

## **Viability Podcast 3 : Transcript**

This is Michael Beaman with the third summary of talks I gave a few years ago as part of the Planning Advisory Service's course on development viability appraisal and in which I look at the appraisals themselves. Not before time you might think as you look forward to the thrill of your lives. But I want to keep you on tenterhooks just a bit longer and quickly recap some of things covered in the previous podcasts because they will crop up again here.

The first podcast covered some of the basic financial hydraulics of development. I referred to the need to consider issues of timing and risk alongside profit margins when considering whether a scheme is viable or not and noted commercial and smaller developers in particular use debt finance both to increase the potential rate of return on investment but also the possibility of losing it. I also talked about the 'winner's curse', which inflicts buyers who, in their eagerness to buy a site in a competitive market, will justify offering a high price by making overly optimistic assumptions about how much it will cost to develop a site and how much it might be sold for.

In the second I talked more about the nature of the development business. An important point was that developers differ. Volume housebuilders do not operate the same way as commercial developers particularly in the way in which they source sites and use debt. I also stressed that any failure to anticipate the next phase in the cycles of boom and bust that plague the industry can have serious consequences. This is one of the biggest risks in the business but there are others. Some result from the operation of the planning system and, critically,

these can be difficult to measure at the point at which land is being bought, thus increasing the risk of suffering from the Winner's Curse.

I do not intend to try and show you how to do a viability appraisal here. Audio would be a lousy medium for that! Rather, I aim to tell you what appraisals can and can't tell you and to suggest that they are at best an unreliable guide to what might work and what will not. But if you are one of the muggles who kids themselves that a mastery of the arithmetic alone will reveal the hidden truths then I suggest that you try the Royal Town Planning Institute's CPD course on viability which is also my work and which focuses almost entirely how to do the sums. And if you want some simple models to try your hand with, there are some on my website [regenerate.co.uk](http://regenerate.co.uk)

People sometimes refer to development appraisals as valuations but the two are not the same. A valuation is an estimate of what you might get for a property if you simply sell it on the open market; while a development appraisal is a calculation of how much a site might be worth for development. You might wonder how the two can be different. But in fact they often are. There are several reasons.

Firstly the price at which a site is sold might reflect a special interest on the part of the buyer. Perhaps they have a very specific need for it or they own neighbouring land.

Secondly, developers will have different ideas about how a site might be developed and how the work might be paid for.

Thirdly, there is the Winner's Curse again. Developer's need sites. In order to compete in a seller's market they will often pay more than can be justified by a conventional residual land value appraisal based on standard data on values and costs. At a humdrum level this partly explains why the sale price of land often exceeds predictions. It also explains why developers moan so much about the

impact of planning restrictions on viability. But they created the problem for themselves by overpaying for the site so, personally, I don't have much sympathy. But the Curse does have one unfortunate side effect for the planning system. In a flat or falling market it increases the chance of schemes stalling or being abandoned when subsequent analysis fails to provide a justification for further investment. That will delay the development that you want.

Now let's take a closer look at the ways in which viability appraisals are used in the planning system.

Firstly, a high-level analysis of development viability is needed when formulating strategic land allocation policies and setting levels of development contributions.

Secondly, there are an increasing number of instances in which developers submit appraisals to a planning authority in support of an application.

Thirdly there are occasional instances in which a local authority will consider investing to facilitate development or acting as developer themselves.

In my view it is quite possible for the average town planner to become familiar enough with appraisal techniques to carry out the relatively simple calculations that are adequate for policy purposes. It isn't necessary to use complicated models or to commission expensive studies. But it is necessary to realise that simply doing the calculation is not enough and to sense-test any conclusions using local knowledge and a bit of common sense. For instance, if the appraisals suggest that development is generally not viable, but you can see lots of cranes from your office window, it suggests that the arithmetic is faulty. If you are nervous about responsibility for the calculation, then by all means use a consultant to check your analysis and conclusions. That would be a lot cheaper than getting them to do whole shebang.

Things get more difficult when you start dealing with specific sites. When negotiating Section 106 and similar agreements you are effectively trying to second guess the developer and it is surprisingly difficult for anyone to do that with any degree of accuracy because it requires access to the developer's information and mind-reading skills to anticipate his judgement. It is easier when you have their own calculation to use as a starting point. I do think that it is both possible and worthwhile to improve your ability to understand and interrogate these, even when there is a danger that they have been manipulated for negotiating purposes.

Finally, if direct development is proposed, you are moving into the realm where errors can have very direct and significant financial consequences. I would caution against the idea that a financial appraisal alone represents an adequate assessment of any project or that a short course of any type will equip anyone with the skills to do the detailed calculations and cash flows and to draw sound conclusions from them. In what follows I am going to explain why even skilled and experienced property professionals struggle with this simply because the appraisal tools are blunt. Anybody who claims that development land valuation is a precise science is a charlatan. It is in fact a black art. For my part I have been doing the sums for over thirty years both as a developer and a surveyor and the only claim that I can safely make to accuracy is that I am likely to be less wrong than you. Remember also that developers accept that not every scheme will make a profit and tolerate the odd loss. Organisations in the public eye can be less understanding.

I will now move onto the various appraisal models themselves. There are effectively two methods for assessing the worth of a piece of development land. These are comparative analysis and residual value analysis. (Other names for each method are available).

Comparative analysis is perhaps less valuable to planners so I will get it out of the

way first. As the name suggests it is quite simply an attempt to assess the value of one site by comparing it with another whose sale price is known. It is the method preferred by valuers generally and the hallowed Lands Tribunal in particular because they believe that, generally speaking, the market is a better guide to land value than residual value analysis which most property people agree is unreliable.

This is not to say that comparative analysis is much better. Few sites are readily comparable partly because they vary a lot and partly because the terms of many of the supposedly comparable transactions are often historic and the terms of sale are not known in their entirety. For instance the reported price might reflect staged payments or include seller's obligations. Of course this doesn't stop the armchair pundits. Many times planners and councillors have told me that a piece of land must be worth a certain amount because a piece of land down the road has been sold for same sum; disregarding the fact that the deal was different and that the former was an overgrown hillside with a colony of protected leprechauns but no utilities or road access while the latter was a nice level site adjoining the main road.

As you know the current guidance on viability studies in the planning system doesn't agree with the Lands Tribunal and prefers the use of residual land value analysis mainly because it is at least trying to measure the right thing i.e. the value of site for development rather than the amount that it might fetch on the market. We will come back to that in a minute but for now I would suggest that you don't altogether abandon comparison as an analytical tool. For instance, it can be used to sense-check the conclusions of residual land value analysis but can also be used as a benchmarking tool and in my view benchmarking in general does have its uses for policy purposes. For instance you can compare the market in your area with the market in another; which is similar both in terms of demand and sales values. Odds-on, if a certain form of development is happening there then it should be viable on similarly blessed sites in your area. If on the other hand, a particular type of opportunity does not seem to be attracting developers

there; then there is no reason to suspect that it will be any different where you are. More generally there is serious value in pooling information and comparing notes with surrounding districts. The best starting point for an appraisal isn't a giant spreadsheet but rather a good understand of the local market and plenty of relevant data. So the more you have the better.

Now I will turn to the type of appraisal which you will encounter most; namely residual land value analysis.

First, a caution. We are dealing with a financial model here. Do you recall the sub-prime mortgage crisis that triggered the credit crunch? The banks who bought the vast portfolios of the dodgy mortgages used sophisticated financial models some of which earned their creator a Nobel Prize. These models were hypersensitive to the assumptions about the market that were fed into them and failed because those assumptions were incorrect and it appears that no-one sense-tested the conclusions drawn. . In contrast the residual land value models that you might use should be relatively simple. Nobody won a Nobel Prize for them. But their veracity is equally dependent on the assumptions made about values, costs and timing and they are equally hypersensitive and error-prone. As they say across the pond, garbage in, garbage out.

So, you are using the devil's calculator. You have been duly warned. Now, at its simplest, in order to calculate the worth of land for development, you simply take the projected sale price of a scheme, deduct the estimated costs together with the basic margin that a developer might require, and you will be left with the amount that can be paid for the land. Alternatively, if you know price of the land you can add this to the costs, deduct everything from the projected sales price and you will be left with an estimate of the developer's margin.

This classic approach is standard practice for simple and short term projects but has significant drawbacks especially for schemes that will take longer to deliver

and which will in most places probably form the bulk of development. These revolve around the important issues of timing and risk.

I have made the point before that development isn't just about the profit margin but also how long it takes to make it. A 20% return on capital might be fine in one year but is meagre over ten years. And I also made the point that while residual value appraisal models usually invite you to assume that a scheme is entirely financed by debt; in fact at least some of the costs are met usually met by the developer from their own resources and volume housebuilders in particular don't often use debt to fund projects at all. So in both respects it is unlikely that a residual appraisal undertaken in the conventional way will meet the criterion of reflecting the approach of any particular developer.

Secondly, the standard model doesn't include any explicit analysis of the risks involved. To the extent that it deals with these at all, it is by fine tuning the judgements on the overall level of values and costs and perhaps some basic sensitivity testing. To say this approach is crude is to put it mildly, but to be honest I have never seen a more sophisticated approach to risk analysis actually used in the business. In practice many effectively rely on experience and a finger in the wind but even this will affect their view on the viability of a project no matter what the appraisal says. And don't believe it when a developer tells you that the standard practice is to include cost inflation in an appraisal but not value inflation. If they want to buy land in competition, they must usually bid high. Remember the Winner's Curse.

The final and possibly the biggest problem with the conventional residual valuation appraisals is the hypersensitivity which I have already referred to. Its significance becomes apparent when you consider just how accurate the initial assumptions about potential values and costs are likely to be.

For instance, the Royal Institution of Chartered Surveyors regularly analyses the

accuracy of valuations undertaken by professional valuers. This shows that in a typical year around 70% of the valuations of existing buildings are accurate to within 10% of the price at which that building is subsequently sold. But keep in mind that this typical 10% margin of error relates to buildings that exist whereas you will often be dealing with situations where the buildings haven't been fully designed so there cannot be accurate assessments of costs and sales process. To give you a quotidian but very specific example, the economics of building a house which utilises the roof void for a third storey and which has a built in garage will be different from a house which has a proper third storey and external parking. Yet when you get a planning application you often don't know which type of house will materialise.

Now, do you recall from the first podcast, how a small miscalculation in the estimated value of a proposed building can result in a much larger miscalculation of the worth of the land needed to build it? So a typical margin of error of 10% in estimating the value of the former will usually lead to a much greater typical error in estimating the worth of the latter using residual value analysis, even by an experienced valuer. And keep in mind also that this is before taking any errors in estimating costs into account.

Complex models are sometimes used in pursuit of greater accuracy. But the fact of it is that even small errors in the underlying assumptions produce differences in the estimate of the worth of development land that completely dwarf those that result from using one model rather than another. Quite simply, the magic isn't in the choice of model but in the quality of the assumptions that underlie it. And that is why where absolute accuracy is not at a premium – such as in strategic and policy studies – using a simpler model can cut complexity and cost and provide equally useful results.

So why do developers rely on calculations of this sort? It certainly isn't common in other areas of business or for that matter in the appraisal of major public sector



projects. The answer is that they don't really, or at least not entirely. Most have a feel for the sector of the market that they operate in and know value when they see it. Tacit knowledge is important. So for smaller schemes they will often simply use a conventional appraisal as a belt and braces exercise to check their judgements and to make tactical decisions about the various trade-offs involved. And, importantly, they will use it in the effort to secure funding.

But for larger schemes they will usually use more complex models. These incorporate a cash flow projection which not only allows them to calculate the finance costs more accurately but will also allow them to calculate the annual return on their investment and make it easier to factor in and then test changes in values and costs over time. This is much closer to the types of models used to test major projects in other sectors of commerce.

At this juncture I need to tell you a bit more about cash flow based appraisal, but I should preface this with a mental health warning; if you feel at sea with money matters you might be a bit baffled by what follows. Frankly it isn't easy to explain but I aim to do my best before dodging the detail.

At their simplest, cash flow models simply tell you when the money for your project is expected to arrive and depart; how much you will need and when. This is useful in itself but for a deeper analysis of the economics of a scheme a developer will normally use an appraisal model based on Discounted Cash Flow Analysis or DCF. This is based upon the simple idea that cash in your hand now is worth more to you than cash in the future. So you would rather have £1000 now than £1000 in two years' time, if only because you can invest it in something else or save money by paying off your brutal payday loan shark.

DCF analysis effectively takes the future stream of payments and income and discounts them by a fixed percentage each year so that money earned in the future will not do as much for your bottom line as money earned now; and costs

incurred in the future will not hurt as much as costs incurred now. The figure that remains after all of those income and costs have been discounted in this way is known as the Net Present Value. In development appraisal based on a DCF analysis and in which the return on capital that the developer requires is treated as a project cost, the Net Present Value effectively represents the residual worth of the land for development. If you tried to apply the credit card analogy that I suggested in the first podcast, you were effectively doing a crude DCF analysis with the interest payable on the card being the discount rate.

Going through a DCF appraisal for a complicated scheme can leave you feeling like you're drowning in numbers, and I have frequently seen models incorporating dozens of intricately linked spreadsheets. This makes it more difficult to spot the wood for the trees and if you want to check the calculation it is seldom practical to go through every figure and every formula in every worksheet. So you have to take some of it on trust.

But in theory it should produce better results than the conventional forms of residual value analysis at least for the particular developer that is using it. It is less clear that it is equally useful as a basis for negotiating with a developer over 'reasonable assumptions' to make in an appraisal and where the amount of detail involved can be obfuscatory. That is also the reason why developers themselves don't always use it unless the scale and the length of the project or for that matter their financiers absolutely demand it.

If you do want to know more about DCF analysis, look on the internet; you will find plenty there. Wikipedia has a section on it but there are also numerous less complicated explanations. It is also referred to in both the Treasury's Green Book and the various guides produced by the Office of Government Commerce. But beware, the general principles are universal but the logic behind the choice of discount rates is different for public sector projects.

In summary, it needs to be understood that the residual value approach to appraisal is flawed. The models are hypersensitive to the underlying assumptions and inadequately fail to deal with issues of timing, risk and the variety of approaches to financing in practice. That is not a prohibitive issue for the developers who understand what these calculations can and cannot tell them and who mainly use them to double check judgements made equally on the basis of tacit knowledge. Cash flow based models provide a more sophisticated and explicit map of the economics of a scheme but are equally reliant on good basic information and add complexity which in turn makes it more difficult to check and draw conclusions from the analysis.

As you can see, the tools that you will be using are blunt. But do not despair. Your needs are usually simple, especially when doing appraisals to underpin strategic or policy studies because in these instances the appraisal is not based on any specific site so the underlying assumptions will be normative estimates of likely receipts and costs and any degree of precision would be spurious. And when negotiating planning contributions issues and in particular when you have the developers own assessment they provide a basis for discussion and hopefully agreement. Your chances of securing a good result will be much improved by an ability to question the assumptions that determine the conclusions.

My advice is to put the effort into refining your underlying judgements about the main assumptions about value and cost. Gather as much information about these as you can paying particular attention to the specific circumstances of the site or sites in question. Don't worry about small beer or put too much faith in a model simply because it is complex. As John Maynard Keynes once said, "it is far better to be roughly right than precisely wrong".