

EQUITY RESEARCH 17 July 2012

U.S. REITS

REITs 101: An Introduction

REITs have existed for 50 years, but the modern REIT era can be traced to the early 1990s. Since that time, the real estate industry has undergone significant and, we think, irrevocable structural changes driven by the shift from privately to publicly owned real estate and the resulting migration of assets and talent into the public markets. During that period, the REIT sector has grown and evolved into a viable and credible investment class.

A Primer for REITs. With this report, which we update annually, we present an overview of the REIT industry, including its history and performance, fundamental and sector drivers, and, finally, our stock valuation framework. We hope that experienced investors will use the information contained herein as a reference, while those new to REITs may find it helpful in familiarizing themselves with the industry.

INDUSTRY UPDATE

U.S. REITs

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U.S. REITs

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EXECUTIVE SUMMARY

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REITs have existed for 50 years; however, the modern REIT era began in the early 1990s. Emerging from the deep real estate recession of the late 1980s, the industry has grown from an equity market capitalization of \$13 billion (1991) to nearly \$490 billion. REITs own approximately \$795 billion of commercial real estate assets, representing 10%–15% of the overall commercial real estate market. Furthermore, over the past 15 years, REITs have outperformed the major indices, generating an average annual total return of 8.9% (as of December 31, 2011), in contrast to the S&P 500 (5.5%), Dow (4.4%), NASDAQ Composite (4.8%), and Russell 2000 (6.3%). During this period, REITs have become a viable and credible investment alternative. As a manifestation of this growth and credibility, REITS are now not only included in several major indices (such as the S&P 500), but are also a meaningful component of them (Russell 2000 – 9% weighting).

Focus and Organization of This Report Industry growth, combined with the view that real estate is a viable alternative investment, has increased institutional investor focus on the REIT sector. Investor interest in REITs has grown dramatically in recent years, driven by several considerations, including inclusion in the indices, past stock performance, income potential and absolute return potential. In that vein, this primer is meant to serve as an introduction to REITs for analysts and portfolio managers new to the space. It presents an industry overview, including its history and performance, fundamental and sector drivers, and finally a stock valuation framework. These components provide the context for our investment approach and inform our outlook for the group in 2012. For further information on our outlook, please click here to read our report "U.S. REITs: The Year Ahead: 2012 Outlook" (1/26/12). We also hope that experienced investors in the space will view the material presented in this primer as a useful reference. To that end, we present this report in seven main sections:

- Part One: A REIT Defined (page 9). In addition to a formal definition, this section provides a conceptual framework from which to view the REIT sector in relation to the broader securities market.
- Part Two: History (page 21). This section provides an overview of key trends/events that have shaped the REIT industry/structure into what it is today.
- Part Three: Fundamental Overview (page 29). This section outlines fundamental real estate drivers, as well as specific considerations for each major property type.
- Part Four: Stock Analysis and Valuation (page 54). This section provides a guide to REIT security valuation metrics and suggests an analytical framework with which to assess a REIT's fundamental operating performance, both now and in the future. We also outline our valuation methodology.
- Part Five: REIT Indices and Exchange Traded Funds (page 77). This section illustrates the unique characteristics of the major REIT indices.
- Part Six: Glossary of REIT Terms (page 81). This section defines the terms often used in REIT literature.

The Basics

A Real Estate Investment Trust (REIT) is essentially a corporate entity that owns, operates, acquires, develops, and manages real estate assets. However, REITs are differentiated from other corporate forms by a tax election that eliminates taxes at the corporate level. Most of the company's taxable income is passed along to investors in the form of dividends; shareholders subsequently pay taxes on those dividends.

Conceptually, a REIT can be viewed much like a mutual fund in that it allows investors to pool capital and invest in a larger, more diversified real estate portfolio. Both REITs, and mutual funds, are essentially pass-through vehicles, passing the cash flow from that portfolio to investors. Like a mutual fund, the original REIT structure created in the 1960s was a passive investment vehicle; it prohibited the operation and management of properties by the REIT itself. Over the years, however, legislative and tax code changes have enabled REITs to become actively managed, fully integrated operating companies.

The fact that a REIT is simultaneously both a pass-through vehicle and an actively managed investment vehicle has several implications:

- First, real estate industry fundamentals such as market or portfolio occupancy and rent levels matter as they directly affect earnings growth and, in turn, cash flow.
- Second, perhaps contrary to conventional wisdom, management is important. When REITs were passive investment vehicles, all that mattered was asset performance. Now that REITs are bona fide operating companies, management has the power to improve or, conversely, weaken that operating performance, as well as that of the overall enterprise. Good management should produce significant and efficient returns for the REIT's portfolio, and guide the REIT through difficult markets.
- Third, as a pass-through vehicle, we would argue that the absolute level and composition of a REIT's investment returns should reflect those of the underlying asset class. We view real estate as a total-return asset, benefiting from steady income and modest growth. Furthermore, historical real estate returns have normalized in the low teens on an unleveraged IRR basis with roughly half of that return from current cash flows. Similarly, we view a REIT as a total-return security and expect high-single to low-double-digit returns on a normalized basis, from a combination of dividend income and growth in earnings (funds from operations) per share.

All that said, REITs are stocks and, as with the broader market, sentiment plays an important role in actual returns. REITs are relatively illiquid securities; the entire sector trades roughly between \$4 and \$5 billion per day, roughly five times very liquid stocks (e.g., average daily volume for Johnson & Johnson is approximately \$0.8 billion).

A More In-Depth Look

Given the essential nature of real estate as an asset class, and REITs as a security, we structured this report in order to touch on both. We begin with an overview of the basics—definitions, recent performance statistics, breakdowns by property types—and then move on to a brief history of the sector. The goal, of course, is to provide a sense of how the REIT sector has evolved into what it is today.

A REIT, by definition, is a real estate company; for us as fundamental analysts, an understanding of the underlying property markets is critical. In section three of this report, therefore, we outline the basic industry drivers. We did not set out to write the definitive real estate textbook; that has been done more effectively elsewhere. In its simplest terms, however, we view real estate as the supply and demand for cubic feet. Fortunately, the

demand side of the equation is generally driven by macro-economic considerations with which most securities analysts are already familiar. As such, in this section, we seek to tie those macro drivers back to the property level for the industry in general as well as focus in on the specific set of drivers/factors that influence the four main REIT property types below.

- Multi-family (Apartments). The multi-family sector is primarily driven by three factors: job growth, demographic trends, and single-family housing affordability. Demographics, of course, include immigration, household formation, as well as absolute population growth.
- Office (Central Business District and Suburban). The office sector is driven primarily by white-collar job growth, which is influenced in turn by the broader service economy.
- Industrial (Warehouses and Distribution Centers). The industrial sector is driven less by job growth and more by general economic activity, including changes in supplychain logistics, global trade, and inventory build-up. The asset class tends to be relatively stable due to closely correlated supply and demand, largely attributed to the short development cycle.
- Retail (Regional Malls and Shopping Centers). Near term, the retail sector is driven less by the consumer and more by retailer demand for space. Longer-term fluctuations in consumer spending, consumer confidence and, in turn, retail sales affect that balance.

REIT Stock Analysis and Valuation

Real estate is an asset class and a security; just as we analyze the asset using fundamental metrics, we apply classic securities valuation tools to the stocks—albeit adapted to take into account the nature of the underlying business. As such, we analyze and value REIT stocks based on relative and absolute metrics and many qualitative considerations.

Relative Valuation Metrics

Earnings/Cash Flow Multiples

REITs are often analyzed based on two primary earnings multiples: price to FFO (funds from operations) and price to CAD (cash available for distribution), which approximately parallel the price-to-EPS and price-to-cash-flow multiples used to analyze other types of companies. FFO and CAD should reflect the performance of the underlying portfolio of properties, measured, in turn, by same-store net operating income (SSNOI), a key measure of property-level performance. As with all multiple analyses, it is important to factor earnings growth into the equation. Finally, management's ability to influence these factors may lead to a premium or discounted valuation.

Asset Values

Net asset value is a proxy for book value used in conventional securities analysis. In essence, our NAV calculation estimates the private market breakup value of a company's assets. Given the nature of the calculation, we view this metric as more useful as a relative valuation tool for similar companies at a given point in time, as opposed to being a useful comparative metric over time or in absolute terms. We look at the stocks on a price-to-NAV basis, essentially the real estate equivalent of a price-to-book valuation.

Dividend Yield

By definition, REITs are total-return vehicles. Historically, approximately two-thirds of total returns have come from the dividend (although in recent years price appreciation has taken the lead). Therefore, we look at dividend yields relative to other REITs, in addition to other

income alternatives such as the 10-year Treasury bond. That said, there is normally an inverse relationship between yield and earnings growth rates.

Absolute Valuation Metrics

Absolute valuation metrics measure REIT stock prices in relation to the actual assets held by those REITs, such as price per square foot versus replacement cost or an implied cap rate on a portfolio versus a weighted average nominal cap rate for similar properties. These metrics generally do not include a direct value for management's value-creation ability, or for embedded earnings growth; it is implicit. Absolute metrics provide a spot rate on underlying assets, as opposed to measuring an equity holder's claim on future cash flows. The important caveat, though, is that absolute metrics such as the relationship to replacement cost are only useful in making investment decisions when the assets in question produce cash flow. Moreover, when transaction markets are as slow as they have been coming out of the downturn—with wide bid/ask spreads resulting from a lack of consensus and liquidity in the private asset markets—absolute metrics can be difficult to normalize.

Our Price Target Methodology

Our price target methodology combines three valuation metrics: 1) a DCF analysis, 2) NAV, and 3) an investor sentiment metric based on a regression of a stock's price performance versus the sector and a forecast of sector performance. We picked these three metrics to drive our price targets because we believe that, when combined, they help to approximate fair value for the REITs we cover, overlaid with a sentiment component. The DCF analysis offers a deeper and longer term look at fundamentals than does a multiples analysis or NAV, and it allows us to make earnings forecasts and then discount those forecasts based on our view of their probability of occurring. For a higher risk name, for example, we may believe that the most likely outcome is rapid growth, but these growth numbers may skew a forward earnings multiple or PEG ratio without an appropriate discount rate. Conversely, for blue chip names with a lower cost of capital and relatively steady and predictable earnings growth, a lower discount rate would be appropriate. NAV, as mentioned above, gives us a view of comparable property trades in the private markets and outlines the implications of those trades for REIT valuations factoring in capital structure. Finally, the sentiment regression analysis gives us the ability to make a macro forecast for the sector, based on our view of the broader markets, and have that forecast filter through to the individual stock performance that would likely result if our forecast is realized; the individual stock expectations are driven by investor sentiment as measured via stock betas.

PART ONE: A REIT DEFINED

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Real estate investment trusts (REITs) are pass-through vehicles designed to facilitate the flow of rental income and/or mortgage interest to investors. REITs were created in the 1960s to allow smaller investors the opportunity to pool capital and invest in larger-scale commercial properties. The positive aspects of REITs today are a direct result of their structure, which has evolved over time and benefited from a series of tax law and legislative changes. These changes have transformed REITs into actively managed, total-return vehicles that invest in a broad spectrum of real estate assets. The growth of the sector, along with its distinct benefits, has led to wider market acceptance, a trend that we expect to be long-lived.

What Is a REIT?

First and foremost, a REIT is a tax election. A real estate company elects REIT status for tax purposes. In order for a stock to qualify for REIT status and benefit from the elimination of corporate taxes, it must comply with several distribution and income stream requirements, as well as major ownership restrictions, as follows:

- it must distribute at least 90% of taxable income (any retained income will be taxed normally);
- at least 75% of gross income must come from qualified investments (real property or debt secured by real property);
- at least 95% of gross income must be derived from:
 - 1. real property
 - 2. dividends
 - 3. interest
 - 4. gains from security sales
- at least 75% of assets must be invested in:
 - 1. equity ownership of real property
 - 2. mortgages
 - 3. other RFIT shares
 - 4. government securities and cash
- no more than 50% of shares outstanding can be owned by five or fewer individuals (the "five or fewer" rule):
- the shares must be owned by at least 100 shareholders; and
- the taxable REIT subsidiary can be no larger than 25% of the REIT's assets.

REITs are not taxed at the corporate level as long as they pay out 100% of taxable income in the form of dividends. Instead, REITs are taxed at the shareholder level, thus avoiding double taxation. In the regular c-corporation structure, the investor is double-taxed: first at the corporate income tax level and then at the individual income tax level. As a consequence, investors in a public REIT may receive a higher return on their investment, on an after-tax basis, than they would receive in a C-corp.

REIT Structure

REITs can be either public or private companies, they can be internally or externally managed, and they can be formed using an UPREIT, DownREIT, or "normal" structure. The structure a REIT elects may have a sizable impact on how the REIT operates.

Internal versus External Management

When forming a REIT, the company must decide whether to be internally or externally managed. Historically, the majority of REITs were externally managed (advised), similar to a mutual fund structure, due to legislative restrictions against active management. The Tax Reform Act of 1986 allowed for active, internal management. The result is that REITs look and function like any other company with employees, a management team, and a board of directors. Now, almost all public REITs are internally advised. The debate over the benefits of internal versus external management is lengthy, but the key issues relate to potential conflicts of interest and the compensation level of the external manager advising the REIT.

Conventional wisdom is that an externally advised structure carries the theoretical imperative to grow the company for the sake of size, rather than EPS. However, a number of the external advisory agreements that exist today are structured to mitigate that concern. First, in most management agreements, base fees are calculated on equity, rather than total assets, which should eliminate the pressure to grow the portfolio rather than profits. Second, most external managers maintain a significant equity investment in the advised entity, which aligns management and shareholder interests.

Compensation of the external manager, on the other hand, is an issue that is commonly debated. The compensation structure of an external management agreement resembles that of what is typically seen in the private equity or hedge fund world. The main components consist of a base fee (normally approximately 1.5% of equity) in addition to an incentive fee, which is usually calculated based on a hurdle rate (for example, 25% of the returns that exceed a 10% FFO return on equity). These fees can vary from company to company, but the underlying structure is usually the same. However, external management agreements also usually include many expense reimbursements, which may vary greatly. Net-net, we believe most investors would prefer an internally advised structure to eliminate any potential conflicts of interest or compensation concerns.

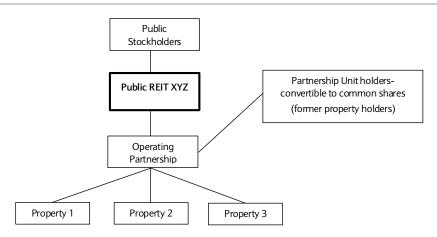
That said, we must also note the potential positives of an external management agreement, namely the experience, platform, and relationships that an external manager often brings to the table. A smaller REIT that may not have the resources to support a large management team may benefit by "outsourcing" management to a larger, more established organization that may provide a broader array of services and existing relationships.

UPREITs and DownREITs

The Umbrella Partnership REIT (UPREIT) structure was first used by Taubman Centers in its 1992 IPO. The structure facilitated the growth of the industry by serving as a catalyst to asset sales. This vehicle allows the owners of a property, or portfolio of properties, to "sell" their property interests in a tax deferred exchange for units in a limited partnership, the "Operating Partnership," or OP. The OP is formed simultaneously with the REIT at the IPO, and the REIT subsequently contributes cash proceeds from the IPO to the partnership in exchange for an ownership interest in the OP, which becomes the owner of the properties. The units received by the former property owner are exchangeable into common shares on

a 1:1 basis, and collect a dividend equal to that of the common shares. Capital gains taxes are deferred until the unit holder converts those units into common shares.

Figure 1: UPREIT Structure



Source: Barclays Research

Subsequent to the IPO, the newly public REIT may use OP units as a currency for property acquisitions. This structure benefits the original property owner (who sold the properties to the OP) by providing the opportunity to defer capital gains taxes, collect the earnings in the form of dividends, convert its portfolio into a liquid security, improve its balance sheet, and diversify its portfolio. In addition to being tax-deferred until conversion into common shares, if the partner retains the units until death, his/her estate has the ability to convert the units tax-free.

The REIT benefits by acquiring an interest in the partnership properties and a currency for future acquisition. The UPREIT affords well-established private real estate companies the opportunity to derive the benefits of the REIT structure while maintaining an ownership interest. One concern with the structure is that there might be a conflict of interest between the owners of the units and the management of the REIT. For example, if the company wishes to sell one of the properties contributed by the partner, the holder of the partnership units, not the shareholders, will be taxed on the sale.

DownREITs have a similar structure to UPREITs except that the operating partnership is usually formed subsequent to the IPO, the purpose being to create partnership units to be used as a currency for acquisitions. Although units in the DownREIT partnership represent an ownership interest in just that partnership, and not the REIT as a whole, the conversion of those units and the dividends paid are similar to that of UPREIT units, in that they are convertible on a 1:1 basis and receive dividends equal to those of common shares.

Lastly, a REIT may be structured without the use of the UPREIT or DownREIT structure. Under this "normal" structure, the properties are owned directly by the REIT, not an operating partnership, the benefit being the elimination of any potential conflicts of interest. But the "normal" structure also eliminates the benefit of using OP units as a currency for acquisition.

REIT Advantages

The unique structure of a REIT gives it a number of distinct advantages. First, REITs provide increased liquidity, allowing investors to buy and sell shares more easily than they would buy and sell actual real estate. Second, whereas purchasing real estate usually requires a substantial commitment of capital, REITs have no minimum investment requirement. In this way, investors can buy as many or as few REIT shares as they want. Third, unlike other types of real estate, shareholders of a REIT are not held personally liable for debt incurred by the REIT. In addition, those who invest in a REIT benefit from the professional management teams that possess vast industry knowledge and expertise.

Total Return Vehicle

Real estate as an asset class is a total-return investment; REITs are viewed in the same way, providing investors with both capital appreciation and current income. Equity REIT stocks over the last 15 years have provided a 10.0% annualized compounded return to investors as of April 30, 2012. Only about 39% of that return is from price appreciation, suggesting that the dividend is an integral portion of the REIT's total return. Therefore, the more efficiently a REIT can increase its earnings, the higher the return it provides to investors. Since a REIT's dividend is such a meaningful component of its return, REITs must find innovative ways to increase earnings and, by extension, dividends. In practice, a REIT can increase its profitability either internally or externally. Internal growth is achieved through improvements to the existing portfolio. This can be accomplished through occupancy improvement, rental rate increases, scheduled rent bumps, expense sharing (common area and maintenance), or tenant upgrades, as well as property redevelopments, which can lead to rent raises. External growth, on the other hand, is achieved through property acquisition and development.

Funding Growth

Since REITs are required to pay out 90% of their taxable income to shareholders, they are theoretically left with minimal retained earnings—a lack of capital—with which to acquire and develop new properties. This circumstance would appear to leave REITs with two unpleasant choices: either issue or take on new debt to fund these projects or sell equity, which could dilute existing shareholders. In reality, however, REITs have other options. Since their taxable earnings include the impact of depreciation, REITs can pay out 90% of taxable income with a much lower cash flow ratio. On average, we estimate that REITs actually retain 30%—40% of cash flow. The REIT can then use this undistributed, untaxed cash to fund its external growth.

Alternatively, a REIT can expand its earnings platform by forming joint ventures (JVs) with other investors, acquiring private equity capital. In a typical joint venture, an outside source provides a portion of the capital to fund a specific project, and the REIT uses its management and other resources to manage the property and earn a fee stream. The advantage of a JV is that it allows a REIT to expand its operating platform without having to expend large amounts of capital. Furthermore, it allows a REIT to employ more leverage than it normally would on the balance sheet. Theoretically, such a JV structure should result in higher returns in invested equity for the REIT. Management's ability to generate internal and external earnings growth, given a REIT's capital restraints, should be an important consideration for potential investors.

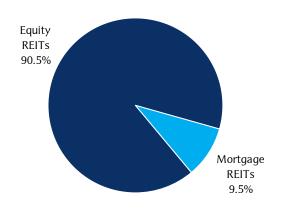
Types of REITs

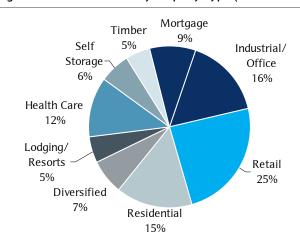
Having discussed the basic REIT structure, we turn to the different types of REITs. The NAREIT Composite Index includes equity REITs and mortgage REITS. Equity REITs own property (land and buildings), whereas mortgage REITs focus on real estate debt, through originating and acquiring mortgages and mezzanine loans, as well as debt securities backed by real estate. The NAREIT Composite previously included hybrid REITs, which own both real estate and real estate debt, but discontinued the hybrid index on 12/17/10 by reclassifying hybrid REITs as either equity or mortgage REITs. The market is currently dominated by equity REITs, which comprise 90.5% of the total equity market capitalization; mortgage REITs total 9.5%, as of December 31, 2011.

Equity REITs are typically classified by the types of properties owned. The NAREIT Composite Index is segmented by property types, including office, residential (apartments), shopping centers, and regional malls. In Figure 2 and Figure 3, we list the property types by market capitalization and type, and in Figure 4, we list the largest companies by sector.

Figure 2: Types of U.S. Listed REITs (as of 12/31/2011)

Figure 3: Listed U.S. REITs by Property Type (as of 12/31/11)





Source: NAREIT

Figure 4: NAREIT Largest Companies by Sector, as of December 31, 2011

Residential Sector			Commercial Sector			Retail Sector			Other Sectors		
		Total Equity			Total Equity			Total Equity			Total Equity
		Market Cap			Market Cap			Market Cap			Market Cap
Apartments	Ticker	(millions)	Office	Ticker	(millions)	Shopping Centers	Ticker	(millions)	Lodging	Ticker	(millions)
Equity Residential	EQR	\$16,765.7	Boston Property	BXP	\$14,703.9	Kimco Realty Corp.	KIM	\$6,590.7	Host Hotels & Resorts	HST	\$10,429.7
Avalonbay Communities	AVB	\$12,417.7	SL Green Realty	SLG	\$5,695.4	Federal Realty Investment Trust	FRT	\$5,762.7	Hospitality Properties Trust	HPT	\$2,835.3
UDR	UDR	\$5,498.9	Alexandria Real Estate Equities	ARE	\$4,259.8	Regency Centers	REG	\$3,382.0	LaSalle Hotel Properties	LHO	\$2,028.5
Essex Property Trust	ESS	\$4,751.6	Piedmont Office Realty Trust	PDM	\$2,942.1	Developers Diversified Realty	DDR	\$3,366.5			
Camden Property	CPT	\$4,430.0	BioMed Realty Trust	BMR	\$2,781.2	Weingarten Realty Investors	WRI	\$2,636.6	Health Care		
BRE Properties	BRE	\$3,767.3	Douglas Emmett	DEI	\$2,327.9	Tanger Factory Outlet Center	SKT	\$2,519.1	HCP	HCP	\$16,821.7
American Campus Communities	ACC	\$2,973.1	Mack Cali Realty	CLI	\$2,317.5				Ventas Inc.	VTR	\$15,861.2
Home Properties	HME	\$2,778.7	Kilroy Realty Corp.	KRC	\$2,225.5	Regional Malls			Healthcare REIT	HCN	\$10,438.6
Apartment Investment & Management	AIV	\$2,767.6	Highwoods Properties	HIW	\$2,148.1	Simon Property Group	SPG	\$37,765.7	Senior Housing Properties Trust	SNH	\$3,649.8
Mid-America Apartment Communities	MAA	\$2,365.9				General Growth Properties	GGP	\$14,093.1			
Post Properties Inc.	PPS	\$2,268.1	Industrial			Macerich	MAC	\$6,675.0	Self Storage		
			ProLogis	PLD	\$13,122.8	Taubman Centers	TCO	\$3,594.9	Public Storage	PSA	\$22,881.6
Manufactured Homes						CBL & Associates Properties	CBL	\$2,329.3	Extra Space Storage Inc.	EXR	\$2,272.6
Equity Lifestyle Properties	ELS	\$2,720.8	Mixed								
			Liberty Property Trust	LRY	\$3,571.7	Free Standing			Timber		
Diversified			Duke Realty Corp.	DRE	\$3,029.7	Realty Income	0	\$4,656.7	Weyerhaeuser	WY	\$10,006.0
Vornado Realty	VNO	\$14,160.7				National Retail Properties	NNN	\$2,755.4	Plum Creek Timber Co.	PCL	\$5,952.2
Digital Realty Trust	DLR	\$6,997.3							Rayonier	RYN	\$5,393.4
Entertainment Properties Trust	EPR	\$2,032.4									
Source: NAREIT											

There are two types of mortgage REITs, commercial and residential. Commercial mortgage REITs invest primarily in loans and securities backed by commercial properties. The companies typically run a matched book of assets and liabilities, with the focus on credit risk management, as opposed to interest rate risk management carried out by the residential mortgage REITs.

Residential mortgage REITs focus primarily on originating and acquiring single-family home loans. The companies thrive during a strong housing market accompanied by a steep yield curve. Beginning in 2005, the stocks suffered as the flat yield curve dissolved profits. This led many residential mortgage REITs to cut dividends—a practice that is not uncommon in the sector and contributes to clearly defined boom and bust cycles. In addition, in 2007, several residential mortgage REITs encountered excessive delinquencies on their loans, which led to a liquidity crisis that forced several out of business. As a result, during the recent recession, we saw many mortgage REITs close their doors. Finally, in 2009, three mortgage REITs came public, looking to take advantage of the inefficient capital markets following the credit crunch; an additional four and three went public in 2010 and 2011, respectively. As of December 31, 2011, there were still only 30 mortgage REITs, down from 38 five years ago.

Growth continues

As of December 31, 2011, there were 160 public REITs with an aggregate equity market capitalization of \$451 billion, as tracked by NAREIT. In contrast, the aggregate market capitalization was only about \$13 billion in 1991. Meanwhile, the number of publicly traded REITs has only grown by approximately 16% since 1991 while the market capitalization of the companies in the index has increased by roughly 3374% (or an average of 19% annually).

■ Equity Mortgage Hybrid

Figure 5: Number of REITs Tracked by NAREIT, 1971-2011

Source: NAREIT. As of 12/31/11. Note: The FTSE NAREIT Hybrid REIT Index was discontinued on December 17, 2010.

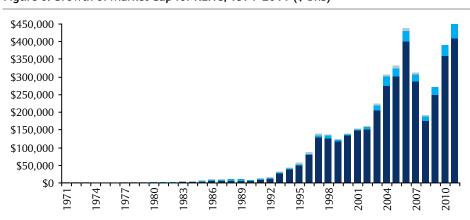


Figure 6: Growth of Market Cap for REITs, 1971-2011 (\$ bns)

■ Equity ■ Mortgage ■ Hybrid

Source: NAREIT. As of 12/31/11. Note: The FTSE NAREIT Hybrid REIT Index was discontinued on December 17, 2010.

Notwithstanding rapid growth over the last 16 years, NAREIT estimates that REITs have captured only about \$500 billion (10%–15%) of the overall institutionally owned U.S. commercial real estate market. Therefore, there is plenty of potential growth left in the publicly traded REIT market.

Market Acceptance

REIT popularity and credibility has grown significantly over the last decade, leading to inclusion in several of the major indices, such as the S&P 500, S&P 400 Mid-Cap, and S&P 600 Small-Cap. On October 1, 2001, Equity Office Properties Trust, the largest publicly traded office building owner and manager in the United States at the time, became the first REIT to be added to the S&P 500. The same day, Hospitality Properties Trust, an owner and operator of hotels, was added to the S&P 400 Mid-Cap Index. In addition, Colonial Property Trust, then a diversified REIT with properties in the office, retail, and multi-family sectors, and Kilroy Realty Corporation, an owner of office and industrial properties in California, were added to the S&P 600 Small-Cap Index. Since then, the number of REITs and real estate companies included in the S&P indices has risen to 74. Figure 7 lists the REITs that are currently in the major S&P indices. The total REIT and real estate company weightings in each are as follows: S&P 500, 2.0%; S&P 400, 8.7%; and S&P 600, 7.9%. In addition, Simon Property Group became the first REIT to be added to the S&P 100 Index on March 16, 2012.

Figure 7: REITs in the S&P Indices (as of 3/16/12)

S&P 500 Index		S&P 400 Mid Cap Index		S&P 600 Small Cap Index	
Simon Property Group	SPG	American Campus Communities Inc	ACC	BioMed Realty Trust Inc	BMR
Equity Residential	EQR	Senior Housing Properties Trst	SNH	Diamondrock Hospitality	DRH
CBRE Group, Inc.	CBG	Hospitality Properties Trust	HPT	LTC Properties	LTC
Boston Properties Inc	BXP	Camden Property Trust	CPT	Healthcare Realty Trust	HR
Health Care REIT Inc	HCN	National Retail Properties Inc	NNN	Parkway Properties Inc (MD)	PKY
Vornado Realty Trust	VNO	UDR Inc	UDR	Inland Real Estate Corp	IRC
HCP Inc	HCP	Essex Property Trust	ESS	PS Business Parks Inc	PSB
Ventas Inc	VTR	Duke Realty Corp	DRE	Getty Realty Corp	GTY
ProLogis, Inc	PLD	Rayonier Inc	RYN	Entertainment Propertie Tr SBI	EPR
Plum Creek Timber Co	PCL	Omega Healthcare Investors	OHI	Saul Centers	BFS
Public Storage	PSA	Mack-Cali Realty Corp	CLI	Franklin Street Properties Corp	FSP
American Tower Corp A	AMT	Liberty Property Trust	LRY	Pennsylvania Real Estate	PEI
AvalonBay Communities Inc	AVB	BRE Properties Inc A	BRE	Universal Health Realty Trust	UHT
Kimco Realty Corp	KIM	Jones Lang Lasalle Inc	JLL	Kite Realty Group Trust	KRG
Host Hotels & Resorts Inc	HST	Federal Realty Invt Trust	FRT	Forestar Group Inc	FOR
Weyerhaeuser Co	WY	SL Green Realty Corp	SLG	Sovran Self Storage	SSS
Apartment Investment & Mgmt	AIV	Realty Income Corp	Ο	Mid-America Apt Communties	MAA
		Taubman Centers Inc	TCO	EastGroup Properties	EGP
		Home Properties of New York	HME	Cedar Realty Trust, Inc.	CDR
		Alexandria Real Estate Eqty	ARE	Tanger Factory Outlet Centers	SKT
		Highwoods Properties	HIW	Post Properties Inc	PPS
		Equity One Inc	EQY	Medical Properties Trust	MPW
		Macerich Co	MAC	LaSalle Hotel Properties SBI	LHO
		Potlatch Corp	PCH	Urstadt Biddle Prop Inc A	UBA
		Corporate Office Properties Trust	OFC	Kilroy Realty Corp	KRC
		Regency Centers Corp	REG	Lexington Realty Trust	LXP
		Weingarten Realty Investors	WRI	Colonial Properties Trust	CLP
				Cousins Properties	CUZ
				Acadia Realty Trust	AKR
				Extra Space Storage Inc	EXR
Source: Standard and Poor's					

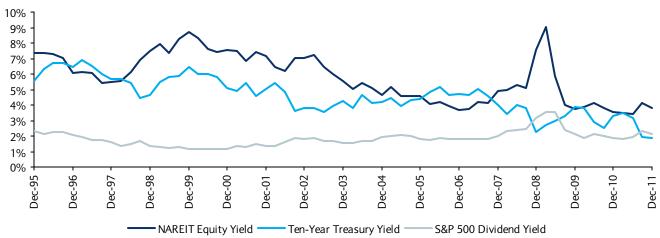
Why REITs?

Over the past few years, REITs have become a viable and credible asset class, and, as a consequence, have attracted a good deal of investor attention. This increased focus on the space can be attributed to a number of factors.

Dividends/Current Income

In general, REITs provide both moderate earnings growth and ample dividends and as such are considered total-return vehicles. Historically, approximately two-thirds of the average REIT total annual return has come from dividends. On average, the dividend is higher than regular equities; since 1995 the average dividend yield for REITs is 5.8%, compared to 1.8% for the S&P 500. With such a substantial dividend, pension funds as well as other institutional investors have historically looked to REITs as an income vehicle.

Figure 8: REIT Dividends vs. S&P 500 Dividends and 10-Year Treasury, December 1995 - December 2011



Source: Bloomberg, NAREIT

Commercial Real Estate Performance

A sizable portion of the exceptional performance that REITs enjoyed for the seven-year period leading up to February 2007 can be attributed to the commercial real estate sector itself. With interest rates at historically low levels, investors were willing to pay higher prices for assets, which in turn resulted in higher REIT NAVs and stock prices. During the downturn, prices of real estate securities declined precipitously as fundamentals weakened and the capital markets collapsed. In 2009 stock prices recovered as REITs shored up their balance sheets. Fundamentals began to inflect in 2010, and continue to improve, with the pace of recovery a function of property type and geography

Correlation with Other Indices Rising

Another factor that helped explain REITs' performance over the past decade is that historically the industry held a low correlation with other asset classes. After the tech bubble burst in March 2000, REITs garnered stronger investor interest. The increased acceptance of REITs as an asset class, along with greater index inclusion and liquidity, has increased the correlation between REITs and other indices and asset classes meaningfully.

Figure 9: REIT Correlation with Other Indices, as of 12/31/2011

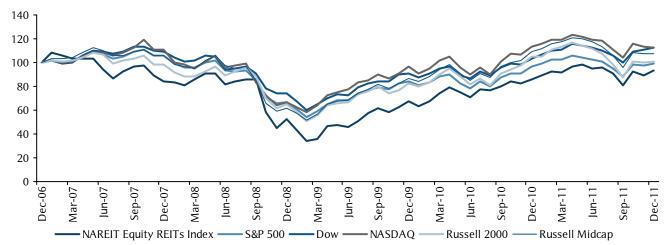
	5-year	10-year	15-year
S&P 500	0.82	0.72	0.58
Dow	0.79	0.66	0.55
NASDAQ	0.74	NA	NA
Russell 2000	0.86	0.78	0.67
Russell Midcap	0.85	0.78	0.68

Source: NAREIT, FactSet, Barclays Research

Long-Term Performance

Over the three-year period ending December 31, 2011, the compound average annual total return of the FTSE NAREIT Equity REITs Index (+21.0%) outperformed the S&P 500 (+ 14.1%), Dow (+14.9%), NASDAQ (+19.4%), Russell 2000 (+15.6%), and the Russell Midcap (+20.2%), on a total return basis. This outperformance appears to be a long-term trend. Over the past 10 years, the compound annual total return of the FTSE NAREIT All Equity REITs Index (+10.2%) has outperformed the S&P 500 (+2.9%), Dow (+4.6%), Russell 2000 (+5.6%), and Russell Midcap (+7.0%). Over the last 15 years, the compounded annual total return of the FTSE NAREIT All Equity REITs Index (+8.9%) has outperformed the S&P 500 (+5.5%), Dow (+6.7%), Russell 2000 (+6.3%), and Russell Midcap (+8.4%).

Figure 10: Five-Year Total Return REIT Performance vs. Major Indices, December 2006 - December 2011

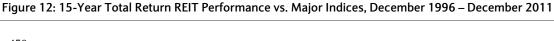


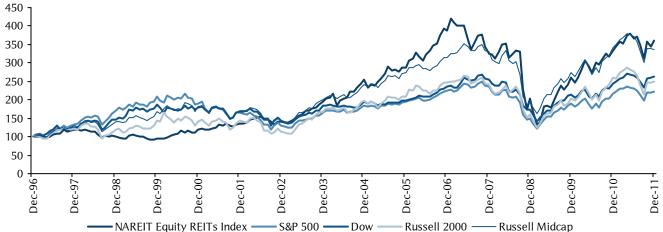
Source: FactSet, NAREIT, Barclays Research

350 300 250 200 150 100 50 Jun-02]nn-03 60-un(Jun-04 .90-un(Dec-06 Jun-07 Dec-11 Dec-01 NAREIT Equity REITs Index S&P 500 **-**Dow Russell 2000 Russell Midcap

Figure 11: Ten-Year Total Return REIT Performance vs. Major Indices, December 2001 – December 2011

Source: FactSet, NAREIT, Barclays Research (Note: Total return data for NASDAQ unavailable for the time period.)





Source: FactSet, NAREIT, Barclays Research (Note: Total return data for NASDAQ unavailable for the time period.)

Strong Returns Attracted Fund Flows

Notably, REITs were one of few investment alternatives where an investor could get steady double-digit returns for the several years up until early 2007, and money flowed into real estate, both at the direct level and from the securities side, as real estate's attractive return potential fueled demand and drove stock and property values higher. According to AMG data, \$23.3 billion flowed into dedicated US-based real estate mutual funds from 2002 through 2006. During 2007, that trend reversed with \$6.0 billion flowing out of the sector, bringing the six-year net inflows down to \$17.3 billion, which is still substantial growth. Manifestations of this liquidity include the merger/acquisition activity of 2006 and early 2007, privatizations, and the formation of institutional joint ventures. Demand from major investor constituencies to own institutional quality real estate returned in 2008, with \$6.4 billion flowing into the sector, followed by \$1.2 billion, \$4.2 billion, and \$5.7 billion in 2009, 2010 and 2011, respectively, bringing the ten-year net inflow up to just over \$34.7 billion. Yet, whether sentiment will fuel further inflows, or whether investor allocations have overextended into real estate will be key questions going forward.

\$2.5 12,000 \$2.0 10,000 \$1.5 \$1.0 8,000 \$0.5 \$0.0 6,000 (\$0.5)4,000 (\$1.0)(\$1.5)2,000 (\$2.0)(\$2.5)0 2012 2005 2006

RE Mutual Fund Net Flow (\$ bln)

Figure 13: Fund Flows, January 1998 - January 2012 (in billions)

Source: AMG Data, Bloomberg, Barclays Research

Conclusion

The REIT structure was originally formed to facilitate broad ownership in pools of passively managed real estate assets. The REIT structure has been transformed over the years, converting REITs into what they are today: actively managed, fully integrated operating companies. As total-return vehicles benefiting from a history of solid performance, REITs have garnered additional investor interest and continue to gain traction. Our sense is that the benefits afforded by the REIT structure will facilitate further growth of this evolving industry. Longer term we expect REITs to garner greater market share.

NAREIT EQUITY INDEX

PART TWO: HISTORY

PART TWO: HISTORY

The REIT structure has evolved from a passive investment vehicle to an actively managed, fully integrated operating company. Over the past 50 years, a series of legislative and tax code changes as well as economic cycles have shaped the growth of the REIT industry. After a slow start, the group picked up steam in the early 1970s before the OPEC oil embargo led to rising inflation and an eventual real estate slump. Since that time, the real estate industry, and by extension, REITs, have experienced some well-pronounced boom and bust phases, but over the past several years, the REIT industry has matured into a more stable, liquid, and transparent group. In our view, the real estate industry has been irrevocably transformed over the past approximately15 years by the migration of assets and talent into the public markets. In that time, we think the public real estate companies have become an important repository of value creation and operating talent. In this section, we discuss key events that shaped the industry over the last 50 years as the REIT structure evolved into a viable and credible asset class.

Private Equity Boom 5,000 2004 - Feb 2007 4,500 Modern REIT 4,000 NAREIT Composite Index Era Begins RMA of 3,500 1999 3,000 Tax Reform Economic IPO Boom of 2,500 Act of 1986 Recovery Act 1993-94 2,000 of 1981 OPEC Oil 1,500 Embargo Sector Re-1,000 capitalization 500 March 2009 Jan-76lan-82 lan-86 Jan-74 Jan-80 Jan-84 Jan-88 Jan-90 lan-92 Jan-94 lan-96 Jan-00 Jan-04 lan-06-Jan-7

Figure 14: Timeline of REIT History vs. Sector Stock Performance, January 1972 – January 2012

Source: NAREIT, FactSet, Barclays Research

An Era Begins

The REIT era was born with the Real Estate Investment Trust Act of 1960. Until the passing of the act, commercial real estate was primarily owned by wealthy individuals, corporations, and institutional investors. This law enabled individual investors to pool capital into a corporate structure and thus reap the benefits of income-producing real estate ownership. REITs afforded smaller-scale investors the ability to own larger-scale assets in a diversified, professionally managed, liquid vehicle.

The 1960 Trust Act was an outgrowth of the Massachusetts Business Trust Act of 1827. A business trust is defined as an entity that is formed to hold property; it is managed by trustees for the benefit of shareholders in the trust. The REIT Act of 1960 essentially applied the same concept to real estate. Conceptually, a REIT is like a mutual fund in that both REITs and mutual funds manage a pool of assets and pass along the cash flows from their portfolios to investors, thereby avoiding paying corporate taxes.

Growing Pains

The new investment vehicle was not very popular throughout most of the 1960s. In fact, it took almost five years for the first REIT, Continental Mortgage, to be traded on the NYSE. Throughout most of the decade, only 10 publicly traded REITs were established, with an

aggregate market capitalization of just greater than \$200 million. The unpopularity of REITs at the time of their inception was, in our opinion, due to the many restrictions the Act placed on companies. For example, at that time a REIT was only able to own property, not manage or operate it.

The first REIT IPO boom occurred from 1969 to 1974, as a number of mortgage REITs (more than 50) were formed. Many larger banks formed mortgage REITs primarily for three reasons: to gain a share of the booming construction loan market; to originate loans off balance sheet (to minimize the amounts of reserves that the bank was required to maintain); and to generate fee income from management of the REIT (at this time all REITs were externally managed). The surge in the number of REITs coupled with questionable underwriting standards set the stage for the next 10 challenging years.

Inflation

The 1970s were a difficult decade for the economy, and the REIT industry was not immune. Rising oil prices triggered by the OPEC oil embargo in 1973 caused inflation to spike. As a result, the Consumer Pricing Index (CPI) increased 6.3% in 1973, and rose to a peak of 11.3% in 1979. Rising inflation led to higher interest rates, significantly affecting the mortgage REIT industry. While REITs provided mortgage loans at fixed rates to builders and investors, the liability side was funded at floating rates. Floating rates reached a level where REITs faced negative spreads between their assets and liabilities. As a result, and combined with the impact of excess liquidity, many of these companies went bankrupt.

During the first half of the 1980s, the real estate industry recovered from the tough conditions it faced in the late 1970s. However, REITs, viewed as illiquid and unprofitable, were still tainted. The negative investor perception of REITs was compounded by the Economic Recovery Act of 1981, which created a tempting tax shelter for other real estate ownership formats. The act allowed for accelerated depreciation and, by extension, the shielding of taxable income. This shelter applied only to privately owned real estate, not REITs. Subsequently, funds flowed away from REITs and into real estate limited partnerships, which offered high returns on capital brought about by the accelerated depreciation tax shield. A buying frenzy for real estate then ensued, driving asset prices to all-time highs. Private partnerships also had the ability to pay higher prices for real estate as a result of better after-tax cash positions than REITs. Lastly, many developers felt the need to capitalize on this hot market, creating an abundant amount of supply as a result of excess liquidity, driving down rental rates and planting the seeds of a real estate crash.

Tax Reform Act of 1986

Weakening fundamentals due to excess supply were compounded by the Tax Reform Act of 1986, which eliminated the tax shelters real estate investors enjoyed. Specifically, the depreciation period was lengthened, eliminating the accelerated depreciation and associated tax benefit. As a result, the ability of limited partnerships to deduct interest, depreciation, and passive losses was limited. This caused substantial distress in the private real estate market as investors could no longer cover their debt service; delinquencies and, in turn, foreclosures increased.

The Tax Reform Act did provide one key benefit for REITs. Until 1986, a REIT was limited to solely owning properties and was restricted from operating and managing them. The Tax Reform Act of 1986 removed those restrictions, allowing REITs to both own and operate properties, giving more control to management and therefore an increased influence on earnings. The act laid the groundwork for REITs to become actively managed, fully integrated operating companies and led to the IPO boom of the mid-1990s.

Seeds of a Crash

The robust level of inventory built throughout the 1980s purely for tax reasons rather than a need for space, together with the Tax Reform Act, which removed most of the tax benefit of

privately owned commercial real estate, resulted in economically unviable assets and a wave of foreclosures. These factors contributed to the real estate crash of the late 1980s/early 1990s. During this period, commercial real estate values declined 30%–50%. This crisis affected the REIT market as well. Rising vacancy rates and reduced rents led to declining revenues and high dividend payout ratios, forcing a large number of REITs to cut dividends; in turn, share prices plummeted. The total return for REITs in 1990 was negative 14.8%, at the time, the index's worst annual return since 1974.

Health Care REITs Boom

Although the REIT recovery and IPO boom did not occur until the early 1990s, some sectors experienced a rebirth even earlier. The health care sector, in particular, experienced this growth in the second half of the 1980s. During these years, an increasing number of health care facility owners looked to monetize their balance sheets, by transferring their properties into a REIT structure. The health care provider then leased back the space from the REIT to conduct its operations. Companies such as Health Care Property Investors, Inc. (1985), Nationwide Health Properties, and Vencor (1989, now called Ventas) went public over the remainder of the decade. This IPO wave continued in the early 1990s as National Health Investors, Omega Healthcare Investors (1992), and Healthcare Realty Trust (1993) went public. Currently, three of the 15 REITs in the S&P 500 are Health Care REITs.

Recovery and Expansion

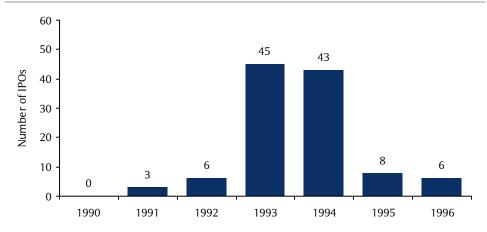
In the early 1990s, however, the REIT recovery began in earnest. From 1991 to 1993, total annual returns for REITs averaged about 23.3%. A portion of this return can be attributed to a market correction for the stocks after having been heavily punished in prior years. REITs were able to acquire an abundant number of properties at discounted levels.

More broadly, many real estate companies were facing insolvency in the early 1990s because of a lack of capital to fund new investments. Banks had tightened their lending standards after suffering from an influx of foreclosed properties during the real estate crash. Therefore, real estate developers sought alternative venues with which to fund their projects. Their solution was to go public, in order to raise the additional capital needed to repay debt to remain solvent and subsequently fund growth. In addition, management teams felt that by securitizing their portfolios it would make these companies stronger and more competitive; with this, an era was born. Kimco, the largest owner of shopping centers nationwide, went public in November 1991. New REIT structures such as UPREITs and DownREITs provided liquidity to previously illiquid partnerships by solving the capital gains tax issue. In November 1992, Taubman Centers, Inc. became the first public REIT with an UPREIT structure. These factors positioned the REIT industry to experience the strong growth that has put the industry on the map today.

Simultaneously, the Federal Reserve Board was reducing interests rates in an attempt to bring the national economy out of its long recession, which aided REITs in two ways: 1) the cost of debt capital was reduced, contributing to the wave of acquisitions; and 2) the yield on T-Bills dropped to just 3.1% by year-end 1993 from 6.2% in January 1991. REIT dividend yields at the time provided investors a higher income return on a relatively stable asset.

The aforementioned catalysts enabled the REIT industry to take on a new identity in the early 1990s. In 1993 alone, 100 REIT equity offerings (including secondaries) occurred, raising more than \$13.2 billion. At the end of 1994, the market capitalization for all equity publicly traded REITs was about \$39 billion, compared with \$5.6 billion at year-end 1990.

Figure 15: REIT IPO Boom of 1993-94



Source: NAREIT, Barclays Research

Omnibus Budget Reconciliation

Act of 1993

Increased investor interest in REITs can further be attributed to the Omnibus Budget Reconciliation Act of 1993.¹ Prior to the Act, there were several ownership restrictions placed on institutional ownership of REITs. However, after the Act was passed, these restrictions were reduced and other changes were made. For example, a pension fund was no longer viewed as a single shareholder, but instead, each member in the fund was counted individually. Therefore, it became easier for pension funds and other institutional investors to own REIT shares, in turn driving demand, causing share prices to appreciate.

Modernization Act of 1999

In addition to the Omnibus Budget Reconciliation Act of 1993, the Taxpayer Relief Act of 1997 allowed a REIT to provide a small amount of non-customary services to its tenants. This concept was further enhanced with the REIT Modernization Act (RMA) of 1999, which went into effect in 2001. The Act provided more flexibility as it allowed REITs to create Taxable REIT Subsidiaries (TRS)², increasing the potential income sources. Also, the dividend payout requirement was reduced, from 95% to 90% of taxable income, increasing potential retained earnings.

The REIT boom continued throughout the mid-1990s. In 1996, the NAREIT Equity REIT Index produced a total return of 35.3%, followed by a total return of 20.3% in 1997. This growth was largely attributed to higher earnings growth stemming from acquisitions and development. As aforementioned, low real estate values, combined with attractive costs of capital, provided companies with the opportunity to grow their portfolios accretively. Furthermore, the significant demand for real estate caused real estate prices to rise, leading existing portfolios to be revalued upward, which drove share price appreciation. These gains caused REITs to trade at increasing premiums. At the same time equity investors turned to technology stocks in search of greater growth. As such, the REITs gave back some of those

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¹ A REIT has to abide by the five-or-fewer rule, stating that 50% of the REIT cannot be owned by five or fewer individuals, a rule put into effect to prevent large blocks of ownership. It was also required that a REIT must be owned by at least 100 shareholders. Prior to the Omnibus Budget Reconciliation Act of 1993, pension funds and other large institutional investors were counted as a single shareholder, hence limiting their ability to own big blocks of shares.
² A taxable REIT Subsidiary provided REITs three basic benefits. First, the ability to provide services to its tenants creates an atmosphere of greater loyalty between tenant and landlord. Second, the REIT can generate more income as it charges for the additional services offered. Third, it enables a REIT to have greater control over the quality of services provided to clients. Even with the reduction in restrictions, there are still guidelines to which the REIT must adhere. A TRS cannot exceed more than 25% of the REIT's gross assets or income.

Other provisions in the RMA are as follows: The dividend distribution requirement for REITs was reduced to only 90% of taxable income from 95%. The distribution level was returned to the original level that had been established in 1960 after having previously been raised in 1976. The reduction in the mandatory payout for REITs gave the companies more flexibility when it came to paying their dividend and allowed for more retained earnings for investment.

gains in 1998 and 1999, down 17.5% and 4.6% respectively, before posting a positive return again in 2000 (+26.4%) as the tech bubble began to burst. It's fair to say that during this time the companies acquired a new appreciation for their cost of equity capital.

Jobs and Growth Tax Relief Reconciliation Act of 2003 The Jobs and Growth Tax Relief Reconciliation Act of 2003 cut income tax rates on most dividends and capital gains to individuals to 15% from the ordinary marginal income tax rate (35%). The premise was to eliminate double taxation. However, REITs do not qualify for the tax cut because they generally do not pay corporate taxes; therefore, the portion of REIT dividends taxed as ordinary income pay the ordinary marginal rates. Taking into consideration the various components of REIT dividends (ordinary dividend, capital gains, return of capital, etc.), however, the all-in rate is less.

Largest LBO Ever

Over the next several years, a combination of historically low interest rates, easy access to debt capital and strengthening fundamentals led to one of the largest commercial real estate bubbles in history. In what came to be viewed as the height of the bubble, on February 9, 2007, Blackstone closed on the acquisition of Equity Office Properties, the largest REIT at the time, for \$38.3 billion. The transaction was concluded after a two-month bidding war between Blackstone and Vornado Realty which topped Blackstone's bid in value, but included partial stock in the deal. Equity Office Properties chose to take Blackstone's all-cash bid. The deal effectively was a way for Blackstone to acquire the assets at a wholesale value and then sell off large chucks of the portfolio at retail prices.

An End to the Bull Market

It is fair to say the bull market for real estate broadly – including single-family, commercial property and real estate stocks – came to an end in February 2007, coinciding with the closing of the EOP merger and with the bankruptcy of New Century. During the summer of 2007, fixed income funds that were invested in residential mortgage-backed securities (RMBS) first began to disclose problems that filtered through the capital markets and caused wide spread problems in the debt securitization markets. The group fell 18% in calendar 2007.

In 2008, several banks either declared bankruptcy or became forced sellers at distressed prices; the S&P 500 fell nearly 40%, financials about 50%. In contrast, REIT stocks finished the first nine months flat. Following the Lehman Brothers' bankruptcy filing, however, risk spreads across all asset classes gapped out, and REITs fell sharply. The driver was widespread market concern that the credit crisis would eliminate capital flows to real estate for an extended period of time, force asset values down and result in a wave of insolvencies.

A Question of Survival

The market appeared to be pricing in an immediate mark to market of all REIT assets and liabilities, resulting in no implied equity value; stocks began to trade as if the underlying companies were insolvent, reflected in materially wider REIT credit default swap spreads. We believe the imperative to mark what is a long duration asset—typically with matched and staggered debt maturities—was misplaced. Furthermore, the dependence of many institutional investors on NAV gave no value to a company's franchise or value creation ability. REITs fell 37% in the fourth quarter and 38% for FY 2008.

Concerns of insolvency continued to overhang the group in early 2009; the incremental dollar coming into the group came from macro hedge funds which had a bearish view driven by the credit crisis and onset of a global recession. Short sellers pounced on the space in size, and real estate funds saw historic redemptions. The RMZ reached its low on March 6, down more than 75% from its February 2007 peak. Investors deemed relative valuation metrics—and, for that matter, the income statement—irrelevant and focused instead on each REIT's liquidity profile.

Capital Raising Jumpstarts a Rally One of the primary advantages of the REIT structure for the ownership of commercial real estate is the vehicle's access to equity and debt capital at the corporate level. Beginning in March 2009, over 60 REITs tapped the equity markets through year end 2009, raising an aggregate \$21 billion in capital and taking insolvency off the table for the group. That said, the amount of equity raised was clearly dilutive to shareholders—in some cases substantially.

As 2009 progressed, an increased appetite for credit risk from life insurers, private pensions, and retail investors drove credit spreads lower. Bolstered by the deleveraging effect of the equity offerings and improving spreads in the debt markets, REITs issued more than \$10 billion of unsecured debt during 2009. At year end, REIT unsecured spreads were below 310 bps—on par with pre-Lehman Brothers bankruptcy levels and well off their peaks of 1,000 bps over Treasuries seen in March.

Despite weakening fundamentals, REIT equities rallied on the capital raising (up 124.4% from their March 2009 trough through year end and 28.6% for full-year 2009), but the rally was primarily technical in nature. In part it was a relief rally—capital access proved the companies were not insolvent and mid-year results countered a widely held perception that real estate fundamentals were falling precipitously in conjunction with the economy. In part, it was investor driven; short sellers got out of the way, non-dedicated investors, presumably underweight, rotated in and the group rallied along with financials broadly, aided by tightening credit spreads.

2010 - A Fundamental Inflection

While FFO per share declined in 2010, real estate fundamentals began to inflect positively during the year, led by the multi-family sector in 2Q10. For apartments, which have the shortest lease duration of the property types, the inflection was driven by household unbundling and a lower propensity to own. Over the course of the year, conditions improved in most other property types, as fundamentals first bottomed then slowly started to improve for longer lease duration asset classes. Most property types benefitted from pent-up demand after tenants' leasing decisions were frozen in 2009, coupled with a dwindling construction pipeline due to scant financing available for new construction.

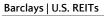
Even in the face of declining FFO per share, the REITs' rally continued during 2010 (up 28.0%) due in large part to a global demand for income. Investors were focused primarily on yield, and saw REITs as a double-sided hedge (providing income in the event of a macroeconomic downturn and providing hard assets in the event that a recovery brought inflation).

Fundamentals Continued to Improve in 2011 Fundamentals continued to improve during 2011; the pace of recovery varied by geography and property type. This, combined with the continued investor search for yield and safety, drove REITs to outperform the market for the third consecutive year (up 8.3%). The strongest recovery was generally in the shorter-duration property types (apartments and storage), while tenant demand for each property type strengthened more in gateway markets (such as New York and San Francisco) versus suburbs and secondary markets. Additionally, supply remained (and continues to remain) muted, driving greater pricing power.

Conclusion: A Viable Asset Class

Although the real estate recovery has preceded meaningful growth in employment and GDP, we expect fundamentals to continue to improve as the broader economy does as well. Notably, the REITs made it through the financial crisis relatively unscathed, and the stock performance over the past four years supports our view that REITs are an important and viable investment class. Interestingly, companies from non-traditional property classes,

such as cell towers and prisons, are increasingly looking to the REIT election as an efficient capital structure. The question going forward is whether these trends will continue.





PART THREE: FUNDAMENTAL OVERVIEW

REITs are pass-through vehicles, and therefore real estate fundamentals such as occupancy and rent levels matter. Although some real estate property types are more cyclical than others, the phases of their cycles and underlying fundamentals are similar. To better understand how the underlying fundamentals are influenced, and in turn affect REIT performance, we analyze some of the industry's main drivers. Many macroeconomic factors as well as the overall health of the economy affect the REIT industry generally, while each property type also is affected by specific factors, including job growth, interest rates, and demographics. While we did not set out to write the definitive textbook on real estate, our intent is to highlight those fundamental drivers that we think have a material impact on the various property types.

Macroeconomic Factors

Job Growth

Job growth affects every property type in some form. The increase in the number of jobs results in more people looking for places to live and has a direct impact on the multi-family sector. More jobs translate into more consumer spending as employees spend their earned income boosting retail. This affects the manufacturing sector, which in turn provides a boost for the industrial sector. However, job (particularly white-collar) growth has the most direct impact on the office sector.

Interest Rates

Another key macroeconomic factor that clearly affects real estate is the level of interest rates. Mortgage rates, which historically move in tandem with Treasury interest rates, directly affect the cost of borrowing for new projects. A developer might scale back/slow down development if he or she is faced with higher borrowing costs. On a more global scale, interest rates also affect the overall health of the economy. Historically, the economy has expanded during periods with low interest rates and hence lower borrowing costs. This expansion usually has a positive influence on REITs. Conversely, when rates are high, the economy historically has contracted, negatively affecting REITs.

From a property sector perspective, rates have a direct, meaningful impact. Higher interest rates and mortgage costs make home ownership more expensive, therefore increasing demand for rental units and improving the pricing power of the landlords. Furthermore, when rates are high, the economy generally contracts, leading to slower or negative job growth. As a result, multi-family and office vacancies increase. The retail and industrial sectors are affected peripherally as interest rates have an impact on consumer spending.

Demographics

Yet another key macroeconomic factor is demographics. The demographics of a given population have a significant impact on the industry. For example, the density of the population in an area, the expected population growth, the age of the population, and the average household income are all important considerations and directly affect the various sectors of the REIT industry. Population density, growth, and age influence demand for the multi-family and retail sectors. Peripherally, the population level affects the industrial sector, because the larger the population, the more manufactured goods are consumed by that

area. Average household income affects the retail sector as consumer spending is the most important driver in the space. In addition, this demographic plays a vital role in the multifamily sector as affluence is a main driver of housing affordability.

Supply versus Demand

Real estate may be thought of as the supply and demand of cubic feet. Job growth, interest rates, and demographics are key demand drivers. If the property market is in equilibrium (supply meets demand), then occupancy and rents should be stable. Conversely, if there is an imbalance of supply and demand, then pricing will be skewed. If supply exceeds demand, either the result of a drop in demand for real estate with constant supply or overbuilding at a time of constant demand, vacancies will increase, causing a shift of pricing power to the tenant. As a result, asking rents will drop. Conversely, an increase in demand with stable supply, or stable demand coupled with a decrease in supply, would drive declining vacancy. In that scenario, pricing power is shifted to the landlord and asking rents should increase.

The opposing forces of supply and demand manifest themselves in changes of occupancy and rental pricing power. All equity REITs generate a substantial portion of their revenue from rents. Rents are determined by the going rates in the assets' respective markets. Once a price has been set, the lease term—the duration of the agreement between the tenant and landlord—is determined. The term of lease varies by property type. The shortest term is in the apartment sector (about 12 months), while the longest term is in the retail mall sector (20–30 years for anchor tenants and 10 years for in-line retailers).

Another key factor is portfolio rollover. Rollover is the percentage of the leases in a portfolio that is expiring during any given year. The lower the rollover, the more revenue stability the portfolio has. However, in certain instances this may backfire as a landlord might have several long-term leases locked at below-current-market prices. With minimal rollover, landlords might not be able to capture the revenue upside.

Real Estate Cycle

Analysis of the main drivers of the REIT industry can help one better understand the real estate cycle. An imbalance in supply/demand influences the real estate cycle. If there is a drop in demand, a result of an economic decline, vacancies typically rise, leading to lower rents. As a consequence, revenues decline and prices drop. If real estate fundamentals weaken substantially, the industry goes into a recession. As fundamentals improve, usually coinciding with an economic recovery, occupancy increases, leading to an increase in rents and an eventual return to equilibrium. A strengthening economy drives occupancies higher, causing rents to spike. This eventually results in another imbalance. Developers that want to take advantage of positive fundamentals will begin construction projects, which will eventually increase supply. This oversupply, without a change in demand, will cause vacancies to increase, resulting in lower rents and potentially bringing the industry back into recession. The real estate cycle affects all property types, some more profoundly than others.

Having provided a broad overview of the main industry drivers, we will discuss the specific factors that influence supply and demand for each of the four main property types.

Multi-Family

Multi-family companies own and operate residential rental properties. Like the other REIT sectors, the opposing forces of supply and demand are key factors affecting the sector's growth prospects. Key demand drivers for the industry include job growth, demographic trends such as household formation, and single-family housing affordability (linked to single-family home prices and mortgage rates).

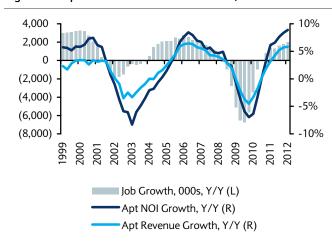
The Demand Side: Employment, Demographics, Homeownership

1) Employment

Job growth is the primary driver of apartment demand

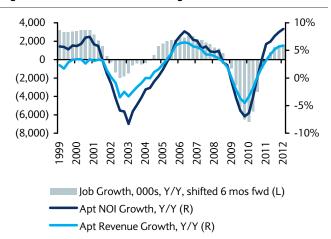
Multi-family fundamentals have an established relationship to job growth. As the economy expands, jobs are created, driving demand for housing; revenue and NOI growth generally follows employment growth by roughly two to three quarters, as evident in Figure 17. To illustrate, the multi-family industry declines of 2001–03 and 2007-09 can be largely attributed to a considerable loss of jobs over those periods. (In 2001-03, there was additional impact from renters leaving to buy houses.) Similarly, the period of job growth that began in 2004 and continued through 2007 contributed to apartment revenue and NOI growth. The economy lost more than eight million jobs during 2008 and 2009, and added just 3.2 million jobs since then. But demographic factors often augment job growth; the net job losses and tepid macro-economic recovery have been more than offset by increased propensity to rent, improving demographics, and limited new supply.

Figure 16: Apartment Fundamentals Track Job Growth...



Source: Barclays Research, BLS, Company documents

Figure 17: ...with a Six-Month Lag



Source: Barclays Research, BLS, Company documents

2) Demographics

Population demographics also drive household creation and rental demand Long term, nationwide demographics appear favorable for multi-family housing. Younger age demographics have a higher propensity to rent (Figure 19), with 77% of the 18-to-25-year-old demographic and 65% of the 25-to-29-year-old demographic made up of renters, compared with about 34% for the U.S. population overall. These age cohorts will be among the most rapidly growing sectors of the population over the next several years, based on the rise of the echo boom generation and expected immigration. Per the National Center for Health Statistics (projection of live birth data), 3.5 million—4.0 million people are projected to turn 18 each year through 2016. See Figure 18 for a view of U.S. population—lagged 18 years—versus apartment occupancy.

100% 24,000 98% 22,000 96% 20,000 94% 18,000 92% 16,000 90% 14,000 88% 12,000 86% 10,000 1965 1969 1973 1977 1981 1985 1989 1993 1997 2001 2005 2009 2013 Population ages 0-4, lagged 18 years, 000s Apt Occupancy

Figure 18: Younger Age Cohorts Usually Drive Apartment Occupancy

Source: Barclays Research, U.S. Census Bureau

Moreover, younger age cohorts are currently the ones finding employment. Despite the tepid employment recovery, the 20-34-year-old cohort has had better luck finding jobs than the population overall. This age group—which makes up about 20% of the U.S. population—accounted for one-third of job losses in 2008 and 2009, but then made up nearly two-thirds of new jobs in 2010 and more than half in 2011. The same age cohort also has a propensity to rent of about 62%, far ahead of the population-wide average of 34%. In other words, the 814,000 jobs created in the 20-34-year-old cohort during 2010 likely drove about 500,000 units of rental demand.

Figure 19: The Younger Demographics Who Rent...

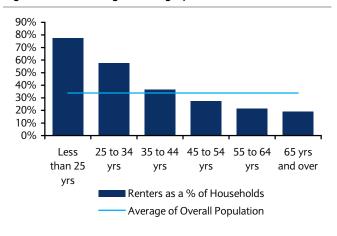
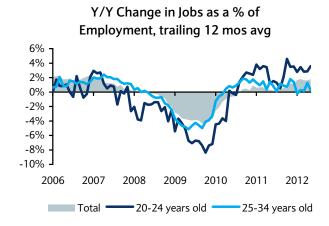


Figure 20: ... Are the Ones Currently Finding Employment



Source: Barclays Research, U.S. Census Bureau

Source: Barclays Research, Haver Analytics, BLS

Immigration Also Creates Renter Households. In addition, the Joint Center for Housing Studies at Harvard University approximates that immigration will lead to 200,000 to 400,000 household formations annually over the next decade in the United States; the National Multi Housing Council estimates that this group has an 84% propensity to rent in years one through five (following immigration), declining to a 64% propensity to rent in years five through 10, roughly in line with the overall population.

Geography: A Key Differentiator. Another factor that drives apartment demand is geographic exposure. Gateway cities like New York, Washington DC, and Boston offer physical and political constraints to new supply, and occupancy levels have been higher than nationwide averages throughout the last several years. However, Texas has been among the stronger performers when it comes to employment, with Austin having added more than 8% to its employed population since year-end 2007, while the U.S. has lost 6% of its jobs in total. Over the past 12 months, Silicon Valley, Miami and Houston have been the top markets for job growth. Overall, we continue to believe that volatile markets across the Sunbelt offer the potential for meaningful upside as fundamentals in these markets recover from steep declines. Given the persistent correlation between January temperature and population growth (which in turn relates to the proliferation of air conditioning and the interstate highway system)³, we expect that population and job growth will be higher in Sunbelt markets in the coming years versus the U.S. overall. This should support higher than average rent growth, to the extent that new construction doesn't pick up. Over the long term, supply levels in the Sunbelt should pick up, but they have not yet. West Coast markets are also improving rapidly after steep downturns in employment and apartment demand.

Figure 21: Job Growth Haves and Have-Nots at the MSA Level, as of 3/31/2012

		Job Growth since			
Rank	Metropolitan Area	Dec. 2007	Rank	Metropolitan Area	Y/Y Job Growth
1	Austin-Round Rock, TX	8.5%	1	San Jose-Sunnyvale-Santa Clara, CA	4.1%
2	Houston-Baytown-Sugar Land, TX	6.5%	2	Miami-Fort Lauderdale-Miami Beach, FL	3.9%
3	San Antonio, TX	5.8%	3	Houston-Baytown-Sugar Land, TX	3.2%
4	Washington-Arlington-Alexandria, DC-VA-MD	4.8%	4	Tampa-St. Petersburg-Clearwater, FL	2.9%
5	Dallas-Fort Worth-Arlington, TX	3.0%	5	San Francisco-Oakland-Fremont, CA	2.9%
6	Richmond, VA	2.9%	6	Atlanta-Sandy Springs-Marietta, GA	2.6%
7	San Jose-Sunnyvale-Santa Clara, CA	1.8%	7	Richmond, VA	2.5%
8	Nashville-DavidsonMurfreesboro, TN	0.8%	8	Austin-Round Rock, TX	2.3%
9	Oklahoma City, OK	0.5%	9	Riverside-San Bernardino-Ontario, CA	2.3%
10	Virginia Beach-Norfolk-Newport News, VA-NC	0.3%	10	Louisville, KY-IN	2.3%
41	Atlanta-Sandy Springs-Marietta, GA	-6.0%	41	Rochester, NY	0.5%
42	Buffalo-Niagara Falls, NY	-6.3%	42	SacramentoArden-ArcadeRoseville, CA	0.5%
43	SacramentoArden-ArcadeRoseville, CA	-6.3%	43	Las Vegas-Paradise, NV	0.3%
44	Phoenix-Mesa-Scottsdale, AZ	-6.4%	44	New Orleans-Metairie-Kenner, LA	0.2%
45	Chicago-Naperville-Joliet, IL-IN-WI	-6.6%	45	Phoenix-Mesa-Scottsdale, AZ	0.0%
46	Cincinnati-Middletown, OH-KY-IN	-6.6%	46	Philadelphia-Camden-Wilmington, PA-NJ-DE	0.0%
47	Los Angeles-Long Beach-Santa Ana, CA	-6.7%	47	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.0%
48	Birmingham-Hoover, AL	-7.8%	48	Providence-New Bedford-Fall River, RI-MA	-0.8%
49	Providence-New Bedford-Fall River, RI-MA	-9.4%	49	Birmingham-Hoover, AL	-0.8%
50	Detroit-Warren-Livonia, MI	-10.1%	50	Buffalo-Niagara Falls, NY	-0.8%
	Outside of Top-50 MSAs	-8.7%		Outside of Top-50 MSAs	1.8%
	U.S. Total	-5.6%		U.S. Total	1.6%

Source: Barclays Research, BLS, U.S. Census Bureau

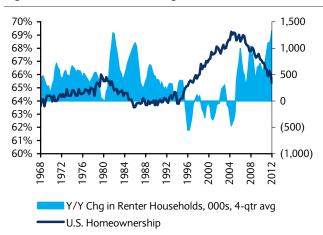
3) Homeownership

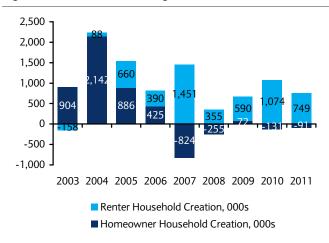
When the homeownership rate changes, apartment fundamentals change as well Homeownership trends also have an impact on apartment demand. From the 1960s through the early 1990s, this rate was at a relative equilibrium in the U.S., with just over 64% of the households occupied by owners and just less than 36% of households occupied by renters. But in the 1990s homeownership swelled, as policy and low interest rates led to renters leaving to buy houses at an unprecedented rate. The homeownership rate grew from a longer term average of 64% to a high of 69% in 2005, with homeowner households growing by nearly 14 million and rental households falling by one million. In the wake of the single-family housing bust, the homeownership rate has begun to fall back toward its long-term average, standing at 65.4% at 3/31/2012. During the decade of rising homeownership (1995-2005), apartment NOI and revenues lagged job growth (see Figure 17), and

 $^{^3}$ Glaeser, Edward L. "Which Places Are Growing? Seven Notable Trends from Newly Released Census Data." Rappaport Institute/Taubman Center at the Harvard Kennedy School.

apartment occupancy lagged its longstanding relationship with the size of the 18-to-25-year-old demographic (see Figure 18). The subsequent reversion in homeownership, along with continued population growth, has added 5.4 million households back to the rental markets, in part at the expense of homeowner households. Based on the current population, every 100–basis-point move in the homeownership rate represents 1.1 million households (or 2.7% of total U.S. apartment inventory).

Figure 22: The For-Sale Housing Bubble Pulled Renters Away Figure 23: As For-Sale Housing Unwinds, Renters Are Created





Source: Barclays Research, U.S. Census Bureau

Source: Barclays Research, U.S. Census Bureau

The Supply Side: New Construction

New construction is below structural demand

When analyzing the supply side for multi-family, building permits issued for new construction are a good forward indicator of new supply, as the number of permits issued directly affects the number of eventual construction starts. Excess building typically occurs in tandem with peaks—and subsequent downturns—in demand, and results in higher vacancies, lower rents, higher concessions, and declines in revenue for landlords.

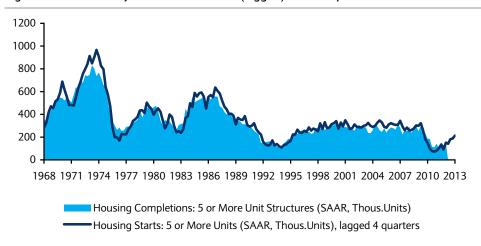
Nationwide, according to the U.S. Census Bureau, multi-family completions averaged more than 500,000 annually from the 1960s through 1990; completions dipped below 200,000 units on an annualized basis in late 1991 and stayed there until late 1994, when they began to recover toward an average annualized rate of just over 300,000 units through year-end 2008. Completions fell toward 100,000 units per year in the wake of the credit crisis, but they have since ticked back up to roughly 200,000 units per year. Old inventory generally tends to be taken out of service at a rate of roughly 50,000-100,000 units per year, current levels of starts imply that supply will trail demand growth meaningfully. Further, we believe that a significant percentage of current starts are affordable housing units rather than market rate units, leaving nearly no new supply of market rate units. In our view, limited new supply will likely help apartment absorption and magnify the impact of an eventual recovery in employment. For example, the Harvard Joint Center for Housing Studies expects 1.3 million units of overall household creation annually over the next decade. At the current homeownership rate of 65.4%, that implies about 450,000 units of rental demand annually.

A note on for-sale inventory

For the last several years, the multi-family industry faced competitive supply in the form of condos and single-family houses available for rent and for sale at falling prices. As rentals, this shadow supply generally reversed the trend from earlier in the 2000s, when owners converted rental inventory to condos in order to exit at higher prices. We tend to think that most of the for-sale inventory that is coming back to the rental markets as shadow supply has already hit the market, particularly on the multi-family side; single-family rental supply

may continue to trickle in as foreclosures tick up and investors pursue for-rent single-family product. There may be longer term issues of affordable single-family houses luring buyers from rental properties, but we think that the near-term impact of shadow supply has mostly been digested at this point.

Figure 24: Multi-Family Construction Starts (lagged) and Completions



Source: Barclays Research, U.S. Census Bureau

CBRE forecasts that completions in 2012 will total 66,000 units (REIS tracks 79 metro areas, or roughly 10 million multi-family apartment units, offering a proxy for the U.S. but not an exact comparison to census data). After that, REIS forecasts that completions begin to grow at an average annual rate of 15% through 2016. In part, this inventory growth will depend on the availability of capital for developers; while GSE debt is available for operating properties, it is not a funding source for construction. Developers will need additional credit availability, and they will need to come to agreements with lenders on points of contention like personal recourse. Given that most of the merchant builders are currently focused on recapitalizing projects already in progress or recently completed, it appears unlikely that merchant builders will add meaningfully to multi-family starts over the next few years.

The freezing of the merchant builder business model implies reduced multi-family construction for some time

Figure 25: REIS: Limited New Supply for Years



Source: REIS

Correlation to the Single-Family Housing Market?

Historically, the multi-family housing market has been modestly counter-cyclical to the single-family, for-sale housing market. Put differently, when the housing market is strong, the multi-family market typically slows, and vice versa. A closer look at this phenomenon yields the following analysis: A rising interest rate environment tends to negatively affect new and existing single-family home sales, which in turn positively affects the multi-family sector. Conversely, when the economy slows or enters a period of recession and the rate of job growth slows, interest rates typically pause or decline, making housing more affordable and renting less attractive on a relative basis.

In the current cycle, however, the severe downturn in the for-sale housing market coincided with deterioration in the multi-family rental market. The for-sale housing sector led the economy into recession, and supply overhang from that market has exacerbated the impact of increasing unemployment on the multi-family rental market. So far, the recovery appears to be limited to the multi-family sector.



Figure 26: 30-Year Mortgage Rate vs. Single-Family Home Sales

Source: Federal Reserve Board, U.S. Census Bureau, National Association of Realtors, Barclays Research

Fundamental Outlook: Mid-to-High Single-Digit NOI Growth through 2013

Multi-family was the first property type to bounce off the bottom in 2010, and it may be among the most resilient property types on the upside. That view is informed by lease duration, but as well by prospective strength in multi-family's underlying fundamental supply and demand drivers. The economy lost more than eight million jobs during 2008 and 2009, and added just three million jobs since then. The net job losses and tepid macroeconomic recovery have been more than offset by increased propensity to rent, improving demographics, and limited new supply.

Recovery Should Continue in 2012 and 2013. We expect apartment revenue and profitability levels will continue to grow during 2012 and 2013, aided by four factors: 1) we believe there will be very low levels of new multi-family supply for the next few years; 2) we anticipate the secular decline in the homeownership rate, from more than 69% in 2005 to 65% as of 3/31/2012, will continue; 3) we expect an increase in the population aged 18 to 35—the "echo boom"—which historically has had the greatest propensity to be renters; and 4) multi-family will likely benefit from the continued availability of relatively low priced GSE debt.

- We currently forecast 7.9% SSNOI growth in 2012 and 5.9% in 2013 on average for the nine companies in our apartment coverage universe.
- The largest risks to our thesis would be job losses and increased home-buying from the renter population.

Demand Strong but Decelerating. National apartment occupancy is near 95%, and effective rent growth is just under 5%. However, absorption is slowing, with 1Q12 absorption slightly below 1Q11 levels and less than half of 1Q10 levels. Hiring has slowed, although younger age cohorts are still outperforming the national average. While absorption is slowing, demand is still well ahead of supply levels.

New Supply Low but Increasing. New multi-family starts are averaging just less than 1% of inventory across the country. Nationwide starts and permits are in the low-to-mid 200,000 range, which includes for-sale and affordable properties and still trails demand materially. Ron Witten of Witten Advisors estimates that development yields average just over 6%, down from nearly 9% a decade ago, but a 100 bps spread to average class-A cap rates. Austin, Raleigh, Norfolk, Dallas, and San Antonio are seeing the most construction, with each of those markets seeing starts at 2% or more of inventory. These markets generally also have larger job growth numbers. As a result, Mr. Witten does not expect to see significant supply/demand imbalances in most markets during the next few years. Washington DC is likely to be the most oversupplied market in the coming years, while Northern California and Austin may be the most undersupplied markets.

Industrial

We have historically considered the industrial sector to be relatively stable and defensive, by virtue of its traditional lease structure, short development cycle, correlation of demand with broader economic direction, and relative ease of financing. It includes distribution centers, bulk warehouse space, light-manufacturing facilities, and R&D facilities.

There are several components to the industrial centers' traditional lease structure. Largely, the terms of the lease depend on whether the project was speculative or build-to-suit. A speculative developer has less leverage; in order for the space to get filled, the average lease term for speculative development is shorter (three to five years), with cheaper rents. For a build-to-suit property, the tenant is already identified, mitigating lease-up risk. As a result, typical build-to-suit leases have higher rent and a longer term (about seven to 10 years). Triple-net leases are common as the tenant pays operating costs, real estate taxes, and utilities, and tenant improvement costs are relatively low. Most leases have renewal options and rent increases as part of their original lease.

Supply

On the supply side, industrial REITs benefit from short development cycles, which tend to prevent overbuilding. According to Reis, only 556 million square feet have been added to industrial inventories over the past 10 years, representing a 0.7% annual increase in supply. Construction escalated in the late 1990s as the economy was expanding at record levels during the tech bubble, before receding as demand declined in the early 2000s. Construction increased each year from 2004 through 2006 as the economy once again accelerated, but levels peaked well below those of the prior cycle. As would be expected given the economy's recent slowdown, construction activity decelerated from 2007 through 2011, falling to just 15.7 million square feet in 2011 from a cyclical peak of 80.0 million square feet in 2006. The sharp decrease in supply did not completely offset dramatic demand declines globally, but did reflect how quickly industrial supply can decrease (or increase) in response to changes in demand. Reis projects completions to increase from historical lows over the next few years, but remain below activity levels from past construction peaks and below corresponding net absorption.

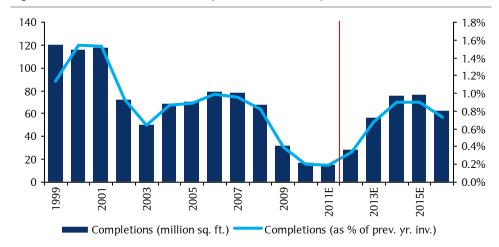


Figure 27: U.S. Industrial Market Completions vs. Inventory, 1999-2016E

Demand

The primary demand drivers for the industrial space are global trade, and both U.S. and global economic expansion. We track global trade flow and port usage, both U.S. and global GDP growth, and the ISM report on business (both manufacturing and non-manufacturing), each of which are highly correlated with demand for distribution warehouse space.

U.S. and global Gross Domestic Product (GDP) are valuable tools for tracking industrial real estate demand. GDP is defined as the market value of all final goods and services produced within a certain area over a period of time. The basic components of GDP are as follows: consumption, investments, government spending, and net exports. Our sense is that the level of GDP growth is a good indicator of the direction of the economy; with the economy's globalization, both U.S. and global GDP growth are important factors for industrial demand. U.S. GDP, world GDP, and global trade are expected to continue to improve over the next few years, which should drive improving demand for distribution warehouse space.

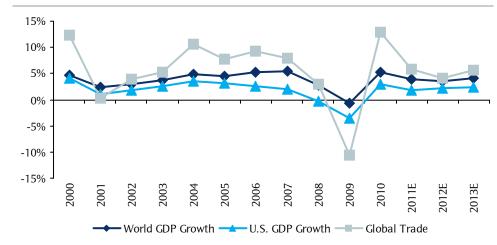


Figure 28: World GDP, U.S. GDP, Global Trade Growth, 2000-2013E

Source: International Monetary Fund, World Economic Outlook Database, April 2012

The Institute for Supply Management (ISM) manufacturing and non-manufacturing indices provide a real-time outlook of U.S. economic expansion. The indices are based on a national survey of purchasing executives of approximately 300 industrial companies. A reading greater than 50% signals that the economy is expanding. Conversely, a reading lower than 50% signals that the economy is contracting. The ISM data shows a solid rebound over the past few years; both the manufacturing and non-manufacturing index paint a picture of a U.S. economy that is now expanding at a healthy rate.

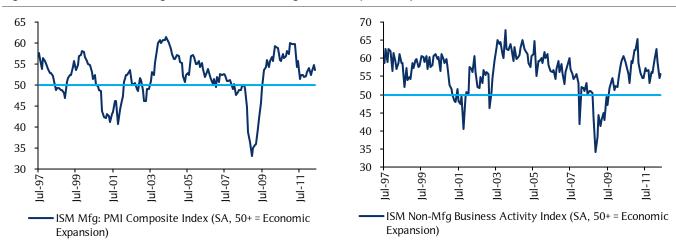


Figure 29: ISM Manufacturing and Non-Manufacturing Indices, July 1997-April 2012

Source: Institute of Supply Management

Reis expects absorption to improve and outpace completions each year from 2012-2015. In fact, the 78 million square feet of net absorption in 2011 erased all of the negative net absorption from 2008-2010 (77 million sf) and net absorption of 368 million square feet from 2012-2016 is expected to easily outpace 302 million square feet of completions over the same period. This excess demand relative to new supply is expected to drive occupancy and rental rates higher for the foreseeable future.

Figure 30: U.S. Industrial Completions vs. Net Absorption, 2000-2016E

Occupancy and Rental Rates Inflecting Positively

U.S. industrial occupancy appears to have bottomed at 88.3% at year-end 2010, versus 90.6% at year-end 2006. As a result of the anemic new supply coupled with recovering demand, Reis forecasts that occupancy will again surpass 90% by the end of 2016. As occupancy levels rise, so too will rental rates. According to Reis, U.S. industrial rents fell an aggregate of 8.3% from the end of 2008 through the end of 2011. However, rapidly improving occupancy (+80 bps in 2011 and +190 bps projected from 2010-2016) has set the stage for improving rents. Average asking rents are projected to grow 1.3% in 2011 and an average of 2.3% per year from 2011-2016 (accelerating each year), reaching 2008 peak levels in 2015. Further, we believe the public industrial companies may be poised to outperform the general national average due to their focus on stronger trade-corridor markets and higher-quality assets.

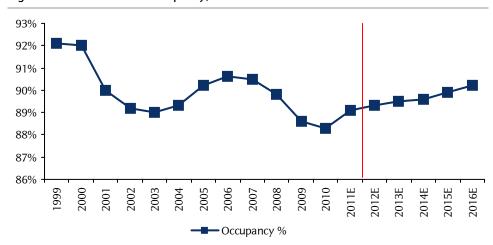


Figure 31: U.S. Industrial Occupancy, 1999-2016E

Source: Reis



Figure 32: U.S. Industrial Rent Change, 2000-2016E

Development Returning Gradually and Selectively

During the last up-cycle (roughly 2004-07), industrial REITs took advantage of the strong underlying industrial fundamentals, surging global demand for new space, and tremendous liquidity (both equity and debt) by growing their development businesses. This proved to be very profitable because of the strong underlying fundamentals, the rising prices (and margins), and the prevailing business model that allowed the REITs to capture an upfront developers profit in addition to management/incentive fees from the third-party entities that ended up owning the assets. Heading into 2008, pricing begun to move away from the developers, meaning that profit margins would be squeezed, reducing the expected gains from the development business. However, what became clear was that development pipelines became over-extended, and over-leveraged, leading to a dramatic scaling back of activity. Industrial REITs generally ended up maintaining many of their completed developments on their balance sheets. Today, with obsolescence on par with completions in many markets, industrial REITs are again finding build-to-suit opportunities, although speculative development generally remains limited to rebuilding Japan, the strongest U.S. port markets, and select emerging markets such as China and Brazil. Looking ahead, we expect the number of external investment opportunities to increase, as fundamentals recover, but we do not project a near-term return to the large development pipelines prevalent at the recent peak.

Office

The key demand driver for the office sector is white-collar job growth. During the 1990s, the economy—especially technology—was expanding rapidly, creating a surge in demand for office space. Rents spiked in certain areas of the country as technology companies increasingly pursued scarce office space. Once the dot-com bubble burst, the overall economy went into a recession. This significantly affected job markets across the country, resulting in a major downturn for the office sector in many large cities like Boston, Denver, New York, and San Francisco. As a result of the economic slowdown, the country lost 179,200 office jobs in 2001 (according to Reis), setting the stage for three consecutive years of sharply falling occupancy and four years of declining rents. However, by 2004, job growth returned in earnest, driving positive net absorption and improving occupancies and rental rates, which soon spiked in many key urban markets. The up-cycle peaked in 2007/2008, as occupancy reached 87.4% and the average asking rent topped \$29 psf.

Nearly 1.4 million office jobs were lost from 2008-2009, driving national average occupancy down to 82.4% at year-end 2010 and rents down 5.7% from 2008-2010. According to Reis, positive office job growth resumed in 2010 and occupancy ended 2011 at 82.7%; rents improved 1.6% YOY in 2011. Reis expects job growth to accelerate in each of the next three years, but it will likely be 2014 before all of the jobs lost during the most recent recession are recovered. Reis projects solid job growth, and improving occupancy and positive rent growth, in each of the next several years.

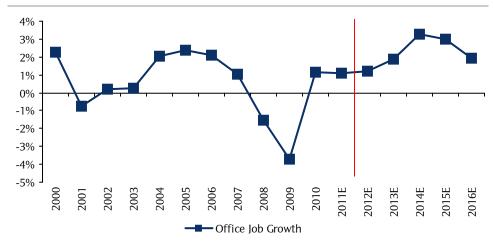


Figure 33: U.S. White Collar Job Growth, 2000-2016E

Source: Reis

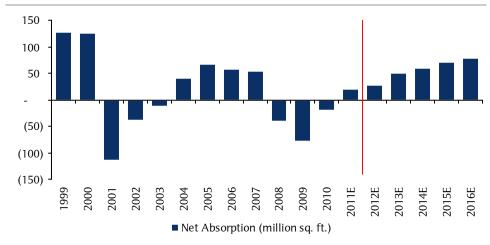


Figure 34: U.S. Office Absorption, 1999-2016E

Historically Low Levels of New Supply

The other key driver for the sector is the amount of office space available to lease in a given market. When there is a steady demand with a balanced amount of supply, the office space is in a state of equilibrium. A spike in demand with stagnant supply will result in higher occupancy, and pricing power will shift to the landlord. Conversely, with stable demand and a spike in supply, vacancies will increase, and pricing power will shift to the tenant, eventually leading to lower rents.

When excess space is developed by companies when demand is strong, oversupply can result if demand slows before the space hits the market. Unlike the industrial sector, the office sector has a lengthy construction period, which can be attributed to a long delay from the time a permit is received to the actual completion of the building. Even if there is a sizable drop in demand, a project can be too far along for the builder to abort it. These circumstances can often lead to an oversupply of inventory. However, in densely populated commercial areas, this tends to be less of a problem as fundamentals correct themselves much faster than in other areas.

In the past ten years, only modest supply has been added to the office market. During that time, national office inventory increased only 0.4% per year on average, versus 2.4% per year from 1999-2002 on the heels of the strong demand of the 1990s (notably, all of this activity falls far below the peak construction levels of the mid-1980s). Looking ahead, office construction is expected to gradually rebound from a record low in 2011, remaining below 2004 trough activity through at least 2013. Net absorption is projected to outpace new supply in each of the next five years, surpassing the stretch of three consecutive years ending in 2006.

160 140 120 100 80 60 40 20 2010 2011E 2012E 2013E 2002 2003 2005 2006 2007 2008 2001 2004 1999 ■ Completions (million sq. ft.)

Figure 35: U.S. Office Completions, 1999-2016E

Occupancy and Rents Have Begun to Recover

According to Reis, national office occupancy declined from 87.4% at year-end 2007 to 82.4% at year-end 2010, as even relatively low levels of new supply outstripped demand each year. The average rental rate fell 5.7% from 2008-2010. In 2011, both occupancy and rental rates began to recover, improving 30 bps and 1.6%, respectively. With only 179 million total square feet of office space expected to be completed from 2012-2016, versus an average of 59 million per year from 2000-2010, and improving demand, occupancy and rents are expected to quickly improve. Specifically, market occupancy is expected to increase from 82.7% at year-end 2011 to 83.0% in 2012E and 85.9% in 2016E. Similarly, rents are projected to improve 2.2% in 2012E and 3.3% per year from 2012-2016E. Notably, the rental rate recovery continues to be driven by CBD markets, relative to a slower recovery in the suburbs.

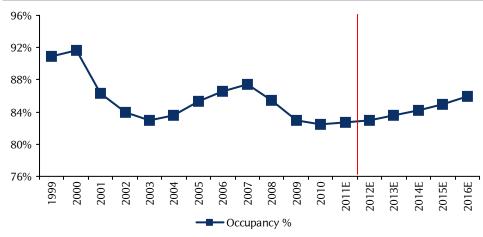


Figure 36: U.S. Office Occupancy, 1999-2016E

Source: Reis

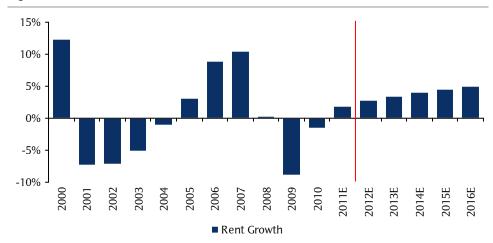


Figure 37: U.S. Office Rent Growth, 2000-2016E

The Rent Spread Rollercoaster

The mark-to-market on new/renewal office rents versus corresponding expiring rents can sometimes be significant. This phenomenon is due not only to changing market conditions, but because office leases tend to be relatively long term in nature (five to 10 years, on average), meaning the market could have moved materially between the time a lease was signed and when it expires. While leases signed near the 2007/2008 peak were generally signed above current market rents, leases signed toward the end of the 2001-2004 downturn are rolling to higher market rates. Given the strong market rent growth projected by Reis over the next several years, any leases longer than five years appear likely to roll up upon expiration for the foreseeable future. The best mark-to-market increases appear likely to occur in CBD markets, where rental rates fell more sharply during the downturn and are expected to increase more rapidly in the current recovery.

Retail

Types of Retail Real Estate

Volatility managed by long term lease structure

The retail REIT sector, which is driven in the near term by retailer demand for space and in the longer term by consumer spending, is relatively stable due to its long-term lease structure. Leases are typically structured with regular rent bumps throughout the life of the lease in order to account for expected inflation. In cases where retailers decide to close stores prior to lease expiration (outside of bankruptcy cases), the retailer will be obligated to compensate the landlord with a lease termination fee, which will help cushion the drop-off in revenue in the near term as landlords attempt to fill the newly vacant space.

The performance of the industry can be attributed to the nature of the industry's two main drivers: 1) the amount of retail space available for lease; and 2) the demand for that space. Retail real estate owned by the public companies comes in three main forms: shopping centers, regional malls, and outlet malls.

Shopping Centers

Shopping centers historically have been a popular area for real estate investment, in part because these properties tend to be smaller in size and thus less costly to assemble into a portfolio of assets versus than other types of real estate.

In the late 1920s, department stores proliferated throughout cities nationwide. However, the development of trains and the subsequent proliferation of autos and highways encouraged migration to the suburbs. This demographic shift established the platform for shopping centers. A number of today's leading players have roots that date as far back as the 1920s, including Weingarten Realty and Federal Realty. In 1962, Federal Realty was the first real estate company to take its portfolio public as a REIT.

We categorize shopping centers into the following formats: 1) neighborhood centers, 2) community centers, 3) power centers, and 4) lifestyle centers. Each format has its own set of business economics that depends largely upon its typical tenant base and those tenants' sensitivity to changes in discretionary spending. Hence, each format has its own distinct set of risk/return characteristics.

Figure 38: Primary Shopping Center Formats

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Format	Approx. Size (sq. ft.)	Primary Trade Area	Number of Anchors	Anchor Ratio	Typical Anchors
Neighborhood Center	30,000 – 150,000	3 miles	1 or more	30-50%	Kroger, Publix, Safeway
Community Center	100,000 – 350,000	3-6 miles	2	40-60%	Kohl's, Home Depot, Lowe's, Wal-mart
Power Center	250,000 – 600,000	5-10 miles	3 or more	75-90%	Best Buy, Bed Bath & Beyond, Lowe's, Staples, Home Depot, Borders
Lifestyle Center	150,000 – 500,000	8-12 miles	0-2	0-50%	-
Main Street Retail	80,000 – 250,000	5-15 miles	none	0%	-
Source: ICSC					

During the 1980s, development surged in the shopping center space as annual deliveries peaked at 65 million square feet, or 7% of total inventory, in 1987. Since 1993, shopping center growth moderated, averaging about 27 million square feet between 1993 and 2008 (approximately 2% of total inventory). However, shopping center development starts have

virtually ceased over the last three years (less than 1% of total stock) as landlords continue to deal with vacancy created during the most recent recession.

40,000 2.0% 1.8% 35,000 1.6% 30,000 1.4% 25,000 1.2% 20,000 1.0% 0.8% 15,000 0.6% 10,000 0.4% 5,000 0.2% 0 0.0% 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 Completions (000 sf) Completions (% of total sf)

Figure 39: Shopping Center Deliveries (in thousands of sq. ft.)

Source: Reis

Currently there are 17 REITs focused on the shopping center space:

Figure 40: Shopping Center REITs (as of 12/31/11)

Tieleen	Nama	Primary Geographic	Implied Market
Ticker	Name	Focus	Cap (\$m)
ALX	Alexander's, Inc.	New York metro	\$2,017
AKR	Acadia Realty Trust	Northeast	\$1,011
BFS	Saul Centers, Inc.	Mid-Atlantic	\$1,066
CDR	Cedar Realty Trust, Inc.	Mid-Atlantic	\$320
DDR	DDR Corp.	National	\$4,005
EQY	Equity One, Inc.	Southeast, West coast	\$2,270
EXL	Excel Trust, Inc.	Southwest, Southeast	\$405
FRT	Federal Realty Investment Trust	Northeast	\$6,414
IRC	Inland Real Estate Corporation	Midwest	\$748
KIM	Kimco Realty Corporation	National	\$7,522
KRG	Kite Realty Group Trust	Midwest	\$339
RPT	Ramco-Gershenson Properties Trust	Midwest	\$588
REG	Regency Centers Corporation	Southeast, West coast	\$3,982
ROIC	Retail Opportunity Investments Corp.	West coast	\$603
RPI	Roberts Realty Investors, Inc.	Southeast	\$18
UBA	Urstadt Biddle Properties Inc.	Northeast	\$534
WRI	Weingarten Realty Investors	Southeast, Southwest	\$3,184

Source: NAREIT, SNL, Barclays Research

Regional Malls / Outlet Centers

The other key retail property types are regional malls and outlet centers. The U.S. regional mall sector has evolved and is now a mature industry property type by the conventional business school definition. Outlets, on the other hand, continue to gain momentum particularly coming out of the most recent downturn.

Figure 41: Regional Mall / Outlet Formats

Format	Approx. Size (sq. ft.)	Primary Trade Area	Number of Anchors	Anchor Ratio	Typical Anchors
Regional Center Superregional Center	400,000 – 800,000 800.000+	5-15 miles 3-6 miles	2 or more	50-70% 50-70%	Sears, Macy's Sears, Macy's
Outlet Center	50,000 – 400,000	25-75 miles	3 or more	NA	-

Source: ICSC

A brief history

Although the nation's first enclosed regional mall was built in the 1950s, its roots can be traced to the department stores of the late 19th century. The predecessor of the department store was the mail order catalog company, specifically companies such as Sears, Roebuck & Co. and Montgomery Ward. However, the culture of consumption changed as the Industrial Revolution pulled workers from farms to factories and cities. At that time, Alexander's and the Grand Depot opened; these were known as the first "department stores." Department stores soon proliferated in cities, but the population soon started to migrate to the suburbs as a result of innovations in transportation. Department store companies therefore expanded to the suburbs in the 1930s and 1940s, building large freestanding stores where real estate was cheap and parking was available.

As more people migrated from cities to suburbs, regional malls sprouted along new highways. Development of malls continued until the late 1980s. The 1980s, hailed as the boom years for retail development, saw more retail formats created. As a result of bank deregulation early in the decade, S&Ls were able to extend loans for new commercial real estate development. As a result of all this lending, overbuilding occurred. This overbuilding caused vacancy rates to rise sharply, which eventually led to the real estate market crash at the end of the decade. Notably, this phenomenon was not limited to retail real estate, but extended essentially to all property types.

As a result of the real estate crash, S&Ls went bankrupt because the property they owned was worth a fraction of its purchase price. To rebound from the bank crisis in the late 1980s, construction lenders tightened credit standards and began requiring more equity from developers. This set the stage for public REIT explosion in the 1990s as many private developers turned to the public market; the UPREIT structure, as mentioned earlier, alleviated the tax burden of many private players.

Regional mall construction boomed for 40 years, but after several decades of exponential growth, the mall sector has been undergoing a period of consolidation. Over the past 15 years, the industry has consolidated both on an asset level and in terms of ownership concentration. By some estimates, the number of operating malls in the country has declined to under 1,500 today, driven by structural change in the industry and consumer preference. This change played an intricate role in the rise of the outlet format, which focus on value for consumers. The number of outlet centers in the U.S. has roughly doubled since 1990.

Limited new supply for regional malls, though demand for outlets remains robust As previously mentioned, the U.S. regional mall sector is a mature industry. In addition, the industry has seen a major drop in supply since the late 1990s; new construction is expected to continue to be soft as the dislocation in the retail real estate markets has resulted in more operators focusing on acquisitions of distressed real estate rather than new development.

35,000 3.0% 30,000 2.5% 25,000 2.0% 20,000 1.5% 15,000 1.0% 10,000 0.5% 5,000 0.0% 0 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 Change in sf -% of total

Figure 42: Regional Mall Completions (in thousands of sq. ft.)

Source: ICSC, Co-Star

On the other hand, there continues to be significant demand for outlet space, prompting new development.

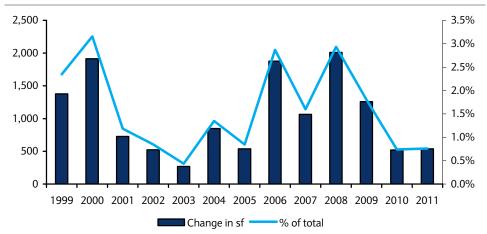


Figure 43: Outlet Completions (in thousands of sq. ft.)

Source: ICSC, Co-Star

At the end of 2011, there are nine REITs focused on the regional malls and/or outlet centers:

Figure 44: Region Mall and Outlet REITs (as of 12/31/11)

			Primary Geographic	Implied Market
Ticker	Name	Property Type	Focus	Cap (\$m)
CBL	CBL & Associates Properties, Inc.	Regional Mall	Southeast, Midwest	\$3,412
GGP	General Growth Properties, Inc.	Regional Mall	National	\$16,358
GRT	Glimcher Realty Trust	Regional Mall	Midwest	\$1,322
MAC	Macerich Company	Regional Mall	National	\$8,471
PEI	Pennsylvania REIT	Regional Mall	Mid-Atlantic	\$755
RSE	Rouse Properties, Inc.	Regional Mall	National	\$638
SKT	Tanger Factory Outlet Centers, Inc.	Outlet	Southeast, Northeast	\$3,117
SPG	Simon Property Group, Inc.	Regional Mall / Outlet	National	\$54,704
TCO	Taubman Centers, Inc.	Regional Mall	Southeast, Midwest	\$6,318
Source: S	NL, NAREIT			

Retail Real Estate Demand Drivers

The demand drivers for regional malls, outlets and shopping centers are very similar. The most notable demand driver for the retail sector is retailer demand for space, a function of retailer profitability and growth objectives. On a macroeconomic basis, this driver relies on overall long-term consumer spending trends.

The relationship between consumer spending and the success of a particular center is intuitive. The tenant seeks out a location that will afford it the greatest sales per square foot. When consumer spending is high, average locations will generally afford the retailer a meaningful level of sales and allow it to operate at a healthy profit margin. An above-average location will usually afford the retailer a solid above-average profit margin. Of course, when consumer spending is being restrained by external factors, such as bad weather and high gas prices, the opposite result will occur.

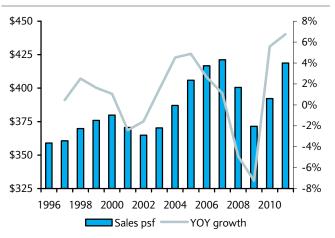
The landlord, primarily of regional malls, may also try to capture sales upside by factoring in a percentage of sales component to the rent charged; that said, this component generally only accounts for 2%-3% of total annual revenues. As sales increase, this variable component of rent will increase and, therefore, the REIT's NOI will increase, resulting in a higher real estate valuation. Thus, increased consumer spending generates increased sales, which generate increased rent, which provides increased NOI and valuation.

There are several indicators we use to gauge consumer spending. The first indicator is retail sales. The second is the consumer confidence index. The index is a useful measure for future retail sales as it takes into account current consumer opinion on the economy and future expectations as well. That is, if the index provides a high reading, it means that the average consumer feels the economy is in good shape and that he or she will spend discretionary income as a result of that confidence. Conversely, if the reading on the index declines, it can be inferred that the average consumer feels cautious about the economy and might pull back on his spending, resulting in a drop-off in retail spending.

Figure 45: Consumer Confidence, 1993-2012YTD



Figure 46: Sales Productivity for Non-Anchor Tenants in U.S. Malls



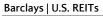
Source: Conference Board, Barclays Research

Source: ICSC

Sales per square foot, a measure of asset productivity (particularly with regard to regional malls and outlets), is highly correlated with rental rate growth. After retail sales fell considerably in 2008-2009, rents on expiring leases fell in-step. However, as consumer confidence and sales improved, rental rate growth has stabilized.

\$25 🗖 Asking Rent \$ 💳 -Asking Rent % Chg 5% 4% \$20 3% 2% \$15 1% \$10 0% -1% \$5 -2% \$0 -3% 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

Figure 47: Shopping Center Rents psf





PART FOUR: STOCK ANALYSIS AND VALUATION

REIT stocks are evaluated similarly to other equities: investors utilize earnings multiples, asset values, dividend yields, and earnings growth rates. However, some GAAP accounting concepts are less relevant for REITs. Therefore, the industry has developed different metrics more consistent with real estate's characteristics as a long-term, total-return asset class. In this section, we first define and give a context to the conventional relative valuation metrics. We then discuss common absolute metrics that are commonly used to assess REIT performance and valuation (page 63). Last, we provide our framework for analyzing REIT stocks using a discounted cash flow analysis (DCF; page 65).

Next, we turn to our price target methodology. While we continue to use the relative and absolute metrics discussed above for context when constructing price targets, we believe that there is a need to account for intrinsic value. To that end, we have developed a comprehensive suite of valuation tools, designed to incorporate both investor sentiment and intrinsic value that inform our price targets. Our methodology⁴ combines a weighted average of three valuation metrics: 1) a DCF analysis, 2) NAV, and 3) an investment sentiment metric based on a regression of a stock's price performance versus the sector and forecast of sector performance.

In the last part of this section (page 72), we explore the real estate—specific factors and qualitative issues that determine portfolio-level performance and, in turn, stock performance. Furthermore, we note that management plays a key role, just as it does in any other type of company, as management is responsible for executing the proper strategies to drive earnings growth.

Relative Valuation Metrics

P/FFO, P/CAD, P/ NAV, and dividend yield are conventionally used to look at REITs Investors initially viewed REITs primarily as an income vehicle and, as such, the dividend yield played a primary role in relative valuation. However, as the perception of REITs has shifted toward that of a total-return vehicle—and not simply an income vehicle—multiples and growth rates have taken on greater importance. Several valuation metrics are commonly used to value REITs on both a stand-alone and relative basis, including: price to FFO (funds from operations), price to CAD (cash available for distribution), price to NAV (net asset value), and dividend yield. FFO and CAD should reflect the performance of the underlying portfolio of properties measured, in turn, by same-store net operating income (SSNOI), a key measure of property-level performance. As with all multiple analyses, it is important to factor earnings growth into the equation.

Relative metrics: good for price target context and pair trades, not intrinsic value When we talk about relative valuation metrics, we are referring to those metrics that are useful for comparing one investment with another. For instance, if one REIT is considerably more expensive than another, an investor can buy the relatively cheaper REIT and sell short the relatively more expensive REIT. This trade would not necessarily be affected by the general direction that the group trades, and therefore it is not dependent on whether the two REITs are fairly valued or not; all we need to know for this relative valuation trade is that the one is more expensive than the other and that we believe that this relative discrepancy is unsustainable. We find relative metrics useful for identifying these pair trading opportunities, as well as for checking on whether our price targets look reasonable in the context of our targets on peer companies and in the context of broader market valuations.

⁴ For a full description of our valuation methodology see "REITs: A New Valuation Construct," published 1/20/2010.

Relative metrics offer a clear and reasonable shorthand for REIT valuation, in our view, but they do not represent intrinsic value.

Earnings Multiples

The primary relative metric used is a stock's multiple of forecasted earnings, an analysis that comes from conventional securities analysis applied to REITs. We believe that earnings multiples are useful both to check the context and relative implications of our price target calculations and to check for relative value trades (current price divided by FFO or CAD).

Using these multiples, we can compare one REIT to another, or we can compare REITs to the broader markets. We can also look at price-to-earnings-to-growth (PEG) ratios, which are particularly helpful in comparing REITs with the broader markets. Moreover, the reciprocal of an earnings multiple—a REIT's FFO or CAD yield—can be compared to investment yields in other asset classes (primarily fixed income) in order to determine whether a REIT appears attractively priced. In theory, this earnings yield should be higher than that of investments with lower risk; nevertheless, a strong growth profile may justify a temporarily low earnings yield. In all cases, we believe earnings multiples and yields are more useful on a relative basis than on a stand-alone basis.

Price to FFO and price to CAD are earnings and cash-flow-driven multiples, respectively. These metrics approximately parallel price-to-EPS and price-to-cash-flow (EBITDA) multiples used to analyze other types of companies. The most widely recognized earnings metric for REITs, however, is FFO. FFO is reported by the vast majority of REITs—and accounts for the bulk of our estimates, and those tracked in FactSet. We also provide annual CAD estimates, which are more akin to free cash flow and which we utilize as the basis for our price targets. FFO and CAD are unique to the REIT sector and are described in more detail below.

Funds from Operations (FFO)

FFO is the most common metric used to assess REIT performance. It is defined as: GAAP net income, excluding gains (or losses) from debt restructuring and sales of properties, plus real estate-related depreciation and amortization and after adjustments for unconsolidated partnerships and joint ventures. FFO is essentially an operating EPS figure eliminating the impact of real estate depreciation, which is a major noncash charge and should therefore be added back.

Cash Available for Distribution (CAD)

We define CAD as follows: FFO – recurring capital expenditures and adjustments for straight-lining rents. In order to calculate CAD, we total expected non-revenue-generating maintenance capital expenditures, any straight-line rent adjustments (which account for the difference between GAAP and cash rents), and any non-cash items included in FFO (such as phantom interest recognized on convertible debt). Figure 48 outlines these calculations, using SPG as an example.

Figure 48: SPG CAD Calculation

\$ in millions except psf amounts	SPG (1)
Cash Available for Distribution Calculation	
Start with	
Funds from Operations	\$2,750.0
LessMaintenance Capex (B x C)	\$203.0
Maintenance capex psf (B) Estimated portfolio square footage (C)	\$1.60 127,164,038
LessTotal T.I. and L.C. expenditures (D x E)	\$73.1
Tenant improvements and leasing commissions psf (D) Assumed leasing activity (sq. ft.) (E)	\$19.52 3,734,990
LessTotal non-cash income and gains (F + G)	\$83.4
Straight-line rents (net of deferred financing costs) (F) Non-cash extraordinary one-time items (G)	\$56.6 \$26.8
Cash Available for Distribution	\$2,390.4

¹⁾ Based on Barclays Research 2012 estimates as of 6/18/12 Source: Barclays Research, company documents

On a spot basis, we favor forward P/CAD multiples.

Our favorite multiple is the forward CAD multiple, which represents how many dollars investors are willing to pay per dollar of a given REIT's next year of expected cash flow. While the multiple elides more complex factors such as longer-term growth, leverage, and operational risk, higher growth names tend to have higher multiples and riskier names tend to have lower multiples. In this way, we believe that a forward CAD multiple gives a reasonable back-of-the-envelope approximation of the relationships we seek to capture in our discounted cash flow analysis.

Why CAD?

We believe that our CAD estimates better reflect the economic reality of owning and operating real estate portfolios—and more importantly the cash flow available to equity holders—than does FFO. That said, the methodology for calculating FFO is standardized by NAREIT and followed consistently across different REITs, while CAD is a metric we calculate internally.

On a historical basis, we (reluctantly) favor trailing P/FFO multiples. Ideally, we would look at a historical series of forward P/CAD multiples in order to gauge current or implied valuation relative to a REIT's own historical valuation levels and those of its peers. However, there are several complications—the short history of publicly traded REITs, a lack of standardized historical CAD data, changes over time to REIT portfolios, and uncertainty as to which forward estimates were embedded in a stock price during a given period—that render this exercise less fruitful than it might seem in theory. Different analysts may end up with different values for CAD (also known as AFFO or FAD), presenting a challenge with respect to sorting out historical valuations. Data providers tend to favor CAD numbers published by the companies themselves, even though methodologies between those companies vary; moreover, the number of companies for which these CAD numbers are available is limited when compared with FFO. Because of the lack of robust, standardized CAD to use for historical multiples, we prefer, albeit somewhat reluctantly, to

look at historical FFO multiples. We must compromise further in using trailing FFO multiples rather than leading FFO multiples, largely to correct for forward-looking bias⁵.

Despite the complications and the lack of more robust data, we believe that historical multiples are quite useful for viewing larger valuation trends; indeed, Figure 49, which shows price to trailing 12-month FFO ratios for REITs for the past 15 years, outlines the general shape of REIT stock trading during that period. If an investor bought when this multiple was low and sold when it was high, that investor would be happy with his returns. It's not as simple for individual stocks, however, primarily because historical ranges are different for different companies, and as companies and their portfolios change, their own historical range may be less relevant than it was. We tend to focus on historical multiples more for macro sector calls than for individual company calls.

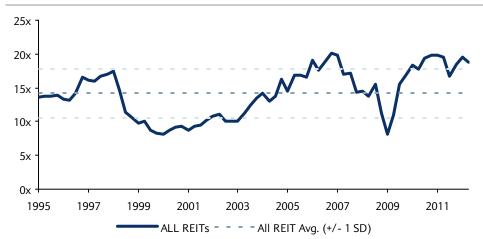


Figure 49: Historical Multiples – Price to Trailing 12-Month FFO

Source: Barclays Research, SNL Financial

Historically, FFO multiples have ranged from the high single digits to the high teens. Multiples reached all-time highs in early 2007 due to several factors, including investors pricing in the recovery in real estate fundamentals, a surge in REIT mergers and acquisitions, and an overall greater interest in REITs, which drove increased demand of this relatively small and illiquid sector. By February 2009, multiples had contracted 61% from those highs on fears of insolvency. After the group's rally in the second half of 2009, multiples have risen back to the higher end of the historic range. Figure 50 illustrates FFO multiples over time for the overall REIT sector and then for the four main property types.

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⁵ Although we prefer to look at current valuations on future cash flows, we generally analyze historical multiples based on trailing earnings. When looking at leading multiples in the present, it makes sense to use current earnings estimates. When looking historically, we have to make a choice about whether to use actual forward earnings (an expost analysis) or analyst estimates from each time period (ex-ante). An ex-ante analysis—using historical analyst estimates—would be more appropriate, as it offers a view of what expectations were actually in the market when stocks were trading at the levels we are measuring. If we choose to calculate multiples based on estimates, however, then we must determine when those estimates were issued. Because analysts publish new estimates routinely, many historical databases—which generally display final estimates for a period rather than average or weighted average—may not accurately reflect the actual earnings expectations that were priced into the stocks for each historical period. This can lead to a misleading view of valuation levels. As a result, we favor trailing 12-month multiples for historical multiple analysis. The caveat is that expected growth or declines in earnings will not be represented in the denominator of each multiple, but rather in the multiple level itself.

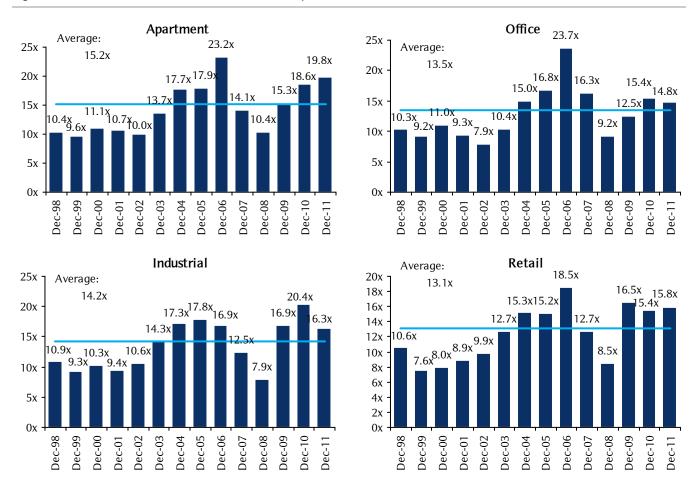
Source: Barclays Research

21.0x 18.0x 15.0x 12.0x P/FFO 9.0x6.0x3.0x0.0x1Q 2006 1Q 2008 1Q 2002 1Q 2003 1Q 2009 1999 1Q 2000 1Q 2001 1Q 2004 1Q 2005 1Q 2007 1Q 2010 1Q 2011 Q

Figure 50: REIT Historical Forward Multiples - Overall Average, 1999 - 2011

Source: Barclays Research

Figure 51: REIT Historical Sector P/FFO Forward Multiples, 1998-2011



Net Asset Value

NAV: measures book value, using market asset values...

Net asset value (NAV) is essentially an alternative calculation of balance sheet equity, or book value. The most significant adjustment is that instead of valuing real estate at cost minus depreciation as it is valued on the balance sheet, NAV values the real estate portion of the balance sheet based on the cash flows that this real estate generates and current expected market return on those real estate cash flows (capitalization rate, or the inverse of a multiple). By using NAV, we value a company's real estate based on the property yield demanded of similar real estate in private transaction markets and then put that value in the context of a REIT's capital structure. This allows for property-level comparability between REITs, which most metrics that are dependent on corporate-level cash flows do not provide. It also allows us to value non-operating assets, such as land, cash, and securities, which may not otherwise be captured in a cash-flow model.

...includes non-operating assets...

...but ignores franchise value.

However, the value of a company's assets does not take into account management's ability to create value. Because of this, when compared with a DCF, we find that NAV analysis misses some of the crucial factors that drive future growth and company-specific risk. In addition, finding an appropriate cap rate is more art than science, especially when sales are scarce and cap rate bid-ask spreads are wide, as was the case coming out of the recent downturn. We generally base our cap rates on reported cap rates from recent sales of comparable real estate, geographically weighted to match a REIT's portfolio concentration and taking into account the age and overall quality of the REIT's portfolio. Further limiting the potential applications of NAV, we do not view a historical time series NAV analysis as relevant, due to changing real estate fundamental assumptions and cap rates; nevertheless, we do view P/NAV levels as a good measure of relative value within the sector at a given point in time. Some go a step further and calculate a premium or discount to NAV that they feel would be appropriate or fair based on a variety of qualitative factors; we believe that this method can be problematic, given the difficulty in quantifying those factors.

Why use NAV? Because NAV 1) provides a generally reasonable value for equity; 2) discourages unsustainably high ROE on low ROA; and 3) reflects the value of non-operating assets.

Why use NAV? Despite its limitations, we believe that NAV analysis is indeed an important part of REIT valuation, which is why we use it in our revised price target methodology.

First, it offers a reasonable ballpark value for REIT equity, based on expected property-level cash flows for the next year and the REIT's existing capital structure.

Second, by measuring property yields at the asset level, NAV ensures that REIT cash flows are driven by reasonable property yields, rather than by management over-leveraging low property yields in order to drive high returns on equity (as many private market real estate players did in 2006 and 2007). This helps to ensure that the cash flows measured by our DCF analysis (discussed on page 65) are sustainable, and it discourages REITs from chasing assets with low ROA and levering them up for unsustainably high ROE.

Third, with an NAV analysis, we are able to place different multiples on different income streams. For example, we would use a different capitalization rate for an asset management fee stream than we would for an operating property.

We calculate our NAVs with the following methodology:

Step 1: Forecast forward 12-month NOI First, we calculate the net operating income (NOI) that we expect a company's owned real estate to generate over the next 12 months. In order to do this, we annualize the most recent quarter's NOI, adjusting for acquisitions, dispositions, and developments during the most recent quarter that would otherwise skew our annualized NOI number. Then we apply a forward growth rate that comes from the fundamental assumptions in our published

Step 2: Estimate a weighted average cap rate for the portfolio; value NOI using this

cap rate

Step 3: Substitute market value of real estate for property assets on the balance sheet earnings models. Where possible, we include NOI from unconsolidated joint ventures at the company's proportional share of ownership.

Then we divide our annualized forward NOI forecast by a capitalization rate in order to find a value for that real estate. This cap rate comes from a weighted average of each company's portfolio, using market-level transaction data and our estimate of relative portfolio quality within each geographic market.

Next, we plot out the balance sheet for each REIT, substituting our cap rate and NOI derived property valuation for the property assets on the balance sheet. We capitalize fee income at a separate cap rate from the weighted cap rate we use for property NOI. For development and land, we adjust balance sheet values based on expected returns. When we have included a company's share of unconsolidated joint venture NOI (and liabilities, as discussed in the next step), we remove the balance sheet account for unconsolidated joint ventures, because we will have estimated the value of it already through the NOI and cap rate method.

Step 4: Subtract liabilities from gross asset value, divide by number of diluted shares The equity remaining after subtracting out the value of all liabilities—including the company's proportional share of unconsolidated joint venture liabilities, when we have included unconsolidated joint venture NOI—is a given REIT's net asset value.

In Figure 52, we show the detailed NAV calculation for AVB as an example.

Figure 52: Example of a REIT NAV Calculation – AVB (\$ in thousands)

\$000				Current Value		
****	Assumed	Assumed	NOI	ourrent value		
	Nominal	Economic	before Int. Exp.			% of Gro
Capitalized Income	Cap Rate	Cap Rate (2)	after CapEx		\$ per share	Assets
NOI Contribution from (3):						
Apartment Properties	5.14%	5.01%	667,431	13,311,052	\$139.60	86%
Pro Rata JV Properties	5.14%	4.87%	13,390	274,947	\$2.88	2%
Third Party Mng't		12.0%	4,412	36,767	\$0.39	0%
Real Estate Operations				13,622,766	\$142.87	88%
		% of Carrying				
Balance Sheet Assets		Value (4)	B/S Value			
Development and Land						
Construction in Progress		110%	688,617	757,479	\$7.94	5%
Land Held For Future Development			297,127	297,127	\$3.12	2%
Total Development and Land			985,744	1,054,606	\$11.06	7%
Gross Real Estate Value				14,677,371	\$153.93	95%
Oross Near Estate Value				,0,7,,57.	4100.00	2270
Other Balance Sheet Assets						
Cash and Cash Equivalents			321,136	321,136	\$3.37	2%
Other Assets			382,469	382,469	\$4.01	2%
Investments in Uncons. JVs		0%	0	0	\$0.00	0%
Benefit of Tax-Exempt Debt (5)				97.128	\$1.02	1%
Other Balance Sheet Assets				800,733	\$8.40	5%
Gross Market Value of Assets				15,478,105	\$162,33	100%
GIOSS Market Value Of ASSEtS				15,476,105	\$102.33	100 /0
Balance Sheet Liabilities						
- 1.						
<u>Debt</u>						
				1,930,386	\$20.25	12%
Mortgage Debt				1,930,386 0	\$20.25 \$0.00	12% 0%
Mortgage Debt Line of Credit and Term Loan				0	\$0.00	
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit)				0 1,449,929		0%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit)				0	\$0.00 \$15.21	0% 9%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt				0 1,449,929 219,893	\$0.00 \$15.21 \$2.31	0% 9% 1%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt				0 1,449,929 219,893 3,600,208	\$0.00 \$15.21 \$2.31 \$37.76	0% 9% 1% 23%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities				0 1,449,929 219,893 3,600,208 463,277	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86	0% 9% 1% 23% 3%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity				0 1,449,929 219,893 3,600,208 463,277 4,063,485	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62	0% 9% 1% 23% 3% 26%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata IV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred				0 1,449,929 219,893 3,600,208 463,277 4,063,485	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62	0% 9% 1% 23% 3% 26%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units				0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred				0 1,449,929 219,893 3,600,208 463,277 4,063,485	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62	0% 9% 1% 23% 3% 26%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units Other Claims on Equity				0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units Other Claims on Equity Net Asset Value				0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197 7,197	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0% 0%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata IV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units Other Claims on Equity Net Asset Value Net Market Value of Assets				0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197 7,197	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units Other Claims on Equity Net Asset Value				0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197 7,197	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0% 0%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units Other Claims on Equity Net Asset Value Net Market Value of Assets Diluted Shares & Units Outstanding Current Value per share				0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197 7,197	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0% 0%
Mortgage Debt Line of Credit and Term Loan Unsec Debt (ex Line of Credit) Pro Rata JV Debt Total Debt Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units Other Claims on Equity Net Asset Value Net Market Value of Assets Diluted Shares & Units Outstanding Current Value per share Valuation Measures				0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197 7,197 11,407,423 95,349 \$119,64	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0% 0%
Other Liabilities Total Liabilities Other Claims on Equity Preferred Minority Interest, excl. OP units Other Claims on Equity Net Asset Value Net Market Value of Assets Diluted Shares & Units Outstanding			AVB	0 1,449,929 219,893 3,600,208 463,277 4,063,485 0 7,197 7,197	\$0.00 \$15.21 \$2.31 \$37.76 \$4.86 \$42.62 \$0.00 \$0.08	0% 9% 1% 23% 3% 26% 0% 0%

Valuation Measures		
Price Per Share	AVB	\$145.72
Price/Current Value		121.8%
Enterprise Value/Gross Market Value of Assets (6)		116.1%
Implied Cap Rates	Nominal	Economic
<u>Numerator</u>	<u>Total</u>	less CapEx
Forward 12-month NOI	698,863	680,822
<u>Denominator</u>		
Enterprise Value	17,964,911	17,964,911
Non-NOI-Producing Assets	1,892,106	1,892,106
EV for Operating Real Estate	16,072,806	16,072,806
Implied Cap Rate	4.35%	4.24%
NOI Yield to Total Debt	19.4%	18.9%
Price per Unit		
EV for Operating Real Estate		16,072,806
Operating Units		45,382
Price per Unit		\$354,169

⁽¹⁾ AVB's current value is based on 1Q12 balance sheet, and 1Q12 NOI annualized.
(2) Economic cap rate is used, as NOI includes a deduction for recurring capital expenditures.

Source: Barclays Research

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⁽³⁾ Deducts \$18.0 million in recurring capital expenditures from AVB's next 12 months estimated NOI.

(4) Unless otherwise specified, amount is 100% of carrying value.

(5) We multiply the tax-exempt debt outstanding (\$550.4 MM) by a 150 basis point subsidy and capitalize at 8.5%.

(6) Total enterprise value = market value of common equity plus total liabilities.

Dividend Yield

Dividend yield is another important relative value metric.

In addition to the earnings multiples described above, we use dividend yield as an analytical tool. Dividends remain an important component of REIT total returns (historically accounting for approximately two-thirds of the total), although in the past few years dividends have represented a smaller portion of overall returns. We look at dividend yields relative to other REITs, in addition to other income alternatives such as the 10-year Treasury bond. Since 1995, REIT dividend yields have averaged about 5.8%, versus 4.5% for the 10-year Treasury bond and 1.8% for the S&P 500. In addition, there is normally an inverse relationship between yield and earnings growth rates.

Figure 53: REIT Dividends versus S&P Dividends versus 10-Year Treasury Yield

				Differe	ntial					Differ	ential
Date	NAREIT Equity Yield	S&P 500 Dividend Yield	Ten-Year Treasury Yield	NAREIT - S&P	NAREIT - Treasury	Date	NAREIT Equity Yield [S&P 500 Dividend Yield	Ten-Year Treasury Yield	NAREIT - S&P	NAREIT - Treasury
Dec-95	7.37%	2.30%	5.57%	5.07%	1.80%	Mar-04	5.01%	1.58%	3.84%	3.43%	1.17%
Mar-96	7.35%	2.14%	6.32%	5.21%	1.03%	Jun-04	5.43%	1.65%	4.62%	3.78%	0.82%
Jun-96	7.28%	2.25%	6.71%	5.03%	0.57%	Sep-04	5.12%	1.70%	4.12%	3.42%	1.00%
Sep-96	7.03%	2.27%	6.70%	4.76%	0.33%	Dec-04	4.66%	1.91%	4.22%	2.75%	0.44%
Dec-96	6.05%	2.04%	6.46%	4.01%	(0.41%)	Mar-05	5.17%	2.03%	4.48%	3.14%	0.69%
Mar-97	6.12%	1.91%	6.91%	4.21%	(0.79%)	Jun-05	4.60%	2.06%	3.92%	2.54%	0.69%
Jun-97	6.06%	1.75%	6.50%	4.31%	(0.44%)	Sep-05	4.56%	2.03%	4.33%	2.53%	0.23%
Sep-97	5.45%	1.71%	5.97%	3.74%	(0.52%)	Dec-05	4.57%	1.79%	4.39%	2.78%	0.18%
Dec-97	5.48%	1.63%	5.68%	3.85%	(0.20%)	Mar-06	4.06%	1.77%	4.85%	2.29%	(0.79%)
Mar-98	5.55%	1.36%	5.66%	4.18%	(0.12%)	Jun-06	4.21%	1.85%	5.14%	2.36%	(0.93%)
Jun-98	6.13%	1.48%	5.43%	4.65%	0.70%	Sep-06	3.93%	1.81%	4.63%	2.12%	(0.70%)
Sep-98	6.88%	1.67%	4.46%	5.21%	2.42%	Dec-06	3.69%	1.79%	4.70%	1.90%	(1.01%)
Dec-98	7.47%	1.34%	4.64%	6.13%	2.83%	Mar-07	3.73%	1.82%	4.65%	1.91%	(0.92%)
Mar-99	7.96%	1.29%	5.51%	6.67%	2.44%	Jun-07	4.19%	1.78%	5.03%	2.41%	(0.84%)
Jun-99	7.34%	1.22%	5.81%	6.12%	1.53%	Sep-07	4.12%	1.82%	4.59%	2.30%	(0.47%)
Sep-99	8.27%	1.30%	5.89%	6.97%	2.39%	Dec-07	4.91%	2.01%	4.03%	2.90%	0.89%
Dec-99	8.70%	1.14%	6.44%	7.56%	2.26%	Mar-08	4.99%	2.35%	3.41%	2.64%	1.58%
Mar-00	8.30%	1.13%	6.01%	7.18%	2.29%	Jun-08	5.30%	2.38%	3.97%	2.92%	1.33%
Jun-00	7.61%	1.14%	6.02%	6.47%	1.59%	Sep-08	5.09%	2.45%	3.83%	2.64%	1.26%
Sep-00	7.45%	1.15%	5.80%	6.30%	1.65%	Dec-08	7.56%	3.16%	2.25%	4.40%	5.31%
Dec-00	7.52%	1.19%	5.11%	6.33%	2.41%	Mar-09	9.02%	3.57%	2.69%	5.45%	6.33%
Mar-01	7.48%	1.36%	4.91%	6.11%	2.57%	Jun-09	5.86%	3.54%	2.98%	2.33%	2.88%
Jun-01	6.84%	1.27%	5.41%	5.57%	1.43%	Sep-09	4.02%	2.38%	3.31%	1.64%	0.71%
Sep-01	7.43%	1.49%	4.58%	5.94%	2.85%	Dec-09	3.73%	2.11%	3.84%	1.62%	(0.11%)
Dec-01	7.14%	1.36%	5.05%	5.79%	2.09%	Mar-10	3.86%	1.85%	3.83%	2.01%	0.03%
Mar-02	6.44%	1.37%	5.40%	5.07%	1.04%	Jun-10	4.16%	2.12%	2.93%	2.04%	1.23%
Jun-02	6.21%	1.60%	4.81%	4.61%	1.40%	Sep-10	3.78%	1.97%	2.51%	1.81%	1.27%
Sep-02	7.01%	1.86%	3.61%	5.15%	3.40%	Dec-10	3.54%	1.87%	3.30%	1.67%	0.25%
Dec-02	7.05%	1.80%	3.82%	5.25%	3.23%	Mar-11	3.46%	1.82%	3.47%	1.64%	(0.01%)
Mar-03	7.21%	1.87%	3.82%	5.34%	3.39%	Jun-11	3.44%	1.92%	3.16%	1.52%	0.28%
Jun-03	6.42%	1.68%	3.53%	4.74%	2.89%	Sep-11	4.10%	2.30%	1.92%	1.80%	2.18%
Sep-03	5.99%	1.65%	3.94%	4.34%	2.05%	Dec-11	3.82%	2.12%	1.88%	1.70%	1.94%
Dec-03	5.52%	1.55%	4.26%	3.97%	1.26%						

Source: Bloomberg, NAREIT, Barclays Research

Due to the importance of the dividend as a portion of total return, the security of that dividend is tracked closely. A common way of monitoring the sustainability of the dividend is via the payout ratio (dividend/FFO per share or dividend/CAD per share). FFO and CAD payout ratios have declined over time as management focus has shifted from paying as high a dividend as possible to retaining as much income as possible to fuel growth, while still being able to maintain dividend growth. This is consistent with the shift from REITs as income vehicles to total-return vehicles. We view a CAD payout ratio of approximately 60%–85% as appropriate. A payout ratio above 90% may put the sustainability of the dividend into question. That said, a payout ratio over 100% may just represent a temporary shortfall due to nonrecurring events and, as such, may not be an accurate indicator of future coverage.

Absolute Metrics

Absolute metrics: a spot value on underlying assets.

Absolute valuation metrics measure REIT stock prices in relation to the actual assets held by those REITs, such as price per square foot versus replacement cost or an implied cap rate on a portfolio versus a weighted average nominal cap rate for similar properties. For example, if an office REIT is trading at an implied value of \$400 per square foot of its underlying portfolio, but the cost to build or buy a similar portfolio is closer to \$800 per square foot, then we would view that REIT as cheap on an absolute basis; indeed, we would say it is trading at 50% of replacement cost. Absolute metrics provide useful context vis-à-vis market capitalization and the value of the underlying assets. That said, these metrics generally include no value for management's value-creation ability, or for embedded earnings growth. Absolute metrics provide a spot rate on underlying assets, as opposed to measuring an equity holder's claim on future cash flows. The important caveat, though, is that absolute metrics such as the relationship to replacement cost are only useful in making investment decisions when the assets in question produce cash flow. Moreover, when transaction markets are as slow—with wide bid/ask spreads resulting from a lack of consensus and liquidity in the private asset markets—absolute metrics can be difficult to normalize. As with relative metrics, we generally look to absolute metrics for context on our price targets, although absolute metrics provide far less in terms of identifying trading opportunities.

Price per Sq. Ft./Unit

One way to look at the value of real estate is the price per square foot or unit of space, in the case of apartments. Simply put, a square foot of an office building in Midtown Manhattan should be worth more than a square foot of a warehouse outside of Kansas City, due to greater demand for the square foot in Manhattan from both tenants and potential investors. The square foot that can be expected to earn larger income or a larger sale price in the future should be worth more. The square foot can be expected to trade for the net present value of all future cash flows (including potential proceeds from the disposal of the square foot). However, the number alone gives little indication of any cash flow projections or discount rates that might be used to derive it as a net present value, especially for larger and more complex portfolios.

Compare price per square foot to the cost to replace the portfolio.

To calculate price per sq. ft., we divide a REIT's adjusted enterprise value (discussed above) by the number of square feet (or units) it owns. We generally compare the resulting number to an estimate of replacement cost—in other words what it would cost to build a new and somewhat equivalent building in comparable locations—and to the price per sq. ft. of assets that were recently sold in the REIT's markets. In an environment like the recent past, however, where there are few transactions and virtually no development being started, this comparison can be less helpful.

Because this is a fairly simplistic metric, which does not take into account factors like occupancy or leverage, we look at the numbers but do not use them to determine our price targets. When REITs sold off on insolvency concerns, we found it a useful metric as an absolute "reality check" for REIT pricing, but it tends to be less reliable when compared relatively across different companies. Figure 54 shows our estimates of price per sq. ft. (or unit) for the companies we cover.

Figure 54: Implied Price per Sq. Foot/Unit (as of 6/15/2012)

Company	Ticker	Price	Implied Price per unit/sf	Company	Ticker	Price	Implied Price per unit/sf	Company	Ticker	Price	Implied Price per unit/sf
Multi-Family				Industrial				Regional Malls			
Associated Estates Realty	AEC	\$15.34	\$91,977	DCT Industrial Trust Inc.	DCT	\$6.21	\$47	CBL & Associates Properties	CBL	\$18.64	\$221
Apartment Investment and Mgmt	AIV	\$27.39	\$123,755	EastGroup Properties Inc.	EGP	\$50.15	\$69	General Growth Properties	GGP	\$17.11	\$261
AvalonBay Communities, Inc.	AVB	\$140.63	\$343,475	First Industrial Realty Trust	FR	\$12.51	\$38	Glimcher Realty Trust	GRT	\$9.73	\$116
BRE Properties Inc.	BRE	\$49.21	\$228,016	Prologis	PLD	\$31.75	\$67	Macerich Co.	MAC	\$56.17	\$440
Colonial Properties Trust	CLP	\$22.06	\$107,821	Industrial Total / Weighted Average	ge		<i>\$63</i>	Pennsylvania REIT	PEI	\$13.94	\$143
Camden Property Trust	CPT	\$67.02	\$145,308					Simon Property Group Inc.	SPG	\$149.17	\$530
Equity Residential	EQR	\$61.93	\$234,635	Office				Taubman Centers Inc.	TCO	\$73.10	\$440
Essex Property Trust, Inc. ESS \$152.44 \$277,30		\$277,309	Alexandria Real Estate Equities, Inc.	ARE	\$70.15	\$437	Retail - Regional Malls Total /	Weighted A	verage	\$443	
Home Properties, Inc.	HME	\$60.52	\$147,193	Brandywine Realty Trust	BDN	\$11.59	\$151				
Mid-America Apartment	MAA	\$68.05	\$93,299	Brookfield Property Corp.	BPO	\$16.66	\$353	Shopping Centers			
Post Properties Inc.	PPS	\$48.39	\$162,794	Boston Properties Inc.	BXP	\$103.99	\$640	Acadia Realty Trust	AKR	\$22.83	\$233
UDR, Inc.	UDR	\$26.09	\$197,038	Mack-Cali Realty Corp.	CLI	\$27.63	\$146	DDR Corp.	DDR	\$13.91	\$145
Apartment Total / Weighted Aver	age		\$223,315	Douglas Emmett, Inc.	DEI	\$22.49	\$477	Equity One, Inc.	EQY	\$20.50	\$186
				Hudson Pacific Properties	HPP	\$16.43	\$278	Excel Trust	EXL	\$11.28	\$195
Student Housing				SL Green Realty Corp.	SLG	\$74.47	\$510	Federal Realty Investment	FRT	\$99.59	\$347
American Campus Communities	ACC	\$44.21	\$72,824	Vornado Realty Trust	VNO	\$81.76	\$473	Kimco Realty Corp.	KIM	\$18.63	\$170
Campus Crest Communities	CCG	\$11.17	\$37,251	Office Total / Weighted Average			\$477	Regency Centers Corp	REG	\$45.78	\$211
Education Realty Trust	EDR	\$10.82	\$54,152	Storage				Weingarten Realty Investors	WRI	\$25.25	\$200
Student Housing Total / Weighter	d Average		\$65,747	CubeSmart	CUBE	\$11.19	\$94	Retail - Shopping Center Total	/ Weighted	Average	\$213
				Extra Space Storage	EXR	\$29.19	\$118				
Technology				Public Storage Inc.	PSA	\$137.78	\$204				
DuPont Fabros Technology	DFT	\$26.34	\$1,266	Sovran Self Storage	SSS	\$50.18	\$84				
Digital Realty	DLR	\$74.04	\$710	Storage Total / Weighted Average	•		\$186				
Technology Total / Weighted Ave	rage		\$832								

Source: Barclays Research, FactSet

Implied Cap Rates

Another metric that became more of a focus during 2008 and 2009 is implied cap rates, which are an offshoot of NAV. An implied cap rate represents the cap rate that would result in an NAV equal to a REIT's current stock price, and we can compare this implied cap rate to our estimate of the private market cap rate for the portfolio. In order to derive implied cap rates, we divide our forward 12-month NOI estimate by the REIT's adjusted enterprise value (for this value, we use equity market cap plus debt minus non-real-estate assets⁶).

Implied cap rate spread to nominal cap rates: a discount or premium to NAV. The utility of implied cap rates is that we can find the property yield that the equity market implies a REIT's underlying portfolio is trading for. If implied cap rates are particularly high, they represent a stock buying opportunity, and if they are particularly low, they represent a stock selling opportunity. Similarly, we can compare implied cap rates to the nominal cap rates that we believe are prevalent in a given REIT's underlying property markets⁷. This comparison may yield insights related to corporate finance: an implied cap rate much lower than underlying nominal cap rates may indicate that a given REIT could accretively issue stock and purchase assets; an implied cap rate much higher than underlying nominal cap rates, on the other hand, may indicate that a given REIT could accretively sell assets in the property markets and repurchase stock with the proceeds.

In this way, an implied cap rate is a metric that we can observe on an absolute basis, although it can also have relative implications. For example, in Figure 55 we show our estimates of implied cap rates during 2009-12 for the various property sub-sectors as well as for REITs overall; clearly apartment REITs were trading at a much lower implied cap rate than the group overall.

⁶ The goal of this enterprise value is to isolate the market-implied value of NOI-producing assets. This way, when we divide NOI by the adjusted enterprise value, we aren't capitalizing assets that produce other income streams not included in NOI. In the event that our adjusted enterprise value is lower than the value of a REIT's debt, we divide NOI by the value of the debt.

⁷ A higher implied cap rate than our assumed portfolio-wide nominal cap rate would imply that a given REIT is trading at a discount to NAV. A lower implied cap rate than our assumed portfolio-wide nominal cap rate would similarly imply that a given REIT is trading at a premium to NAV. Leverage levels and the size and character of other assets and income streams can impact the magnitude of change in premium/discount to NAV that would result from an increase/decrease in a given REIT's implied cap rate.

11.5% 10.5% 9.5% 8.5% 7.5% 6.5% 5.5% 4.5% /30/10-02/29/12 08/31/09 0/31/09 12/31/09 02/28/10 04/30/10 04/30/12 12/31/08 02/28/09 60/08/90 08/31/10 0/31/10 12/31/11 04/30/09 12/31/10)2/28/11 06/30/11 08/31/11 0/31/11 04/30/11 Industrial Office Regional Malls -Shopping Centers **REITs Total** partments

Figure 55: Barclays Estimated Implied Cap Rates, 2009-2012

Note: Property sector averages and total are weighted averages of our individual company estimates each week. Please note that implied cap rates may change week to week due to updated estimates and share count changes from equity offerings. Source: Barclays Research

Discounted Cash Flow Analysis

DCF: Five years of forecasted cash flow, discounted at the estimated cost of equity While not a real estate specific analysis, the discounted cash flow model is the most robust of the metrics we use to value REITs: it combines detailed growth assumptions with risk discounting. In our discounted cash flow valuations, we forecast future cash flows for each REIT we cover based on our bottom-up fundamental assumptions—these assumptions and cash flows are available in our published earnings models—and then we make a judgment as to what those future cash flows are worth today based on a series of CAPM-derived discount rates. Where net asset value gives a forward 12-month look at the economics of a REIT's portfolio, a discounted cash flow gives a longer-term view of what we believe a given REIT can earn over the next several years.

We calculate our DCFs with the following methodology:

Step 1: Forecast cash flows

1.) Forecast five years of CAD (cash available for distribution to equity shareholders) using a detailed earnings model with assumptions regarding rental rates, occupancy, ancillary business lines, capital needs, development, redevelopment, acquisitions, and dispositions. Our models also include our expectations for changes to each REIT's capital structure.

Step 2: Estimate discount rates

2.) Calculate a CAPM discount rate by taking the risk-free rate of return (derived from the 10-year Treasury curve) and adding to it a unique risk premium for each REIT. To calculate these risk premiums, we multiply a risk premium for REITs overall by each REIT's five-year rolling beta to the rest of the sector. (As discussed below, we believe that beta is a worthwhile measurement of individual REIT performance when it is calculated in relation to the rest of the REIT sector, whereas we believe it is not meaningful when calculated in relation to the overall stock market.) We determine the overall sector premium by looking at the long-term average of the difference between REIT sector total returns and the risk-free rate over a series of rolling 10-year periods. Assuming that this long-term average represents the excess return investors demand to take on the risk of owning real estate equity, we then multiply that by a beta for each stock to approximate the risks specific to holding each particular REIT. In forecast years, we adjust the beta to reflect expected changes to each REIT's capital structure, so that a REIT that is deleveraging has a lower discount rate in future years and a REIT that is adding leverage has a higher discount rate in future years. This discount rate should approximate the REIT's cost of equity.

Figure 56: Example of a Discount Rate Calculation (EQR)

Discounted Cash Flow Analysis		2012			
	2012	2013	2014	2015	2016
Beta	Year 0	Year 1	Year 2	Year 3	Year 4
	11: 1 : 1				
Start with historical beta and leverage	<u>Historical</u>				
5-Year Beta	0.91 86.7%				
5-Year Avg (Debt+Pref) / Equity ratio	00.7%				
Divide beta by 1 + avg leverage for	0.40				
Unlevered Beta	0.49				
Use individual company unlevered betas to fin	•	red beta for the pi	roperty sector		
Sub-Sector Wtd Avg Unlevered Beta	0.51				
		<u>Forecast</u>			
Modeled (Debt+Pref) / Equity ratio		49.7%	40.9%	38.4%	25.0%
(Modeled leverage is based on current le	erage and our forwo	ard estimates of de	ebt and equity capi	tal raises.)	
Multiply sub-sector wtd avg unlevered beta by	1 + our forecasted c	ompany leverage	to relever the beta		
Relevered Beta		0.76	0.71	0.70	0.63
CAPM Cost of Equity					
Start with the risk-free rate					
10-Year Treasury [Rf]		2.43%	2.77%	3.09%	3.35%
and find the real estate risk premium					
RE Risk Premium		5.41%	5.41%	5.41%	5.41%
(Defined as the average historical spread	between 10-year an				2,0
Then multiply the real estate risk premium by	•			,	
Relevered Beta (as above)	ine relevered belu	0.76	0.71	0.70	0.63
		0.70	0.7 1	0.70	0.03
For the stock-specific risk premium		4.10%	3.86%	3.79%	3.42%
EQR Risk Premium [Re]		4.10%	3.00%	3./9 %	3.42%
Add the risk-free rate to the stock's risk premi	um for the cost of ea	uitv			
EQR Discount Rate [Rf+Re]	ann for the cost of equ	6.52%	6.63%	6.88%	6.77%
Source: Barclavs Research				212272	21 70

Source: Barclays Research

How we use beta to calculate discount rates – A short digression

Delevering and relevering

Because we believe that individual REIT betas in relation to overall REIT sector returns are meaningful (our reasoning is detailed in the next section), we think that betas are a useful means of reaching a series of future discount rates for each REIT. In order to apply a beta from past performance to future expected capital structures, we delever each REIT's fiveyear average beta by its five-year average debt (and preferred) to equity ratio. Then we compile a weighted average unlevered beta for each property sector; this weighted average should represent the relative risk investors perceive for each separate property type. We relever this property type average unlevered beta by our expectations of future capital structure for each REIT8, including equity and debt raises and paydown pro forma our expectations for acquisitions, dispositions, and development. Once we have this series of forecasted, relevered betas for each REIT, we multiply them by the sector-wide risk premium in order to determine a series of future risk premiums for each REIT, which we add to the current 10-year Treasury yield in order to determine our discount rates. This method generally conforms to the capital asset pricing model (CAPM), although it overlooks certain elements of property location and quality that can add or subtract risk. It also assumes that all cash flows are of equal quality, whereas we would use a different multiple within an NAV

⁸ For REITs, we assume a tax rate of 0% when delevering and relevering betas. For a non-REIT company such as CBG, we multiply debt by 1 minus the corporate tax rate in the leverage formula in order to reflect the tax shield of the debt.

analysis for asset management fees than we would for property-level cash flows. Because these elements are difficult to measure with a beta, we do not adjust our discount rates manually to reflect property location and quality, but we may in the future.

Figure 57: Property Sector Betas vs. the RMZ (Trailing Five Years)

	Trailing Five-Year Beta	R-squared of Five-
Property Sector	vs. RMZ	Year Beta
Apartments	0.96	74.6%
Office	1.10	78.9%
Industrial	1.41	81.0%
Shopping Center	1.18	81.7%
Regional Mall	1.29	76.9%
Total	1.37	69.6%

Source: Bloomberg, Barclays Research

Why we use beta

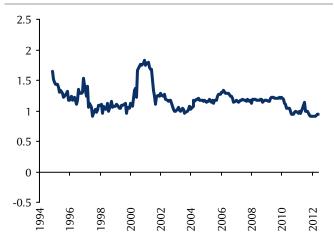
Use beta versus REITs, not versus the S&P 500 Betas can change quite a bit over time when we measure the beta of a REIT to a broader market index such as the S&P 500. In our view, a REIT's beta relative to the overall stock market offers more noise than signal: it is an unstable relationship determined by the trading technicals and relative sentiment among sectors, which tells us very little about future REIT returns. In contrast, when we measure individual REIT beta relative to the overall REIT sector, each REIT generally tends to have a persistent relationship to the sector. REIT betas to the sector are steady, and they explain a significant portion of REIT returns, with R-squareds in the 60%–80% range for most REITs. Because we already measure the risk premium for REITs versus the risk-free rate with our sector-wide risk premium calculation (discussed above), we believe it is more appropriate to use beta relative to the REIT sector (RMZ). In our view, the beta should measure how much of that sector-wide risk premium we should apply to each individual REIT within the sector.

For example, Figure 58 shows a rolling one-year beta to the S&P 500 for SPG since its 1993 IPO: the beta varies dramatically over time, ranging from below 0 to 2. Figure 59, on the other hand, shows that SPG's rolling one-year beta to the REIT sector has been fairly stable since its IPO, even as the sector rose and fell from 2004 to 2008. Clearly the relationship between SPG and REITs is somewhat stable, whereas the variation in SPG's beta to the S&P 500 is primarily attributable to the REIT sector's relationship to the broader index, rather than to SPG specifically.

Figure 58: SPG Rolling One-Year Beta (to the S&P 500)



Figure 59: SPG Rolling One-Year Beta (to the RMZ)



Source: Barclays Research, Bloomberg

Step 3: Discount cash flows

Source: Barclays Research, Bloomberg

3.) Discount the five years of cash flow by the calculated discount rates in order to determine a present value.

Figure 60: Example of Five Years of Discounted Cash Flow, \$ per share (EQR)

	2012	2013	2014	2015	2016						
Present Value of Cash Flows	Year 0	Year 1	Year 2	Year 3	Year 4						
Expected EQR Cash Flows	\$0.44	\$2.52	\$2.74	\$2.97	\$3.20						
Determine each year's discount factor based or	Determine each year's discount factor based on the appropriate discount rates (ie: $1 / [(1 + r1) * (1 + r2)]$ for year 2)										
Discount Factor	1.00	0.94	0.88	0.82	0.77						
Discounted Cash Flows	\$0.44	\$2.37	\$2.41	\$2.44	\$2.47						

Sum of cash flows Source: Barclays Research \$10.13

Step 4: Calculate terminal value based on discount rate and sustainable growth rate estimate 4.) Calculate a terminal value for the REIT at year five. We calculate the terminal value by growing the year-four CAD estimate by a sustainable growth rate, and then dividing that implied final-year CAD estimate by the discount rate minus a sustainable growth rate, essentially a forward or terminal value capitalization rate. The sustainable growth rate is a REIT's return on equity (approximated by CAD divided by NAV) multiplied by its CAD reinvestment rate (one minus the dividend payout); if this is less than expected long-term inflation (we currently use 2.50%), then expected long-term inflation is substituted for the lower calculated rate. Generally sustainable growth rates are not exceedingly higher than the long-term inflation expectation. Once we have that value, we discount it back to the present using the discount rate.

Figure 61: Example of Sustainable Growth Calculation, \$ per share (EQR)

Long-Term Growth Rate	
Current-Year Fwd CAD Est.	\$2.20
NAV	\$56.24
CAD / NAV approximates the Cash ROE	3.91%
Multiply cash ROE by the modeled forward average CAD retention rate 5-Year Fwd Avg Est. CAD Retention Rate	22.15%
to find the Sustainable Growth Rate	0.87%
Compare the sustainable growth rate to our expected long-term inflation level. Expected Inflation	2.50%
If the sustainable growth rate is lower than inflation, or if it is extremely high, use the inflation number for long-term growth	
Calculated Long-Term Growth (g)	2.50%

Source: Barclays Research

Figure 62: Example of a Terminal Value Calculation, \$ per share (EQR)

Terminal Value	
Start with the Year 4 CAD Est. 2016 CAD Est.	\$3.20
Multiply by 1 + the calculated long-term growth rate for the Terminal-Year CAD Est.	\$3.28
Then find the terminal value cap ratedefined as the difference between the terminal discount rate and the calculated long-term growth rate	
Discount Rate (k)	6.77%
Calculated Long-Term Growth (g)	2.50%
Terminal Value Cap Rate (k - g)	4.27%
Divide the final year est. CAD by the terminal value cap rate (k - g)	
Terminal Value at Year 4	\$76.82

Source: Barclays Research

Step 5: Add PV of cash flows to PV of terminal value

5.) Add the present value of the next five years of cash flows to the present value of the terminal value. This is the DCF.

Figure 63: Example of DCF, \$ per share (EQR)

Sum of cash flows	\$10.13
Terminal value	\$59.26
DCF Value	\$69.39

Source: Barclays Research

Because of its synthesis of growth expectations and risk to those growth expectations, we view the DCF as the centerpiece of our valuation methodology.

Price Target Methodology

Our price target methodology combines the results of three of the valuation metrics: 1) a DCF analysis⁹, 2) NAV, and 3) an investor sentiment metric based on a regression of a stock's price performance versus the sector and a forecast of sector performance.

DCF: a deeper and longer term look at fundamentals than a multiples analysis or NAV. We picked these three metrics to drive our price targets because we believe that, when combined, they help to approximate fair value for the REITs we cover, overlaid with a sentiment component. The DCF analysis offers a deeper and longer-term look at fundamentals than does a multiples analysis or NAV, and it allows us to make earnings forecasts and then discount those forecasts based on our view of their probability of occurring. For a higher risk name, for example, we may believe that the most likely outcome is rapid growth, but these growth numbers may skew a forward earnings multiple or PEG ratio without an appropriate discount rate.

NAV: rooted in comparable property trades.

Conversely, for blue chip names with a lower cost of capital and relatively steady and predictable earnings growth, a lower discount rate would be appropriate. NAV gives us a view of comparable property trades in the private markets and outlines the implications of those trades for REIT valuations, factoring in capital structure. Finally, the performance regression method gives us the ability to make a macro forecast for the sector, based on our view of the broader markets, and have that forecast filter through to the individual stock performance that would likely result if our forecast is realized; the individual stock expectations are driven by investor sentiment as measured via stock betas.

Sentiment: drives over/ under performance

In order to triangulate a unified price target and investment recommendation for each company we cover, we place a series of weightings on the three methods. To be consistent, at any given time we expect to use the same weighting methodology for each stock we cover—except those companies, such as CBG, for which an NAV analysis would not be relevant. That said, any price target methodology must be flexible. Over time, the market will change, and we expect to revise our weightings from time to time as the investment climate shifts.

Weightings allow for flexibility.

In addition, we continue to calculate the CAD multiples and cap rates that are implied by our target prices. These represent additional context on our price targets, given that the targets are primarily driven by iterative quantitative processes. If an implied CAD multiple or implied cap rate looks funny in relation to similar companies, that may be an indication either that our fundamental assumptions or metric weightings are not appropriate or that there is a buying or selling opportunity for that stock.

Figure 64 details our price target calculations for each of the companies we cover.

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⁹ In light of the industry's evolution, we do not believe that a simple dividend discount model is appropriate for REIT valuation. Notwithstanding the IRS requirement that REITs pay out 90% of taxable income (which does not coincide with FFO or CAD), dividend payout is a flexible lever that management can use to return capital to shareholders in some investment climates and conserve capital in others. This was evident in 2009, when investors welcomed dividend reductions that preserved REIT capital. We believe that forecasting dividends adds an unnecessary and errorprone step to the valuation process; cash flow available to equity holders is sufficient, in our view, to value equity shares. Therefore, much of our valuation work focuses on property operations; we start with operating cash flow for each REIT we cover and then forecast internal and external growth based on our view of capital and real estate market conditions, portfolio positioning, and management's core competencies. These growth forecasts drive our five-year cash-flow models, our net asset valuations, and indeed our five-year dividend estimates.

Figure 64: Barclays Price Target Methodology (as of 7/12/2012)

Sector Rating: 2-Neutral						Weightin	gs	DCF							NAV			Sentime	nt Regressi	ion	Price Target / Expected Return					Valuation Cont		
									A vs. Cu	rrent Price	DCE	Five-Year	Implied		NAV:	Implied Nominal Cap Rate		Trailing Five-Year	R- squared of the		Weighted			Expected	PT	<u>Lultiples</u>	Implied PT Implied	Curi
							(C)				Discount	CAD	Current		Nominal	Current	(C)	Beta vs.	Year	month RMZ	Price		Dividenc		2012 CAD	2012 CAD	Nominal	l No
ompany		Ticker		Price 7/12/2012	(A) DCF	(B) NAV	Regression	(A) DCF	\$	%	Rate (1)	CAGR	Price	(B) NAV	Cap Rate	Price	Regression	RMZ (2)	Beta	target of 875	Target	Appreciation	Yield	Return	Multiple	Multiple	Cap Rate	Car
ESIDENTIAL				//12/2012																								
partments																												
Apartment Investment and Mgmt			3-UW	\$27.53	70%	10%	20%	\$24.80	(\$2.73)	(9.9%)	9.5%	14.0%	8.3%	\$31.19	6.4%	6.8%	\$26.06	1.21	74.0%	(5.3%)	\$26	(5.6%)	2.6%	(2.9%)	21.8x	23.0x	7.0%	6
AvalonBay Communities, Inc.			2-EW	\$146.30	70%	10%	20%	\$156.77	\$10.47	7.2%	6.9%	11.8%	7.0%	\$119.64	5.1%	4.3%	\$144.24	0.93	80.0%	(1.4%)	\$151	3.2%	2.7%	5.9%	29.4x	28.5x	4.2%	4
Camden Property Trust			1-OW	\$69.55	70%	10%	20%	\$79.60	\$10.05	14.5%	7.1%	11.0%	7.5%	\$66.52	5.9%	5.7%	\$66.87	1.10	81.0%	(3.9%)	\$76	9.3%	3.2%	12.5%	27.5x	25.1x	5.3%	
Colonial Properties Trust Equity Residential			3-UW 1-OW	\$23.14 \$63.64	70% 70%	10% 10%	20% 20%	\$22.32 \$69.39	(\$0.82) \$5.75	(3.5%) 9.0%	8.4% 6.8%	7.5% 10.4%	7.7% 6.9%	\$24.28 \$56.24	7.0% 5.4%	7.2% 5.0%	\$22.09 \$61.86	1.18 0.91	62.5% 73.5%	(4.6%) (2.8%)	\$22 \$67	(4.9%) 5.3%	3.1% 2.1%	(1.8%) 7.4%	21.3x	22.4x 29.0x	7.4% 4.8%	
Ssex Property Trust, Inc.			1-OW	\$157.34	70%	10%	20%	\$177.69	\$20.35	12 9%	7.3%	12.8%	7 5%	\$129.49	5.4%	4.6%	\$156.34	0.91	70.8%	(0.6%)	\$169	7.4%	2.1%	10.2%	30.5x 28.1x	26.1x	4.6%	
Home Properties, Inc.			2-EW	\$63.71	70%	10%	20%	\$68.89	\$5.18	8.1%	8.4%	8.1%	8.5%	\$69.94	6.2%	6.6%	\$60.51	0.96	75.4%	(5.0%)	\$67	5.2%	4.1%	9.3%	20.0x	19.0x	6.4%	
Post Properties Inc.		PPS	2-EW	\$50.78	70%	10%	20%	\$53.13	\$2.35	4.6%	7.1%	11.1%	7.1%	\$55.45	5.4%	5.8%	\$47.15	0.90	55.9%	(7.1%)	\$52	2.4%	2.0%	4.4%	26.4x	25.8x	5.7%	
JDR, Inc.		UDR	2-EW	\$26.09	70%	10%	20%	\$28.99	\$2.90	11.1%	7.7%	8.3%	7.9%	\$24.27	5.6%	5.3%	\$26.26	1.00	76.1%	0.7%	\$28	7.3%	3.4%	10.7%	24.3x	22.6x	5.1%	
Apartment Weighted Average					70.0%	10.0%	20.0%			7.8%	7.3%	10.8%	7.4%		5.6%	5.2%		0.96	74.6%	(2.6%)		4.4%	2.7%	7.1%	27.5x	26.3x	5.1%	5
COMMERCIAL																												
Office																												
Alexandria Real Estate Equities			1-OW	\$72.17	70%	10%	20%	\$92.55	\$20.38	28.2%	8.1%	7.5%	9.1%	\$67.37	6.7%	6.4%	\$73.56	1.02	69.2%	1.9%	\$86	19.2%	2.8%	22.0%	23.2x	19.5x	5.5%	- 6
Boston Properties Inc.			1-OW	\$108.90	70%	10%	20%	\$118.12	\$9.22	8.5%	7.4%	13.0%	7.4%	\$91.62	5.5%	4.7%	\$104.57	0.98	86.4%	(4.0%)	\$113	3.8%	2.0%	5.8%	32.4x	31.3x	4.5%	
Brandywine Realty Trust Brookfield Office Properties			3-UW 2-EW	\$12.02 \$17.13	70% 70%	10% 10%	20% 20%	\$10.06 \$17.69	(\$1.96) \$0.56	(16.3%)	10.3% 9.5%	8.4% 13.6%	8.4% 9.1%	\$11.65 \$21.15	7.6% 6.2%	7.5% 6.9%	\$11.55 \$17.98	1.15 1.07	64.1% 65.4%	(3.9%) 5.0%	\$11 \$18	(8.5%) 5.1%	5.0% 3.3%	(3.5%) 8.3%	16.0x 20.8x	17.5x 19.8x	7.7% 6.7%	- 1
Douglas Emmett			2-EW	\$23.54	70%	10%	20%	\$21.91	(\$1.63)	(6.9%)	8.6%	6.2%	7.7%	\$16.68	6.6%	5.4%	\$17.98	1.07	74.4%	(3.3%)	\$22	(6.5%)	2.5%	(4.0%)	21.2x	22.7x	5.6%	
Hudson Pacific Properties			1-OW	\$17.27	70%	10%	20%	\$18.55	\$1.28	7.4%	8.9%	8.7%	8.8%	\$16.42	6.8%	6.6%	\$15.37	1.05	29.2%	(11.0%)	\$18	4.2%	2.9%	7.1%	29.9x	28.7x	5.6%	
Mack Cali Realty Corp.			2-EW	\$28.84	70%	10%	20%	\$30.23	\$1.39	4.8%	8.5%	(1.3%)	8.3%	\$33.41	7.6%	8.3%	\$28.40	1.02	81.1%	(1.5%)	\$30	4.0%	6.2%	10.3%	16.1x	15.5x	7.9%	
SL Green Realty Corp.			2-EW	\$78.55	70%	10%	20%	\$74.16	(\$4.39)	(5.6%)	8.3%	15.2%	7.6%	\$81.72	5.8%	5.7%	\$75.74	1.65	71.0%	(3.6%)	\$75	(4.5%)	1.3%	(3.2%)	27.9x	29.3x	5.7%	
/ornado Realty Trust		VNO	1-OW	\$84.29	70%	10%	20%	\$86.96	\$2.67	3.2%	7.9%	1.3%	7.8%	\$75.27	5.8%	5.4%	\$83.28	1.06	88.9%	(1.2%)	\$85	0.8%	3.3%	4.1%	33.9x	33.6x	5.3%	
Office Weighted Average					70.0%	10.0%	20.0%			4.5%	8.2%	8.7%	8.0%		6.0%	5.7%		1.10	78.9%	(1.4%)		2.5%	2.8%	5.3%	28.2x	27.6x	5.5%	5
ndustrial																												
Duke Realty Corp.			2-EW	\$14.36	70%	10%	20%	\$14.03	(\$0.33)	(2.3%)	10.2%	7.8%	9.4%	\$14.12	7.7%	7.6%	\$14.41	1.46	74.6%	0.3%	\$14	(2.5%)	4.7%	2.2%	15.8x	16.2x	7.7%	7
Prologis Industrial Weighted Average		PLD	1-OW	\$32.48	70% 70.0%	10% 10.0%	20% 20.0%	\$45.04	\$12.56	38.7% 29.5%	7.6% 8.2%	12.5% 11.5%	9.1% 9.2%	\$33.74	6.7% 6.9%	6.8% 7.0%	\$34.57	1.39 1.41	82.9% 81.0%	6.4% 5.1%	\$42	29.3% 22.2%	3.4% 3.7%	32.8% 25.9%	30.2x 26.9x	23.3x 21.7x	6.6% 6.8%	7
					70.0%	10.0%	20.078			23.370	0.270	11.5%	3.2 /0		0.370	7.0%		7.47	81.0%	3.176		22,270	3.770	23.370	20.34	21./1	0.070	,
RETAIL																												
Shopping Centers Equity One. Inc.		EOY	3-UW	\$21.49	70%	10%	20%	\$18.55	(\$2.94)	(13.7%)	9.3%	10.0%	8.0%	\$15.94	7.0%	5.7%	\$20.18	0.99	72.5%	(6.1%)	\$19	(11.6%)	4.1%	(7.5%)	22.6x	25.6x	6.2%	5
Excel Trust			2-EW	\$12.08	70%	10%	20%	\$13.52	\$1.44	11.9%	9.3%	6.1%	9.3%	\$14.19	7.2%	7.9%	\$11.72	0.93	10.6%	(3.0%)	\$13	7.6%	5.4%	13.0%	16.7x	15.5x	7.6%	
Gmco Realty Corp.		KIM	1-OW	\$19.11	70%	10%	20%	\$20.94	\$1.83	9.6%	8.8%	6.2%	8.9%	\$17.51	6.9%	6.6%	\$18.69	1.30	86.3%	(2.2%)	\$20	4.7%	4.0%	8.6%	19.3x	18.5x	6.6%	6
Regency Centers Corp.		REG	2-EW	\$47.34	70%	10%	20%	\$44.25	(\$3.09)	(6.5%)	8.8%	6.0%	7.3%	\$44.49	6.8%	6.5%	\$43.53	1.08	84.1%	(8.0%)	\$44	(7.1%)	3.9%	(3.1%)	23.2x	25.0x	7.2%	6
Shopping Center Weighted Average					70.0%	10.0%	20.0%			1.7%	8.9%	6.7%	8.3%		6.9%	6.5%		1.18	81.7%	(4.4%)		(0.9%)	4.0%	3.1%	20.8x	21.3x	6.7%	6
Regional Malls																												
CBL & Associates			2-EW	\$19.58	70%	10%	20%	\$19.90	\$0.32	1.6%	11.3%	4.9%	11.5%	\$24.11	7.4%	8.1%	\$18.49	1.66	65.1%	(5.5%)	\$20	2.1%	4.5%	6.6%	12.7x	12.4x	7.7%	8
General Growth Properties			2-EW	\$17.96 \$58.58	70% 70%	10%	20%	\$16.74	(\$1.22)	(6.8%)	9.1%	6.5% 8.9%	8.2%	\$14.88 \$50.08	6.1%	5.5%	\$17.19 \$59.10	1.61	41.9% 68.3%	(4.3%)	\$17	(5.3%)	2.2%	(3.1%)	23.4x	24.7x	5.7%	5
Macerich Company Pennsylvania REIT			2-EW 2-EW	\$58.58 \$15.37	70%	10%	20%	\$52.90 \$13.89	(\$5.68) (\$1.48)	(9.7%)	9.2%	(1.8%)	8.3% 9.2%	\$50.08	7.6%	5.6% 9.0%	\$59.10 \$15.03	1.61	63.2%	(2.2%)	\$54 \$15	(7.8%)	4.2%	(4.1%) 1.8%	20.5x 12.5x	22.2x 12.8x	5.9% 9.2%	5
Simon Property Group			1-OW	\$156.92	70%	10%	20%	\$166.92	\$10.00	6.4%	8.0%	6.7%	8.0%	\$118.73	6.0%	5.0%	\$149.37	1.12	89.4%	(4.8%)	\$159	1.3%	2.5%	3.9%	24.1x	23.8x	4.6%	5
Regional Mall Weighted Average				***************************************	70.0%	10.0%	20.0%	4.00.02		1.9%	8.5%	6.7%	8.2%	4110110	6.1%	5.3%	4110101	1.29	76.7%	(4.2%)	4144	(0.8%)	2.7%	1.9%	22.9x	23.1x	5.1%	
OTHER SECTORS																												
Real Estate Services																												
CBRE Group, Inc. (3)		CBG	1-OW	\$15.41	75%	0%	25%	\$23.11	\$7.70	50.0%	12.9%	16.7%	16.1%	NA	NA	NA	\$18.18	2.30	44.8%	18.0%	\$22	42.8%	0.0%	42.8%	17.2x	12.0x	NA	
ones Lang Lasalle, Inc. (3)		JLL	1-OW	\$69.06	75%	0%	25%	\$99.86	\$30.80	44.6%	11.7%	13.9%	14.4%	NA	NA	NA	\$79.64	1.66	52.0%	15.3%	\$95	37.6%	0.6%	38.1%	16.3x	11.8x	NA	
Real Estate Services Weighted Aver	age .				75.0%	0.0%	25.0%			47.9%	12.4%	15.6%	15.4%		NA	NA.		2.05	47.5%	17.0%		40.8%	0.2%	41.0%	16.9x	12.0x	NA	
Fechnology																												
Digital Realty Trust, Inc.		DLR	1-OW	\$77.59	70%	10%	20%	\$80.12	\$2.53	3.3%	8.9%	12.7%	9.0%	\$59.03	7.0%	5.8%	\$73.22	1.25	37.8%	(5.6%)	\$80	3.1%	3.8%	6.9%	23.3x	22.6x	5.7%	5
OuPont Fabros Technology		DFT	1-OW	\$27.96	70%	10%	20%	\$30.69	\$2.73	9.8%	8.4%	10.7%	8.4%	\$26.10	7.5%	7.1%	\$23.85	1.19	20.1%	(14.7%)	\$29	3.7%	2.1%	5.9%	25.8x	24.8x	7.0%	7
Technology Weighted Average					70.0%	10.0%	20.0%			4.7%	8.8%	12.3%	8.9%		7.1%	6.1%		1.24	33.9%	(7.6%)		3.2%	3.4%	6.6%	23.9x	23.1x	6.0%	-
ommercial Mortgage																												
Apollo Commercial RE Finance(3)			2-EW	\$16.64	70%	10%	20%	\$15.76	(\$0.88)	(5.3%)	10.9%	3.5%	12.0%	\$16.46	NA	NA	\$15.73	1.34	29.4%	(5.5%)	\$16	(3.8%)	9.6%	5.8%	9.2x	9.6x	NA	
CreXus Investment Corp. (3)			2-EW	\$10.18	70%	10%	20%	\$10.64	\$0.46	4.5%	12.5%	1.3%	12.2%	\$12.10	NA	NA	\$10.34	1.19	16.8%	1.5%	\$11	8.1%	10.6%	18.7%	12.6x	11.7x	NA	
lewcastle Investment Corp. (3)		NCT	1-OW	\$7.10	70%	10%	20%	\$8.33	\$1.23	17.3%	14.0% 12.0%	(3.1%) 2.0%	10.5%	\$9.41	NA NA	NA.	\$6.81	1.19 1.24	17.3% 20.6%	(4.1%)	\$8	12.7% 4.4%	11.3%	23.9%	9.9x	8.8x	NA NA	
Commercial Mortgage Weighted Av	erage				70.0%	10.0%	20.0%			1.5%	12.0%	2.0%	12.1%		NA	NA.		1.24	20.6%	(0.6%)		4.4%	10.3%	14.7%	11.6x	11.0x	NA	
Other	Student Housing																											
ampus Crest Communities, Inc.	Net Lease		2-EW 2-EW	\$10.38 \$8.97	70% 70%	10% 10%	20%	\$14.04 \$10.66	\$3.66 \$1.69	35.3% 18.8%	9.8% 11.1%	8.6% 6.6%	11.4% 13.1%	\$13.04 \$9.95	7.0%	8.1% 8.1%	\$11.35 \$8.76	1.37	38.4% 69.6%	9.4%	\$13 \$10	25.2% 11.5%	6.2% 5.6%	31.4% 17.1%	17.4x 13.7x	13.9x 12.3x	7.7%	
exington Realty Trust Public Storage Inc.	Storage		1-OW	\$8.97 \$144.81	70%	10%	20%	\$10.66	\$6.93	4.8%	6.9%	4.5%	6.8%	\$9.95	7.8%	4.5%	\$139.25	0.76	77.1%	(2.3%)	\$10	(1.9%)	3.0%	1.1%	13.7x 23.2x	12.3x 23.7x	4.5%	
Vinthrop Realty Trust	Diversified		2-EW	\$12.32	70%	10%	20%	\$11.07	(\$1.25)	(10.1%)	14.2%	6.6%	11.4%	\$10.29	8.0%	6.4%	\$139.23	1.37	38.4%	(3.8%)	\$142	(10.7%)	5.3%	(5.4%)	11.1x	12.5x	4.5% NA	
					70.0%	10.0%	20.0%	2.1.07	(42)	5.9%	7.3%	4.7%	7.4%	2.0.23	7.4%	4.8%	4.0.71	0.81	75.6%	(3.7%)		(0.8%)	3.3%		22.3x	22.6x	4.7%	
Other Sector Weighted Average																								2.5%				

Notes: (1) We use CAPM-derived discount rates in our discounted cash flow model. The discount rate displayed refers to the IRR of the cash flows when assuming an NPV of 0 for a one-time investment of the DCF value 12 months in the future. Similarly, the Implied IRR from Current Price represents the IRR for a one-time investment today made at the current stock price. (2) For most companies, refers to the trailing 5-year beta to the RMZ. For CBG, we find a beta to the S&P 500 to have a better R-squared. For ARI and FUR, which have limited trading histories, we use betas from comparable companies. (3) CBG, ARI, and JLL estimates represent Adj. EPS, not FFO nor CAD. Stock rating: 1-OW = 1-Overweight; 2-EW= 2-Equal Weight; 3-UM = 3-Underweight

Source: Barclays Research estimates; FactSet; SNL Financial

17 July 2012

Qualitative Considerations

Underlying portfolio performance drives earnings

Equity REIT revenues are derived primarily from rental income. Revenue growth is driven internally primarily via occupancy growth, rent increases upon lease rollover, percentage rent participation (retail), scheduled rent bumps, property refurbishments, and sale and reinvestment (capital recycling). The structure of leases is critical, as much of a company's revenue growth may be dictated by the rent bumps stipulated in its leases (especially true for net lease companies), or by the percentage rent agreements for retail companies. External growth is driven by acquisitions, development, and expansion.

Location

Location is paramount in determining a REIT's future performance

Location is obviously a key factor in determining rental rates and rental rate increases. Central Business District (CBD) office properties generally command a higher rent than suburban office; proximity to public transportation or other amenities can increase pricing power for a landlord. Retail properties that are well-positioned with respect to major traffic arteries or population centers or other synergistic retailers will generally command higher rents. Rental rates for other property types are also heavily influenced by similar factors. Furthermore, a REIT's overall portfolio may benefit from either its geographic concentration or diversification, depending on market conditions. For example, over the past several years, those REITs with a high concentration of office properties in Washington D.C. have benefited disproportionately compared to geographically diversified office REITs, as that market has held up better in the recent economic downturn than the average market in the United States.

Portfolio Quality

The quality of a REIT's portfolio is also key

Portfolio quality (both buildings and tenants) also matters. When analyzing a REIT's earnings growth opportunities, it is important to assess the quality and condition of its real estate assets to assess the magnitude of rents the properties will be able to garner, and what types of capital expenditures (upkeep and remodeling) will be required in the future. Moreover, higher-quality tenants provide a more reliable income stream; a common metric observed is percentage of average base rent represented by investment-grade tenants.

Characteristics of Local Markets (Demographics)

Characteristics of local markets (demographics) are important. Property-level performance will also be influenced by the demographics of the local market, including age levels, household formations, wage levels, etc. Changing demographics can point to opportunities or challenges for a REIT and aid in evaluating earnings potential.

Lease Terms

Lease terms also play a role in determining earnings growth. Many leases have stipulated rent increases that play a large part in rental growth. In addition, the length of leases and the timing of the expiration (rollover) of those leases are critical, as leases may expire during times of low rental rates or high rental rates, based on the stage of the real estate cycle. The amount of leasing volume will determine overall occupancies and, as such, is paramount to a REIT's success.

All of these factors combined determine the level and growth of property-level revenues, which, combined with property operating expenses, determine SSNOI, the key metric for property-level performance. Property-level expenses include real estate taxes, utilities,

insurance, property management expenses, and recurring capital expenditures (carpeting, blinds, etc.). Expenses for a REIT include general and administrative costs (similar to that of other companies) and interest expense, which can be quite large as properties are financed with debt (overall REIT leverage currently averages about 34% and has historically ranged between 40% and 50% debt to total market cap). Controlling these varied expenses is essential as a REIT's existing income stream is largely fixed (dictated by its leases).

Earnings growth is a critical element in valuing a REIT. Rent growth, coupled with moderate expense increases, should lead to positive earnings growth. Management savvy will have an impact on the level and acceleration of this growth, which should be reflected in valuation multiples (P/CAD, P/FFO). The dividend yield often has an inverse relationship with the level of earnings growth (for example, net lease companies typically have higher dividend yields and lower growth than other REITs, reflective of their long-term leases and limited ability to grow earnings at a rapid rate). An increasingly important component of a REIT's earnings is gains on development, especially in the industrial sector. This may provide a REIT with considerable gains; however, the realization of this income is inherently lumpy.

External Growth—Acquisition and Development

In addition to growing rents and occupancy, REITs grow revenues via acquiring and/or developing additional properties. In simple terms, acquisition is accretive to FFO if the going-in cap rate (unlevered cash yield) is above the cost of debt. However, it is accretive longer-term if the IRR is above the blended cost of capital. Development, which is inherently more risky, should generate yields several hundred basis points above acquisitions. A company's development pipeline can be an important source of growth and should be monitored closely. A large development pipeline can be quite beneficial when properties are selling for above replacement cost. That said, if real estate prices or rents fall while the properties are being developed, a company may fall short of its initial return projections.

All of these factors (existing portfolio growth and expansion via acquisition and development) contribute to the growth of earnings and dividends. The rate and success of that growth is largely influenced by management.

Management—The Critical Element

Just as in any other type of company, management is critical. We believe that investing in REITs is essentially investing in management. Now that REITs are actively managed companies, as opposed to passive pools of real estate assets, the quality of management plays a meaningful role in determining the growth of the company. Therefore, we evaluate REIT management teams based on track record, experience, strategy, relationships in the industry (access to deals), and balance sheet management skills. In addition, the level of insider ownership is important, as it aligns the interests of management and shareholders. Of note, real estate historically has largely been a family business; however, that is changing, with more family-run companies being acquired and run by professional managers.

Capital Structure

Real estate is a capital-intensive industry; therefore, it is important for a company to have access to a variety of capital sources in order to fund investment. However, the level of debt that REITs maintain has declined over the years and now generally hovers at 30%–50% (of total market cap). At today's valuation, REITs trade at a debt-to-total market capitalization

of roughly 34%, a product of the deleveraging movement in 2009. Many REITs also seek projects where returns are only justified by employing higher levels of debt; therefore, some REITs pursue these investments in off-balance-sheet joint ventures where higher leverage can be used. Generally, REITs have restrictions (covenants) placed on them, which restrict debt levels. Standard REIT debt covenants include a maximum of 60% leverage, no more than 40% of total assets comprised of secured debt, a minimum of 1.5x fixed charge coverage, and unencumbered assets of at least 150% of unsecured debt. As a result, REITs, in general, maintain relatively conservative capital structures.

The main components of a REIT's capital structure are debt (credit facilities, unsecured debt, secured debt, property-level debt, and joint venture debt), common stock, operating units, and preferred stock (Figure 65).

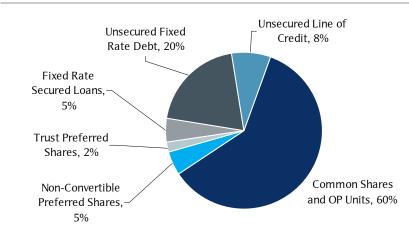


Figure 65: REIT Sample Capital Structure

Source: Barclays Research

Credit Facility

Many REITs initially fund property investment via short-term credit facilities, which typically have maturities of one to two years, with extension options for an additional one to three years. Interest on these facilities is usually floating-rate, based on a spread over a short-term index rate (usually 30-day LIBOR). Once a company accumulates a meaningful balance on its credit facilities, it will usually roll that short-term debt into something more permanent, such as long-term, fixed-rate debt or equity.

Secured Debt

REITs may utilize property-specific mortgage debt or debt secured by a pool of properties, usually up to a loan-to-value (LTV) level of approximately 80%, but more commonly between 40% and 70%. Property-specific debt financing is more common among net lease companies as the long-term nature of the leases makes them more easily match financed via property-specific mortgages. The amount of secured debt that a REIT may issue will often be influenced by the ratings agencies, due to certain requirements dictating the acceptable levels of secured debt that a company may maintain in order to qualify for a specific credit rating. Moreover, the cost of debt may influence the amount of secured versus unsecured debt.

Unsecured Debt/Convertible Debt

REITs may also issue unsecured debt, which by definition is not backed by any property interest or any other specific collateral, but is senior to all equity and other subordinate debt. Maturities usually range from five to 10 years although we have seen the emergence of 30-year paper issued by a few REITs.

Preferred Stock/Convertible Preferred Stock

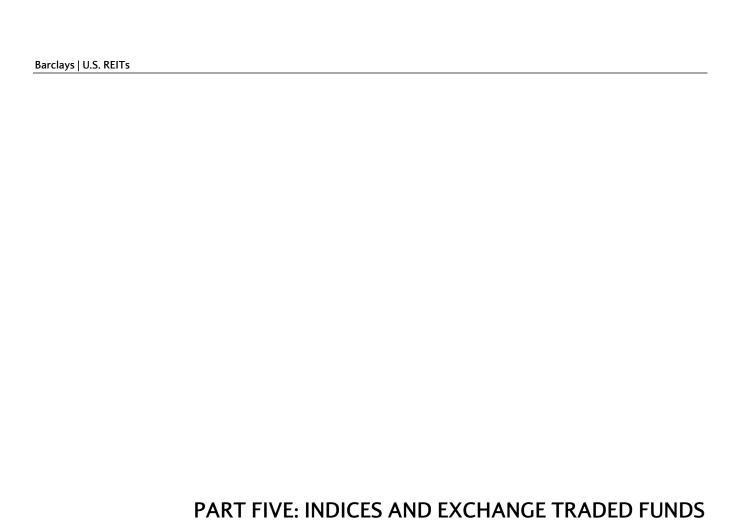
Many REITs issue preferred stock; however, it is usually a much smaller portion of the capital structure.

Operating Partnership Units

REITs formed via an UPREIT or DownREIT structure may issue Operating Partnership (OP) units in exchange for properties. OP units are exchangeable into common stock on a one-for-one basis, receive dividends, and have voting rights just like common stock. OP units provide a currency to the REIT to make property acquisitions without the seller incurring an immediate tax liability. The seller may defer the tax liability until the OP units are converted to common stock.

Common Stock

The principal component of a REIT's capital structure is common stock. Due to the fact that REITs must pay out 90% of taxable income as dividends, a REIT generally periodically taps the equity markets to grow. As such, REIT follow-on equity issuances are common.



PART FIVE: INDICES AND EXCHANGE-TRADED FUNDS

Real Estate Indices

A number of indices are available to investors to monitor REIT stock performance, including the NAREIT Composite and Equity Indices, Wilshire Real Estate Securities Index, Global Property Research 250 Index, Cohen and Steers Realty Majors Index, and S&P US REIT Index. Historically, the Morgan Stanley REIT Index (RMS), now called the MSCI US REIT Index, was the index of choice for several reasons. However, the NAREIT Equity and Composite Indices have also become more widely accepted, in our opinion.

RMS versus NAREIT

In March 2006, FTSE, the global index provider, took over the calculations of the NAREIT Domestic Real Estate Index Series, which were renamed the FTSE NAREIT US Real Estate Index Series. We focus primarily on the FTSE NAREIT Equity REITs Index and the FTSE NAREIT Composite Index. We also track the performance of the RMS. The reason for focusing on the NAREIT Equity and Composite Indices is their comprehensive nature (the Equity Index includes all publicly traded equity REITS (ex timber and infrastructure), while the composite contains all publicly traded equity and mortgage REITs), in addition to the availability of data. The RMS had been the index of choice, as it has dominated the industry since its coming of age in the early 1990s. However, MSCI, a subsidiary of Morgan Stanley, overtook administration of the index in summer 2005, introducing a real-time, price-only index (RMZ) while maintaining the RMS total-return index priced only at the end of each trading day. Subsequently, the availability of index data became more challenging. Meanwhile, data on the NAREIT Equity and Composite Indices are more readily available.

Various NAREIT Indices

The NAREIT Composite Index is comprised of all 165 publicly traded REITs that meet minimum size and liquidity criteria on the NYSE, the Nasdaq National Market System, and the American Stock Exchange, including 18 home financing (residential mortgage) REITs and 14 commercial financing (mortgage) REITs. The Composite Index is composed of 3 additional indexes: 1) NAREIT All Equity REITs Index, which includes all equity REITs but excludes mortgage REITs; 2) NAREIT Equity REITs Index, which excludes mortgage, timber, and infrastructure REITs; and 3) NAREIT Mortgage REITs Index, which includes mortgage REITs. The indices are market-cap-weighted (float adjusted), calculated on a total-return basis, and include a number of smaller companies. These indices can be found on Bloomberg using the following symbols: "FNCO" for the NAREIT Composite Index, "FNER" for the NAREIT All Equity REITs Index, and "FNMR" for the NAREIT Mortgage REITs Index. Price-only versions of these indices are maintained as well.

The RMS is relatively comprehensive, although it excludes mortgage REITs. The index represents approximately 85% of the equity US REIT universe. We believe that many money managers will continue to use the RMS; however, we think that use will diminish due to the difficulty in obtaining index data.

The following is a list of other REIT indices that are widely followed:

GPR 250 Global Index

The Global Property Research 250 Index is a free-float weighted index that tracks the performance of 250 of the most liquid property companies worldwide. The index includes only companies with a free-float market capitalization greater than \$50 million. The index and its constituent data can be found on Bloomberg under the symbol "G250GLOB" (Index). We think that this index will become more relevant as investment managers

become more active in real estate investment overseas, and as more and more countries adopt REIT or REIT-like corporate structures. In addition, the GPR 250 REIT Index takes a subset of the GPR 250, by including only those companies with REIT-like structures.

S&P US REIT Index

The S&P US REIT Index is a subset of the S&P Developed REIT Index, tracking companies that were chosen for their liquidity and together represent a diversified portfolio. The composite contains about 89% of the U.S. REIT capitalization. Although the index is spread across diversified property types and key regions throughout the country, mortgage, timber, and infrastructure REITs are not included. To qualify for inclusion in this index, companies must possess a minimum of \$100 million in float-adjusted market capitalization. The index can be found on Bloomberg under the symbol "STCGUSRE" (Index).

C&S Realty Majors Index

The Cohen & Steers Realty Majors Index, formed in 1998, has the fewest constituents of its peers. The Index, which is rebalanced quarterly, seeks large and liquid REITs of all property types and geographic locations. In addition, there is an 8% maximum index weight for any company in the index. As with most of its peers, only equity REITs are included in the C&S Realty Majors Index. The index can be found on Bloomberg under the symbol "RMP" (Index).

Wilshire REIT Index

The Dow Jones Wilshire REIT Index was established by Wilshire Associates in September 1991. It is a subset of the Dow Jones Wilshire Real Estate Securities Index (RESI). The main difference between the REIT Index and the RESI Index is that the REIT Index does not include real estate operating companies (REOCs), whereas the RESI Index does. In addition, the index is a subset of the DJ Wilshire 5000 Composite Index. The index can be found on Bloomberg under the symbol "DWRTF" (Index).

The companies included in the index must own equity and operate commercial and/or residential real estate. Mortgage REITS and other non-REIT real estate companies, as well as companies that have more than 25% of their assets in direct mortgage investments, are not included in the index. In addition, companies must have a total market capitalization of at least \$200 million at inclusion. Furthermore, the index is float-adjusted as it restricts corporate holding, as well as government, employees, and family holdings.

Dow Jones REIT Composite Index

The Dow Jones REIT Composite Index was established in late December 1991 and includes all publicly traded U.S. REITs. Unlike most of its peers, the index includes mortgage and hybrid REITs. The only requirement to be a member of the index is that the company must maintain its REIT tax election status. The index and its constituent data can be found on Bloomberg under the symbol "RCIT" (Index).

Figure 66: REIT Indices Comparison

		Maximum # of		
Index	Ticker	Constituents	Exclusions	Float Adjustments
FTSE NAREIT Composite	FNCOTR	None	REOC, OTC	Cross holdings, government, employee, family
FTSE NAREIT All Equity REITs	FNERTR	None	REOC, OTC, mortgage REITs Cross holdings, government, employee	
FTSE NAREIT Equity REITs	FNRETR	None	REOC, OTC, mortgage & timber REITs	Cross holdings, government, employee, family
RMS	RMS	None	Not part of MSCI 2500	Cross holdings, government, employee, family
			REOC, mortgage & timber REITs, market cap.	
S&P US REIT	STCGUSRE	None	under \$100 million	None
			REOC, mortgage & hybrid REITs, market cap.	
C&S Realty Majors	RMP	30	under \$500 million	No more than 8% of total weighted index
			Market cap. under \$750 million, do not	Proportional geographic representation, individual
C&S Global Realty Majors	GRM	75	minimum qualitative criteria	security weighting capped at 4%
				5% or more held, government, employee, family,
DJ REIT All REIT Composite	RCIT	None	REITs not in Dow Jones stock universe	restricted
			Mortgage, timber & hybrid REITs, market cap.	
US Wilshire REIT	DWRTF	None	under \$200 million	Cross holdings, government, employee, family
			Rank lower than top 250 in terms of monthly	Cross holdings, government holdings in excess of
GPR 250	G250GLOB	250	trading volume	10% of share outstanding
				Cross holdings, government holdings in excess of
GPR 250 REIT	REIT GLOB	None	Non-REITs in GPR 250	10% of share outstanding

Real Estate Exchange Traded Funds (ETFs)

Exchange Traded Funds (ETFs) offer public investors an undivided interest in a pool of securities and other assets and thus are similar in many ways to traditional mutual funds, except that shares in an ETF can be bought and sold throughout the day like stocks. The ability to purchase and redeem ETFs on a live basis has provided many investors arbitrage alternatives when investing in various subsectors such as real estate. We estimate that there are currently 29 ETFs related to the real estate sector. Each concentrates on some type of geography, subsector and/or company size.

Figure 67: Real Estate ETFs

ETF Name	Ticker	ETF Name	Ticker
Vanguard REIT ETF	VNQ	Cohen & Steers Global Realty Majors ETF	GRI
iShares Dow Jones U.S. Real Estate Index Fund	IYR	iShares FTSE NAREIT Real Estate 50 Index Fund	FTY
iShares Cohen & Steers Realty Majors Index Fund	ICF	IQ U.S. Real Estate Samll Cap ETF	ROOF
SPDR Dow Jones International Real Estate ETF	RWX	iShares FTSE EPRA/NAREIT Asia Index Fund	IFAS
SPDR Dow Jones REIT ETF	RWR	Market Vectors Mortgage REIT ETF	MORT
First Trust S&P REIT ETF	FRI	PowerShares Active U.S. Real Estate Fund	PSR
SPDR Dow Jones Global Real Estate ETF	RWO	Guggenheim China Real Estate ETF	TAO
iShares FTSE EPRA/NAREIT Developed Real Estate ex-U.S.	IFGL	iShares FTSE EPRA/NAREIT North America Index Fund	IFNA
Schwab US REIT ETF	SCHH	iShares FTSE EPRA/NAREIT Europe Index Fund	IFEU
iShares FTSE NAREIT Mortgage Plus Capped Index Fund	REM	iShares FTSE NAREIT Retail Capped Index Fund	RTL
Vanguard Global ex-U.S. Real Estate Index Fund	VNQI	Wilshire US REIT ETF	WREI
iShares FTSE NAREIT Residential Plus Capped Index Fund	REZ	iShares FTSE NAREIT Industrial/Office Capped Index Fund	FIO
S&P Developed ex-U.S. Property Index Fund	WPS	KBW Premium Yield Equity REIT Index	KBWY
WisdomTree Global ex-U.S. Real Estate Fund First Trust FTSE EPRA/NAREIT Global Real Estate Index Fund Source: AMG Data, Barclays Research	DRW FFR	Focus Morningstar Real Estate Index ETF	FRL

In summary, although there are many indexes available to REIT investors, we focus on the NAREIT Equity REITs and Composite Indices, while we also track the RMS and the IYR.

PART SIX: GLOSSARY OF REIT TERMS

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The following is a glossary of terms often referenced in REIT literature. Many of the definitions are courtesy of NAREIT. More information on REITs can be found at www.reit.com.

Adjusted Funds From Operations (AFFO)

This term refers to a computation made by analysts and investors to measure a real estate company's cash flow generated by operations. AFFO is usually calculated by subtracting from Funds from Operations (FFO) both (1) normalized recurring expenditures that are capitalized by the REIT and then amortized, but which are necessary to maintain a REIT's properties and its revenue stream (e.g., new carpeting and drapes in apartment units, leasing expenses and tenant improvement allowances) and (2) "straight-lining" of rents. This calculation also is called Cash Available for Distribution (CAD) or Funds Available for Distribution (FAD).

Capitalization Rate

The capitalization rate (or "cap" rate) for a property is determined by dividing the property's net operating income by its purchase price. Generally, high cap rates indicate higher returns and greater perceived risk.

Cash (or Funds) Available for Distribution

Cash (or Funds) available for distribution (CAD or FAD) is a measure of a REIT's ability to generate cash and to distribute dividends to its shareholders. In addition to subtracting from FFO normalized recurring real estate-related expenditures and other non-cash items to obtain AFFO, CAD (or FAD) is usually derived by also subtracting nonrecurring expenditures.

We calculate CAD by subtracting from Funds from Operations (FFO) both 1) normalized recurring expenditures that are capitalized by the REIT and then amortized, but that are necessary to maintain a REIT's properties and its revenue stream (e.g., new carpeting and drapes in apartment units, leasing expenses and tenant improvement allowances); and 2) "straight-lining" of rents. This calculation also is called Adjusted Funds from Operations (AFFO) or Funds Available for Distribution (FAD).

Cost of Capital

The cost to a company, such as a REIT, of raising capital in the form of equity (common or preferred stock) or debt. The cost of equity capital generally is considered to include both the dividend rate as well as the expected equity growth either by higher dividends or growth in stock prices. The cost of debt capital is merely the interest expense on the debt incurred.

Discounted Cash Flow (DCF)

A common valuation method that uses future free cash flow estimates and discounts them to derive a present value for a security. When we value REITs using a DCF, we forecast five years of cash flows (from our bottoms up fundamental models) and discount them using a series of CAPM-derives discount rates. DCF gives a longer-term view of what we believe a given REIT can earn over the next several years.

DownREIT

A DownREIT is structured much like an UPREIT, but the REIT owns and operates properties other than its interest in a controlled partnership that owns and operates separate properties.

EBITDA

Earnings before interest, taxes, depreciation and amortization. This measure is sometimes referred to as Net Operating Income (NOI).

Equitization

The process by which the economic benefits of ownership of a tangible asset, such as real estate, are divided among numerous investors and represented in the form of publicly-traded securities.

Equity Market Cap

The market value of all outstanding common stock of a company.

Equity REIT

A REIT which owns, or has an "equity interest" in, rental real estate (rather than making loans secured by real estate collateral).

Funds From Operations (FFO)

The most commonly accepted and reported measure of REIT operating performance. Equal to a REIT's net income, excluding gains or losses from sales of property, and adding back real estate depreciation. (See page 55 for a discussion of FFO.)

Hybrid REIT

A REIT that combines the investment strategies of both equity REITs and mortgage REITs.

Implied Equity Market Cap

The market value of all outstanding common stock of a company plus the value of all UPREIT partnership units as if they were converted into the REIT's stock. It excludes convertible preferred stock, convertible debentures and warrants even though these securities have similar conversion features.

Implied Capitalization Rate

Implied capitalization rate (or implied "cap") for a REIT, determined by dividing our forward 12-month net operating income estimate by the REIT's adjusted enterprise value, (equity market cap plus debt minus non-real estate assets). The implied cap rate represents the cap rate that would result in an NAV equal to a REIT's current stock price, and we can compare it to private market cap rate estimates for the portfolio.

Leverage

The amount of debt in relation to either equity capital or total capital.

Mortgage REIT

A REIT that makes or owns loans and other obligations that are secured by real estate collateral.

Net Asset Value (NAV)

The net "market value" of all a company's assets, including but not limited to its properties, after subtracting all its liabilities and obligations.

Positive Spread Investing (PSI)

The ability to raise funds (both equity and debt) at a cost significantly less than the initial returns that can be obtained on real estate transactions.

Real Estate Investment Trust Act of 1960

The federal law that authorized REITs. Its purpose was to allow small investors to pool their investments in real estate in order to get the same benefits as might be obtained by direct ownership, while also diversifying their risks and obtaining professional management.

Real Estate Investment Trust (REIT)

A REIT is a company dedicated to owning, and in most cases, operating income-producing real estate, such as apartments, shopping centers, offices and warehouses. Some REITs also engage in financing real estate.

REIT Modernization Act of 1999

Federal tax law change whose provisions allow a REIT to own up to 100% of stock of a taxable REIT subsidiary that can provide services to REIT tenants and others. The law also changed the minimum distribution requirement from 95 percent to 90 percent of a REIT's taxable income -- consistent with the rules for REITs from 1960 to 1980.

Securitization

Securitization is the process of financing a pool of similar but unrelated financial assets (usually loans or other debt instruments) by issuing to investors security interests representing claims against the cash flow and other economic benefits generated by the pool of assets.

Straight-lining

Real estate companies such as REITs "straight line" rents because generally accepted accounting principles require it. Straight lining averages the tenant's rent payments over the life of the lease.

Tax Reform Act of 1986

Federal law that substantially altered the real estate investment landscape by permitting REITs not only to own, but also to operate and manage, most types of income-producing commercial properties. It also stopped real estate "tax shelters" that had attracted capital from investors based on the amount of losses that could be created.

Total Market Cap

The total market value of a REIT's (or other company's) outstanding common stock and indebtedness.

Total Return

A stock's dividend income plus capital appreciation, before taxes and commissions.

UPREIT

In the typical UPREIT, the partners of the Existing Partnerships and a newly-formed REIT become partners in a new partnership termed the Operating Partnership. For their respective interests in the Operating Partnership ("Units"), the partners contribute the properties from the Existing Partnership and the REIT contributes the cash proceeds from its public offering. The REIT typically is the general partner and the majority owner of the Operating Partnership Units.

After a period of time (often one year), the partners may enjoy the same liquidity of the REIT shareholders by tendering their Units for either cash or REIT shares (at the option of the REIT or Operating Partnership). This conversion may result in the partners incurring the tax deferred at the UPREIT's formation. The Unitholders may tender their Units over a period of time, thereby spreading out such tax. In addition, when a partner holds the Units until death, the estate tax rules operate in a such a way as to provide that the beneficiaries may tender the Units for cash or REIT shares without paying income taxes.

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U.S. REITs

Alexandria Real Estate Equities Inc. (ARE) Apartment Investment & Management Co. Apollo Commercial Real Estate Finance Inc. (AIV) Avalonbay Communities Inc. (AVB) Boston Properties Inc. (BXP) Brandywine Realty Trust (BDN) Brookfield Office Properties (BPO) Camden Property Trust (CPT) Campus Crest Communities, Inc. (CCG) CBL & Associates Properties Inc. (CBL) CBRE Group, Inc. (CBG) Colonial Properties Trust (CLP) CreXus Investment Corp. (CXS) Digital Realty Trust Inc. (DLR) Douglas Emmett Inc. (DEI) DuPont Fabros Technology, Inc. (DFT) Duke Realty Corp. (DRE) Equity One Inc. (EQY) Equity Residential (EQR) Essex Property Trust Inc. (ESS) Excel Trust Inc. (EXL) General Growth Properties Inc. (GGP) Home Properties Inc. (HME) Hudson Pacific Properties (HPP)

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Jones Lang LaSalle Inc. (JLL) Kimco Realty Corp. (KIM) Lexington Realty Trust (LXP)

Macerich Company (MAC) Mack-Cali Realty Corp. (CLI) Newcastle Investment Corp. (NCT)

Pennsylvania Real Estate Investment Trust

(PEI)

Post Properties Inc. (PPS) Prologis (PLD)

Public Storage Inc. (PSA) Regency Centers Corp. (REG) Simon Property Group Inc. (SPG)
SL Green Realty Corp. (SLG) UDR, Inc. (UDR) Vornado Realty Trust (VNO)

Winthrop Realty Trust (FUR)

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