

[National Assembly for Wales](#)

[Enterprise and Business Committee](#)

[Inquiry into the future of the Wales and Borders Rail](#)

Evidence from Prof Chris Nash and Dr Andrew Smith, Institute for Transport Studies, University of Leeds- WBF 92

NAfW Enterprise and Business Committee - Inquiry into the Wales and Borders Franchise

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1. We are specialists in rail economics who have undertaken many studies relevant to the performance of franchising in Britain and also some comparative studies considering other countries (in particular Sweden and Germany). In this evidence, we will try to summarise the results of that research and identify its policy implications. We have undertaken no work specifically on franchising in Wales.
2. Firstly, as is well known, since the start of franchising there has been a major growth in demand for rail services. A report commissioned by ATOC and carried out by KPMG (ATOC, 2013) argued that passenger growth is one of the major success stories of franchising; driven by the strong incentives implicit within the franchise contracts, combined with strong competition to win the franchises and the associated profit incentives for private firms. However, one of our colleagues examined this issue for the earlier part of the franchising period and concluded that the growth was mainly due to exogenous factors such as economic growth, fuel prices and road congestion (Wardman, 2006). Nevertheless, a small part of the growth was unexplained by his model, and could reasonably be attributed to marketing or other initiatives by franchisees. That said, it must be noted that very strong growth has occurred over a very long period - which has continued through the recent recession - so new evidence is required to update the Wardman (2006) work (which used data only from the 1990s).
3. On the cost side, however, the experience has been less successful. Whilst cost reductions were achieved in the early years of franchising, over the period from 2000 to 2006, costs per train km rose substantially. Whilst the biggest rise was in infrastructure costs, train operating costs per train km also rose by 35% in real terms (Smith, Nash and Wheat, 2009). Whilst part of this rise in train operating costs was due to the failure of a number of franchises, and their replacement by short term management contracts (Smith and Wheat, 2012) this is not the whole explanation. Particularly notable was the big rise in labour costs, but another concern has been rolling stock, where new stock has tended to be heavier and more damaging to the track. That said, rolling stock costs have not changed much and the other main contributor to cost growth, in addition to rising staff costs, is the "other costs" category; and there is no

clear explanation for the rise in those costs. A key challenge is measuring TOC costs (separate from infrastructure costs) and to our knowledge the data collected by DfT is not sufficiently consistent to enable this comparison at present. Importantly, through regulatory pressure, since 2006 (and indeed since 2004) infrastructure costs have fallen substantially. On the other hand, it appears that train operating costs have largely remained at the new higher level. The data in the McNulty report suggested that TOC unit costs in 2009 were around the same as in 2006. Recent data published by ORR may indicate a small reduction in TOC unit costs since then, but it is difficult to be sure because of lack of comparability of the data.

4. Analysis of the costs of train operating companies has found major economies of traffic density (which would be expected to lead to unit costs falling as traffic expands, rather than a significant rise) but no economies of scale as such beyond a small size (indeed Wheat and Smith (2013) found evidence of diseconomies of scale). In other words, simply making a franchise bigger in terms of route km does not reduce unit costs (and indeed British franchises may already be too large), whilst running more trains over the same infrastructure does. This implies designing franchises to avoid overlap. However, the latter effect does not necessarily apply when the nature of the services and the rolling stock used varies a lot (Wheat and Smith, 2013) – because different services may require different rolling stock - although there may still be benefits of avoiding overlapping franchises in terms of integration of services. Of course more overlaps would have the advantage of increasing competition. Overall the evidence suggests that there could be benefits from reducing the size of franchises (because of diseconomies of scale) but if this change increases franchise overlaps then costs could rise because of loss of economies of density. A detailed analysis would be needed for any proposed franchise structure changes.
5. The reasons for the increase in costs under franchising in Britain remain unclear. However, both our own work (van de Welde et al, 2012) and the McNulty report have identified misalignment of incentives between train operators and infrastructure managers as an important issue. Both parties have incentives to minimise their own costs, rather than systems costs, and whilst track access charges and performance regimes go some way to correctly align incentives they do not resolve the entire issue.
6. Experience of Sweden and Germany is interesting in that in both countries franchising of regional services has been allocated to the regional tier of government with considerable success (Nash, Nilsson and Link, 2013). Both have enjoyed significant traffic growth in regional traffic (in Sweden faster than Britain). Further, the evidence is that costs (or more precisely) subsidies to train operations have fallen by around 20-30% (see Alexandersson (2009) and Alexandersson and Hulten (2007)). At the overall system level (infrastructure and operations), support per passenger km has remained stable in Germany and Sweden (in Britain it has risen, admittedly from a lower starting point). We attribute this success in Sweden to high quality services well integrated with bus services. Many of the Swedish contracts are gross cost contracts with the regional transport authority responsible for planning and marketing bus and rail services as a whole. It thus appears that high demand growth can be achieved without operators taking revenue risk through net cost contracts (though there are patronage incentives within the Swedish gross cost contracts).
7. One key difference between franchising in Britain, Sweden and Germany is that in Sweden and Germany the winner of a franchise has to assemble its own staff and assets to run the

service – it does not take over an existing company (although in Sweden rolling stock decisions are taken by the franchising authority and rolling stock is provided by publicly owned ROSCOs). We postulate that the German / Sweden approach imposes greater pressure on costs, and in particular staff costs, as staff do not automatically transfer to the new operator. However, given the size of Britain's rail franchises such an approach does not seem viable in Britain.

8. Whilst it is clear from the evidence that British experience on the cost side has been disappointing, the evidence on the policy conclusions is less clear cut. However we would judge that:
 - Longer franchises (at least 15 years) would give more incentive to reduce costs, for instance by tackling working practices, where there may be an upfront cost in doing so in order to reduce costs long term. They will also give better incentives regarding rolling stock life cycle costs if train operators remain responsible for leasing rolling stock (although we note that for Crossrail Transport for London has chosen to follow the Swedish approach of owning the rolling stock itself because of its lower cost of borrowing). A key problem with longer franchises is their lack of flexibility however and it has been argued (e.g. in the Brown review) that longer franchises will not encourage investment. However, since rising costs is a major issue, the cost reducing properties of longer franchises need to be considered.
 - A deep alliance with Network Rail, of the kind pioneered by South West Trains, (or indeed a vertically integrated franchise in which the track is leased to the train operator, if that can be negotiated) may be expected to deal with the problem of misaligned incentives and thus give better services at lower cost.
 - It is important to ensure that the winning bid is realistic, and not subject to risks (such as GDP risk) that it cannot control (exogenous risk). Where bids fail, management contracts should be avoided if at all possible, as these have been shown to weaken incentives for operators (Smith and Wheat, 2012). Endogenous risk ought to be adequately insured to avoid distorting the initial competition. Although it is argued that performance bonds that may put off some bidders, failure to insure endogenous risk incentivises operators to submit unrealistic bids.
 - Gross cost contracts (with performance incentives) seem to work well for regional services where there is a transport authority able to undertake the planning and marketing of bus and rail services as a whole. Gross cost contracts should however be supported by some sort of patronage incentive.
 - There is evidence to suggest that the current franchises are too large (diseconomies of scale), though splitting franchises may in some cases lead to loss of economies of density. The cost outcome for individual franchises is complex and would require detailed study on a case by case basis. However, smaller franchises are also less risky which could help with the franchise failure problems of the past, and more franchise overlaps increase competition, so these factors need to be taken into account as well.
 - Finally we consider that the TOC cost data submitted by operators to DfT needs to be improved to enable consistent comparison of TOC costs over time and between operators (this comment is based on our current understanding of the data).

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