

PUBLIC AND PRIVATE SECTOR EFFICIENCY





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Introduction

Evidence, not assumptions

It is often assumed that privatisation or public-private partnerships (PPP) will result in greater levels of technical efficiency. That is, the private sector can always deliver a given level of service with lower input costs than the public sector. Politicians, media, academics and consultants frequently refer to 'private sector efficiency'. This assumption is often shared even by critics of privatisation.

But there is now extensive experience of all forms of privatisation, and researchers have published many studies of the empirical evidence on comparative technical efficiency. The results are remarkably consistent across all sectors and all forms of privatisation and outsourcing: there is no empirical evidence that the private sector is intrinsically more efficient. The same results emerge consistently from sectors and services which are subject to outsourcing, such as waste management, and in sectors privatised by sale, such as telecoms.

The importance of comparative efficiency

The comparative efficiency of the public and private sector is an important part of the arguments over privatisation and outsourcing, for two major reasons.

Firstly, the empirical evidence undermines a fundamental part of the argument for privatisation and use of the private sector. If private companies are no more efficient on a technical level, then the usual case for privatisation collapses.

This is because privatisations, outsourcing and PPPs are at a clear disadvantage in relation to most other economic criteria. The biggest single disadvantage is that the cost of investment finance is nearly always significantly more expensive with private operators, because of higher profits for shareholders, and lower credit ratings – which means private companies pay higher interest rates. Unless the private sector can deliver real substantial savings from efficiency, then it is invariably worse value.

This has been very clearly summarised by the International Monetary Fund (IMF), in a 2004 policy paper¹ which is concerned with PPPs, but the argument applies in the same way to outsourcing and privatisation by sale:

“when PPPs result in private borrowing being substituted for government borrowing, financing costs will in most cases rise. Then the key issue is whether PPPs result in efficiency gains that more than offset higher private sector borrowing costs..... much of the case for PPPs rests on the relative efficiency of the private sector. While there is an extensive literature on this subject, the theory is ambiguous and the empirical evidence is mixed.... It cannot be taken for granted that PPPs are more efficient than public investment and government supply of services...”

Secondly, efficiency is not the same as cutting costs. Lower costs may simply mean lower quality of service; or they may mean that the company is taking its profits by cutting the jobs, pay and conditions of its workers, without improving systems of work. This does not increase efficiency it just redistributes income to the company at the expense of others. Assessing even technical efficiency requires considering results as well as inputs.²

Lower operating costs may also conceal real additional costs for the public, which do not show up in analyses of the company costs alone. The public sector carries the extra ‘transaction costs’ of sales, tendering, monitoring and regulation; a low cost tender may be used to win a contract, but the contractor then renegotiates the price upwards – or the quality downwards – to become more profitable. Some assessments of comparative costs and efficiency take account of some of these factors, but most do not.

Thirdly, in practice, comparisons between public and private sector performance are rarely made. In the great majority of cases, private companies only compete for outsourced contracts against other private companies; and a privatisation by sale goes, by definition, to a private buyer. The more basic decision is the choice between public and any form of tendering or privatisation, which has to draw on the general empirical evidence from actual experience.

Effectiveness and efficiency

This does not mean the private sector can deliver public services just as well as the public sector. The more fundamental question is whether systems using private companies can deliver public services as effectively as public sector systems. Public and private provision must be compared for their effectiveness in delivering these public goods, not just their cost-efficiency. It cannot be assessed through the results of individual companies, because it concerns the social and environmental and economic effects of the system as a whole. It requires much better ways of assessing the quality of these effects, and more democratic processes for doing so: a review³ of healthcare efficiency measures, for example, found that very few made any attempt to consider quality of care.

Most of the evidence discussed in this report does not cover the assessment of effectiveness – it is restricted to technical efficiency. The studies and reviews discussed here use a range of methodologies and definitions of technical efficiency. These different methods include measuring labour productivity, defined in terms of value added per employee, or total factor productivity, which also attempts to measure the efficient use of capital investments.

Some use company profitability as a measure of efficiency, despite the fact that this can be at the expense of higher prices to users or worse pay for workers. Some use measures specific to the sector: for example, the weight of refuse collected per employee, the number of telephone connections per employee, or more general measures such as the percentage of the population with water and sewerage connections.



These variations in definition are clearly very important for attempts to assess the effectiveness and efficiency of actual public services. But the comparative studies discussed in the following sections find similar results whatever definition they use. Moreover, many of these studies have been carried out by economists expecting to confirm a theoretical argument that privatisation is intrinsically more efficient, which makes the results more striking. The evidence contradicts the assumptions.

International evidence

The major reviews of international literature and experience, covering a number of different sectors and services, are summarised below. They reach a consistent conclusion – that the evidence shows no significant difference in efficiency between public and privately owned companies in public services. This is true both for privatisations by sale and privatisations through outsourcing or PPPs.

The most comprehensive review⁴ of research on the effects of outsourcing was published in 2011 by the Danish institute AKF. It examined 80 studies since the year 2000 on the effects on costs and quality of services, and the impact on employees, including the sectors of water, waste management, electricity, public transport, education, health-care, social care, employment, prisons and other services. It concluded that:

“it is not possible to conclude unambiguously that there is any systematic difference in terms of the economic effects of contracting out technical areas and social services”

While there may be ‘relatively small’ savings from outsourcing of ‘technical’ areas [such as waste management], these may be offset by changes in quality; and in the ‘social’ services:

“there is no general evidence here to say that private actors deliver the services cheaper or with a higher quality than the public sector itself does”.

This review⁵ was updated in 2018, covering a further 49 studies published between 2000 and 2014. It found that there has been a decrease in cost savings with, again, the savings in technical services greater than those in social services. The economic effects in Anglo-Saxon countries were greater than in other countries. This report also found that many studies did not include measures of transaction costs or service quality, essential for a proper comparison of in-house and outsourced public services.

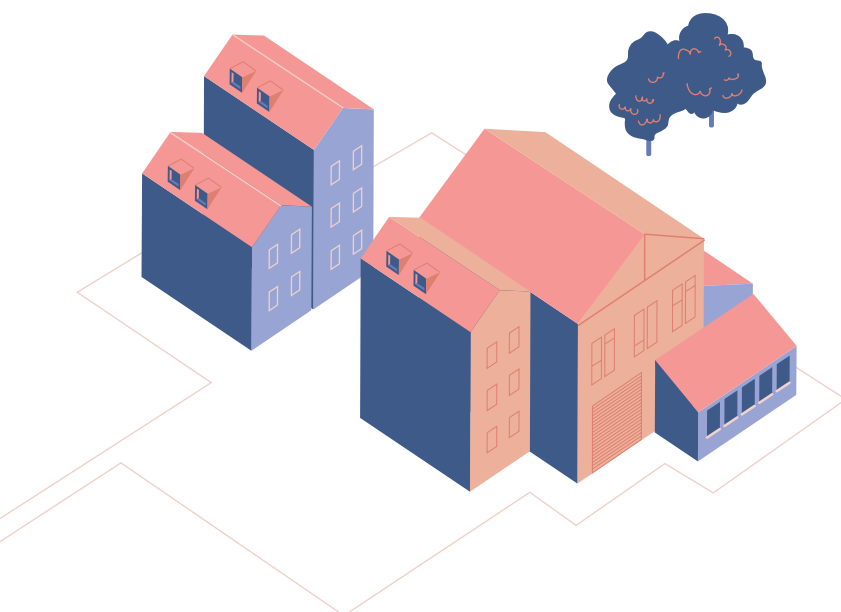
The same result emerged from a formal statistical analysis⁶ by Bel and Warner in 2010 of the results of 27 econometric empirical studies of the waste and water sectors in several countries, all of which examined the comparative costs of the services. The review concluded that:

“there is no statistical support for an empirical effect of private production on costs ... costs are dependent on service characteristics, geographic area, and time period of the study.. We do not find a genuine empirical effect of cost savings resulting from private production.”

The PIQUE project⁷ compared long-term trends in productivity, from 1970 to 2004, before and after privatisation or liberalisation, in Austria, Belgium, Germany, Poland, Sweden and the UK. In electricity and gas, post and telecoms, the fluctuations over time showed clear signs that productivity was significantly driven by common, globalised

technologies (such as combined-cycle gas generation of electricity, or the development of digital and wireless telecoms), but showed no evidence of being affected by privatisation or liberalisation. However, the drivers of productivity changed. Before privatisation or liberalisation, most productivity gains came from increased value-added (production), whereas the main driver of post-marketisation labour productivity increases was a relative employment decrease.

One of the largest studies⁸ of the comparative efficiency of companies privatised by sale found that privatised companies are significantly less efficient than those that remain publicly-owned. The



study, whose authors include the Nobel prize-winner Joseph Stiglitz, was published in 2013, and looked at all European companies privatised between 1980 and 2009. It compared their performance with that of companies which remained public – and with the performance of the companies before privatisation. This enabled them to correct for the fact that privatised companies were already performing better than average before they were privatised. The analysis showed, with a high level of statistical significance, that privatised companies did worse than those that remained public, and continued to do so for a period of 10 years: “the privatisation group underperforms the group of sectors remaining public”. The authors add that this fits with the experience of Russia, where: “GDP declined with privatisation, faster privatisation did not lead to improved performance.”

A 2015 article⁹ which looked at studies over a period of almost 50 years from high-income countries, found that:

“research does not support the conclusion that privately owned firms are more efficient than otherwise-comparable state-owned firms. This result might hold using profitability measures, but it does not hold if we use adequate performance indicators for public enterprises like productivity, cost or welfare. When including the latter measures most of the recent studies find no support for the proposition that private firms perform economically better”.

This study acknowledges that there was a wide range of conclusions drawn from different data sets but points out that the underlying economic performance indicators used has an important influence on the results. Two types of indicator are identified: ‘profit and earnings’, which favour the private sector and ‘productivity, cost efficiency, welfare’ indicators which recognise the contributions of the public sector.

A 2015 study¹⁰ by the United Nations Development Programme’s Global Centre for Public Service Excellence examined evidence from both high and low income countries and found that “no model of ownership is intrinsically more efficient than others” and that “overall efficiency in all sectors depends on factors like competition, regulation, autonomy in recruitment and salary, and wider financial and legal institutional development”.

Detailed studies of the UK privatisations of electricity, gas, telecoms, water and rail have also found no evidence that privatisation has caused a significant improvement in productivity. A comprehensive analysis¹¹ in 2004 of all the UK privatisations concluded:

“These results confirm the overall conclusion of previous studies that ...privatisation per se has no visible impact I have been unable to find sufficient statistical macro or micro evidence that output, labour, capital and total factor productivity in the UK increased substantially as a consequence of ownership change at privatisation compared to the long-term trend.”

Evidence from developing countries points to the same conclusion. A global review¹² of water, electricity, rail and telecoms by the World Bank in 2005 concluded (at least for the first two sectors):

“the econometric evidence on the relevance of ownership suggests that in general, there is no statistically significant difference between the efficiency performance of public and private operatorsFor utilities, it seems that in general ownership often does not matter as much as sometimes argued. Most cross-country papers on utilities find no statistically significant difference in efficiency scores between public and private providers.”

A 2009 World Bank review¹³ of privatisations in former communist (transition) countries examined the effects of privatisation in central and Eastern Europe, former Soviet Union, and also in China. It examined 17 studies looking at total factor productivity and 10 studies looking at profitability. It concluded that: “The most important policy implication of our survey is that privatisation per se does not guarantee improved performance”, though privatisations to foreign companies seemed to have a generally positive effect.

Some reviews do conclude that privatisation has a systematically positive effect on performance, but they are fewer in number and less convincing. For example, a report¹⁴ in 2011 from the Swedish institute IFN reviewed international articles, and argued that the evidence shows that public sector outsourcing generally reduces costs without hurting quality. However, the overview itself is limited; it references just 30 studies, half of which were published in the 1980s and 1990s; its coverage of studies since 2000 is poor – for example, it ignores the work of Bel and Warner, Lundahl’s meta-review on prisons (see below); and it takes no account at all of studies on public transport, water, and electricity.

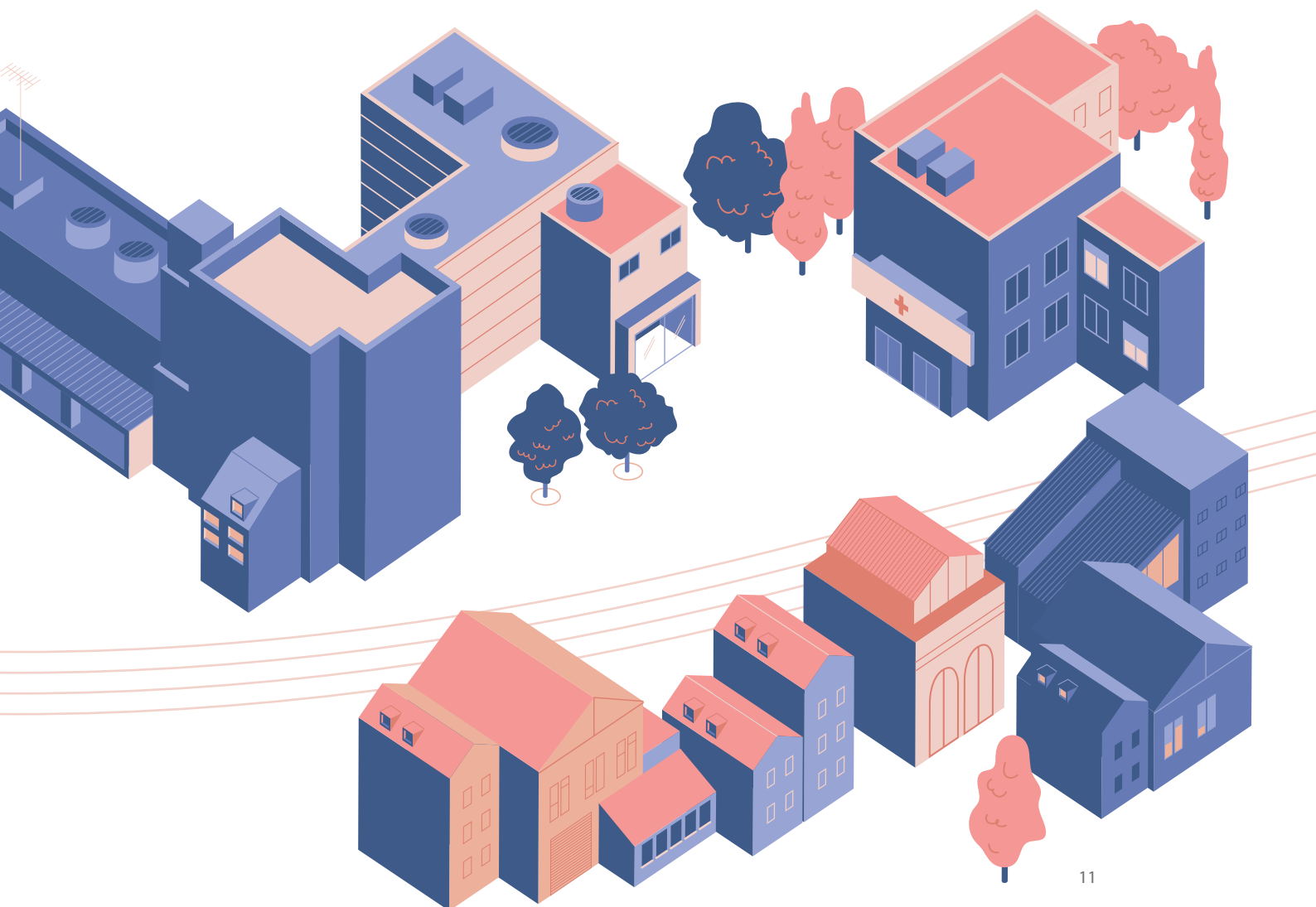


A 2013 study¹⁵ which examined the effect of organisational change and privatisation on the performance of state-owned enterprises using the data from Iranian firms between 1998 and 2006 found that there was no improvement in profitability, efficiency or effectiveness. There was also an increase in company debt.

There are several recent studies which have examined the impact of New Public Management and found that competition alone is ineffective in promoting efficiency, thus undermining many arguments for the marketisation of public services. There is an increasing emphasis on the importance of governance, contractual details and monitoring systems, a recognition of many aspects of the public sector and government driven by a public sector ethos.

Evidence by sector

The results of studies on specific sectors show the same picture: the evidence does not support the assumption of superior private sector efficiency. In all cases, even where some individual studies find evidence of cost savings or efficiency by private companies, these are offset by a greater number of studies which found no difference or greater public sector efficiency.



1. ELECTRICITY

There is a widespread belief that the private sector is always more efficient than the public sector, in electricity as in other sectors. This belief is not supported by evidence. The empirical evidence includes a global study¹⁶ in 1995 by Pollitt, which compared dozens of public and private electricity operators all over the world, and found no significant systematic difference between public and private in terms of efficiency.

A 2013 study¹⁷ of productivity in electricity companies in 20 EU countries found mixed results on the relationship between public and private companies, and concluded that “the link between private or public ownership with TFP [total factor productivity] is not straightforward”.

Insofar as efficiency is reflected in prices, most international studies have found that private ownership is linked to higher prices for consumers. A 2000 study¹⁸ of OECD countries found that privatisation was linked to higher prices; a 2010 study¹⁹ of electricity reforms in OECD countries found that “wholly private ownership of electricity operators [is] associated with prices that were 23.1 per cent higher than if ownership were wholly public”.

A 2013 study²⁰ of electricity prices in 15 west European countries over a 30-year period found that “after controlling for other factors, public ownership is associated with lower residential net-of-tax electricity prices”. A 2007 study covering 83 countries found that privatisation lowered prices for industrial consumers in developed countries, while it was linked to higher prices for households in Asian and Central and Eastern European Countries, but otherwise made no significant difference.²¹

Similar results have been found in developing countries. A 2008 study²² of electricity companies in Africa found that levels of efficiency in the region were quite independent of the degree of vertical integration or the presence of a private actor. This confirmed the

results of a 2002 study²³ on developing countries, which found that the effect of privatisation alone was statistically insignificant on efficiency, except for capacity utilisation.

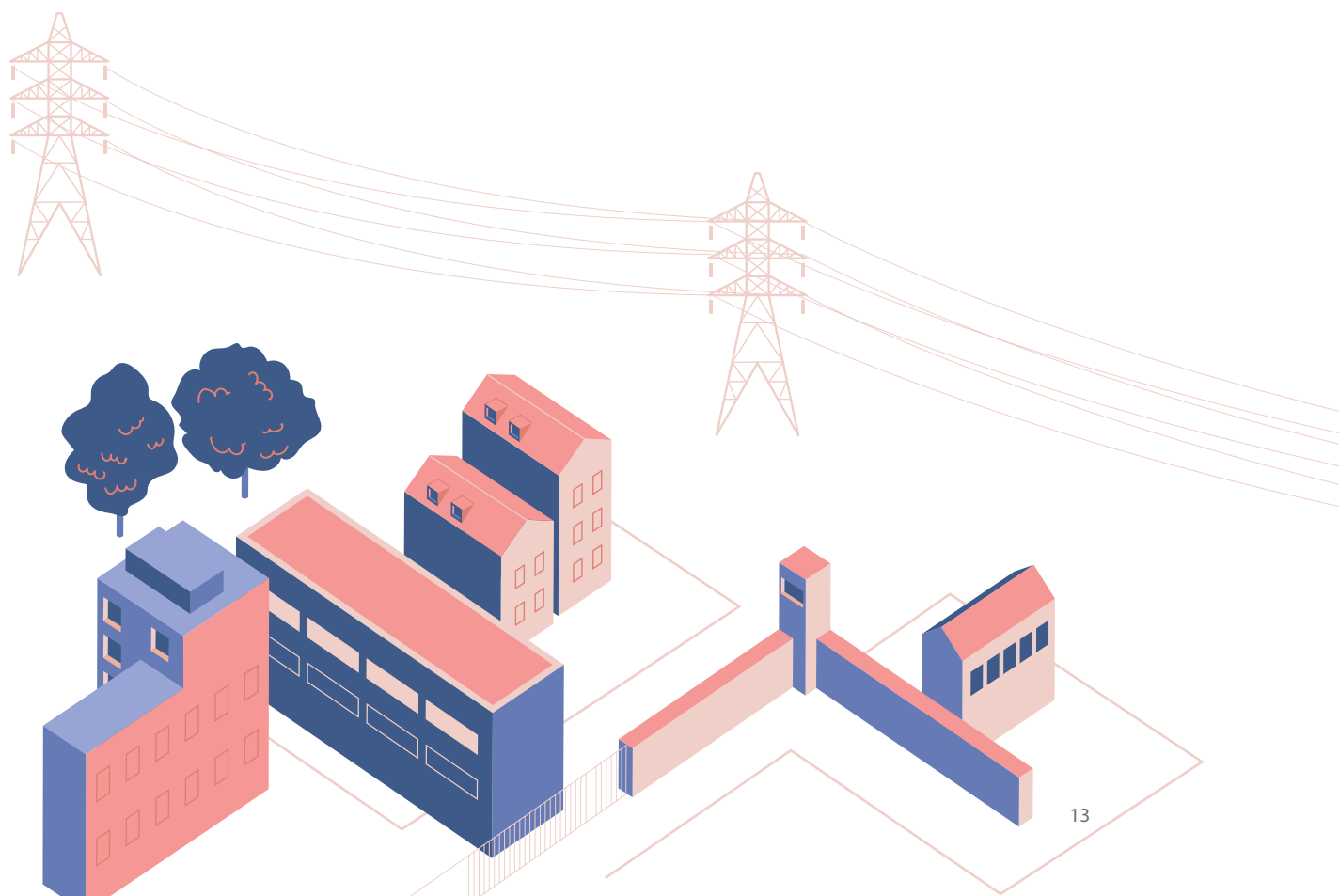
A global review²⁴ of the evidence on utility sectors in 2005 by the World Bank concluded:

“For utilities, it seems that in general ownership often does not matter as much as sometimes argued. Most cross-country papers on utilities find no statistically significant difference in efficiency scores between public and private providers.”

A more complex study by the World Bank’s privatisation agency, the PPIAF, published in 2009, did find that private electricity companies were more likely to cut jobs, and so show productivity gains from this source. However, the study found no evidence of any benefits for the service in terms of higher investment, and indeed there was evidence both of higher prices and of actual reductions in numbers of household connections. Any productivity gains were thus distributed to owners as increased returns on capital.²⁵

In electricity, the process of unbundling loses the economies of vertical integration. A study in 2012 found that this alone leads to a fall in efficiency of the sector as a whole, of between 2-8% in Europe and 20% in the USA.²⁶

A 2017 study²⁷ covering 17 developing Asian economies observed over the period 1990-2013 found that electricity reforms resulted in a tension between economic growth and welfare benefits. Regulation “constrains the impact of measures such as distribution privatisation on economic growth, it has a positive impact on socioeconomic/welfare indicators” but distribution privatisation has a positive effect on economic growth and a negative one on welfare indicators often leading to higher prices for consumers.



2. HEALTH AND SOCIAL CARE

The international evidence, and evidence from individual countries, strongly suggests that public providers have higher levels of technical efficiency than the private sector in healthcare. Public provision of healthcare is also far more effective than private provision in delivering better health, including longer life and lower infant mortality rates.

Healthcare systems based on public sector provision are far more efficient and effective than systems relying on private provision, partly because they aim to provide universal coverage and so gain from economies of scale. The inefficiency and ineffectiveness of private healthcare spending can be seen by comparing the performance of the USA with that of Belgium and Cuba. In all cases, public spending on healthcare is at similar levels: the USA however also spends over 9% of GDP on private healthcare. This huge extra spending however delivers no benefit at all – the health outcomes are in fact significantly worse than in either Belgium or Cuba.

	Public spending on healthcare (% of GDP)	Private spending on healthcare (% of GDP)	Life expectancy at birth (2016)	Infant mortality rate (2017)	GDP per capita US\$ (2017)
USA	8.29	9.10	78.69	5.70	53129
Belgium	8.17	2.71	80.99	3.10	46079
Cuba	9.72	0.91	79.74	4.10	6445 (2015)

Sources: OECD, <https://stats.oecd.org/Index.aspx?DataSetCode=SHA>

The wastefulness of private-based healthcare comes not just from its selectivity but from its administrative overheads and use of unnecessary treatments. A 2012 report by the Institute of Medicine on healthcare in the USA found that:

“30 cents of every medical dollar goes to unnecessary health care, deceitful paperwork, fraud and other waste. The \$750 billion in annual waste is more than the Pentagon budget and more than enough to care for every American who

lacks health insurance. ... Most of the waste came from unnecessary services (\$210 billion annually), excess administrative costs (\$190 billion) and inefficient delivery of care (\$130 billion). Repeating colonoscopies, early imaging for back pain, and brain scans for patients who just recently had them or didn't need them are examples of wasteful care."²⁸

Higher public spending on healthcare produces better health outcomes for everyone. But higher private spending on healthcare has the opposite effect – because it makes healthcare less affordable. A 2011 analysis²⁹ of 163 countries found that higher public spending on healthcare is significantly correlated with a lower infant mortality rate, but higher levels of private spending are associated with higher infant mortality rates.

A report³⁰ in 2010 for the World Health Organisation (WHO) surveyed the global evidence on the comparative technical efficiency of public and private providers of healthcare. The largest study was a systematic overview of 317 papers, which concluded that:

“public provision may be potentially more efficient than private. Summary statistics showed average for-profit hospital efficiency levels at 80.1%, not-for-profit at 82.5%, and public at 88.1%.”

A 2012 review³¹ of the efficiency of healthcare delivery in developing countries looked at a range of research studies, including case studies, meta-analysis, reviews, case control analyses and NGO reports from countries in South Asia, East Asia, Pacific, Sub-Saharan Africa and Latin America. It found that there was no evidence to show that the private healthcare sector is more technically efficient or effective than public providers:

“Studies evaluated in this systematic review do not support the claim that the private sector is usually more efficient, accountable, or medically effective than the public sector”.

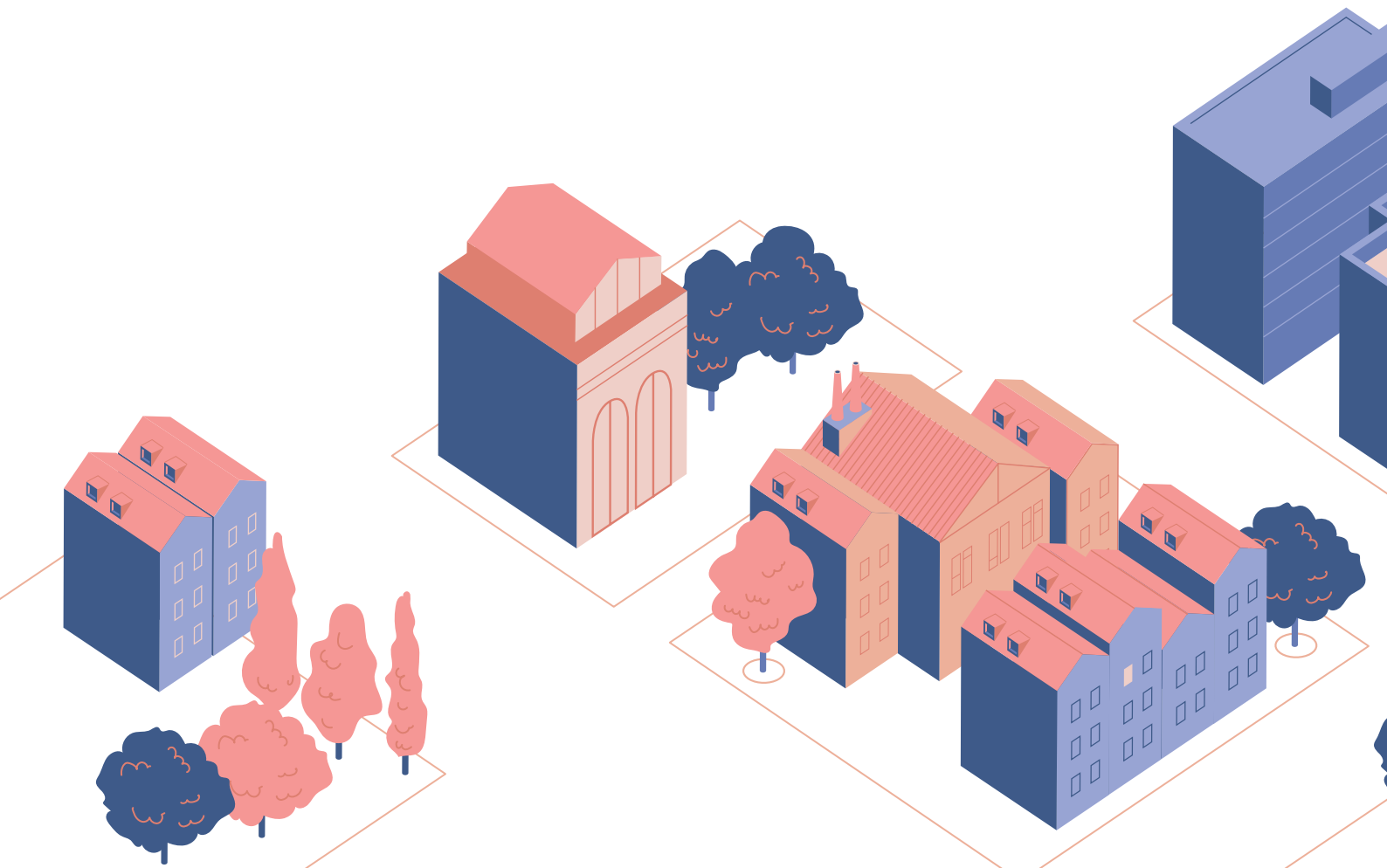
A review³² of 33 studies of NHS services in the UK examined evidence on outsourcing of cleaning, facilities management, ‘out of hours’ medical services, treatment centres, clinical services, and IT. It found negative impacts of outsourcing on service quality in 18 cases and positive impacts in 4 cases. The study concluded that: “much of the evidence demonstrates either the negative aspects of introducing competition into the provision of health care services or inconclusive results...overall, there is a lack of evidence to show that outsourcing leads to improved quality of patient care”.

‘New public management’ (NPM) techniques, including outsourcing, have not delivered greater efficiency in Spain. A 2013 study³³ of NPM in Madrid hospitals looked at the number of hospital beds, doctors and nurses as inputs, and hospital discharges and outpatient visits as outputs (and also deaths in hospital and patient readmissions as undesirable or negative outputs). It concluded: “We do not find evidence that NPM hospitals are more efficient than traditionally managed ones.... there is no difference in terms of technical efficiency between traditionally managed hospitals and those adopting new management formulas”.

A comprehensive study³⁴ of the impact of privatisation on all forms of social services in Sweden could find no evidence of improvements in efficiency or quality. The study covered all major welfare areas: preschool, school, individual and family care, health and medical care, labour market policy and care of the elderly and disabled. It concluded that: “there is a remarkable lack of knowledge of the effects of competition in the Swedish welfare sector. On the basis of existing research, it is not possible to find any proof that the reform of the public sector has entailed the large quality and efficiency gains that were desired.”

A 2016 review³⁵ of recent health reform policies in the European hospital sector found that the frequently used policies of hospital payment reform and privatisation were unlikely to result in improved care or reduced expenditures. Methods of payment based on diagnostic related groups (DRG) which pay for care for a particular condition or activity may result in a shorter length of stay but rarely result in reduced expenditure overall. This review found that there was a consistent approach among for-profit hospitals in Europe and the United States to calculate higher margins and so pay increased dividends to shareholders.

In preparation for the 2010 Affordable Care Act (Obamacare), a US study of Federally qualified (FQHCs) or similar health centres treating patients on Medicaid or uninsured and private health practice found that FQHCs managed equal or better performance on quality measures for patients with chronic disease or socio-economic disadvantages. Doctors working at FQHCs or similar health centres showed greater adherence to guidelines, especially for chronic disease care measures, than doctors in private practice.³⁶



Other studies have found that introducing choice to healthcare systems results in increasing inequities and difficulties for low income groups in accessing healthcare. In Sweden, the Primary Health Care Choice Reform (2012) was an amendment to the Health and Medical Services Act (2010), which required regions and county councils to allow citizens to choose their primary health care provider and to allow private primary care providers to set up practices. Although the aim of the reform was to increase patient choice, it has resulted in providers choosing patients rather than patients exercising their own choice of provider. It has affected the equity of primary health provision which was a goal of the Health and Medical Services Act.³⁷

Similarly, Japan has a public-private health care delivery system. Universal health coverage is achieved through a statutory health insurance system and public assistance although low income groups have difficulties in accessing appropriate health care. Recent health care policies have encouraged the expansion of private providers and limited public provision. The result is that low income groups have found it increasingly difficult to access health services because they are unable to pay insurance premiums and are unable to pay user charges.³⁸



3. WASTE MANAGEMENT

Both international and national studies of waste management have concluded that there is no significant difference between the costs of public and private provision in comparable circumstances.

An international review of 27 empirical studies on comparative efficiency in waste management (and water) in various countries concluded that “private production of local services is not systematically less costly than that of public production”.³⁹ Studies in individual countries have come to similar conclusions.

A 2013 study of waste collection in Wallonia, the French-speaking region of Belgium concluded simply: “public operators perform no worse than private operators”. It found that direct provision was cheaper than private contractors for both inter-municipal services, and for services in a single municipality.⁴⁰

In Spain, studies published in 2008 and 2013 found that public provision is cheaper or the same as private provision. An analysis of costs of street cleaning and waste collection services in Spanish municipalities with a population over 50000 found that: “There is no difference between the inefficiencies observed in municipalities managed directly by town councils and those which have been transferred to private companies.”⁴¹

A further study of small and medium local authorities found that:

“public service provision via a provincial or local public company is the management form presenting lowest levels of waste collection costs...even direct management by the local authority produces lower costs than those associated with contract.”⁴²

In Italy, a major study⁴³ published in 2009 examined comparative costs between direct municipal service, municipal corporations, PPPs, and private contractors, and found that costs were affected by different systems (separated or non-separated waste), and size of the area serviced, but there were only slight variations between public and private:

“no significant correlation can be found among the categories. This leads us to exclude any dependence of costs on management type, or on the introduction of private capital into the service companies”.



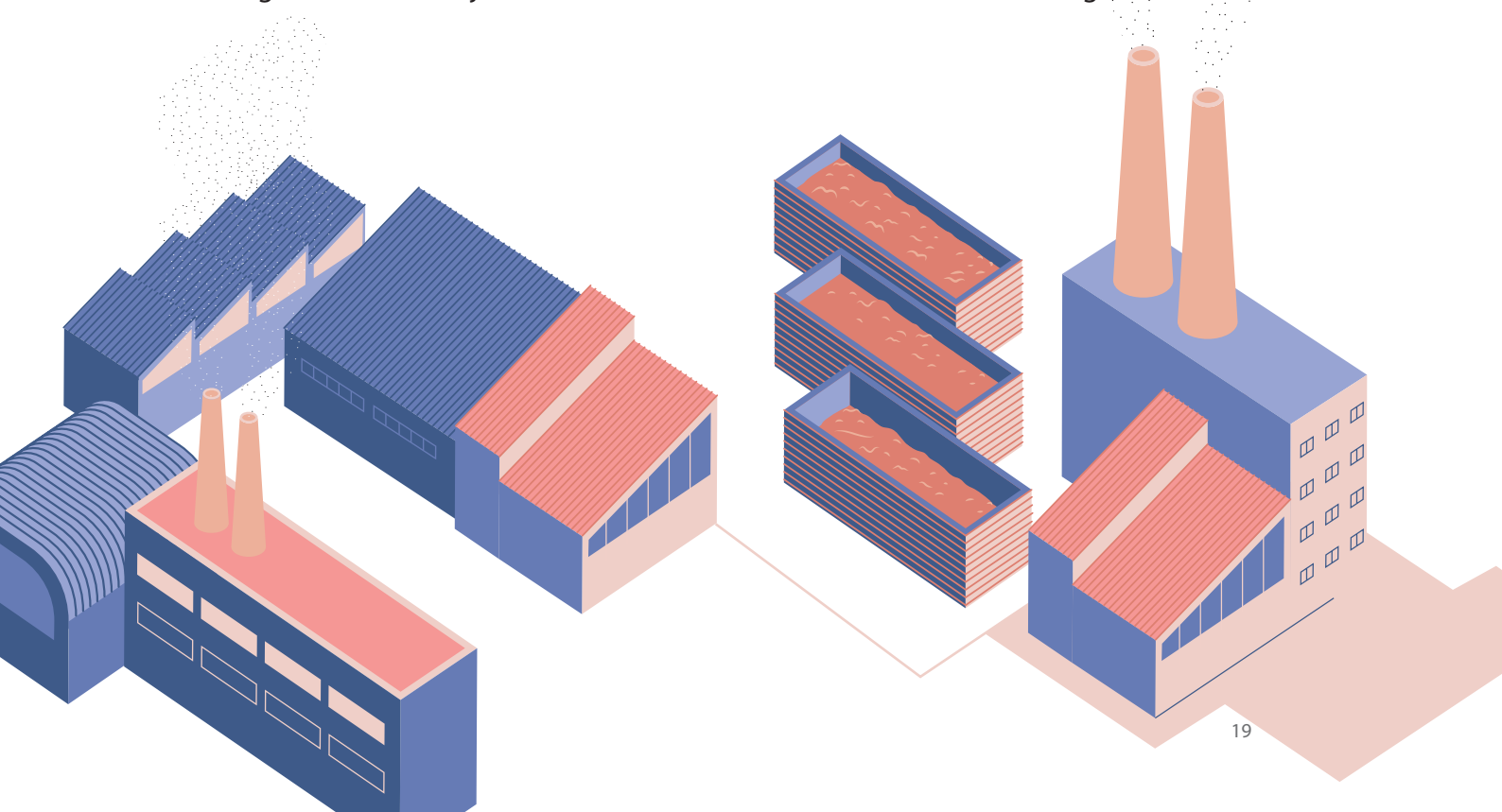
In the Netherlands, a large study⁴⁴ based on data from all municipalities between 1998 and 2010, concluded that the apparent lower cost of private provision disappeared when other factors were taken into account: “the cost advantage for private companies, becomes substantially smaller and non-significant if municipal fixed effects are included.”

In Sweden, government data appeared to show that the cost of private refuse collection was 25% lower than the costs of public collection. But after adjusting for selectivity by firms and municipalities, and easier collection environments: “public production, on average, was 6 per cent cheaper than private production”. The only advantage of the private contractors was that they were better at shopping, so paid 10-15% less for their vehicles.⁴⁵

In the UK, the data on costs from 2010 shows that the average net total cost of waste collection was slightly lower (by about 3%) for municipalities which operate an in-house service. This data took account of transaction costs, capital expenditure and income. Municipalities which outsource appear to have lower current expenditure, but they:

- still employ staff costing over 5% of the contract value, to monitor the service;
- still pay for much investment, so capital costs are only halved, not fully transferred to contractors; and
- lose income worth more than 7% of the cost of the service.⁴⁶

In Japan, raw data showed, in terms of waste volume per truck and per worker, that public operators are far more productive than private sector operators. But this was largely due to the fact that contractors were mainly used on small islands, rather than the large cities. After adjustment for these factors, differences were not significant.⁴⁷



4. WATER

In the water sector, a stream of empirical studies and reviews provide strong confirmation of the view that there is no significant difference in technical efficiency between private and public sector operators. These include both international and national studies.

A systematic review in 2008 of the global literature on all aspects of efficiency in water supply concluded simply that: “there is no hard evidence which points to a causal relation between management ownership and efficiency”.⁴⁸

Another international review, published in 2010, which analysed 27 empirical studies on comparative efficiency in water (and waste management) in various countries, concluded that:

“private production of local services is not systematically less costly than that of public production.”⁴⁹

A comprehensive study of water supply services in France, where about three-quarters of the service is delivered by the private sector through concessions or lease contracts, found that in 2004, after making allowance for all other factors, the price of water provided by private companies is 16.6% higher than in places where municipalities provide the service.⁵⁰

A series of studies in the UK has found that there has not been any significant improvement in productivity performance since privatisation; a 2007 report concluded that: “after privatisation, productivity growth did not improve ... average efficiency levels were actually moderately lower in 2000 than they had been at privatisation [in 1989].”⁵¹

The evidence for developing countries shows the same picture. A World Bank paper⁵² in 2005, reviewing studies on the water industry, worldwide, concluded that “the econometric evidence on the relevance of ownership suggests that in general, there is no statistically significant difference between the efficiency performance of public and private operators in this sector”. In Africa, a 2004 study⁵³ by Kirkpatrick et al, covering 110 African water utilities, including 14 private, found no significant difference between public and private operators in terms of cost.

In Latin America, a 2004 study⁵⁴ of about 4000 sanitation operations in Brazil found no significant difference between public and private operators in terms of the total variation in productivity; a further study in Brazil, published in 2007, also concluded that “that there is no evidence that private firms and public firms are significantly different in terms of efficiency measurements”. A paper⁵⁵ published by the Brookings Institute in 2004 also studied the growth in water and sanitation connections in cities in Argentina, Bolivia and Brazil, and concluded that “while connections appear to have generally increased following privatisation, the increases appear to be about the same as in cities that retained public ownership of their water systems”.

In 2004 an Asian Development Bank survey⁵⁶ of 18 cities in Asia included two cities with private sector concessions – Manila and Jakarta. These were performing significantly worse than most public sector operators on four indicators of coverage, investment, and leakage: on six indicators (unit production costs, percentage of expenses covered by revenue, cost to consumers of constant level of usage per month, 24 hour supply, tariff level, connection fee) their performance is middling, not outstanding; the private cities perform relatively well on two indicators: revenue collection efficiency, and minimizing the number of staff per 1000 connections.



5. PRISONS

A 2009 review of 12 studies on the comparative efficiency of public and private prisons, found that half showed private prisons as cheaper, a quarter showed public as cheaper, and the rest showed no difference: the average was that private prisons were 2.2% cheaper. On quality, the results for 45 different indicators were almost exactly split between public and private superior performance. The differences emerging from all studies were so small that they could not justify one choice or another:

“Results suggest privately managed prisons provide no clear benefit or detriment. Cost savings from privatizing prisons are not guaranteed and appear minimal. Quality of confinement is similar across privately and publicly managed systems, with publicly managed prisons delivering slightly better skills training and having slightly fewer inmate grievances.”⁵⁷

A 2013 study of prisons in Brazil, France and the United States with franchised systems found that there were mixed results in relation to the services for prisoners with public /state run prisons. The most significant finding was the importance of public supervisors working closely with the private companies. The study concluded that the private sector will only solve public service issues if they work on site with public supervisors, that they have previous experience which allows them to work with public supervisors and that this process is externally monitored. This shows that the public sector still has an essential role to play in ensuring that the private sector can deliver appropriate services.⁵⁸

6. BUSES

The most wide ranging international study⁵⁹ of bus services covered 73 cities with different types of bus operators, in all continents – 29 from the EU, three from Eastern Europe, five from Australia and New Zealand, five from Canada, ten from the USA, three from Latin America, two from the Middle East, eight from the Far East, five from Africa and three from Japan.

It found no significant difference in efficiency between public or private operators, and also found that efficient operators can be seen on all continents:

“Statistical tests do not show any significance as regards relationship between efficiency and the type of operator....The efficient cities ... are spread over different continents and public administration styles – Anglo-Saxon, Nordic and bureaucratic – and they are not concentrated in any specific type of operator.”

It also found that the factors which were significant for efficiency were fuel use, bus-kilometres, and speed.

In the USA, an analysis of over 400 public transport authorities over nine years compared the cost per vehicle-hour of publicly operated bus services and contracted-out services. The study adjusted for selectivity, and the extent to which efficiency savings were due to lower wages in the private sector, and, unusually, took account of transaction costs. Although private contractors were on average 5.5% cheaper than public operators, after adjusting for these other factors the study found that there was no statistically significant difference in costs attributable solely to contracting-out. The study also found lower wages in the private sector, equivalent to a reduction in costs of about 18.6%.⁶⁰

A study of 72 bus and metro operators across Europe found that publicly owned firms had significantly lower productivity, but noted that this could be due to selectivity: “more productive and profitable firms have been sold to private shareholders, so that only less productive firms remain in public hands”, and also that it did not take account of service quality: “we have no data on service quality”.⁶¹ In Sweden, where the great

majority of services have been contracted-out since 1985, there is no evidence that this use of competitive tendering has reduced costs – rather, the cost per passenger trip increased sharply in real terms from 1986 to 2009, by between 28%-228%, and efficiency levels fell steadily from 95% to 60%.⁶²

Although a study of European local public transport systems concluded that firms selected through competition showed higher levels of productivity and that public firms were less productive than private firms, these findings are qualified by pointing out that many of these more productive firms were originally public firms sold to private shareholders. In addition the study concluded that ‘competition and privatisation are no panacea’ and that contractual design ‘is crucial in providing proper incentives to efficiency, with or without, competitive tendering, with privately or publicly owned firms’.⁶³

Since the 1980s, many developing countries either outsourced bus services to private operators, or relied on a deregulated market, under the influence of structural adjustment programmes. There are two comparative studies of public and private bus transport efficiency. A study⁶⁴ in India found that private bus operators seemed more efficient, but noted that this could be due to the selection of more profitable routes, and to cuts in wages and conditions of workers; in Taiwan⁶⁵, there was a rise in productivity of buses after privatisation, but this was found to be due to technological changes, not efficiency gains.



7. PORTS AND AIRPORTS

A review article published in *Transport Policy* at the end of 2012 found that the empirical studies do not support the widespread policy assumption that ports and airports will be operated more efficiently as a result of privatisation:

“The resultsof the airport and seaport industries do not provide clear patterns of superior performance associated with particular forms of ownership or organisation.....

A main conclusion of our paper is that there is not yet enough empirical evidence to enable a reliable assessment of the extent of success or failure of airport and seaport privatisation programs. Until then, a healthy dose of scepticism is recommended when considering any proposed privatisation program proposed on the grounds of (mere) potential efficiency gains.”⁶⁶

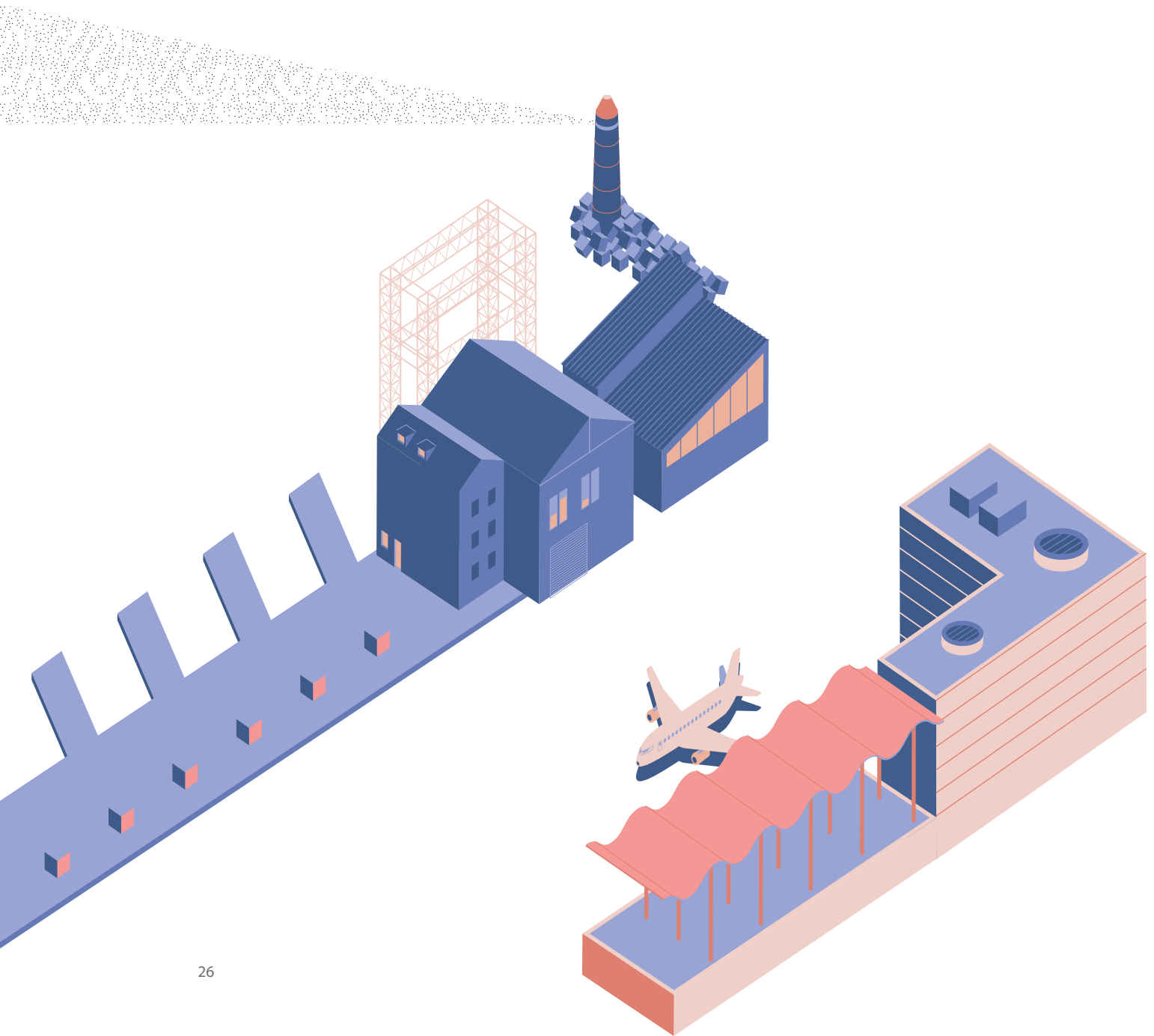
The majority of the studies reviewed have concluded that there is no empirical evidence of superior private sector efficiency. Similar results appear across time and across different types of country. A 1999 study⁶⁷ of the performance of the UK airport operator BAA, covering the years before and after its privatisation, concluded that “privatisation had no noticeable impact on technical efficiency”. Comparative studies of the largest container ports in the world, published in 2000 and 2001, found that public or private ownership did not seem to have any significant influence on efficiency.⁶⁸

Studies of over 100 of the largest airports in the world, published in 2006 and 2008, found significantly better performance by private airports in general, but that public sector airports in the USA were just as efficient as their counterparts; and also found that airports with private majority ownership derive a much higher proportion of their total revenue from non-aviation services.⁶⁹

A 2005 study of container ports found that privatisation had a variable effect on efficiency, and that port size was the most significant factor.⁷⁰

Comparative studies of public and private Chinese airports published in 2008, found that the form of ownership had no statistically significant effect on productivity growth.⁷¹

A study of the operational and financial efficiency of selected privatised airports in the United Kingdom (UK), selected public airports in the United States and selected airports (public and private) in Latin America found that the public airports in the United States outperformed in technical and operational efficiency the privatised airports in the UK and mixed airports in Latin America. In terms of financial efficiency the Latin America airports outperformed the UK privatised airports over a five-year period. The study concludes that privatisation is not a solution for poorly managed public airports because of their monopolistic or oligopolistic position. New owners often took advantage of this position.⁷²



8. RAIL

Privatisation has occurred, with or without liberalisation, in a number of countries, including the UK, and Mexico; in some countries, including New Zealand, Guatemala and Estonia, privatised railways were subsequently renationalised. In other countries, public and private operators co-exist, for example Japan, Switzerland, through operating concessions. Railways have been unbundled and liberalised in most European countries, to varying degrees, but in the USA, China, and India the systems remain vertically integrated with China deciding against unbundling and liberalisation.⁷³

A 2013 report⁷⁴ surveying international evidence on factors affecting railway efficiency summarises the evidence on the effect of privatisation itself as 'mixed':

"Privatisation efforts in the past two decades have shown mixed results. In some cases, privatisation has resulted in improved performance and higher cost efficiency. In other examples, privatisation of railways has resulted in the neglect of rail assets to achieve short term financial improvements, higher refinancing costs and (increased) equity yield rates..... Significant drawbacks can result from privatisation, but Mexico has seen strong growth as a result of privatisation in the 1990s."

In the UK, prior to privatisation, British Rail (BR) achieved substantial productivity gains by sectoral reorganisation in the 1980s. In some international comparisons, BR appeared as amongst the most efficient operators. However, the initial productivity improvements under the private sector were not so good:

"Gains made in the early period of private sector management... are not as high as those made in the later period of public sector management."⁷⁵

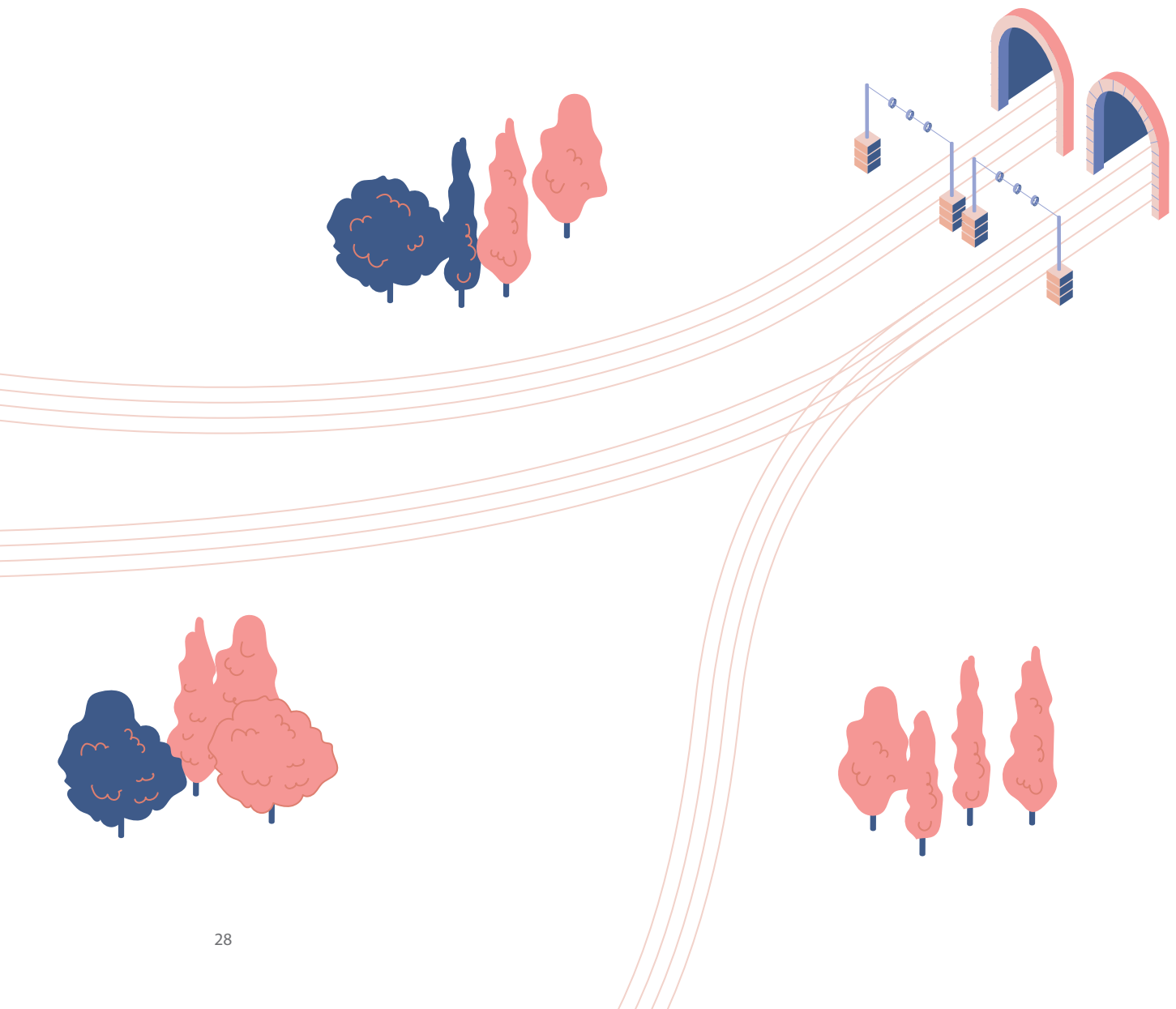
After the unbundling and privatisation of UK railways in 1996, the productivity of train operating companies initially rose, principally as a result of reductions in staffing levels. But it then deteriorated, and by 2006 was worse than at the start:

“a given set of passenger rail services in 2006 cost 12% more in real terms than it did at privatisation”.

Costs fell again after 2006, but still remained higher than at privatisation and:

“it remains the case that passenger rail franchising in Britain has failed to reduce costs in the way experienced in many other industries and in rail elsewhere in other European countries.”⁷⁶

Government subsidies declined in the early years, but increased again, at the same time as productivity fell. The quality of service was also affected, most brutally in the lower standards of track maintenance which led to a number of major accidents, but also in higher levels of train cancellations.⁷⁷



9. TELECOMS

There have been great advances in telecoms in the last 25 years – but international studies show that in this sector, too, efficiency gains are not due to privatisation. A global study comparing private and public companies found the opposite. It analysed the operating efficiency of countries which had privatized between 1990 and 2000 and countries whose telecom sectors remained public, as measured by line connections per 1000 employees. It looked at the long-run performance before and after privatisation compared with the long-run record of companies which remained public, and found that, although both privatised and public companies improved efficiency: “privatized sectors perform significantly worse” than companies which continued to be state-owned.⁷⁸

A study of 31 telecommunication operators from countries in all regions of the world between 1981 and 1998 found that privatisation had no significant effect on output per employee – and that competition had a significantly negative effect – whereas higher salaries had a significant positive effect on efficiency.⁷⁹

A study of long-distance, international and mobile telephony in 23 OECD countries between 1991 and 1997 found no connection between performance – in terms of lines, mobile subscribers and international calls per 100 employees – and privatisation: “no clear evidence could be found concerning the effects on performance of the ownership structure of the industry”. It did however find evidence that “productivity levels are negatively influenced” by the prospect of privatisation; and competition, and the prospect of it, were linked to productivity improvements – though not to price reductions. Factors specific to each country had a much greater effect on both price and quality than all the impact of privatisation and liberalisation combined.⁸⁰

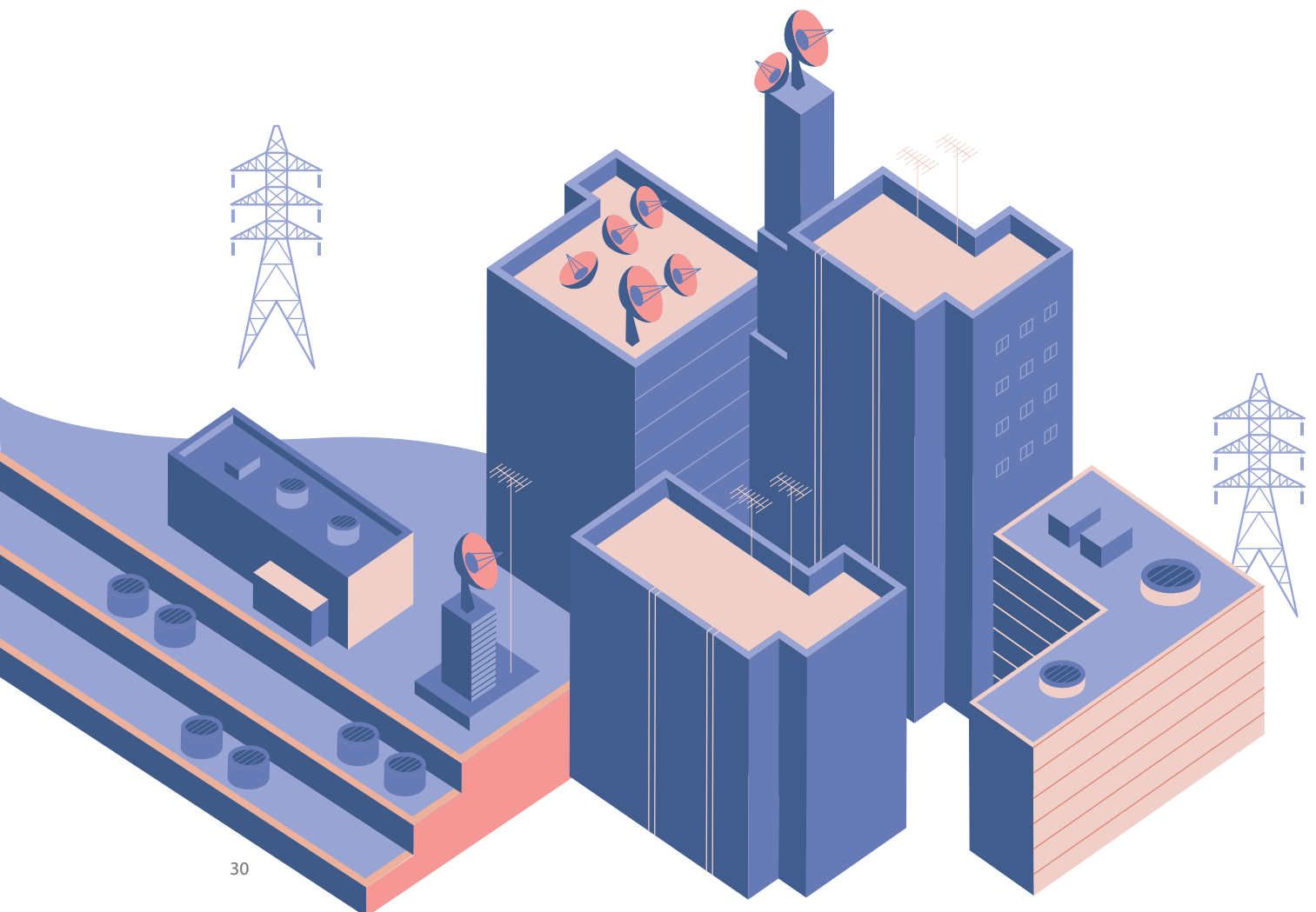
A cross-country study of the impact on consumer prices of European telecoms liberalisation and privatisation found that the price of international and national phone calls

were significantly reduced by an increase in the number of mobile phone users, and by higher levels of investment – but liberalisation and privatisation themselves made no difference. The authors conclude:

“The findings suggest that ownership change, from public to private, plays no role or a very limited one in explaining prices of international, national, local calls, and connection charges.... Overall, it seems that technology and demand factors... have much more explanatory power”.⁸¹

A comparison of the performance of all major European telecoms operators between 1978 and 1998, measuring both in terms of profit margins and labour and total factor productivity, found that growth rates in both labour productivity and total factor productivity were generally worse after liberalisation was introduced around 1995, and so concluded that it was “difficult to find a consistent pattern of performance improvement linked to either privatisation or the anticipation of market liberalisation”.⁸²

A 2014 study of technical efficiency covering the period 1980-2004, found that privatisation had a significant negative effect on efficiency. “Reforms do not guarantee improved performance if such reform lacks the characteristics of good institutional governance”. Privatisation and subsequent market forces by themselves do not guarantee improvements in performance.⁸³



Outsourcing – examples from manufacturing

Many multinational companies outsource much of their work, and this has been an important element in globalisation, and the creation of 'global supply chains'. So it is often assumed that private companies always improve their efficiency by outsourcing, and so public service providers should do the same. But empirical studies of outsourcing by manufacturing firms, including the outsourcing of IT functions, have found: "an outsourcing productivity paradox.... In the short-run, outsourcing firms are able to reduce costs. In the long-run, firms that engage in outsourcing suffer lower productivity growth than firms that do not engage in outsourcing."⁸⁴

Outsourcing depends on 'decomposing' work into standardised activities that can be repeated with minimal variation, but this inhibits experimentation and adaptation to changing circumstances:

"adaptability gets compromised when firms outsource. This is because solving adaptability problems benefits from a common organisational language."⁸⁵

The evidence includes:

- a study of 43,000 German manufacturing firms found that firms which outsourced more work had significantly worse performance in terms of productivity;⁸⁶
- a study of 256 large and medium-sized firms in Sweden, where outsourcing delivered short-term reductions in labour costs but higher administrative overheads and worse logistical performance;⁸⁷
- a study of consumer electronic multinationals found that firms "cut costs by increasing outsourcing ...[but] their technology base was weakened by excessive reliance on their outside suppliers over time."⁸⁸

- the efficiency gains of outsourcing internet banking services in the USA decline and reverse as outsourcing becomes more extensive: “outsourcing has a negative, linear effect on adaptability. Adaptability problems seem to be best performed in-house”⁸⁹
- a study of Dutch and Brazilian firms found that extensive outsourcing has a long-term negative effect on the market share of companies. Beyond a certain point: “market share actually decreases as a consequence of further outsourcing”.⁹⁰

Boeing’s nightmare: the 70% outsourced Dreamliner

The Boeing 787, known as the Dreamliner, illustrates the problems of excessive outsourcing. More than 70% of the production process was outsourced – twice the usual proportion – with the intention of reducing production costs. As part of this, Boeing dismantled its division in charge of designing electronic controls and managing suppliers: over 1200 engineers were dispersed. Instead, overall coordination and design were also outsourced.

This system broke down. The contractors were unable to coordinate or design effectively, failed to deliver what was required, and made the system more complex still by outsourcing part of their work to sub-contractors. The first plane was delivered 3 years late – and costs grew to three times the budgeted amount of \$5billion – about \$10billion over budget. And since they started flying, 787s have experienced a number of battery fires.

To solve the problem, Boeing had to bring huge amounts of work back inhouse, by taking over the software and design contractors, at a cost of \$2.4 billion: “Boeing had to take over the control of the design so that they can really continue the development process.”⁹¹

In-sourcing and re-shoring

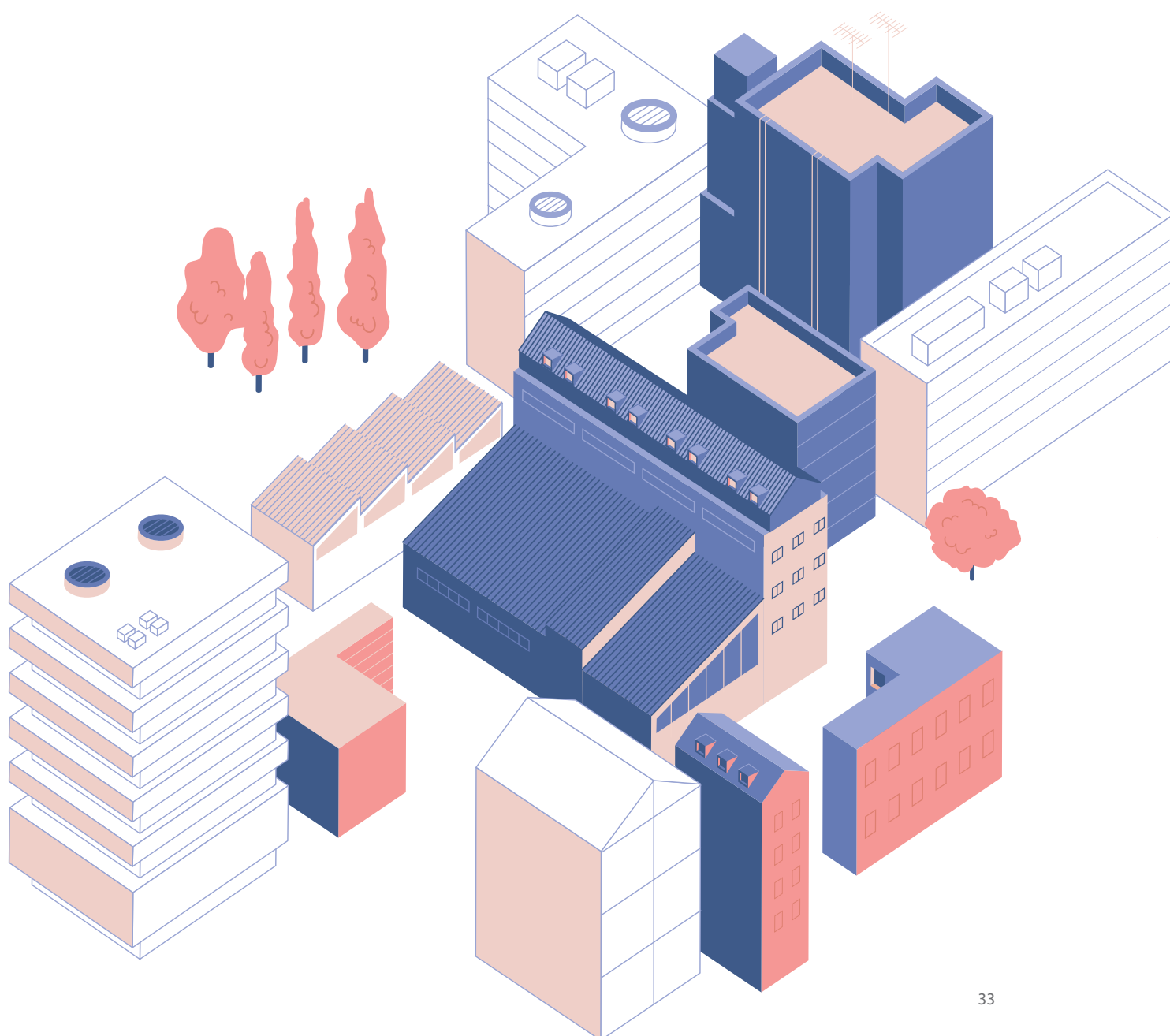
A number of recent studies have started to look at the growth of in-sourcing or re-shoring in the private sector. A 2014 literature review⁹² of telecoms companies, found that innovation among out-sourced contracts was lower than among in-sourced contracts. This was explained by the way in which service-level agreements are drawn up and their dominance in the process of contract delivery. Innovation did not feature in these agreements. As more of the production process has been outsourced, the failure of outsourced contracts to generate innovation has implications for the future direction of companies.

A 2017 study looked at why small and medium sized enterprises (SMEs) were re-shoring and found there was a similar failure of outsourced contracts to generate innovation.⁹³ SMEs introduced re-shoring as a response to the inadequacies of off-shoring/out-sourc-

ing. Re-shoring facilitated more opportunities for competition and innovation because it made companies geographically and culturally nearer to markets and allowed them to restructure their supply chains.

In-sourcing, with stronger links between internal providers, has been shown to facilitate knowledge sharing. In a study⁹⁴ of UK and US firms with more than 3,000 employees, Zimmerman et al found that in-sourcing was associated with stronger knowledge sharing and was affected by the existence of social capital within firms.

These studies have implications for the public sector and public services. Innovation and knowledge sharing play an important part in the future development of public services. If the private sector is finding that in-sourcing and in-shoring contribute to greater innovation and sharing of knowledge, then the public sector should question the value of outsourcing.



Conclusion

Effectiveness, efficiency and democracy

This review of evidence has shown that the rhetorical claims of greater private sector efficiency are not supported by any evidence. It is of fundamental importance to organise public services so that they deliver their public objectives effectively. Unlike the private sector, public service systems cannot be blindly guided by the financial performance of individual organisations. These public objectives also need to be achieved as efficiently as possible and so technical efficiency remains important.

Public services need to include structures which ensure that the public objectives are constantly reinforced and monitored by democratic mechanisms of accountability and involvement of the public. Such mechanisms include formal accountability to elected public bodies, such as municipalities or governments; structures for public participation in decision-making, including full transparency of information; and active involvement of representative organisations, such as community associations.

The achievement of public objectives is weakened where the private sector is involved. A study of local government in the UK, for example, found that use of private companies: “is consistently associated with worse perceptions of local service performance”.⁹⁵ Technical efficiency is also undermined by outsourcing, because it requires the long-term capacity for re-organisation and re-invention of processes and inputs to achieve the desired objectives in response to changing requirements – and this process is weakened by outsourcing because: “outsourced activities are no longer available for splitting and recombining with other activities into new, more effective organisational modules.”⁹⁶

The same problem arises with liberalisation and unbundling of systems: the organisational knowledge of institutions is embedded in its workforce, but liberalisation, undermines this capacity because of: “the loss of critical capabilities or the split-up of complementary capabilities”.⁹⁷

Improvement of the effectiveness and efficiency of public services therefore benefits from both a capable workforce of public employees and an active system of democratic accountability. Studies of public sector innovation have found that it is driven both through the formal political institutions by the process of policy formation and the managerial structures ('top-down'); and also through public participation, especially at local level, which encourages public employees to develop and improve services "due to the coercive power of greater transparency" ('bottom-up').⁹⁸

The potential gains from such processes are shown in the cases of Paris and London in the following section.

Efficiency and effectiveness gains from re-municipalisation

The experience of re-municipalisation in two major capital cities demonstrates that the public sector can dramatically improve the efficiency and effectiveness of a service that was previously privatised. In both cases, since the ending of major privatisations, the effectiveness and efficiency of services have improved, there is greater public accountability and transparency, and billions of euros/pounds have been saved.

Since water services in Paris were re-municipalised in 2010, Eau de Paris, has been able to make efficiency savings by reducing the cost of sub-contracts, by rationalisation and merger of previously separate functions, by eliminating the profit margins of the private companies, and by overall improvements in coordination and planning – for example, the call-centres have also been brought in-house, at a saving of €2million per year. These efficiency savings have been used to finance investments and a sustainable wages bill, as well as reducing the price of water by 8%. The city has also created a set of mechanisms to ensure it is constantly responsive to its public objectives, including a long-term 'contract of objectives' with the city council, an independent observatory for public participation in debates, and a consultative committee for representative bodies.⁹⁹

Transport for London (TfL) has been able to make similar large efficiency gains since remunicipalising its PPPs for the London underground metro system. The business was re-financed by TfL through issuing bonds, which reduced the cost of interest payments, but in addition, the workforce became directly employed and managed by TfL. Through the remunicipalisation of the Metronet contract alone, TfL achieved efficiency savings of £2.5 billion by removing duplication and improving back office services (£1.2bn), competitively tendering sub-contracts which Metronet and Tubelines had awarded to themselves (£0.5bn), and improving planning and scheduling (£0.8bn).¹⁰⁰

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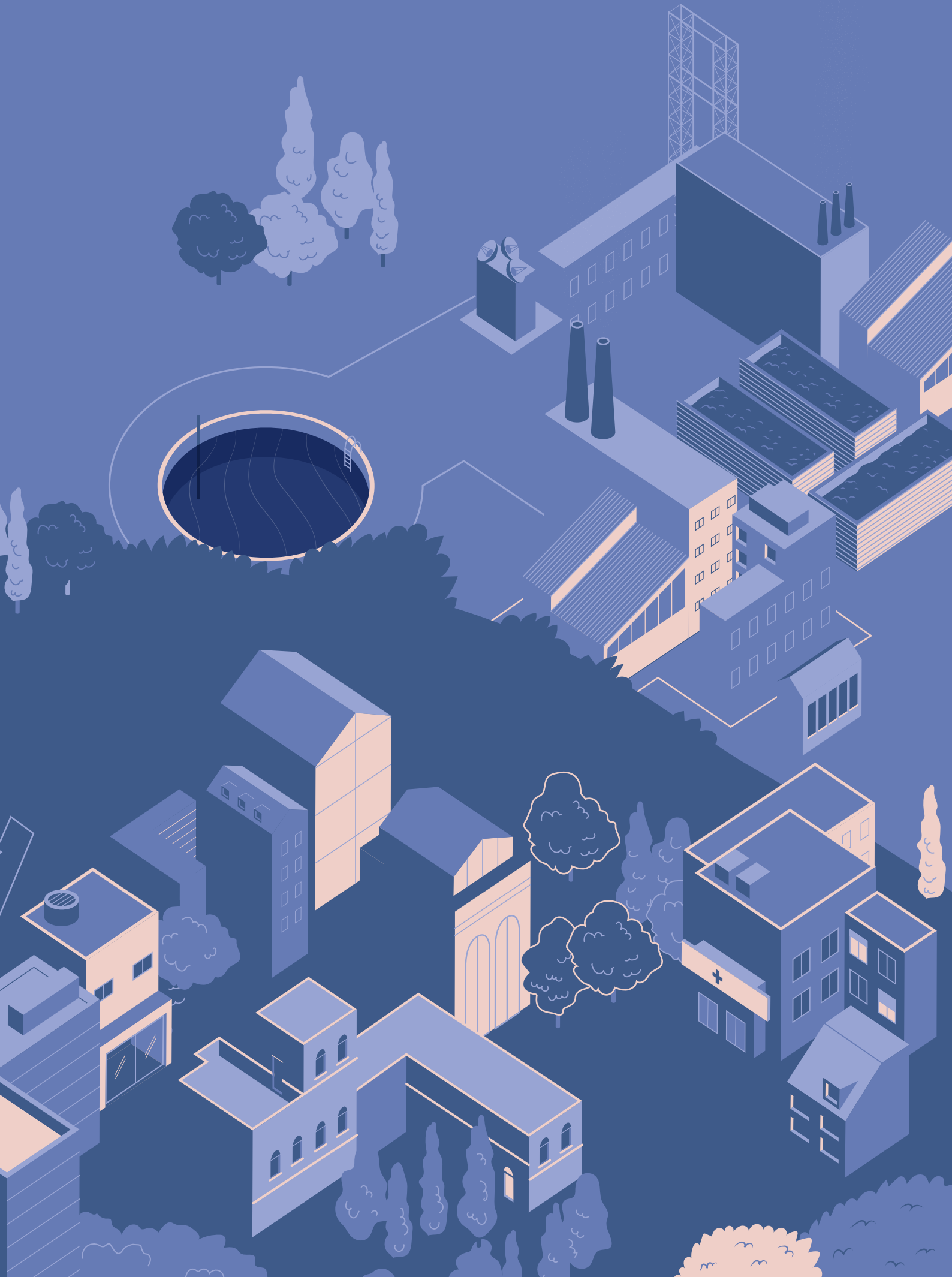
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