Paying for Crossrail 2

July 2018

Executive Summary

If London is to grow sustainably and remain globally competitive, then its transport system also needs to grow to keep London moving. Crossrail 2 was first identified as a priority for London back in 1974, alongside a new East-West Crossrail line. With Crossrail due to come into operation from the end of 2018, London business now sees Crossrail 2 as the priority major new transport scheme for London and the south east for the 2020s.

The case for Crossrail 2

Crossrail 2 will increase the capital's rail capacity by around 10 per cent, enabling an additional 270,000 people to travel into central London each peak-time morning. It will tackle congestion on the South West and West Anglia Main lines and key tube lines, and at major stations such as Waterloo, Victoria and Euston. It will also cut journey times across southern England from the Solent to the Wash. In total, around a third of the transport benefits will fall to users starting or ending their journeys outside London.

Yet Crossrail 2 is much more than just a transformational transport project. It could simultaneously support significant economic growth, help address London and the wider south east's housing shortage and provide new jobs.

Crossrail 2 could unlock an additional 200,000 new homes across London and the south east, 30 per cent of which could be outside London's boundaries.

200,000

new homes across London and the south east

Experience from Crossrail 1 indicates that a sizeable proportion of these homes would be built in advance of the new line opening.

Crossrail 2 has cross-party support in London and the south east and backing across the London and wider business community. It is supported by the Mayor of London, has been endorsed by the National Infrastructure Commission and its case has been acknowledged by government. We believe Crossrail 2 is an essential part of a national transport investment programme for the 2020s, alongside significant improvements to rail links across the North and in other English cities. With the scheme projected to cost somewhere between £25bn to £30bn, the key challenge facing us now is paying for it.

The funding and financing challenge

To address this challenge an Independent Affordability Review into Crossrail 2, chaired by Mike Gerrard, has been set up to report to the Transport Secretary and Mayor in summer 2018. The review will explore options for improving the affordability of the scheme in three areas: cost and scope, funding and financing. It is likely that action will be required on each of these fronts for Crossrail 2 to proceed, but at the very least some additional sources of funding are likely to be required.

This report provides a view from London business as to just how such a fair and affordable funding and financing package for Crossrail 2 could now be constructed. It builds on the successful experience of developing a mixed funding package for Crossrail 1, on TfL's previous work on Crossrail 2 funding and financing, and on London First's own earlier report on funding Crossrail 2 from 2014[1]. London business was instrumental in helping to develop a fair funding package and forge agreement for Crossrail 1 to proceed. Our ambition is to now do the same for Crossrail 2.

Recreating the Crossrail 1 funding package

The logical start point is to draw on the successful experience of the Crossrail 1 funding package. This gives us several credible, good-quality funding streams for Crossrail 2:

- **Crossrail 2 net operating surplus** – once in operation, Crossrail 2 will generate a surplus from operations. As with Crossrail 1, this projected surplus could be used to fund debt that would part-finance the scheme's construction.
- **Business Rate Supplement** – medium-sized and large businesses are contributing towards Crossrail 1 through a Business Rate Supplement (BRS) at 2 pence per £ of rateable value. This provided around £4.1 billion towards the costs of

[1] Funding Crossrail 2, a report from London First's Crossrail 2 Taskforce, London First, February 2014.

the project. BRS revenues are helping to support additional borrowing by the GLA, which is forecast to have been paid down fully in the early 2030s. Continuing with the BRS beyond this date could help support additional borrowing to help pay for the construction of Crossrail 2.

- **Mayoral Community Infrastructure Levy (MCIL)** – Developer contributions have provided £600m worth of funding for Crossrail 1, primarily through the MCIL. This is an upfront charge on development applied to net additional commercial and residential floor space granted planning permission in London. TfL has consulted on an enhanced MCIL2 to help fund Crossrail 2, which would supersede MCIL1 and the associated planning obligation/section 106 charge scheme from April 2019. TfL's Crossrail 2 proposals then assume a further stepped increase in MCIL rates in the mid-2020s. Taken together this would enable a significantly greater contribution from MCIL to Crossrail 2 than was the case for Crossrail 1.
- **Over station development** – As with Crossrail 1, a funding contribution can be made through development gain from land acquired for the project, including over-site development at stations on the route. Learning from Crossrail 1 on, for example, density of development, TfL believes a higher level of contribution could come from this source for Crossrail 2.

London business believes that these four funding options should form the core of any Crossrail 2 funding package. TfL estimates that these funding streams could provide around half of the overall funding needed for the project. However, only part of this funding is available in the 2020s when construction will be at its peak. With central government funding constrained and TfL and the GLA near the limits of their borrowing capacity, government has challenged London to fund half of the scheme "during construction".

Meeting the government's challenge will be tough, as it requires London to find additional funding and/or finance during the construction period. Putting a precise figure on the level of additional funding required is a matter for the Independent Affordability Review, but to give a broad order of magnitude, we estimate that new revenue streams in the order of a couple of hundred million pounds per annum during construction over the 2020s would help provide sufficient confidence to enable the full scheme to go ahead.

Additional funding options for Crossrail 2

In light of the government's challenge to identify additional funding and financing options, London First established a working group of its members to explore potential options. London businesses are already making significant contributions towards Crossrail 1 and are expected to continue doing so under the likely core funding package for Crossrail 2 through both a continuation of the existing BRS and the continued (and higher) Mayoral CIL. However, the government has been clear on the need to look beyond this package, and if Crossrail 2 is now to happen, supporters of the scheme must explore possible components of a funding package which all parties might ultimately be prepared to live with, in exchange for the significant transport improvements Crossrail 2 would bring.

Those funding options which the working group identified as having greatest potential to help support Crossrail 2 are set out below. For any funding package to be affordable, equitable and sustainable, it will need to knit together funding contributions from across the various beneficiaries of the scheme, including but not exclusively, business. The options identified below should be seen as a menu from which any final funding package could potentially be negotiated.

The working group identified three 'tried and tested' funding options:

- **Fares** – One of the biggest beneficiaries of the scheme will be those passengers who use it. A one-off London-wide fares rise of 1% on Tube and TfL rail in the early 2020s would generate around £30m per annum. A similar rise on South Western Railway and West Anglia Main Line services could generate an additional £5–10m p.a. These national rail passengers will also see their services improve significantly, as moving existing suburban services onto Crossrail 2 will free up capacity to run quicker and more frequent commuter services from further afield.
- **Council tax** – Given the benefits to residents in London and the south east, a funding contribution could be made through council tax bills, as was done for the London Olympics. A Crossrail 2 precept of £40 for a band D London property – less than a pound a week – could generate around £150m p.a. A similar precept for districts in Hertfordshire and Surrey with a Crossrail 2 station could raise around £8.5m p.a.
- **Business rates** – Businesses are already expected to make a significant contribution through the BRS as part of the core funding package, so securing further contributions will be difficult. It was put to the group that as part of a wider package one possible option would be for a higher BRS in the 2020s to help provide upfront funding for the scheme. The existing BRS is forecast to bring in £270m p.a. in the 2020s – so an extra 0.5p increase would be worth around £68m p.a.

Beyond this, the working group also examined some other sources of funding and financing:

- **Station development** – The working group was struck by the successful experience of Canary Wharf station on Crossrail 1, which saw Canary Wharf group take on responsibility for the costs of constructing the station box and development overhead. Similar deals for Crossrail 2, particularly for the central London stations, could materially reduce the upfront construction costs of the scheme – lessening the pressure for new funding streams.
- **Sharing in future growth** – Crossrail 2 will generate significant uplifts in future tax revenues for the Exchequer, such as business rates and stamp duty, which would simply not occur without the scheme. A proportion of these uplifts could be ringfenced to help pay for the scheme, as was the case with the Northern Line Extension to Battersea. Giving London government a share in future tax uplifts would also be a strong incentive to maximise development and economic activity along the route.
- **Land value capture** – new transport schemes generate windfall gains for land and property owners along the route. TfL has identified a number of potential new mechanisms for capturing value uplifts, including a transport premium charge. While such measures could in principle release substantial additional resources for transport investment, they face significant practical and political obstacles before they could be implemented. The working group therefore encourages the Review to explore and develop these measures further.

Financing options

As well as exploring potential additional sources of funding for Crossrail 2, the working group identified scope for greater creativity around financing options to help bridge the upfront need for cash during construction. Potential options include:

- **Re-assessing existing financing assumptions** – the working group felt that some of the existing financing assumptions being used for Crossrail 2 were excessively cautious and resulting in unnecessary costs being added on to the scheme.
- **Use of private finance** – by following industry norms, which see rolling stock and depots owned by the private sector and leased to train operators, the upfront construction costs of the project could be reduced further. Other global cities have gone further still and used private finance for new tunnels and stations.
- **Asset sales** – upfront funding could also be released from the sale of existing publicly owned assets such as the Crossrail 1 tunnel (as happened with the HS1 high speed line). Selling the Crossrail 1 tunnel to long-term investors such as pension funds could release a significant sum which could be recycled to help pay for Crossrail 2.

Cost and scope

Although not considered in any detail by the working group, additional funding and financing options should be considered alongside measures to reduce the costs of the scheme, for example by drawing on the experience gained during construction of Crossrail 1. Changes to scope, timing and phasing could also have a role to play, though business would be very concerned about any proposals which undermined the core objectives and benefits of the scheme.

Conclusion

London business accepts that for a scheme of this scale London will need to help shoulder the funding burden, and we recognise government's challenge to London to pay for half of the cost during construction. London has greater scope to help fund transport infrastructure than other English cities and by doing so can help ensure that overall transport investment goes further in supporting transport improvements across the country as a whole.

Crossrail 2 would bring significant benefits to the UK economy, and to land and property owners and commuters across London and the south east, as well as businesses themselves. An affordable, equitable and sustainable funding package for Crossrail 2 must secure contributions from across these beneficiaries. A funding package should be diverse and broad-based, both for reasons of fairness and to maximise resilience to changing economic and political circumstances. We believe that evidence from London and cities beyond shows that people and businesses are willing to contribute towards transport improvements if money is ringfenced.

Following receipt of the Independent Affordability Review's findings in the summer, we encourage central and London government to provide a positive response to the Crossrail 2 business case by the end of 2018, as part of a wider package of national rail investment. This would enable a revised route consultation to take place next year, and a hybrid bill to be deposited by 2021. Detailed negotiations with business and other parties on the composition of a final funding package should take place alongside this process. Crossrail 2 could then open in the early 2030s, alongside and complementary to HS2, as recommended by the National Infrastructure Commission.

As London recovered from the financial crisis of 2008, Crossrail 1 represented an important vote of confidence in London's future. As Britain grapples with the transition to life outside the European Union, we believe giving the go-ahead to Crossrail 2 would send a powerful signal that London is determined to remain the best city in the world in which to do business.


BIG EASY
BAR-B-Q & CRABSHACK
COCKTAILS

1. CONTEXT

If London is to grow sustainably and remain globally competitive, then its transport system also needs to grow to keep London moving. Crossrail 2 – which has been developed from a scheme originally called the Chelsea-Hackney line – was first identified as a priority for London back in 1974, alongside a new East-West Crossrail line. With Crossrail due to come into operation from the end of 2018, Crossrail 2 is now widely acknowledged as the priority major new transport scheme for London and the south east for the coming decade.

Crossrail 2 is supported by the Mayor of London Sadiq Khan, as it was by his predecessor Boris Johnson. It is described as “essential” in the Mayor’s Transport Strategy, has been identified as a priority scheme by Network Rail and has been subjected to extensive analysis and consultation led by Transport for London (TfL), who submitted a detailed business case for the scheme to the Department for Transport (DfT) in March 2017. It has cross-party support in London and the south east and backing across the London and wider business community. It has been endorsed by the National Infrastructure Commission (NIC) who concluded that it “should be taken forward as a priority” (alongside rail improvements in northern England). Its case was acknowledged by the government in July 2017 (see box below).

Joint Statement by the Transport Secretary and Mayor of London on Crossrail 2

“Last week the Transport Secretary Chris Grayling and Mayor of London Sadiq Khan had a productive meeting to discuss the way forward for Crossrail 2. They agreed that there is no doubt London needs new infrastructure to support its growth and ensure it continues as the UK’s economic powerhouse – boosting productivity and attracting investment. While London has shown how it could pay for half of the scheme over its life, the Mayor and Transport Secretary want to see how London could fund half of the scheme during construction. They agree on the need to ensure a funding package which works for both London and the rest of the country and recognises other priorities, but also delivers the new capacity and connectivity that London needs.”

The key challenge now facing Crossrail 2, with the most recent public scheme option estimated to cost circa £30bn (2014 prices), is its funding and financing. This was emphasised by HM Treasury in the November 2017 Budget: “The government recognises the need for investment in London’s infrastructure to support its growth, and will continue to work with Transport for London on developing fair and affordable plans for Crossrail 2, including through an independent review of funding and financing”. An Independent Affordability Review into Crossrail 2, led by Mike Gerrard, is presently underway and due to report in summer 2018.

This report provides a view from London business as to just how such a fair and affordable funding and financing package for Crossrail 2 could now be constructed. It builds on the successful experience of developing a mixed funding package for Crossrail 1, on TfL’s previous work on Crossrail 2 funding and financing, and on London First’s own earlier report on funding Crossrail 2 from 2014. London business was instrumental in helping to develop a fair funding package and forge agreement for Crossrail 1 to proceed. Our ambition is to now do the same for Crossrail 2.

2. THE CASE FOR CROSSRAIL 2

Before exploring the merits of potential funding and financing options, we first provide a short recap of why London business supports the case for Crossrail 2[2]. Crossrail 2 is a proposed new railway serving London and the wider south east. It would connect national rail networks in Surrey and Hertfordshire via new tunnels and stations between Wimbledon, Tottenham Hale and New Southgate, linking in with the underground, London Overground, Crossrail, national and international rail services. The map on p.10 shows the route at the time of the most recent public consultation in autumn 2015. (We understand that TfL has subsequently proposed some changes to its preferred route option, based on the recommendations of the National Infrastructure Commission and its own further feasibility work).

Why Crossrail 2 is needed

London and the south east is continuing to grow, resulting in worsening overcrowding and congestion on rail and the Tube. Planned improvements, like Crossrail 1, and Tube signalling and rolling stock upgrades, will ease the pressure over the coming decade. But they will not in themselves be enough, particularly on the SW-NE corridor running through London. On some routes, such as the Victoria Line, the maximum levels of achievable capacity have effectively already been reached. Unless overcrowding is addressed, London will increasingly be placed at a competitive disadvantage.

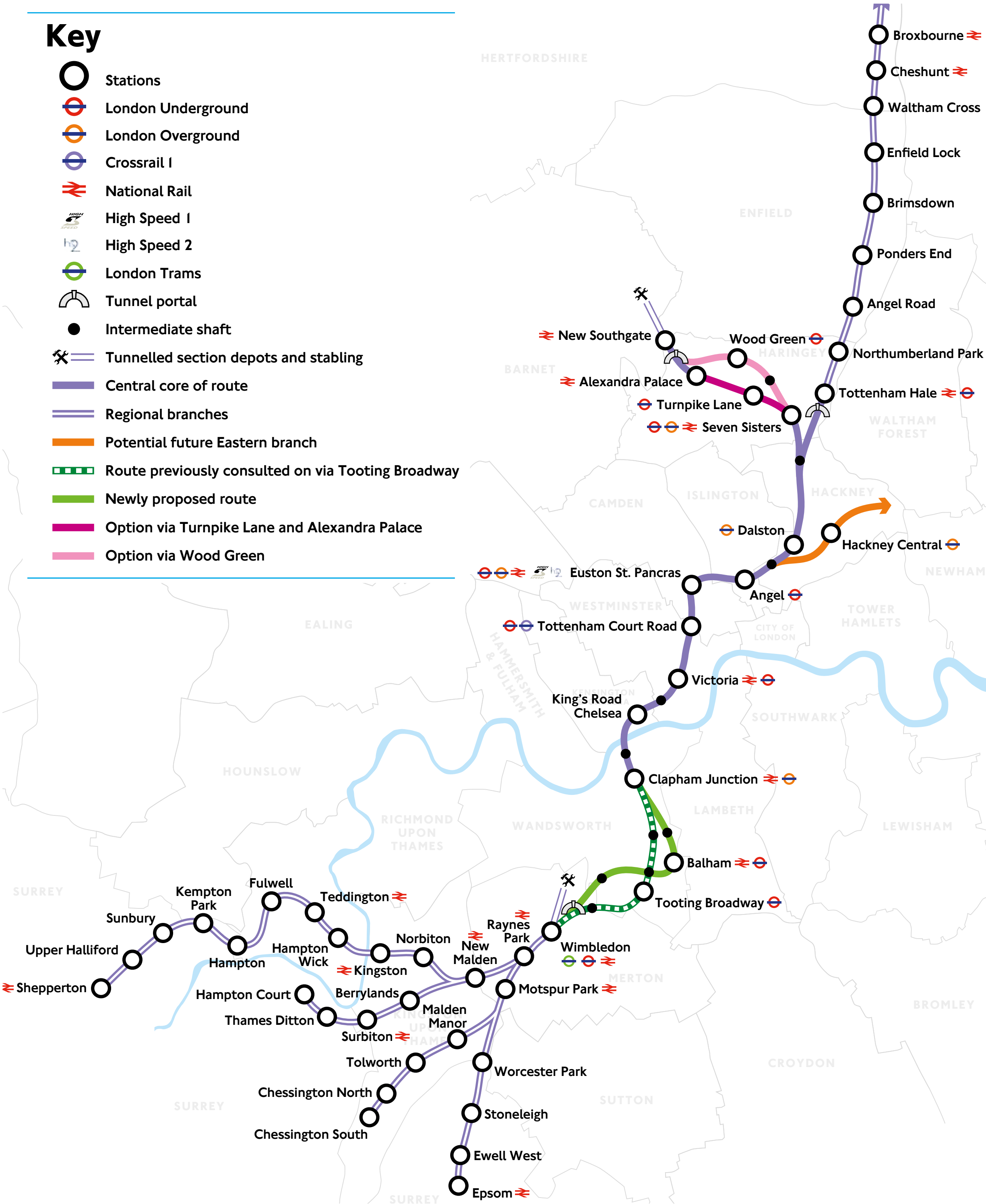
- On the Tube, overcrowding and station closures are an everyday occurrence already. This is particularly true on the Northern and Victoria Lines, and at key National Rail termini, where tens of thousands of passengers change trains each day. Notwithstanding other planned improvements, by 2030 TfL predicts that mass congestion will result in regular station closures and delays. Only new railways and platforms will address such bottlenecks.
- The South West Main Line into Waterloo is the busiest national rail corridor, accommodating nearly 20 per cent of London's total National Rail termini demand. On a like-for-like basis, it is also the most overcrowded. Even with planned improvements, by 2031 the worst crowding levels are predicted to be around five passengers standing per square metre.
- At Euston, unless we add more capacity, the tens of thousands of passengers arriving daily on HS2 will have to wait for several Victoria Line trains to pass before they can squeeze on to one.

Whilst most recent public transport demand forecasts have shown slight reductions in demand, principally in the off-peak, these are against a background of substantial and sustained growth in the long term. The Mayor's Transport Strategy has an aspiration for 80 per cent of all trips in London to be made on foot, by cycle, or using public transport by 2041. If this is to be achieved, more people will need to make more trips than ever before by public transport. In serving 45 stations and interchanging with all but three Tube lines and all but four National Rail routes, Crossrail 2 will have a positive effect right across the region.

The case for Crossrail 2 is not only a transport one. London's success is built on attracting talent – both from home and across the world. Yet London has a serious housing shortage, undermining its competitiveness. Analysis for the Mayor's draft London Plan shows that London needs to build at least 66,000 homes a year to sustain its population growth. However, it is currently building substantially below that rate. New transport infrastructure like Crossrail 2 can help unlock substantial new housing across London and the wider south east.

[2] See also Crossrail 2: Supporting London's Growth, Final report of London First's Crossrail 2 Taskforce, London First, February 2013 for our earlier work on this topic.

Crossrail 2 route



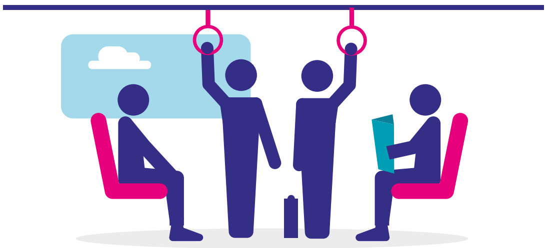
Subject to finalisation

What Crossrail 2 will deliver

Crossrail 2 will increase the capital's rail capacity by around 10 per cent, enabling an additional 270,000 people to travel in to central London in each morning peak. It will tackle congestion at key pinch points and transform the connectivity of the wider network.

Crossrail 2 will increase the capital's rail capacity by around

10%



- On the South West Main Line, it will free up space for around 15 more trains into Waterloo in the morning peak from Hampshire and Surrey – providing thousands of extra seats, on top of the more than 50 extra suburban trains into central London. It will also bring significant benefits to services relying on the congested West Anglia Main Line.
- Crossrail 2 will tackle Tube overcrowding, improve interchanges with key Tube lines, the Elizabeth Line, Overground and National Rail services, and bring more than 800 stations on the national rail network within just one interchange. In the future, planned station control measures, including closures, could be required at around 30 key stations. Crossrail 2 could remove the requirement at around 20 of them.
- Crossrail 2 will cut journey times across southern England from the Solent to the Wash. In total, around a third of the transport benefits will fall to users starting or ending their journeys outside London.
- Crossrail 2 will increase onward interchange capacity at Euston for the tens of thousands of additional passengers using HS2 phase 2 from 2033.

But Crossrail 2 is much more than just a transformational transport project. It could simultaneously support significant economic growth and future tax revenues, help address London and the wider south east's housing shortage and provide new jobs. With supportive planning policies, Crossrail 2 could unlock an additional 200,000 new homes across London and the south east, 30 per cent of which would be outside London's boundaries. Experience from Crossrail 1 and other projects indicates that a proportion of the associated homes would be built in advance of the new line opening.

Crossrail 2 should be an essential part of a national transport investment programme for the 2020s, alongside significant improvements to rail links across the north and other English cities.

Summary

Comparison with conceptual alternatives to Crossrail 2 shows that no other project tackles so many problems; extra seats on key Home Counties corridors, additional connectivity between key housing and employment centres, and unlocking chronic congestion on multiple routes, while boosting capacity on such a scale. Not proceeding with Crossrail 2 would still require significant transport investment to tackle rail and tube congestion hotspots, while only generating a fraction of the benefits. Crossrail 2 should be given the green light by government to proceed to a hybrid bill, enabling construction to begin in the early 2020s and allowing the scheme to open in the early 2030s as currently planned. Any delay to the project would place unbearable strain on the transport network, especially on the South West Main Line, key Tube lines and at HS2's terminus at Euston.

3. FUNDING AND FINANCING OPTIONS FOR CROSSRAIL 2

The critical role of transport infrastructure in supporting economic growth is now widely recognised by politicians and policymakers alike. Yet while the business case for investing in London's transport infrastructure is extremely strong, funding is always a challenge. Many of the costs of new transport infrastructure fall on TfL, while the benefits are widely spread across society, although many are captured in increased tax take by government.

Compared to its international peers, London has much lower fiscal and political autonomy and is highly dependent on national funding. Regardless of the strong business case for Crossrail 2, the Mayor of London does not have the capacity to fund and finance it himself. Funding from central government faces stiff competition from other priorities, including other cities and regions within the UK. Uniquely amongst English cities, London will therefore need to demonstrate that it can help shoulder a significant proportion of the funding burden of Crossrail 2 for it to go ahead alongside vital transport improvements in other parts of the country.

Revisiting the Crossrail 1 funding package for Crossrail 2

In identifying potential funding options for Crossrail 2, the logical start point is to draw on the successful experience of the Crossrail 1 mixed funding package. This was the approach taken in TfL's submission to the National Infrastructure Commission in February 2016[3], and gives us the following funding streams:

- **Crossrail 2 net operating surplus** – once in operation, Crossrail 2 will generate a surplus from operations (i.e. fares income less operating and maintenance costs) as additional capacity and connectivity increases the demand for travel, and new development is unlocked along the route corridor. As with Crossrail 1, this projected surplus could be used to fund debt that would part-finance the scheme's construction.
- **Business Rate Supplement (BRS)** – Medium-sized and large businesses are contributing towards Crossrail 1 through a Business Rate Supplement (BRS) at 2 pence per £ of rateable value. This provided around £4.1 billion towards the costs of the project. BRS revenues are helping to support additional borrowing by the GLA which is forecast to have been paid down fully in the early 2030s. It would be possible to extend the BRS significantly beyond this date (perhaps for around a further 40 years) to support additional borrowing to help pay for the construction of Crossrail 2.
- **Mayoral Community Infrastructure Levy (MCIL)** – Developer contributions have provided £600m worth of funding for Crossrail 1, primarily through the MCIL. This is an upfront charge on development applied to net additional commercial and residential floor space granted planning permission in London. TfL has consulted on an enhanced MCIL2 to help fund Crossrail 2. This would supersede MCIL1 and the associated planning obligation/section 106 charge scheme from April 2019. TfL's Crossrail 2 proposals then assume a further stepped increase in MCIL rates in the mid-2020s, as described in the recent consultation[4]. Taken together this would enable a significantly greater contribution from MCIL towards Crossrail 2 (including through borrowing against MCIL receipts post construction) than was the case for Crossrail 1.
- **Over station development** – As with Crossrail 1, a funding contribution can be made through development gain from land acquired for the project, including over-site development at stations on the route. Learning from Crossrail 1 on, for example, density of development, TfL assumes a higher level of contribution could come from this source for Crossrail 2.

Clearly, funding is only part of the equation. If scheme costs can be brought down through value engineering, construction and design innovation, and benchmarking against similar schemes, then the funding and financing challenge will be eased. Changes to scope, timing and phasing could also have a role to play, though London business would be very concerned about any proposals which risked undermining the core objectives and benefits of the scheme. For the purposes of this report, we assume that TfL can take out a proportion of the costs of the scheme. We also assume that the north-western branch to New Southgate will be taken forward as a later phase, as recommended by the National Infrastructure Commission. Other cost and phasing options will be assessed by the Independent Affordability Review into Crossrail 2, but are not considered further here.

Taken together, on a net present value basis, TfL estimate that reusing the core Crossrail 1 funding streams for Crossrail 2 could provide over half of the overall funding needed for the project over time. However, only a part of this funding is available in the 2020s, when construction will be at its peak. With central government funding constrained and TfL and the GLA near the limits of their borrowing capacity, government has challenged London to fund half of the scheme "during construction".

Meeting the government's challenge will be tough, as it requires 'London' to find additional funding during the construction period. Achieving this will require additional funding sources to be identified that generate sufficient reliable revenue streams during the 2020s, resilient to downside scenarios, that would cover the interest costs of the additional borrowing that would need to be undertaken (by TfL, the GLA or another entity) to fund half of the scheme's costs during construction. It also requires consideration of financing options which could help smooth funding pressures in a fair and

[3] Crossrail 2 NIC Supplementary Submission, February 2016.
[4] See https://www.london.gov.uk/sites/default/files/final_mcil2_viability_evidence_for_dcs.pdf, Section 12.

equitable way. Putting a precise figure on the level of additional funding required is a matter for the Independent Affordability Review, but to give a broad order of magnitude, we estimate that new revenue streams in the order of a couple of hundred million pounds per annum during construction over the 2020s would help provide sufficient confidence to enable the full scheme to go ahead.

£200 million

in new revenue streams would help enable the full scheme to go ahead

Additional funding options

In light of the government's challenge to identify additional funding and financing options beyond the core package, London First established a working group of its members to help explore potential options. We also discussed options through bilateral conversations and through roundtable meetings with a cross-section of business interests as well as with TfL and government (see the acknowledgements section at the end of this report).

The conclusions of our analysis are presented below. We have set out deliberately to present the pros and cons of different options in an objective way. London businesses are already making significant contributions towards Crossrail 1 and are expected to continue doing so under the likely core funding package for Crossrail 2 through both a continuation of the existing BRS and the continued (and higher) Mayoral CIL. However, the government has been clear on the need to look beyond this package and if Crossrail 2 is now to happen supporters of the scheme must explore possible components of a funding package which all parties might ultimately be prepared to live with, in exchange for the significant transport improvements Crossrail 2 would bring.

This report should therefore be seen as a contribution towards further thinking on funding and financing, particularly through the Independent Affordability Review into Crossrail 2, rather than as the final word on a definitive funding package at this stage. More detailed negotiations will be needed to develop and agree a fair and affordable package ahead of the submission of a hybrid bill. The key point at this stage is that potential options should not be discarded prematurely. Any successful package will need to knit together a number of distinct funding contributions from across the various beneficiaries of the scheme.

3.1 Fares

One of the biggest beneficiaries of Crossrail 2 will be those passengers who use it. Broader London and south east rail and Tube passengers will also see benefits given the significant congestion relief benefits that Crossrail 2 would bring to the overall London and south east transport network.

Following successive years of above-inflation increases, the Mayor of London has committed to freeze those fares set by the Mayor for this Mayoral term, so any fare increases are assumed not to come into effect until 2021 at the earliest.

A one-off London-wide fares rise of 1% on Underground and TfL rail would generate around £30m per annum, which would be rolled forward into the baseline for future years. Additional fares income could potentially support additional TfL borrowing for Crossrail 2.

Looking beyond the London boundary, a similar fare rise on South Western Railway and West Anglia Main Line services (which would benefit significantly from Crossrail 2) could generate an additional £5–10 million per annum, depending on the scope of services to which the increase was applied.

Pros	Cons
Contribution from prime beneficiaries – London & SE Tube and rail users	Unpopular with passengers, particularly in a period when incomes are being squeezed
Generates revenues up front	Risks of policy change under future Mayors or governments
Fares income reasonably stable and hence able to support borrowings	
Would require co-ordination and co-operation between Mayor and SoS	

3.2 Council Tax

Given the significant benefits Crossrail 2 would bring to residents in London and the wider SE, a funding contribution could also be made through council tax bills, as was the case for the London Olympics. Between 2006–07 and 2016/17 the GLA raised a council tax precept on residential properties across London specifically to help fund the Olympic and Paralympic Games. The annual precept amounted to £20 for a band D property whose average council tax was around £1300.

A Crossrail 2 precept of £40 for a band D London property – less than a pound a week – could generate around £150m per annum. Over a twelve-year period from the early 2020s this would generate around £1 billion in present value terms, or if extended beyond construction could support more than this through borrowing. One proposal put to us was that any increases in council tax should be skewed towards higher-value bands. This would not be possible under current legislation, but merits further exploration, as it could help strengthen the perceived equity of any funding package.

Given that residents along the route outside London will also benefit, a council tax precept in Hertfordshire and Surrey should also be considered. A similar level of precept for districts in these counties with Crossrail 2 stations would raise around £8.5m per annum, or £60m in present value terms. A case could also be made for seeking a contribution from areas beyond the Crossrail 2 route which will benefit from significantly improved transport services, though this would undoubtedly be more challenging politically.

Pros	Cons
Residents will benefit from transport improvements provided by Crossrail 2	Potentially unpopular with residents, particularly in a period when incomes are being squeezed
Generates stable revenues up front, capable of supporting borrowing	Council tax precept also being used to help pay for social care and policing
Powers already exist (although are subject to referendum provisions) – and were used for Olympics with limited opposition	Perceived fairness issues for residents further away from Crossrail 2 route. More targeted measures (e.g. just in certain boroughs) would require significant legislation.
	Doesn't directly capture land value uplifts in zones around stations

3.3 Business rates

London businesses are already expected to make a significant contribution through an extended BRS as part of the core funding package, so further contributions will be difficult. As part of a wider package, a possible option would be to consider a higher BRS from a defined point in the 2020s to provide additional upfront funding for the scheme. The existing BRS is forecast to bring in £270m per annum in the 2020s – so a 1p increase would be worth in the order of £135m per annum, while an extra 0.5p would be worth around £68m per annum.

Business support for any use of BRS for Crossrail 2 would of course be contingent on the precise scope and timetable of any scheme, as well as contributions also being made by other beneficiaries of the scheme. There is also a case for businesses on the route outside London contributing through local BRSs. This is more practically challenging and unlikely to raise significant sums, but worth further consideration as part of an equitable overall package.

BRS is forecast to bring in £270m per annum in the 2020s – so a 1p increase would be worth in the order of £135m per annum, while an extra 0.5p would be worth around £68m per annum.

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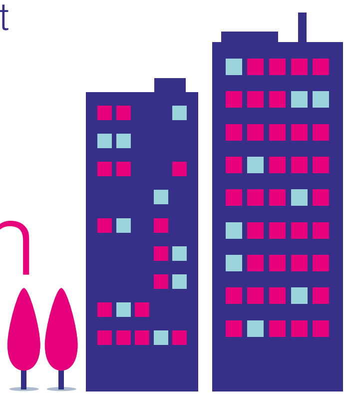


Pros	Cons
Generates revenues up front	Business rates more controversial and unpopular than a decade ago
Reliable income stream that can be borrowed against	Potential hit on London business competitiveness at time of Brexit, with particular impacts on certain sectors such as retail
	Would need legislation to allow additional BRS, which could include a business vote. Complex to extend beyond London

3.4 Development – MCIL

TfL's existing core funding package already assumes increases in Mayoral CIL in 2019 and again in the 2020s, designed to support borrowing against future MCIL revenues during construction. This means that this funding source is already set to make a significantly greater contribution towards Crossrail 2 than it did towards Crossrail 1. Taking this alongside the London Plan's target for 50% affordable housing, we do not consider it viable to assume additional contributions could be made towards Crossrail 2 through this policy. TfL also already assumes a contribution from land and property deals around stations significantly above what was agreed as part of the Crossrail 1 funding package. We likewise do not consider it prudent to assume additional funding contributions from this source beyond that.

3.5 Development – stations

We would strongly encourage further exploration of how Crossrail 2 stations could be procured, funded and financed, and delivered, drawing on the Crossrail 1 experience. Bespoke station deals were negotiated with Canary Wharf and with Berkeley Homes at Woolwich, which saw these private developers take on responsibility for the costs of constructing the station box and then their own development overhead. Similar deals for Crossrail 2 could materially reduce the upfront construction costs of the scheme – though of course these could reduce the potential contribution anticipated from Over Station Development.

Pros	Cons
Reduces upfront costs of the scheme	Reduces scope for public sector to capture value uplifts in longer term
Enables effective integration with surrounding development	Requires clarity around interface between public and private sector at early stage
May enable a more ambitious or innovative approach to construction or the associated development	

3.6 Development – green belt

One additional option which should be pursued would be to allow targeted development in specified areas of green belt along the route, either within or outside London, particularly in areas of previous development or low environmental quality. In these places additional housing could be planned around new or existing stations which would benefit from significantly enhanced train services into central London. (Our 2014 Crossrail 2 funding report highlighted the potential for a new housing development at Chessington South, for example.) This would be done on the condition that all new development would pay a contribution towards Crossrail 2. While in principle such a contribution could be significant, in practice the need to also pay for other forms of economic and social infrastructure would likely reduce the funds available for Crossrail 2 alone, particularly up front. So while we support this proposal being pursued as a means of enabling significant amounts of additional housing, we do not think it prudent to attribute a firm funding contribution to this source at this time.

Pros	Cons
Potential to make a significant funding contribution through land uplift	Controversial
Could also help unlock significant additional housing	Additional development likely to generate other infrastructure costs which would also need to be met
	Limited ability to contribute funding in early years

3.7 Land value capture

New transport schemes like Crossrail 2 generate windfall gains for land and property owners along the route who benefit from value increases as a result of improved transport links. Recent analysis for TfL[5] estimates that Crossrail 2 could produce land value uplifts in the order of £61bn[6] through increasing the value of existing properties and by inducing new development. Some 65% of these value uplifts will accrue on existing residential property. Yet only a fraction of these overall value uplifts would be captured through existing mechanisms such as Stamp Duty, while over-station development and development taxes such as CIL and MCIL only relate to new development.

TfL has previously identified two new potential mechanisms for capturing land value uplifts. The first, a transport premium charge, would capture a proportion of the premium paid to landowners by new purchasers or tenants of residential property for access to new transport links. The second, the development rights auction model (DRAM), would be aimed at areas with high potential for housing development. The key feature of this proposal is the integrated planning and consenting of land use and density in a defined zone around a new station, in parallel with the planning of the new scheme. Development rights would then be auctioned to developers, with gains shared between landowners and the planning authority.

While both mechanisms could, in theory, release significant resources for transport investment, both would face significant obstacles before they could be implemented in practice. Indeed, subsequent work on the DRAM by TfL suggests other value capture mechanisms are likely to have greater potential in London[7]. We do not therefore believe it prudent to assume at this point that either could make a significant contribution to funding Crossrail 2, particularly up front – though we would encourage the Independent Affordability Review into Crossrail 2 to explore options further, as the revenues generated could also fund future schemes.

Pros	Cons
Targets beneficiaries of new transport infrastructure	Likely to be politically contentious – particularly if they affect existing residents
In principle could generate significant revenues	Limited ability to contribute funding in early years
	Requires legislation

[5] Land Value Capture, Final Report, Transport for London, February 2017
[6] Over a 30-year period from 2019 to 2048. Expressed in present value terms.
[7] Development Rights Auction Model, Final Report, Transport for London, March 2018.

3.8 Land value capture – through greater fiscal devolution

As noted above, compared to its international peers, London has much lower fiscal and political autonomy and is highly dependent on national policies and funding. For example, London government funding is highly dependent on spending allocated from central government: 74% of GLA and borough expenditure is based on intergovernmental transfers. This is considerably more than the proportion for key peers such as New York (31%) and Paris (18%).[8]

London government has responsibility for only one tax, council tax (and even this is in practice highly regulated by central government), whereas peers retain and set many more, enabling better long-term planning and flexibility. The London Finance Commission has previously recommended that the full suite of property taxes, including council tax, business rates and stamp duty, be devolved to the capital. Specifically with regard to Crossrail 2 the Commission concluded that the retention of a proportion of the growth in business rates could help facilitate its funding and financing.

We support the conclusions of the London Finance Commission and agree that greater fiscal devolution (potentially including new revenue raising powers) would increase London government's capacity to raise revenues locally and accountably.

Fiscal devolution would increase the certainty as well as range of funding streams and, perhaps most importantly, it would strengthen the financial incentives for London and local government to take what are often locally difficult decisions over housing and infrastructure investment as they would see a greater share of the rewards. Such an alignment of incentives has strong potential to support higher levels of economic growth than would otherwise take place. This need not be a zero-sum game.

Greater fiscal devolution would increase London government's capacity to raise revenues

Northern Line Extension funding

The Northern Line Extension (NLE) to Battersea is estimated to cost around £1 billion. Whilst the borrowing will be undertaken by the Greater London Authority and supported by a UK Guarantee, the funding to repay this borrowing will come from incremental business rates generated and retained within a new Enterprise Zone covering the Battersea area for a period of 25 years, supplemented with £266 million of early receipts from developer contributions from section 106 and borough CILs.

We therefore encourage government and the Mayor to work together to explore options for capturing a proportion of value uplift in business rates or stamp duty along the Crossrail 2 route as part of a fair overall funding package (see box on the Northern Line extension). The key point about these value uplifts is that they would simply not occur without the scheme. TfL's previous work on land value capture has identified this to be a potentially significant source of funding for Crossrail 2, with stamp duty uplifts potentially contributing some £4.3 billion of funding and business rates £4.8 billion (net present value, over a 30-year timeframe from 2023).

Pros	Cons
Provides significant additional revenues which could be borrowed against	Potential loss of some growth in income to HM Treasury over time – offset by net additional development
Strengthens incentives for London government to support development	Will take time to generate additional revenues above existing base
Plausible that London government would be willing to be bolder than central government	

The London Finance Commission also argued that London government should have permissive powers to develop new mechanisms for raising revenue, subject to consultation with those who would pay. Cities in other countries have used a range of additional taxes to help fund new transport infrastructure, from a payroll levy in Paris, to sales taxes in Los Angeles. The working group did not see these measures

[8] London 2036: An agenda for jobs and growth, London First, January 2017, p.64.

as funding Crossrail 2, as they opened up far wider tax and competitiveness issues which go beyond any particular project. We do not therefore consider them further here. The group also briefly considered the potential of mechanisms such as a wider congestion or road charging scheme to raise additional funding for Crossrail 2. Given the funding deficit facing London's roads, roads-related spending would likely be seen as the first call on any such revenues, though public transport would also be a legitimate target for spending. However, introducing a revised charging scheme in London poses wider challenges, so we do not at this stage treat it as a bankable potential funding stream for Crossrail 2.

Financing options

Our main focus in this report has been on identifying potential additional sources of funding for Crossrail 2. We believe greater creativity around financing options could play a significant complementary role in bridging the upfront need for cash during construction, alongside the identification of new funding sources.

Assessing existing financing assumptions

As a starting point, we would encourage the Independent Affordability Review to thoroughly assess existing financing assumptions to ensure they are not excessively cautious. We would similarly encourage them to be creative in testing constraints deriving from self-imposed rules around borrowing on the part of either London or central government. This could include drawing down additional debt against the current BRS before the existing Crossrail debt is fully repaid, and examining whether interest can be rolled up during construction. Government support should ideally be targeted at where it can be most cost effective in de-risking the project.

Using private finance

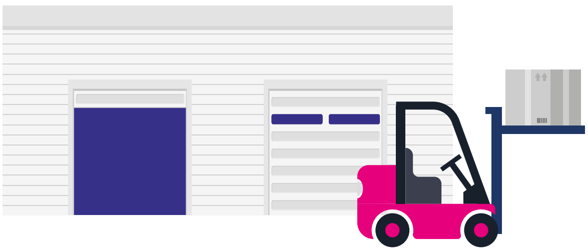
Central government can raise finance at a significantly lower cost than the private sector so any additional costs would need to be outweighed by efficiency gains in the delivery of the project and/or over its operational life. Local government also has access to cheap finance (via the PWLB), however the margin charged for projects (60 basis points over gilts) is significantly higher than the PWLB's administrative costs, and introduces an additional and unnecessarily high cost of finance for national priority projects such as Crossrail 2.

In principle, private finance could potentially be used to buy rolling stock, tunnels, new line and stations. In the UK rail sector, the vast majority of trains are owned by private rolling stock companies or financial institutions which lease them to train operators. For Crossrail 1, TfL originally bought the trains themselves, but is now planning to sell and lease back the fleet, as it has previously done on the London Overground, to allow it to purchase new trains on the Piccadilly Line.

If Crossrail 2 rolling stock and depots were procured by private finance, this would reduce the upfront costs of the project, though one consequence would be higher operational costs and thus a lower future operating surplus. Overall, this appears a potentially attractive proposal, though the wider value for money of such an approach should be further assessed.

Private finance could in principle also be used for new tunnels, line and stations. Metro projects in other global cities, such as Melbourne and Toronto, have adopted just such an approach (see case studies overleaf). This could have a significant impact in reducing the upfront cost of Crossrail 2, though would need to be justified on value for money grounds. The Independent Affordability Review should now assess the overall value for money of such an approach to explore whether the additional costs of using private finance could be justified through securing greater cost certainty and risk transfer.

If Crossrail 2 rolling stock and depots were procured by private finance, this would reduce the upfront costs of the project



Case studies

Case study:

Melbourne Metro availability PPP

The AUS$11bn Metro Tunnel project will tackle Melbourne's biggest bottleneck by running three of the city's busiest train lines through a new tunnel. The project will deliver twin nine-kilometre tunnels and five new underground stations across the city centre.

In December 2017, the Victorian state government signed a contract with Cross Yarra Partnership (CYP) to finance, design, construct and maintain the $6bn Tunnel and Stations Package for approximately 25 years. The state will make regular payments to CYP in return for making the asset available for use for public transport operators and passengers.

Case study:

Eglinton Crosstown Line, Toronto

The Eglinton Crosstown light rail transit (LRT) is a new 19km line currently under construction in Toronto. It will serve 25 stations and stops, connecting with existing public transport services, and includes a 10km underground tunnelled section. The scheme's budget is CAN$5.3bn (2010 prices) and is due to open in 2021.

The project was procured by Infrastructure Ontario through the Province's Alternative Finance and Procurement programme (AFP).Crosslinx Transit Solutions were chosen to design, construct and finance the 25 stations and stops, the tracks and signals, and the maintenance and storage facility. They will also maintain the LRT system for 30 years. Toronto Transit Commission will be responsible for the day-to-day operation of the LRT, integrated as part of their transit system.

Case study:

Los Angeles Measure M

To improve public transport and ease traffic congestion, the Los Angeles County Metropolitan Transportation Authority (Metro) drew up a long-term transport improvement plan. Funding would come from a new ½ cent sales tax while continuing with an existing ½ cent tax – provided it secured the support of the electorate. In November 2016, Measure M was passed with 71.15% support. It is expected to generate an estimated $860m a year in 2017 dollars. Key business groups supported the proposal.

Asset sales

Upfront funding could in principle be released from the sale of existing publicly owned assets, such as the Crossrail 1 tunnel. Transferring an existing asset to the private sector once construction has completed and construction risk has been removed could potentially be attractive. For example, three years after the completion of HS1, the high speed line from London to the Channel Tunnel, the government let an infrastructure concession for 30 years. This returned £2.1 billion to HM Treasury – approximately one third of the construction cost. Another concession could be let at the end of the first, providing in the long term another cash return.

TfL should explore the scope for releasing value through the sale of existing assets (e.g. the Crossrail 1 tunnel) to the private sector, potentially into a regulated structure. Such a sale could have the potential to net a substantial upfront receipt, which could be recycled to help pay for Crossrail 2.

However, the affordability of the access charges post sale, along with wider value for money considerations, would need to be assessed, as any new owner is liable to have higher financing costs (debt and equity) than TfL and, critically, track access charges will need to be paid to the new entity on an ongoing basis (this is the return that the new asset owner will require in order to provide an upfront cash payment). Operational issues will also need to be considered for assets that are part of an integrated network. Essentially this is more about financing than funding, as London government would be mortgaging assets in return for an upfront receipt.

Conclusions

London business strongly supports Crossrail 2 as the priority major infrastructure investment for London and the SE in the 2020s. We accept that for a scheme of this sort London should help shoulder the funding burden, and recognise government's challenge to London to pay for half of the cost during construction. Even though London's significant contribution to Crossrail took up scarce funding capacity, London has greater capacity for helping to fund transport infrastructure than other English cities and can thus still make a significant contribution towards enabling greater public investment in transport across England as a whole.

London business does, of course, already make a significant contribution towards overall public investment through the tax generated from business activity within the capital. Where there is a good economic case for doing so, we have demonstrated our acceptance for making contributions beyond this, as with the Business Rate Supplement for Crossrail 1, which we believe could continue to help fund Crossrail 2. We are also already supporting the Mayor and TfL in their ongoing consultation on an enhanced Mayoral CIL for Crossrail 2.

Crossrail 2 would bring significant benefits to the UK economy, and to land and property owners and commuters across London and the south east as well as businesses themselves. Our headline conclusion is therefore that an affordable, equitable and sustainable funding package for Crossrail 2 must secure contributions from across these beneficiaries. A viable funding package should be diverse and broad-based, both for reasons of fairness and to maximise resilience to changing economic and political circumstances. We believe that evidence from cities beyond London shows that people and businesses are willing to contribute towards transport improvements, provided that money is ringfenced (see Los Angeles case study).

We are committed to working with HMT, DfT, MHCLG, TfL and City Hall to explore the optimal blend of funding contributions and to agree the outlines of a potential funding package that would allow Crossrail 2 to proceed as planned. This report identifies a number of options beyond the proposed core funding package that we believe should be explored further through the Independent Affordability Review into Crossrail 2 as potential components of a fair funding package. These include fares, council tax and business rates within London and in areas that would benefit from the scheme in the wider SE. Land value capture could also have a potential role to play. Further devolution to local government of future uplifts in tax receipts could also play a role, for example through ringfencing future value uplifts in business rates or stamp duty along the route.

Additional funding options should be considered alongside measures to reduce the costs of the scheme, through value engineering, modern construction methods and benchmarking against similar schemes. Changes to scope, timing and phasing may also have a role to play, though we would be very concerned about any proposals which undermined the core objectives and benefits of the scheme. London business support for potential funding options will be contingent on the right Crossrail 2 scheme coming forward to the right timescales. Financing options will also help, for example through looking at underpinning assumptions around borrowing for the project (e.g. drawing down additional debt against the BRS receipts), recycling existing assets such as selling the Crossrail 1 tunnel, or by using private finance for elements of the scheme, such as rolling stock, or even tunnels or stations, as is being done by other world cities from Toronto to Melbourne.

Following receipt of the Independent Affordability Review's findings in the summer, we encourage central and London government to provide a positive response to the Crossrail 2 business case by the end of 2018, as part of a wider package of national rail investment. This would enable a revised route consultation to take place next year, and a hybrid bill to be deposited by 2021. Detailed negotiations with business and other parties on the composition of a final funding package should take place alongside this process. Crossrail 2 could then open in the early 2030s, alongside and complementary to HS2, as recommended by the National Infrastructure Commission.

As London recovered from the financial crisis of 2008, Crossrail 1 represented an important vote of confidence in London's future. As Britain grapples with the transition to life outside the European Union, we believe giving the go-ahead to Crossrail 2 would send a powerful signal that London is determined to remain the best city in the world in which to do business.

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