
Summary Proof of Evidence by
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On Behalf of
Gwent Wildlife Trust

In the matter of:
Public Local Inquiry into the M4 relief road around Newport: Economic Case

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INTRODUCTION

Witness Expertise and Experience

1. I am currently Professor of Economics at Cardiff Business School. I have 25 years' experience examining issues related to the development of the South Wales economy, and the broader Welsh economy, in both the public sector and academia.
2. I have been involved in numerous economic advisory committees for the UK and Welsh Governments, various third sector organisations and others. I sit on the Institute of Directors' Wales Policy Committee, and the Institute for Welsh Affairs Re-Energising Wales steering group. I have worked on an extensive range of projects for and with a variety of firm, from large multinationals such as Tata to SMEs and social enterprises. I am widely published in several languages, and I have particular expertise in energy economics, sustainable development, tourism, major sports events and the impact of the digital economy.
3. My brief evidence here relates specifically to the likely economic impact of a new M4 Relief Road, both directly and indirectly.

Scope of Evidence

4. The scope of my evidence relates to the economic models put forward for the Welsh Government¹ as the basis for their economic forecasting in respect of the proposed M4 motorway development.

The Proposed M4 Relief Road will not improve South Wales' Economic Prospects

5. I have seen zero substantiated evidence that a problem with road connectivity is a significant downward pressure on economic or employment growth in the region. There is little evidence that such a relationship is discernible anywhere in Europe, especially when reasonable provision already exists (Vickerman et al, 1999). The issue of intangible benefits from increased connectivity, as well as 'access to markets' is often cited as an important element. However, as the First Minister has noted on a number of

¹ Welsh Government M4 Corridor around Newport Economic Appraisal Report - M4CaN-DJV-GEN-ZG-GEN-RP-TR-0001 March 2016.

occasions, Wales has in recent years enjoyed its best ever performance in Inward Investment² including investment in south Wales by car manufacturers³⁴, an activity that a priori would be more susceptible to connectivity issues. It is difficult to imagine an even greater step change in performance would follow road investment.

6. The main reasons behind the economic problems of South Wales are long-standing and have repeatedly been identified as:

- lack of economic variety and headquartered firms;
- low levels of entrepreneurship;
- limited aspirations; and
- poor skills and qualifications.

7. Globalisation, reduced demand for lower-skilled workers and the fragmentation of work have, since 1991, exacerbated these issues. The work of Cooke and Morgan (1998), Richard Florida et al (2008), Castells (2011) and many others make it clear that it is internal economic structures, relationships, exploitation of the knowledge economy and skills and attitudes that create successful regions. A new M4 motorway addresses none of these issues. It is notable that the Basque Country, in many ways similar to Wales but with (arguably) even worse hard-connectivity, is the richest part of Spain with a distinctive economy built on well-functioning internal networks, good education, skills and governance and admirable innovation and knowledge transfer (Navarro et al 2014).

8. South Wales is currently a dysfunctional economy for a variety of reasons. With a new motorway it will simply be a dysfunctional economy with a high quality new road.

² BBC (2014) Inward investment in Wales 'highest for nearly 25 years' <http://www.bbc.co.uk/news/uk-wales-28392774>

³ TVR to create 150 sports car jobs in Ebbw Vale <http://www.bbc.co.uk/news/uk-wales-35775158>

⁴ Aston Martin creates 750 jobs in St Athan <http://www.bbc.co.uk/news/uk-wales-35640339>

The Development of the Black Route disrupts Wales' Economic Development Narrative

9. The focus on a new relief road, and on the Black Route specifically, is at odds with Welsh Government Policies that seek to build a distinctive economic development narrative for Wales. Specifically there are tensions with:

- The Wellbeing of Future Generations (Wales) Act 2015 which requires Public Sector agencies to work towards low-carbon and holistic measures of progress and development⁵;
- The new Cardiff City Deal that has inclusive growth as a target⁶; and
- A desired modal shift away from private transport for both leisure and work⁷ and the development of the South Wales Metro.

10. Whilst these tensions might be manageable in a narrow sense – for example in the Welsh Government's attempt to show the Black Route meets the precepts of the Future Generations Act – they will significantly damage the broader Welsh Government narrative that Wales is a sustainable, green country with abundant and well-managed natural resources within which to do business

Black Route Investment may exacerbate Intra-regional and Social Disparities

11. A key issue at hand is not whether an M4 Relief Road is a good investment taken in isolation but rather whether it is the best use of scarce (and borrowed) development finance. A number of elements suggest not.

12. Firstly the areas that the M4 would most directly affect (Cardiff/Vale of Glamorgan and Monmouthshire/Newport) are respectively the 1st and 3rd richest NUTS3 areas of Wales in terms of GVA per head.⁸ Allocating the bulk (or all?) of Wales' borrowing ability to improving connectivity here would be extremely divisive.

⁵ <http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en>

⁶ <http://cardiffcapitalregioncitydeal.wales/seeking-regional-voices-support-findings.html>

⁷ e.g. via the Active Travel Act <http://www.senedd.assembly.wales/mgIssueHistoryHome.aspx?IID=5750>

⁸ <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Regional-Accounts/Gross-Value-Added-GDP/gva-by-welshnuts3areas-year>

13. Secondly, across the region between 25-30% of households do not own a car,⁹ with car ownership correlated strongly with other poverty and income measures. Poorer people in the area would therefore rarely use the road themselves which means the most direct benefits would be enjoyed by those regional residents who are already more affluent. Investments in public transport have a far greater impact on the poorer (Lucas et al 2016).

The Proposed M4 Relief Road brings Limited Socio-economic or Environmental Co-benefits

14. Constraints on public resources means that investments must demonstrate, where possible, a big 'bang for the buck' and indeed, where possible, different kinds of 'bangs'. Investments aimed at improving economic performance or socio-spatial functioning can have a number of co-benefits, for example investment in cycling and green infrastructure can improve access to work but also health outcomes, access to other services, and environmental quality and use whilst reducing climate emissions (Mulley et al 2013).
15. The provision of a new motorway will *a priori* generate very limited co-benefits.

Cost are likely to be Far More than Anticipated will Largely 'Leak' from Wales

16. The work of Brent Flyvbjerg and colleagues over many years¹⁰ demonstrates a number of points:
- Mega projects – especially those over \$1bn - almost always exceed their expected budgets;
 - This is true across a long time period and all continents: 'good' governments do no better;
 - Poor accountability increases risk;
 - On average, road projects go over budget by 20%;
 - Transportation project leaders typically overstate demand for the proposed infrastructure; and
 - The only interpretation of the evidence is that mega-project proponents – including politicians, firms and the media – systematically misinform parliaments and the public about likely costs and project risks.

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http://www.racfoundation.org/assets/rac_foundation/content/downloadables/car%20ownership%20rates%20by%20local%20authority%20-%20december%202012.pdf

¹⁰ https://scholar.google.co.uk/scholar?q=FLYVBJERG+mega+projects+cost&btnG=&hl=en&as_sdt=1%2C5

17. This evidence is worrisome for Wales where accountability on the proposed M4 Relief Road has been poor, and care should be taken that those supporting the most expensive are doing so on the basis of genuine regional rather than private/organisational/political returns (Jones, 2001). Additionally of concern is the impact any cost-overruns might have on Welsh Government budgets, particularly in light of Brexit (and the withdrawal of potentially supportive EU funds across a number of areas), and the concurrent funding of the South Wales Metro.

The Proposed M4 Relief Road is Not a Future-Oriented Investment

18. Human society, in the West at least, appears on the cusp of radical change in productive, distributive and consumption systems due to the impact of digital technology, even leaving aside the key ecological and energy challenges that will change the way we live.
19. Most relevant here are the huge strides being made in the development of connected and autonomous vehicles, with new technology entrants¹¹ reinforcing the safety-related work of car manufacturers, and with autonomous freight vehicles to be tested on UK roads imminently.¹² The roll out of such vehicles raises the prospect of far higher nose-to-tail traffic flows, with a very significant decrease in the sort of accidents that are an issue for the existing M4.

Deep Place Study

20. An in-depth study¹³ by Dr Mark Lang of Cardiff University's Sustainable Places Research Institute stated that:

"Some of the key economic priorities that have emerged in Wales, notably the proposed construction of an M4 relief road around Newport, appear to offer little to the well-being of future generations. They also appear to offer very little to the people and town of Pontypool, who like other communities have not been engaged in the conversation around setting the economic policy agenda."

Economic Appraisal Report (EAR)

21. Managing large-scale transportation infrastructure projects is difficult due to frequent misinformation about the costs which results in large cost overruns that often threaten overall project viability.¹⁴ In

¹¹ See <https://www.google.com/selfdrivingcar/> and Tesla's Autopilot for example.

¹² <http://www.autocar.co.uk/car-news/industry/autonomous-lorries-be-tested-uk-motorways-year>

¹³ Dr Mark Lang - All Around Us The Pontypool Deep Place Study
http://www.cardiff.ac.uk/data/assets/pdf_file/0004/490450/Pontypool-Deep-Place-Study-2016.pdf

this case, the EAR fails to include some significant costs or dis-benefits that are likely to make the scheme poor or low value for money (VfM).

22. The UK Government specifications also state that following a basic VfM assessment: *“Non-monetised impacts are then considered to ascertain whether those impacts are great enough to shift a scheme into a different category. The final VfM category is then assigned.”* However, the significant ecological (and ecosystem services¹⁵) impacts do not appear to be considered in the Benefit Cost Ratio (BCR).

23. The EAR states (section 4.1.4) **investment costs** (i.e. capital costs) are “Excluding VAT and Inflation”.

However:

- construction inflation is running at approximately 8-10% per annum (Prof Stuart Cole) which is highly important as the scheme is unlikely to finish until the mid-2020s; and
- VAT remains at 20%

Thus, excluding VAT and inflation is likely to mean a significant under-estimate of the cost which in turn could significantly affect the BCR.

24. The EAR (section 4.2.6) also estimates 60-Year **Maintenance Costs** (£530.3m) and greenhouse Gas Benefits (£5.7m). However, maintenance costs do not appear to be included in the BCR calculations.

25. Out of the 16 Local Authority Areas to gain the calculated wider economic benefits Bristol, North Somerset and South Gloucestershire rank 3, 4 and 5 respectively (section 6.2.4). Therefore, much of the benefit actually accrues to English rather than to the Welsh taxpayer.

26. To help show a more positive VfM the Government have agglomerated all the benefits over 60 year period, adding £500m to other benefits (section 6.2.6). However, again they have not included 60 years' worth of maintenance costs or VAT.

¹⁴ Cantarelli, C. et al 2010. “Cost Overruns in Large-Scale Transportation Infrastructure Projects: Explanations and Their Theoretical Embeddedness,” European Journal of Transport and Infrastructure Research, 10 (1): 518. Link to published article: <https://arxiv.org/ftp/arxiv/papers/1307/1307.2176.pdf>

¹⁵ The UK National Ecosystem Assessment (UK NEA) was the first analysis of the UK's natural environment in terms of the benefits it provides to society and continuing economic prosperity. <http://uknea.unep-wcmc.org/>

a) The Sensitivity Analysis

- Section 7.3.2 highlights that *“under a low traffic growth scenario, the benefits of the scheme are reduced such that the initial BCR for the scheme falls slightly below one to 0.94”* (this BCR still does not take account of VAT, maintenance and inflation). This projection of low growth is a real possibility considering the significant economic uncertainty around Brexit.¹⁶
- Section 7.4.2 states *“in the scenario that tolls are removed, the Initial BCR for the scheme increases to 1.83”* because it states that toll removal is *“the publicly stated position of many Welsh Assembly members who consider the tolls to be a tax on the Welsh economy”*.

However, considering the economic uncertainty around Brexit, with the risk of current and future reductions to the Welsh Government’s block grant, it is equally possible that the tolls remain at the present value or go up. However, that scenario was not modelled.

27. The Environment and Sustainability Committee of the last Welsh Assembly (2011 – 2016) held an inquiry into the M4. The Report states ***“it is difficult to conclude on the basis of current information that a convincing case for the long-term value for money of this potential investment has yet been made”***. I believe that this statement still holds true.

Conclusion

28. It is my considered opinion that if the rationale for an M4 Relief Road is one of economic development it is misguided, being based on no substantive evidence base. Whilst there is certainly a problem with existing M4 provision, the costs of congestion (which are suffered to a similar or often worse degree by other UK conurbations) do not justify the very significant investment in the Black Route. Neither is there any evidence of the ‘catalytic’ effects on mobile investment that are often held to emerge from better connectivity – indeed we are already outperforming in this area. I also consider that for the reasons outlined above, the Black Route is a very poor use of Wales’ new (but limited) capacity to borrow, and evidence suggests the project is very unlikely to come in at budget. In summary, a rigorous ‘blank sheet of paper’ approach to the developmental use of any new borrowing powers would be very unlikely to place a £1bn+ road at the top of the list.

¹⁶ <http://www.independent.co.uk/news/uk/politics/brexit-latest-uk-economy-reports-future-uncertain-a7321071.html>

