This glossary provides simple explanations and Green Street’s unique perspective on some commonly used terms in commercial real estate.

**Adjusted Funds From Operations (AFFO):**

AFFO is a superior measure of a REIT’s operating performance compared to the more commonly used metric – FFO. The primary reason is that AFFO reflects the large and real costs that landlords incur to maintain their properties over long holding periods. These capital expenditure costs (“cap-ex”) are critical for investors to consider when looking at REITs versus alternative investments in stocks and bonds, and when looking at REIT valuations across different property types. Our calculation of AFFO is:

\[
\text{AFFO} = \text{FFO} - \text{Normalized Cap-ex Reserve} - \text{Straight Line Rent} - \text{Gains on Land Sales} - \text{Minus merchant-building gains} - \text{Extraordinary items such as gains/losses on debt pre-payments}
\]

See also *Funds From Operations*.

**AFFO Yield:**

A valuation metric that is typically used to compare REIT return potentials. A high AFFO yield may indicate that a REIT is undervalued. But it may also serve as a caution flag regarding the quality of a company’s real estate portfolio, balance sheet, or management team. AFFO yield is the AFFO per share generated in a stated year as a percentage of the current share price. It is also the inverse of an AFFO multiple (Price per Share / AFFO per Share), a frequently used valuation approach.

\[
\text{AFFO Yield} = \frac{\text{AFFO per Share}}{\text{Price per Share}}
\]

See also *Adjusted Funds From Operations*.

**Annualized Base Rent (ABR):**

A term used commonly in the retail REIT and industrial sectors that measures the contractual rent to be paid by a tenant over a 12-month period. It *excludes* property operating expenses reimbursements, which are expenses that are borne by the tenant rather than the landlord and passed through as incurred.

**Blended Cap Rate:**

Reflects the weighted average cap rate ascribed to a given REIT based on all real estate segments in which a company participates. Generally, cap rates listed for REITs in Green Street publications are blended cap rates.

See also *Primary Cap Rate*.
Bottom Up:
A valuation approach grounded in company-level research. Green Street employs a bottom-up approach to determine company-level recommendations.

Canada Mortgage and Housing Corporation (CMHC):
Owned by the Government of Canada, with the primary goals of providing insurance for residential mortgage loans to Canadian home buyers, as well as for multifamily commercial mortgage products.

Capital Expenditures (Cap-ex):
The costs associated with the long-term ownership of commercial real estate are typically underestimated. Maintaining the competitive position of a property usually requires a substantial capital reinvestment by the owner. Cap-ex includes maintenance and leasing costs. Many of these expenditures are capitalized – not expensed – for accounting purposes. Nevertheless, they have a sizeable impact on property level cash flows.

Green Street normalizes these costs to reflect an expected average over the life of the building. It is often quoted as a percentage of the current nominal Net Operating Income (NOI) stream (i.e., NOI before cap-ex).

The approach for estimating cap-ex varies by sector:
- Apartment: Estimated on a per-unit basis.
- Industrial: Structural Reserve per square foot + Tenant Improvements + Leasing Commissions.
- Mall: Estimated based on property quality and type.
- Office: Structural Reserve per square foot + Tenant Improvements + Leasing Commissions.
- Strip Centers: Estimated based on property quality and type.
- Health Care: Varies by type:
  - Senior Housing: Estimated on a per-unit basis.
  - Medical Office Building: Estimated on a per-square-foot basis.
  - Hospitals and Skilled Nursing Facilities: Estimated on a per-bed basis.

Cap Rate:
A metric industry participants use to gauge the yield of a transaction. Cap rates are typically quoted on a forward one-year NOI basis. Green Street uses four types of cap rates (nominal, economic, implied, and market) to describe transactions and market pricing.

\[
Cap \ Rate = \frac{NOI}{Property \ Value}
\]

See also Nominal Cap Rate.
See also Economic Cap Rate.
See also Implied Cap Rate.
See also Market Cap Rate.
Chattel Loan:
A loan on a mobile or manufactured home, not including the land on which it sits. Assets used as collateral for a chattel mortgage must be movable or non permanent in nature.

Community Center:
Sells general merchandise or convenience-oriented goods/services. Offers a wider range of apparel and other soft goods than neighborhood centers. The center is usually configured in a straight line, as a strip, or may be laid out in an L or U shape, depending on the site and design.

Comprehensive Leverage:
Balance sheet risk is, first and foremost, a function of how much debt a company employs. Traditionally, this risk is measured by two equally valid methods: liabilities-to-assets and Debt-to-EBITDA. However, these metrics are only a starting point because neither measure accounts for near-term maturities, extent of recourse, or other unfunded obligations. To capture these risks, Green Street calculates a Comprehensive Leverage Ratio. Excessive near-term maturities result in considerably higher comprehensive leverage, whereas the use of non-recourse debt reduces overall balance sheet risk and thus, the ratio. Lastly, unfunded liabilities (e.g., development) are treated as a contingent liability and a contingent asset, which pushes the comprehensive leverage ratio north. While the exact calculations are complicated, mixing all of these variables together yields a solid estimate of all the risks associated with a company’s use of debt.

Construction in Progress (CIP):
Reflects the cumulative cost of in-process development projects incurred since inception. CIP should include the cost of the land and other “soft costs” such as capitalized interest and professional fees, although not all companies do so. In our Net Asset Value (NAV) estimates, CIP may be shown at a value that is higher/lower than the amount shown on a company’s balance sheet depending on our evaluation of the risk/reward of the project. See also Value Creation.

CPPI: See Green Street Advisors’ Commercial Property Price Index.

Current Value of Net Income (CVNI):
The sum of common dividends paid by a company plus changes in NAV/Share over time. CVNI is calculated similarly as total returns, but it is designed to measure theoretical NAV growth if dividends are reinvested in the company (rather than investment growth).

Data Center:
A highly specialized facility designed to house racks of mission-critical computer servers and the associated infrastructure required to power and cool them 24 hours a day. Data centers can be classified as (not mutually exclusive):

- **Network-Dense**: Data centers that act as key hubs for the Internet. Network-dense data centers are rare, hard-to-replicate, and exhibit strong pricing power. They are the data center equivalent of “high-barrier” office buildings

- **Enterprise Data Center**: Data centers that serve the needs of corporate IT departments and large-scale Internet enterprises. These facilities are more exposed to competition than “network-dense” data centers.
• **Powered Base Building:** A data center comprised of the building shell with access to significant power and bandwidth. All electrical and mechanical improvements are done at the tenant’s expense.

• **Turn-Key:** Refers to a data center built out to include all mechanical and electrical infrastructure at the landlord’s expense. Tenants are still responsible for installing servers or racks.

• **Internet Gateway:** A data center which serves as an internet traffic hub.

• **Co-location facility:** A data center which typically houses servers used by smaller end users.

**Development Yield:**
Measures the NOI expected to be generated from a development property upon stabilization as a percentage of development cost. Total development cost should include land and the cost of capital during the lease-up period.

\[
Development\ Yield = \frac{Stabilized\ NOI}{Total\ Estimated\ Development\ Cost}
\]

**Dividend Payout Ratio:**
Measures the percentage of a REIT’s common dividend that is covered by recurring cash flow. Green Street measures the dividend payout ratio after factoring in normalized cap-ex (i.e., based on AFFO). Dividend payout ratios that are based on FFO generally overstate dividend paying capacity.

**Dividend Yield:**
A valuation metric typically used to compare dividend return potential. Dividend yield is the expected annual dividend per share as a percentage of the current share price. Dividend yields are often accorded too much importance. A relatively low dividend yield may appropriately signal that a stock is pricey. But more commonly, it indicates a REIT that possesses a high-quality portfolio, a superior balance sheet, and/or an exceptional management team. Likewise, a relatively high dividend yield sometimes signals that a stock is cheap. But more often it serves as a sign that the REIT has cash flow, balance sheet, or management issues.

\[
Dividend\ Yield = \frac{Dividend\ Pace}{Price\ per\ Share}
\]

Where
- **Dividend Pace**
  - Four times the most recently announced quarterly dividend.
**Down-REIT:**
A REIT structure where each asset is held by the REIT and its contributor separately. A Down-REIT has the appearance of a REIT with several joint ventures. This structure is uncommon.

**Basic Down-REIT Structure**

- **Common Stock (Public)**
  - Shareholders __% → Public REIT
- **Contributed Property**
  - Contributor __% → REIT __%
- **Other Assets**
  - Contributors __% → REIT __%

**Earnings Yield:**
A valuation metric used to compare the return potential of securities. All else equal, a higher earnings yield indicates that a stock is undervalued. This metric is typically used when analyzing non-real estate companies because depreciation can overly penalize real estate companies. Earnings yield is the net income generated in a year as a percentage of the current share price. Green Street focuses on the AFFO yield, while the REIT marketplace is generally discussing FFO yields.

\[
Earnings \ Yield = \frac{Earnings \ per \ Share}{Price \ per \ Share}
\]

Earnings yield is the inverse of the frequently cited P/E Ratio (Price / Earnings).

**Economic Cap Rate:**
When most commercial real estate investors use the term “cap rate”, they are referring to what we call “nominal cap rates”. An “economic cap rate” is a superior measure of the estimated cash flow yield investors receive because it takes cap-ex into consideration. Economic cap rates provide a much better tool for comparing properties that have high cap-ex (e.g., office) against those with low cap-ex (e.g., self-storage). Green Street uses an economic cap rate as the starting point for Internal Rate of Return (IRR) calculations.

\[
Economic \ Cap \ Rate = \frac{Economic \ NOI}{Property \ Value}
\]
Where:

- Economic NOI
  - \( \text{Nominal NOI} \)
  - Normalized Cap-ex
- Property Value = Transaction Price

See also *Economic Net Operating Income*.
See also *Nominal Net Operating Income*.
See also *Cap Rate*.
See also *Nominal Cap Rate*.
See also *Internal Rate of Return*.

**Economic Net Operating Income:**
Forward 12-month estimated income from a property or portfolio after operating expenses and cap-ex are deducted from cash rents. Economic NOI in Green Street research is shorthand for Forward 12-month Economic Cash NOI whenever disclosure allows. Economic NOI provides a better estimate of underlying cash flow than nominal NOI.

\[
\text{Economic NOI} = \text{Rents} - \text{Operating Expenses} - \text{Non-cash Rents} + \text{NOI adjustments} + 12\text{-month Forward Growth Adjustment} - \text{Cap-ex}. 
\]

Rent includes: Base rents, lease termination income, parking, and service revenue. Operating expenses include: Real estate taxes, utilities, insurance, property management fees, advertising, basic repairs, and maintenance.

Typical adjustments to NOI include:
- Adjustments for external growth to include a full-period effect of acquisitions, dispositions, and development completions
- Normalized margins
- Seasonality adjustments
- Normalized lease-termination income
- Normalized straight-line rent income
- Large leases that have not yet commenced

See also *Nominal Net Operating Income*.
See also *Cap-ex*.

**Embedded Net Operating Income Growth/(Loss):**
The amount NOI by which would change if all leases were instantaneously marked to market on an occupancy-neutral basis. The metric reflects the amount of “built up” rent growth (or decline) that has yet to be captured by existing leases. Comparably low (high) cap rate transactions can often be explained by high (negative) embedded NOI growth (loss).
Floor Area Ratio (FAR):
The ratio of building area to ground area. A higher FAR reflects a higher density. Land values, zoning, and entitlements are often quoted in these terms.

\[
FAR = \frac{Total \ Building \ Sq.Ft.}{Total \ Land \ Sq.Ft.}
\]

Franchise Value:
The largest component in calculating a REIT’s warranted premium/discount to peers in Green Street’s NAV-based Pricing Model. Franchise Value represents the value management can add to a company above and beyond that which is captured in an NAV. Total returns, Management Value Add, and Balance Sheet Acumen are used to estimate a company’s Franchise Value going forward.

However, historical values will not capture recent changes in management, investment focus, or the development pipeline. Green Street analysts have the flexibility to adjust the Franchise Value to capture any changes not yet reflected.

Franchise Value is also often referred to as “Platform” value.

See also Warranted Premium/(Discount) to NAV.

Fully Loaded Implied Cap Rates:
Implied cap rates are the cap rates at which Green Street’s NAV per-share estimate equals the current share price. Thus the implied cap rate is a valuable tool for comparing real estate pricing between REITs and private markets for similar portfolios. However, implied cap rates do not account for near-term cash flow growth and the very real costs associated with maintaining (cap-ex) and operating (G&A) a portfolio, which can differ greatly from sector to sector and company to company.

“Fully Loaded Implied Cap Rates” adjust the implied cap rates by factoring in near-term growth as well as maintenance (cap-ex) and overhead (G&A) costs. As a result, “fully loaded implied cap rates” are a powerful tool for comparing the cash flow potential of different REITs within and across sectors.

\[
\text{Fully Loaded Implied Cap Rate} = \text{Implied Cap Rate} \times [1 - \text{CapEx (as a percent of NOI)}]
- \text{G & A (as a percent of Assets)}
+ \text{Cumulative NOI Growth (years 2-5)}
\]

See also Cap Rate
See also Implied Cap Rate
See also Economic Cap Rate
See also Capital Expenditures

Funds From Operations (FFO):
FFO is an earnings metric crafted by the REIT industry. FFO starts with net income and then adds back depreciation expense under the logic that commercial real estate appreciates over time – it does not depreciate – and REIT earnings would be unduly penalized relative to other industries due to the heavy depreciation expense incurred.
by real estate owners. The reality is that commercial real estate owners must constantly reinvest capital in their properties to maintain their competitive position. FFO fails to acknowledge this important issue. Consequently, Adjusted Funds from Operations (AFFO), which makes an explicit adjustment for cap-ex, is a superior performance measure. Companies often use FFO definitions that deviate from the NAREIT definition.

\[
\text{FFO} = \text{Net Income} - \text{Preferred Share Dividends} + \text{Depreciation} - \text{Gains or Loss from Sales of Property}
\]

FFO is frequently quoted on a per-share basis.

See also Adjusted Funds From Operations.

**Green Street Advisors' Commercial Property Price Index (GSA CPPI):**
Green Street’s publicly available index that estimates monthly changes in U.S. property values. The index provides a time series of unleveraged U.S. commercial property values that captures the prices at which commercial real estate transactions are being negotiated and contracted. This index is differentiated by its timeliness and weighting.

- **Timeliness:** Most other indices are based on closed transactions; therefore, they convey information about market prices from several months earlier. Alternatively, the Green Street index value for a given month is released within days of month-end. The Green Street index spots inflection points earlier than other indices.
- **Weighting:** The index is weighted by assets within each property sector; therefore, it provides a gauge of changes in aggregate values. Most other indices are equally weighted.

Sector-level GSA Commercial Property Price Indices are available to Green Street clients.

**Grocery Anchored Shopping Center:**
Typically serves residents within a 3-mile radius. The strength of the grocery store anchor is usually a key determinant of the rents an owner can charge other tenants. Grocery stores generally pay low rents, so grocery anchored shopping center owners make most of their profits from the smaller “mom and pop” tenants – e.g., dry cleaners, nail salons, sandwich shops. Grocery anchored shopping centers have earned a reputation for being “recession resistant” since consumers have to buy food even during tough times. However, during the ‘08-’09 recession, such centers proved to be less durable as consumers started doing more grocery shopping at discount retailers such as Wal-Mart, Costco, and Target. The Strip Center Database classifies a grocery-anchored center with up to one big box national tenant and a number of in-line shops.

**Gross Leasable Area (GLA):**
Represents the total floor area within a property. This area typically excludes common space.

Within the Mall sector, the GLA is subdivided between Anchors and Shops because of rent disparities.
**GSA CPPI:** See *Green Street Advisors’ Commercial Property Price Index.*

**Household Income (HHI):**
Average household income. Strip center property owners frequently use three-mile HHI to gauge a specific population’s wealth, while mall owners use a broader radius.

**High Barrier Markets:**
Markets where development is difficult and expensive due to regulation, high land costs, and/or lack of available sites. Commercial real estate in high barrier markets generally produces superior long-term NOI growth relative to low barrier markets, but with greater short-term volatility.

**Implied Cap Rate:**
The cap rate at which Green Street’s NAV per-share estimate equals the current share price. The measure is used to describe the property yield embedded in a REIT’s current stock price. Implied cap rates are useful for comparing valuations. All else equal, implied cap rates should be low when NOI growth prospects are good or value-creation opportunities exist.

\[
\text{Implied Cap Rate} = \frac{\text{Implied NOI}}{\text{Property Value}}
\]

Where:
- **Implied NOI**
  - Total Asset Value (per Green Street’s NAV) * Nominal Cap Rate (per Green Street’s NAV)
- **Total Value of the REIT**
  - Liabilities (per Green Street’s NAV) + Preferred Stock (per Green Street’s NAV) + Shares * Share price

Note: This method assumes all assets earn the company’s cap rate which may not be accurate for companies with large non-earning assets.

See also *Cap Rate.*
See also *Nominal Cap Rate.*

**Implied Cost of Equity:**
Calculated as the discount rate where the present value of expected dividends equals the current share price.

See also *Adjusted Funds From Operations.*

**Implied Value per Unit:**
Implied Value per Unit is calculated as the value per unit at which Green Street’s NAV per-share estimate equals the current share price. The measure is used to describe the implied value of property embedded in a REIT’s current stock price.

**Implied Weighted Average Cost of Capital (WACC):**
The WACC for a company (or group of companies) based on an assumed cost of debt and the implied cost of equity. The debt and equity cost components are weighted by the company’s leverage ratio.
See also *Implied Cost of Equity.*
See also *Weighted Average Cost of Capital.*
See also *Leverage.*

**Internal Rate of Return (IRR):**
The discount rate that sets estimated discounted cash flows equal to the initial investment. For properties, portfolios, markets, or REITs, Green Street bases initial cash flows on economic cap rates. Intermediate cash flows are based on the initial cash flow and grown at the corresponding NOI growth rates. Terminal values are calculated by applying a long-term growth rate, which is typically a negative spread to estimated inflation (i.e., long-term growth is less than inflation).

See also *Economic Cap Rate.*

**Intrinsic Value:**
The value of an asset. The intrinsic value of an asset will not always be the same as the current market value. Identifying discrepancies between the intrinsic value and the market value provides an arbitrage opportunity.

Note: Intrinsic value has a different definition for stock options (Intrinsic Value of an Option = Share Price - Strike Price).

**Leverage:**
A measure of a company’s use of debt.

\[
\text{Leverage} = \frac{\text{Total Liabilities}}{\text{Total Assets}}
\]

When calculating a company’s use of leverage, Green Street typically cites “net leverage,” which assumes existing cash reduces debt. This is designed to avoid penalizing a company for drawing from a line of credit and holding the proceeds as cash on the balance sheet.

\[
\text{Net Leverage} = \frac{\text{Total Liabilities} - \text{Cash}}{\text{Total Assets} - \text{Cash}}
\]

Note: In the leverage and net leverage calculations, total liabilities include preferred equity.

**Leverage Ratio:**
Measures the amount of debt carried by a REIT relative to the market value of its assets. This is akin to a loan-to-value (LTV) ratio commonly cited in the mortgage market. The leverage ratio provides a snapshot of balance sheet strength. However, it is best used in conjunction with a Debt-to-EBITDA ratio calculation, since some REITs that own substantial amounts of non-earning assets (e.g., land and vacant buildings) may appear to have reasonable balance sheet strength from a leverage standpoint, but may not be generated sufficient cash flow to service their outstanding debt. See *Leverage.*
Lifestyle Center:
A retail property that is typically comprised of upscale national retailers combined with significant dining and entertainment venues. Most lifestyle centers have an outdoor setting, many of which attempt to replicate a “Main Street” type of feel. Lifestyle center development boomed in the mid-'00s. However, the subsequent recession, plus over-building in many markets, caused significant financial distress for many newly minted lifestyle centers.

Low Barrier Markets:
Markets where new development is a constant competitive threat to existing properties due to abundant amounts of land and limited regulatory challenges. Commercial real estate in low barrier markets generally produces lower long-term NOI growth relative to high barrier markets, but rents also tend to be less volatile.

Macro:
Refers to a national or global topic.

Management Value Added (MVA):
Measures value added or subtracted via balance sheet management, capital allocation, or other factors unrelated to a real estate portfolio’s performance. MVA is the difference between NAV/sh growth and the leveraged growth in same-store portfolio value over any time period.

Market Cap Rate:
A term used primarily in the hotel and apartment sectors. It is similar to Green Street’s “economic cap rate” in that a deduction to NOI is made to reflect the cap-ex incurred by owners to maintain their properties. A key difference is that the standardized cap-ex reserves commonly used by market participants are far smaller than the cap-ex historically incurred by public and private owners in both property types.

\[
\text{Market Cap Rate} = \frac{\text{Nominal NOI} - \text{Standardized Capex Reserve}}{\text{Property Value}}
\]

Where:
- Standardized Cap-ex Reserve =
  - Apartment: $450 per Room
  - Hotels: 4% of Revenues
- Property Value = Transaction Price

See also Nominal Net Operating Income.
See also Cap Rate.
See also Economic Cap Rate.

Market Revenue per Available Foot (M-RevPAF) Growth:
A measure of the health of a market (or sector) that combines two key operating metrics (effective market rents and occupancy) into a single value. Although same-store NOI growth is a more widely used performance benchmark, this metric is heavily influenced by the length of leases in each sector and does not serve as a timely proxy for market-level operating fundamentals.
Mark-to-Market Debt:
Reflecteds the difference between the outstanding principal and the current value of a fixed-rate bond based on prevailing interest rates. The mark-to-market value can be thought of as interest savings (when the coupon is lower than market interest rates) or added interest expense (when the coupon exceeds market interest rates).

Note: If the “Price” function returns a #Name error, the Analysis ToolPak & Analysis ToolPak – VBA should be loaded in Excel via Tools Add-ins.

Net Asset Value (NAV):
Real estate differs from many other industries in that the market value of the assets owned by a company can be estimated with reasonable precision. The reason is that numerous sales transactions, involving similar assets, provide excellent “real time” pricing. NAV estimates are the foundation for our NAV-based Pricing Model, which has proven to be highly successful over time for making accurate investment recommendations. NAV is the mark-to-market value of a company’s common equity calculated by applying an estimate of private market values to the company’s real estate and other adjustments and deducting all liabilities, including preferred equity. NAV is often presented on a per-share basis.

\[
\text{NAV} = \begin{align*}
\text{Current Value of Real Estate Assets} & \text{ (valued on a pro rata basis using NOI and Green Street’s estimate of a cap rate for the respective portfolio)} \\
+ & \text{Development (valued at CIP + Estimated Value Creation)} \\
+ & \text{Other Tangible Assets (marked-to-market where appropriate)} \\
- & \text{Debt (marked-to-market based on current prevailing interest rates and spreads)} \\
- & \text{Other Tangible Liabilities} \\
- & \text{Preferred Equity (marked-to-market based on market pricing where available and prevailing interest rates)} \\
\end{align*} \\
\text{NAV per Share} = \frac{\text{NAV}}{\text{Diluted Shares (including Operating Partnership units and in-the-money options)}}
\]

See also Cap Rate.
See also Construction in Progress.
See also Value Creation.
See also Mark-to-Market Debt.
See also Operating Partnership Units.

Net Effective Rent:
A metric designed to measure the economics of a lease after taking into consideration applicable operating costs, leasing commissions and tenant improvements. Changes in market rents impact a landlord’s NOI and cash flow. Those fluctuations can be exacerbated by concurrent changes in the re-lease costs (i.e. tenant improvements and leasing commissions) that landlords incur, particularly in the office and retail sectors. Net effective rent is a more complete tool for measuring changes in overall lease economics. They tend to fall further than rents, on a percentage basis, during market downturns, while the opposite is true during market recoveries.
Net Effective Rent
\[ \text{Net Effective Rent} = \text{Annual Base Rent} - \text{Operating expenses (if rent above is gross)} - \text{Annual Leasing Commissions (averaged for each year of the lease)} - \text{Tenant Improvements (averaged for each year of the lease)} \]

Net Leasable Area (NLA):
A property’s leasable area. This measure typically excludes common areas and mechanical space.

Net Leverage:
See Leverage.

Net Operating Profit After Tax (NOPAT):
Intended to reflect a company’s unleveraged cash flow. Within the context of Green Street’s research, NOPAT is the preferred measure of unlevered earnings within the lodging sector. The Hotel valuation model applies a multiple to the calculated NOPAT to arrive at a value of the company’s operational assets.

\[ \text{NOPAT} = \text{EBITDA} - \text{Normalized Cap-ex} - \text{Normalized Cash Taxes} - \text{Option Expense} + \text{Operating Lease Payments} \]

Net Rent:
Refers to rent that does not include property expenses that are paid by the tenants directly rather than the landlord. In the case of “triple net” (NNN) leases, the tenant agrees to pay all expenses associated with the property (e.g., real estate taxes, insurance, repairs and maintenance). In most cases net rent should be roughly equal to NOI.

“New Normal:”
A phrase coined by PIMCO in early 2009 to describe an economic environment characterized by slow economic and job growth, low inflation, and low returns.

Nominal Cap Rate:
When the term “cap rate” is used by most market participants, they are referring to what we call “nominal cap rate”. Nominal cap rates represent the expected unleveraged first-year yield a property buyer expects to realize on its investment. Like bond yields, nominal cap rates move inversely with property values – when values rise, cap rates fall, and vice versa. A primary flaw to nominal cap rates is they overstate the true yield to be realized by investors. The reason is that cap-ex – the substantial cost borne by commercial property owners over long holding periods – is ignored. As a result, “economic cap rates” are a better measure of investment yields.

A nominal cap rate is calculated as:

\[ \text{Nominal Net Operating Income (NOI) / Property Value.} \]
Where:

- Nominal NOI
  \[ \text{Nominal NOI} = \text{Revenues} - \text{Operating Expenses} - \text{Non-Cash Rent} + \text{12-Month Forward Growth Estimate} \]
- Property Value = Transaction Price

See also Nominal NOI.

Nominal Cash Net Operating Income:
See Nominal Net Operating Income.

Nominal Net Operating Income (NOI):
Forward 12-month estimated income from a property or portfolio after operating expenses are deducted from revenue. Further deductions for straight line and other non-cash rents are made to calculate Nominal Cash NOI. Nominal NOI in Green Street research is shorthand for Forward 12-month Nominal Cash NOI whenever disclosure allows.

Nominal NOI
\[ \text{Nominal NOI} = \text{Rents} - \text{Operating Expenses} + \text{12-month Forward Growth Adjustment} \]

Nominal Cash NOI
\[ \text{Nominal Cash NOI} = \text{Rents} - \text{Operating Expenses} - \text{Non-cash Rents} + \text{12-Month Forward Growth Adjustment} \]

Rent includes: Base rents, lease termination income, parking, and service revenue. Operating expenses include: Real estate taxes, utilities, insurance, property management fees, advertising, and basic repairs and maintenance.

For the purposes of calculating operating real estate value in an NAV, NOI from the income statement will be adjusted for:

- Internal growth expectations.
- Adjustments for external growth to adjust for full-period effects of acquisitions, dispositions, and development completions.
- Abnormal margins.
- Seasonality.
- Abnormal lease-termination income.
- Abnormal non-cash rent income (e.g., Straight-line rents).
- Sizeable signed leases that have not yet commenced.
Observed Premium/(Discount) to Assets:
The premium (discount) ascribed to a company’s asset base that is implied by the current share price compared to Green Street’s assessment of asset value. Observed premiums/discounts in the public market have historically been reliable predictors of future changes in private-market prices.

Also referred to as Premium/Discount to Unlevered Asset Value (UAV).

\[
\text{Observed Premium to Assets} = \frac{\text{Total Market Value of Assets}}{\text{NAV Total Assets}} - 1 = \frac{\text{Price per Share} \times \text{Shares} + \text{Total Liabilities}}{\text{NAV per Share} \times \text{Shares} + \text{Total Liabilities}} - 1
\]

Occupancy Cost Ratio (OCR):
A ratio which expresses a retailer’s total cost of occupancy (sum of minimum rents, percentage rents, common area maintenance*, and real estate tax recovery) as a percentage of tenant sales. Stabilized occupancy cost ratios range from 12-16% for most mall tenants. In general, higher productivity tenants can support higher occupancy cost ratios.

\[\text{OCR} = \frac{\text{Total Cost of Occupancy}}{\text{Total Tenant Sales}}\]

* Common area maintenance (CAM) are any expenses (e.g. janitorial services, air conditioning, and lighting) passed to tenants for shared space (e.g., parking lots and hallways).

Operating Partnership (OP) Units:
Many REITs are structured as Umbrella Partnership REITs (or UP-REIT). This complex corporate structure has a simple goal – allow owners of commercial real estate to effectively sell properties to REITs without immediately triggering capital gains tax. The invention of the UP-REIT structure in the early-'90s was critical to spurring the Modern REIT era because it established a highly tax-efficient way for private real estate companies to convert to public ownership.

OP units represent an equity interest in the UP-REIT that is almost always exchangeable for common shares on a 1:1 basis. Capital gains are triggered when OP units are converted to common shares, so such exchanges are typically made only when the shares are going to be sold immediately.

In most NAV valuations, total assets reflect the assets of the OP rather than just the REIT’s share of the partnership. As such, OP units are included as part of the fully diluted share count.

Power Center:
A shopping center that is comprised primarily of big-box retail tenants such as Best Buy, Home Depot, Toys R Us, etc. A power center typically has a limited amount of space dedicated to smaller tenants such as fast food restaurants. Cash flows for power center owners tend to be pretty steady, since big-box retailers generally sign long-term leases (10 years is typical). However, bankruptcies of national retail chains such as Circuit City and Linens N Things have proven to be problematic for power center owners. The Strip Center Database classifies a power center as any center with three or more big box national tenants (even if one is a grocer). Power centers generally include a number of small shops.
Primary Cap Rate:
Represents the cap rate ascribed to the core real estate segment in companies that operate in multiple real estate segments.

Private REITs:
Also called “public, non-traded REITs,” private REITs sell stock to investors and own/operate commercial real estate portfolios. However, the shares of these companies are not freely traded on a stock exchange, which greatly decreases liquidity for their owners. Most private REITs are also burdened with egregious fee structures that serve as an anchor on the total returns that investors can ultimately achieve. Private REIT shares are typically sold to retail investors through commission-based financial planners and, despite the structural shortcomings, the industry has been successful in raising billions of dollars of equity.

Prop 13:
In California, an amendment enacted in 1978 that limits the tax rate on real estate. The proposition decreased property taxes by assessing property values at their 1975 value and restricted annual increases of assessed value to an inflation factor, not to exceed 2% per year. It also prohibited reassessment of a new base year except for: a) a change in ownership, or b) completion of new construction.

Real Estate Securities Monthly (RESM):
Green Street’s monthly publication, which depicts Green Street’s top-down view on public and private real estate pricing. The RESM also compiles frequently requested company-level data, forecasts, and recommendations.

REIT Value per Unit:
A metric industry participants use to compare real estate values across different portfolios. Green Street uses value per square foot for four of the major sectors (office, industrial, malls and strip centers) and value per unit for apartments.

Relative Pricing Model:
A pricing model that compares prices to gain a positive spread in total returns by buying the cheap security while selling the expensive security. Green Street employs a relative valuation approach when ascribing recommendations. For more information on Green Street’s pricing model, see our Research Methodology.

Releasing Spreads:
Describes the spread between lease rates on expiring leases and the rates on new leases. The metric measures rent growth from the time the lease was initially signed offset by rent bumps that occurred during the course of the lease. Releasing spreads are often measured on a cash and a GAAP basis. Cash releasing spreads reflect the last cash payment of the expiring lease versus the first cash payment after the renewal. GAAP releasing spreads will be impacted by non-cash adjustments to the ending lease payments and renewed lease payments.

Revenue per Available Room (RevPAR):
A metric that combines occupancy and rental rates of hotel properties to measure operating performance. The calculation is closely tied to the M-RevPAF concept used across sectors. See M-RevPAF.
**Strip Centers:**
A generic term applied to retail properties that are not traditional malls or factory outlet centers. The strip center properties owned by REITs generally fall into two broad categories – 1) grocery anchored shopping centers and 2) power centers.

**Top Down:**
A valuation approach based on a macro thesis. The impacts of that thesis are subsequently analyzed at the universe level, the sector level, and, finally, the company level.

**Triple Net Rent (NNN):**
See Net Rent.

**UP-REIT (Umbrella Partnership):**
UP-REIT: The UP-REIT structure was created in the early ‘90s to facilitate the conversion of private real estate companies to public vehicles on a tax-efficient basis. In an UP-REIT, a partnership owns the real estate assets. The partnership is owned jointly by a REIT and other investors who usually contributed properties to the partnership in conjunction with the IPO (these owners are known as “OP unitholders”). The OP units are usually exchangeable for stock in the REIT on a 1:1 basis. Accepting OP units from the UP-REIT in exchange for real estate allows owners to defer capital gains tax. That tax gets triggered when OP units are ultimately converted to REIT common stock, which is typically done only when the shares are to be liquidated immediately.

The use of OP units as acquisition currency provides UP-REITs with a competitive advantage over “all cash” buyers in situations where the seller is looking to defer paying capital gains tax. Most of the REITs in our coverage universe are structured as UP-REITs.

**Basic UP-REIT Structure**

See also *Operating Partnership (OP) Units.*
See also *Down-REIT.*
**Value Creation:**
The expected profit of a development project after adjusting for risk. Value creation is one of two key components (CIP is the other) in valuing development in an NAV model.

\[
\text{Value Creation} = \text{The Present Value of Real Estate at Stabilization} \\
\quad \text{(Est. Stabilized NOI / Est. Stabilized Cap Rate)} \\
\quad - \text{Total Est. Construction Cost} \\
\quad - \text{Profit Hurdle to Adjust for Risk.}
\]

The profit hurdle is a risk assessment based on time to completion, amount of pre-leasing completed, and other risk factors (e.g., location, market conditions, etc.). Generally, the shorter (longer) the time to stabilization, the lower (higher) the profit hurdle. Additionally, as pre-leasing increases (decreases), the profit hurdle decreases (increases).

See also *Construction in Progress.*

**Warranted Premium/(Discount) to Assets/Value:**
The premium (discount) that should be ascribed to a company due to factors that are not captured in an NAV analysis. Since the factors that cause REITs to trade at premiums impact the value of the entire firm, not just the equity portion, it is essential to ascribe warranted premiums to unlevered asset value (UAV) before factoring in leverage to derive the warranted share price. Warranted premiums are a function of four key inputs: franchise value, balance sheet risk, corporate governance, and overhead. The impact that overhead should have on the asset value premium is readily quantified, while the other three variables are scored independent of each other. The aggregate score is then compared to scores of sector peers to translate it into a premium to UAV.

- **Sector Average Premium (Discount) to Asset Value:** The starting point in calculating the warranted premium for any REIT is the sector-average premium ascribed by the market at current share prices.

- **Franchise Value (60 pts):** Franchise value represents the value a management team is likely to add or detract in coming years. Our analysts determine franchise value based on a wide variety of objective inputs (total returns vs. peers, Management Value Added, Balance Sheet Acumen) and subjective assessments.

- **Leverage (30 pts):** REITs with less leverage should trade at higher premiums to asset value. Our Comprehensive Leverage Ratio combines traditional leverage metrics with a number of structural and qualitative factors that can serve to increase or mitigate risk.

- **Corporate Governance (10 pts):** Green Street derives its governance rankings through a systematic review of numerous governance issues for each REIT under coverage.

- **Overhead:** Excess G&A (relative to sector peers) is capped and added or subtracted directly to the warranted premium to Unlevered Asset Value. G&A differentials between efficient REITs (low G&A) and bloated REITs (high G&A) warrant large differences in premiums.
**Warranted Premium/(Discount) to NAV:**

See *Warranted Premium/(Discount) to Assets/Value*.

**Warranted Share Price:**

\[
Warranted\ Share\ Price = \frac{NAV\ Total\ Assets \ast (1 + Warranted\ Premium\ to\ Assets) - Total\ Liabilities}{Shares\ Outstanding}
\]

Represents Green Street’s estimate of fair value for a company’s stock relative to its peers. Assumes overall sector share pricing is fair.

See also *Net Asset Value*.  
See also *Warranted Premium / (Discount) to Assets*.

**Weighted Average Cost of Capital (WACC):**

The implied cost for a company to raise capital to purchase an asset. WACC includes all forms of capital, including equity, preferred equity, and debt holders. Unlike the WACC calculations for companies in most industries, REITs do not benefit from an interest tax shield, which should encourage companies to use less debt than companies in other industries.

See also *Implied Weighted Average Cost of Capital*.  

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