

# ASSESSING THE ASSESSORS

The recession has exposed weaknesses in the way development viability is gauged. **PROF PAT MCALLISTER** and **DR PETER WYATT** consider new approaches

**THE ASSESSMENT OF** the financial viability of development proposals has become central to negotiations for affordable housing, public infrastructure provision and the production of development plans.

However, the recession has exposed weaknesses in the way in which viability is assessed. The use of financial models that take a static view of a dynamic market environment has left development schemes with planning permission unviable. But is it possible to develop a different approach, one that includes forward looking projections and communicates the inherent risks?

The development of a site does not take place in a vacuum: the viability of a scheme may be the result of public provision of infrastructure and services, and the result of a completed scheme will usually be more demand for public services and infrastructure. This dilemma of private gain resulting from

public investment, and the social implications, has been central to planning policy since the use of land was nationalised in 1947. A range of policies has sought to recoup some or all of the increase in value that landowners gain when they have obtained planning permission for a use more valuable than its existing one.

The clearest example of such uplift is a change of use from agricultural to residential use. Current arrangements for obtaining contributions for public sector infrastructure and services from private sector development centre on two policies: a proportion of housing units in residential developments over a certain size must be 'affordable' and financial contributions to infrastructure and services must be contractually agreed prior to development. Yet, each scheme is unique, which means it is very difficult to standardise arrangements for affordable housing and financial contributions to public services across local planning authorities.

The scale of contribution sought from developers and landowners is a function of the financial viability of the proposed development scheme. Several financial models now exist to help planners and developers assess viability of individual schemes but the preferred approach of developers is to construct bespoke models on a scheme-by-scheme basis.

## The theory

When assessing viability, a developer attempts to select the permitted mix and density of land use that will maximise profit (high value, low cost). The estimated profitability of the scheme is then set against target return and risk parameters of the developer in order to determine viability. Development viability assessments are thus based on the classic Ricardian insight that the profit from a development project is taken as the monetary residual or surplus available once a site has been developed.

In practice, the 'residual method' of valuation is usually employed in its simplest form initially and then the complexity level increases as development plans crystallise. This incremental introduction of sophistication to the model is an



issue for the viability assessments required by planning authorities at the planning application stage. Introducing high levels of sophistication to the model at this early stage may give the impression that input values estimated now will not change much over the development period.

Conventional appraisal techniques have been the subject of significant criticism. The method assumes that a single completed development is sold at the end of the development period, costs are spread evenly throughout the development period (thus distorting associated finance costs) and that all costs are borrowed. It also uses current costs and current values as the basis of estimating current land value or expected profit. In reality, the realised profit will be determined by actual future costs and actual future revenues. The recession has exposed the weaknesses of relying on viability assessments that simply take a snapshot of a dynamic market.

To tackle this problem the Homes & Communities Agency (HCA) encourages planning authorities to be flexible by considering target ranges for affordable housing tenures, altering the terms of planning obligations (eg, timing of payment(s), phasing of requirements)<sup>1</sup>.

### Existing guidance

The recent HCA guide to economic appraisal states that: "The modelling of larger, phased developments [to inform consideration of an approach to the deferment of planning obligations] will require models which can reflect the future dynamics of housing market recovery, changing values and build costs, demonstrate their sensitivities and their consequent potential impacts on the out-turn scheme position." (HCA, 2009, 13)

In terms of development appraisal theory and practice, cash flow approaches have been introduced in the last two or three decades that can more accurately reflect the timing of revenue and expenditure over the development period. While cash flow approaches have the potential to provide a defensible and robust approach to viability assessment, this potential has not been fully exploited. Cash flow models tend to be based on the same assumptions as the residual method and have simply added a cash flow framework.

### So what are the issues and how can we address them?

#### ■ Failure to forecast future cost and revenue

Current models rarely include forecasts of expected costs and revenues; inputting current values and current costs avoids having to incorporate assumptions about inflation in costs and values. Inflation affects future cash flows and the discount rate. In order to take account

of inflation accurately, there are two alternatives: either real cash flows can be discounted at a real discount rate or nominal cash flows can be discounted at a nominal discount rate. If a nominal discount rate is applied to current or real cash flows, the result can be an under-valuation when there is inflation.

It is standard practice for development appraisal to use a nominal rate – the cost of bank debt. In the residual method and in many cash flow versions, this nominal discount rate is then applied to current costs and values. These are arguably implied real cash flows unless growth in costs and values is deemed to be zero over the development period. The remedy is relatively simple and it is to include expected, rather than current cash flows in the appraisal. In practice, anecdotal evidence suggests that some developers do adjust cost and values to reflect expected inflation.

**Possible solution:** include forecasts of expected costs and revenues.

#### ■ Simplistic incorporation of return requirement

In conventional approaches to development viability appraisal it is standard practice to assume required profit in terms of a cash sum and include it in the cash flow. In contrast, in mainstream project appraisal, required profit is expressed in terms of required return. The expected cash flow is discounted at the required return in order to assess viability or to assess the surplus available to purchase the land.

**Possible solution:** a hurdle rate of return should be estimated. It is acknowledged that crude profit mark-ups contain implied hurdle rates of return that can be 'reverse engineered'.

#### ■ Inclusion of financing as a cost

In conventional approaches, it is standard practice to assume all-debt financing. Again, this is in contrast with mainstream project appraisal where the value of the project's equity and the value added by financing are treated separately.

**Possible solution:** exclude finance costs. The financing decision should be separate from the investment decision.

#### ■ Using a finance rate as the discount rate

There is little direct connection between the rate at which the company can borrow and the appropriate discount rate to be applied to a particular project. This is particularly so when the expected cash flows are subject to a high degree of risk as in many property developments. The mainstream approach to dealing with financing in project evaluation is to discount the

## "This dilemma of private gain resulting from public investment... has been central since the 1947 Town and Country Planning Act"

projects at the weighted average cost of capital or discount the equity at the cost of equity.

**Possible solution:** while there are practical barriers to applying theoretical models of estimating hurdle rates of return for development schemes, this issue needs to be addressed.

#### ■ Risk analysis

Whereas current appraisal models typically require very detailed cost and revenue variables to be input – many of which may have little impact on the overall viability of the scheme – risk analysis is usually rudimentary.

Rarely will viability appraisals produce identical findings, nor can an appraisal state as a fact that a proposed development is viable, it can only state that, based on a set of specific expectations, a scheme is viable. If we accept that expectations tend to change continuously, then viability will also change continuously.

**Possible solution:** identify and measure risks in the viability appraisal using probability modelling.

#### Potential error

There seem to be two major sources of potential error in development viability appraisal. The first is associated with poor modelling technique. The second is associated with poor information inputs.

Paradoxically, the limitations of modelling techniques may be irrelevant given the level of data or input uncertainty in viability appraisal models. Where input error is (often unavoidably) high relative to error generated by the model, the use of more sophisticated models may provide no benefits in terms of the quality of outputs. Simple models may outperform more complex and detailed viability models.

<sup>1</sup> HCA (2009) Investment and planning obligations: responding to the downturn, Good Practice Note.

### FURTHER INFORMATION

The authors are part of a team from University of Reading and GVA Grimley that have been commissioned by RICS to evaluate development viability planning. RICS Guidance on viability planning will be published later this year.