Small scale, big impact

Infrastructure and economic regeneration

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Balfour Beatty

About Balfour Beatty

Balfour Beatty is a leading international infrastructure group. With 15,000 employees across the UK, Balfour Beatty finances, develops, delivers and maintains the increasingly complex infrastructure that underpins the UK's daily life. Delivering projects across transportation, power and utility systems, social and commercial buildings: from Crossrail and the Channel Tunnel Rail link, Heathrow T2b to the M25, M60, M3 and M4/M5; Sellafield and soon Hinkley C nuclear facilities; to the Olympics Aquatic Centre and Olympic Stadium Transformation.

We also have significant experience and understanding of the links between infrastructure investment and regeneration and economic growth. Leo Quinn, Chief Executive of Balfour Beatty, is a member of the Department for Business, Energy and Industrial Strategy's Construction Leadership Council (CLC) and leads the work stream on skills. The CLC draws together a number of senior business people from across the construction supply chain to provide leadership to help transform the UK construction industry and position it as a driver of productivity across the economy.

Executive summary

The links between infrastructure and economic growth are well documented. That is why the International Monetary Fund advised in 2013[1] – when the UK economy seemed to be slowing rapidly during the Eurozone crisis – that the Treasury should implement a carefully targeted infrastructure-based fiscal stimulus. Government investment is likely to be more powerful than other measures in providing such a stimulus, as the economy typically gets a greater boost per pound from direct spending.

Indeed, the UK is unusual among advanced economies in the extent to which it relies on the private sector to finance and provide infrastructure. About two thirds of investment in the pipeline is expected to be financed from the private sector, a fifth from public sources and the rest from a mix of public and private finance. Energy sector projects (the most significant in value among the £375 billion) are planned to be almost entirely privately financed. Transport projects (the second largest planned infrastructure investment) are expected to be financed roughly equally through public funds and public-private partnerships[2].

Balfour Beatty's view is that the Government could take advantage of the current ultra-low government borrowing costs to finance spending on infrastructure, such as roads, railways, schools and hospitals. We believe that this should be spent on the kind of local infrastructure spending that would result in economic activity nationwide, ideally on 'shovel ready' projects that can demonstrate they will deliver homes and jobs over the next four or five years.

Any such stimulus should provide maximum value for money to the taxpayer by bringing about a longer-term structural contribution to the economy for example, addressing congestion on the roads or improving energy and communications capability to help businesses across the country thrive and helping deliver the Prime Minister's aim to create a country – and an economy – that "works for everyone".

The Chancellor said in September that a fiscal boost would be through measures which "not only deliver short-term demand stimulus but also address longer-term structural problems in the economy". What this means in reality, is that there will be a new two-part test to determine the viability of any new infrastructure investment:

- Does the project provide short-term demand?
- Does it address economic structural problems by improving productivity and growth rates?

If direct spending can be focused on short-to medium-term projects which tackle bottlenecks in the economy and boost the UK's supply potential, for example, rail improvements in the north of England, such as electrification of the Manchester to York railway which is long-overdue and has an obvious need, we believe that it could provide both a short- and long-term economic boost and benefit future generations.

We therefore welcome the Chancellor's remarks to the Economic Affairs Committee that the Government will be looking at modest, rapidly deliverable investments in infrastructure schemes on roads and railways in order to provide a fiscal stimulus. Such projects could play a pivotal role in boosting economic performance and creating employment opportunities.

We believe it is right that such schemes are brought forward alongside existing commitments to larger scale projects such as HS2 and Hinkley Point and proposals for a new trans-Pennine road tunnel linking Manchester and Sheffield, especially since infrastructure expertise may become an even more important export for the UK post-Brexit. A solid project pipeline and policy and funding certainty are therefore key.

[1] International Monetary Fund, Annual Health Check, May 2013
[2] HM Treasury, 2013

Indeed, mega projects and smaller projects are symbiotic in more ways than one. As well as mega projects, such as new HS2 terminals for example, needing smaller schemes such as new roads, in order to ensure that they are accessible, infrastructure companies such as Balfour Beatty use more modest sized schemes to recruit and train skilled workers in the short term so the expertise is available for mega projects tomorrow. This approach will become increasingly relevant as we move towards Brexit, as our ability to rely on EU nationals is uncertain.

However, this investment should not be directed solely towards new infrastructure. Maintenance also generates significant economic benefits and repairing and improving local roads, railways and flood assets for example, as well as public realm work to support regeneration, could help local areas and prioritise the use of UK manufacturers. Local infrastructure investment can also generate results for the economy in terms of employment and communities.

In reality Whitehall struggles to find smaller scale, quickly implementable projects because the most valuable infrastructure such as broadband upgrades or new energy schemes take years to prepare for investment, do not require direct taxpayer money, and are largely driven by the confidence of the private sector. The only infrastructure where government still has a direct lever to pull are those projects which receive direct taxpayer investment, such as road and rail schemes.

Spend need not be restricted to road and rail however. There are a number of 'shovel-ready' flood defence schemes across the UK, for example, the £190 million flood alleviation scheme in Leeds, which could also be brought forward relatively quickly. More than five million homes in England – one in six properties – are at risk of flooding[3] and according to meteorological records, six of the seven wettest years have occurred since the year 2000[4]. The impacts of flooding and coastal changes in the UK are already significant and expected to increase. Meanwhile, the cost to the UK economy of flood damage, both in terms of the effect on homeowners and business, far outweighs the infrastructure costs.

The state's role in other areas, such as delivering new affordable houses to help solve the housing crisis could also be reconsidered. In addition to direct spend on medium sized schemes, we would therefore welcome the additional incentives for the private sector to build, including the housing construction and special infrastructure bonds currently under discussion.

[3] Environment Agency, Flooding in England: A National Assessment of Flood Risk, 2009
[4] Met Office, 2016

Recommendations

1. Any fiscal stimulus must provide maximum value for money to the taxpayer by bringing about a longer-term structural contribution to the economy for example, addressing congestion on the roads or improving energy and communications capability to help businesses across the country thrive.
2. A solid project pipeline and funding and policy certainty are key to the success of a 'small scale, big impact' strategy.
3. Fiscal stimulus should not be directed solely towards new infrastructure. Maintenance also generates significant economic benefits and repairing and improving local roads, railways and flood assets for example, as well as public realm work to support regeneration, could help local areas and prioritise the use of UK manufacturers.
4. Small and medium sized schemes can be held back by planning and approval processes for years. There is still more to be done to ensure that the planning system is operating effectively.
5. The infrastructure industry relies heavily on skilled labour from across the EU. An early and integrated policy response to both retain the skills of those who have migrated here and to ensure that the UK remains an attractive place for talented people to reside is essential.
6. There are also challenges relating to retention of skilled workers due, for example, to gaps between projects. For instance, 2018 will see a hiatus in the more modest sized rail projects due to the regulatory timetable. There is therefore a risk that people will drop out of the industry at a time when it should be building rail skills and capability in advance of schemes such as HS2. There may be a case for looking at how Network Rail could keep the pipeline of investment going rather than having to wait for the next regulatory settlement.
7. Government could quickly accelerate procurement across the public sector by making PAS 91 mandatory for local government procurement.
8. In order to accelerate procurement and achieve value for money, local authorities could also consider using a single supplier framework. With OJEU and other tendering processes already completed, the frameworks result in time and cost savings by avoiding the often time-consuming and costly procurement processes for each project.
9. In a number of infrastructure-related areas, the way the impact of the scheme and therefore its value is calculated means that some schemes are automatically cancelled out. For example in terms of flood defences, the value of assets protected is a key element in the economic formula for deciding where taxpayers money should be spent, skewing the system towards wealthier areas where property prices are higher. Alternative economic modelling should be considered, which makes a more robust economic case for infrastructure investment more broadly across the country.
10. Research into new methods for gaining a full picture of the wider economic development and regeneration benefits associated with infrastructure projects should continue.

Smaller and 'shovel-ready' schemes

Mega infrastructure projects, for example, High Speed 2 or the Thames Tideway Tunnel, take time to plan and administer. Any positive benefits to companies and the economy more broadly from, for example, deciding to build a new bridge, motorway or flood asset tend not to be seen for many years. However, smaller and medium sized projects, such as rail schemes, bypasses, road maintenance and housing developments can have a significant short-term impact in terms of jobs and real spending.

The term 'shovel ready' describes schemes where design, planning and engineering is advanced enough that with sufficient funding, construction can begin quickly. Infrastructure investment does not happen in the short term. Shovel-ready projects actually take years to plan. However, the National Infrastructure Pipeline has already identified more than £400 billion of proposed works and over the next four years around £20 billion of road works and £50 billion of rail contracts are due to commence. Some of these could be accelerated. Other options for schemes that could be implemented quickly:

- Road congestion costs the British economy about £2 billion a year. That could rise to £8.6 billion by 2040 without intervention, according to a recent report by the National Infrastructure Commission[5]. The RAC Foundation identified nearly 100 different motorway and main road schemes which have been evaluated by the Department for Transport as having high cost-benefit ratios[6]. While some of the schemes have gone ahead since the report was produced, others have been unable to proceed due to a lack of funding. Reconsidering schemes such as Sunderland Central Route, the Waverley Link Road and the M54 to M6 / M6 Toll Link Road might be a good place to start when considering which moderate size schemes to build, as most of them would address bottlenecks and promote growth in areas across the country.
- Continuation of the Priority Schools Building Programme (PSBP) is a good example of an infrastructure programme which can start immediately. School building and refurbishment is quick to initiate and can be relatively small scale due to modular design and limited planning permissions. There were 261 successful applications for the PSBP funding in 2014 out of 580 eligible schemes. The Government could choose the best of the remaining 319 eligible applicants to take forward quickly.
- With passenger usage on railways currently experiencing strong growth, forecast to continue for the next 30 years and many stations built more than 100 years ago, there is significant demand for investment in stations. Alongside a continued programme of modernisation and electrification of the railways, extending platform length is a good way of meeting both of the Chancellor's tests. It allows the introduction of longer trains that increase capacity, reduce overcrowding and help to meet growing passenger demand for example on routes such as between Birmingham and Stansted Airport/Cambridge via Leicester, Norwich to Liverpool via Nottingham and Sheffield, Southampton/ Reading to Newcastle via Derby, and Plymouth to Edinburgh/ Glasgow via Derby.
- Another option for investment would be to join up infrastructure to regional airports, many of which, including Leeds Bradford, Birmingham, Manchester and Luton, are growing. This would include better rail links and improved roads to reduce congestion, encouraging people to use these airports and taking some of the pressure off Heathrow and Gatwick.
- There are also areas where a small number of infrastructure improvements taken together could make a significant difference to the local economy. For example, in the south west, 'dualling' the 8.7 mile section of the A30 between Carland Cross and Chiverton Cross to address a key bottleneck at the cost of £280m; improving the mainline rail line to increase resilience and transport times; and an extension of the Cornwall Airport public service obligation (used to fund outlying routes) would have a major impact on the connectivity of the region and businesses' ability to access key markets.
- London Underground is made up of 11 lines, around 270 stations and approximately 250 miles of track. London Underground passengers take 1.34 billion journeys a year[7]. Speeding up or expanding the huge programme of upgrading and modernisation of London Underground infrastructure to improve commute times and productivity and to continue to attract tourists would be a sound investment. Maximising capacity from the existing network in this way improves safety and reliability as well as improving the customer experience.
- Upgrading the rail link to Felixstowe docks in Suffolk, Britain's largest container rail terminal, making it easier to import and export goods and easing congestion on the roads by getting freight off the roads to the port would also represent a good investment.
- There are a number of flood defence schemes which could be reinstated, ensuring a positive impact on the growth and regeneration of a range of towns and cities. These include for example, the Leeds, flood alleviation scheme which has already seen some additional funding in the 2016 Budget as part of a £150 million package that aimed to look at flood defence schemes across Leeds, York, Calder Valley, Carlisle and wider Cumbria. However, the original fund for the full Leeds scheme was £180 million in 2011.

We believe it would send a strong signal if the green light were given to the myriad transport and other projects which are currently awaiting funding.

[5] National Infrastructure Commission, National Needs Assessment, October 2016
[6] RAC Foundation, Providing and Funding Strategic Roads, November 2011

[7] TFL, Facts and Figures, 2016

Complementary infrastructure

Balfour Beatty believes that it should not be a choice between big and small schemes: the two complement each other and both are necessary. For example, larger schemes such as airports and new railway stations, are unlikely to be successful without the infrastructure to enable people to access them.

Major infrastructure projects are frequently described as 'not shovel ready' and, while this is true in the literal sense of the phrase, progress on longer term projects does also have a short term stimulus value. Infrastructure projects are likely to involve expenditures which spread out over a long time and though concentrated in the construction phase, do involve spending from the moment they are commissioned. Large-scale construction projects employ significant numbers of people in planning phases, requiring experts to undertake cost analysis, land acquisition, design, engineering, environmental reviews and financing work. For major infrastructure projects, such as motorways construction and water utility projects, the initial rate of spending can be as high as 25% of the construction phase funding during the initial years.

Progress on major national schemes also has a powerful effect on confidence in the rest of the sector. According to the UK Contractors Group, "early and visible wins" on the 40 priority infrastructure schemes identified by the Government, could make a huge difference in restoring confidence to the infrastructure sector and would create a level of certainty for the future. This would generate new investment in the longer term. There must now be evidence of the schemes from the national infrastructure pipeline coming to market. There are steps that Government could take to support these projects whilst they are going through the development phase. In particular, there would be significant benefit in establishing a programme of Industry/Government co-funded pre-construction workforce training for each of the major projects such as the nuclear new build projects and the Thames tunnel. This would have an immediate impact on local employment and supply chains, while providing a clear demonstration of Government commitment to the project.

There is also a direct link between smaller and medium sized schemes and apacity. The infrastructure industry relies heavily on its workforce and finding and retaining skilled people is one of the biggest challenges that many companies face. With insufficient people entering the industry, it is imperative that we retain the skilled workers we have. Companies such as Balfour Beatty use smaller schemes to train the work force and to keep skilled workers up to date with the latest techniques in between working on larger projects, making mega projects and more modest schemes symbiotic.

Obstacles to delivery

Planning

In terms of getting schemes underway as quickly as possible, it is important to note that it remains difficult to get projects through the planning process and past local objections to construction. While the small number of mega infrastructure projects are approved centrally, the vast majority of construction schemes are determined by local councils. The National Planning Policy Framework cut an enormous amount of red tape, but there is still more to be done and small and medium sized schemes can be held back by planning and approval processes for years.

At the same time, council planning departments, which have to deliver local planning policy and determine planning applications, have long complained of being under-resourced, which is likely to get worse as budgets continue to be constrained.

We believe that there is more that needs to be done to ensure that the planning system is made efficient, enabling construction and growth, while protecting the environment and the interests of local communities.

Capacity in the infrastructure industry

A key challenge lies in the construction industry's capacity to build the required infrastructure. There is a skills shortage in the infrastructure industry and many companies of all sizes are already finding it difficult to recruit enough skilled staff. In areas such as the infrastructure industry, success is contingent on being able to access and retain highly skilled individuals. Approximately 2.2 million EU nationals work in the UK[8]. Free movement of labour in the EU has allowed us to find the skilled staff we cannot currently source in the UK. Given the number of major infrastructure projects in the pipeline, uncertainty around the free movement of labour could cause the industry recruitment and staffing difficulties and may increase costs where demand for labour outstrips supply and the subsequent risk of project delays. An early and integrated policy response to both retain the skills of those who have migrated here and to ensure that the UK remains an attractive place for talented people to reside is essential.

We should also seek to address the skills shortage in the UK directly, by continuing to support the upskilling of our own workforce. In this vein, we welcome Government's plans to increase the number of apprentices by 3 million and introduce the Apprenticeship Levy. Balfour Beatty has taken the initiative in this area by being a long standing member of The 5% Club, an employer led organization set up by our Chief Executive Leo Quinn three years ago, aiming to address the skills gap by getting more young people into earn to learn opportunities, encourage businesses to take the lead on training and promote apprenticeships as a positive career decision. However, we do not believe that the apprenticeship levy alone will be enough to meet the shortfall in skilled workers the infrastructure industry needs.

There are also challenges relating to retention due, for example, to gaps between projects. For instance, 2018 will see a hiatus in the more modest sized rail projects due to the regulatory timetable. There is therefore a risk that people will drop out of the industry at a time when it should be building rail skills and capability in advance of schemes such as HS2. There may be a case for looking at how Network Rail could keep the pipeline of investment going rather than having to wait for the next regulatory settlement.

Of course, some argue that the skills shortage will be addressed as the industry modernises and as new methods of delivery such as modular building become mainstream. However, if capacity is not addressed alongside unblocking planning and sorting out the financing of infrastructure schemes, the result will be an increase in construction costs, which will be counter-productive and in itself will inhibit delivery.

Lengthy procurement processes

Lengthy procurement processes can slow down infrastructure project. However, small reforms on the procurement side can have major impacts on the timescales for bringing projects to market. Historically, during recessionary periods procurement processes become more protracted, as clients believe that they can secure better value by adopting a more drawn out approach. In reality, any gains are eliminated by cost inflation during the delay. The Government introduced PAS 91 (a pre-qualification standard) to speed up procurement and cut out bureaucracy. However, this seems to be scarcely used amongst key public sector clients.

Government could quickly accelerate procurement across the public sector by making PAS 91 mandatory for local government. However, it is clear that improved procurement processes will speed up the flow of infrastructure projects from commissioning to construction and to delivering stimulus to the economy.

[8] UK Labour Market Statistical Bulletin, Office for National Statistics, July 2016

In order to accelerate procurement and achieve value for money, local authorities could also consider using a single supplier framework such as those offered by Scape Group. These frameworks involve a carefully controlled tender process that complies with OJEU and Public Contract Regulation requirements, resulting in the selection of a single supplier to deliver any project over a specified amount during an agreed timeframe. With OJEU and other tendering processes already completed, the frameworks result in time and cost savings by avoiding the often time-consuming and costly procurement processes for each project. This means that schemes can begin more quickly and will be delivered by an organisation that is already familiar with the supply chain and the local area.

Calculating the value of schemes

In a number of infrastructure-related areas, the way the impact of the scheme and therefore its value is calculated means that some schemes are automatically cancelled out. For example in terms of flood defences, the value of assets protected is a key element in the economic formula for deciding where taxpayers money should be spent, skewing the system towards wealthier areas where property prices are higher. This calculation therefore works against the Government's priority of rebalancing the economy. It also does not adequately take into account the economic growth that could be unlocked by undertaking the works.

Similarly, transport infrastructure spending on the area that makes up 'the North' has historically been lower than in the south east, and continues to be so. For example, in terms of expenditure per head, it was £166 for the North in 2013/14, half that of London and below the national average of £189[9]. Crossrail alone, for example, has been allocated nine times more funding than all the rail projects from the North's three regions combined.

Strategic transport investment is generally allocated on a scheme-by-scheme basis and is subject to rigid scheme development and value for money calculations. In our experience, these assessments tend to underestimate the demand and economic and regeneration benefits new transport investment could bring. There are many examples where this has been the case, from the InterCity 125 rail services, to HS1 and Thameslink.

On the basis of these calculations, investment most often flows to densely populated areas where the maximum numbers of people

and businesses benefit from it. Less densely populated regions therefore miss out and the North as a whole consequently attracts disproportionately low levels of government investment in its transport infrastructure. Low both in relation to London and, more importantly, in comparison with city-regions in continental Europe.

In the absence of full devolution in the short-term, alternative economic modelling should be considered, which makes a more robust economic case for infrastructure investment more broadly across the country. We believe that research into new methods for gaining a full picture of the wider economic development and regeneration benefits associated with infrastructure projects should continue.

[9] For example, HM Government, 2013 Government Infrastructure Plan and Volterra, Transport's role in Regeneration & Economic Development, January 2014

Conclusion

Balfour Beatty believes that it is right to take action now to stimulate economic growth by investing in small and medium sized infrastructure schemes that will have lasting economic benefits.

There are a number of road, rail, public realm improvements, flood defence schemes and construction projects that meet the tests set out by the Chancellor which have already been considered and in many cases approved, but which lacked the funding to proceed. These should now be dusted off and reconsidered with a view to implementing those which will have the maximum impact.

However, this investment should not be undertaken at the expense of larger, strategically important national schemes. While it may take longer to reap the full economic benefit of schemes such as HS2 or a new runway in the south east, they are nonetheless essential for the future success of the UK economy, especially post-Brexit.

Finally, there are a number of challenges which must be addressed in order for the 'small scale big impact' strategy to succeed, including planning, procurement and capacity issues and not least, the way the value of schemes is calculated. These should be looked at with urgency in order to ensure the country is given the economic boost it needs.

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