

The development approach to valuation

by Douw Boshoff

Professional valuers often struggle to perform accurate valuations due to a lack of comparable information. They have to rely on alternative methods to quantify the value of a property. One such approach is the development approach. There has, however, been much criticism and resistance to using this approach. This could be due to valuers not understanding the method or the variables involved, as well as the sensitivity of the approach.

A study conducted in the Department of Construction Economics at the University of Pretoria considered the theory, as well as some legal cases, pertaining to the use of the method. The study explained the problem by way of a practical case study to illustrate the basic method, where it is used, as well as its main shortcomings.

Property owners often require an indication of the amount for which the property could be sold. A professional property valuer would be able to provide a formal and accurate figure. According to the Valuers Manual of the South African Institute of Valuers, "A valuer cannot expect to arrive at a logical deduction from the factual data and form a responsible estimate of value unless he exercises diligent care and employs his skills to the best of his ability in making his valuation and compiling his report."

The estimated selling price is referred to as the open market value of the property. According to the International Valuation Standards Council (IVSC), an independent body that sets global standards for valuation, "this is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arms-length transaction after proper marketing wherein the parties each acted knowledgeably, prudently and without compulsion."

This definition implies that the valuer should estimate the amount for which the property could be sold. If it is considered that the willing seller would want to maximise his returns, the valuer would need to consider all aspects of the property that might

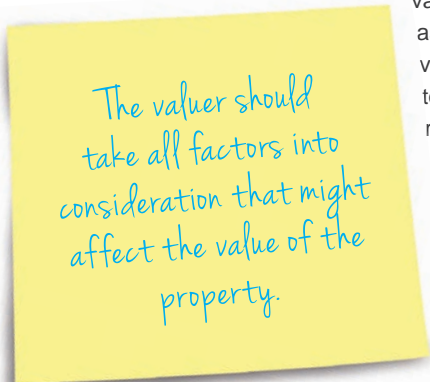
influence the possible selling price. This does not mean that the valuer acts in the interest of the owner, but that he or she needs to provide an independent assessment of the value that would satisfy the owner and make him or her willing to sell.

This means that the valuer determines the highest and best use of the property, and the associated value of such a use. The problem many valuers face is that the current use is not necessarily the highest and best use. The more reliable methods of valuation, such as the comparable sales method or the income capitalised method, do not necessarily provide accurate comparable variables to determine the highest and best use value of the property.

The development approach to valuation (also known as the residual land value method) is to varying degrees recognised as an acceptable method for valuing properties. The main purpose of this method is to value the potential of land, in the absence of comparable sales.

In other words, to consider the development that could be effected on a property, and thereby consider the eventual value after the development has been completed. By deducting the cost of such a development, the remaining amount (or residual amount) is the amount that a developer would be prepared to pay for such a property in order to obtain the development potential. The Valuers Manual describes it as "a complicated exercise involving specialised skills in several spheres".

In the case between Estate Marks v Pretoria City Council, the judge said:



The valuer should take all factors into consideration that might affect the value of the property.

“The validity of a residual land value projection vitally depends on three basic factors: the development cost of the projected building, the anticipated net income from the project and the net yield required by the prospective purchaser”.

This approach also suffers from credibility internationally, as pointed out in an article in the professional journal of the Appraisal Institute, “Courts that have expressed concern regarding the development approach have focused their reliance on multiple assumptions about the occurrence of uncertain future events. To these courts, the necessity of predicting governmental approval of plans and permit applications, as well as the timing of income and expenses for a project in its embryonic stages, renders the development approach more akin to educated guesswork than reliable forecasting.”

Two conflicting situations arise from the abovementioned statement: The valuer should take all factors into consideration that might affect the value of the property, and should therefore consider the potential of a property in the same way as a prospective developer would in order to determine the potential of the property as opposed to the lack of information that might render the method inaccurate. These two situations have given rise to a general viewpoint that the development approach is only used when full details of a particular development are available.

This means that a valuer would only consider the potential of a property if full information is available on the costs, plans and timing of a development. This would give an accurate result, but does not take into account the fact that a developer would not spend money on the planning aspects of a development before he knows if he will actually be able to buy it. Therefore, before purchasing a development property, the developer



→ *The Constitutional Court forms part of the Constitutional Hill Campus in Braamfontein.*

would only do a superficial investigation as to the possibilities of development and base his decision to buy, as well as his negotiation approach, on this deficient information. In a similar way, the valuer should not be too wary to use information that could result in a value that would be the same as that determined by the real willing buyer.

This method was tested on a specific case and a valuation was performed for Blue IQ (Pty) Ltd on the Constitutional Hill Campus (Conhill) in Braamfontein, Johannesburg. Conhill comprises the Constitutional Court, accommodation for the constitutional commissions, 1 724 super-basement parking bays, bus and taxi holding and drop-off facilities, upgraded peripheral roads and internal streets, a visitors' information and exhibition centre, new museums, and related heritage and tourism activities, a restaurant and public open spaces.

The western portion of the site comprises four development blocks situated above the parking super-basement and, in turn, subdivisible into smaller development land parcels. These are paramount in creating a critical mass that will sustain the development of Constitution Hill.

Each development block is subject to architectural coding and earmarked for a range of uses. Development Block A would accommodate a publicly accessible information centre and shared facilities complex that would include conference facilities, an auditorium, training facilities, a library, meeting rooms and an information desk for key tenants. The total bulk of the rentable floor space is approximately 5 000 m². Development Block B would accommodate a 75-room hotel, 5 600 m² of office space and approximately 1 300 m² for retail



→ *There is an increased demand for property in the area surrounding Constitutional Hill.*

purposes. Development Block C would allow for 11 800 m² of office space and approximately 100 m² of retail facilities. Development Block D would accommodate 12 500 m² of office space. About 145 residential units would be created on the site by means of conversions of the existing Queen Victoria Hospital and Nurses' Home, as well as new unit construction on the upper levels of each of the development blocks.

The different components were valued separately and then combined into a single valuation report. In order to explain the principles of the development approach, only the super-basement will be considered and therefore reference to the property will only mean the basement. The actual figures have been changed to fictitious numbers due to the sensitivity of the actual events, but will still explain

that under certain circumstances it is inevitable to use the development approach, even though there is a lack of information on the different variables of the method.

The valuer was requested to provide a value for the property as if it was vacant land, as well as a value for the improvements in their current condition. The area was previously known for its high crime rates, with a very low demand for property investment. Local government investment and intervention have brought about a change in the area, with a substantial increase in demand for property, rental rates and development.

The current improvements to the property include a basement parking structure, complete with all the required services, such as fire sprinklers, basement to ground floor

lifts, fire escape stairs, access control and signage in order to make the basement fully functional as a parking structure. For some reason, no further construction or development plans were done for the top structure, but the demand for parking in the area due to other development in the area is very good, indicating that a good income stream is possible from the property.

Following the above, the immediate consideration is to perform the vacant land valuation on a comparable sales method, as there is evidence of land with development potential that was recently sold, and to do an income capitalisation on the basement parking. Although the evidence for a capitalisation rate would be difficult, it could be derived from other properties that were sold, with adjustment due to different usage.

The variables of the property are as follows:
 Property size: 50 000 m²
 Coverage: 80%
 Floor space ratio: 3.0
 Permitted use: Commercial (offices)
 Height restriction: 5 storeys
 Parking: 4 bays per 100 m² offices
 Basement size: 65 000 m² (3 500 bays)

According to *Rode's Report on the South African Property Market* (issued in 2009 by Rode & Associates), office space is let as follows:
 A-grade: R71.63/m² with standard deviation (SD) of R7.56
 B-grade: R50.33/m² with SD of R5.03
 C-grade: R33.00/m² with SD of R7.55

Brokers active in the area have office space available between R50.00 and R85.00/m², depending on the size and quality of the improvements. Smaller office areas that range from approximately 60 to 500 m² are let at rates ranging from R95.00 to approximately R165/m². A property nearby is rented by a semi-government organisation at R140.00/m². From the above information, it is believed that an average of R120.00/m² can be achieved on the subject premises for newly constructed offices.

Vacancies in the area are reported to be below 10%, with A-grade offices having a vacancy rate of approximately 5% (the average is elevated by lower grade buildings). A perpetual vacancy rate of 3% is deemed sustainable for A+ grade office space to be developed.

Capitalisation rates are indicated by various brokers and other market players to be between 10.2 and 14%. Although the subject property would be developed to a high standard, it is still considered to be a higher risk than other prime nodes. The mixed use of the property would reduce risk and result in lower than average capitalisation rates. A rate of

approximately 10.5% is attainable for a mix of office and some retail space.

Office outgoings are reported by the Rode report to be approximately R19.50/m². Brokers indicate this to be between R15.00 and R18.00/m², while a new development close to the case study has outgoings of approximately R16.00/m². This figure includes all operating costs, such as electricity and water that is not reimbursed by the tenant, insurance, maintenance, rates and taxes, and management fees.

Parking rentals are indicated to be between R465.00 and R550.00 per bay. Other buildings in the area revealed R550.00 and R520.00 per bay for two comparable buildings close to the case study. The bays in the basement in the case study are let at R530.00 per bay, which is considered to be market-related and a good estimate to calculate the open market value.

Land values for development purposes in the area indicated an amount of approximately R1 650.00/m² for erven that were sold close to the case study, and which are subsequently being developed with an office block.

In order to calculate the replacement cost of the various buildings on the subject property for the purposes of a depreciated replacement cost calculation, estimates are based on the *Davis Langdon Construction Handbook*. Once the above market information has been obtained, it is possible to perform calculations to interpret the values of the case study.

Vacant land value

As mentioned earlier, a comparable property was sold at a rate of R1 650.00/m². Normally, an analysis would be performed to establish the different variables that might indicate a difference in value for the comparable sale and the subject property, but for the purposes of

the study, the two properties were accepted to be directly comparable. This indicates the value for the case study as vacant land to be only R1 650.00/m². The property size is 50 000 m², indicating a total value of R82 000 000.

Value of basement – income capitalisation method

The income capitalisation method of valuation considers the first year's net income, which is then capitalised at a market-related capitalisation rate. This is done as follows:

Income per bay	R530
x 3 500 bays	R1 855 000 per month
x 12 months	<u>R22 260 000 per annum</u>
Less: Vacancies at 10%	R2 226 000
Less: Outgoings at 20%	<u>R4 452 000</u>
Net income:	<u>R15 582 000</u>
*Capitalised at 12%	R129 850 000

**10.5% capitalisation rate for offices plus 1.5% risk premium for basement.*

The value of the basement structure is clearly substantially higher than the land value, but in order to evaluate the appropriateness of this value, the cost of construction should also be taken into account. According to the *Davis Langdon Construction Handbook*, the cost of basement parking structures is approximately R3 000.00/m². This indicates a total cost of R195 million for construction only. If the total development cost is taken into account (land value, professional fees, etc.), it is clear that the value of the basement does not make sense. This means that the seller is not recouping his costs if he were to sell, and the purchaser is purchasing an asset at a cost substantially lower than the cost to build it.



→ The value of basement parking contributes to the value of commercial property.

Value of basement – development approach

From the preceding information, it is evident that an alternative approach should be adopted. If it is considered that parking is a requirement from a town planning perspective, the basement should be seen as a cost for the development, not an asset. The income that could be derived from the parking is merely additional income to the end product, and not the total income that is capitalised.

For the sake of simplicity, only a static example of the development approach is performed. In practice one would rather adopt a discounted cash flow approach. The static method is normally used in initial calculations.

The first step is to determine the extent of the development. Normally,

with the development approach to valuation, the design of the proposed building has already been finalised, but in this case, one would have to consider the town planning conditions of the property:

Permitted development (land x floor space ratio)	150 000 m ²
at 80% coverage	40 000 m ² footprint
Therefore height is (150 000/40 000)	4 storeys
Parking requirement [(150 000 x 4)/100]	6 000 bays

The existing basement that has been built only has 3 500 bays, therefore another 2 500 bays will have to be constructed to develop the property to its highest and best use. As these 2 500 bays will be constructed above ground, the cost is slightly less than the basement.

The total development cost could then be summarised as follows:

Parking (2 500 bays above ground)	R116 071 429
Offices (150 000 m² at R7 000/m²)	R1 050 000 000
Professional fees at 15%	R174 910 714
Other fees and costs at 3%	R40 229 464
*Loss of interest at 12%	R82 872 696
Total development cost:	R1 464 084 303

*Assume 50% cash flow factor with a 12-month construction period.

In order to determine the residual land value, the value of the development on completion should be determined using the income capitalisation method:

Income per m²	R120
x 150 000 m²	R18 000 000 per month
x 12 months	R216 000 000 per annum

Less: Vacancies at 3%	R6 480 000
Less: Outgoings at R16/m²	R2 400 000

Net income:	R207 120 000
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Capitalised at 10.5%	R1 972 571 429
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The residual land value is then calculated as follows, taking developers' profit into consideration:

Value on completion	R1 972 571 429
Less: Total development cost	R1 464 084 303
Less: Developers' profit at 15%	R219 612 646

Residual land value	R288 874 481
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Rounded to	R290 000 000
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The value of R290 000 000 is much more in line with the cost of the construction of the existing basement plus the vacant land value plus other costs. Although it would not necessarily be the same, the development approach takes the improvements that have already been

done into consideration and excludes that cost from the cost to complete the development, indicating a higher existing value. The method considers the fact that the basement is a supporting structure to develop the real investment (the office block).

Shortcomings of the method

The main criticism of the development approach is the sensitivity of the variables. If one were to consider the calculations above, but increase the construction cost of the main office component by R500.00 to R7 500.00/m², the results are as follows:

Development cost

Parking (2 500 bays above ground)	R116 071 429
Offices (150 000m² at R7 500/m²)	R1 125 000 000
Professional fees at 15%	R186 160 714
Other fees and costs at 3%	R42 816 964
Loss of interest at 12%	R88 202 946
Total development cost:	R1 558 252 054

Residual land value

Value on completion	R1 972 571 429
Less: Total development cost	R1 558 252 054
Less: Developers' profit at 15%	R233 737 808

Residual land value	R180 581 567
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Rounded to	R180 000 000
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The above change of 7.14% in the construction of the offices, or 6.43% in the total development costs, brought about a change of 40% in the residual land value.

Although the courts are not keen to accept this method as valid, due to the specialist calculations that need to be performed and the sensitivity of the variables, which could result in large errors, it is a method that, if applied with skill, could provide accurate assessments of properties that would not otherwise have been possible.

When applying the approach, valuers should take care to ensure the accuracy of variables. Where assumptions are made, it should be determined by taking everything that could affect

each variable into consideration to also ensure that the assumptions are made within well acceptable parameters, and "without indulging in feats of the imagination" (Sri Raja Vyricherla Narayana Gajapatiraju Bahadur Garu v Revenue Divisional Officer, Vizagapatam 1939 2 All ER 317).

This research only considered the basic format of the development approach to valuation, which could be explained in more detail considering more advanced techniques, such as the discounted cash flow method. This also opens the approach for consideration with other disciplines, such as performing feasibility studies in association with quantity surveyors that could provide more accurate information on the development cost of a property.

Further research on the possibilities of the approach, with a more accurate explanation of the value of the approach, would provide possibilities for bridging the gap between different built environment practitioners, and enhance the body of knowledge in the valuers' profession. 🌐

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Douw Boshoff is a full-time lecturer in the Department of Construction Economics at the University of Pretoria.



→ Douw Boshoff conducted a study on the development approach to property valuation.