The Green 14: Finding Value Points in High-Performance Commercial Real Estate

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Commercial and investment real estate designed to meet LEED, or other high-performance benchmarks like Energy Star, has been found to have a higher market value than conventionally built or non-certified buildings. Wells Fargo has lent over $3 billion to such projects, and in my role as the principal appraisal manager/reviewer of appraisals for these projects I have looked closely at this question.

There is no different or "special" appraisal process to value a LEED high-performance office building. In fact, the discounted cash flow (DCF) is both the most common market value financial analysis tool and a perfect vehicle to clearly show the various value impacts of high performance design. Real estate financial analysis software programs like Argus use dozens of input fields regarding the building, operations, tenant lease features and investment risk. It takes the complex analysis of income, vacancy, expenses and risk and produces a large spreadsheet modeling a theoretical 10-year holding period and with an asset sale at the end. Net income for every year is then "discounted," or adjusted for the investment risk and the time value of money, to yield a present value as of today or the "date of value."

Many people imagine "value" as just being tied to rent levels, but a DCF shows many influences exist within four general value classes:

1. Income
2. Vacancy
3. Expenses
4. Risk

The many individual software input fields address every aspect of the property operation and risk. High performance design features have the potential to impact some of these fields – and I call the most common of these the "Green 14." Of course, the actual number for any particular property and situation might vary. The Green 14 breakdown is a good starting point for anyone to consider where high-performance design impacts an actual market value determination.

The "influence" impact on value can be positive, zero, or negative. The important point is that the DCF is an existing and widely accepted valuation method that breaks down value analysis sufficiently to tease out the places where high performance might impact value.

The Green 14

The following is a quick look at these 14 (more or less) individual software inputs for a hypothetical leased office building. Support for adjusting each input for the High Performance (HP) design is based on the typical appraisal process: general market research, specific market data confirmed via interviews with knowledgeable local real estate professionals. The results are filtered thru the appraiser's experience to reach a credible opinion of value.

INCOME:
While rent premiums have been identified in national studies, an appraisal would need strong specific data, which is currently missing except all but a few sophisticated markets.

Market rent ass*umption – the expected* rent level of any vacant space. Rent premiums are tough to prove as many, many things influence this one number.

VACANCY:
This is perhaps the biggest impact as this adjustment is made early in the calculations and even a small adjustment here impacts other items that follow it in the cash flow. For example a minor change in the tenant retention percentage impacts tenant improvement costs, real estate commissions, lost rent during lag vacancy, marketing and lost tenant contributions to operating costs.

Absorption time – *applies to n*ew construction, the time it takes for new vacant space to lease. This is particularly important to a lender who wants income for debt coverage. LEED buildings generally have higher levels of pre-leasing and faster lease-up rates.

Stabilized vaca*ncy – based on the* overall market vacancy, typically determined using published brokerage studies. Occupancy levels in HP buildings are often above average.

Tenant retentio*n or rollover percentage - When a lease* ends, the tenant has the option to leave (which is undesirable) and this is expressed as a retention percentage. Portfolio managers report a higher tenant retention rate in HP buildings.

Lag vacancy – t*he time it* takes to fill a vacancy with a paying tenant.

Tenant improvem*ents: new construction or re-tenanting – a dollar per* SF cost for a new or renewing tenant to build out or upgrade their space. Design with raised floor and re-useable demising walls can impact remodel time, cost and waste stream.

EXPENSES:
Depending on the lease structure, some expenses might be paid by the tenant, some by the landlord and some split. The "split incentive" problem to incent both tenant and landlord to keep costs down is a tricky one addressed with either a NNN (all expenses paid by tenant) lease basis or "green" lease with special clauses.

Utilities –

- En*ergy - El*ectricity and gas use is generally documented to be 30% lower in HP buildings, much of that is high efficiency lighting and controls systems
- Water – Both consumption and discharge can impact billing. On-site retention and grey water use, while still not a large cost line item there is little doubt that water, along with carbon, might be the next pricing shock.
- Waste - Recycling programs can reduce costs and might provide an income stream

Repairs and Maintenance – New high performance construction materials hold the promise of lowering maintenance costs but are often untried and not without risk. Some

complex high efficiency systems might actually increase the maintenance budget, but in general it lowers costs, sometimes significantly. It covers both personnel and materials.

Management – Sensors and *automation* features are first cost investments that can help reduce and improve day to day management. Investing in better data allows asset/portfolio managers to better integrate CapEx (capital expenditures) investments and OpEx (operating expenses) savings for simple ROI [Return on Investment] analysis.

Marketing Promotions – Brand or "trophy" value of LEED and Energy Star labels can attract the best tenants and lower vacancy/rollover. This might mean an increase in marketing and costs to maintain certifications like LEED for Existing Buildings: Operations & Maintenance.

Insurance – reduced pre*miums are* offered by some carriers for LEED certified buildings.

Property Taxes – Incent*ives and low/no* assessment adjustment for energy efficiency and on-site power upgrades can exist. Rapidly growing PACE type property tax lien financing can appear as a line item, but should be off-set by lower energy/resource costs.

RISK:
These inputs adjust for the investment risk, not unlike other rates of return. Lower rates for lower risk investments (like a treasury note) and higher rates for higher risk investments (like junk bonds).

Discount rate - The overall investment risk and opportunity cost, often influenced by the quality of the building, location and tenant quality. Strong, long term tenants equal more reliable rent and net income which results in a lower discount rate.

Terminal cap rate – At the end of the holding period the property is assumed sold. An estimate of that value is estimated using the last year net income and an overall rate of return. Based on current market acceptance of high performance design, chances are good that in 10 years, high performance might be even more than norm than it is now.

So what does all this mean to overall value?

In one case (and they are all unique) I paired DCFs run on a spec mid-rise office building with high performance features vs "old normal" and the value delta was about +4 percent for the HP design. When the building is able to show 3 years operating history this might increase. Other appraisers have quoted 2-8 percent value increase via a DCF so I am in the range. While this can be real money when enough zeros are involved it can also be a rounding error, it's not a game changer. The real story is in the flip side of value loss for not designing to the new normal. I am currently watching accelerated obsolescence, potentially a much more negative consequence for doing nothing.

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