**UK Passenger bus services - business model analysis**

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**Background**

Under the Transport Act of 1985 operation of bus services was passed from public bodies to private companies, except for London where 11 quasi-independent companies were set up in 1989 and were then privatised in 1994/5. Under the Act, operators were required to be run at arm’s length from local authorities. This deregulation and privatisation allowed the market to operate on a commercial basis. Competition became intense on the profitable routes with extra services and fare cutting benefitting passengers. However, overtime intervention was required due to unsafe practices and unscrupulous anti competitive behaviour by some of the operators. Smaller operators were quickly bought out and today the big five operate a virtual monopoly on their respective patches. Eleven operations remain in public ownership. These eleven often win awards and often provide higher levels of investment in the network because the money is not distributed to shareholders. Nottingham City Transport is regularly cited as being the most highly regarded service by the public.

The Campaign group ‘We Own It’ (whose motto is Public services for people not profit) claim that since 2010 £74 million a year has been cut from Local authority supported bus funding resulting in 2,400 bus routes disappearing in England and Wales alone. They claim that “privatisation was meant to bring competition but just as on the railways it’s often a virtual monopoly with huge companies benefiting from government subsidies whilst also taking passengers for a ride”. Nearly half of all bus routes in England receive partial or complete subsidies from councils. (Mix96 news 9th May2019)

Stagecoach counter the ‘We Own it’ argument by saying “Commercial bus routes run by operators outside London have remained relatively stable in the past decade despite a very challenging economy. In contract council-funded routes, services have been cut by 26% in metropolitan areas and by 40% in non-metropolitan areas. And Arriva countered with “Arriva is a wholly owned subsidiary of Deutsche Bahn and since being acquired in 2010 has not paid any dividends to our parent and has retained profits to fund investment back into the business. In fact since being acquired in 2010, Arriva has invested £585m into our UK bus and train business.”

The Stagecoach argument likely ignores the fact that the commercial routes are inherently more profitable than council-funded routes.

Technically the term ‘subsidies’ is not correct, but more on this later.

Mark Ellis – Daily Mirror 6 Mar 2017, reported that... “Britain’s five big bus companies have given shareholders £181 million a year in dividends while services have been slashed and fares doubled. (The article did not state over what time frame fares had doubled)

In May 2019 Mark Ellis also reported on the charity ‘Foundation for Integrated Transport ‘research. The foundation compared Britain’s rural bus routes to those of our European neighbours. The researchers studied bus services in a typical English shire, Shropshire - and rated them against comparable areas in Germany, Sweden and Switzerland.

The main differences between Shropshire (Sh) and the selected areas abroad (Ab) are:

Sh - Buses do not connect to train services.

 Ab – Small towns and villages have bus links with train stations.

Sh – Buses often stop running in the early evening and do not run on Sundays and bank holidays

 Ab – Buses often start at 6am and run until 10pm, and run seven days a week.

Sh – Buses often run infrequently, which makes it difficult for passengers to schedule arrival times.

Ab – Buses run more often.

Sh – Bus routes are not built for users’ convenience. Subsidised services are subject to large budget cuts.

 Ab – Bus and train services are co-ordinated in a regional transport plan and funded to guarantee high quality.

The Daily Mirror reporter said that the Services in Shropshire do not provide a satisfactory alternative to car ownership for journeys to work medical appointments, education and training opportunities.

The reports’ author Prof John Whiteleg said “Currently in Shropshire, buses are a low priority for the council and subject to large budget cuts.” Shropshire Council has plans to slash transport services in 2019/20 to save £450,000 with some bus routes to be axed and fares increased. The council blames central Government funding cuts.

The heavy political slant and no doubt selective instances employed in the Daily Mirror reporting, should not detract from the sense that in our part of Buckinghamshire, and many other areas in the country, residents will identify with the situation described in Shropshire.

Looking at Buckinghamshire specifically, Mix96 news on 9th May 2019 report that...” central and local government spent just £20,000 on local bus services during the twelve months to March 2018 – a 92% decrease in eight years, (This sounds oddly low, but more on this in the next para) and that Dept for Transport data shows that 10.8 million passenger journeys were taken in Bucks during the 12 months to March 2018, 600,000 fewer than in the previous year.” The trend has been generally downwards in the last decade from a peak of around 11 million, despite the growth in population. In Bucks 35% of local bus passenger journeys were taken by elderly or disabled people with some kind of concession in 2017-18. Across England local bus passenger journeys decreased by 2% from 2016/17 to 2017/18 to 4.36 billion journeys.

Mark Shaw – BCC Deputy Leader and Transport Cabinet Member said “we support bus travel in the county to the tune of more than £7 million p.a.” £2 million is supporting socially necessary routes and £5 million supporting concessionary travel and has remained at this level during the past four years. Martin Shaw claims bus usage has held its own. (We need to validate these figures as they buck the trend on a country wide basis. The detail is not visible in the Accounts)

 There are 40 council supported bus routes in Bucks County.

**Passenger Bus Operator Business Model**

Arriva’s website explains their business model varies according to the structure and needs of each local market.

Below is a précis of their commentary...

***Contracted services***

***The bus and rail market is generally a contracted service where the primary customer is usually a public sector body sometimes a specific transport authority with devolved powers to tender for services for designated routes or areas, such as Transport for London***

***Types of contract***

***Gross Cost - Here the tendering authority pays an operator to provide services. The tendering authority retains the passenger revenue and often sets the routes and specifies the type of vehicle. This model is used in parts of mainland Europe for bus and rail.***

***Net Cost – Here the operator takes on both the income risk and the cost risk but retains all passenger revenue. Arriva operates this model across Europe including UK rail.***

***Deregulated Services***

 ***These are fully commercial operations with the relationship directly between Arriva and the customer. Passenger payments are the main source of income so services must be profitable to be sustainable. Returns have to cover replacement vehicle , depot facilities and the expansion and development of services. Most of the UK bus operations outside London operate on a purely commercial basis.***

The Passenger Transport Monitor (PTM) offer more specific help in understanding passenger bus operators business model by asking the question ...How much profit do bus companies need ?

The methodology used to assess and answer this question is the ARCC model, which is built around four questions..

ASSETS – what assets doe the company need to provide the service

RETURN – what level of return is required on those assets to cover the cost of capital ( interest rates and dividend expectations)

COST – How much does the business cost to run

CAPITAL – What funds will the company need to borrow

Armed with this data it is then possible to determine...

....What the profits should be.

....How much the selected network will cost to operate.

....The target revenue - how much the company will need in order to cover its operating costs and meet its obligations.

This approach holds good whatever the regulatory regime in force. Thus, the decisions on service levels and network design that determine the assets required can be made by a commercial operator (or by tendering authority such as TFL). The target revenue can be earned in the form of individual fares paid by passengers , together with concessionary fares reimbursements and other grants or as “cost plus” payments to operators by tendering authorities (as in London). PTM are strangely silent on advertising revenue but I would have thought this is not an immaterial sum. I know that TFL earned £150 million in advertising revenue in the financial year 2017/18. This covers their tube, rail, bus and road estate.

Since deregulation and privatisation, there has been little consensus about an appropriate level of profit in the bus industry and therefore difficulties in managing stakeholder relationships.

Added to this is the drop in patronage. Outside London the passenger bus market has seen a decade of continuous decline in passenger journeys. In Scotland operators have lost more than a quarter of the passengers they were carrying, Wales has a similar but slighter smaller loss. In the English metropolitan areas the decline is over 17%. The Shires have held up rather better, despite significant falls in service levels and hefty fare increases, even so 9.3% of patronage has gone.

As passenger numbers fall, operators have only two responses they can make to maintain viability: cut services or increase fares. In London TFL is hamstrung by the electoral promise of a five-year fares freeze, but an increase at the first available opportunity, in January 2021 has already been pencilled in. Outside of London, increased fares seem to be the principal means of coping. PTM report a substantial 7.4% fare rise in the English Shire areas (I think that is in the year 2017/2018).

 The task for operators is to keep revenue growing – at least in line with inflation, whilst simultaneously preserving network coverage in the face of cuts in tender services and costs driven ever higher by traffic congestion. They also face the challenges presented by major societal changes such as online shopping – and now the increasing demands for reduced emissions and cleaner fleets.

Some realities that don’t change – and the biggest of all is that somewhere, somehow, the industry has to earn enough revenue to cover its costs – both of operation and of its capital. If not, the buses will not be able to run, whoever owns them.

**Fare Increases**

PTM conclude there are two broad reasons why operators or authorities need to raise more revenue from customers:

* Changes in cost levels – increase in wage costs or fuel prices, for example
* Reductions in passenger numbers – a drop in patronage means that the same level of revenue needs to be earned from fewer people.

And suggest that the best understanding of the need for fare changes will come from looking at movements in “cost per passenger journey” and argue that this provides a better understanding of the need for fare changes than just looking at overall operating costs or trying to apply an unrelated index such as broader inflation measure.

The DfT statistics for the years 2005-2017 report a total real increase of 13.8% in cost per passenger journey in England outside London. In Scotland and Wales, the increases have been much larger (37.4% in Scotland and 47.3% in Wales). This is because there have been much larger falls in patronage in these areas.

At this juncture things get a little complicated. PTM say the statistics for fare indices show widely differing trends in fares charged. And increases in prices charged have not been reflected in stats in the revenue paid by passengers. They say that hefty real term increases in fares charged are not reflected in the amount of money paid by each passenger journey and that the answer to this conundrum lies in changes in traffic patterns, (this needs explaining) a switch to different ticketing products such as day and weekly tickets and reductions in reimbursement rates paid by local authorities for concessionary travel.

However bus operator earnings per passenger in the English Shires have risen by around 10% in the period 2005 – 2017. Chris Geek of PTM says that “the whole picture concerning pricing and yield management in the bus industry is much more complex than just sticking the prices up and watching the revenue roll in. For politicians and policy-makers, an understanding of the issues and the problems involved in fares policy is vital.”

He asserts that public spending on bus services has fallen by over 28% since the age of austerity began a decade ago. This means that, by 2016/17, some £708m had been taken out of the industry when measured at constant prices.

**Concessionary Fares**

EU and WTO regulations are stringent and prevent concessionary reimbursement from being used as a form of state aid. Public sector spending on buses involves the purchase of services or tickets by government on behalf of the public . PTM suggest that

* The money spent on tendered services represents the purchase from the operator of a particular route or set of departures
* Bus Service Operator s’ Grant (BSOG) payments mitigate a tax (fuel duty) that would otherwise be paid to Government (and is therefore tax revenue foregone, as opposed to a payment)
* The concessionary travel payments represent public authorities buying free discounted travel from the operators for certain sections of the population.

So public spending on concessionary travel represents reimbursement for revenue foregone – fares income that would otherwise be paid by travelling public if the concessionary pass did not exist. As such concessionary travel is a subsidy to the pass holder, not the bus operator.

Spending on concessionary fares accounts for almost half of all spending and BSOG just over a tenth.

In 2016/17 TFL spent £659 million on network support, significantly greater than the £467 million the whole of the rest of the country spent. Though when looked at per passenger carried, London has the lowest spend.

PTM say that ultimately, society has to pay the cost of providing the level of bus services it requires. “There are only two sources of revenue – the customer and the taxpayer. One or other must meet the costs of provision – including the cost of the capital needed – or services must be reduced to the levels which are affordable or commercially viable. There is no easy solution to these issues, and to pretend otherwise is to mislead policymakers and the electorate.”

Despite this stark warning they say that the development of information technology and advances in customer relations management and training have assisted the industry in being resilient. A ‘Transport Focus’ survey results offer strong evidence that the industry is still held in surprisingly high esteem by its customers. There are still companies out there that are growing their markets and working in partnership with local authorities to deliver positive outcomes for their local communities.

**Impact of changes in the British Retail Industry**

PTM say in 2007 the internet accounted for 3.4% of retail sales. By November 2018 this had risen to 21.9%. Bus trips for shopping purposes have fallen by a third since 2002. The Daily Telegraph reported last year that one in five pounds spent with UK retailers is now online.

We can measure how this shift is affecting people’s travel patterns by tracking the National Travel Survey. This large annual survey has a sample of more than 16,000 people, and tracks changes in how, why and when people travel as well as the distance they go and the time they take.

Overall, since 2002, the volume of trips for shopping purposes by all modes has fallen by almost 15 per cent, from 222 journeys per person per year to 189. Much more seriously for the bus industry, the volume of trips by their customers has fallen by almost one-third, from 19.24 per person to 12.95 per person.

Shopping is no longer the most important reason for travelling by bus. In 2002, shopping accounted for up to 30% of all bus trips. By 2017, it had fallen to 23.6%.

It is estimated that the fall in bus trips for shopping purposes represents 250 million bus trips a year, or around 6% of current passenger demand in England. This equates almost exactly with the fall in passenger demand since the peak of 2012.

The trend toward shopping online is widely expected to continue and is a societal change of a similar magnitude to the growth in TV ownership in the 1950s or the continuing growth of car ownership over the last 60 years. (Although there are nascent signs particularly in cities, that car ownership growth is ending)

It is thought congestion and slower speeds are also good reasons for people giving up bus trips for shopping and buying goods online instead.

Chris Geek suggests that traffic congestion massively increases the cost of running buses services and by worked examples shows how even quite small changes in speeds can make a huge difference to the costs of operation - and the number of passengers needed to ensure viability.

He took a typical town service with a round trip of 6km and calculated how much it would cost to run at three different speeds between 9.5 and 11.8 mph. The differences are massive - two extra buses are needed in the fleet when comparing the fastest with the slowest speeds. ( I am not absolutely sure why that is) He says the company would need 7,000 additional paid man hours a year (equivalent to four people). These would push total costs up by over 52%. The number of passengers needed to maintain viability goes from 736,000 to over 1.1 million.

Despite my lack of full understanding, his figures illustrate what a crucial difference the speed of operation makes to the ability to run successful, viable bus services. As traffic congestion increases, speeds deteriorate and so more revenue is needed to cover the costs of operation. At the same time, lower speeds make the bus service less attractive, due to failing reliability and punctuality making it more difficult to win more passengers, during this period of big societal and economic change.

**Bus services in our Area**

In our area the Arriva website says it runs the following bus services .....

8/8a Aylesbury – Wendover and RAF Halton

300/x30 Aylesbury – Princess Risboro’ & High Wycombe

41 High Wycombe – Heath end - Great Missenden

1/1A High Wycombe – Hazlemere – Holmer green – Amersham & Chesham

300 High Wycombe – Hughenden Valley – Naphill, Walters Ash - Lacey green – princess Risboro’ – Stoke Mandeville Hospital - Aylesbury

X30 High Wycombe – West Wycombe – Princess Risboro’ Stoke Mandeville Hospital & Aylesbury

‘Redline’ run a 55 service between Aylesbuty – Wendover – Great Missenden –Amersham and Chesham.

Note that Princess Risboro’ with a current population of around 8,000, 20% less than our parish (but about to grow significantly) also has a ‘Redline’ (An Aylesbury based company) 321 service to High Wycombe and Aylesbury, a ‘Redline’ 320 service serving as a rail link between the railway stations at In 2007 rinces Risboro’ and Chinnor, a ‘Redline’ RL01 service to Chinnor and Lord William school, a ‘Redline’, Z&S’s 113 service to Oakley twice a week and is also served by the Risboro’ Area Community Bus (RACB) which serves the surrounding villages of Longwick, Monks Risboro’, Speen, Bledlow,, Bledlow Ridge and Little Kimble.

The 40 bus routes in Bucks County that BCC support to the tune of £2million a year is listed below

**16 -** Marsh Gibbon - Waddesdon - Aylesbury
**18 -** Buckingham - Steeple Claydon - Bicester
**28/A/C** - High Wycombe - Lane End - Cadmore End
**50 -** The Horwoods - Winslow - Newton Longville - Milton Keynes
**54A/B/C** - Swanbourne/Great Horwood/The Claydons - Winslow (Wednesdays)
**60** - Aylesbury - Winslow - Buckingham
**63/68**- Maidenhead - Dorney - Slough (Tuesday and Friday)
**67** - Great Horwood - Aylesbury (Friday and Saturday
**71/73**- Whelpley Hill - Chesham - Amersham - Little Chalfont/Coleshill
**77** - Chesham - Chartridge
**78**- Chesham - Great Hivings
**110** - Worminghall - Long Crendon - Aylesbury
**111** - Oakley - Brill - Thame - Aylesbury
**112** - Upper Winchendon - Oakley - Thame - Bishopstone - Aylesbury (Wednesday and Friday)
**113** - Oakley - Thame - Longwick - Princes Risborough (Tuesday and Thursday)
**131/132** - Buckingham Estates - Tingewick - Brackley
**133** - Water Stratford - Tingewick - Buckingham (Tuesday)
**134** - Westbury - Buckingham (Tuesday)

**149/194** - Chesham - St Leonards - Cholesbury - Hawridge/Tring (Tuesday, Wednesday, Thursday and Saturday)
**151** - Akeley - Buckingham - Thornborough
**153/154** - Newton Longville - Stewkley - Aston Abbotts - Aylesbury (Wednesday and Friday)
**155/158/160** - Marlow and surrounding areas
**162** - Stewkley - Bletchley - Leighton Buzzard - Edlesborough - Dagnall
**164**- Aylesbury - Tring - Pitstone - Cheddington
**165** - Leighton Buzzard - Aston Abbotts - Wingrave - Aylesbury
**167** - Ivinghoe - Leighton Buzzard (Tuesday)
**177** - Chesham - Chartridge - Lee Common - Great Missenden/Amersham
**190** - Chesham - Hyde Heath - Lee Common - Chartridge
**275** - High Wycombe - Bledlow Ridge - Chinnor/Stokenchurch - Oxford
**321** - Aylesbury - Butlers Cross - Princes Risborough - Saunderton - High Wycombe
**333/334** - Hughenden Valley - Speen - High Wycombe
**335** - Chalfont Common - Gerrards Cross - Slough
**353** - Amersham - The Chalfonts - Slough
**377**- Hazlemere - Beaconsfield - Loudwater
**577** - Hazlemere - Beaconsfield - Loudwater
**580** - Beaconsfield - The Chalfonts - Uxbridge
**581** - Beaconsfield - Denham - Uxbridge
**582** - Higher Denham - Iver - Slough - Windsor (Saturday)
**583** - Slough - Wexham Park Hospital - Iver - Uxbridge
**RACB 6** - The Kimbles and Ellesborough (Monday, Thursday and Saturday)

A BCC consulation and review of bus services to small towns, villages and rural areas in order to update/revalidate or change these routes, ended 20 July 2018. There were 2,048 responses and the Council report that the data is currently being analysed some ten months on.

**Arriva UK Overview**

In the UK Arriva has 5,068 buses, 620 trains, 225 patient transport vehicles (non emergency services) 26,860 employees.

The UK bus market outside of London was deregulated and subsequently privatised during the 1980s and operates on a commercial basis. Arriva entered this market in 1994 and is the third largest regional bus market provider and operates 20% of London’s services under contract with Transport for London.

Like the bus market in the UK passenger rail market is at a mature state of liberalisation. Twenty –two rail contracts are awarded by four governing bodies, whilst contracts for light railway and tram systems are issued by local or regional authorities. Arriva entered the rail market in 2000.

Arriva Transport Solutions (ATS) is a specialist transport business within the group. It was established in 2011 following Arriva’s acquisition of Ambuline and operates 10% of the non emergency patient transport market under contract to public sector organisations.

UK Regional Bus Services - Arriva entered the regional market in 1996, has 9,755 employees and 3,375 buses and is the third largest regional provider. In addition to Arriva branded services Arriva also operates a number of locally branded services (such as Yorkshire Tiger and Network Colchester) and the Green Line coach service runs between London and the Home Counties. The Arriva owned TGM Group runs the majority of transport for airports and airlines, including terminal transfers , crew and passenger coach services, car park and hotel shuttle bus contracts. Arriva operate open-top bus tours in London, Arriva Bus and Coach Co retails new and second hand buses and coaches and provides fleets for short and long-term rental .

The Arriva operations covering Home Counties north and Greater London are provided by Arriva Shires and Essex. The operations are split between two registered companies Arriva East Hearts & Essex Limited and Arriva the Shires limited. Both are subsidiaries of Arriva UK bus Limited. The ultimate parent company is Deutsche Bahn AG registered in Germany. Deutsche Bahn announced recently they wish to sell Arriva and invited interested parties to register by May 3, 2019. The German state owned company first raised the idea of a selloff in 2016 but this was shelved after Britain voted to leave the EU, amid concerns the business would be undervalued and investors put off after the collapse in sterling. The reasons for the sale were its own mounting debts and growing need to address aging rolling stock and under capacity at home in Germany.

Arriva the Shires cover our area and look to be stable financially. They have turnover of nearly £50m p.a. and after tax profits average £5m p.a. The management accounts would be of most use to us but of course, these are not accessible.

**Appendix**

Just for information there follows A definition of Community transport and associated data taken directly from the BCC website.

## What is Community Transport?

A volunteer based transport solution run for the community by the community. Designed to meet local needs and used by those who cannot access or use conventional public or private transport. The scope and range of service offered by each scheme depends on the community. Some provide:

* transport to GP surgeries and hospitals
* social and shopping trips
* volunteer car drivers
* access to a community bus

Below are some examples of the different types of Community Transport.

### Community Bus service

Usually a small bus operated by a local community organisation, run on a not-for-profit basis using volunteer drivers. Community Bus services may be:

* like a normal bus service, with a fixed route and timetable to local amenities; and/or
* do regular social and leisure trips

Examples include Risborough Area Community Bus and the Winslow and District Community Bus. For information about schemes in your area, contact the Community Transport Hub.

### Volunteer community car schemes

A voluntary car scheme is an organised form of car sharing, which uses a pool of volunteer drivers to take people on prearranged journeys. There is usually a coordinator who manages bookings, and drivers use their own cars. There are about 55 volunteer community car schemes in Buckinghamshire, to find out if there is one in your area please contact the Community Transport Hub – see top of page.

### Demand Responsive Transport/Flexible Transport

Flexible or Demand Responsive Transport (DRT) is a completely flexible type of local bus service that has no fixed timetable. The route of the bus is determined by the requests made by passengers who book in advance of using the service, either by phone or via an App. The service is open to anyone who lives in the area where the service operates.

There are currently no services in Buckinghamshire, but if local needs change, this could become a solution.

### The Chilterns Dial-a-Ride

Dedicated to providing an affordable, accessible and safe transport service for people living in or close to the Chiltern District who, due to age, illness or disability are not able to transport themselves or use public transport services. They run a door to door, round-trip service, using specially equipped vehicles with wheelchair access and trained, caring drivers. The smaller vehicles are mainly driven by volunteers. They serve both individuals and community based organisations, both for local journeys and longer journeys of up to 30 miles outside the Chiltern, Wycombe and South Bucks Districts (excluding London). There is an £18 annual membership for this service. For more information please visit the [Chilterns Dial-a-Ride website](http://chiltern-dial-a-ride.net/) .

## Community Transport Services

* [Chilterns Dial-a-Ride](http://chiltern-dial-a-ride.net/)
* [Community Impact Bucks for Community Transport Hub](https://communityimpactbucks.org.uk/projects/community-transport/)
* [Risborough Area Community Bus](http://www.racb.co.uk/)
* [Winslow & District Community Bus](http://www.winslowbus.com/)
* [Community Care North Bucks for Hospital Car Service](https://www.ccnorthbucks.org.uk/services/hospital-car-service/)
* [Bernwode Bus for Waddesdon area](https://www.facebook.com/BernwodeBus/)
* [Beaconsfield Community Bus](https://www.buckscc.gov.uk/media/4513529/beaconsfield-community-bus-leaflet-btc-low-res.pdf)
* [Buckingham Area Rural Transport](https://www.bucksvoice.net/bart/)

Ends