London Councils' Executive

Devolution of infrastructure funding mechanisms — Item 7

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Summary: This report sets out the context for devolution of infrastructure funding mechanisms, in light of London's infrastructure funding gap and the continued reduction of government grant.

Recommendations: The Executive is asked to provide initial guidance on developing the levers for a locally funded approach to London's infrastructure needs and whether, or at what stage, it would be helpful to badge it as part of London Councils' devolution asks.

Devolution of infrastructure funding mechanisms

Background

1. Given the pressures on direct government infrastructure funding through grant, there is a major threat to the UK's main economic engine – London. Addressing this shortfall of funding through other means will be important and this report explores other fund raising mechanisms compatible with a thriving economy. It seeks advice on the broad direction of travel for the proposals it contains.

2. The London Infrastructure Plan 2050 identifies £1.3 trillion investment in infrastructure needed between 2016 and 2050.[1]

3. The Infrastructure Plan 2050 also identified that the current level of infrastructure funding, especially in the public sector, will not meet these costs. There is an annual infrastructure funding gap of:

   i. Housing - £1.3 billion

   ii. Transport - £2.5 billion

   iii. Education - £0.6 billion

   iv. Green infrastructure - £46 million

   v. Waste, by contrast, has no expected funding gap, if London successfully transitions to an economy where reuse and recycling increase.[2]

4. On 20 January 2015 the Executive considered a report which set out the funding package for Crossrail 2 proposed by PwC. The report also included a series of international funding mechanisms which the Executive advised officers to research further.

5. This report includes the research carried out by officers on the international funding mechanisms in a London context at Appendix A and considers further the context for fiscal devolution of infrastructure funding mechanisms in light of meeting the infrastructure funding gap.

6. Many of the mechanisms considered in Appendix A will require devolution of powers and funding from government. This adds to London Councils' and the Mayor's call for greater devolution in London.

7. Appendix B shows the potential contribution that districts immediately outside London on the Crossrail 2 route could make. It explores a council tax precept and business rate supplement and calculates the funds that could be raised in those districts closest to London

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[1] London Infrastructure Plan 2050 consultation document, p.67
http://www.london.gov.uk/sites/default/files/London%20Infrastructure%20Plan%202050%20Consultation.pdf
[2] *Ibid*, p.72

which would directly benefit from Crossrail 2. This could be replicated for other schemes, potentially on a wider basis. Mechanisms to collect these funds would need to be explored.

The importance of infrastructure

8. Housing is one of London's most pressing infrastructure needs as London's population grows. To release sites for additional housing, they typically need a range of supporting infrastructure to make them accessible and desirable places to live. These include transport, utilities, telecommunications and sewerage. Good transport links are important already for the construction phase.

9. New homes then drive the need for both primary and secondary school places, hospital and medical services, as well as other facilities, such as open spaces, retail and leisure. Once occupied, the waste and recycling of new residents must be collected and disposed of, preferably within London but often further afield.

10. Who is responsible for implementing this necessary infrastructure, at what point of the construction scheme and cost is an issue that tends to be addressed on a project by project basis and not without difficulties. In particular transport infrastructure, which can play the most significant role to unlocking sites for development will often need to be funded upfront. The most successful example of that recently is the Northern Line extension to Battersea / Nine Elms, which is using Tax Increment Financing (TIF) that will be paid off using a mixture of growth in business rates and S106 and CIL raised in the development area.

11. Much of the other infrastructure required also relies heavily on S106 or CIL contributions from the developer to the borough and these are increasingly getting squeezed. New and innovative funding mechanisms are therefore required.

Funding mechanisms for infrastructure

Funding mechanisms that London could implement without devolution

12. The report the Executive received on 12 May 2015 set out a series of mechanisms already available to boroughs for the funding of infrastructure. These are tax increment financing / betterment levy; business rates pooling; and increasing the density of development, in order to capture CIL/s.106 payments, council tax or business rates supplement/business rates.

13. The London Finance Commission, which reported on 15 May 2013, included a recommendation that the Mayor and London's local authorities should determine which Tax

Increment Financing projects to proceed with; with a presumption in favour by government of all TIF projects that demonstrate net gains to public finances in the meanwhile.

14. As mentioned above, TIF is being used as a funding mechanism for the Northern line extension from Kennington to Nine Elms and Battersea. It will also be used as a funding mechanism for a new station at Brent Cross in Barnet, which will capture business rates growth from the expanded shopping centre.

15. The new Secretary of State for Business, Innovation and Skills, Sajid Javid MP, recently expressed his willingness to improve TIF.

International funding mechanisms that would require devolution to be used in London

16. The report the Executive received on 12 May 2015 set out nine funding mechanisms used internationally to fund infrastructure. They were considered in the context of their contribution to Crossrail 2. Further information including a summary table can be found at Appendix A to this report.

17. The London Finance Commission also recommended the devolution of five property taxes to London. Their report set out their proposed process for this:

> *Property taxes should be devolved first, as they have immobile bases and are therefore well suited to local control. We recommend that the full suite (council tax, business rates, stamp duty land tax, annual tax on enveloped dwellings and capital gains property disposal tax) should be devolved to London government, which should then have devolved responsibility for setting the tax rates and authority over all matters including revaluation, banding and discounts. The yields of these taxes should be offset through corresponding reductions in grant to ensure a fiscally neutral position for the Exchequer, at the outset. Not least because the yield from property taxes is already high in London, devolution will lead to much greater pressure on London government to account to residents and businesses alike for the activities the tax revenues fund.*

18. Following these principles, the funding mechanisms contained in Appendix A could be devolved in a similar way. In the case of new taxes the issue of reducing grant would not apply. Developing this approach, building on the London Finance Commission, could contribute to the significant funding gap posed in the Infrastructure Plan 2050.

Recommendation

The Executive is asked to provide initial guidance on developing the levers for a locally funded approach to London's infrastructure needs and whether, or at what stage, it would be helpful to badge it as part of London Councils' devolution asks.

Financial Implications

There are no financial implications to London Councils arising from this report.

Legal Implications

There are no legal implications to London Councils arising from this report.

Equalities Implications

There are no equalities implications to London Councils arising from this report.

Appendix A

Appendix A considers a series of possible mechanisms for funding infrastructure, all of which would require devolution. They are considered in the context of Crossrail 2.

In preparing decisions on Crossrail 2 for the Autumn Statement 2014, London was challenged by government to demonstrate that it could source at least half the cost of Crossrail 2, which is estimated to be £27.5 billion. TfL commissioned PwC to explore this further and Table 1 summarises how PwC consider this could be achieved.

Whilst pressure on public finances continues, government may well seek to secure a higher proportion of the overall cost from London sources. By way of comparison, Londoners and London's businesses are contributing over 60 per cent of the funding of Crossrail 1, which is costing £14.8bn.[3]

The calculations in this Appendix are officer estimates, making use of publicly available data sets. They are based on today's prices, and do not consider inflation, indexing or uprating, economic growth or recession, price rises, population growth, or increases or decreases in the units under considerations (households, hotel rooms etc.). They are intended to be indicative only and generally represent an underestimation.

Table 1 below sets out a summary of a series of international mechanisms, together with estimates of how much they could contribute to funding Crossrail 2 in today's prices.

Table 1 – International funding mechanisms and possible contribution to Crossrail 2 funding

Funding mechanism	How much it could raise annually	How much it could raise April 2019-April 2031[4]	Contribution to Crossrail 2 (%)	Summary of model/ assumptions
Payroll levy	£92,979,687	£1,115,756,248	4.06%	Uses a 0.11% New York levy and bases pay calculations on the London Living Wage.
	£187,437,288	£2,249,247,454	8.18%	Uses a 0.11% New York levy and bases pay calculations on the London mean wage.
Visitor and tourism tax (hotel tax)	£25,951,754	£311,421,047	1.13%	Based on an 84 per cent occupancy rate of hotels across all room rates.
Sales tax	£85,000,000	£1,020,000,000	3.7%	Adds a 0.5% levy to VAT in London.
Parcel (land) tax	Not assessed – as information not currently available in a usable format.			A tax on land, which could be calculated on size, rental value, business rates value or proximity to a Crossrail 2 station.
Employer sponsored transit	£90,704	£1,088,446	0.004%	Models London's transport modal share, with businesses charged the equivalent of 1% of travel fares annually.
Fuel taxes	£92,528,913	£1,110,346,955	4.04%	Applies a 3% fuel tax to the retail price of a litre of fuel, and is based on London's estimated fuel consumption.
Parking levy	£347,718,000	£4,172,616,000	15.2%	14p daily charge on 6.8 million spaces.
Business Improvement Districts/	Not assessed – as information not currently available in a usable format.			Could either establish mandatory Business Improvement Districts across

[3] http://www.crossrail.co.uk/about-us/funding

[4] Crossrail is due to open fully in 2019 and Crossrail 2 is forecast to open during 2030. In practice mechanisms could run for much longer. Today's prices are used, and no forecast of growth or recession, increase in population or usage is included in the calculations.

Table 1 – International funding mechanisms and possible contribution to Crossrail 2 funding				
Funding mechanism	**How much it could raise annually**	**How much it could raise April 2019-April 2031[4]**	**Contribution to Crossrail 2 (%)**	**Summary of model/ assumptions**
Benefit Assessment Districts				London, or assess the benefit to businesses of Crossrail 2 and levy accordingly.
Toll bridge	£127,837,500	£1,534,050,000	5.58%	Uses the daily number of vehicle crossings and the car charge at the Dartford Crossing, to estimate how much a similar London crossing could raise.

These mechanisms are considered in greater detail below.

Payroll levy

Introduced in France in 1971, it is levied monthly by Local Transport Authorities on the gross payroll of employers with 10 or more employees. Employers pay the levy on behalf of their staff; those that provide their own transport or accommodation at their place of work can be reimbursed. Non-profit entities are exempt.

The tax rate varies from 0.55 per cent to 1.75 per cent based on a city's population size. A city the size of London would charge 1.75 per cent. In France, the collecting authority retains 1 per cent of receipts to cover its costs.

In New York a payroll tax has been levied on businesses within the transportation district. It is levied on all businesses quarterly, at rates from 0.11 per cent to 0.34 per cent. Government and educational institutions are exempt.

Opportunities	Challenges
London has a clear geographical and political boundary on which to base a payroll tax. This could lend itself to a pan-London Infrastructure Tax. Alternatively, specific areas such as 1km zone around a Crossrail 2 station or the Central Activities Zone boundary could be used.	It could be considered a 'tax on jobs'. It could impact on take-home pay where companies reduce wages to cover their costs. It could place the burden of public transport costs on workers, which ignores public transport use by tourists and residents for leisure, and by schoolchildren.
Existing collection authorities/mechanisms could be adapted e.g. HMRC collects income tax, boroughs collect business rates.	London has a significant number of low paid workers. It could be possible to implement a levy only above a certain pay threshold.
Anyone working in London is included – therefore capturing those who work in London but live outside London and commute in, putting pressure on the transport system.	It could lead to companies relocating outside London or not locating in London at all, especially in outer London boroughs. If a French-style system was used where only businesses employing 10 or more people would be levied, it could act as a barrier to company expansion.
It could support initiatives to help people into work, by exempting from the payroll levy apprentices, people who for most of the year are in full-time education, staff under age 18 or 21, staff employed on back to work schemes etc.	There could be increases in job insecurity, zero-hours contracts or self-employment as companies seek to avoid paying the levy or reduce their costs in calculating it.
There is a clear link between commuting, use of public transport, and the need for Crossrail 2.	There is some evidence in France that the payroll levy has led to employer hostility towards public transport. Individuals who walk, cycle or drive to work could resent the levy.

Table 2 sets out what a levy based on the New York and French examples could mean for an individual's **hourly** salary. Four salary rates are considered: minimum wage, London Living Wage, London's median gross hourly wage and London's mean gross hourly wage. The payroll tax would be paid on gross salary.

Table 2 - Tax payable on hourly salary		*Tax payable on the individual's salary*			
		New York equivalent		**France equivalent**	
		Lowest rate (0.11%)	Highest rate (0.34%)	Lowest rate (0.55%)	Highest rate (1.75%)
Minimum wage (over 21s)	£6.50/hour	£0.007/hour	£0.02/hour	£0.04/hour	£0.11/hour
London Living Wage	£9.15/hour	£0.01/hour	£0.03/hour	£0.05/hour	£0.16/hour
London median hourly wage[5]	£14.50/hour	£0.02/hour	£0.05/hour	£0.08/hour	£0.25/hour
London mean hourly wage[6]	£18.77/hour	£0.02/hour	£0.06/hour	£0.10/hour	£0.33/hour

Table 3 estimates the total **weekly** tax collected by a payroll tax for a range of scenarios. They are not cumulative and should not be added.

The Regional Market Data for London estimates that in 2014 there were 3,241,000 people in full-time employment, and 968,000 part-time workers.[7] In December 2014 the Workforce Jobs measure for London was 5,599,000 workforce jobs.[8] The Workforce Jobs measure does not separate full- and part-time employment.

The modelling below uses the Workforce Jobs measure for London as it is higher, but uses the data on full- and part-time workers to calculate a proportion of the Workforce Jobs measure as part-time workers. Therefore approximately 29.9% per cent of London's workforce is part-time; 1,674,101 people. This figure, together with 3,924,899 full-time workers, is used below.

The median paid hours worked in London in 2014 were 37.5 hours by full-time workers and 18.2 hours by part-time workers.[9]

Table 3 – Weekly tax collected[10]		*The total tax collected **weekly** could be…*			
		New York equivalent		**France equivalent**	
		Lowest rate (0.11%)	Highest rate (0.34%)	Lowest rate (0.55%)	Highest rate (1.75%)
Full-time workers 37.5 hours/week 3,924,899 people If everyone was paid….	**Minimum wage**	£1,052,363.54	£3,252,760.05	£5,261,817.72	£16,742,147.30
	London Living Wage	£1,481,404.07	£4,578,885.30	£7,407,020.33	£23,567,791.96
	London median FT hourly wage[11]	£2,611,480.61	£8,071,849.16	£13,057,403.05	£41,546,282.45
	London mean FT	£3,184,613.99	£9,843,352.32	£15,923,069.94	£50,664,313.44

5 ASHE 2014 (provisional) Table 8 - Place of Residence by Local Authority (ZIP 5941Kb) Table 8.5a

6 ASHE 2014 (provisional) Table 8 - Place of Residence by Local Authority (ZIP 5941Kb) Table 8.5a

7 Regional Market Data for London: Table H107 – 3, January 2014 – December 2014 http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-357392

8 Ibid, Table H107 – 4

9 ASHE 2014 (provisional) Table 8 - Place of Residence by Local Authority (ZIP 5941Kb) Table 8.9a

10 Tax collected is calculated by multiplying levy per hour (Table 3) by average number of hours worked (part or full time).

11 The median wage for full-time workers is higher than the All London median, at £16.13/hour. ASHE 2014 (provisional) Table 8 - Place of Residence by Local Authority (ZIP 5941Kb) Table 8.5a

	hourly wage[12]				
Part-time workers 18.2 hours/week 1674101 people If everyone was paid…	**Minimum wage**	£217,850.76	£673,356.90	£1,089,253.82	£3,465,807.60
	London Living Wage	£306,666.84	£947,879.33	£1,533,334.22	£4,878,790.69
	London median PT hourly wage[13]	£303,985.60	£939,591.86	£1,519,928.02	£4,836,134.60
	London mean PT hourly wage[14]	£419,949.24	£1,298,024.92	£2,099,746.20	£6,681,010.64

If all of London's workforce were paid the London Living Wage, the annual tax take from a payroll levy at 0.11 per cent could be £92,979,687.31. A payroll levy for 12 years running from April 2019 (the year after Crossrail 1 fully opens) to March 2031 (the year after Crossrail 2 is forecast to open) could raise £1,115,756,247.71, which could contribute 4.06 per cent of the cost of the Crossrail 2.

Using the London mean wage, the annual tax take of a payroll levy at 0.11 per cent from London's total workforce could be £187,437,287.84. A payroll levy for 12 years running from April 2019 to March 2031 could raise £2,249,247,454.07, which could contribute 8.18 per cent of the cost of Crossrail 2.

These estimates do not allow for inflation, wage increases, economic growth or recession.

To levy a payroll tax, London local government would need to establish a collection mechanism and secure fiscal devolution.

Visitor and tourism tax (hotel tax)

This is levied by French councils at a fixed rate per room per night. Higher star hotels have higher charges, and there is a lower charge for campsites.

Councils are free to set their rates within bands for each star. The highest tax band (four stars) is set at €0.65 - €1.50 per night (£0.45 - £1.07), with Paris charging €1.50 (£1.07) per night.[15]

In July 2014 the French government proposed an increase in the tax; four and five star room rates would have increased to €8 (£5.75) but this was rejected due to criticism that this would damage the hotel and tourism industries. It is worth noting that London already has higher average overnight accommodation costs than Paris.[16]

LB Camden announced in January 2015 that it wants the power to be able to set a hotel or visitor tax, to pay for street cleaning and public realm maintenance and improvements around tourist attractions.

Opportunities	Challenges
Tourists in London place additional pressure on the transport system. They do however significantly contribute to the visitor economy and support jobs and growth in London.	The link between tourists and city infrastructure like Crossrail 2 which will be used by resident Londoners as well is more tenuous. However, the tax could part-fund infrastructure and part-fund borough functions such as cultural events, street

[12] The mean wage for full-time workers is higher than the All London mean, at £19.67/hour. ASHE 2014 (provisional) Table 8 - Place of Residence by Local Authority (ZIP 5941Kb) Table 8.5a.

[13] The median wage for part-time workers is lower than the All London median, at £9.07/hour. ASHE 2014 (provisional) Table 8 - Place of Residence by Local Authority (ZIP 5941Kb) Table 8.5a. This is less than the London Living Wage.

[14] The mean wage for part-time workers is lower than the All London mean, at £12.53/hour. ASHE 2014 (provisional) Table 8 - Place of Residence by Local Authority (ZIP 5941Kb) Table 8.5a.

[15] Exchange rate on 22.04.2015

[16] Information in this section is taken from PwC Crossrail 2: Funding and Financing study, p.89-90

Opportunities	Challenges
	cleaning and supporting leisure facilities such as parks and museums.
Existing collection of business rates by boroughs could be adapted to collect this tax.	It could be difficult to enforce this tax for the growing trend of renting out rooms, meaning the tax could fall on the established hotel industry. The hospitality industry has a long-running campaign for a lower rate of VAT than 20 per cent to be levied on its services.[17]

Figures from the STR Global London Survey indicate that in July 2014 London had 123,325 hotel rooms. The Survey breaks down this data by hotel category, which has been equated below to number of stars, in line with the Paris rates. PwC Hotel Insight data forecasts London's hotels will be at 84 per cent occupancy in 2015. Their data gave London 135,890 rooms in 2014 and forecasts this will grow by 6,428 rooms in 2015.[18] The lower STR Global London Survey data is used in Table 4 below to calculate how much a hotel tax could raise.

Table 4 – Nightly tax collected[19]	**Suggested equivalent to Paris Rate**	**Rate in London (per room, per night)**[20]	**Total Rooms**	**Tax collected at 84% occupancy rate per night**
Economy	1 star €0.42	£0.30	27,489	£6,927.23
Midscale	2 star €0.78	£0.56	16,080	£7,564.03
Upper Midscale	2 star €0.78	£0.56	15,752	£7,409.74
Upscale	3 star €1.00	£0.72	28,489	£17,230.15
Upper Upscale	4 star €1.50	£1.07	22,266	£20,012.68
Luxury	5 star €1.50	£1.07	13,249	£11,908.20
Total			**123,325**	**£71,052.03**
Total Rooms Source: STR Global London Survey, July 2014. *Occupancy Rate Source: PwC 2015 UK Hotels Forecast Update*				

Based on an 84 per cent occupancy rate, a hotel tax could raise £25,951,753.96 annually. A 12-year levy from April 2019 to March 2031 could raise £311,421,047.49 in today's prices, assuming there is no change in the number of hotel rooms or occupancy rates. This could contribute 1.13 per cent of the cost of Crossrail 2 in today's prices.

To levy a visitor and tourism tax, London local government would need to establish a collection mechanism, or secure fiscal devolution from an existing one. London local government would need enforcement powers to follow up any non-payment.

Sales Tax

This was implemented in San Francisco in 2003 at a rate of 0.5 per cent following a public vote. It is charged on all qualifying goods at the point of sale and remitted by the business to the Transportation Authority.

A similar attempt in Atlanta to introduce a 1 per cent sales tax was rejected by voters in 2012. In Toronto an increase in the sales tax to 14 per cent (from 13 per cent) was part of the potential funding package for its transport investment plan.[21]

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17 http://www.parliament.uk/briefing-papers/sn06812.pdf

18 http://www.pwc.co.uk/hospitality-leisure/uk-hotels-forecast/uk-hotels-forecast-update-2014-and-2015.jhtml

19 Tax is calculated by multiplying the room rate by number of rooms by occupancy rate.

20 Exchange rate at 20.4.2015

21 Information in this section is taken from PwC's Crossrail 2: Funding and Financing study, p.93, 98, 112

Opportunities	Challenges
The concept of VAT and its collection mechanisms are already in place, and it would be straightforward to calculate. A London-wide levy could be added to VAT, with HMRC remitting this to London government.	Total sales taxes in San Francisco amount to 8.75 per cent (including the 0.5 per cent for transport), compared to Britain's current VAT rate of 20 per cent (excluding a Crossrail 2 sales tax). It is unlikely to be popular with shoppers or businesses.
It would mean everyone living, working and visiting London would contribute towards the cost of Crossrail 2.	HMRC resistance to variable rates of a core UK tax.
	It could damage the already fragile recovery of the high street. It could put London's businesses at a commercial disadvantage, especially at London's boundaries.

VAT for the whole of England was expected to net the Treasury £103 billion in 2013/14.[22] The City of London estimated in November 2014 that London contributed £17 billion in VAT to the Treasury in 2013/14.[23] This would represent 16.5 per cent of national VAT receipts.

An additional 0.5 per cent sales tax in London could net £0.085 billion (£85 million) for Crossrail 2 in one year. This assumes there is no impact on sales and does not take into account inflation, economic growth or recession. Over a 12 year period from April 2019 to March 2031 this could provide £1.02 billion for Crossrail 2 which could contribute 3.7 per cent to the cost.

To levy and collect a sales tax, London local government would need fiscal devolution.

Parcel (land) tax

A flat tax on real estate was considered as part of the funding package for a new metro line in Atlanta.[24]

The Mirrlees Review in 2010 and 2011 considered reform of the way land and property are currently taxed.[25]

Opportunities	Challenges
In London a land tax could be linked to size, rental value, its business rates value or its proximity to a Crossrail 2 station. A flat tax could penalise small landowners.	Establishing the ownership and rental value of land is expensive, lengthy, and complicated if the land in question has had the same usage for a long period of time.
It could be linked to a charge on developers who have planning permission but do not build, or have undertaken a technical start and then stop. This is a recognised problem in London. Encouraging the building of commercial units could bring in greater revenue for Crossrail 2 under the Business Rates Supplement, or council tax precept if housing units.	It could affect the viability of sites or the delivery of affordable housing. If the land tax was calculated using rateable value, businesses could feel double-charged if they also paid the Business Rates Supplement.
Regular reviews of the land tax could capture some of the increase in value of the land, which could in turn then be used for funding infrastructure such as Crossrail 2.	Boroughs, the GLA and the wider public sector, including central government, would be taxed heavily as landowners in London.

To levy a land tax London local government would need to assess and value every piece of land (value could be based on size, rental value, rateable value or proximity to a Crossrail 2 station). A collection mechanism would need to be developed.

22 Budget 2013, p.6 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221885/budget2013_complete.pdf

23 London's Finances and Revenues, City of London, https://www.cityoflondon.gov.uk/business/economic-research-and-information/research-publications/Documents/Research-2014/Londons-finances-and-revenues-OnePagerOnline.pdf, p.2

24 PwC, Crossrail 2: Funding and Financing study, p.99

25 http://www.ifs.org.uk/publications/mirrleesreview/

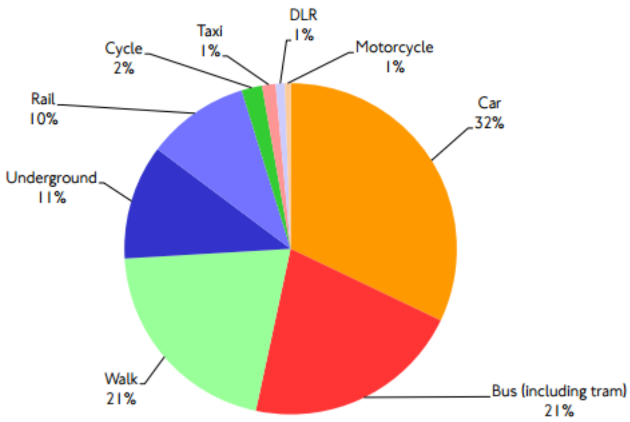
Employer sponsored transit

This was considered as a funding mechanism in Atlanta for a metro line, where businesses contribute financially to the public transport serving their business.[26] The model below assumes the way each business' employees travel to work is representative of how London as a city travels to work. It has links to the payroll levy but is distinct.

Opportunities	Challenges
Many workers in London make significant use of public transport to get to work. It would also capture those employees who work in London but live outside London.	London is too large an area for businesses to feel any link with a specific bus route or tube line, as their employees will probably use a multitude of routes to work.
It could be an annual or monthly charge, and linked to the number of employees, perhaps through banding.	It rewards businesses who have staff that drive (as well as cycle or walk) and penalises those who use public transport. This undermines other London policies for sustainable transport and suggests that a charge/tax on car use might need to be developed alongside it.
Businesses could be asked to complete travel surveys for their staff and then charged based on this. This would be bureaucratic, time-consuming, and overly complex. An alternative could be a flat charge based on the average modal share of all Londoners. Businesses which felt they were significantly different e.g. all employees cycled, could submit a more detailed return, if they felt this would save them money.	Outer London boroughs may feel their residents and businesses have different travel patterns which involve greater use of the car to get to work. Employer sponsored transit ignores the use of public transport by school children to get to school and by residents and visitors for leisure purposes. Passengers could feel they are paying twice to use public transport – once as the fare, and again as their employer deducts their costs from their wages.

The pie chart sets out TfL's breakdown of journeys by modal share in London in 2013.[27]

Figure 2.3 Modal shares of daily journey stages in London, 2013.



Source: TfL Planning, Strategic Analysis.

Table 5 considers charges on employers based on a percentage of public transport ticket prices. Other ways to calculate employer sponsored transit could be used.

Table 5 – Ticket fares and costs to businesses	**Ticket type**	**Ticket price**	**Equivalent of charging businesses 1% of fares**	**Equivalent of charging businesses 5% of fares**	**Equivalent of charging businesses 10% of fares**
Underground,	Zones 1-6 peak	£5.10	£0.05	£0.26	£0.51

26 PwC, Crossrail 2: Funding and Financing study, p.99

27 TfL, Travel in London Report 6, 2013, p.21, http://www.tfl.gov.uk/cdn/static/cms/documents/travel-in-london-report-6.pdf

Overground and DLR	single, Oyster card				
Bus and tram	Bus, pay as you go	£1.50	£0.02	£0.08	£0.15
National Rail	Zones 1-6 National Rail pay as you go peak single	£6.00	£0.06	£0.30	£0.60

Table 6 uses the modal share from TfL and the percentage of ticket costs from Table 6 and calculates how much could be raised from London's workforce (5,599,000 workers).[28] Whilst a business would pay, this scenario assumes that they would be paying a charge per employee, and the business would only be charged once a year.

Table 6 – Annual tax collected from employer sponsored transit[29] **Transport mode**	**Modal share**	**Equivalent of charging businesses 1% of fares**	**Equivalent of charging businesses 5% of fares**	**Equivalent of charging businesses 10% of fares**
DLR	1%	£2,799.50	£14,557.40	£28,554.90
Taxi	1%	Nil	Nil	Nil
Motorcycle	1%	Nil	Nil	Nil
Cycle	2%	Nil	Nil	Nil
Rail	10%	£33,594.00	£167,970.00	£335,940.00
Underground	11%	£30,794.50	£160,131.40	£314,103.90
Walk	21%	Nil	Nil	Nil
Bus and tram	21%	£23,515.80	£94,063.20	£176,368.50
Car	32%	Nil	Nil	Nil
Total charge (annual)		**£90,703.80**	**£436,722.00**	**£854,967.30**
Charge over 12 year period from April 2019 to March 2031		**£1,088,445.60**	**£5,240,664.00**	**£10,259,607.60**
Contribution to Crossrail 2		**0.004%**	**0.019%**	**0.037%**

To levy a charge on employers for public transport, London local government would need to establish a collection mechanism, or secure fiscal devolution of an existing collection mechanism. Enforcement powers would also be needed to follow-up any non-payment. In light of the impact on private vehicle use, it could also lead to calls for consideration of charges on car use.

Fuel taxes

The State of Georgia has two motor fuel taxes which fund 96 per cent of the state's transport department. There is a flat rate tax on gasoline at 7.5 cents per gallon (5p[30]), which was introduced in 1971 and is not indexed for inflation. There is also 4 per cent tax on the weighted average indexed retail sales price for each type of fuel. Of the 4 per cent, 3 per cent is ring-fenced for transport.[31] The average price of fuel in the state of Georgia was $2.339 (£1.57)[32]. The modelling below focuses on a retail tax on a litre of fuel.

[28] Regional Market Data for London: Table H107 – 4, January 2014 – December 2014 http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-357392
[29] Levy is calculated by multiplying the percentage of modal share by total working population and then multiplying this by the equivalent fare.
[30] Exchange rate 20.04.15
[31] Information in this section is taken from PwC, Crossrail 2: Funding and Financing report, 27 November 2014, p.100
[32] Prices retrieved on 20.04.15

Opportunities	Challenges
It could link with public health work such as air quality improvements, the ULEZ, sustainable transport modes and road safety initiatives.	This could raise less in central London where car usage is less common. Revenues could reduce over time if it meant people stopped using their cars. This could worsen public transport capacity over time, which Crossrail 2 is aiming to provide.
If employer sponsored transit was implemented (above), it could avoid incentivising the use of private cars as an alternative.	The government cancelled the fuel duty escalator in the 2015 Budget and fuel price increases are unpopular.

Total fuel consumption for road transport in London (personal and freight) in 2011 was estimated to be 2,173,500 tonnes.[33] The breakdown by type of fuel is given in Table 7.

On 20 April 2015 petrol could be purchased in London for 119.9p/litre and diesel for 108.9p/litre. A 3 per cent ring-fenced tax on the retail price of fuel would represent £0.04/litre and £0.03/litre respectively.

Table 7 – tax collected by fuel type[34]	Tonnes of fuel (annual)	Litres of fuel (annual)[35]	£0.04 tax per litre petrol	£0.03 tax per litre diesel
Diesel				
Buses	191,6000	216,497,175.14		£6,494,915.25
Cars	478,000	541,016,949.15		£16,230,508.47
Motorcycles[23]	12,850	14,214,689.27		£426,440.68
HGV	294,600	332,881,355.93		£9,986,440.68
LGV	269,300	304,293,785.31		£9,128,813.56
Petrol				
Cars	898,100	1,218,225,224.49	£48,729,008.98	
Motorcycles[36]	12,850	17,430,346.44	£697,213.86	
LGV	15,400	20,889,286.78	£835,571.47	
		Annual Total	**£50,261,794.31**	**£42,267,118.64**
		Total April 2019-March 2031	**£603,141,531.70**	**£507,205,423.73**

Annually a fuel tax could raise £92,528,912.95. Over a 12 year period, a fuel tax could raise £1,110,346,955.43. This could contribute 4.04 per cent of the cost of Crossrail 2, in today's prices, with no change in fuel prices or fuel consumption.

Parking levy

A fee or surcharge for on-street and garage parking was being considered as part of the funding package for a new metro line in Atlanta at the time of the PwC report. In Toronto a business parking levy on off-street, non-residential parking is one of the mechanisms proposed to fund a 25-year transport investment plan.[37] The levy would depend on the market value of the parking space but on average would be 25 cents a day (14p[38]), and payable by the owners of those spaces.

[33] Data used is Total for London http://data.london.gov.uk/dataset/road-transport-energy-consumption-borough/resource/239b5d8a-c98b-40b1-9404-bb52e3dbdc9c
[34] Calculations based on litres of fuel used multiplied by tax rate.
[35] Assumes a petrol density of 737.22 kg/m^3 and a diesel density of 885 kg/m^3.
[36] The data does not separate motorcycles by fuel type. Therefore half of motorcycle consumption has been assigned to diesel, and half to petrol.
[37] PwC, Crossrail 2: Funding and Financing report, 27 November 2014, p.99 and 110
[38] Exchange rate 20.04.2015

Opportunities	Challenges
The powers to set parking charges are already held by boroughs, though limits exist. Central government has however taken positions on parking availability and parking prices.	Parking charges are unpopular with residents and businesses, especially when connected to town centres and high streets.
Income could be stable, as the provision of parking spaces does not fluctuate highly from year to year (exceptions being when new car parks are opened, for example as part of a new development).	There are a mix of owners of parking spaces – boroughs, TfL (TLRN) and private owners such as businesses, residents and management agencies for houses or flats in blocks/estates. It is likely a series of collection mechanisms would be needed.

A study in 1999 by MVA Consultancy commissioned by the then Government Office for London estimated London had 6.8 million parking spaces.[39] These included on street parking (controlled and non-controlled), public off-street car parks, private non-residential car parks (such as for employees or customers) and private residential parking.

A daily charge of 14p on 6.8 million spaces could net £347,718,000 annually.[40] A 12-year levy running from April 2019 to April 2031 with static levels of charge and parking spaces could net £4,172,616,000 at today's prices. This could contribute 15.2 per cent of the cost of Crossrail 2, in today's prices.

Traffic Regulation Orders are legal measures used by local authorities to manage traffic and parking in their area. Any parking charges for on-street or off-street parking associated with Traffic Regulation Orders can only by set with reference to parking and traffic objectives. Any surplus from on-street charges or enforcement can be retained by the council but can only be spent on roads and highways maintenance, public transport provision, environmental improvements and anything which facilitates the implementation of the London transport strategy. Surplus from off-street parking charges is not regulated in this way and can be spent on anything the council feels is appropriate. If an off-street car park is not regulated by a Traffic Regulation Order the charges can be set at any level the council feels is appropriate.

Therefore income from parking charges from off-street non-regulated car parks could at present be increased and used to contribute towards the cost of Crossrail 2 as Crossrail 2 features in the Mayor's transport strategy. For parking charges more widely to be raised to fund Crossrail 2, this would require a change in legislation.

Business Improvement Districts/Benefit Assessment Districts

The Melbourne Underground Rail Link, completed in 1981, received 25 per cent of its funding from a Benefit Assessment District. A similar approach is being considered for a proposed AUD11billion Melbourne Rail Link.

Opportunities	Challenges
Ensures that businesses and landowners already in a location contribute to the infrastructure that they will benefit from; not just those who are newly moving in.	Resourcing the capacity to make assessments of benefit, especially as the assessments are based on growth predictions which could be unfounded.
High density development at stations, including commercial, retail or residential units could provide funding for Crossrail 2. Business Improvement Districts could help support these sorts of developments.	Could undermine efforts to regenerate an area by attracting new businesses if taxes are higher. May undermine the support of businesses or landowners for new infrastructure.
There are already 41 Business Improvement Districts in London, and so it is not a new concept.	A Business Improvement District levy together with the Business Rates Supplement may not be popular.

Establishing Business Improvement Districts (BIDs) and levying a charge on businesses is already possible in the UK. However, businesses must vote to approve the establishment of a BID, which usually

[39] http://www.racfoundation.org/assets/rac_foundation/content/downloadables/spaced_out-bates_leibling-jul12.pdf p.16

[40] Daily charge of 14p multiplied by 365.25 days of the year multiplied by number of spaces.

includes paying a levy. London could add compulsion to what is currently a voluntary (requires business approval) scheme, and establish BIDs across London or around key infrastructure sites such as Crossrail 2.

A compulsory system of Business Improvement Districts could assess the benefits to each business or area from Crossrail 2 or other infrastructure projects, and levy businesses according to this benefit. London local government would need to secure powers to establish mandatory BIDs. Existing BID collection mechanisms could be used, or a new collection system developed.

Toll bridges

State-owned toll bridges in San Francisco are being used to contribute towards the cost of the Transbay Redevelopment Project.

The Dartford Crossing carries around 140,000 vehicles daily.[41] The single journey charge for a car is £2.50.

A similar crossing in London which had similar usage and a similar charge for cars could collect £350,000 daily. If a similar crossing existed or were built in London and the revenues were collected by London local government, operating every day could collect £127,837,500 annually.[42] Once costs were paid for, in the longer-term a crossing could act as an Infrastructure Income Stream for new projects.

Over a 12-year period from April 2019 to April 2031 and assuming static levels of vehicles and charges, this could contribute £1,534,050,000 towards the cost of Crossrail 2 at today's prices, which represents 5.58 per cent of the total cost. There could be additional income from enforcement of non-payment of the charge, depending on the collection method.

However, if tolls are levied on major bridges across the Thames the likelihood is Londoners would expect charges to fund the bridges. Nonetheless this modelling does show the scale of sums that could be generated from pinch points of entry to London. Further work might demonstrate that the approach could be adapted to support Crossrail 2 in other circumstances.

[41] http://www.bbc.co.uk/news/uk-england-kent-23231460 and http://www.theguardian.com/money/2014/dec/20/dartford-crossing-toll-invitation-scammers

[42] Daily crossings multiplied by car charge multiplied by 365.25 days of the year.

Appendix B: Council Tax and Business Rates Supplement outside London

Appendix B considers a Council Tax Precept and Business Rates Supplement in the districts immediately outside London which are likely to benefit from the Crossrail 2 route.

To the north of the route, district Broxbourne in Hertfordshire; and district Epping Forest in Essex are likely to benefit from Crossrail 2. To the south, districts Epsom and Ewell and Elmbridge, both in Surrey, are likely to benefit.

Council tax precept outside London

Crossrail 2 is intended as a railway line linking Surrey, Hertfordshire and central London. The regional route has been selected as the preferred option as it offers greater connectivity. It is a more expensive option than the metro route.

PwC has considered how much could be raised to fund Crossrail 2 by a continuation of the Olympics Council Tax Precept on London's householders. The Olympic precept in London was agreed at no more than £20 for a Band D household, to run from 2006/07 to 2016/17. In its final years, this precept has fallen to £8.

PwC have proposed that the Olympic precept be continued at a Band D rate of £8 from April 2017 to March 2025. Between April 2025 and March 2037 a higher Band D rate of £13.33 would apply, which uprates the precept for RPI inflation.[43]

Table 8 calculates how much could be raised if the same PwC proposals for London were applied to households in the districts immediately outside London which could benefit from the Crossrail 2 rail line (see map above). This does not take into account any growth in the number of households.

Table 8[44]

Council	**Amount raised in total April 2017-March 2025**	**Amount raised in total April 2025-March 2037**
Epping Forest	£4,022,725.76	£10,054,191.84
Broxbourne	£2,711,525.04	£6,777,055.08
Epsom and Ewell	£2,376,584.80	£5,939,486.40
Elmbridge	£4,635,985.36	£11,586,797.40
All districts	**£13,746,820.96**	**£34,357,530.72**

Between April 2017 and March 2037 a Council Tax precept could contribute £48,104,352 towards the cost of Crossrail 2, in today's prices and with no growth in the number of households. This could contribute 0.17 per cent of the cost.

Business rates supplement outside London

The London Business Rates Supplement is payable by businesses with a rateable value of £55,000 or more.

The Business Rates Supplement for Crossrail 2 adds 2p in the pound to the current multiplier which is 48.2p in the pound, making it 50.2p.

PwC calculate a London Business Rates Supplement for Crossrail 2 over a 30-year period from April 2033 to March 2063. They include revaluations and RPI increases to rateable values for the London calculations, which are not included below.

Table 9 sets out how much could be collected from an equivalent Business Rates Supplement in the four districts outside London.

[43] Council tax precepts can be found on p.76 of PwC's report, Crossrail 2: Funding and Financing study.

[44] Household band data was obtained from the Council Tax valuation list. PwC rates were applied to the total number of households in each band, and then all bands for a district were totalled.

Table 9[45]

District	Number of businesses with a rateable value of ≤£55,000	This as an average percentage of total businesses	BRS (0.02 multiplier) applied and totalled
Epping Forest	220	5.6%	£796,884
Broxbourne	206	6.95%	£1,208,670
Epsom and Ewell	215	9.95%	£785,508
Elmbridge	396	9.7%	£1,567,688
		Annual total from all districts	**£4,358,750**
		Total April 2033-March 2063	**£130,762,500**

At today's prices, £130,762,500 could be raised towards the cost of Crossrail 2. This could contribute 0.48 per cent towards the cost in today's prices.

The amount raised is much less than in London (PwC estimate the London Business Rates Supplement could raise 15.2 per cent). This is because a much lower proportion of businesses outside London have a rateable value over £55,000 – across all four districts the average is 8.05 per cent. In London, PwC estimates this to be 20 per cent of businesses.[46] Land and rental values are also higher in London.

London local government does not have the power to levy either a Council Tax Precept or Business Rates Supplement on households or businesses outside London. To do this would require the agreement of the local authorities outside London.

45 Data is from the Valuation Office Agency http://www.2010.voa.gov.uk/rli/en/advanced/searchResults

46 PwC, Crossrail 2: Financing and Funding Study, p.25