

ALTERNATIVE APPROACHES TO FINANCING INFRASTRUCTURE AT THAMES GATEWAY.

By

Haseeb Mehmood

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Abstract:

The provision of infrastructure in a development or redevelopment/regeneration project is becoming a difficult proposition for public sector. Governments across the world are moving towards innovative ways of financing infrastructure which generally involves a public private partnership. In the UK this trend is also evident and acquires special attention with winning the Olympic bid. Thames Gateway holds a promise of a better economic and social future for not only east of UK but also the economy of London. This report looks at the approaches adopted for financing infrastructure and discusses TIF and Land Grants in particular and how these can be modified to provide better results in UK.

Key Words: Urban Regeneration, Financing Mechanism, Thames Gateway, Tax Incremental Financing and Land Grants.

INTRODUCTION

“When you have eliminated all which is impossible, then whatever remains, however improbable, must be the truth (Sir Arthur Conan Doyle).

Introduction

The rising cost of providing infrastructure over the world has made it difficult for governments to finance mega projects. This rising cost has been attributed mostly to rising standards and relative complexity of the modern infrastructure. Also there is the issue of providing these facilities not only for new urbanisation but to also modernise the old infrastructure. This puts a burden on the public fiscal budget and makes it more and more difficult to fund the provision of infrastructure. Countries around the world have tackled this situation in various ways to give a boost to the economy of an area, city or country as a whole. The measures taken towards regeneration give a sign to the investors of the long run commitment of the public sector towards the economy and businesses in an area. It is also then the duty of the private sector to provide help to the public sector in regeneration through financial and moral support. The financial support can go directly towards financing the regeneration and also towards other social benefits, such as human resource training and welfare. These in the long term benefit the private sector and the economy as a whole. In this report we discuss the ways through which a public-private partnership can finance the infrastructure of any area. We will focus our efforts on Thames Gateway, which has become now more important in the backdrop of the success of London Olympic Bid 2012.

Methodology and Approach:

In order to prepare a report with respect to the financial mechanisms for providing infrastructure for Thames Gateway it was important to first discover about some of the main issues relating to the region.

- Its history
- Its potential
- Its importance to London Economy
- Feasibility of various Financing Mechanisms

Most of the research pertaining to these points was done in the start of the research period. Most of the information was gathered through Government Department websites and vast amount of information present on the internet. The only way to filter out the information was to go through it. Most of the information therefore was collected through the internet. It is very easy to write about the history of the Thames Gateway however in the last few years since the Labour Government the amount of work being done on the Gateway has taken on huge proportions, therefore at times it becomes difficult to link the relevant information in its proper perspective. The other sources of the information were the officials from the local councils. Informal meetings were held with these retired officials and they were able to guide in the right direction. After collection and sorting out of the data the second step was to find about the relevant and probable Financial Mechanisms.

Two of the financial approaches were adopted for analysis based on guidance from the supervisor. The two methods selected for analysis were Tax Incremental

Financing and the Land Grants. Both of these methods had their origin in America and had been successfully used historically to achieve development and redevelopment. These methods are not popular in UK and not much literature is available in the libraries. Most of the information pertaining to these methods was found through the internet. This time it was done so by using the American States Departmental sites. Most of information regarding the Land Grants was available through historical texts written after the Second World War. Further information regarding the Land Grants was available through the American National Archives. However most of this just presented numbers and not the scenarios in which the grants were provided.

TIF has become widely used in the American Continent. It is being used through Canada, North America and now also in South America. The increasing use of the TIF has been generally restricted to the regeneration projects and therefore it's well suited to the Thames Gateway. However the laws and regulations governing the public bodies vary between the United States and UK. Therefore any method could not be imported without certain changes. It also required the study of some basic laws governing the financing of project for local councils and restrictions imposed by the Treasury. In order to make sense of all the financing mechanisms and their use in the Thames Gateway an interview was arranged with the Chief Executive of Gateway to London. This interview was able to clarify some of the important aspects of development in the Gateway and also provided some interesting ideas.

After having collected the information it was time to apply the methodology for our particular case and try to assess its advantages. Both of the methods were used and

discussed in detail with the supervisor in an attempt to reach a workable solution for the financing problem for the Thames Gateway. Their relative advantages and disadvantages were compared and the findings reported.

Background:

Since the Second World War, London has undergone massive development following a well laid out plan. Some would however claim otherwise on many accounts. (Hall, 1989) However this development is not equally spread out, and the west of London has benefited the most from this development, whereas the east and south east have not developed relatively and lag way behind in terms of better infrastructure, housing and transportation. Most commentators agree on this point. However, transport infrastructure has the most influence as it can provide both residents and business easy and quick access to workplaces and consumers. This difference in infrastructure development was not out of prejudice but out of fact that the eastern area was being extensively used for industries. There were also military establishments in this area. However with time the industries have closed down and the military bases no longer exist. These areas have now become the so-called “Brownfield” areas. Also an important point to be mentioned here is the green belt. The green belt has been preserved all around London since 1947 and is still being preserved. There are fears among parliamentarians and some scholars that local councils and the government are not preserving this green belt and are rather allowing developments, mostly housing on the green belt (Reference -). Historically in order to maintain this green belt the development of London economic zone has been in the form of New Towns, such as Milton Keynes, Hemel Hempstead, Peterborough, etc. However, Thames Gateway provides an opportunity to develop and regenerate east of London. This will involve

provision of housing, transportation and employment opportunities. However all of this depends upon the provision of sufficient infrastructure. Total of four such areas have been earmarked for regeneration across whole of the England (ODPM, 2003).

National context and policy

RPG 9a The Thames Gateway Planning Framework (1995) sets out a series of objectives for the Gateway area including:

- *To improve economic performance, enhancing London's position as a major World and European city;*
- *To maximize the opportunities for new economic activity and jobs, created by the improving transport connections to continental Europe;*
- *To work with the market, building on existing and community strengths, reinforcing the economic base, and at the same time attracting new economic investment, strengthening existing communities as well as attracting new residents;*
- *To encourage a sustainable pattern of development, optimising the use of existing and proposed infrastructure and making the fullest possible use of the many vacant, derelict and under-used sites which previously supported other activities;*
- *To safeguard and enhance natural and man-made assets and where necessary raise the quality of the local environment; to encourage the highest quality in the design, layout and appearance of new development.*

RPG9A has now been superseded by the Zonal Action Plan for Thames Gateway which the Thames Gateway South Essex issued in Autumn 2001. The Zonal Action Plan sets out planning targets for 14 key zones for development, which are aggregated into five areas covering the entire Thames Gateway area: Inner Gateway; Outer London Partnership; Central Gateway; Medway estuary and South East Essex.

The RPG9A strategy also identified a key series of problems that needed to be tackled if the regeneration of Thames gateway was to be achieved:

- A need for improvements in *road and rail links*, with the Thames forming a barrier to north south movement (New Thames Bridge acquires a special importance in this context and the Olympics);
- A legacy of environmental degradation: the place where London generated its power and dumped its rubbish, producing derelict sites and a web of overhead power lines;
- Actual and potential land contamination, although less than 20% of the developable area has been subject to potentially serious contaminating uses;
- Under-achievement in the amount and types of new development secured and employment opportunities offered;
- A lack of ambition and readiness to accept uninspired development, leading to a self reinforcing cycle of environmental degradation. Explicit in the strategy is the need for *public funding and support to overcome these problems* if the regeneration of the area is to succeed.

Regeneration programmes have been carried out in the past, most significant example being the London Docklands, hailed as a success across not only UK, but also cited as a regeneration success and example all over the world. The regeneration of the Thames Gateway differs from the earlier such programmes (Docklands and most waterfront developments), which have been referred to as **Property led Urban Regeneration Programmes**, where the emphasis was on getting the private sector funding into these areas (Aldair, 2000). As Aldair mentions, in these cases the effort was a short term directive and not a long term one, the emphasis seemed to be on

getting the private sector funding and not using it for a long term benefit of the society, the community was rarely engaged in these programmes. In these cases the local councils were taken out of the whole equation and there never was a public private bonding that ought to have provided a solution that would encapsulate all the aspects of a community. In recent times the diversion from this ideology has led to the Public Private Partnership (PPP's) and Private Finance Initiatives (PFI's), and increasingly a lot of emphasis is being put on social as well as physical uplift.

The Office of Deputy Prime Minister has been working on creating an **Urban Development Corporation (UDC)**. Its purpose is to create an Urban Development Area (UDA), which in our case is Thames Gateway. The first area in UDC boundaries is Thames Gateway. Under Section 136 of the Planning and Land Act (1980), UDC's objective is to secure the regeneration of its area (ODPM, 2005). It achieves its objectives by

- *Bringing land and buildings into effective use;*
- *Encouraging the development of existing and new industry and commerce;*
- *Creating an attractive environment; and*
- *Ensuring that housing and social facilities are available to encourage people to live and work in the area.*

The UDC can also carry out “soft” measures such as training of the labor force. This would vary from London Docklands Development Corporation (LDDC) which was responsible for the development of Docklands. LDDC was a success with its land acquisition and planning power (ODPM, 2005). Over the years land reclamation has been one of the greatest benefits of the UDC and it can be used for Thames Gateway.

One would hope that UDC setup in Thames Gateway will be able to reclaim derelict land and provide these sites for urban development.

The transport infrastructure that needs to be put in place has to be well thought out and worked on well established guidelines. While all public transit in Greater London remains integrated in fares and services under the coordination of Transport for London, this is not the case for public transport outside of London where deregulation policy enables direct competition between operators and gives them some degree of decision making power about the setup of their networks. As a result, public transport operations tend to concentrate and compete in high-ridership corridors (Scheurer et al, 2000), including the emergence of parallel bus operation to rail lines, leaving less profitable sectors of the network poorly or not served at all, and enabling each operator to set up their own fares. (Scheurer et al, 2000). This situation will exist in the rest of the gateway as the investors and developers will target such corridors. This is not to say that such projects don't work. The important thing is their effect on the gateway as a whole is positive and confidence building. It remains to be seen what will be the public policy in this matter.

Now we return to the main emphasis of the report and that is the financing of this regeneration. All planning is rendered useless and costly if it cannot be put into place, in a situation where already opposition parties accuse government of costly bureaucracy. The question remains by whom and more importantly how this regeneration will be funded. We now look at the view and proposals put forth by both Decision making (Public) and Money making (Private) parties.

FINANCIAL MECHANISMS

Financial Mechanisms:

Optimistic and Pessimistic Views

Much is being said and written about the topic, and the most pressing issue that faces this programme is the financing of infrastructure, with Public and Private sector both unwilling to put in the required huge amount.

Public sector remains of the view that the development in the Gateway is going to generate enough income to give developers a large profit margin after incurring costs for infrastructure development. Thereby it's a feasible option for the developers to go into Thames gateway and undertake development including private funding of infrastructure. Government understands that it cannot generate enough funding for development and it requires the private sector help (GLA, 2004).

Developers on the other hand think that it is not the best of investments and there isn't strong business base in the gateway (Appendix-I) and any such undertaking will be very risky. For this purpose the developers require the government to provide incentives to the developers. This may be in the form of providing transport infrastructure or some kind of subsidy.

It must be pointed out that in all cases the transport issue remains the most important one. Development in Docklands only proceeded after the transport infrastructure was put in place by the Government.

Certain ideas and policies have been put forth by both parties and a lot of consultation is being carried out in order to develop a system for financing of this programme.

Some ideas are more popular than the others and also more controversial in the eyes of the other party. We will discuss two such ideas, one of the ideas put forth by the public sector is the taxing of increased value of property resulting from the provision of infrastructure most commonly referred to as the **Tax Incremental Financing**. The other idea that the private sector won't mind adopting is the **Land Grants**. Both of these ideas have been discussed with their advantages and disadvantages in the following pages.

This problem of rising infrastructure cost and maintenance has made different countries over the world to look for innovative ways of financing their infrastructure (Kirwan, 1988). These new and innovative ways are directly linked to the public spending policies and the role of monetary authorities. In United States the local public authorities raise almost 75% of the total taxes (Wolmar, 2001). Government in United States has only put a restriction on the amount of revenue that can be raised, this has allowed the local public bodies, to come up with innovative ways of raising finance with systems like,

1. System of special assessment
2. System of special district
3. Tax incremental financing.

All these systems include their own methodologies and related system of raising finance, like *Impact fees* and *Linkage fees* as reported by R.M Kirwan (1988).

In countries where there are more restrictions on local authorities and the control is generally kept central, such innovations have not been possible. In these countries emphasis has been upon building a public private partnership so as to involve the private sector in provision of infrastructure. This has been achieved in the form of complete privatisation or a public private partnership, thereby keeping the control with the public authorities yet the financing and revenue generation to the private parties. This is true for UK where Treasury maintains a hold over the revenue collection and budget allocation along with an effort on keeping the public borrowing under control. Here systems such as Tax Incremental Financing are not therefore acceptable to the Treasury and can only be used with modifications to methods or the policies. It will be the endeavour of this report to show the effectiveness of these methods of raising finance along with their application in Thames Gateway.

TAX INCREMENT FINANCING

Tax Incremental Financing:

Tax Incremental Financing is a mechanism for funding development and redevelopment projects. It is a financing concept which has its root in the United States of America. It has been used quite effectively in development and regeneration projects. It is a concept which has not been used in UK because of the Treasury rules and regulations. We firstly discuss the origin and use of TIF in United States.

TIF in America:

Although the concept of TIF existed as long ago as the early 1940s, California adopted the first TIF law in 1952. However, the widespread use of TIF did not occur in most states until the 1970s. Most recently the state of Wisconsin seems to be using this concept more and more and has issued different documents relating to its use and effectiveness. (Wisconsin, 2005a)

Political Background:

The political background of TIF is partially influenced by the issue of racial and social discrimination. In most of the cases the redevelopment is required by the poor part of the city, which normally comprises of other ethnic origins. Therefore in case of a general taxation, normally rich suburban residents object when they have to pay for something which will not benefit them and also does not benefit the people belonging to their ethnic origin. TIF is a way forward in such situations, where the people of the area somewhat help themselves to improve their own condition. In Britain the general thinking is that rich should help the poor, and normally all share in the cost of improvement that maybe for any one deprived community or area. However this has not been a significant amount and with the increasing need for infrastructure in the

Thames Gateway region and other transportation and development projects, there can be an outcry from the tax payers. The huge amounts required for investments cannot be burdened onto already burdened tax payer, where this amount exceeds tens of billions. Therefore we propose TIF not only as a redevelopment/regeneration financing mechanism but also as a general development financing mechanism. Therefore we also propose a new and different definition for TIF and therefore follow the rest of the report on those grounds.

Background of Law:

- i) The TIF law was an attempt to counteract the economic downturn by allowing cities and villages to work with the private sector to stimulate economic growth and employment through *urban redevelopment projects*.
- ii) A more general reason for the state's TIF law was a legislative determination that all taxing jurisdictions benefiting from urban redevelopment should share in its cost. Public improvements (such as sewers, streets, and light systems) usually result in an expanded local tax base. Although the cost of these improvements is normally financed entirely out of municipal revenue, it was argued that the county and school and technical college districts also benefit from the expanded tax base.

Base Value

In United States generally an area which has to be redeveloped or regenerated is declared as a Tax Incremental District (TID). Once a TIF district has been created, a "tax incremental base value" is established by DOR (Department of Revenue) for property within the district at the time it was created. The base value includes the

equalized value (Appendix – III) of all taxable property and the value of municipally-owned property, as determined by DOR. It does not include municipally-owned property used for certain municipal purposes (such as police and fire buildings and libraries).

Generally, the base value remains constant until the project terminates. However, a planning commission can also adopt an amendment to a TIF project plan at any time, for up to four times during the district's existence, in order to modify the boundaries of that district so as to add contiguous territory served by public works or improvements created as part of that district's project plan or to subtract territory from the district without eliminating the contiguity. The value of taxable property that is added to the existing district is determined by DOR. This value is then added to the original base value of the TIF district.

Tax Increment

The "tax increment" equals the general property taxes levied on the value of the TIF district in excess of its base value (this is the "value increment"). *The amount equals the value increment multiplied by the tax rate for all tax jurisdictions--municipal, county, school district, technical college district, and special purpose districts.* Therefore, tax increments can only be generated by an increase in the equalized value of taxable property within a TIF district. The property tax base for the TIF is frozen for the duration of the project and so it becomes the base value. *An increased tax is collected from this area based on the increase in the property values.* Here now we present some of the advantages and disadvantage that have been put forth by economists. (Johnson et al, 2002)

Advantages:

- 1) It can provide financing for projects that otherwise would not be economically feasible.
- 2) The city loses no tax revenue
- 3) Property owners in a redevelopment zone pay their full share of property taxes and property owners outside the zone are not required to pay more than a normal tax burden.
- 4) TIF bonds are not included in a city's general debt obligation.
- 5) Development is financed from the increases in tax revenues that it generates, not by subsidy from other areas of the city.
- 6) Once TIF bonds retire, the city and all other affected taxing units get the advantage of the full tax base and increased revenues.
- 7) Projects must be well-planned and economically feasible in order to attract bond investors; ill-conceived projects won't get off the ground.

Another advantage is the fact that if other tax payers are paying for an investment project in some other area. The chance is that people in that area will go through with ill-conceived project as their own investment is not at stake. However in the case of TIF the local community and authority are aware that if the project does not go well, it can result in TIF body not being able to service the bond and therefore they will have to pay for it from their own pockets.

Disadvantages:

- 1) While the projects appear to be self-financing, in reality tax payers outside the redevelopment zone subsidize the projects by paying for increased service needs (fire, police, schools) that emerge as a result of redevelopment.

- 2) There is no voter accountability
- 3) Cities often abuse the program, capturing taxes on development that would have occurred without the TIF project or using captured tax revenue to provide basic city services.
- 4) If the increment does not materialize as planned, the city must find some other source of funds to prevent bond default.
- 5) TIF debt is more expensive to service because it is not backed by the full faith and credit of the city.
- 6) It is difficult to alter development plans once bonds have been issued, since bond buyers require assurances that limit flexibility.
- 7) Cities often stretch the definition of blight to ridiculous extremes, allowing use of TIF in areas that don't need publicly subsidized assistance.
- 8) Most incentive programs, including TIF, are welfare for big developers who use the incentives as a windfall to help them carry out projects they would have undertaken anyway.
- 9) Other taxing districts are forced to give up a part of their tax revenues to a city without being given any authority over how the money is spent.

Apart from the advantages and disadvantages is the setting up of the Tax Incremental District. Naturally we shall look into the process adopted in the United States.

Development of a Tax Incremental District:

The state of Texas has outlined rules for establishing a TID. These are to be followed to setup a TID. These are

- The governing body of city prepares a preliminary reinvestment zone financing plan.

- The city provides 60 days written notice of its intent to designate a reinvestment zone and of the hearing on the proposed zone to all tax units levying property taxes within area.
- Once the city has provided its 60-days notice of the proposed zone, other affected tax units have 15 days to designate a representative to meet with the city to discuss the project plans.
- In addition to meeting with the tax unit representatives, the city makes a formal presentation to the governing body of each county and school district levying real property taxes within the proposed zone.
- After the city has made a formal presentation to the other tax units, the city holds a public hearing on the creation of the reinvestment zone.
- Following the public hearing, the governing body of the city, by ordinance, designates a contiguous area within the city as a reinvestment zone for tax increment financing program.
- After the city has adopted the ordinance creating a zone, the board of directors of the zone must prepare both a “project plan” and a reinvestment zone “financing plan”.
- After the project plan and reinvestment zone have been approved by the board of directors and by the city’s governing body, the other tax units with property within the zone contract with the city regarding the percentage of the their increased tax revenues which will flow to the tax increment fund.
- Once the reinvestment zone has been established, the board of directors of the reinvestment zone makes recommendation to the governing body of the city on the implementation of tax increment financing.

- The city must submit an annual report to their chief executive officer of each taxing unit that levies taxes on property within the zone.

For a detailed discussion of all these points see (Handbook on Economic Development Law for Texas Cities, 2002-3, excerpts, pg. 99 – 106). However based on the local authority and public rules these will most probably undergo certain changes.

Measuring the TIF success:

The success or failure of the TIF depends upon its financial performance i.e, its ability to timely refund the TIF bonds. There are some issues here that need to be looked into before one can measure the financial performance (El Paso, 2005). To assess the economic value of a potential TIF district, Dye and Sundberg (1998) propose two performance criteria: *financial viability* and *efficiency enhancement*.

Financial Viability: a TIF reinvestment district is financially viable if the additional tax revenues it generates is atleast as large as its cost (that is, the TIF district has a positive cash flow).

Efficiency Enhancement: a TIF district is efficiency enhancing if incremental benefits generated exceed the tax revenue that would otherwise have occurred. However in cost benefit terms it is efficient if its “incremental benefits overcome its costs”.

Efficiency enhancing TIF’s generate positive cash flows that also cover the opportunity costs of expected tax receipts. Economists also make the point of

efficiency in the terms that the people who are paying for the infrastructure themselves benefit from it.

For a detailed mathematical explanation and framework, see Institute of Policy and Economic Development (2002).

The increment in the value is not an instantaneous process and can take time, based on the infrastructure development. We can develop a timeline to assess the exact time to measure the increase in property values. This is due to the fact that after the TID is established. First of all there is the acquisition of the property, followed by demolition, and then the erection of new infrastructure such as sewers and roadways etc.

“Local redevelopment authorities look for near-term private investment ratios to public dollar participation in the range of 8:1 or 12:1” (ERA, 1999, p.24). This forms a basic idea of what kind of investment ratio a governing body can hope to achieve, having little previous experience with TIF we would consider that the local council in this case may only be expected to reach an investment ratio of 8:1. In the case of Thames Gateway, this would imply that for every £1 million spent by public sector, an investment of £8 million should be expected from the private sector. Considering the borrowing limits that will be available to the local authorities (Appendix I) it's a good guideline to establish the kind of investment that needs to be carried out.

Crossrail:

Crossrail also plans to use TIF as one of the proposed sources for generating funds for funding required for the venture, and refers to it as the Alternative mechanism of funding (DfT, 2004). Crossrail expects a windfall gain of 6% in property values around the stations. This is true for both residential and commercial properties. This may not be consistent across the entire route but still the Crossrail thinks that it will provide about £2 to £3 Billion. There is also a suggestion of imposing direct levy over the area surrounding the stations, within a one kilometre radius.

However, there are fears amongst the general business community that such aspirations of the businesses in east of London wont pay, (Appendix - I) as the business in east are not as large as in the west and are not also as well established, meaning that some of them may close up and not be there in the long run. One of the two routes of Crossrail runs east to west, whereas such expectation of funding through businesses in the west can be realistic, those in the east need to be looked at in greater detail. TfL already has a consortium working on the effect of the uplift in the property values due to provision of better infrastructure.

Long run businesses can only be established with a good transport infrastructure any foreign investor wants a good and fast infrastructure in place to provide quick access to consumers and markets. Foreign investors generally Americans are not ready to invest in the east as they perceive the transport infrastructure not up to the mark and also with delays in the Crossrail and its completion only after the Olympics, there is not much incentive to invest (Appendix -I). Urban generation areas are commonly perceived by investors as risky locations, the volatility of land values being a major risk. (Aldair, 1990) these facts and figures point contrary to what the government will

have the private investors believe. We must keep in mind that a private sector developers first and foremost concern is his business and its profitability. An investor will not invest in any business unless he is more than sure that it will give good return. The question then arises how one can convince them of the potential and a good return on their investments.

A study undertaken by CASCO (1989) into the risks of return of inner city investments showed that nearly two-third of the 120 urban renewal cases achieved their financial objectives. This was attributed to pre-letting, attraction of anchor tenants demand appraisal, marketing and the growth in land/rental values. However, in all schemes, none took the risk of relying on an improvement in capital and land values to ensure a return even though many did benefit from uplifts in value. This study was undertaken prior to the market downturn of the recession of early 1990's. (Aldair, 1990)

This clearly points that the investors historically don't rely on property in achieving their financial objectives. Public sector incentive to the private sector might help in getting the projects of the ground. Research such as this point out to the fact that no private investor will on its own invest in major projects besides the cost of financing for a private investor is always high as compared to the public sector.

Modifications

In order to counteract some of the disadvantage and further increase the advantages of the TIF system we propose a different condition for setting up of TIF to increase its efficiency and application.

“Infrastructure investments that could be made that are economically efficient which will not be made without TIF”.

This expands the scope for TIF so that it can be used for development projects as well regeneration projects. By providing such condition we tackle few of the disadvantages that have been cited above such as that for blighted area and of windfall gains to developers. In order to comment on advantages and disadvantages we must compare it with an alternative. We have already mentioned that TIF is normally undertaken where there is no other alternative. So we either compare it with no development taking place or the normal development through a general tax imposed over say all of England. In case of no development taking place TIF is uplifting an area socially and economically whereas that would not happen, and if the situation is allowed to persist the blighted area or required development that was not undertaken will put burden on the economy and the services that supposedly will have to be provided by tax payers money, will have to be provided anyway. If the development or redevelopment is undertaken via a generalized tax increase, majority of the people who don't benefit from the scheme still have to pay for it including the increased services. Therefore for a localized scheme or project TIF is a viable financing mechanism.

Transport for London proposes an Increment calculation rule which also takes into account the normal increase in property that would have taken place over the course of years. Therefore if we assume the general increase in the property in all of England or London to be say x percent. Now if the increase in property value across the zone marked for Increment Financing is y percent. Then the Increment is taken as (y-x) percent. Therefore it takes into account the general increase of the property value and

also takes into account any decrease in the property values across London or England. In this situation in any case the TIF would make positive returns, as it can be predicted that new infrastructure would definitely add value to the local area and even if property values generally go down TIF will still be able to make a better return.

A study by Centre for Land Studies, by Don Riley, calculated that for the cost of £3.5 bn there was an increase in the value of the land of £ 13bn. He suggests that the way of funding such schemes would through a tax on the added land value gained as a result of the development (Wolmar, 2002). Wolmar believes that a 25% percent tax on this revenue stream would have led to an annual flow of £ 325m, which would have repaid the JLE extension in 20 years time.

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If the property is depressed in an area and the regeneration or redevelopment project goes through well, it will bring higher windfall gain, however if it does not go well, there is always some risk involved, but the return can easily outweigh the risk. It is a case of risk against return. It depends upon the beta of the project. The return therefore is directly related to the beta of the project and in this case it's the value of the land.

An important aspect of the TIF is who has to finally pay the increased tax revenue. Normally the occupier of the property has to pay the business rates. This is usually the owner or the leaseholder of the property. If a business rents or leases its premises, its rent may include rates. If it does, the landlord is responsible for the payment. There maybe a divergence of interest between the companies that rent their premises and the

property companies. Property companies benefit from any increase in the rent while for business that is a cost. For owner occupier it cancels out.

A primary presumption of TIF is that public expenditure in a reinvestment zone will cause an increased private property values (Johnson, 2002). If the investment is being carried out in an area that would have developed anyway without the existence of a TIF, then it cannot be called as a suitable area for TIF. Generally commentators argue of TIF as a subsidy to the developers. However, if the infrastructure is paid for by others, the infrastructure can be said to be a subsidy to developers. But TIF as a funding mechanism is never a subsidy to developers rather it is a tax on those developers.

There now seems to be a change in the borrowing policy, as the Treasury has allowed the Mayor of London to borrow up to £3 Billion annually, and the local councils will also be allowed to borrow a certain sum of money in the future (Appendix – I) This could mean that local councils can develop their TIDs and carryout their own development or redevelopment projects.

The delivery mechanism can be a form of PFI which will take over the development of the projects and infrastructure across the gateway. It will generate its initial revenue from the sale of bonds. In this case the financing party in the SPV, a bank, can lay a claim with the central government that it would take any increase of 1 percent over the base tax at the time of initiation of the project, and any other subsequent increase beyond 1 percent can be kept by the central government or the property holders. 1 percent is a hypothetical case, just for the sake of argument.

Other way around is the issuance of bond by the PFI where it collects the increased tax revenue but any tax collecting body has to be a public body. However, if the government allowed it to go bankrupt it would not be counted as a government subsidiary, however in that case the bond will bear higher risk, transferred in the form of a higher interest rate. Generally in the United States the interest rate over the bond is higher than the treasury bonds, but not necessarily higher than some private stocks, as still the risk lies with the public body. However in our case this would not be so, and as the issuing body is a private one, the interest rate can be expected to be higher than the private stocks. There have been some recent development taking place in the east of London, where the local council has been the underwriting authority (Appendix -I). One more aspect in a TID is its suitable size that will allow enough generation of increment to service the bonds. This increment therefore depends on the initial value, type of infrastructure development and size of the Tax Incremental District.

For all practical purposes a special district can be created as a test for the rules and investor and private sector interest in these projects. This may send a negative signal on public sectors part of not having enough confidence in its preferred financing mechanism. However, economics is not an exact science. On the other hand government can undertake a large scale program based on the American experience and drive it through with further consultation studies designed specifically for the Thames Gateway Region. Although the government already has financial plans laid out for Olympics, TIF can be tested in some areas to acquire investor confidence.

LAND GRANTS

Land Grants:

The other method under consideration is the incentive of Land Grant. This stems from the American Railroad Grants, also referred to as the Maxwell grants. One of the big issues at the time of independence of USA was to keep it united. The country itself could not afford to build a railway connecting all the states. Building a railroad was an expensive venture and Private Banks, fearing the railroad companies would need a long time to pay off their debts, were reluctant to loan money to the companies. To remedy the situation, Congress provided assistance to the railroad companies in the form of land grants. Without the assistance of the U.S. government, railroad construction between 1860 and 1900 would have been greatly curtailed. The railroad companies, receiving millions of acres of public land, sold the land to make money, built their railroads, and contributed to a more rapid settlement of the West. In the end, four out of the five transcontinental railroads were built with help from the federal government.

However some commentators have had other views over the years, Henry (1945) was of the view that the government had been a shrewd planner and it drove the deal with full benefits in mind. Others are of the view that these grants were given without any formal planning or cost benefit analysis and claim that during those times the congress did not look at all the aspects, and gave those grants in the view of building a link between the several states and making them governable administratively.

Approximately some 220 Million Acres (Gross) of land was awarded in Land Grants to the railroad companies, which however in the end came out to be approximately 180 Million Acres (Ellis, 1946). There was a decline in railroad construction during

the American Civil War and ensuing inflation for few years after, however during the 1880's the construction boomed again and an average mileage of 7000 miles (11,300 km) was added each year. This led to an increase in inter-state trade, and also helped the military movements during the two world wars. However, its greater economic and social impact was the immigration to the undeveloped areas leading to the colonization of the West. (Ellis, 1946)

We have an idea about the problems and debates that were held in the wake of these grants. Most of these debates were held some 60-70 years later than the original grants, maybe because the construction of the railroad itself continued for some 50-60 years, since it started in the 1860's. The main topic of discussion through all of these debates was whether the grants were justified, and that government and the people of America had not lost a lot of their land at a loss.

It will also be worthwhile here to mention about the "Equalization Agreement". Under this agreement the railroad companies would provide the government servants, civil and military both with subsidised charges, at 50% of original charges and 80% for postal services. (Henry, 1945)

Most importantly these grants were not only used for funding the railroads but universities also formed a part of these grants. Several of the state universities were funded through these grants.

Whatever the commentators might believe and write about the Land Grants, no one can deny the fact that these grants held the country together and formed the backbone

of transportation infrastructure in time of need. The American Government might not have been able to properly carry out the cost benefit analysis in that period of time and its grants may or may not have been successful in areas (Wallace, 1945). Yet it did achieve what is set out to do.

The American railroad grants were successful in achieving their objective only because the state had claim to the land. There were problems with settlers who believed that they had settled their only because initially state had wanted them to and they were not going to vacate these areas. Apart from these rare occurrences the grants were successfully claimed by the railroads. These railroads became powerful in the early years of the 20th century. However Anti Trust Laws were enforced to restrict the growing monopolies of these companies.

Regeneration Grants:

First of all we need to look at the various kind of grant related to the land that have been used or are still being used in the country especially for regeneration. The government issued three different types of regeneration grant. These were '*The Urban Programme*' which was paid to private and voluntary sector organizations in order to improve social and economic infrastructure of deprived areas, '*The City Grant*' paid to private companies to generate and develop derelict and. The final type of grant issued was '*The Derelict Land Grant*', and was paid to the voluntary sector to regenerate physically degraded land. The Derelict Land Grant (DLG) was payable for reclaiming or improving land or for bringing land into productive use, under section 1 of the DLG Act 1982. This was managed by the then Department of the Environment until 1994 when English Partnerships (as the Urban Regeneration Agency) was created. It

dealt with new applications for grants under a new Land Reclamation Programme, with revised application and eligibility criteria. This was part of its overall Investment Fund, along with the Partnership Investment Programme and Direct Development projects.

With the formation of the Regional Development Agencies (RDAs) in April 1999, Land Reclamation Programme projects transferred to the RDAs (London followed in July 2000) and the operation of this fund by English Partnerships ceased. Land Reclamation Programme projects already approved at that time continue to be delivered by the RDAs through their Land and Property programmes. Decisions on successor programmes and their precise aims and eligibility criteria fall to each RDA.

Enterprise Zones were first introduced in 1981, and were areas of specially designated land by the local government, to try and attract business (often of a high-tech component nature) to relocate or establish themselves there. As incentives for business to locate in these new areas, the government offered special exemptions from particular taxes, and planning regulations were also relaxed. The idea of these new Enterprise Zones was that by attracting new, and a more diverse range of industry that the local area would benefit from secure and well paid jobs.

Enterprise Zones have received mixed response over the years (ODPM, 2004). Some argue that the development which took place would not have otherwise occurred. Other argue that few actually succeeded in creating new employment, and the jobs that were created were generally in established industry that already existed at that location. They also put areas at a huge disadvantage that were outside the boundaries of the enterprise zone. Industry that may have been in competition with companies

inside the enterprise zone did not have the same tax redemptions and incentives to succeed as those inside. This in turn may have caused them to close, even though they may have been only a short distance from the enterprise zones, and this became referred to as: 'The Shadow Effect'.

The third main method of urban regeneration came in the form of Urban Development Corporations. Again these were launched in the early 1980's period, when much of the initiatives mentioned were introduced. 'UDC's were government agencies that were given responsibility for the regeneration for a particular area.

The above mentioned schemes are grants related to the land. These have been used in various ways over several years with mixed results. This previous experience shall be able to guide us to develop a new grant system.

An aspect of utmost importance in Thames Gateway is the Brownfield Land. Land Grants can be justified for development in Brownfield Land, quite simply because there is no other alternative and if there are they are time consuming and will not be able to capture the fervor generated by Olympics.

One must understand the barriers to the development of Brownfield Land. *“The barriers to the development of the Brownfield land form a fairly spectacular array, such that it is surprising that any Brownfield land is developed. They relate to finance, land ownership, technology and psychology”*. (RTPI, 2001)

Such reports as published by the Royal Town Planning Institute here clearly show the barriers that exist for the development of Brownfield Land. Two of the above stated problems such as finance and land ownership are easily tackled by the use of Land

Grants. The Brownfield land forms a part of derelict land and has no other way of regeneration. EU does provide support for regeneration under its regional structure funding, however, Thames gateway is not in its list even though there are some areas included from the south of UK. At the same time the economy of London needs to grow and Thames Gateway along with major transport projects such as Crossrail makes it ideal to sustain London and UK economy.

Thames Gateway and Land Grants:

Land grants were used as a financing tool for transport development. If these grants had not been made at that period of time America would not have been able to sustain not only its growth but its entity as well. It would however be interesting to know and could help bring home the importance of land grants if the time required for building the railroads with contemporary methods like general taxation was computed. Land grants basically turned land into cash with an official decree. This huge amount of finance would not have been available at that time and also if it would have been made available through borrowing it would have taken many years for the state to pay it all. If we also keep in mind the ensuing Civil War, World Wars and inflation during the years to follow. The financing debt takes a huge proportion. Land grants took out the element of surprise and unknown out of the equation by providing instant finance.

The need for land grants was felt because the state was not in a position to finance such a venture oblivious of its importance to the country as a whole. Most countries over the world most of the times are facing this dilemma, where they would want to finance a project and yet are unable to do so. Thames Gateway seems to have

acquired this status as well. All agree of its importance and potential yet the undertaking of a redevelopment in Thames Gateway is an expensive venture.

However the first and foremost condition even in this case remains of the ability of the government to provide the grants, requiring it to be owner. This is not the case in the Thames Gateway. The property ownership is fragmented as it can be seen from table 4.1. It shows the ratio of fragmentation in South East and East of England clearly depicting the ownership split, with more than half with the private sector (NLUD, 2004). The average price of land in the London gateway is an average of £1.5 Million per acre. If the public sector was to only release 400 hectares (Appendix-1) from Barking it would be releasing a grant of approximately £1.5 Billion. The difference between the American Railroad grants and any grant here becomes quite visible as the land value is more here and even a smaller portion of land brings a larger return. However there seems to be restriction imposed by the EU on the land subsidy offered by the public sector to the private sector. Therefore that would restrict such a grant.

Ownership of previously-developed land by region: England 2004					
Government Office Region	Ownership				
	Local Authority	Other public	Private	Unknown	All (%)
North East	26	13	57	4	100
North West	19	16	52	13	100
Yorkshire & the Humber	12	14	50	24	100
East Midlands	8	11	58	23	100
West Midlands	12	12	58	19	100
East of England	5	18	66	10	100
London	11	19	44	26	100
South East	4	24	63	9	100
South West	7	14	53	27	100
England	11	16	56	16	100

Table 4.1 (Source: NLUD, 2004)

In Fig. 4.1 we can observe the shaded area depicting the Brownfield land available for development. This covers all of the gateway corridor and if brought into use it can help develop the Gateway

The long run development of the Thames Gateway area can also follow the pattern as Megapolitan areas, (Land Line, July 2005)

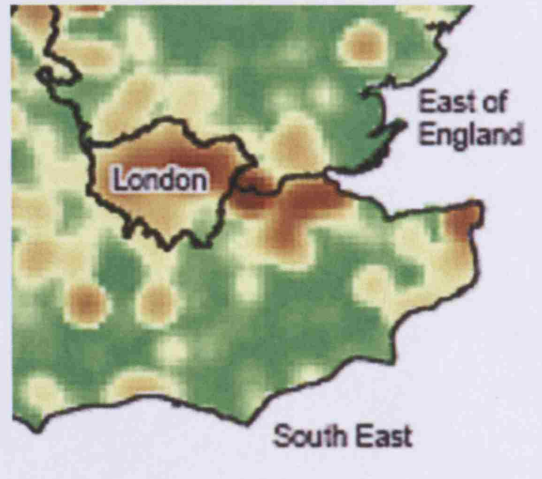


Figure 4.1 (Source- NLUD, 2004)

Delivery Mechanism:

The delivery mechanism for the Land Grant will have to be well orchestrated and legitimized. The most suitable method would be to equip a development corporation with land acquisition powers. This UDC would then make use of schemes like Derelict Land Grant Scheme and will work with RDAs to plan, acquire and overlook the private development.

Development Planning:

Any acquisition must follow already established plan of development. This should be centered on the provision of the transport infrastructure. Public sector can either contribute towards land value or land reclamation. This would be best achieved by keeping in mind that this development must be able to sustain itself and also contribute towards the London Economy. An example of this is the phenomenon of Megapolitan Areas observed in United States of America (Land Lines, 2005). A combination of metro and micropolitan area joined together through, transportation, business linkages, cultural commonality and physical environment. Ten such areas

exist in the United States at the moment, with six in the east and four in the west. This has developed in USA over some years unconsciously. However it provides us an opportunity to view it in context of London and its economy and the economy of the UK as a whole. We have a situation where a large area needs redevelopment/regeneration. It is already planned as a complimentary development to London's economy (where truly London's economy refers to the UK economy at large). A UDC or a development corporation like LLDC, which for our case we call TGDC (Thames Gateway Development Corporation), would have the power to acquire land and plan development with maximum and efficient connectivity. We already know that UDCs such as those formed for Docklands were very good with acquisition of land and any such corporation working purely for gateway can deliver land grants and any such venture will itself provide the incentive for private sector to utilise the opportunity. This will show a long term plan from government's perspective and a promise to private sector that government will not back on its plans.

Architect master planner, Eric Kuhne, is trying to do develop a model based on new towns (Hall, 2005) He's trying to generate a medium-high density development in which everyone will find, within an easy walk of their front door, a good-quality convenience store (like a Sainsbury's Local or Tesco Metro), a bus stop on Fastrack, a new-style bus way that will take people in a few minutes to the Ebbsfleet train station and from there to London or to Paris, a primary school for their young children, and primary care if they fall sick.

Acquisition of Land:

The TGDC can be given CPO through an act of Parliament. Here it would be useful to use Point Gourde (Hall, 2005) where a development corporation compulsorily buying land had to pay only the value which would have obtained if it had never existed; the value represented by the “scheme”, i.e. the transport or any other development or redevelopment, was to be disregarded because the development corporation’s existence created it. This would naturally keep the average land price quite low at the market rate without the scheme. This market rate could be obtained based on historical evidence.

Keeping in view the debate that ensued in the United States after the land grants, certain proposal can be thought off, one that appeals quite a lot, is the one where the central government might decide to grant the land to the developers on say a hundred year lease, free of cost, and maintain the right after 100 years to extract some rent from the businesses. Or say that period can be reduced to 50 years for say the next regeneration and redevelopment, so a piece of land will keep on paying for its regeneration over and over again, if the central government keeps the hold. Nominal Rent can also be collected through these properties. This will not be exactly like “Public Land Leasing” (Hong, 1999) as a continuous source of revenue to the local government rather a special provision for part of a major regeneration and redevelopment project. However, like public land leasing, a “premium can be charged, when the land rights are renewed”, most probably in the case of sale of land or property. However, in the longer term it should be looked into how the contract

enforcement will take place and if the lease is not transferred to properties in a manner such as to make the land retrieval a difficult or an almost impossible case.

Ideas like these coupled with the concept of the Megapolitan areas can be used for effective development and any grant should follow this procedure.

Measuring the value of Land:

An important aspect of the land grants is measuring the value of the land. We need a hard and soft approach to the land grant. Hard approach being simply the value of the land as it is given as a grant and the soft approach capturing its value through the future speculative development.

Hard Approach:

This is very simply the market value of the land that is to be given in grant. This will be measure at the time the grants are announced. The value of the land in the Thames Gateway has tripled since the plans of its regeneration have been announced (Appendix-I). The value of some portions of land that fall within the boundary of the proposed Olympic Village has already gone up. When the compulsory buying powers will be announced for this area, the residents will surely make a profit. The same can be expected to take place if such powers are invoked in the gateway. However if Point Gourd is kept in mind, it can be quite less and land owners will not be very happy at the prospect of lower land and property prices. However the profit will be a smaller percentage of the Olympic village area. From an economists point of view the

opportunity cost of that land is also an important aspect. However one feels there is not much use of the Brownfield and Derelict land.

Soft Approach:

The soft approach includes sort of cost benefit analysis. This would require us to calculate its impact on the society and economy as a whole. We believe that this will come out to be very large. We already know the figures for housing and employment that the Government quite regularly publishes in connection with the Thames Gateway and if these can be achieved by these Grants they would server their purpose and also out weight their costs.

CONCLUSIONS & RECOMMENDATIONS

Conclusions and Recommendations

TIF and Land Grants are contradictory to financing mechanisms in the UK and have their roots in the United States. However in face of the increasing difficulty of financing infrastructure both these methods provide an opportunity to look towards innovative financing mechanisms. It is one would think the case of which of the methods is more plausible or rather less implausible. If we do not consider these methods then we have to ask ourselves, where will we get the required funding from? Therefore both of these methods provide alternative methods of financing private infrastructure and should be considered.

Advantage and Disadvantages of both these methods are listed below and recommendations follow.

Advantages:

TIF:

- 1) TIF provides opportunity for financing not only regeneration but also new development projects.
- 2) It puts no pressure of extra borrowing over the Treasury.
- 3) Local councils can carry out development within their jurisdictions without having support from Centre.
- 4) It will put no extra burden of taxation over the tax payers in other parts of the country.
- 5) Local council is careful in selection of the projects, otherwise it understands that it will not be able to service the bond.
- 6) A community can help itself and even carryout projects that they think will enable them to improve their locality and society in general. This applies as much to a prosperous area as it does to a blighted area. Economists consider the prosperous area to be more likely for such development as the areas is well established and the return is certain even if its in smaller proportion.
- 7) Private sector will play an important role in financing in these projects and therefore a public private partnership is formed.

Land Grants:

- 1) These grants provide instant cash and financing power to the government.
- 2) These grants acting as a subsidy from the government engage private sector in these areas.
- 3) These grants provide a speedy finance process which can be helpful if achieved before the Olympics.
- 4) Government is not required to put in extra money after having had paid the grants and therefore reduces its financing cost and debt.

Disadvantages:

TIF:

- 1) Centre loses some control over the smaller public bodies in terms of their expenditure.

- 2) There is not always a guarantee of a definite return if the project is not well executed and researched.
- 3) Private developers and investors might

Land Grants:

- 1) Public outcry over compulsory purchase.
- 2) Private investors can quote and promise too much just to get the grants, and then may not be able to deliver it in the end.

Recommendations:

The use of these mechanisms is relatively new to the UK and some aspects of it will not fit well with some of the local rules and regulations. These will have to be studied in greater detail. Although TIF is now a tested method in USA, it will require some time for investors to have faith in the idea. Further studies on a modified TIF better suited for our use should be carried out. TIF should not be restricted to the regeneration projects and TIF system developed for new developments should be put into practise.

It would be interesting to get the ideas and reservations of the private developers with respect to these mechanisms and how they would want to see them implemented. This might not be the best method as naturally they would look for favourable returns.

The government is left with two options in case of Land Grants especially for Brownfield or Derelict land. It can either reclaim it and then gift to the private developers and investors or it can just gift them the derelict land. This gift may or may not be accepted by the private sector as it would increase their liabilities towards these parcels of land.

Another important aspect is who will receive the grants and should there be any requirement from the public sector on the private sector to build a consortium of private investors.

APPENDICES

APPENDIX - I

Meeting with Chief Executive Thames Gateway to London, Mr Aman Dalvi OBE, 27th July, 2005.

Question: what was the initial expectation of the Thames Gateway and how it has changed over the years and after Olympics?

The efforts have been renewed and intensified since the Olympics, and everybody had already thought of it as a viable bid and the one, which could do a lot for Thames Gateway. The idea of generation of a quarter of a million homes and its related infrastructure was kept in view since the start, however, the Olympics has kicked started it.

Question: what will happen to the rest of gateway after the Olympics? As mostly the Olympics will be held in the east of London?

Although the Olympics are being held in the east of London, however, its economic spin offs and community development will have far reaching effects for the rest of the gateway. An example being the new Thames bridge, its considered an essential development for the Olympics, however, if it is built, the effects will be far reaching for the rest of the gateway. This also applies to other infrastructure developments in the rest of the gateway. We can also talk about cross rail, though it will not be completed by the Olympics, however, it will also become a catalyst in the infrastructure development.

Question: Regarding your statement against Cross rail, for tax incremental financing? You seem to have serious doubts about it?

Yes, very serious doubts, the businesses in the east are generally not as well established or strong as in the west. The cross rail, plans to fund half of the project through the private sector businesses. That's not feasible in this case. I would be surprised that if so happens and in the end there would be public subsidy coming in for the project.

Question: is there a move from the businesses in the west towards the east?

Most of the businesses that are coming into these areas are from within the boundaries of the United Kingdom, and most of them are a case of expansion, like building a new outlet for a well established retail business. There is also some investment coming from abroad, though not a lot. Investors from America when listen to the delay to the cross rail, delays that have already taken place and that it will be completed after Olympics, and they look at the general transport infrastructure, they refuse or are not tempted to invest. They want the infrastructure present now.

Question: Land Grants, there is some property in with private sector and if one was to go about doing it, how would one achieve it?

Most of the land is not owned by private sector in the Thames Gateway, LDA owns about 800 hectares in Barking Reach. 487 hectares between English Partnership and

Bellway. The way that the English partnership is established it does not allow under European Law to grant subsidies in the land sales. The land has to be sold at the market value. So it becomes hard to compete with say Wales, where the land is £500,000 acres, whereas it is £1.5 million per acre here. However, there is one advantage that most of the areas in Thames Gateway come under assisted areas, that is the ones because of deprivation. We get up to 15% of capital investment back for that area, however they are not allowed to go for subsidy.

Question: what about Public Land Leasing? What is its chance of being used over here?

Well, it has not been tried. LDA will dispose its land only with lease of 999 years, or 100 year, because it seeks to have control over the kind of development that will take place in the area. Now the land leasing that we are talking about is like 20 or 30 years now that might not work in most of the cases. That's because the government wants a legacy of long lasting business and establishments. If there is a lease of say 20 - 30 years, that means that the business that will be established there will be just for that time period and then will move away, the idea of longer lease is to attract businesses that will stay for longer in these areas.

Question: say that the lease is increased to 50 years, and then on the renewal the lease itself pays for the redevelopment or any regeneration in the area?

That would be feasible. Under the European legislation, the public bodies are required to recoup their money, so whether they will be able to recoup their money is a different issue. The simple issue is that why has then the public sector kept about 800 hectares of land, well it has been taken away from the market, and rather than being in the hands of private developer, who might sell it to some retailer, that won't help the general community and the sector. But if you save the land and keep it then it can be reserved for manufacturing, or creative media, or distribution, or research and development. So this is also a sort of subsidy.

Question: say that a PIF is undertaking the development in the Thames Gateway, and has an SPV, it will issue its TIF bonds, so what kind of guarantee the financial institution require?

Depends on the kind of PFI that is being undertaken. There is the case of the Canning Town development, where there is housing development. It requires a considerable investment, that has been achieved through a thirty year underwritten bond by the local authority. Much of the housing will though be on the balance sheet of the housing association. But they will have written guarantees of rental income coming in that will allow them to service these bonds.

Question: Treasury does not allow public sector borrowing and with these bonds it will increase the borrowing?

That is correct, however it is changing. It was done to keep the inflation under control. MoL is now allowed to borrow £3 billion, and increasingly the local authorities will be allowed to borrow more money. So when the local authorities guarantee the bond it's not through guaranteeing the bond itself but the rental income that will be generated

through these housing. They are required to service the loan. That would keep the interest rate low.

Whenever a housing association builds houses, it gets 60% of its grant from the government and the remaining it has to borrow, and therefore it has the lowest margins in the financial sector. HA is at the moment borrowing at 0.3% whereas the rest of the other companies that we are engaged with in the business is borrowing at 1 – 1.5% from the bank.

Question: how does Compulsory purchase come into power?

There are certain criteria's that are part of the legislation, and that must be met. Now we know that we need 500 acres of land in the marshgate area. A lot of the businesses are crying out foul, so the public authority will look into it and then say that we need compulsory purchase power and that is being looked into now. They will offer market value.

There are two ways of looking at it. First there is the housing market in Heathrow where the market has gone down, in the anticipation of the path of the plane, however, in this case it's different and the market is going to go up and most probably the people will benefit, but still they would not be displaced. Then there is another form of compulsory purchase, there is a wharf not from here, he has 18 acres, and the owner wants to set up a housing project, however, the mayor wants the waterfront to be kept for businesses and commerce. Mayor might purchase compulsory purchase and the grounds that he might use is that it does not fit in with UDP. So there is a major battle coming up. So we have £3.5 million legal battle.

Q: so what will be the extent of problem in whole of gateway?

It won't be needed in much of the area, as most of the land is already owned, however it will be used in the marshgate area for the Olympics. The businesses in the area are being offered alternative parcels of land outside of the Olympics village.

Q: Thames gateway is termed as The Development, yet why is it so difficult to capture funding for it?

Well, it's the nature of the government, it's not only difficult to get funding, but also the planning. The Thames gateway bridge will need half a billion pounds to build, and it has taken ten years to decide that how it is to be funded?

And now it's gone to the planning stages and now it's stuck in a quagmire, because the inspector has not all the information and another 4 – 5 million pounds will be spent on further consultations.

For most of transport infrastructure most of the finance has to come from the public sector there are no two ways about it. DLR is largely a public sector investment. A13 is almost public funded. Thames bridge, which is half publicly funded and half through tolls. Most of the transport projects coming in require a mix of public and private sector funding. It is wrong to suggest that private sector will largely fund the projects.

Question: Can the the future streams of revenue are guaranteed through tolls in case of transport projects, but what about the housing regeneration, how do you guarantee future income from these investments?

Say developers like Barrats, will develop the housing, and large chunks of it will be sold out to private market.the present evidence suggest that private investors are buying this property and then renting it out. The mayor now requires 50% of housing to be social housing, so the developer has to subsidise the housing. Everything being fine if the market keeps on going like this (upward sloping), we can keep on developing it, but when it goes down or keeps flatter slope. When you walk across the gateway the housing development is going down, because most of the developers like their housing to be sold off the plan, they don't like to go on site. The best example is of the development opposite the canning town tube station, it's a housing development of 250 luxury apartments, but only one or two people are working over there, it should have been complete an year ago, but its only because he cant sell it off the plan. Therefore its hard to predict the future cash flows at the time.

Question: what is the general increase in property or purchase of property in gateway as compared to rest of London?

The price of property has tripled in the last three years, after the regeneration plans were announced.

Question: What will happen after Olympics?

We wish to create employment, economics regeneration, so plans are not one dimensional, we are bringing housing, economics regeneration, and the community together. And the facilities will be used for housing and other institutions.

Question: will this regeneration remain only in east, or will there be in any in the west?

West already has a very good transport infrastructure, and even now there is a major regeneration program going on in and around the Wembley area, of which the new Wembley stadium is just one element. Also the site of a casino to come. Over the west the base is very low, and it is not comparable, as there is simply not enough transport infrastructure

APPENDIX – II

On the right track

We often lament the state of our rail and road networks but there are many improvements in the pipeline. Ginetta Vedrickas takes a look at the planned transport links and the homes for sale that surround them.

Rural isolation may suit some but, for most homebuyers, location and accessibility are key factors in their decision to buy. Good transport plays a large part in regeneration, keeping both businesses and the property market alive, as home owners are tempted into areas where transport links are being improved. If you're early enough, buying into these areas can be a smart move.

You only have to look at improvements to London's transport in recent years to see how this has affected the property market both centrally and on the outskirts. Transport for London spokesperson Judy De Hahn says that the Docklands Light Railway (DLR) improvements have had a knock-on effect all along the route: "Look at areas such as Greenwich and Lewisham where the DLR really was the catalyst for regeneration. We know for a fact that, as a result, house prices there rose."

The DLR has brought the City and Docklands within 20 minutes of London's outskirts and future improvements are expected to have greater impact. Construction of an extension from Canning Town to London City Airport and King George V at North Woolwich is well under way and is due to open in December 2005.

Government approval for a further extension from King George V under the River Thames to Woolwich Arsenal has also been granted, with completion set for 2008. The North London Line, between Canning Town and Stratford, is also being converted to a DLR service and will link Stratford station to Stratford International.

Four new stations; Cody Road, Abbey Road, Stratford Market and a new DLR station serving the Channel Tunnel Rail Link at Stratford International are planned. The route will also serve the existing stations at Canning Town, West Ham and Stratford, with services running between Stratford International and Woolwich Arsenal, calling at London City Airport, and between Stratford International and Beckton. Stratford International will link the wider Docklands area to international trains from Paris and Brussels, as well as to high-speed domestic commuter services from Kent. This will regenerate whole swathes of London, Essex and Kent along the Thames Gateway – a 40-mile corridor stretching to the North Sea.

One Thames Gateway development is Ingress Park in Kent. It enjoys close proximity to the new Ebbsfleet International rail terminus, which will connect to the new Eurostar link to Kings Cross International terminus. Crest Nicholson has just unveiled the latest phase of homes at the scheme, called The Waterfront. The one- and two-bedroom apartments are priced from £160,000 and are popular with commuters, as Greenhithe mainline station takes you into London within 45 minutes. The development also has excellent access to the M42, with links to the M25 and the coast.

Many other housebuilders are responding to increased demand for areas earmarked for improved infrastructure. Telford Homes is marketing Estilo, a contemporary mixed-use scheme of 43 one-, two- and three-bedroom apartments overlooking Wenlock Basin in N1, minutes from the new Kings Cross International terminus. Prices at Estilo start from £232,500. In Warton Road, Stratford, Telford Homes has announced plans for a scheme of 249 one- and two-bedroom apartments. So far the development has yet to be named but prices are expected to be between £190,000 for one bedroom and £240,000 for two bedrooms.

Bellwinch Homes has recently exchanged contracts on a nine-acre site for residential development adjoining the boundary of the new Ebbsfleet station in Kent. Subject to planning, the development will comprise 259 apartments and houses, with the balance consisting of 49 shared ownership, 20 key worker and 42 affordable homes. Roger Page, managing director of Bellwinch, says: "This comes hot on the heels of our purchase of eight acres of prime development land adjacent to Aylesbury station in Buckinghamshire, where we will be building 391 homes. It also confirms our commitment to the regeneration of sites with sustainable transport links for the benefit of the local community."

Once neglected parts of London, such as Woolwich, are now proving attractive to housebuyers thanks to proposed transport improvements. Berkeley Homes has been a key player in regenerating the area, thanks to its huge Royal Arsenal project. The development will sit right next to the new DLR station, when built. The latest phase, Building 36, is part of the Grand Store and is an imposing complex of former warehouses with a great location just across the river from Canary Wharf. Prices start from £220,000.

Barratt was a key exhibitor at the recent Thames Gateway Forum 2004 exhibition, as it has been involved in the area's regeneration for more than 20 years. Even before the government pledged to pour new investment into the Thames-side areas, Barratt had already completed over 12,000 homes on 210 developments across the Thames Gateway. Today the housebuilder has a further 12,000 new homes underway or in the pipeline in the regeneration zone.

Barratt Southern chairman, Clive Fenton, says: "The Thames Gateway's time has come. After 60 years of radical economic, social and demographic change, the new needs of the Thames Gateway communities are being recognised."

Work has now started on an important regeneration scheme in the heart of Romford, on the London/Essex border. The Axis offers almost 230 new homes set in landmark contemporary buildings that have been designed by award-winning architects Goddard Manton.

At Leamouth in London's Docklands, Barratt East London will shortly start work on The Elektron, a contemporary development of 436 apartments, many of them for affordable occupation by local people. The Elektron is on the site of a former electricity switching station, near the old Brunswick Wharf Power Station.

Much of the Thames Gateway is industrial brownfield land, so all housing is new build but proposed improvements to the East London underground line will surely add

value to much of London's existing stock that lies near the proposed route. Phase one will link Dalston in north London right through to west Croydon in the south, with completion set for June 2010. Phase two will see further additions to the line, linking Clapham Junction to Surrey Quays. There will also be an extension from Highbury and Islington to Dalston, with no firm date yet for these works.

Forest Hill in south-east London is one area that is looking forward to the proposed extension and is already seeing much speculative buying in the run up to the improvements, according to Raj Tanna, sales manager at Kinleigh Folkard & Hayward's Forest Hill office. "Forest Hill is still a relatively undiscovered pocket of south-east London but over the past 12 months we've seen a steep rise in activity with an increasing number of buyers looking to move into the area. This rise can be partly attributed to the proposed improved transport links, which are often a key consideration for homebuyers." And it's not just personal buyers. "This project, which is reputed to be costing £1 billion, has attracted a number of purchasers looking to invest in the area," adds Tanna.

Kinleigh Folkard & Hayward is selling a range of property in SE23, which may appeal to investors or those looking for a private home. On the market at £650,000 is Lucida Studios in Havelock Walk – a 3,881-square-foot former light industrial building that has recently been converted into a live/work space suitable for a small business. The first floor could be entirely self sufficient, with living space on the first and second floors. More traditional properties in Forest Hill include an early 1900s semi-detached, double-fronted, six-bedroom house in Benson Street, for sale at £425,000.

Forest Hill's property market will undoubtedly benefit from the proposed transport improvements but Stratford in east London has already been the subject of much speculative buying with more expected. By 2007 Eurostar trains will be added to an impressive array of links, which include Jubilee and Central underground lines. Winkworth's Stratford manager, Richard Everitt, expects further interest and price rises as a result: "We opened in December 2000 and in February 2001 we sold a two-bedroom house for £120,000. Today that same property would fetch £215,000."

Everitt hopes improvements to infrastructure will follow shortly: "Transport is one of the main reasons why people buy here and we are also getting increasing numbers of investors. All we need now are more bars and restaurants to cope with the influx of buyers."

Case Study

Jessica Henley bought an apartment at Barratt's Saxon Walk development in Basildon, Essex, principally because of its excellent road and rail links. Jessica's job, as a group executive for a specialist chandelier firm based in Ongar, takes her all over the world. "In my job I need to travel and all the major roads are accessible from here." The apartments at Saxon Walk are now sold but further new homes are available at two nearby developments: Victoria Gardens and Royal Court.

Useful contacts

- Ingress Park – Crest Nicholson – 01322 385 050
- Royal Arsenal – Berkeley Homes – 020 8331 7272
- The Axis – Barratt – 01708 752 598
- The Elektron – Barratt – 020 8522 5555
- Barratt Essex – 01702 615 438
- Kinleigh Folkard & Hayward – 020 8699 1596
- Winkworth – 0208 519 0006

GINETTA VEDRICKAS

(www.whathouse.co.uk/On%20the%20right%20track)

APPENDIX – III

Equalized Value - The assessed value multiplied by the county and/or state multiplier. This calculation gives the value of the property to which the tax rate is applied.

Multiplier - a figure used by county and state officials and applied uniformly to all parcels within a township to "equalize" assessments between townships and countries so that all values reflect the same assessment level.

Tax Rate - The ratio of the tax to the tax base. The rate to be applied to the assessed value to determine the amount of tax. The rate is obtained by dividing the amount of the tax levy by the total assessed value of the tax district; usually expressed in dollars per hundred of assessed value.

Anchor Tenant

Typically a type of tenant in a shopping center. In shopping malls this is Usually a national chain store or regional department store strategically placed in a shopping center so as to generate the most amount of customers for all of the stores located in the shopping center. In other centers the anchor tenant may be a supermarket or drug store, home improvement store, convenience store, national coffee brand such as Starbucks.

Enterprise Zone – a zone in which no rates were to be paid for ten years by the business in the docklands.

APPENDIX – IV

Funding and financing

What is the extent of Government funding that can be justified? What proportion of funding would be required from non-Government sources?

Identification of funding sources

A decision on the level of Government funding that could be justified would need to be taken in the light of other revenue sources that might be available. Five main potential sources may be identified for funding the construction of Crossrail:

net travel-generated revenues (i.e. farebox), potentially including revenues from other travellers in London and the South East who might benefit from the reduced congestion delivered by Crossrail

any appropriate European Union subventions

contributions from London (whether businesses or individuals), which might be voluntary or mandatory

property revenues (e.g. direct contributions from property development over stations and elsewhere along the route)

direct Exchequer support (i.e. in the form of grant or subsidies paid to Train Operating Companies).

The quantum and timing of the amounts that might be raised from each of these sources is discussed below.

Travel-generated forecasts

As far as the funding of Crossrail is concerned, two main issues arise in relation to farebox revenue. First, what proportion might reasonably be applied to the construction and operating costs of the scheme; and second, what would be the prospects for increasing revenues by raising the level of fares?

Use of fare revenue to fund Crossrail

The extent to which farebox revenue might contribute directly to Crossrail costs is inextricably bound up with wider issues of fares policy in Greater London. Assuming that Crossrail were integrated with other transport systems under the control of the Mayor, the revenues it would generate would form part of the same body of income as that taken into account for the purposes of setting the level of Greater London Authority (GLA) transport grant. For the purposes of its Business Case, CLRL has incorporated figures reflecting the net increases in rail revenues that would be due to Crossrail and has assumed that lower bus revenues (down by £467 million NPV) would be more than offset by the lower

costs of running a reduced bus network once Crossrail were in operation (down by £915 million).

The net cost figures for both the Benchmark Scheme and the alternatives that are referred to elsewhere in this report (i.e. £11,273 million NPV for the Benchmark Scheme) encompass CLRL's overall forecast of costs for Crossrail, including capital, operating, maintenance and renewal costs, and any impact on costs elsewhere, such as those set out for the bus network in the previous paragraph, but exclude financing costs (over and above the cost of public sector financing that is implicit in the NPV calculation). They also take into account CLRL's forecast net revenues.

While this appears a reasonable basis on which to construct a business case for Crossrail, further work is necessary to validate some of the underlying assumptions. As set out earlier, the Review's view is that CLRL's analysis is based on too conservative a view of the impact that reduced journey times in London would have on passenger demand and therefore revenues. The Review's analysis suggests that CLRL understate the potential for Crossrail to generate revenues by £1,200 million NPV and, possibly, by as much as £2,200 million NPV. For the purposes of this report, the Review's central assumption is that Crossrail would generate £1,200 million NPV in revenues over and above those estimated by CLRL, even allowing for the assumption that fare increases would be held in line with inflation.

Fare levels

Under the Greater London Authority Act 1999, responsibility for fares policy in Greater London rests with the Mayor. While, theoretically, it would therefore be possible to increase revenues from Crossrail by raising fares, in practice any such move could only take place within the general context of the Mayor's fares policy and through agreement with him.

At present, the Mayor's stated fares policy is to cap the level of fare increases at RPI, at least for the next four years. Taking this as a starting point, CLRL's Business Case assumes no real-term fare rises during the next 60 years. However, higher fares would have the potential to generate significant additional revenues, and so the Review has considered this area further.

One possibility would be to introduce a Crossrail premium fare. There are difficulties with this - it is not clear at this stage, for example, how it could be made compatible with a Travelcard system.

Alternatively, fares could be raised more widely across London to fund Crossrail. In the past, there have been periods when fares have been increased at a rate above inflation. Such a policy - if introduced across the London Underground, London Buses and London mainline rail services -- might generate significant sums to assist the funding of the project.

European Union funding

The CLRL Business Case makes no assumptions about the possible availability of funding from the European Union. While it is difficult to see how Crossrail could qualify for Trans-European Network funding, it is possible that it might qualify under the Community's Growth Area Initiative.

This possibility is currently being explored, but it would seem prudent to assume that European Union funding is unlikely to be available and, even if it were, not in significant amounts.

London contribution (Alternative Funding Mechanisms)

181. Construction of a large new transport infrastructure such as Crossrail should unlock opportunities for attracting revenue other than through the farebox. Essentially, these contributions should reflect the general benefit that Crossrail would bring to London in terms of enhanced access, better services and business facilitation. Some of the benefit would show up in property values and might provide a basis for collection of contributions. This relationship has given rise to the current discussion of using property gains for Alternative Funding Mechanisms for Crossrail. The area over which such effects would be felt is clearly debatable, but a reasonable working assumption is that localities within one kilometre of stations should be likely to benefit and might therefore be expected to contribute to the costs of Crossrail. The potential for raising revenue from these localities is discussed further below.
182. Investment in new infrastructure provides benefits to a wider constituency than merely that of travellers and developers of property along the route. In particular, history shows that occupiers and owners of properties in the vicinity of stations on the route would be expected to benefit through enhanced access, which would in turn deliver business gains. Benefits would be reflected by increases in the rental and capital values attributable to residential and commercial properties.
183. Preliminary work by CLRL's property advisers suggests that the uplift in the value of commercial property in the Crossrail zone (defined as being within one kilometre of Crossrail stations) is likely to be in the order of 6% overall (with considerable variations across the zone). While such a forecast is inherently uncertain, the Review understands that this order of magnitude is not inconsistent with the available evidence from other major transport infrastructure investments.
184. Generally, there is little dispute with the analysis that property values might be enhanced through the development of transport infrastructure and that these increases could give rise to localised windfall gains. With the discussion of Alternative Funding Mechanisms has come some acceptance from those most likely to benefit from Crossrail that they must make some contribution to the cost of construction. A wide range of London business interests (e.g. London First, Chamber of Commerce, the Corporation of London etc) has already indicated that it will be willing to see such gains used to support the funding of

the project. Initial indications from business interests have assumed a contribution of £2,000 million. Further consultation would be needed to settle the final level of contribution in the light of any scheme it is decided to build and the additional value it would create for London business, but the Review does not believe it unreasonable to postulate a stronger contribution from business for a substantial scheme than that advanced at the present stage of preliminary consultation. For the purposes of the Review, we have assumed business contributions in a range from £2,000 million to £3,000 million.

185. The Review has not itself carried out a thorough analysis of the potential for different Alternative Funding Mechanisms to raise revenues from such sources, but one option could be to include a provision in a Crossrail Hybrid Bill to enable a direct levy to be raised on developers in respect of Crossrail. This is dealt with in the subsequent section of this report, along with property revenues more generally.
186. Another possible Alternative Funding Mechanism would utilise the mechanism for collecting National Non-Domestic Rate (NNDR, i.e. business rates). Transport for London has undertaken a considerable amount of work in this area, concentrating on tax increment financing. This method would reflect the extent to which property values in the Crossrail zone outperformed the rest of the country. Transport for London has also considered a straightforward levy imposed within the Crossrail zone.
187. Transport for London has made some calculations on the sums that might be raised through business rate-based Alternative Funding Mechanisms. Their estimates cannot be treated as robust at this stage, but they appear to have followed a reasonable approach.
188. Transport for London's analysis focuses on the impact of tax changes rather than the additional value that may be created without any changes to the business rate system. Nevertheless, its modelling can be used to estimate the extent to which business rate payments might increase simply as a result of new developments attracted by Crossrail - Transport for London's analysis suggests additional revenues of £2,700 million NPV.
189. Transport for London's model does not provide any sensitivity tests around this central number. In addition, it does not provide an estimate of how much of this money would be a net rather than gross addition to business rates.
190. One key assumption is that Crossrail would facilitate the creation of 47,500 jobs in central London by 2027 and that these jobs would otherwise not be created. Clearly, there is risk around this forecast in both directions, and there are significantly different forecasts of the jobs that would be facilitated by Crossrail, both upwards and downwards. On the upside, the Centre for Economics and Business Research (cebr) has produced figures for Canary Wharf suggesting that the construction of Crossrail could result in an additional 208,000 jobs in London by 2023. However, most forecasts the Review has seen are significantly lower than this. On the downside, Oxford Economic Forecasting has suggested that Crossrail would support only an additional 18,000 jobs in central London by

2027. If Transport for London's analysis were adjusted to allow for only 18,000 new jobs, then the resulting increase in amounts raised through business rates would drop to around £1,000 million NPV.

191. Another key assumption is that any new jobs in London are truly new jobs and not just diverted from elsewhere in the country. If, in reality, they were to result from diversion, then the additional amount raised through business rates in London would be counterbalanced by a reduction in the amount raised through business rates elsewhere. However, the higher value of properties in London would mean that some effect persisted overall. This is an area that would merit further investigation, before such revenues were ascribed to the scheme.
192. The amount available on top of this through tax changes - specifically amending the business rate regime - would clearly depend upon when the new system was introduced and which system were chosen.
193. Tax increment financing is an established technique for raising finance in the USA that Transport for London has adapted for possible use in this country. Since the first Tax Increment Financing (TIF) law was passed in California in 1952, it has been widely used in the USA as an effective tool for local governments to finance capital projects in support of economic development. In essence, TIF allows development projects to be financed with incremental property tax revenues generated by the increased property values expected to result from the new development. Proceeds from the sale of TIF bonds sold in the municipal securities market are used to finance the project development costs. The TIF bonds are secured on the incremental tax revenues.
194. Transport for London's version of TIF would involve the Crossrail zone being removed from the 5-yearly business rate resetting exercise for National Non-Domestic Rates (NDR). Assuming that commercial property values had risen by more in that area than elsewhere - either because of Crossrail or otherwise - then the effect of this would be to raise the business rate marginally over and above what it would otherwise have been, not just in the Crossrail zone but across England and Wales as a whole. According to Transport for London's analysis, introducing such a reform in 2005 - the next time business rates are due to be reset - would raise significantly more than doing it at a later date as it would take advantage of existing property movements since the last revaluation exercise. The Review understands that this conclusion is derived from commercial information on property movements. Any final conclusions remain subject to the results of the revaluation exercise currently being carried out by the Valuation Office.
195. Transport for London's analysis suggests that tax increment financing could raise in the region of £3,200 million NPV if it were to be introduced in 2005, and some £1,100 million NPV if it were introduced at the subsequent revaluation in 2010. In both cases, Transport for London's analysis effectively assumes that tax increment financing is in operation to 2039, rather than over the entire 60-year appraisal period. Increasing the period over which proceeds are collected and accounted for would increase the overall collections, potentially by more than £1,000 million NPV.

196. Tax increment financing has some downsides. First, any income from tax increment financing is dependent on the relative movement in property values between the Crossrail zone and elsewhere. It would be at risk if property values in the Crossrail zone failed to rise by more than elsewhere. Second, tax increment financing might also be presentationally troublesome - it would see increased business rates due to higher property values in the Crossrail zone retained within overall collections, rather than redistributed to other regions as would be the case under the current system. Regional lobbies might well represent this as their ratepayers paying for London's Crossrail.
197. An alternative approach would be to introduce a supplement on the business rate in the area that benefits from Crossrail. Transport for London's analysis suggests that a 2% supplementary rate in the area one kilometre around Crossrail stations could raise some £2,000 million NPV if introduced in 2005 and £1,700 million NPV if introduced in 2010. In both cases, this is on the assumption that the policy is maintained to 2039. As with tax increment financing, increasing the period over which the proceeds are collected would increase the overall collections, potentially by more than £1,000 million NPV. The amount of money raised could also be increased by raising the supplementary rate or widening the boundary within which it is collected.
198. Introducing such a boundary, with higher business rates inside than out, may have some downsides when compared to tax increment financing, which would see a flat business rate retained across England and Wales. There would necessarily be an element of arbitrariness to the final position of the boundary, which would raise questions of equity with, potentially, some businesses paying the supplement even though they did not benefit from Crossrail in any meaningful way. However, a supplementary rate would also have the great advantages of transparency (i.e. it is clear that those within the Crossrail zone are paying) and relative simplicity. It should also generate a more certain revenue stream than tax increment financing.
199. It would, of course, be possible to combine both systems so that some revenue was raised through adjusting the NNDR mechanism and some from a supplementary rate.
200. While CLRL's analysis and the Review have focussed on business as being the main contributor and the NNDR as the most effective means of measurement/collection, it is likely that residential property would also derive similar types of benefit from increased accessibility. This would be reflected in higher values for residential properties that benefit from being located close to Crossrail stations. In principle, an element of this increase should be captured through the Council Tax regime. However, in reality, this is unlikely to be an effective mechanism, as the 'banding' that takes place for the purposes of calculating the tax will see much of the increase lost. While there is an argument for looking at the Council Tax regime to see if more of the increase in residential property values could be captured more effectively, this is not something the Review has considered.

London contribution - Conclusion

201. Any decision on changes to business rates would require further work by HM Treasury, the Office of the Deputy Prime Minister and the Inland Revenue. No informed decisions can be made without their analysis of the likely impact of changes and the sums that might be realised. However, on the face of Transport for London's as yet unvalidated calculations, business rates might be a suitable mechanism for garnering the contribution that representatives of London's business community have indicated could be available from that source, i.e. £2,000 million and possibly significantly more. Either tax increment financing or a straight levy are possible routes. But, of the two, the latter looks to have the edge in terms of transparency, reliability of income and of public presentation.

Property revenues

202. In addition to the above there are some more specifically property development-based revenue opportunities that might be exploited, including:

- from development on land which would be acquired by Crossrail, for example over newly-built stations
- from the development/redevelopment of land and property close to the Crossrail route, but which would not be owned by Crossrail.

203. The CLRL Business Case acknowledges the potential of such opportunities but makes no specific allowance for any revenue resulting. It contends that the amount of funding that might be generated is not significant for the Business Case.

204. There is a popular view that property development can be used to create sufficient value to fund (or make very significant contribution to) the costs of transport infrastructure. In the Far East, for example, property development and transport planning have gone hand-in-hand to such good effect that the public sector contribution to some major projects has been very substantially mitigated. The Review has, therefore, undertaken (in collaboration with CLRL) an assessment of the development potential that might arise as a result of Crossrail and considered the extent to which there would be opportunities to improve the potential contribution to Crossrail from property development.

Over station development

205. Most of the opportunities for development on land acquired by Crossrail arise over the stations within the central section from Paddington to Canary Wharf. Outside this section, Crossrail would largely use existing stations or would acquire only relatively small areas of surface land on which the prospects of valuable development would be small.

206. Even within the central section, the ability to unlock significant value from development over newly built stations would be limited. It is reasonable to assume that Crossrail would only be empowered to acquire such land as it would require for construction of the railway and that it would not be able to acquire

additional land for development purposes. This means that the sites acquired by Crossrail would generally be shaped for railway construction but not for subsequent development. In most instances, optimum value from over-station development would only be achieved by bringing in adjoining land interests and reconfiguring larger sites. In the absence of compulsion in relation to adjoining interests, Crossrail would be dependant on securing partnerships or collaboration agreements to secure optimum development. While such arrangements would be feasible within the context of the overall procurement, there could be no guarantee that landowners would co-operate and there would only be a limited extent to which Crossrail could use leverage to secure a substantial share in the wider development value.

207. Nonetheless, the Review considers that over-station development might raise between £100 million and £300 million. The critical factors which would determine the actual amounts and timing of receipts include:

- the cyclical nature of the property market, which would render receipts uncertain as to both quantum and timing (which in turn would limit prospects for securitisation of, or borrowing against, prospective receipts and limits the extent to which property receipts could be relied upon as part of the financial package for Crossrail). It is reasonable to assume that Crossrail would seek to optimise its returns through timing of the release of development, but this would also be dictated by the timetable for construction of the railway and its stations
- the nature and extent of planning consents that might be achieved for new development. The wide range of value potential is largely driven by different assumptions about the density of replacement development, linked to the height and massing of the new buildings
- the nature and extent of valuable development that could be achieved by Crossrail at Canary Wharf station, which is particularly sensitive to the nature of planning consent that might be achieved for development within the dock, associated development costs and property market movement.

208. The Review has considered the site value that might accrue to Crossrail on land acquired. It is acknowledged that additional returns might be achieved if Crossrail were itself to participate in the development. However, such profits would be earned in return for additional, development-related, risks and, while it could be feasible (even desirable) for Crossrail to share in this process, it is not appropriate to include the prospect of such receipts in the Business Case.

Development on other sites along the route

209. It is likely that the development potential of land and property in proximity to stations (but not acquired by Crossrail) would be enhanced, in some cases significantly. The CLRL Business Case refers specifically to the support that would be given by Crossrail to the continued development of Canary Wharf and there are other examples where Crossrail would either enable the release of property for economic development that would otherwise not be capable of development or would improve the capacity of land to accommodate increased density of development.

210. However, while such gains could be expected in principle, the extent of the potential benefits and the means by which they might be captured and applied as contribution to the costs of Crossrail are more difficult to assess. There are different effects between the central area, where markets are mature, public transport access is already very good, and the impact of Crossrail on development value (although potentially large) could not easily be separated from other factors, and the outer areas, where Crossrail could be expected to have a more readily identifiable impact on development values (although to some extent this would be at the expense of other areas and may also be reliant on other linked transport infrastructure packages in addition to Crossrail).
211. There is currently no statutory or fiscal mechanism by which development gains could be collected directly by Crossrail. In the absence of any development-based Alternative Funding Mechanism, Crossrail would need to rely upon contractual obligations entered into voluntarily by developers or, potentially, agreement of the Local Planning Authorities to hypothecate discrete payments received by them as a result of Agreements entered into under Section 106 of the Town and Country Planning Act 1990. All such amounts would have to be agreed by negotiation and are to that extent unreliable.
212. The Review considers that Crossrail would have sufficient commercial leverage to secure equitable contributions from major identified developers along the route (including Canary Wharf). Further work is required to formulate the amounts that could accrue from such contributions and how they might vary between route options and station locations. It is unlikely that the amounts involved would materially improve the funding problem of the Crossrail project and the uncertainty of timing of collection means that firm numbers could not be included in the Business Case at this stage.
213. This approach would be likely to capture only a proportion of the sites that would benefit and there would be potential for considerable "freeriding" by developers that did not enter into discussions. A means of mitigating this would be to introduce some form of Alternative Funding Mechanism, for example, by way of a levy on new development.
214. The use of a development tax, unlike changes to business rates, would not be new. Such a tax has been tried on a national basis and withdrawn on a number of occasions in the past because of problems with market reaction - primarily developers delaying the bringing forward of developments in order to avoid paying the tax.
215. Given the wide geographical scope of Crossrail and the particular characteristics of the various locations it would serve, it has been assumed that any property development opportunities directly facilitated by the project would be tendered on an individual basis as they became available. It is, however, possible that higher or more secure receipts might be secured by entering into exclusive property partnering arrangements with one or more developers in advance. The quantum of any additional funding received through such a property partnership cannot be assessed in advance of determining the precise nature of the

arrangements, which would need to be competed, but it is unlikely to be material when set against the costs of the scheme.

Property conclusions

216. Overall, CLRL believes that while contributions from property development would be politically and presentationally important, the sums raised would in practice be likely to be relatively small in the context of Crossrail costs as a whole. While the Review would broadly agree with this view, it nonetheless stresses the benefit of maximising property receipts, not least so that the taxpayer would achieve full value for the investment in Crossrail. Should it be felt appropriate to impose a general tax on new property development, and the problems associated with such initiatives in the past overcome, then the sum raised could make a significant contribution to Crossrail costs.

Direct Exchequer support

217. Large transport infrastructure projects in the United Kingdom have usually been funded primarily through substantial direct Exchequer support (i.e. transport grant to the appropriate procuring body, often a Non-Departmental Public Body, or payment of track access charges). More recently, the use of private finance has been deployed in order to secure a more appropriate degree of risk transfer and better project and programme management discipline, in particular during the construction phase.
218. Crossrail is a major new infrastructure project, developed outside the 10-Year Transport Plan, which set transport investment for 2000/01 - 2010/11. Not only is this a new project outside existing funding plans, it is also a very substantial addition to existing programmes. Key challenges therefore exist in agreeing new and additional financing, while ensuring that the Government meets its fiscal rules.
219. The size of the CLRL Benchmark Scheme and its likely cost make direct Exchequer funding of the whole cost unrealistic. However, given the transport and regeneration benefits of the scheme not just to London but to the wider United Kingdom, a direct contribution from the Exchequer would seem to be appropriate. Regional considerations are important too, when deciding the amount of the Exchequer contribution, particularly in the case of Crossrail given the large scale of its projected cost, and it is legitimate to debate the balance between national, regional and local contributions.
220. In summary, when determining the level of the Exchequer contribution, a number of factors might be borne in mind, e.g.:
- the net level of expected benefits provided by the scheme
 - the importance of both public and private sectors making a fair contribution, reflecting the benefits to each party
 - the amount of funding that might be raised from other sources

- the extent to which the availability of direct Exchequer funding might serve to lever in and maximise the value of private sector contributions
 - competing demands on the public purse, including regional considerations and current spending plans, particularly in the light of current rail funding pressures and the overall profile of spend on public services during the construction of Crossrail.
221. CLRL's analysis of its Benchmark Scheme suggests that the present value of costs less any revenues generated would total £11,273 million NPV, including all contingencies but not including any costs of financing the scheme, over and above the public sector cost of capital that is implicit within the discount rate used in calculating the net present value.
222. Our review suggests that CLRL's analysis has underplayed the potential for Crossrail to generate net revenues by some £1,200 million and possibly more.
223. The Review has considered Alternative Funding Mechanisms as put forward by Transport for London, in particular incremental business rate revenues from additional development in the Crossrail area, and reforming the business rate regime to fund Crossrail. More work is required here to assess the potential for Alternative Funding Mechanisms to support Crossrail: in particular the impact of Crossrail on property values, and the effect Alternative Funding Mechanisms might have on the viability of London businesses.
224. Nevertheless, it is clear that significant sums could be raised through business rates. Indeed, even without any reform, Transport for London's analysis of Alternative Funding Mechanisms suggests that new property developments could generate additional business rate payments valued at £2,700 million NPV. The Review would recommend further investigation before ascribing this particular revenue to the scheme - more conservative assumptions about job generation would push the total down to £1,000 million NPV and this would be reduced again if these jobs are simply diverted from elsewhere in the UK.
225. However, even leaving this to one side, there is no doubt that reforming the business rate system could provide a useful source of revenue. Representatives of London's business interests have indicated that they may be willing to contribute some £2,000 million and possibly significantly more towards the cost of Crossrail. A supplement on the business rate would be one possible way of collecting this contribution, with a supplement probably of the order of 2% to 3% within the Crossrail zone, if Transport for London's analysis is accurate.
226. Overall, this suggests that if the Benchmark Scheme were constructed and a business rate-based Alternative Funding Mechanism were employed to raise £2,000 million NPV, then the Exchequer would be left to pick up some £8,000 million NPV (plus any financing costs over and above the public sector finance costs already implicit in the NPV calculation). This assumes that there were:
- no premium fare
 - no revenue raised through property developments linked directly to the scheme

- no increase in business rates, simply as a result of new developments along the route
 - no wider development tax on new developments along the Crossrail route.
227. While, in practice, some or all of these factors would be likely to result in revenues offsetting the cost of the scheme, a significant funding challenge would remain. This is particularly so since any project that left the Government as the bearer of risk and lender of last resort would also leave the Exchequer to pick up any variations against the expected level of costs and revenues, both those generated by Crossrail itself and any Alternative Funding Mechanism.
228. In order to ensure balanced public expenditure between all the UK's regions, one approach might be to limit central Government's contribution. Further work would be needed to confirm the impact of Crossrail on GDP and the tax take from that. While this raises issues beyond the scope of this Review, it needs to be recognised that both the size and timing of a Government contribution must also depend on its affordability within the Government's fiscal rules, particularly against the background of the very significant cost pressures the Department for Transport faces on the railways.

Funding gap

229. As shown below, the funding gap in the absence of a central Government contribution would be of the order £7,000 million NPV to £8,000 million NPV. This gap presents a clear challenge to the fundability of the scheme.

	NPV (£ million)
Estimated Net Cost of Benchmark Scheme	11,273
Revenue Adjustment	1,200
Alternative Funding Mechanisms	2,000 - 3,000
Funding Gap	7,000-8,000

Conclusion 11: Funding and financing

The forecast costs of the Benchmark Scheme present a significant funding challenge. Given the transport, wider economic and regeneration benefits that Crossrail would produce, a case can be made for a direct contribution from the general taxpayer, subject to affordability in the context of the significant cost pressures elsewhere on the transport budget, especially from the railways. The scale of these pressures and the size of the scheme make significant direct Exchequer funding of the cost unrealistic.

The Review believes the level of Government support that might be justified could only be determined when considered: (i) against the benefits produced by the scheme and the extent to which these would fall to different parties; (ii) the amount of funding that might be raised from other sources and the extent to which direct Exchequer funding might serve to maximise such contributions; and (iii) the competing demands on the public purse. Given the likely amounts that could be

raised from the identified revenue sources, and the Review's understanding of their willingness to contribute, any possible Government contribution could be offset but would still be over-large. This raises fundamental affordability concerns.

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