Framework Investing ChartBook – Realty Income (O)

Amazon does not spell the death of *all* retail.

May 25, 2017

Three Things You Should Know About Realty Income

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- **Realty Income is a phenomenally well-managed Real Estate Investment Trust.**

  We have been impressed by the management's long-term approach to property management (as evidenced by its nuanced view of initial "cap rates") and its financial management (as evidenced by its consistent debt-to-equity ratio and the fact that it was able to pay dividends throughout the Financial Crisis).

  The company is focused on leasing to commercial tenants who occupy stand-alone retail locations and which sell 1) non-discretionary items (e.g., pharmacies), 2) services (e.g., fitness centers) and / or 3) low-priced items (e.g., dollar stores). While malls and discretionary retailers are in for a tough future, in our opinion, due to the trend toward online selling, we believe Realty Income's tenants will be able to avoid most of this fallout.

- **The company's current stock price falls with the range of our fair value scenarios.**

  Our worst-case valuation scenario is within around 10% of the present price of the shares, while our best-case scenario implies a gain of roughly 24% in a Goldilocks operational scenario.

- **We approach this valuation with circumspection due to certain differences between REITs and operating companies.**

  While all cash flows are created equal, Valuing REITs is a different animal from valuing operating companies – the field in which we have spent years developing our expertise and methodology. As such we approach this valuation with caution as we build our experience in this investment type.

  After careful consideration and vigorous discussions with experienced REIT analysts and investors, we have concluded that, while REITs are listed as equity instruments, they may be conceived of as a separate asset class (*N.B.* REITs were originally structured as real estate mutual funds). As such, certain assumptions we typically make for operating companies (e.g., funding strategy, appropriate cash flow measure to value, appropriate discount rate, etc.) are not directly applicable to REITs.

  We have discussed these issues with professional investors (whose support and insights we gratefully acknowledge) and believe we have made appropriate adjustments to our model. That said, because there is no such thing as a "called strike" in investing, we think it prudent to exhibit a surfeit of caution as we gain more experience with this sector.

  We will continue to value REITs using our modified methodology, and like all of our valuations, continue to observe actual results against our forecasted ones. In all things, we strive to become better and more knowledgeable over time.

Valuation Summary

Realty Income needs to acquire new properties to maintain its revenue and cash flow growth rate. It uses debt and newly issued equity to make acquisitions, so we analyzed Realty Income on a per-share basis.

We believe that Realty income can generate from $4.83 - $5.57 in per-share revenues in five years' time (compared to $4.06 in 2016) and that it will pay out $2.49 - $3.05 per share in dividends at this time (compared to $2.35 in 2016).

Realty Income's medium-term growth is dependent on its ability to make more property deals, and we believe this will prove more difficult as time goes on. We see a five-year period of cash flow growth of 4% - 7%, which would imply dividends of between $3.03 and $4.27 in 2026.

We have modified our three-stage discounted cash flow (DCM) model and analyze Realty Income using a dividend discount model (DDM). Unlike operating firms, we believe that there is no reason to assume Realty Income's long-term growth rate will approximate GDP, so have set our "Structural" growth rate at 2% - roughly the same as its contractual price increases.

We use a discount rate of 7%, based on an assessment of its recently retired preferred equity yield.

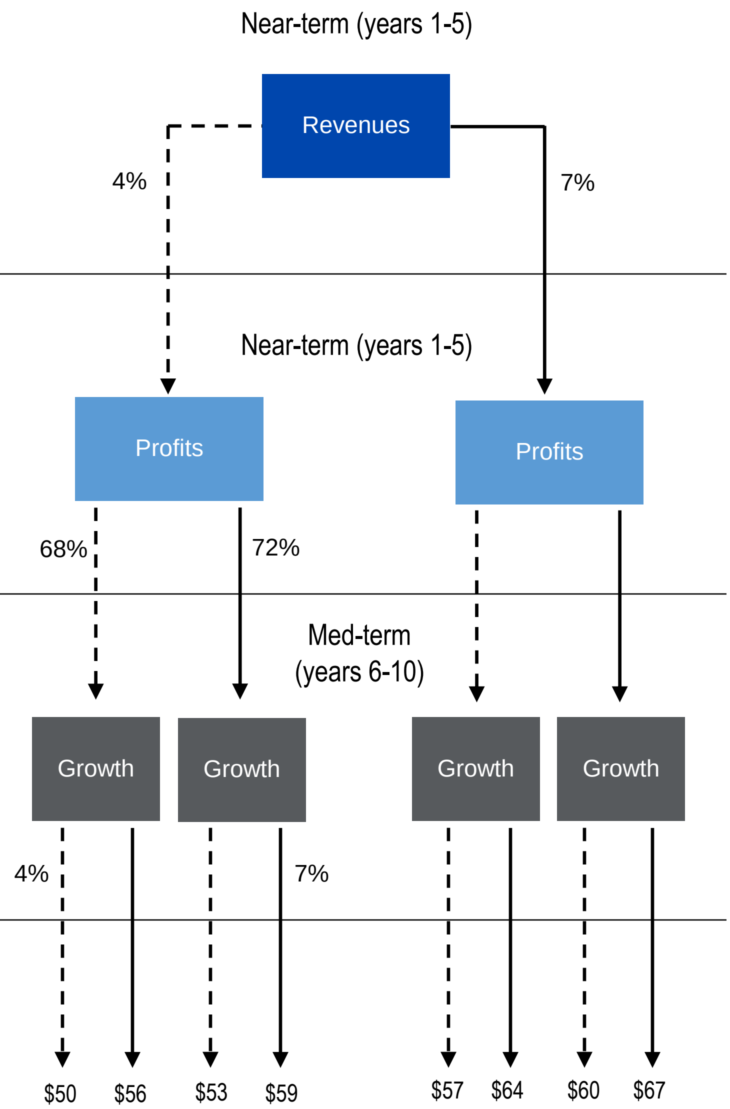
Valuation Waterfall

Revenue Growth
A REIT is a real estate mutual fund designed to offer small investors exposure to income on real assets. These vehicles must acquire new properties to grow – usually in sale-leaseback transactions from non-mall retailers (e.g., Walgreens). Since a REIT must pay out most of its earnings in dividends, to acquire new properties, it must issue debt and equity. Our growth assumptions reflect per-share values assuming acquisitions at various "cap rates."

Profitability
We use OCP as our measure of profitability, and OCP has been extremely steady over the past 10 years, as might be expected. Essentially, a REIT can be conceived of as a portfolio of put options on the revenue stream of its clients. Realty Income is a very experienced and efficient operator, and, we believe, is expert in deriving long-term value from its portfolio of "put options." We believe profitability is likely to be closer to our best-case assumption in the future.

Medium-Term Cash Flow Growth
We believe that medium-term growth will likely slow as Realty Income shifts its tenant focus to larger, more stable retailers and to non-retailers (e.g., FedEx). Clients are helped by Realty Income's service in that leased property need not be accounted for as an asset on the tenant's books; having less assets on one's books improves tenants' RoA. That said, it is in the tenants' interest to lease from multiple providers, limiting the growth of any REIT.

Fair Value Range
Our own mental model for Realty Income is that profitability is likely to be high and medium-term growth, likely to be low. This suggests a fair value range between $53 / share and $60 / share. However, because this is the first REIT we have valued, and because we have had to make several changes to our model – most notably, bringing down our discount rate – we are relatively uncertain about our valuation, so have not marked any scenarios as likely.



Methodology

Framework Investing analyses focus on three main valuation drivers: revenue growth, profitability, and medium-term cash flow growth. We estimate a best- and worst-case scenario for each of these drivers resulting in a total of $2^3 = 8$ fair value scenarios based on discounted cash flow methodology. Profitability is measured by Owners' Cash Profit (OCP) margin. We use a discount rate of 10% for large capitalization stocks.

A wide spread of lowest and highest fair values indicates a firm whose value is uncertain. Risk depends on the stock price's relationship to the valuation range.

Best-case scenarios are represented with a solid line; worst-case scenarios, with a dotted one.

Valuation Scenario Overview

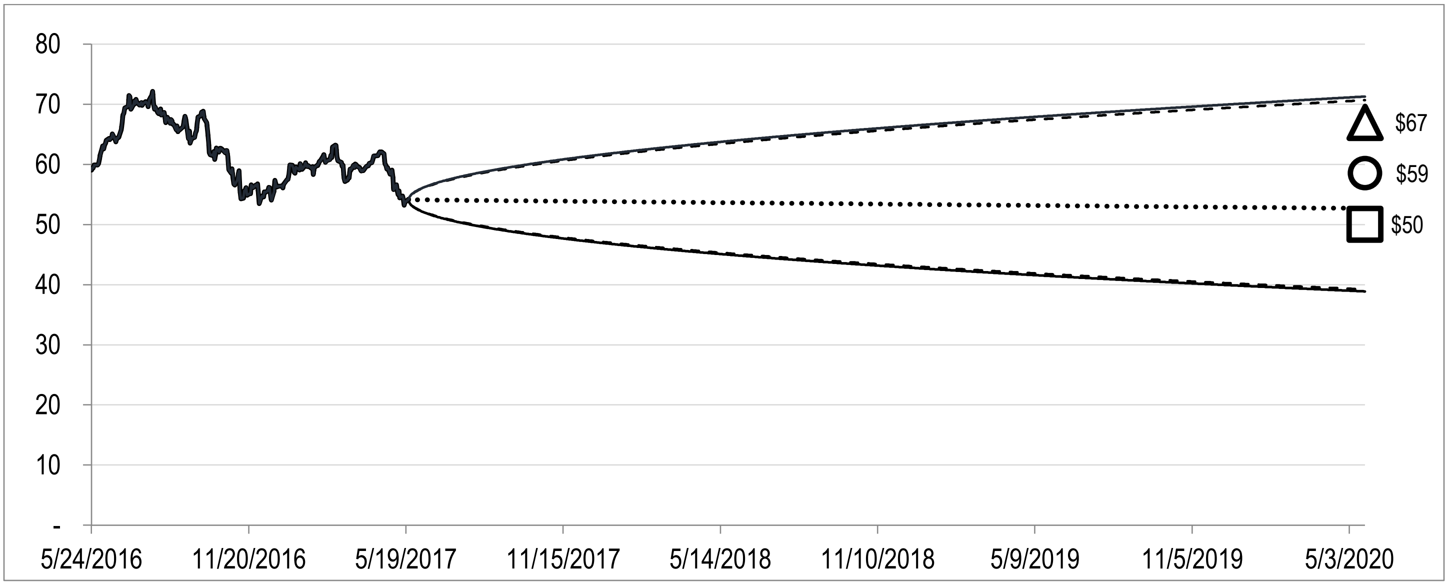


Figure 1. Source: YCharts, CBOE, FWI Analysis. Geometrical markers show FWI's best-case (triangle), worst-case (square), and equally-weighted average value (circle). Cone-shaped region indicates option market's projection of the company's future stock price.

	FWI Best Case	FWI Worst Case	Historical Median
Year 1-5 Average Revenue Growth	7%	4%	4% (5 & 10-year)
Year 1-5 Average Profitability	72%	68%	71% (5 & 10-year)
Year 6-10 Cash Flow Growth	7%	5%	6%

When we originally analyzed Realty Income at the end of March, shares were trading in the upper-$50 / lower-$60 range, and we passed on an investment at that time. As the stock price falls closer to $50, we are becoming more interested in short put and long stock opportunities.

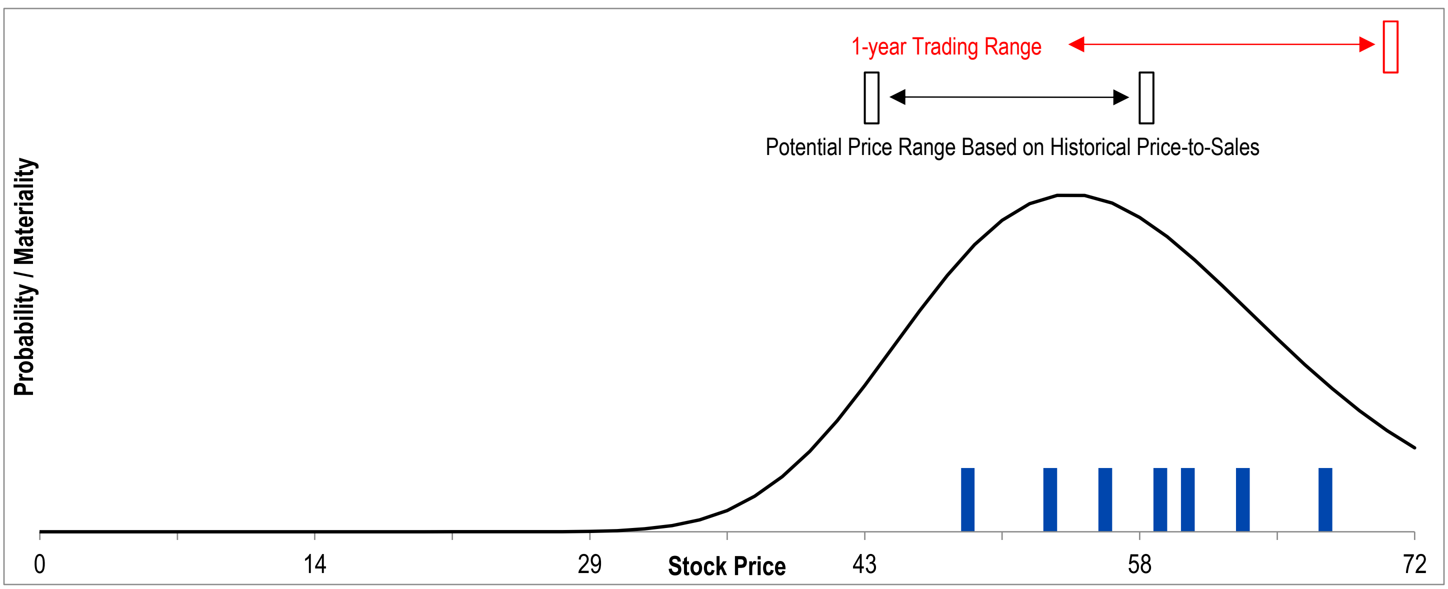


Figure 2. Source: CBOE, FWI Analysis

The complex valuation range shows valuation scenarios relatively evenly spaced from $50 per share to $67 per share. Due to the necessity of altering key elements of our valuation model to make this analysis, we are unwilling to select more- or less-likely valuation outcomes.

Valuation Drivers

Revenue Growth

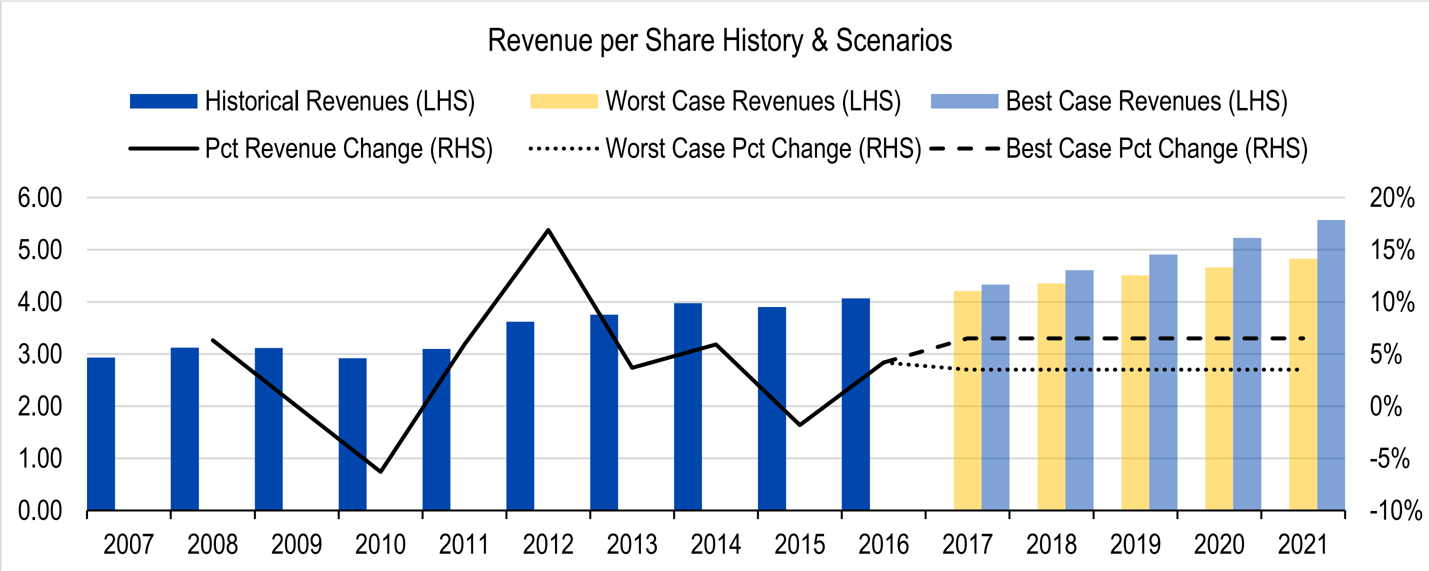


Figure 3. Source: Company Statements, FWI Analysis

REITs were originally established to allow small investors and opportunity of owning income-producing real assets to supplement holdings of equity. Conceptually, a REIT is similar to a mutual fund for real estate.

To maintain its legal classification as a REIT (which confers the benefit of not paying tax on a corporate level), its management must pass through the majority of its income as dividends to its shareholders. A REIT whose property portfolio was static might show a revenue increase tied to its contractual inflation adjustments (in the 1.5%-2.0% region for Realty Income), but otherwise would have no growth. To continue to show growing revenues and dividends, a REIT must acquire new properties to manage. However, because a REIT retains very little of its earnings, any new properties must be bought by issuing additional debt and equity.

New debt is serviced with revenue from the acquired properties, but the equity holder does not have access to all the revenues generated through the acquisition since owners' interests are diluted by new equity issuance.

Looking at nominal revenue increases at Realty Income over the past 10 years, our chart looks is as shown below, with an 11-year rolling growth rate of 16% compared to the 5% rolling growth rate as shown in the per-share revenue chart above.

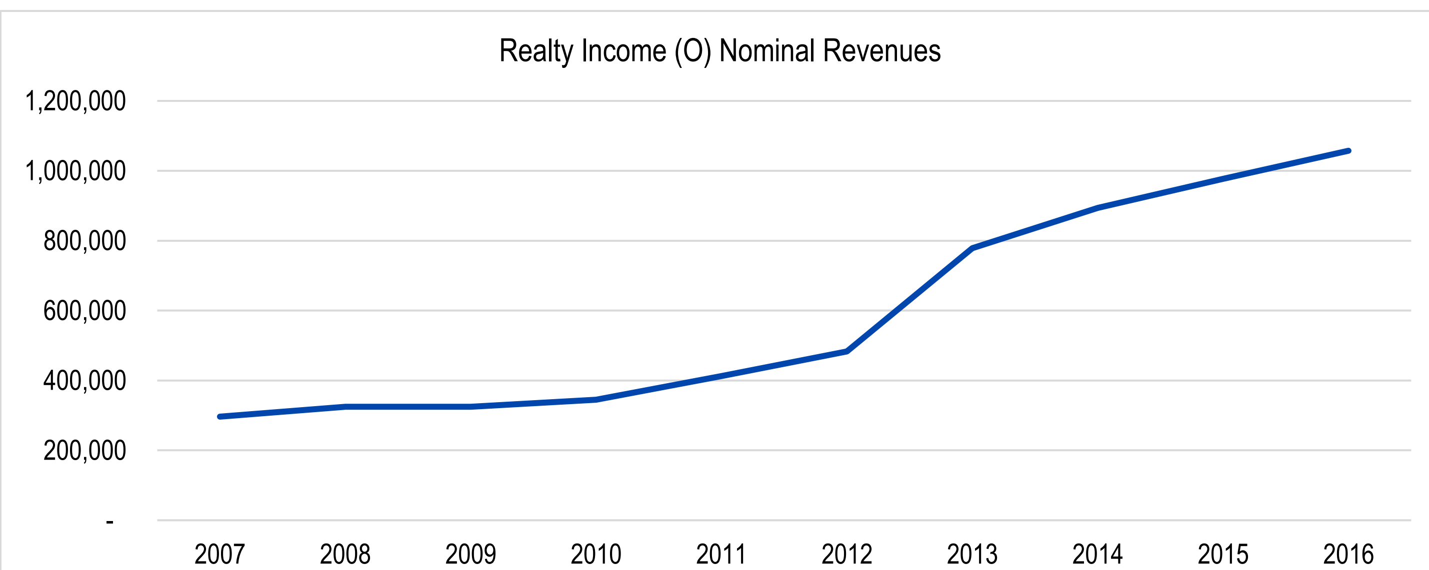


Figure 4. Source: YCharts

After consideration, we realized that we could simplify our forecasting process by forecasting per-share amounts, so all the valuation diagrams in this report are shown on a per-share basis.

Implicit in our assumption is that, over time, the company will maintain a stable debt-to-equity ratio.

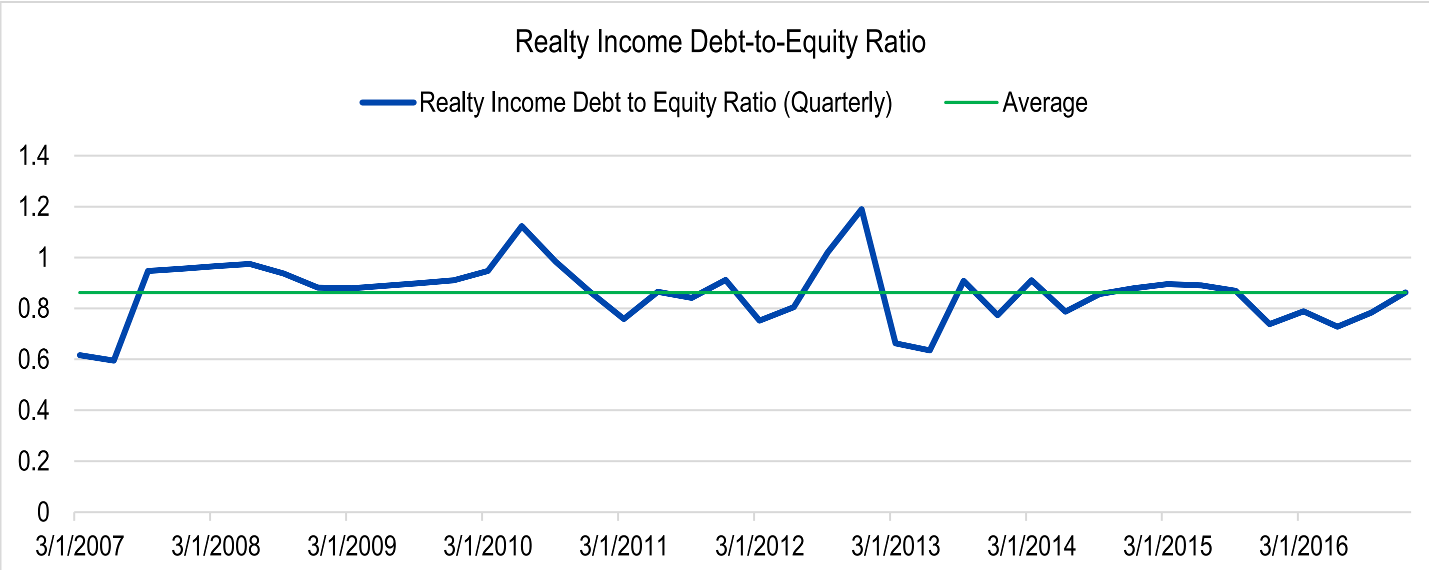


Figure 5. Source: YCharts, FWI Analysis

Other than a few notable peaks (which are artifacts of timing issues related to debt issuance and earnings from the new properties), we believe that a stable debt-to-equity ratio assumption is justified.

Realty Income focuses on non-mall retailers which are by and large immune to the Amazon-ification of the retail space. In 2016, its largest tenants were as shown in the table below, and the top 10 industries were as shown in the figure below.

Retailer	*Percentage Revenue*
Walgreens	7%
FedEx	6%
Dollar General	4%
LA Fitness	4%
Family Dollar	4%
AMC Theatres	3%
Circle K (Couche-Tard)	3%
BJ s Wholesale Clubs	2%
Diageo	2%
CVS Pharmacy	2%
Super America / Western Refining	2%
GPM Investments/Fas Mart	2%
Regal Cinemas	2%
Rite Aid	2%
Walmart/Sam s Club	2%
7-Eleven	2%
Life Time Fitness	2%
TBC Corporation (Sumitomo)	2%
FreedomRoads/Camping World	1%
Home Depot	1%
Total Revenue Share	**53%**

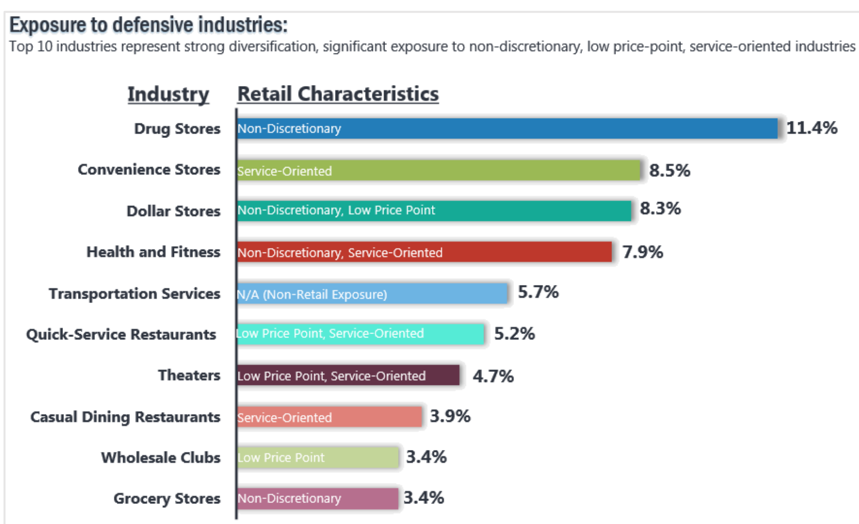


Figure 6. Source: Realty Income Investor Presentation

Notice that the firm looks for retail tenants that share several retail characteristics: non-discretionary items, service-oriented locations, low price point retailers. Recently, as the firm has found it more difficult to acquire properties that fit its template, it has branched out to non-retail tenants – FedEx in particular (represented by the Transportation Services industry in the chart above).

We traced back the revenue generated by Realty Income's 2016 20 largest tenants over the previous five years (the first year for which these data were available was 2011), and noticed an interesting trend.

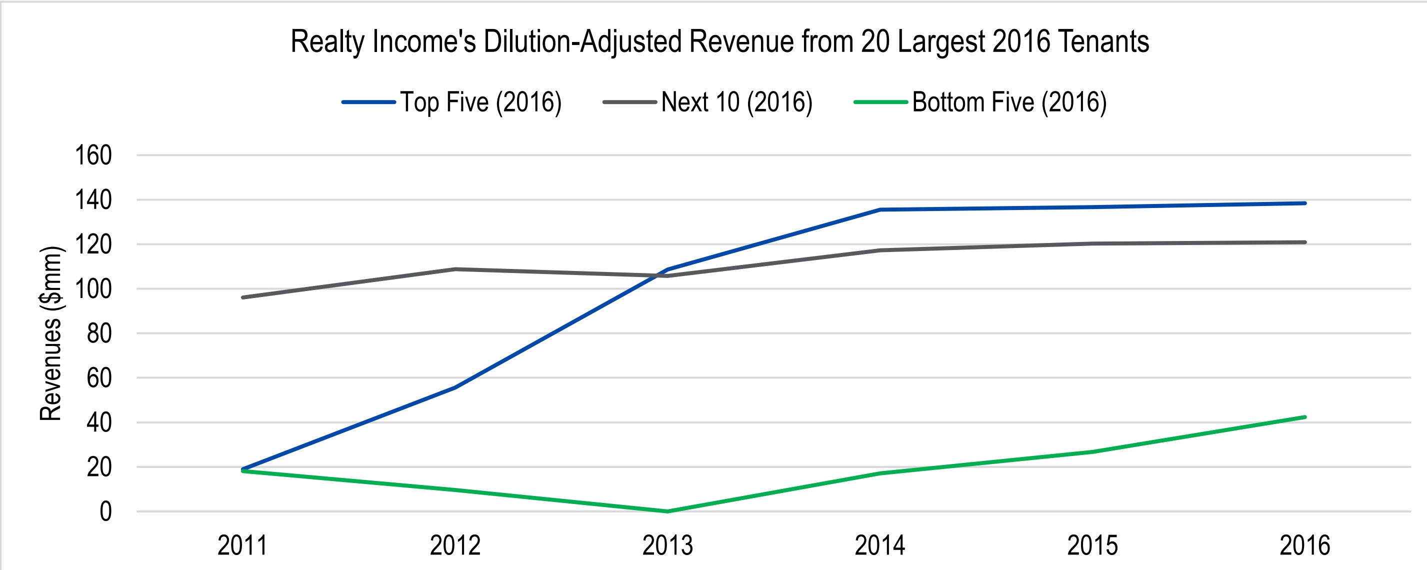


Figure 7. Source: Company Statements, FWI Analysis. The top five tenants generated 25% of overall revenues; the next 10 tenants generated 21%; the bottom five tenants, 8%.

Note that revenue derived from the middle 10 tenants – one fifth of 2016 revenues – showed only very modest growth over this period (rolling growth rate of 5%) and that the Realty Income derived no revenues from the bottom five group in 2013. The very notable increase in the revenue growth rate among the top five tenants was almost entirely caused by Realty Income winning new business – FedEx and Dollar Tree / Family Dollar in 2012, Walgreens and Dollar General in 2013 – and those tenants sharply increasing the number of locations leased from Realty Income.

The main take-away from this analysis is that the business is essentially a low-growth one that is boosted only through the acquisition of new properties and tenants. Tenants usually prefer to rent from multiple providers to preserve a negotiating advantage over any one. It is telling that in the 2014-2016 period, neither the top five or middle 10 tenants (representing 46% of overall revenues) significantly increased the lease paid to Realty Income.

Most of Realty Income's leases are structured as what is known as "triple-net leases," which means that the tenant is responsible to pay any real estate taxes, maintenance, and insurance in addition to rent. In other words, Realty Income simply acts as the registered owner of the property, but is not exposed to typical costs of ownership. In fact, many of the company's agreements are structured as sale-leasebacks, so Realty Income is not responsible for developing the property to be leased to the tenant. The benefit to the tenant of this arrangement is that the property assets are not recorded on the tenants' balance sheets, meaning that return on asset calculations are boosted by a smaller number in the denominator (and by a liability for future rent payments due).

Capitalization Rate

One bit of industry jargon that is helpful to understand is that of capitalization rate or "cap rate." Capitalization rate is defined as the expected 1-year income from a property divided by its market value. Realty Income's cap rate has been declining for several years, as shown in the following figure.

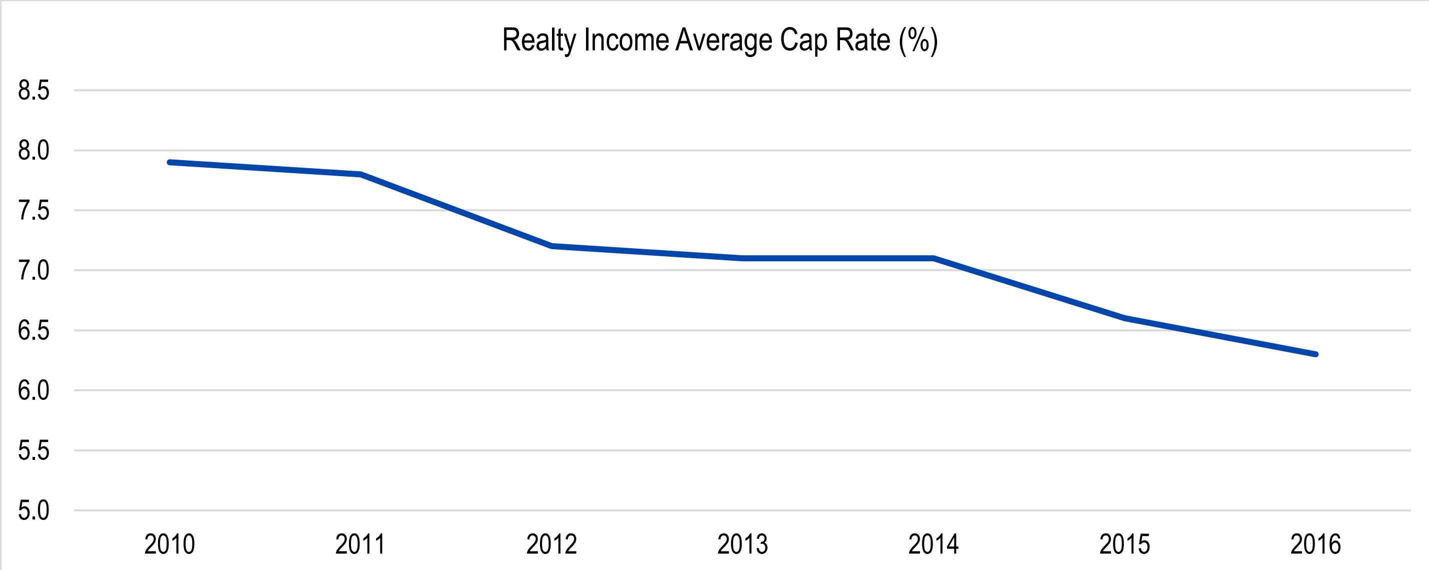


Figure 8. Source: Company Statements, FWI Analysis

Some observers have bemoaned the fall of cap rates, but we wonder if it is as big of a deal as claimed. Realty Income leases to large companies and signs multi-year contracts with its tenants. By simply dividing one by the cap rate, we can get a back-of-the-envelope estimate of how long it will before income from the property portfolio pays off the cost of the property. Note that this calculation does not take into consideration interest / mortgage costs nor the time value of money, so we call it a "Simple Payback Period." Comparing the average lease term to the simple payback period for Realty Income over the last six years, we find the following figure.

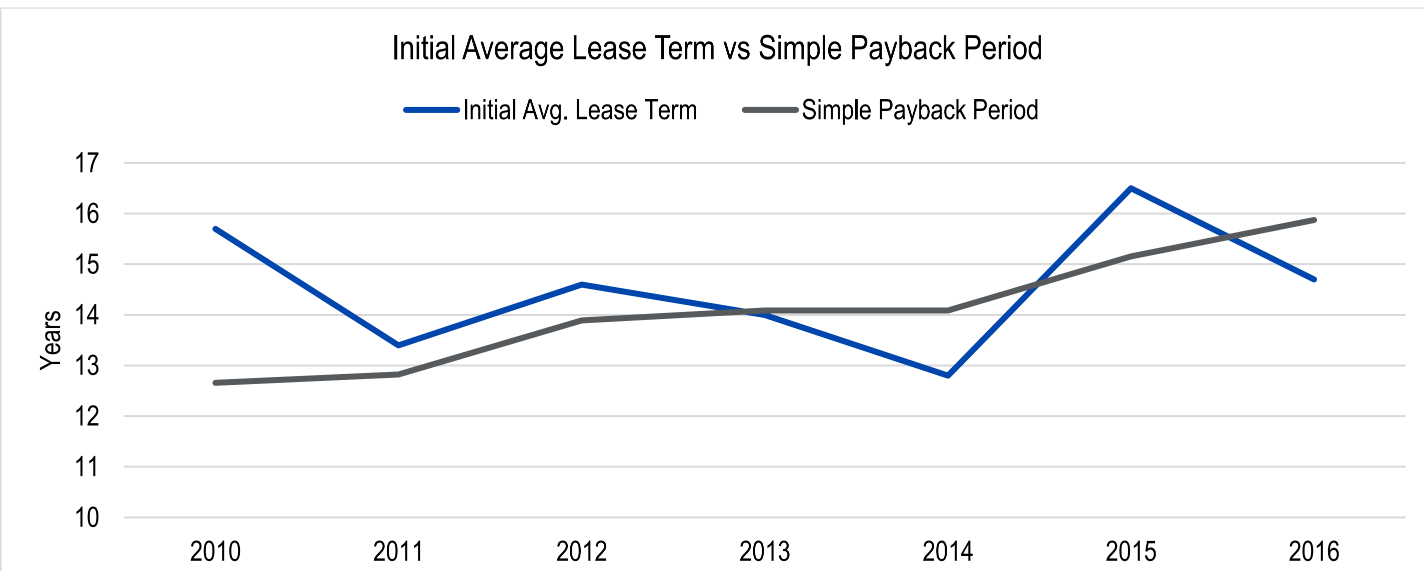


Figure 9. Source: Company Statements, FWI Analysis

The average of the difference between the two is 0.4 years, meaning that, over this time, the company has generated enough income from its properties to pay for the cost of the properties about five months before the lease comes due. The properties are real assets, so if re-leased or sold after the initial lease period is up, all subsequent payments essentially generate a marginal profit of 100%.

Realty Income's management also makes the point that some REITs attempt to charge very high rents that boost the initial cap rate, but that during the life of the lease, the tenant may default, leaving the property vacant and pulling the economic value of the lease down. All things held equal, higher cap rates are better than lower ones, but our impression is that 1) management's strategy likely increases the economic value of each lease and 2) investor concerns about cap rate declines are probably misplaced. Considering that Realty Income has been leasing to larger firms such as Walgreens and FedEx over the last few years, it is not surprising that cap rates have slipped somewhat.

Profitability

Note that we assess profitability using our favored measure – Owners' Cash Profits (OCP) – a measure similar to Buffett's concept of "Shareholder Earnings."

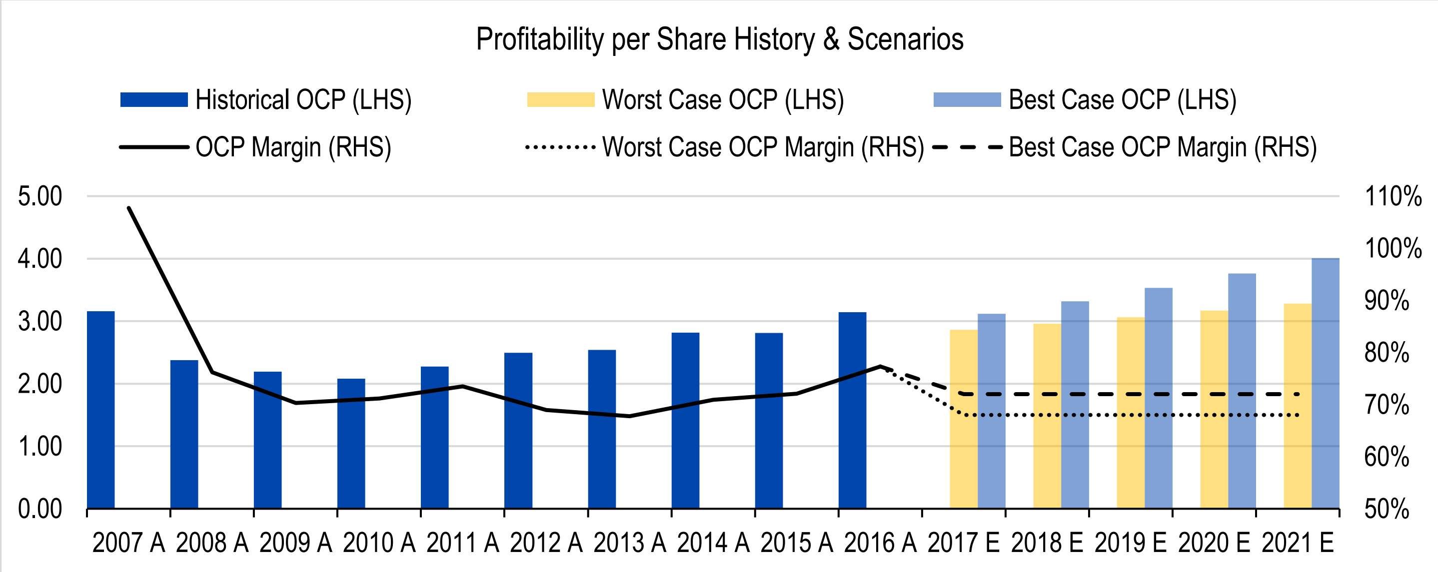


Figure 10. Source: Company Statements, FWI Analysis

Because of the triple net-lease structure, Realty Income is not responsible for maintaining its tenants' properties. It does incur some *de minimis* maintenance costs each year which are much lower than the non-cash charge of Total Depreciation. We use the actual costs incurred as an estimate of maintenance capital expenditures, and as you can see from the figure above, the OCP margin is extremely high.

The uptick in margin in 2016 was related to increasing current liabilities related to interest rate swaps, which we view as a transitory effect. Even including the slightly higher margins in 2016, Realty Income displays a very consistent OCP margin of between 70% and 72% in each five-year period back to 2008. We use a best-case profitability assumption of 72% and a worst-case of 68%.

The other notable OCP margin outlier in this series occurs in 2007. In the chart below, you can see a longer history of Realty Income's revenues, OCP, and dividends per share. Note that 2007 OCP per share is actually higher than that year's revenue per share.

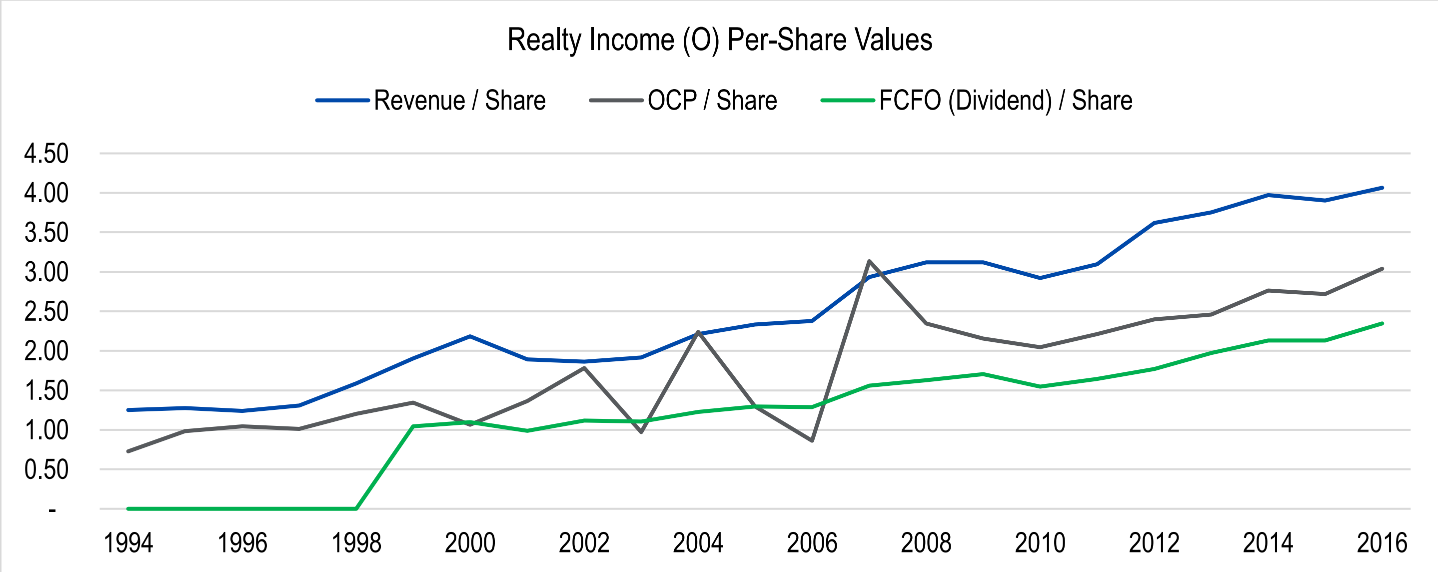


Figure 11. Source: Company Statements, FWI Analysis

This seemingly impossible economic feat came about due to a $120 million gain from the sale of properties it acquired for resale. Our model does not assume that such a gain occurs again during the Explicit forecast period (2017-2022).

Investment Level

Expansionary Cash Flow is FWI's measure of investment spending net of asset sales and divestments.

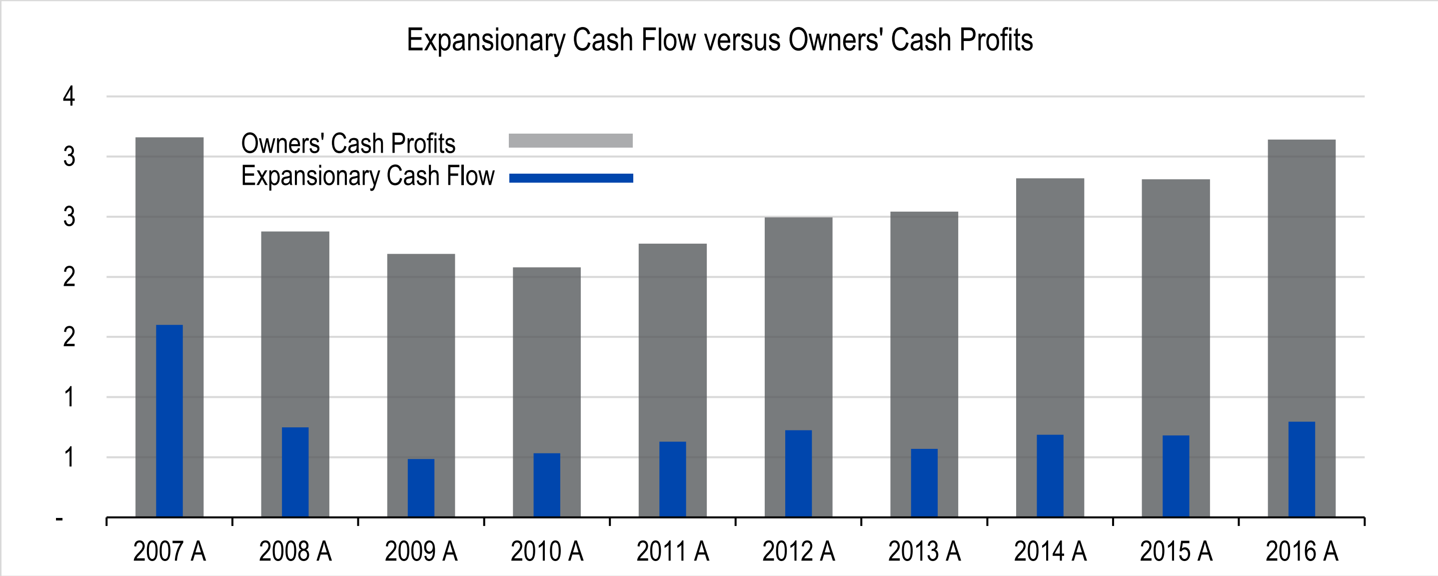


Figure 12. Source: Company Statements, FWI Analysis

In the case of Realty Income, which we are valuing using a dividend discount model (DDM) rather than our normal discounted cash flow (DCF) model, we simply count the difference between what the generates as OCP and what it distributes as dividend as the "Expansionary Cash Flow." As explained above, REITs lose their tax-protected status if excess earnings over a certain level are retained, so all spending to expand the business must be enabled through bond and equity issuance. Debt and equity issuance is structured to maintain a consistent debt-to-equity ratio.

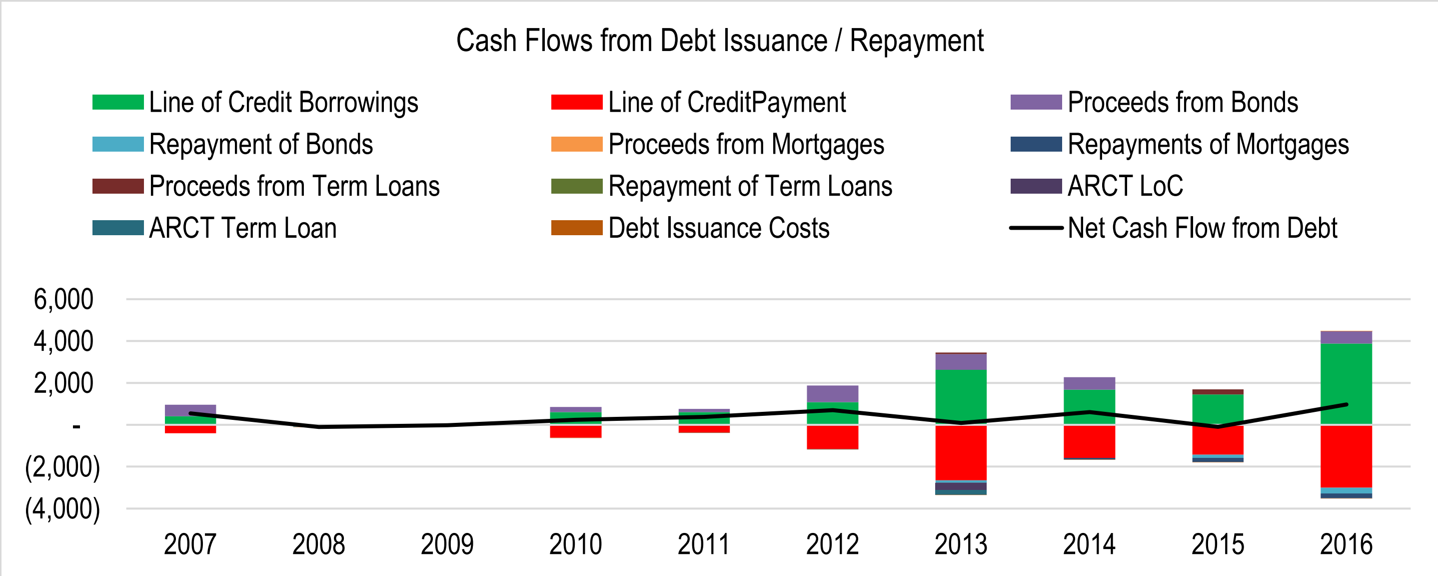


Figure 13. Source: Company Statements, FWI Analysis. Note that the most prominent source of funding is from the firm's Line of Credit – borrowings in green, repayments in red. ARCT is a subsidiary of Realty Income acquired in 2012.

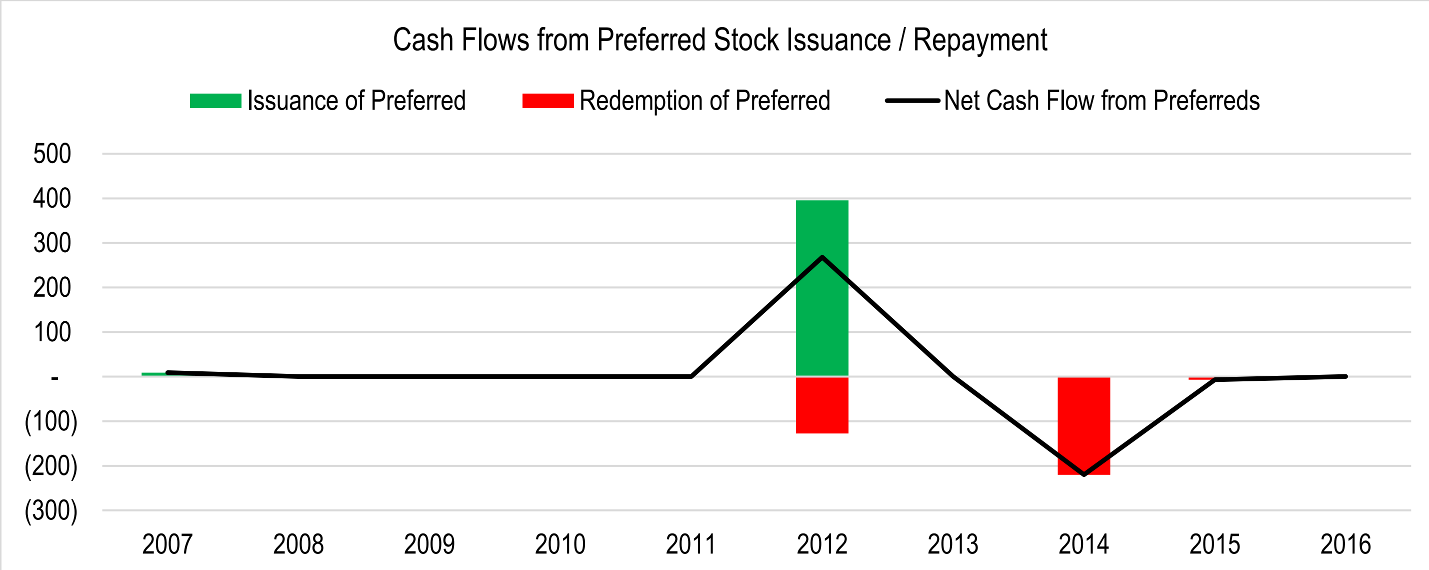


Figure 14. Source: Company Statements, FWI Analysis. Realty Income issued preferred shares in 2007 and 2012. It redeemed all outstanding preferred shares in early 2017.

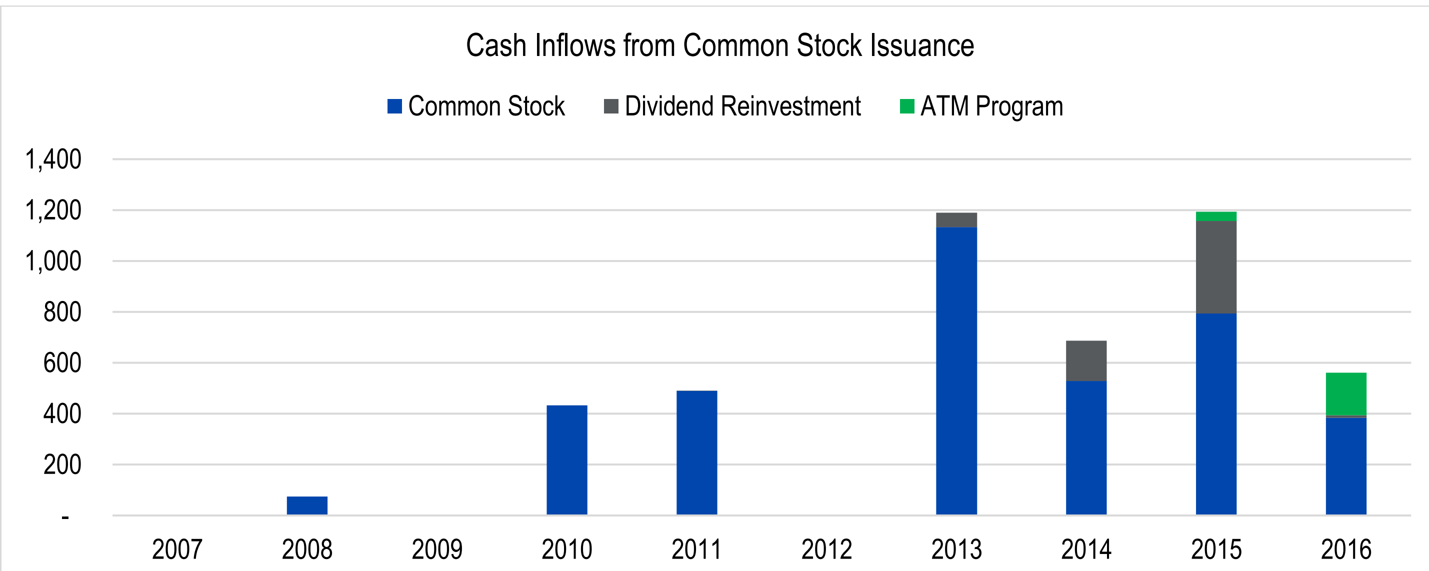


Figure 15. Source: Company Statements, FWI Analysis. The "ATM" program is one by which the firm sells shares through a consortium of brokers directly into secondary markets. While not shown here, the company bought back $9 billion worth of shares in 2016.

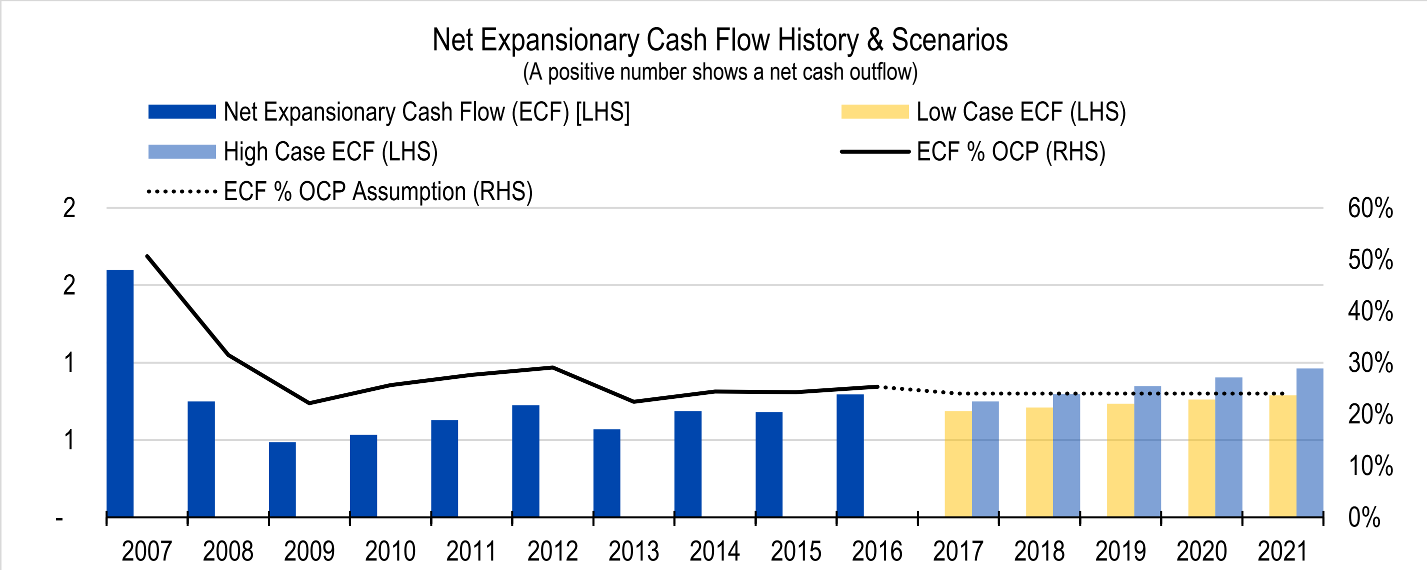


Figure 16. Source: Company Statements, FWI Analysis

Our forecast for the difference between OCP and dividends paid is less volatile than historical figures over any two years, but we have confidence in the forecast over the entire five-year Explicit forecast period.

Investment Efficacy

Corporate investments lead to profit growth. FWI measures profit growth versus the standard yardstick of nominal GDP growth to assess the efficacy of the company's past investments.

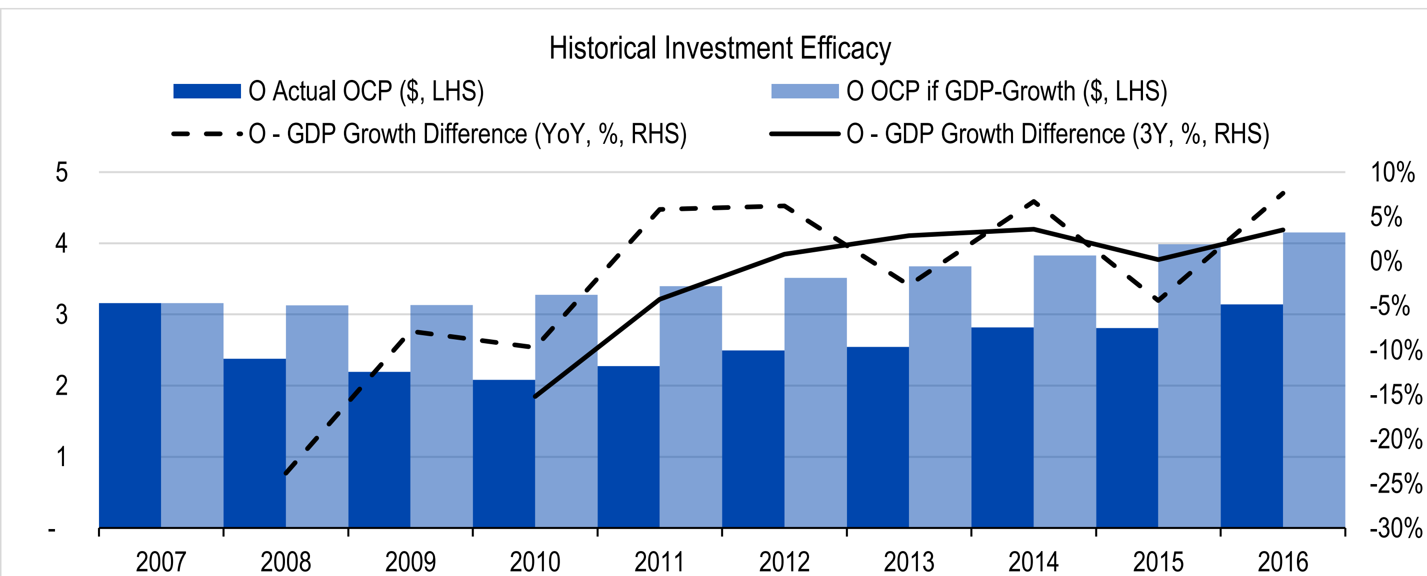


Figure 17. Source: Company Statements, Bureau of Economic Analysis, FWI Analysis

Looking at Realty Income's investment efficacy using this 10-year window and a fixed starting point, it appears weak, but this is largely due to the drop in 2008 relative to 2007, which we know to have been a uniquely profitable year for Realty Income. Our rolling cumulative excess profits graph (following page) tells a different story.

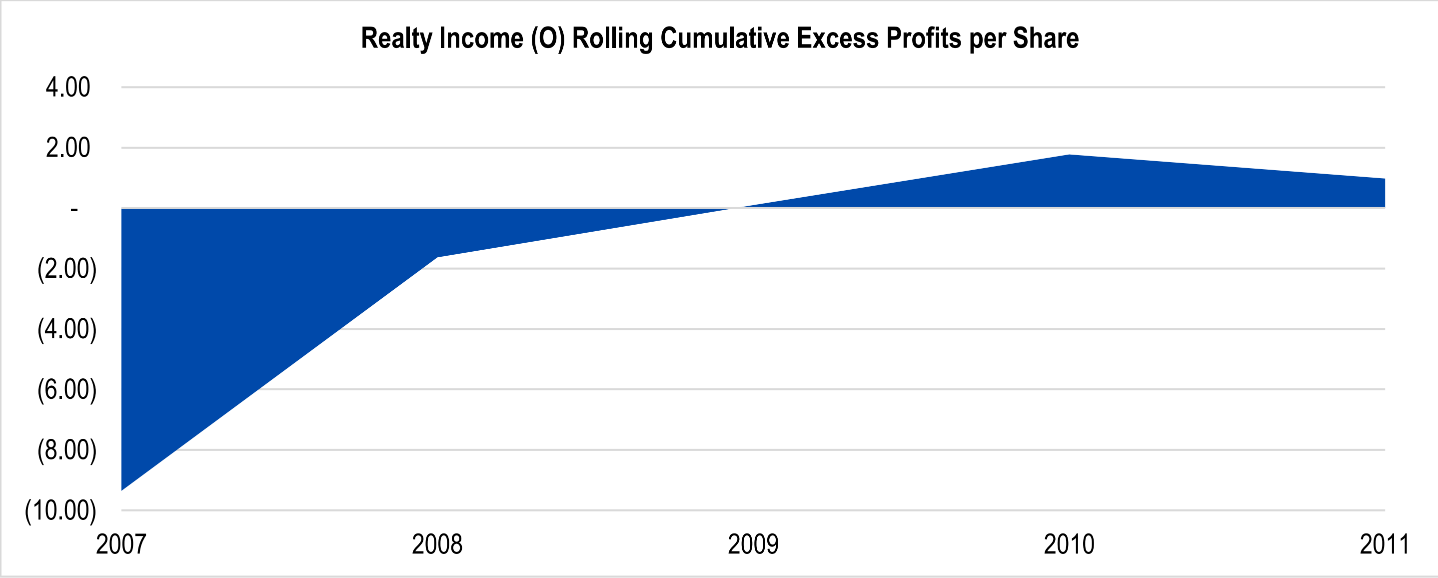


Figure 18. Source: Company Statements, FWI Analysis

The graph which we call the Rolling Cumulative Excess Profits view (explained fully in this post) shows the increase in profit growth outperformance as time goes on. We believe that considering the data artifact of 2007, this historical view of Realty Income's investment efficacy is more accurate.

While historical investment efficacy has been good, we believe there is a good case to forecast slowing growth in the medium-term. As we have seen, the business is essentially a slow- or no-growth one, which is only boosted through the acquisition of new clients. Considering that Realty Income specializes in stand-alone properties and that it is diligent about its credit rating process for new clients, we believe it's more likely that Realty Income is beginning to scrape against something closer to its structural growth rate.

We have given the firm the benefit of the doubt and set our assumptions for medium-term growth at 5% and 7% – just on either side of the firm's historical growth rate.

Free Cash Flow to Owners

[Free Cash Flow to Owners (FCFO)](#) is the metric FWI uses to value companies. It equals Owners' Cash Profits less Net Expansionary Cash Flow.

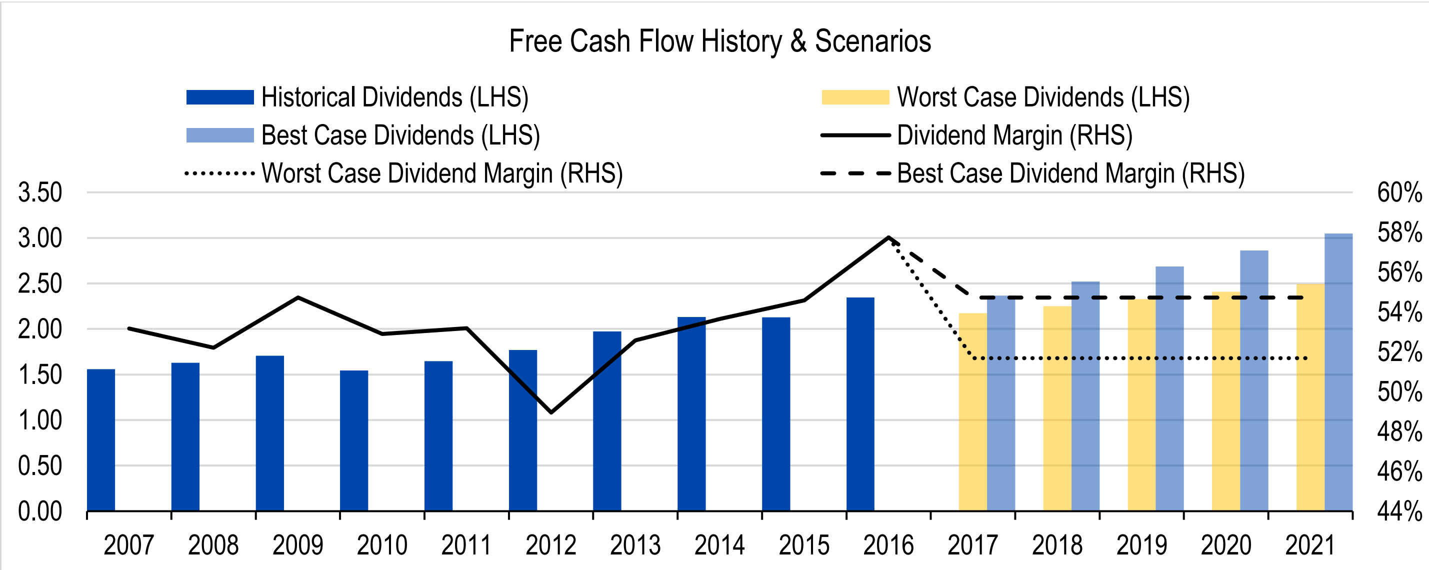


Figure 19. Source: Company Statements, FWI Analysis

Because Realty Investment's investment spending is consistently greater than the profits generated by the firm and will likely be so for years in the future, we value the firm using the present value of its future dividends. As such, the FCFO graph in the figure above represents the dividends per share. Our worst-case scenario forecasts the firm paying a total of $11.66 in dividends over the next five years (the firm pays in monthly increments) and a total of $13.49 in the best-case.

Balance Sheet Effects

Realty Income owns a taxable REIT named Crest Net Lease, which buys properties on a speculative basis and attempts to resell them for a gain as part of its business. The big uptick in OCP in 2007 was due to the sale of Crest properties. Because Crest's results have had less effect on Realty Income's results since 2007, we have not looked into its operations in depth. The large historical bump in OCP suggests that the firm might experience an unexpected loss from unsalable inventory in the future. Again, because activity at Crest seems to be a much less important part of Realty Income's results, we have not assessed a negative or positive Balance Sheet Effect to this subsidiary.

Valuation

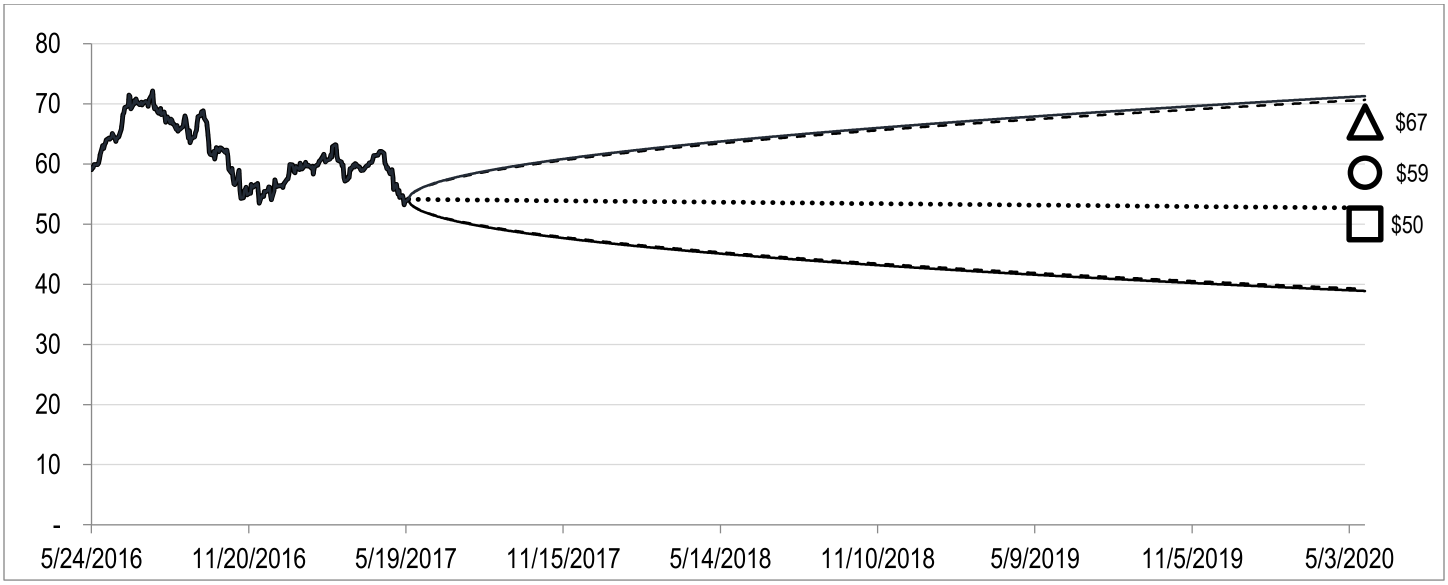


Figure 20. Source: Company Statements, FWI Analysis

We have made several modifications to our model to be able to handle the REIT business model.

1. We have used a DDM in favor of a DCF model.
2. We have assumed that the company will be successful in targeting and maintaining a consistent debt-to-equity ratio and have thus ignored all investment spending and debt / equity issuance required to do that.
3. We have used all per share amounts for our forecasts rather than aggregate amounts (our assumption of a stable debt-to-equity ratio is necessary to do this).
4. We have modified our discount rate.

Regarding the discount rate modification, our standard rate of 10% for large capitalization stocks is related to the historical nominal annual gain of the S&P 500 index over the past century. Realty Income's future dividend stream discounted at a 10% rate generates a much lower valuation range than the one shown in the figure above ($31 / share - $40 / share).

After careful consideration and vigorous discussion with experienced REIT analysts and investors, we have concluded that, while REITs are listed as equity instruments, they may be conceived of as a separate asset class. REITs were originally structured to function as real estate mutual funds, so discounting their expected dividends using a discount rate suitable to real estate investments makes sense.

After even greater consideration and reading of academic papers, we selected a discount rate of 7% for Realty Income. This was based on the fact that the firm had just retired preferred shares yielding at around 6.25%, so common shares should use a higher discount rate (because common shares are subordinate to preferred in the capital structure). Seven was the next round number above 6.25, so we used that number – an arbitrary choice based upon "feel" rather than theoretical precision.

Fair value ranges are enormously sensitive to discount rate assumptions, and if our arbitrary discount rate choice is incorrect, our fair value range will be off. For this reason, our confidence in this valuation is low.

Because our valuation confidence is low, we have not taken a position in this security, and if the price drops to a level at which we would make an investment, that investment would likely be relatively small.

In addition, normally, we consider any payment of dividends to be a reduction in the Effective Buy Price (EBP) of a security, so might be willing to buy a stock above its worst-case valuation if we had a reasonable expectation that dividends in the near future would reduce our EBP below our worst-case valuation level. However, in the case of Realty Income, we are valuing the firm based on our expectations for the dividend stream, so cannot consider dividends as a reduction in the EBP.

Because of this (and our low valuation confidence), we are not yet willing to invest in the company even though the present market price is within 10% of our worst-case valuation. We may lose a good opportunity, but we would rather wait for the price to fall below $50 before making an investment.

Options involve risk and are not suitable for all investors. For more information, please read the [Characteristics and Risks of Standardized Options].

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