobile telephony had a major impact on British Telecom, which eventually demerged its O2 mobile business in 2001 – subsequently acquired by Spain's Telefonica in 2005 – as its net debt soared to unsustainable levels.

Secondly, British Telecom's privatization led to the establishment of Oftel, which regulated core telecom prices through the application of an RPI-X formula – its regulatory model served as a template for future utility privatizations.

Two years later, in 1986, British Gas was privatized. Shares were vigorously marketed through the widely praised Tell Sid campaign. In preparation for its privatization, British Gas had sold off some of its oil and gas assets to the newly established Enterprise Oil.

Central to the first decade of British Gas' existence as a privatized company was its long running – and bitter – battle with Ofgas over the appropriate financial return that Transco, its core gas transportation and distribution business, should earn.

In 1987, the airports operator, BAA – the owner of Heathrow, Gatwick, Stansted and other airports – was floated; its much smaller residual business is now named Heathrow Airports Holdings.

The first of the two major regional privatizations took place in 1989, when the English and Welsh water companies were floated: demand for shares was heavy. The main rationale behind this policy was to transfer the onerous investment requirements to the private sector, with the price setting responsibilities being delegated to Ofwat.

Importantly, though, water privatization embraced neither the water and sewerage businesses in Scotland nor in Northern Ireland. Furthermore, around 25% of the clean water supply in England and Wales had been under the control of the long privately-owned Statutory Water Companies.

Based partly on the regional model, the electricity supply industry was then privatized as the monopolistic Central Electricity Generating Board (CEGB) was broken up.

Whilst its generation business was deemed to be suitable for competition, electricity transmission and distribution were recognised as being monopolies.

Out of this fundamental restructuring emerged 12 Regional Electricity Companies (RECs), which were sold in 1990. Each REC was also allocated an asset-based shareholding percentage of the National Grid. Table 2 below shows the key numbers relating to this privatization.

TABLE 2: REC DOMESTIC CUSTOMER BASES, STAFF LEVELS AND FLOTATION VALUES

REC	DOMESTIC CUSTOMERS (MILLION)	EMPLOYEES	FLOTATION VALUE (£M)
Eastern	2.9	9,970	648
East Midlands	2.1	7,478	523
London	1.9	6,920	523
Manweb	1.3	5,551	285
Midlands	2.1	7,738	503
Northern	1.4	5,439	295
Norweb	2.1	8,249	415
Seeboard	1.9	6,343	306
Southern	2.5	8,233	648
South Western	0.9	5,641	295
Swalec	1.2	3,770	244
Yorkshire	2.0	7,153	498
Total	22.3	82,485	5,182

Source: REC Prospectus/Hoare Govett

Aside from the 12 RECs and their National Grid shareholding components, the other key industry players were the two non-nuclear generators, National Power and PowerGen; both were part-sold in 1991.

Table 3 below lists the leading companies, except the 12 RECs, within the UK electricity supply industry at the time.

TABLE 3: LEADING ELECTRICITY COMPANIES

COMPANY	MAIN ACTIVITIES
National Grid	Transmission in England, Wales and Scotland
National Power	Fossil Fuel Generation in England and Wales
Northern Ireland Electricity	Distribution, Transmission and Supply, North. Ireland
Nuclear Electric	Nuclear Generation in England
PowerGen	Fossil Fuel Generation in England and Wales
Scottish Hydro	Integrated Electricity in Northern Scotland

Scottish Nuclear	Nuclear Generation in Scotland
ScottishPower	Integrated Electricity in Southern Scotland

Source: Nigel Hawkins Associates

In the autumn of 1991, the two integrated Scottish Electricity companies, Scottish Hydro and ScottishPower were floated. And, in 1993, the distribution, transmission and supply businesses of Northern Ireland Electricity were floated.

Efforts to privatise the nuclear power plants proved far more challenging. Eventually, Nuclear Electric and Scottish Nuclear were merged into British Energy, which owned all the second-generation Advanced Gas-Cooled Reactors (AGRs) and the Pressurised Water Reactor (PWR) at Sizewell B.

By that time, with the exception of the Magnox first-generation nuclear plants and various specialist nuclear-related activities, including the Sellafield complex, virtually all the UK energy sector had been transferred into private ownership.

In 1996, Railtrack was floated, although there were abiding concerns about the size of its investment backlog. On the regulatory front, Railtrack's prices were set on a similar basis to Ofwat's investment-led pricing formula in the water sector.

Subsequently, following the Hatfield train crash in 2000, the assets and liabilities of Railtrack were controversially transferred into the not-for-profit Network Rail.

Under the Labour government between 1997 and 2010, privatization momentum ground to a halt. However, the Coalition government did float the price-regulated Royal Mail in 2013.

With a few exceptions, including Network Rail, Scottish Water, Northern Ireland Water (NIW) and the extensive roads network, there are few obvious public sector-owned utilities left to be privatized.

KEY STAKEHOLDERS

In assessing the merits – and demerits – of privatization, which has proven to be a contentious policy, there are many issues to consider. At a general level, privatization has delivered many tangible benefits; it has also brought with it some notable downsides.

For comparative purposes, these benefits and downsides should be set alongside the other possible scenario of enduring – and stultifying – state ownership of the utilities sector, with its voracious demands on the constrained public sector investment budget.

In terms of participation, the privatization programme created a large number of private shareholders, who were particularly prominent in the Tell Sid campaign to sell British Gas shares and in the more regionally-orientated water and REC sales.

But their enthusiasm was subsequently sapped, especially as stock market valuations declined after 1999 and institutional share ownership became overwhelming.

However, in analysing the privatization balance sheet, there are three specific stakeholders whose interests need to be addressed:

- HM Government;
- · Shareholders;
- Customers.

HM GOVERNMENT

Aside from the specific financial impact of privatization, such as sales proceeds and future tax payments, privatization has conferred various more general benefits.

In the telecoms sector, privatising British Telecom in 1984 virtually created a new industry as the staid former Post Office subsidiary started to participate in an international marketplace, in which mobile telephony was developing at a rapid pace.

Within a few years, Vodafone had become the pioneer of mobile telephony to such an extent that, by 1999, it had become the fourth most valuable company in history within just two decades of its founding.

Privatization also provided the gas sector with a strong growth strategy as cheaper North Sea gas supplies drove the 'dash for gas' throughout the 1990s, when many Combined Cycle Gas Turbine (CCGT) plants were being built. During that time, British Gas was split, with its E and P division subsequently becoming a significant player in the global LNG market.

Since 1989, when the water sector was privatized, much higher investment has been the key message, whilst innovation in the water and sewerage industry has been minimal, certainly compared with telecoms.

And in the electricity sector, privatization has facilitated the implementation of successive governments' energy policies, although it could be argued that, had the CEGB been retained, this might well have occurred anyway.

In particular, renewable energy generation has assumed greater prominence, albeit at a high cost in public subsidy.

Most notably – and perhaps most surprisingly – National Grid has become one of the EU's most valuable utilities, currently capitalised at £31.6 billion. It was effectively privatized in 1990 but virtually hidden within the REC structure.

For the government, the ability of utility companies to finance their investment programmes from the private sector is a massive advantage. In effect, it means a substantial transfer of liabilities away from the hard-pressed – and overborrowed – public sector balance sheet to the private sector.

British Telecom is currently investing almost £2.5 billion per year. Whilst it is true that TV football rights do account for a significant share of this budget, the investment in rolling out broadband nation-wide has consumed the lion's share of it in recent years.

Had British Telecom remained state-owned, it is probable that the broadband rollout would have been delayed even further.

Since privatization, British Gas has invested heavily, a process that continued following its corporate split in 1997.

Importantly, British Gas' Transco, the subject of so much argument with Ofgas in the 1990s, was sold – as the renamed Lattice - to National Grid in 2002.

Overall, National Grid is currently investing around £3.4 billion per year, a substantial part of which is enabling the Transco gas pipe network to be modernised.

Since privatization, water sector investment has risen sharply. Over the 25 year period, approximately £110 billion has been invested, with the overwhelming majority of this sum being spent by the 10 privatized water companies. Currently, over £4 billion per year is being invested.

In terms of the split of the £22 billion investment programme between 2010 and 2015, Table 4 below, which was published by Ofwat as part of its final determination of the 2009/10 periodic review, shows the key constituents.

TABLE 4: WATER INVESTMENT

COST (£BN)	AIM
12.9	Maintaining and replacing assets from pipes to treatment works;
4.6	Improving drinking water and the environment;
2.7	Making sure there is enough water and capacity to treat sewage;
1.1	Improving service levels to customers, like recurring pressure problems and sewer flooding;
0.9	Delivering big projects, like large sewers.
22.2 (Total)	

Source: Ofwat 2009/10

With the pronounced investment in electrification schemes in the 1950s and 1960s, it was long known that substantial investment in the electricity distribution network would be needed from 2000 onwards, all the more so as electricity demand rose.

Figure 1 below, which was published by Ofgem in 2014, demonstrates how total expenditure (totex) rose from 2000 onwards; most of the increase was capital, rather than revenue, electricity distribution expenditure.

Aggregate ED1 index

----Ofgem forecast without adjustment for RPI

----Ofgem forecast with adjustment for RPI

RIIO-ED1 period

1.105

0.95

0.85

0.75

FIGURE 1: TOTEX HISTORICAL AND FORECAST DATA

Source: Ofgem, 2014

Investment in new generation plant has been more patchy, especially after the 'dash for gas' ran out of steam, mainly due to rising gas prices. Currently, very few CCGT projects are being realised, with potential investors being increasingly concerned about seemingly meagre financial returns and several short-term politically-driven regulatory changes.

The UK's first 1,200 MW PWR at Sizewell B started to generate power in 1995; virtually all the preparatory work predated electricity privatization. However, no further new nuclear build has taken place subsequently, although the Hinkley Point C project is reputedly close to finalising its funding arrangements.

Despite several setbacks, investment in renewable energy projects continues to grow. Initially, the focus was on onshore wind plants but, more recently, there has been substantial investment in offshore wind farms, despite their high up front capital costs.

Both the featured transport sector companies, previously BAA and Railtrack, have invested heavily.

In BAA's case, there has been substantial investment in projects, such as Terminals 4 and 5 at Heathrow, the North Terminal at Gatwick and the expansion of

Stansted. There has been some criticism, though, that a disproportionate part of BAA's investment budget has been directed at providing expensive retail facilities rather than improving airport infrastructure.

Whilst Railtrack was widely believed to have heavily underinvested prior to its collapse in 2001, its successor, Network Rail, is currently in the midst of a major modernisation programme, investing almost £7 billion per year.

Clearly, the government gains financially from the receipt of one-off sales proceeds. Even though the valuation set at flotation is normally discounted – to encourage applications – considerable proceeds have been generated.

For the sale of the 12 RECs in 1990, a total of £5.2 billion was raised and, most recently, the privatization of Royal Mail, of which just 60% was sold, initially yielded proceeds of almost £2 billion.

In assessing the net financial benefit to the government, some allowance needs to be made for the debt adjustments. In the case of the water companies, a 'green dowry' of £1.6 billion was provided and around £5 billion of accrued water company debt was written off.

Whilst the sale proceeds are a one-off, except in the case of part-privatizations, the government also benefits from enhanced corporation tax payments paid by privatized utilities.

Their formidable investment programmes mean that utilities generally benefit from large capital allowances, thereby lowering their net tax payments. Nonetheless, substantial corporation tax payments are made.

In 2014/15, British Telecom charged underlying corporation tax of £631 million, prior to certain specific items, against its profit and loss account.

However, this valuable source of revenue to the public purse has been seriously eroded in recent years as many water and electricity companies have been acquired by private equity investors, who have geared up the balance sheets and thereby minimised their tax liabilities.

SHAREHOLDERS

As a general principle, shareholders in UK privatized utilities have done well and, in some cases, outstandingly so; such a scenario has boosted pension fund returns.

Given the many corporate transactions, notably in the electricity sector, measuring the exact performance is very difficult. Nonetheless, certain share performance features stand out.

• Water Companies, with the exception of Welsh Water, part of the collapsed Hyder, have done extremely well;

- Similarly, all RECs performed outstandingly on the back of very favourable price regulation between flotation in 1990 and the late 1990s, by which time all had been acquired;
- Whilst National Grid, which was demerged from its REC ownership in 1995, has rewarded its shareholders massively, the performance of other electricity companies has been more patchy, especially those heavily exposed to generation;
- British Gas has prospered, especially since the pivotal corporate split in 1997;
- British Telecom has markedly underperformed the FTSE 100 Index since its privatization in 1984;
- BAA delivered very good returns before its £10.3 billion takeover by the Ferrovial-led consortium in 2006;
- Despite a surging share price in the late 1990s, Railtrack's overall performance during its years of privatization was very poor even if intensive lobbying did produce a reasonable payout shortly after its collapse in 2001 and its replacement by Network Rail;
- Royal Mail's recent part-sale has also delivered an impressive paper return for investors.
- In comparing relative share price performances, it is instructive to consider how the FTSE 100 Index has performed since 1984 when British Telecom was part-privatized. Table 5 below shows the opening value on the first trading day of January for each year.

TABLE 5: FT-100 INDEX

YEAR	VALUE
1984	998
1985	1,232
1986	1,413
1987	1,679
1988	1,714
1989	1,793
1990	2,423
1991	2,144
1992	2,493
1993	2,847
1994	3,418
1995	3,066
1996	3,689
1997	4,119
1998	5,136
1999	5,883

YEAR	VALUE
2000	6,930
2001	6,223
2002	5,217
2003	3,940
2004	4,477
2005	4,814
2006	5,619
2007	6,221
2008	6,457
2009	4,434
2010	5,413
2011	5,900
2012	5,572
2013	5,898
2014	6,749
2015	6,556

Source: London Stock Exchange

Until very recently, the FTSE 100 had peaked on the penultimate trading day before the new millennium. Throughout 1999, the FTSE 100 had been powered by the dotcom boom that ended very suddenly. In the subsequent 15 years, it had failed to recover lost ground until mid-March 2015.

In fact, as defensive stocks, utility shares are generally less volatile, certainly on the downside. During the 1990s, bid fever had driven up the prices of many privatized stocks, notably those of the 12 RECs.

Between January 1984 and January 2015, the FTSE 100 Index, which has recently fallen back sharply from its peak, rose over six-fold.

Currently, there are seven quoted privatized utilities within the FTSE 100. Once appropriate allowance is made for acquisitions, rights issues and varying time spans, the results are as follows:

Major Outperformers: BG/Centrica (ex British Gas), National Grid (ex the 12 RECs), Severn Trent and SSE.

Average Performers: United Utilities.

Major Underperformer: British Telecom.

Whilst British Telecom's return to shareholders since flotation has been dire, it has nonetheless seriously outperformed Cable and Wireless: the government's minority stake in the latter was partly sold in 1981. In the late 1990s, Cable and Wireless pursued a series of particularly ill-judged acquisitions from which it has never recovered.

In 1997, British Gas undertook a fundamental reorganisation that saw its E and P component separated from its other gas businesses, including Transco, subsequently renamed Lattice, which was sold to National Grid in 2002.

Centrica continues, like BG, as a quoted FTSE 100 stock, but the share price ratings of both have been hit by the recent halving of the oil price. However, BG has recently agreed to be taken over by Royal Dutch Shell for almost £50 billion.

Just three of the ten privatized water companies are now publicly quoted; most are owned by private equity. But, as Table 6 indicates, all three quoted water companies have performed well, with the returns of Pennon, the owner of South West Water, being exceptional. Its shares have increased nine-fold whilst the FTSE 100 has risen by slightly over 3x since its privatization in 1989.

TABLE 6: WATER COMPANY SHARE PRICE PERFORMANCE

WATER COMPANY	SHARE PRICE (11/1989)	SHARE PRICE (9/2015)
North West (United Utilities)	240p	856p
Severn Trent	240p	2,064p
South West (Pennon)	240p	2,157p (as adjusted)
FTSE 100	c2,200	6,085

Source: Nigel Hawkins Associates

Aside from pronounced share price increases, water company shareholders have also benefited from the payment of sizeable dividends since 1989; with a few exceptions, they have risen in real terms every year.

All 12 RECs should have delivered outstanding value to their shareholders: all had been taken over within a decade of being privatized in 1990.

During the takeover frenzy of the mid-1990s, powered by very robust balance sheets on the back of extremely shareholder-friendly regulation by the then Offer, shares in all RECs surged.

Within each RECs' asset base was its investment in National Grid, which became independently quoted in 1995. Subsequently, its share price, after various adjustments, has increased substantially over the last twenty years – an outstanding achievement. National Grid, now capitalised at around £31.6 billion, is now one of the EU's most valuable utilities.

The severe underpricing of the RECs at flotation is demonstrated by Table 7. Based on a current National Grid capitalisation of £31.6 billion, Eastern Electricity's imputed share is valued at almost £4 billion. At flotation, Eastern Electricity's whole business, including its National Grid stake, was valued at just £648 million.

TABLE 7: NATIONAL GRID SHAREHOLDINGS AT FLOTATION AND CURRENT VALUE

REC	NG SHARE (1990) %	NG VALUE (9/2015) £m
Eastern	12.5	3,950
East Midlands	8.4	2,650
London	10.5	3,320
Manweb	5.5	1,740
Midlands	9.2	2,910

Northern	6.5	2,050
Norweb	8.2	2,590
Seeboard	7.3	2,300
Southern	11.0	3,480
South Western	6.3	1,990
Swalec	5.4	1,710
Yorkshire	9.2	2,910
Total	100.0	31,600

Source: Prospectus, Nigel Hawkins Associates

In the light of robust share price rises and above-market dividend growth, National Power, and especially PowerGen, prospered as quoted companies before being absorbed by RWE and E.On respectively. Both German behemoths have struggled since the onset of the recession in 2008.

And whilst ScottishPower was eventually taken over by Iberdrola, SSE – the merged company of Scottish Hydro and Southern Electric – has remained publicly quoted. Its dividend payments have certainly been above average.

Following its privatization in 1993, Northern Ireland Electricity rewarded its share-holders well, something that could not be said of British Energy, which was almost totally dependent upon the unit price received from output from its nuclear power plant portfolio.

After a topsy turvy share price performance, British Energy, privatized in 1996, succumbed as the introduction of NETA (New Electricity Trading Arrangements) drove down power prices and destroyed British Energy's highly inconsistent margins. Its shareholders faced a debt/equity swap and large losses – a very unusual privatized utility outcome.

The two privatized transport stocks, BAA and Railtrack, faced very different scenarios. Having been privatized for £1.2 billion in 1987, BAA sold out to the Ferrovial-led consortium, which placed a very aggressive £10.3 billion valuation on it.

By contrast, Railtrack's ignominious collapse in 2001 and its replacement by the not-for-profit Network Rail seriously short-changed shareholders. But at least they received 262.5p per share compared with the 380p fully-paid price when Railtrack was privatized in 1996.

Although it is early days, Royal Mail is currently trading at a 40% premium to its fully-paid flotation price of 330p in 2013.

CUSTOMERS 15

For utility customers, privatization has had mixed blessings. Undoubtedly, investment levels have risen very appreciably whilst customer service, which previously had been poor, has improved markedly. Straightforward telephone access to customer service centres has been an important step forward compared with the past and, more recently, the availability of online billing has been beneficial.

Nonetheless, there are still a large number of billing errors, particularly in the electricity and gas subsectors. Centrica's British Gas business has faced particularly serious problems in this respect.

Excessive levels of bad debt, especially in the water sector, remain; water companies' legal inability to disconnect most bad payers undoubtedly plays a part.

There is also abiding public concern about questionable selling techniques, with several companies having being fined for either overzealous marketing or making misleading sales claims.

On the telecoms front, there have been sharp reductions in prices, driven in part by the advent of mobile telephony. The pioneering RPI-X formula, first introduced at the time of British Telecom's part-privatization in 1984, was instrumental in bringing downward pressure on its cost base.

More importantly perhaps, the advent of mobile telephony has meant a new aggressive competitor to fixed-line telecoms operators. In recent years, the mobile telecoms market has become increasingly cut-throat as more competitive offerings become available: termination charges have also been cut.

Overall, British Telecom's domestic telephone charges, including the standing charge element, have fallen substantially in real terms since 1984 as it has had to compete with the boom in mobile telephony.

The gas sector scenario is somewhat different. Whilst the 'dash for gas' took place against the background of low gas prices in the 1990s, this process was reversed from 2006 onwards. Table 8, published by the Office for National Statistics, illustrates how domestic gas prices rose by over a half between 2005 and 2010.

TABLE 8: FUEL PRICE INDICES FOR THE DOMESTIC SECTOR

	YEAR					
FUEL	1996	2000	2005	2010	2012	2013
Solid Fuels	61.5	60.7	70.8	100.0	104.9	104.6
Electricity	85.1	70.0	73.9	100.0	109.5	115.5
Gas	59.0	51.8	63.3	100.0	118.3	125.1
Liquid Fuels	47.6	54.9	74.0	100.0	126.1	124.1
Domestic Fuels (Av.)	70.4	61.3	69.4	100.0	114.7	120.7

Source: Consumer Price Index, Office for National Statistics

Looking forward, the advent of smart meters, which Centrica's British Gas subsidiary is installing, should enable customers to have a greater choice regarding their heating use – and the ability to turn on/off space heating appliances during periods of low/high prices.

Undoubtedly, water and sewerage customers have had to pay large real price increases to help finance the sharp increase in sector investment – a scenario that would have arisen irrespective of public/private ownership. Apart from the base price cuts widely prescribed in the 1999/2000 review, prices have consistently risen – either in real or in nominal terms.

Table 9 below shows how water charges have more than tripled from the year before privatization until 2013/14. The recent periodic review has set modest reductions in water bills.

TABLE 9: WATER CHARGES

WATER COMPANY	CHARGES 1988/89 (£)	CHARGES 2013/14 (£)	INCREASE (X)
Anglian	135	434	3.2
Northumbrian	95	359	3.8
North West	99	406	4.1
Severn Trent	98	335	3.4
Southern	116	449	3.9
South West	128	499*	3.9
Thames	93	354	3.8

Welsh (Dwr Cymru)	135	434	3.2
Wessex	125	478	3.8
Yorkshire	105	368	3.5
RPI	110	236	2.1

^{*}Post £50 per household subsidy Source: Flotation Prospectus 1989 and Ofwat

The profile of electricity prices is broadly similar to that of gas charges, with a dip in the latter part of the 1990s and the substantial increases from 2005 onwards. In fact, the latter trend was mainly attributable to the higher gas input costs in CCGTs that fed through to the domestic electricity charging base.

Table 9 above also confirms that domestic electricity prices have continued to rise since 2010. Most recently though, on the back of declining oil and gas prices, domestic electricity prices are beginning to fall again but they remain approximately 50% above their 2005 level.

As in the gas sector, there are high hopes that the installation of smart meters will flatten out the demand curve, with the potential for significant savings in bills. But progress in installing smart meters in the electricity sector is slow.

Both BAA and Railtrack have faced severe criticism for their performances since privatization, both operationally and with respect to prices.

As the owner of Heathrow Airport, BAA – now Heathrow Airports Holdings – has periodically received vitriolic criticism for its management of Heathrow; sometimes, this has been fair and sometimes not.

The reality is that Heathrow Airport remains hopelessly overcrowded, with far too many flights being scheduled there, so that relatively minor unexpected events can cause chaos. Furthermore, BAA should not be held responsible for the quite unacceptable passport checking delays that consistently arise.

Over the year, BAA has benefited from relatively generous price regulation from the Civil Aviation Authority (CAA) in being granted real price increases for its landing charges; these eventually feed into passenger fares.

But the recent price-setting review has faced the challenging task of balancing the interests of the airport operators, who seek increased prices on the back of higher investment, with those of the airline operators, who have lobbied aggressively for lower prices.

Even in the lead-up to its collapse in 2001, Railtrack was widely criticised for inadequate investment, inefficiency and being the cause of many delays on the railway network. Prior to the Hatfield train crash, there had been other very serious incidents – some of which led to fatalities – involving the maintenance of the railway infrastructure, much of which was very dated.

After Railtrack's replacement by Network Rail, criticism has abated somewhat. Nonetheless, Network Rail remains firmly in the public eye and, from time to time, attracts adverse headlines.

However, it is the railway operators, who are required to deal with the regular complaints about overcrowding, especially on commuter lines.

Had the railways been restructured prior to flotation on a regional basis – like the water companies – rather than being vertically split, much of the inefficiency and bureaucracy within the railway industry might have been avoided.

Rail fares, too, keep on rising remorselessly, partly because the government has been shifting the funding balance more towards rail users and away from taxpayers.

Furthermore, the pricing formulae applying to Network Rail are, in common with the water companies, based predominantly on ensuring that its heavy investment programme is capable both of being financed and of being delivered.

Customer interest in the performance of Royal Mail's letters business tends to be at its sharpest over the Christmas period. Importantly, Royal Mail is very dependent upon the letter pricing formula now periodically set by Ofcom. At the last review, no price cap was placed on the first class letter rate – it is now 63p compared with 46p in 2011. Royal Mail has set the second class letter at 54p, below the maximum charge prescribed by Ofcom.

PRIVATIZATION SHORTCOMINGS

Whilst it is possible to list many benefits from utility privatization – such as permitting the necessary investment to be undertaken – there have been notable failings, including:

- Endorsing long-term monopolies and real price increases;
- Deterring base-load generation investment, especially new nuclear build;
- Splitting up the railway network on a vertical rather than on a regional basis;
- Modest ongoing R and D expenditure;
- Floating businesses, especially the RECs, at far too low a price;
- Very large job losses.

Very few of the privatized utilities operate in a genuinely competitive market. To that extent, long-term monopolies have been effectively endorsed whilst price regulation has had to be implemented rather more widely than many advocates of privatization had hoped. Importantly, too, except in telecoms, there have been marked real price increases – for varying reasons – over the period since privatization began in earnest.

In telecoms, the market is more competitive even though British Telecom remains dependent on its sizeable, regulated returns from its Openreach and wholesale divisions – the latter may be integrated into the former.

And in the water sector, over 25 years after privatization, the first stirrings of a competitive water market are taking place in England and Wales.

Electricity generation is a notable exception in this respect, but the competitive drive ebbed away once the 'dash for gas' came to an end. And the almost total absence of leading manufacturing companies from the generation sector will be seen by many as profoundly disappointing.

In fact, very few base-load generation plants are being built. But there has been considerable investment in renewable power plants, where generous subsidies are on offer.

Privatization has undoubtedly been bad news for the nuclear sector, especially since its key player, British Energy, collapsed in 2002. The real problem is the sheer length of time in designing, building and eventually generating output from a new, very expensive, nuclear power plant – well beyond the timeframe of most equity investors.

Instead, after years of indecision, Sizewell B is due to have a successor plant at Hinkley Point C. Despite the infamous £92.50 inflation proof 35-year Contract for Difference (CfD), there is real doubt whether EdF will give the final go-ahead for this project.

On the railways, the decision to split up the network – with Railtrack at its core – was undoubtedly flawed. If the regional water company model been adopted – similar to the pre-war train ownership structure – many of the serious post-privatization problems might not have occurred.

Despite some efforts to provide incentives for innovation, the fact remains that R and D expenditure in the electricity, gas and especially the water sector is extremely modest. By way of example, Severn Trent, currently capitalised at almost £5 billion, invested just £5 million in R and D in 2013/14.

The telecoms sector is very different, although much of the innovation has been undertaken by the manufacturers of mobile telephones, a market that the Finnish giant, Nokia, once dominated; it invested massively in its high quality technology.

And, as the quest for 'quad play' in the telecoms sector gathers momentum, R and D expenditure will continue to be high.

Some utility privatizations seriously undervalued the companies being floated. The most glaring underpricing concerns the 12 RECs, which were floated in 1990 for a combined value of £5.2 billion.

A small part of the flawed 1990 valuation was attributable to National Grid, whose current market capitalisation is £31.6 billion. The latest value placed on any REC distribution business was the combined £3.5 billion received by E.On when it sold two such businesses – those of East Midlands Electricity and Midlands Electricity.

In the early years after privatization, there were extensive job losses, especially during the 1990s, as utilities sought to become more efficient. Amongst the 12 RECs, Eastern Electricity was the trailblazer in cutting operating costs in its core distribution business – a trend that was followed aggressively by the other 11 companies.

PowerGen, too, was notable for achieving a vast improvement in its productivity levels shortly after it was part-floated in 1991.

Whilst there was undoubtedly blatant overemployment during their period of public sector ownership, the combined job losses in the utilities sector were very heavy – with all the social costs that this trend imposes, especially in deprived areas of the country.

In short, privatization undoubtedly did have various weaknesses, of which the above are probable the most important.

CONCLUSION

The utility privatization programme was a radical policy implemented mainly by the Thatcher government in the 1980s; it continued well into the 1990s.

Much was achieved, with the three stakeholders – government, shareholders and customers – all deriving some very notable benefits.

But, in the monopoly businesses, whilst investment rose, so did retail prices. And, privatization had other downsides, especially on the nuclear and railway fronts.

Overall, though, a compelling case can be made for arguing that privatization's benefits manifestly outweighed its failings, which would have become far more intractable had public sector ownership endured.