

3.6 THE PROPERTY SECTOR APPROACH TO MAJOR PROJECTS (RISK, UNCERTAINTY AND COMPLEXITY)

Keith Perry, The Asset Factor Ltd.

Introduction

This paper considers the approach that the UK property sector, more specifically the various participants within it, adopt when addressing a major project. The primary focus is on the specific risks, uncertainties and complexity issues surrounding a ‘major’ project from the perspective of the key private sector players. The paper shows that major projects do create specific issues that the traditional market approach is not always appropriate to resolve. It describes how a successful large project approach may differ.

A major project in the property sector will be enveloped by political issues, at local, regional, and even the national level. The broader perspective of economic development issues, social capital and environmental impacts across a larger canvas is a new challenge for the property industry more used to playing out issues at a local or neighbourhood level.

The paper examines the following;

- The nature of major projects in property terms
- The differentiation of the aims and ambitions of the property *Developer* from those of the property *Investor*
- The ways in which *Investors* approach pricing and assessing required returns over time, methods of handling risk, and the variety of investment vehicles used in the context of their concern with longer term management and operations, and with reference to major projects.
- The *Developers* traditional awareness of their financial risks, and their risk pricing approach. The experience of Developers in identifying risks and managing them – e.g. land assembly, planning, development impact, project management and construction, finance cost, letting of space, onward sale.
- The characteristics of Private Finance Initiatives/Public-Private Partnerships (PFI/PPP) as a specific form of contract used to deliver UK government sponsored projects that focus contractually on identifying and allocating project risks at the commencement of a project between consortium members.
- The complexity and time-frame of major projects which means that a raft of less familiar risks can come into play.

Major projects for the property industry

A definition of ‘major’ for the property industry here may be helpful. Traditionally this is measured in terms of floor space area, and would be schemes in excess of 1 million square feet such as a major shopping centre or office complex. The private sector is increasingly being encouraged by the government to ‘think big’ and advance much larger projects in excess of 5 million square feet. Examples include: regeneration projects in major towns and cities such as London’s Canary Wharf, Greenwich

Peninsula, Wembley, or elsewhere in the UK; Brindley Place, Birmingham; Paradise Street, Liverpool. A further group of major projects is emerging in government designated new growth areas such as Milton Keynes, The M11 corridor and The Thames Gateway.

Each of these mega-sized schemes, if sited in a reasonable successful economic location, will have a developed value (i.e. the value of the various components of offices, shops and residential units) of at least £1.5bn. There is currently widespread acceptance in government that the private sector should be brought into these mega-sized schemes at an early stage. This is in contrast to the government-led approach to the previous major 'New Town' building or major public 'housing estate' development of the 1960s. Unlike PFI where a very defined contractual approach has evolved to determine what is best undertaken (or what risks are retained) by government and what is best undertaken by the private sector, in these property schemes no such common understanding yet exists. This may, in part, be because PFI has its origins in HM Treasury, major government departments and the Construction/Services industry whereas in property the participants are more often property developers, house builders, local authorities, regional development agencies and government agencies, such as the Housing Corporation and English Partnerships. The knowledge transfer between these two quite different industry groupings has simply not yet had time to happen.

Major projects undoubtedly take significant time to deliver. Even a single town centre shopping centre will now take approximately 10 years from inception to centre opening. A major mixed use scheme or regeneration scheme is therefore likely to be developed over 20 years or longer. Such projects will be highly complex in terms of the number of statutory processes that will need to be followed (planning law, public highways, design and construction activity, operational compliance etc.) and the number of stakeholders to be consulted with, and agreements to be documented. These include local residents, local planning departments, local employment and learning and skills departments, environmental officers, health and safety officers, utility companies, sub-contractors, joint venture partners, shareholders, employees, tenants, visitors, suppliers to name a few).

Risk and uncertainty to the property industry is usually measured in direct financial terms, more specifically the returns that the investor or developer will receive (or indeed the 'opportunity' cost of utilising resources on one project at the expense of being able to undertake another). With a number of planning applications facing strong local opposition, listed property companies will also seek to assess the 'reputation risk' of undertaking certain projects.

The approach of the developer and that of the investor

The primary distinction here is between a *developer* (a promoter of a project for a new building, series of buildings) seeking to use skills and capital to create an asset of value to be sold on to an *investor*, and the *investor*. The onward sale will typically be secured even before building commences in order to reduce certain risks (discussed later).

The *investor* (typically a listed property company or pension fund or life fund) looks to hold property over the medium to long term as part of a wider investment strategy (i.e. holding investments also in equities and bonds). Investors will be both UK and overseas based. Property investments are often seen as (1) core (i.e., relatively mature assets at the lower risk end of the spectrum), (2) enhanced (with some element of a 'new market' risk remaining as in the case of a major refurbishment project or new

tenant) or (3) opportunistic (i.e., a project where the investor will still be exposed to letting risk or final construction cost out-turn).

The investor

Investors and fund managers are either targeting a total return (historically in the UK market, the majority of the return has been in the form of capital appreciation return rather than cash income) or a relative return with the main UK accepted benchmark published by the Investment Property Databank (IPD). Inevitably as managers are often assessed as to their performance against the benchmarks this can influence behaviours. The market benchmarks reflect the traditional view that investment should be in:

- Commercial Offices - with sub divisions such as London West End or City;
- Retail – shopping centres, high street, retail parks;
- Out of town business parks;
- Industrial and distribution; and
- Residential and other developments.

Investors will seek to allocate their capital across these classes, dependant on their view of risk adjusted return that should result, and of an overall portfolio view where different classes will move relative to each other (for example the returns from retail property will typically reflect more closely consumer spend patterns in the wider economy than commercial offices). This means that the promoters of new schemes need to consider where they ‘fit’ within these categories if they are to appeal to a wide group of investors. Regeneration related major projects particularly may be unattractive to investors focused on the IPD general benchmark. In order to seek to address this the IPD Regeneration Benchmark was developed which shows that returns as whole from regeneration projects have exceeded market returns by as much as 100 basis points and to the extent that ‘Regeneration’ is emerging as a sector in its own right.

The hurdle that major projects face is that their delivery of many such projects is too protracted for most opportunity funds who would typically match the risk profile. These opportunity funds are often, however, intended to liquidate after around 5–7 years during which time significant project risks will still exist and exit may only be possible to a limited number of investors. In addition, opportunistic funds favour gearing to enhance returns – given that the fund itself does not offer the same repayment capability of say, a corporate borrower. Such bank funding is usually project-specific and again with long term high risks, major projects are often unacceptable for the banking market. Major projects in their early phases are very high risk and, therefore, require as much as 90–100 per cent equity funding. These levels of equity are often too high for the opportunity funds that require a higher debt level to enhance their returns.

Funds will also adopt guidelines that restrict the percentage of investment in any one sector or in any one individual project. Given the scale of major projects this will limit the number of property funds that are willing fully to fund a scheme. Rather, they will need to operate in a fund where a number of investors come together to pool their investment into a new funding vehicle. This indirect investment has been a major feature of property investment in the UK over the last 5 years. For many funds this is the only way they have been able to gain exposure to the major property projects and assets as the capital value of these has increased.

Investors will build a target return from their investments typically as a risk free long term gilt/bond return plus various property risk margins that reflect:

- ***Illiquidity of property as an investment asset*** – this will often take some 6 months to market and sell with relatively high transaction costs (stamp duty, legal fees typically costing 1 per cent). With a major project this issue is magnified as the ability to exit the investment at a reasonable price will be limited until well into the project delivery phase.
- ***Depreciation*** – here property is seen as a wasting asset in that over time, notwithstanding money spent maintaining and repairing the property, together with life cycle replacement over a 20 or 30 year period. Obsolescence ultimately arises either because the building increasingly can only command sub prime rents or indeed needs major redevelopment to offer the type of space and services users then require.
- ***Credit risk*** – associated with a tenant or series of tenants becoming unable to pay rents due to insolvency.

The one investor who is often prepared to accept some element of major project risk is ironically the individual consumer who will buy residential property in a new major project. This willingness is born from the widely held individual belief that the UK housing market represents a sound long term investment analogous increasingly to a pension planning tool. It is fortuitous, therefore, that most new major projects e.g. Greenwich Peninsula, Ebbsfleet Kent, Wembley, and even Stratford contain a significant residential component driven over the last 5 years by government planning or social engineering policies responding to greater the urbanisation of existing areas both to maximise the efficient use of existing infrastructure (particularly transport) and to minimise the cost that would otherwise arise of investing in new infrastructure in areas where today none exists.

Even where an investor has an appetite for such investment, the skills within most investor organisations are focused on financial investment (i.e. portfolio management, asset risk adjusted return analysis, asset management) rather than asset creation skills (i.e., design, construction and marketing).

The developer

The role of developers is more important in major projects than that of investors. Unfortunately, typically the traditional developer operates parochially and is poorly capitalised. Most developers will progress a scheme to planning approval and then maximise borrowing to gear-up their investment when security is available from the traditional property lending banks. The pool of sufficiently well capitalised developers to undertake large projects in the UK is limited to no more than 25–50 organisations.

Developers are also typically small organisations in terms of human resources. This reflects the complexity of the development process and numbers of processes involved. For a single development company to develop the range of skills required to deliver a large complex project and indeed to have the best in class skills in all those areas would be difficult to sustain. Developers often prefer the lower fixed cost base of employing a few key individuals and resourcing from the market the remaining skills as and when required. This is because a high fixed cost base may encourage organisations

to take on marginal and therefore high risk work at the wrong time in the property cycles.

Utilising external consultants helps ensure that best practice in those areas is achieved. It can even provide the developer with a risk sharing partner, particularly in the early project stages when risk and cash flow pressures are at their greatest for example the acceptance of deferred fees by Planning Advisors, Designers, Project Managers and Construction companies in return for a negotiated contract rather than full competitive tendering. When a large project is secured by a developer they can consider taking on more personnel with the security of the project lifespan so as to limit the risk of over resourcing. For the developer, this introduces new challenges in respect of managing staff, whilst having individuals who are committed to the project for the long term will invariably yield greater value. This contrasts with consultants who will also be managing their own corporate careers and not necessarily be able to remain with one job for a long period. Stability of staff, the knowledge they build up, and the human contacts with local interest groups *must not* be underestimated.

A large project may begin to develop its own brand and management culture which can be very successful in allowing the core team and consultant team to feel aligned on project goals. The Bluewater Shopping Centre branding allowed key partners from construction, design and others to achieve this. Those values developed during the delivery stage *ideally* should be maintain and enhanced into the operational phase. The issue of brand and physical property is a little explored area. Place brands emerge over time – traditionally these have been extreme positive associations with property value and life style (such as ‘Chelsea’, ‘Mayfair’) or indeed the negative extremes of some of our older housing estates. With major new property projects, inevitably some form of ‘community’ is being formed. Given the current planning trend towards mixed use this is a community in everyone’s meaning of the word, including residential units as well as a community of commercial space users. The brand here is very important in the development of the community becoming a short-hand descriptor for the values and essence of the new project.

The traditional property market remains ambivalent about ascribing value to brand, though even they would be likely to acknowledge a premium for example in the ‘Bluewater’ tag as against perhaps ‘The North Kent Shopping Centre’ which it might otherwise have been dubbed. Real income flows begin to emerge associated with the brand when other brands wish to be associated and will pay for that association, for example when launching new products. This will be strongest when the property brand has a clear audience of its own which others wish to address. Large projects have a very real opportunity to create added value in this way.

Developers have a fairly unsophisticated approach to risk pricing. Traditionally a developer would look for a target return on cost, where cost includes interest from bank lending during the development period. This target has historically been between 15 per cent and 20 per cent profit margin on total cost. The key for most developers is the need to recycle their capital as soon as possible given their low levels of capitalisation, hence the need to forward sell projects where possible or secure limited or non recourse finance. The low level of capitalisation reflects the lack of interest from the equity markets in this type of business, where profits can be very volatile, lumpy and forward profits hard to forecast without a very secure new project pipeline. The position with for example UK house builders is not much better where, notwithstanding major supply/demand imbalances in their market, house builders have traditionally traded on very low Price Earnings multipliers

Some developers have sought to bring more sophistication to their project assessments, particularly with long term projects where the profit on a cost model can prove grossly misleading as interest costs roll up over a longer term. These developers look at project Internal Rates of Return (IRR) and Net Present Value (NPV), using a project hurdle rate typically established as being a long term risk free rate plus a risk margin for the nature of the project risks outstanding. The individual pricing of these sub-elements is still subject to debate between academia and industry. There has been significant improvement in this, thanks in part to the PFI market approach, where the construction industry and project finance industry have attempted to price specific project risks (such as construction risk) at 5–8 per cent margin on total construction costs, the cost of performance and financial guarantees (at 1 per cent of sum guaranteed) and the cost of credit enhancement wrappers from monoline insurance (at 50–75 basis points of total project costs) and many others.

Whilst the pricing may still be open to the need for more analysis the development industry is very experienced in identifying core risks and managing them. The core risks include:

- Land assembly including title, risk sharing with landowner.
- Planning – major projects will cover both a master plan phase and detailed individual building approvals.
- Risk of agreeing the development impact on and the developments contribution to the existing (or to be upgraded infrastructure) i.e. in the UK the Section 106 Agreement with the local authority.
- Project management and construction.
- Finance cost usually at a fixed interest rate for the development period plus the first few years of occupation.
- Letting of space to tenants.
- Onward sale to an investor(s) of the project.

Land assembly

Major projects will require the assembly of many diverse land interests. Local authority support may therefore be essential to enable (if required) a Compulsory Purchase Order (CPO). Most developers will, however, seek to avoid a CPO given the even greater project delays this can create with some two years allowance for an enquiry and related submissions. Developers, therefore, need to be expert in drafting, negotiating and exercising options over sites with different owners, many of whom often are seeking different outcomes (such as cash and long term interest in scheme profits). A ‘clean’ (i.e. unfettered) title which is still largely assured through the legal process of land registry searches *is essential* rather than title insurance popular in other markets such as the USA. Pricing of this stage of the developer offer is rarely tested in the market as most developers will proceed to some form of planning approval before exiting a project.

The essence of development often comes down to evaluating the value of land. Land *only* has value in a property sense when the end value of a land use is understood and from that is deducted the total costs to develop the ‘asset’ and due allowance is made for an appropriate profit for the developer. The residual sum or ‘residual land value’ is in theory then the maximum sum any developer should pay for the land. This is perhaps the biggest single risk, that a developer overpays for the site –it is always a

contentious area and indeed the risk is that either the developer overpays or the landowner sells short i.e. one of the parties gets it wrong. A more equitable and better risk sharing model often used, particularly where the landowner is not driven by a need for immediate maximum cash (as in the case of a government agency), is to agree the land price at a later stage in the process. This is best either when planning is achieved or even later when total development costs can be better estimated (based for example on a more detailed design). Some models go further where the land payment is linked to end sales value (i.e. where the developer pays a share of income to the landowners). These alternative models can achieve a far better alignment of landowner and developer interests and by removing the risk of major overpayment for land, allow for a longer term value creation approach by the developer.

Planning

For major projects this is *the* major hurdle to overcome, not least because the processes demanded in order to allow consultation locally (and even nationally) requires time and considerable design and project development work in order adequately to describe a project and the impacts (both positive and negative) that it will have on economic, social, and environmental issues. The laying out of the net benefit case and the total cost thereof is often left as the obligation of the developer with varying levels of support from local, regional and national government. It would seem that prior generic debate on these issues, when setting regional or local plans, could significantly improve this position. The reality in the author's experience is that, particularly at the local level, interested parties only appear to demonstrate an active interest when a scheme begins to be presented in 3-D (i.e. as a visual design rather than a two dimensional master plan). Local political concerns also arise at that point, and this is when local opinion is better gauged. The developer can then be left arguing the merits of development *per se* rather than the more specific impacts of their proposed scheme compared to other options.

In addition to the detailed master plan approval, major projects are bound to encounter a complex planning process as each individual building also requires consent. This is expedited with detailed design guidelines and massing (e.g. building heights, block sizes) approval included in the master plan. Often the longest delay with major projects will be the s106 agreement negotiation. S106 agreements inevitably appear to become a debate between local authority and the developer on what a scheme can afford in terms, for example, of land given up for social housing or financial contributions to schools, public transport upgrades and affordable housing. Whilst such an approach may or may not correctly assess the 'impact' of the scheme on the public infrastructure it seems to be inadequate for ensuring a well planned development and maintenance of public facilities, particularly as the initial capital contribution from any development can *only* ever contribute a small percentage of the whole life cost of infrastructure.

This issue is further compounded by the sequential approach often adopted by projects and their contribution to infrastructure. If the first major project at least contributes something, this can mitigate the impact of that development (e.g. on the transport infrastructure). The next project, however, that might create the tipping point where the now fully strained transport infrastructure simply cannot cope. Road traffic gridlock, roads with obvious bottlenecks, rail services not coping with peak travel, simply *cannot* be expected to fund the full redesign and delivery of the project, while earlier schemes may have under contributed. The result is that the later schemes *must* be sub-optimal if they are to proceed at all.

It is, however, fair to say that failure to achieve a coherent model for the planning design delivery and on-going maintenance of infrastructure in the widest sense (including schools, public spaces, libraries etc.) is a major obstacle for the private sectors involvement in large-scale property projects intended either to deliver regeneration of failing areas or to accommodate the impacts of growth arising from economic success. There have been several studies initiated by the property industry that have made recommendations to government in this area. One example is the study, *'Institutional Investment in Regeneration'* (Adair, Berry, et al., 2006). The government too have sought to bring innovation in this area through, for example, The English Partnerships agency in Milton Keynes which has in effect acted as a promoter and banker of the required infrastructure. In this model, their financial return is secured against the future development profits (the 'Roof Tax' model). This planned approach to infrastructure development gives confidence to developers, and also end investors, that infrastructure will be delivered *and* maintained, thereby removing a major risk obstacle. This model is harder to operate in the regeneration sector where the cost of upgrading infrastructure may well exceed 10 per cent of the development value of the new property. Here, the business financial case for funding will require a view on longer term economic growth value capture, or indeed the social and financial cost of not intervening.

Planning risks are very site-specific. Hence risk adjusted returns will, and should, vary. In the developer world the process of securing a site, achieving planning consent, and then on-selling is called 'trading' and for this they would seek profit margins of around 30 per cent. On major projects, this option of on-selling is unlikely. What is more likely is gaining planning consent that will facilitate the raising of some bank finance and potentially induce certain longer term investors to take a position on the project.

Design, Project Management and Construction

When planning is achieved the physical delivery on site will be phased having in mind;

- Planning obligations – these may require certain facilities to be delivered in initial phase e.g. a school.
- Market demand – this will determine which sites will sell or let fastest in order to de-risk the developer's cash flow. This issue becomes more complex when the developer must also consider that some plots will command a premium (e.g. from their view or aspect), later plots command a premium due to the maturity factor a successful project engenders (i.e. last chance to 'buy into') furthermore early sales will be negotiated from a relatively weak position and hence they are often discounted to reflect the occupier facing a building site for several years.
- Cost to bring to market a particular site – here some areas of a site will need more cash expended to bring infrastructure to them for example for reasons of topography.
- Site wide logistics – this entails the need to 'develop out' of a site over time so that construction traffic is not travelling over newly completed infrastructure or travelling past newly completed homes and offices.

The quality of design is critical to all major projects. The design process explores the options for a major site and it is influential at an early stage in the planning

process by establishing the vision for the scheme. Good design does not necessarily cost more as it will create more project value and may lead to a simpler more efficient delivery process. A long term major project in one location allows different approaches to the issues from which construction and project management industries usually suffer, given their reliance on subcontracted labour and varying workloads on a geographic basis.

A long term project offers workers stability of work in one location. The result is less disruptive on worker's families with reduced travel and time away from home. If the same employees stay on-site longer, employers can then see the benefits of investing in training and skilling staff, albeit they are sub-contracted, as they will remain on site longer and can thereby maintain quality and productivity, tackling what is typified by the 'shortage of skilled plumbers issue'. Materials too can be ordered on the basis of long term schedules, thereby achieving better pricing from manufacturers, as they in turn can gain economies through longer product runs.

Centralised warehousing in one facility with just-in-time site deliveries can reduce environmental impact of deliveries in the area and offer economies for the benefit of all across the site. Given that construction costs will be some 40–50 per cent of total project costs, and of these costs labour will be up to 50 per cent and on-site management some 10–15 per cent, this illustrates the scale of potential benefit such operational efficiencies may unlock.

Major projects have been successful catalysts for better public/private co-operation in job creation and training. The Bluewater experience in Kent is a prime illustration. Here the private sector developer worked with Job Centres, the Learning and Skills Council and local Further Education colleges to log all on-site enquires for jobs, match those registered skills with upcoming opportunities, and then trained those appropriate individuals to better achieve such matching. Using this model, a £750m development project created some 7000 jobs during construction of the project and on into the retail centre operational phase.

This form of construction contract typically seeks to transfer cost and programme out-turn risk from the developer to a contractor with a strong balance sheet; a pre-requisite for securing bank lending. With a major project, design development will be on-going for some considerable time both through the planning process and responding to likely occupier/tenant demand. A meaningful fixed price construction contract cannot, therefore, be secured until later in the process. Often a two stage lump sum approach is adopted here where initially a 'not-to-exceed' sum is used, and subsequently refined when better design information is made available. The construction partner may tender costs for key elements (packages) of the project to give both him and the client more confidence in the end price. In effect, the developer still holds construction price risk, however, the developer also controls the final design and has discretion to be able to respond to problem areas in the cost plan. Once the price is agreed, and the construction team has commenced, then any changes in scope sought by the developer are expensive.

Infrastructure is one key element of construction that is a problem area for developers. Not only is this typically a large upfront cash-flow issue but the specification, and even delivery, of some elements such as roads and some utilities is outside the control of the developer. A project timetable is thus beholden to government or in some cases recently privatised public sector bodies that do not have any real alignment with the objectives of the developer either to complete works on a timely basis or to offer more innovative funding packages to facilitate their works.

Finance

Typically bank lending *will not* be secured until planning is achieved. The repayment terms will be dependant on: land sales, of letting and of properties to be held or sold.

Particularly on larger projects, the developer will need to consider whether he wishes to be the master developer (i.e. sell the land with planning approval and infrastructure to other developers to undertake the 'vertical' development of offices, houses, shops, or develop everything 'himself' letting completed buildings and then holding or selling to investors or indeed some variation in between). The decision in some sectors is more straightforward. For example, house building is seen as a specialist area where many commercial developers will *not* venture into through lack of experience, especially in the design and selling process.

Finance too can have a major impact as a site sale strategy will allow large early cash flows to repay the original land and infrastructure costs. The initial developer and their bankers must then appreciate that in exchange for a lower risk profile they forego the additional 15–20 per cent profit on cost that might be available from the vertical development.

A forward sale model is often used to minimise the capital invested risk and allows the developer to be confident (if certain stages are successfully completed) that they will receive capital to be recycled. There are many ways of structuring forward sale agreements where a developer agrees to complete a building and sell to an end investor. At one extreme, the investor agrees to buy the building at a predetermined price immediately, and thereafter, makes staged payments as construction progresses. The developer is then paid an incentive payment based on getting the project completed ahead of cost budget and based on the value of lettings the developer secures for the building. If the developer seeks a higher return, albeit with more risk, the purchase agreement by the investor may vary the sum they will pay, based on the levels of lettings that the developer secures, and on an agreed valuation of those lettings (typically a pre-agreed multiplier of the rent).

The investor therefore knows he will only have to proceed with the purchase if a minimum of letting is achieved and the building construction is completed. The developer knows he will capture most of the value he can create through letting or controlling the delivery cost of the project. If spending more money e.g. on a higher specification can generate higher rents then the developer will do this. In exchange for the certainty of sale, if these preconditions are met, the developer typically discounts the effective forward sale price by say 10 per cent. This is often done by agreeing a multiplier to use in capitalising the rents that is 10 per cent lower than the full market rate.

Interest rates are typically fixed at least through the delivery period when there is little or no income. When properties are let some element of the financing may then float as the ability to respond through increased rental incomes may then exist. Finance costs (i.e. bank margins) will step down as risks are closed out and when, for example, lettings are achieved, and construction phases are completed. The challenge for a banker stepping into a scheme that has failed (perhaps because it is inappropriately positioned in the market) is to procure the necessary skills to complete the project.

PFI/PPP

Reference has already been made in this paper to PFI and its successor ‘branding’ PPP. Projects undertaken under this banner are worthy of further discussion as they certainly involve major projects and the contractual arrangements which result are certainly highly complex. In essence these are project contract delivery models, similar to ‘Build Operate Transfer’ (BOT) projects which have been used in numerous major infrastructure projects around the world. PFI/PPP projects are typically subdivided into key elements, such as: design and build, operational and finance, each element of which is best provided by specialist entities that come together in a consortium, specifically for that project. The Project is thus *built* by the private sector, *operated* for a period (or concession) and then *transferred back* to the public sector at the end of the concession, usually for a nominal financial sum

Each element is priced and a collective ‘unitary’ price is quoted to the client, bundling all the services, capital cost and revenue, into one. For example, the unitary price may be per litre of treated water, or number of hospital beds available. The consortium team, therefore, analyse risks related to the project and allocate them to that party best placed to manage the risk at the most competitive pricing. For the client, the advantage is a significant (perceived) risk-transfer, particularly the interfaces between these activities (e.g. where whole life costing decisions, such as installing higher cost and specification plant that require lower long term maintenance, are passed to the consortium to evaluate). The emphasis and the crucial element for success here is a clear statement of the ‘successful’ outputs (e.g. service levels and performance that the client requires). The private sector then, in effect, works backwards from these estimates to determine the optimal design and operating environment.

In UK government promoted projects, the market has been led by Business Services Companies and Construction Companies rather than Property Companies. This reflects the emphasis on cost and operating performance. There may be a missed opportunity here in that property groups are more used to looking to create value (both long term and short term) which might significantly alter the chosen solution. For example, the impact of location of these facilities on other adjoining land values needs to be understood and captured for the benefit of the project. Perhaps the best example of this is the positive impact schools can have on adjoining residential values.

Overlooked risks

The involvement of the property sector with major projects has expanded in recent years both in the UK and world-wide. Some high profile major projects have failed at the expense of the first owner, only to succeed in subsequent ownership. (The resort industry has often worked on a ‘third owner’ makes money ‘rule of thumb’). Canary Wharf is a prime example where the delay or absence of certain infrastructure improvements (the Jubilee line) is generally understood to be the key contributing factor to the financial failure of the project in its first incarnation. This infrastructure risk, and its inevitable interaction with political risk, is recognised by the market though it has not been seen to attract a clear risk management or mitigation strategy. Newer uncertainties are coming to the fore. Flood risk now comes much higher on the agenda in considering development locations in the UK as a result of major inundations in recent years, and

the expectation that such events will become more frequent and severe with climate change.

Given the duration of land assembly and the planning processes alone, delivery times in the UK in excess of 10 years are the norm for major projects. On a larger mixed use project, the project length is often driven by the market's ability to absorb the new property product. Whilst in the UK we have an accepted view that there is a major housing demand imbalance, it is very unusual for a single site to sell more than approximately 500 property units per annum (perhaps the greatest absorption achieved was the government backed Milton Keynes 'new town' project where it is believed some 1,500–2,000 units per annum may have been sold). With large mixed use schemes, comprising 7,000–10,000 units, the industry norm will lead to very long development periods. These lengthy horizons present their own distinctive and significant challenges to risk management for developers, and these include: neighbour issues, consumer trends, technology, skills and knowledge, changes in legislation, and long-term management. Each is considered below.

Neighbour issues

Developers are well aware they need to gain neighbour support for their projects both through the planning process, potential rights of light issues, and at a practical level for operational issues such as access and agreement on construction working hours. What is often missed is the opportunity for a wider group of stakeholders to collaborate on an enlarged scheme which may have the potential to generate a more successful outcome (for example it might support a greater investment in new infrastructure). This wider collaboration is a weakness of the property industry that traditionally has been disinterested in joint ventures and indeed suspicious of working with its competitors. It is made more difficult where land owner investors have incompatible objectives at any one point in time. For example, certain investors may need to retain the existing income flow from their investments and, therefore, are unwilling to see that income cease during a long development project. Other investors may be unable to share any development risk under their fund rules/regulations. Another may be fully invested in property already and prefer to invest in other asset classes over the next years. It is the challenge of finding a balance of these potentially conflicting objectives that often is too complicated for a developer to reconcile, particularly when under time and financial pressure to deliver the base major project.

Consumer trends and Obsolescence and Sustainability

The property industry is notoriously reluctant to engage in assessing and evaluating qualitative issues such as: how the office of the future might operate, what retail experiences will shoppers seek, what lifestyle choices will home occupiers pursue etc. All have huge impacts on the built environment and yet little research has been commissioned over the years. A project initiated today with a 10 year time lag surely needs to try to address this for unlike other industries, the time to market and inflexibility of changing the product during its delivery puts more pressure on getting it right upfront. To some extent the property industry might say it can rely on the planning system to protect it, which it does, in that competing products will always be some time behind. However, this is an inadequate instrument with which to drive efficient resource allocation in the economy.

As an example, we can point to the major increase in the inner urban building of apartments since the turn of the millennium in the UK. Is this reflecting a true market trend where people want to live in smaller units in our city centres, where they will interact outside the home with a 24/7 retail/leisure culture or is it a reflection of all that they can afford, all that is available and a reflection of all that our infrastructure can and should provide? Will communities of the future be far more based on the chat room success of the internet with occasional mass events (success of pop concerts and revitalisation of football) rather than the old community-based activities and on the ‘gossip over the garden fence’ or at the local pub?

Another way to look at this issue is to consider the cycle any asset will move through over its life. Whilst the process at any moment in time to develop the optimal land use for a site appears very linear as far as the project management activity is concerned, the building itself will typically move over time to become obsolete or at least a more optimal use for that land will emerge over time. The time cycle may be very long as in the case of the sustainability of our Georgian and Victorian homes. Alternatively, it may be very short as in the case where a high street retail unit is adversely impacted by out of town retail development. Predicting when obsolescence may occur and planning for it is not something the industry is good at. As noted above, the planning system to some extent protects the industry from the need to pre-empt the ‘sustainability cycle’. Many investors are reluctant to redevelop an asset if it will mean losing income in the short term; often an asset is simply a relet and relet at ever reducing real rentals until the investor has no choice but to sell-on, usually to a developer for the cycle to start again.

Technology

Property too is a slow adopter of technology which leaves retrofitting issues at a later date – how connected should our new communities be – are local Wi fi networks the property industry responsibility? Does social housing get connected to the same ‘fibre to the home’ networks as others? If local combined heat and power generation and distribution is part of the carbon answer should the property industry have seen this 5 years ago and planned such systems in – retrofitting would require a new land assembly/planning/deliver cycle all over again.

Skills and Knowledge

The skills required to deliver a major project over the time scales we are discussing should not be underestimated. Skills are required in *both* local authority and the whole property industry. All successful projects need a visionary in order to begin. That person can be from the public sector (typically the local authority leader) or private sector (typically the developer or designer). Good design can greatly aid the development enhancement. An explanation of this vision and good design is essential to act as a quality control to keep that vision maintained through a process which under cost, time and complexity pressure will often drive to a simplified or watered down version.

For the local authority, with a once in a lifetime major project freeing or finding experienced and additional resource capacity to support, such a major project is a very real issue. The market for Chief Executives of regeneration has been very buoyant in the UK over the last 5 years. Not many could yet have been in place long enough to point to successfully completed and bedded-in projects. The same is true for the private

sector. How many Project Directors are there who have seen a project through from inception to completion if the average duration of the project cycle is now 10 years? How many might want a career where they will work on at most two such projects? How many possess the skills to organise their own property industry (design, project management, construction, letting, property management) and also stand up in local halls (or at a National level) to explain to residents local interest groups local authority members alike the process and the aims ambitions for the project?

On the same theme, the property industry historically has dealt with limited sections of local, and exceptionally central government. The main link was always with the planning department and highways agencies. Now, particularly with regeneration scheme, more sections of government need to connect with the property sector and vice versa. Chief executives, local MPs, will all be involved in major projects. The Developer will be asked to discuss the project with the Economic Development Department at the local level and the Regional Development Agency at the regional level. The Head of Social Services will want to understand the social aspects of the project and the Housing Department will also be involved. To compound the challenges, there might also be a local Urban Development Corporation to engage with. For housing, the council may have preferred Registered Social landlords who traditionally will undertake development and management of the social for rent and social for sale component of housing. Both the developer (and in due course the investor) and the various government departments and agencies need better to understand each others aims, methods of working and at the simplest level, each other's language.

This level of understanding is also needed at the project inception stage, where often the idea for a major project is initiated by the public sector but needs to secure (through some form of process) a delivery partner. Competitive tendering, whilst the back bone of such procurement, has limitations for projects where costs and revenues are a long way off and a lengthy consultation and design development phase will be required. The private and public sectors are learning how to improve this process, avoiding unnecessary wasted bid costs (leading inevitably to higher overall project costs) through competitive dialogue. It is hoped that this may avoid some of the problems that the early PFI projects suffered from where in effect a project partner could only be selected when a near detailed design had been negotiated together with legal documents with several parties.

Changes in the law

Given the increasing time frame for major projects, the probability of a changing legal framework, including planning, is a risk not factored into traditional property projects. Generally, planning changes have tightened future planning approvals. This tends to add value to existing schemes, assuming that they are grandfathered against new changes as it seeks further to restrict future property supply. This supply-side restriction has always been a feature of UK property, leading to arguably higher property occupier costs (reflected in higher returns for investors with long term IPD showing approximately 10 per cent returns) than, for example, in the USA where supply side restrictions are lower. Some changes, however, do impact directly on the developers' project cash flows. Recent increases in stamp duty, new changes in rate relief (i.e. the period before an empty unlet/unoccupied property has before it must pay full rates), and several changes in capital allowance legislation *all* have had to be absorbed.

The biggest potential impact at present on major projects in the property sector is the Government's proposed planning gain supplement (or recently emerging alternatives such as a fixed contribution for every sq m of development area approved/built) which seeks to capture potentially (as an alternative to the s.106 agreements) a percentage of the uplift in land value that occurs when planning approval is granted. How this will impact on a large long term project will be very complex and is still unclear. As this gain is the principle risk return for land assembly, project promotion and planning risk, the developer appetite for large scale projects will be affected unless land prices reduce to reflect the lower post tax returns available. It remains to be seen whether this impacts on land supply.

Long term management

Long term management is an area where the property industry is still relatively immature. The PPP/PFI market created a better understanding of whole life cost issues, although the jury is perhaps still out on whether the private sector successfully priced and planned for the extent and nature of costs to fully maintain and limit the depreciation of a property asset over say 25–30 years. Technology changes and operational changes will have been very difficult to predict, plan for and design in at the project inception. Building in future flexibility which is hard to value will always appear very expensive.

In the property market the original developer has often long departed to utilise their capital elsewhere, and so the long term arrangements are an issue between the investor and the occupiers. This represents a loss of knowledge as the developer will have spent years understanding all of the issues related to a project and the final scheme will inevitably have been a compromise of many opportunities. Many enhancement plans are shelved in order to keep the project on plan but with the developer exiting the scheme these enhancements plans are often lost. Future owners will look at asset management which may entail re-inventing these ideas at considerable cost.

In the traditional property industry, occupiers carry the full cost of operating costs and depreciation to the extent they must contribute to life cycle replacement costs and the building being in serviceable state at the end of their lease. This may have been a satisfactory model where tenants occupy a building on a long term basis and indeed it is in their interests to avoid deterioration in the building. Where though buildings are multi-let for shorter periods (an increasing trend with average new lease length now down to approximately seven years) this model has many weaknesses. Whilst agents undertake property management on behalf of owners and occupiers, inevitably the role becomes a 'mail box' conveying messages on issues between landlord and occupier with each side seeking to reduce, defer, or mitigate costs.

Similarly, whilst the public/private (property sector) relationship in undertaking new development is immature (but advancing), their respective roles in the long term management of these new assets is still very unclear. Strained local authority budgets will mean this area will increasingly come under review. Business Improvement districts have seen some success and local authorities continue to out-source functions to the private sector. There appear to be new emerging estates akin to the older estates in London where long term owner/managers seek to protect and maintain asset value through active management. Our property laws will inevitably base this on landlord and tenant legislation with the use of covenants. There are other international models which might contribute to a viable answer for example in the USA 'Home Owner

Associations' are very popular and in effect give legal backing to issues such as sharing of joint management costs and their recovery, as well as policies on everything from keeping pets to hanging out washing. In Continental Europe the same 'community management' is achieved through co-proprietor or 'urbanisation' agreements which are derived from statutory legal code.

Conclusions

This paper has set out to show what a major project would be for the property industry and traditionally how the property industry approaches such projects. For the author, the lessons to be learned regarding the treatment of risk and uncertainty surrounding these major projects can be grouped into (1) generic lessons, potentially relevant for all major projects and (2) those lessons which are more specific to the property industry.

The generic lessons are;

- The industry's approach to identifying risk and allocating risk to those parties best placed to manage it, be it through sub-contracted services or a joint venture partner.
- The industry is clear on what constitutes success at the outset of a project – usually a financial measure which allows project decisions to be made against clear outcomes. The appreciation of projects generating intangible values such as brands is, however, also now emerging.
- Property developers are used to predicting demand ahead of project delivery. The skill to do this, even on single asset projects, has had to improve as even standard project delivery times have extend to 10 years. Traditional risk management tools to deal with the time delay that have evolved include: the pre-letting of major space to occupiers who plan themselves a long way in advance (for retail schemes, anchor department stores or for commercial schemes, major financial institutions) and or the pre-selling of the project to investors (who wish to know they have investment opportunities secured for the capital inflows they can reasonable project to receive).The use of generic research to facilitate this demand supply assessment is common, however, more specific tailored research and trend analysis is still rare.
- The importance of public opinion on project success and the ability to progress a project on time is now a major issue for the industry. As the public sector has run down its capacity and willingness to undertake major projects, so there has been a counter-balancing of opportunities and demands for the private sector to step into the breach. In these circumstances, each needs to foster greater mutual understanding, trust and respect. There are lessons to be learnt from other sectors where the public/private sectors have more experience of working together for example public infrastructure projects, PPP and major defence and transport projects.
- The need to look for ways in which technology can improve project management, and therefore productivity, in the skill of undertaking major projects.

Of a more specific nature for property, the lessons are:

- The strong focus on benchmarks such as IPD often mean projects are managed to achieve *only* the industry norm (i.e. they attain a relative performance rather than perhaps the optimal outturn).

- The industry is very dependent on projects creating liquid assets (i.e. projects that can be sold on to other investors). This has led to a standardisation of products as in the case of the typical lease where an occupier is asked to sign in the UK. (The resultant lease may not be the best product for the industry's main customer the tenant).
- Recognising that the industry itself moves in fairly typical cycles, the industry will avoid unnecessary financial exposures by for example keeping in-house staff resources (i.e. fixed costs) low.
- Planning is a very sector-specific risk which demands a unique contractual and management approach.
- Land assembly to undertake projects requires creative legal and commercial arrangements such as options and profit sharing arrangements.

References

- Startup, T. and Rossiter, A. (2004) *'The role of property in financing infrastructure'* Social Market Foundation, Westminster, London. (How might the property industry contribute towards funding infrastructure for example through a 'Business Rate Levy?')
- Owen V. (2005) *'Regeneration manifesto: case studies, public places: private money'* The British Property Federation, London. (Nine major projects selected focusing on five key areas of governance, infrastructure, planning, funding and skills)
- Adair, A. Berry, J. et al. (2006) *'Institutional investment in regeneration'* The Investment Property Forum, British Property Federation and British Urban Regeneration Association, IPF, London. (A review of possible investment vehicles to attract private sector funding for public infrastructure essential for regeneration)

NB A number of the major projects referred to in this paper were worked on by the author while employed by the owner/promoter of the project. The views in this paper are the views of the author and not necessarily those of the owner/promoter

Glossary

IPD – Investment Property Databank; a recognised benchmark publisher (established in mid 1980's) used by UK and European property owners (typically institutional investors) to compare their own property and portfolio *return* performance against benchmark returns for various market segment indices. More recently launched an index for property returns within Regeneration areas (i.e. where some form of regeneration programmes exist) in collaboration with Morley Fund Management and English Partnerships (note; English Partnerships may shortly be merged by the Government with the Housing Corporation to form a new Homes and Communities Agency).

Returns – the property industry looks at income returns; the cash received annually by an investor from a property as a per cent of its capital value and capital returns the annual growth in value of a property against its starting value.

Basis Points – returns are quoted in per cent terms with fractions of a per cent stated in units of 100 or basis points – thus 50 basis points = $\frac{1}{2}$ per cent.

Funds – collective investment vehicles where several investors pool their capital and leave day to day management decisions to an appointed manager. Often structured to achieve a neutral tax position for certain investor classes such as pension funds and UK life companies. Investors hold a per cent interest which may be units in a unit trust structure or participations in a legal partnership.

Section 106 Agreement – A feature of the UK planning system is that under our planning laws a development should contribute to the cost impact it has on local infrastructure e.g. schools and public services. The agreement between the developer and the local council, as the planning authority, is set out in an Agreement referring to the relevant section of the Planning Act i.e. ‘Section 106’. Highways works e.g. upgrades of roads, traffic controls are subject to a separate agreement with the Highways Agency.

Hurdle Rate – in assessing the financial viability of a project an investor will set a hurdle rate (typically an internal rate of return for the project cash flows) which that project should exceed given the nature of the risks and uncertainties inherent with in. Thus for example in the property world the ‘hurdle rate’ for the purchase of an existing building with rental income will be significantly lower than a development opportunity where construction and letting has still to take place.