ANNALY®

UGBA 133 Group Project

Annaly Capital Management, Inc. (NLY)

Group Member:

Joey Cheung Chor Yee 3034275248

Xueyun Yu 3034184209

Yingxian Wang 3034184677

Yilan Qian 3034185730

Zeqiang Fang 3034184170

1. Company Description

Annaly Capital Management, Inc. ("Annaly") is a leading diversified capital manager that invests in and finances residential and commercial assets. Annaly's principal business objective is to generate net income for distribution to its stockholders and to preserve capital through prudent selection of investments and continuous management of its portfolio. With approximately $101.8 billion in assets[1], their portfolio includes securities, loans and equity in both the residential and commercial markets. Annaly has elected to be taxed as a real estate investment trust, or REIT, for federal income tax purposes.

Annaly is a vehicle for long-term asset ownership. They use their capital, coupled with various structured financing products to invest in assets in both commercial and residential markets, earning the spread between the yield on their investments and the cost of their borrowings and hedging activities. To maintain their desired capital profile, they utilize a mix of debt and equity funding based on their investment profile and market view. Their range of financing alternatives includes traditional repo, warehouse lines, FHLB and financing through their own broker dealer.

Diversification is a pillar of the Annaly strategy. Since 2010 they have diversified their business model by investing in credit assets directly on balance sheet, complementing their portfolio of interest rate sensitive investments. This strategy is designed to achieve durable risk-adjusted returns over various interest rate and economic cycles by pairing shorter floating-rate credit securities with their longer, fixed-rate agency portfolio. The diversification strategy reaches beyond simply their investment in credit sectors. Within each discipline they have diversified their investments to produce balanced cash-flows and leverage profiles. Their breadth of investment options and robust capital allocation process combined with careful risk management enables them to take advantage of market inefficiencies and rotate into credit markets when dislocations occur and pricing is attractive on a risk-adjusted, relative value basis.[2]

2. Industry analysis

Annaly Capital Management is one of the largest mortgage-based real estate investment trusts in the United States. Annaly manages nearly $113.4 billion in assets, including Agency (76%), Residential Credit (11%), and Commercial Real Estate (8%).), Middle Market Lending (5%) .

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[1] Agency assets include to be announced ("TBA") purchase contracts (market value) and MSRs. Residential Credit and Commercial Real Estate ("CRE") assets include the economic interest of consolidated variable interest entities ("VIEs").

[2] http://www.annaly.com/about-annaly/at-a-glance

2.1 Industry Background

The industry views real estate as a good way to improve portfolio diversification. For long-term-oriented investors, in particular, real estate investment trusts (REITs) are a good way to add real estate exposure.

2.2 REIT Operating Environment

The "fundamental business" for REITs is managing their real estate assets to produce strong operating performance by maintaining high occupancy rates and strong rent growth. On a long-term basis, REITs have managed their properties to achieve consistent growth in net operating income (NOI) in the range of 2.5 percent to 4 percent per year.

2.2.1 Business Environment

Stable economic growth, strong business optimism, strong demand for fixed-income products, and low levels of volatility in financial markets supported fixed income returns and allowed Annaly to achieve an attractive economic return on the portfolio in 2017. Most of portfolio activity included deploying the capital from their common and preferred equity raises. Both on a stand-alone basis and relative to credit, much of the capital from the equity raises was deployed into Agency mortgage-backed securities. Because the credit sector in general has reached rather full valuations, they continue to grow their credit businesses .

2.2.2 Economic Environment

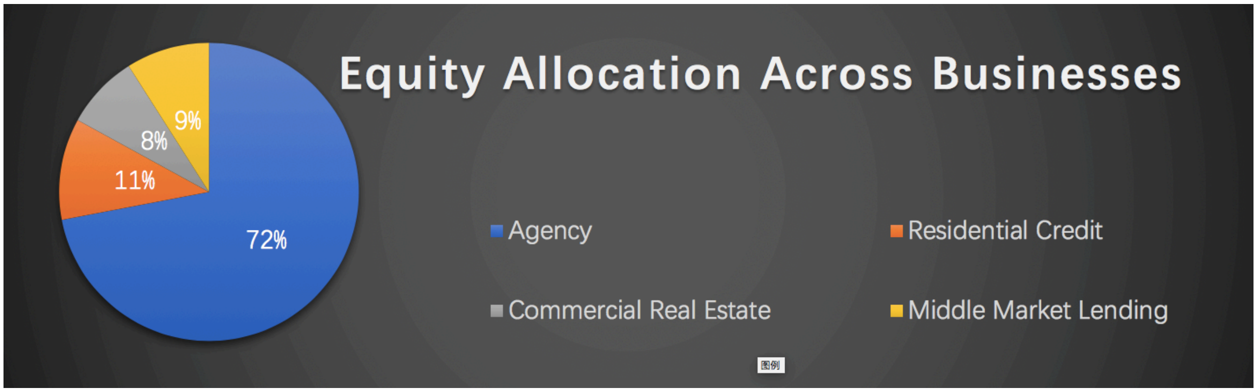
The pace of economic growth accelerated in 2017, remaining above estimated potential growth. Measured by GDP, activity increased by 2.5% in the fourth quarter of 2017 from prior year. The increased pace was largely due to a pick-up in non-residential investment. Consumption remained very strong, increasing by 2.8% in 2017 with lower savings making up for slower income growth. Residential investment slowed, expanding by 2.3% compared to 2.5% in 2016.The trade balance continued to reduce GDP growth, subtracting 0.18% from 2017 growth. This reduction has occurred despite a 6.0% drop in the trade-weighted US dollar in 2017, according to Federal Reserve Board calculations.

Inflation was below the Fed's 2% target in 2017, as measured by the year-over-year changes in the Personal Consumer Expenditure Chain Price Index ("PCE"), as inflation weakness appeared broad-based.

3. Company Analysis

3.1 Product mix

Annaly is externally managed by Annaly Management Company LLC. Annaly's manager guides the company's overall business strategy and oversees its investment portfolio and financial services processes and solutions.



3.1.1 Agency

The Annaly Agency Group invests in agency Mortgage-Backed Securities (MBS) collateralized by residential mortgages which are guaranteed by Fannie Mae, Freddie Mac or Ginnie Mae. Representing approximately 72% of Annaly's dedicated equity as of June 30, 2018, these investments allow Annaly to take advantage of the high liquidity in the government agency MBS market and relative yields generating attractive risk-adjusted returns. We hedge the interest rate risk in these securities with an array of products including interest rate swaps, futures and mortgage servicing rights (MSRs). As the second most liquid fixed income market in the world, the agency MBS market offers a wide breadth of investment types and has access to robust financing markets due to its liquidity and government sponsorship.

Specified Pools

- Backed by 15 year and 30 year fixed rate mortgages
  - MBS with call and extension protection
- Creates relatively durable and stable cash flows

TBA Securities

- Most liquid sector in agency market
- Depth of market enables strategic trading
- At times, implied financing rates in TBA market provides cheaper alternative to agency repo

ARMs

- Shorter duration loans that are fixed rate for a period of time and then become floating rate securities
- Diversifies Agency strategy duration profile

IO & MSRs

- Negative duration assets that provide interest payments to the bond holder
- Provide a natural portfolio hedge for rising rates while simultaneously producing coupon income

3.1.2 Commercial Real Estate

Annaly Commercial Real Estate Group, Inc. ("ACREG") originates and invests in commercial mortgage loans, securities, and other commercial real estate debt and equity investments. ACREG is a balance sheet lender offering flexible and customized solutions to borrowers. ACREG focuses on top sponsors with creative business plans, strong and durable markets, and loan structures that mitigate risk. Representing $1.1bn of Annaly's equity as of June 30, 2018, ACREG maximizes returns through conservative financing strategies utilizing senior loan syndication relationships, credit facilities and the securitization market. Annaly's commercial investments complement the longer duration fixed-rate agency Mortgage-Backed Securities (MBS) portfolio, as they are primarily shorter, floating rate assets.

First Mortgage

- Originate whole loans
  - Floating rate
  - Transitional assets
  - Major property types
- Invest in investment-grade Commercial Mortgage-Backed Securities (CMBS / CMBX)

Mezzanine / Preferred Equity

- Originate and invest in subordinate debt / preferred equity
  - Fixed or floating rate
  - Transitional or stable assets
  - Major property types
- Invest in non-investment-grade CMBS and B-pieces

Equity

- Invest in stable cash-flowing properties to complement debt portfolio
- Grocery-anchored shopping centers
- Multifamily

3.1.3 Residential Credit

The Annaly Residential Credit Group invests in non-agency residential mortgage assets, both in the securitized product and whole loan markets. The group is at the forefront of mortgage finance reform via investments in relatively new products such as government-sponsored enterprise (GSE) Credit Risk Transfer (CRT), New Origination Securities, as well as securities backed by non-performing and re-performing loans. We purchase high quality whole loans through a wholly-owned subsidiary, Onslow Bay Financial LLC. We also participate in the legacy residential credit market. Initiated on Annaly's balance sheet at the beginning of 2015, the residential credit platform has grown to represent $1.3bn of Annaly's equity as of June 30, 2018. Annaly's residential credit investments complement the longer duration fixed-rate agency Mortgage-Backed Securities (MBS) portfolio, as these investments are primarily shorter duration or floating-rate assets.

Whole Loans

- High quality, new origination expanded loans
- Opportunity to capitalize on advantageous Federal Home Loan Bank (FHLB) financing(1)
- Ability to leverage the securitization market as an alternative financing source

CRT

- Originate and invest in subordinate debt / preferred equity
  - Fixed or floating rate
  - Transitional or stable assets
  - Major property types
- Invest in non-investment-grade CMBS and B-pieces

Pre-Crisis Assets

- Securitized loans originated pre-crisis
- Market supported by short and long-term positive technicals, as well as positive fundamentals
- Upside optionality due to discount dollar prices

New Origination

- MBS collateralized by new origination loans
- Pristine credit quality
- Complement to Agency portfolio
- Attractive financing through the FHLB

NPL Securities

- Short duration assets backed by non-performing loans
- Conservatively structured with extension protection
- Issuer / investor incentives aligned

3.1.4 Middle Market Lending

Annaly Middle Market Lending LLC ("AMML") provides financing to private equity backed middle market businesses across the capital structures. AMML's direct origination strategy centers around strong partnerships with U.S.-based private equity sponsors and intermediaries to source financing opportunities. AMML also sources debt products by anchoring club and syndicated transactions. AMML investments represent $1.1bn of Annaly's equity as of June 30, 2018. The robust credit work done in AMML gives Annaly a unique insight into domestic micro economies and is a powerful lens into the health of the business cycle. AMML's investments complement Annaly's longer duration fixed-rate agency Mortgage-Backed Securities (MBS) portfolio, as they consist of shorter, floating rate assets in comparison. AMML is a wholly-owned subsidiary of Annaly Capital Management, Inc.

Debt Products

- Senior Secured Debt
  - First Lien
  - Second Lien
  - Unitranche
- Unsecured Subordinated Debt

Deal Types

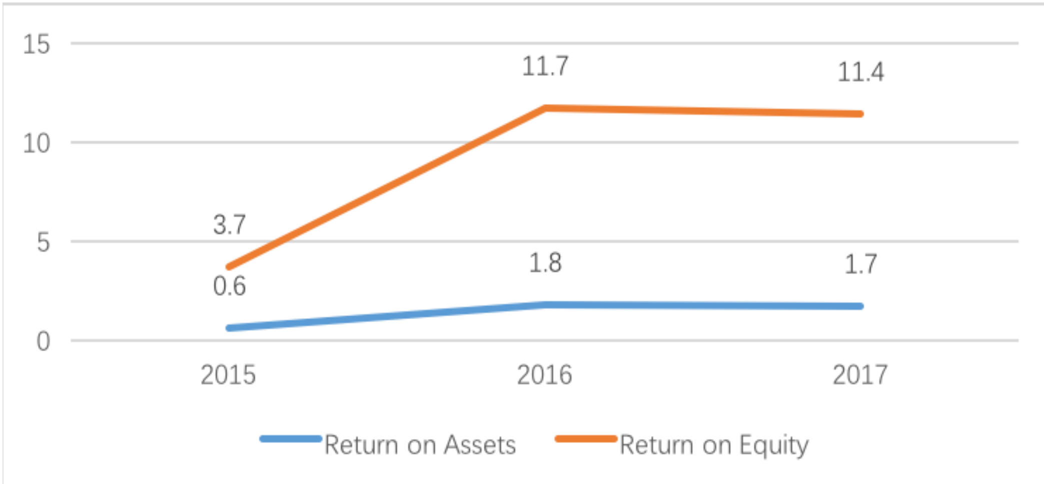
- Leveraged Buyouts
- Acquisition Financing
- Refinancings
- Recapitalizations

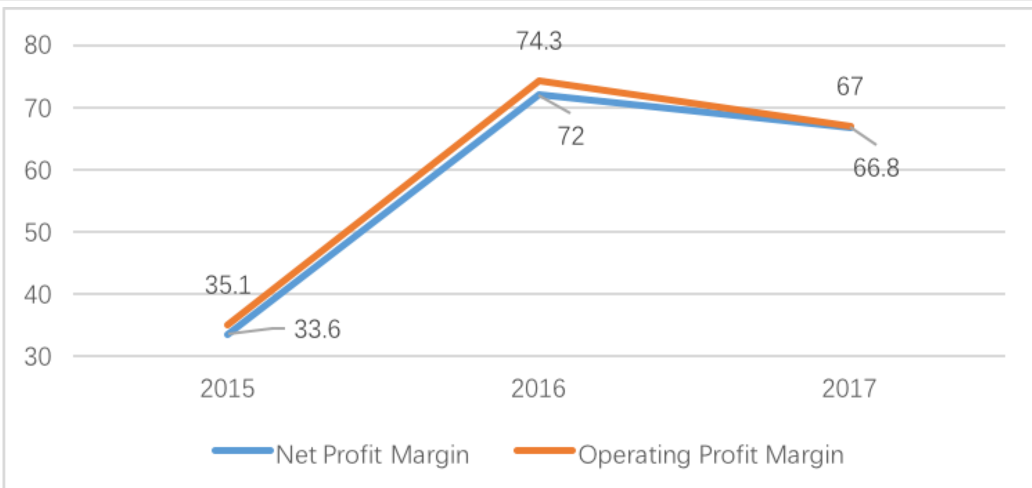
The change of allocation (%) is as follows:

Allocation (%) of capital across four businesses – agency, commercial real estate			
Business	2015	2016	2017
Agency	77	80	76
Commercial Real Estate	14	9	8
Residential Credit	5	7	11
Middle Market Lending	4	4	5

3.2 Financial analysis

3.2.1 Profitability

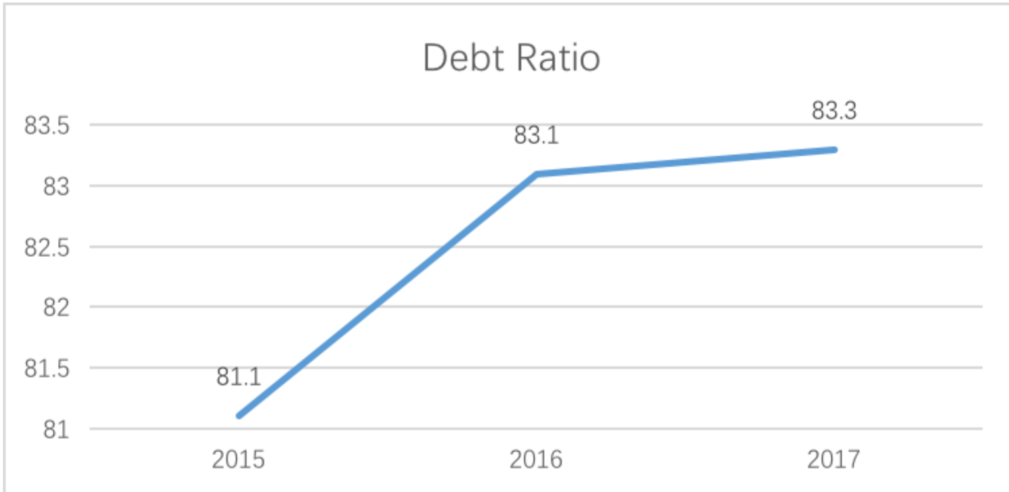




Annaly has a net profit margin of 66.8% in 2017 and a gross profit margin of 67% in 2017, in which both have shown positive growing trend for the company's earnings from its net profit margin of 33.6% in 2015 and its gross profit margin of 35.1% in 2015. It reflected the firm's ability to convert its sales to profit through controlling its costs and expenses. The return on assets ratio of 1.7% in 2017 also signifies the profitability of the firm comparing to its total assets.

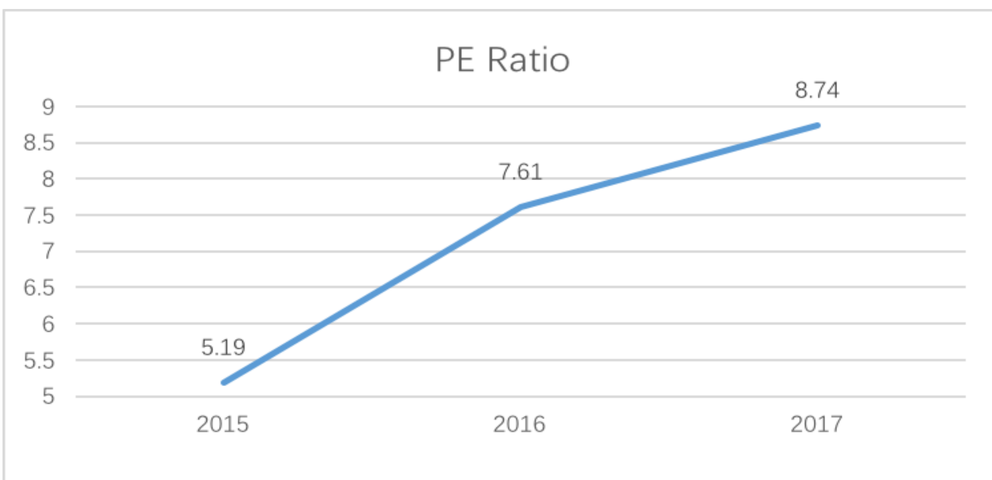
Annaly's profitability indexes being higher than its industry comparables can be attributed to its diversification strategy, where it not only invests in traditional agency mortgage backed securities (MBSs), but also short-term and credit-focused investments. It is also expected that this strategy of having a prudent selection of investments and funds will drive its growth on returns.

3.2.2 Liquidity



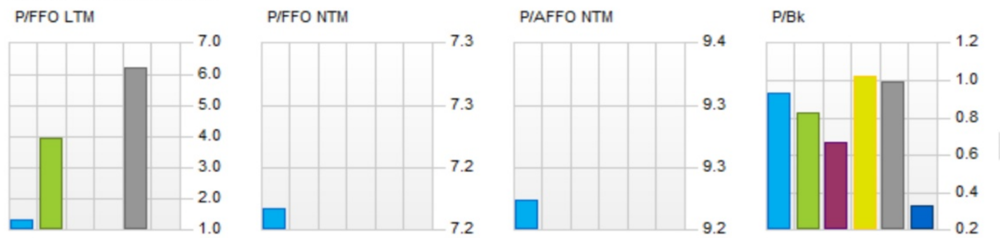
Debt Ratio is a financial ratio that measures the extent of a company's leverage. From 2015 to 2016, the company's Debt Ratio increased from 81.1 to 83.1,the incremental variance being 2. This indicates that they achieved a progress in leverage management. The incremental difference between 2016 and 2017 is .2 which is relatively a low number. Their performance concerning leverage management is improving and stable.

3.2.3 Market Value



The price-to-earnings ratio (PE ratio) reflects how much investors are willing to pay per dollar of earnings, Annaly yields a lower PE ratio of 8.74% compared to its industry comparables of 9.65%, indicating the stock is undervalued in the stock market. As compared to its historical data, the PE ratio increases from 5.19% in 2015 to 8.74% in 2017, showing an increase in demand as investors anticipate earnings growth and share price growth in the future.

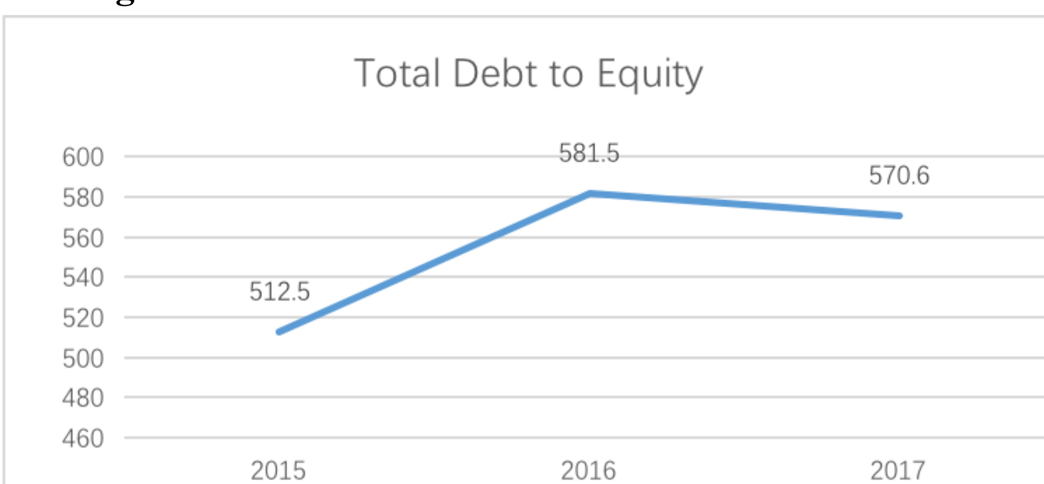
Valuation Peer Analysis



	Annaly Capital Mgmt (NLY)	Capstead Mortgage (CMO)	Impac Mortgage Holdings (IMH)	Redwood Trust (RWT)	AG Mortgage Invt Trust (MITT)	Cohen & Co (COHN)
P/FFO LTM	1.3	3.9	-	-	6.2	-
P/FFO NTM	7.2	-	-	-	-	-
P/AFFO NTM	9.2	-	-	-	-	-
P/Bk	0.9	0.8	0.7	1.0	1.0	0.3
P/NAVPS	-	-	-	-	-	-
P/NAV-NTM	-	-	-	-	-	-
EV/EBITDA LTM	21.3	48.4	46.3	23.4	24.9	161.8
EV/EBITDA NTM	-	-	-	-	-	-
Div Yld	11.4	6.8	0.0	7.3	10.5	8.0

The dividend yield ratio of Annaly in 2017 is 11.4%, with a consecutive 18 quarters of dividend payout, which is a lot higher than the industry average. It is expected that the dividend payout could be sustained through its strong capital position of approximately $7.3 billion high quality assets.

3.2.4 Leverage



The Total Debt to Equity ratio indicates how much debt a company is using to finance its assets relative to the value of shareholders' equity. From the numbers in the graph, it is evident that the total debt to equity ratio increased from 512.5 in 2015 to 581.5 in 2016 with its growing ratio being 13.46%. This indicates that between 2015 and 2016, they took advantage of the increased profits that financial leverage brought.

However, the company's ability to generate cash to satisfy its debt obligations is decreasing. On the contrary, from 2016 to 2017, the debt to equity ratio decreased from 581.5 to 570.6, the rate being 1.8%, which denotes that they made relatively good use of the increased profits brought by financial leverage. The total trend of total debt to equity ratio is increasing, so the company have to improve its performance in generating enough cash to satisfy its debts obligations.

3.3 Risk Factors

3.3.1 Leverage Risks

The leverage may cause margin calls and defaults and force the company to sell assets under adverse market conditions. A decline in the value of interest earning assets may result in lenders initiating margin calls. Their fixed-rate mortgage-backed securities generally are more susceptible to margin calls as increases in interest rates tend to more negatively affect the market value of fixed-rate securities. If Annaly is unable to satisfy margin calls, lenders may foreclose on their collateral.

3.3.2. Interest Rate Risks

An increase in interest rates may adversely affect the market value of their interest earning assets and reduces the book value. In addition, Annaly's fixed-rate interest earning assets are generally more negatively affected by increases in interest rates because in a period of rising rates, the coupon they earn on their fixed-rate interest earning assets would not change. The book value would be reduced by the amount of a decline in the market value of the interest earning assets.

3.3.3 Derivatives Risks

The use of derivatives may expose the company to counterparty and liquidity risks. Generally, annaly attempts to retain the ability to close out of a hedging position or create an offsetting position. However, in some cases they may not be able to do so at economically viable prices.Therefore, in some situations a derivative position can be illiquid, forcing annaly to hold it to its maturity or scheduled termination date.

3.3.4 Market Risks

Volatile market conditions for mortgages and mortgage- related assets as well as the broader financial markets can result in a significant contraction in liquidity for mortgages and mortgage-related assets. Institutions from which they seek financing for their investments may tighten their lending standards or become insolvent, which could make it more difficult for them to obtain financing on favorable terms or at all. Annaly may also experience declines in the market value of assets resulting in recording impairments, which may have an adverse effect on the results of operations and financial condition.

3.3.5 Liquidity Risks

Failure to effectively manage their liquidity would adversely affect the results and financial condition. Potential conditions that could impair Annaly's liquidity include: unwillingness or inability of any of their potential lenders to provide them with or renew financing, calls on margin, a disruption in the financial markets or declining confidence in their reputation or in financial markets in general.

4. Company Valuation

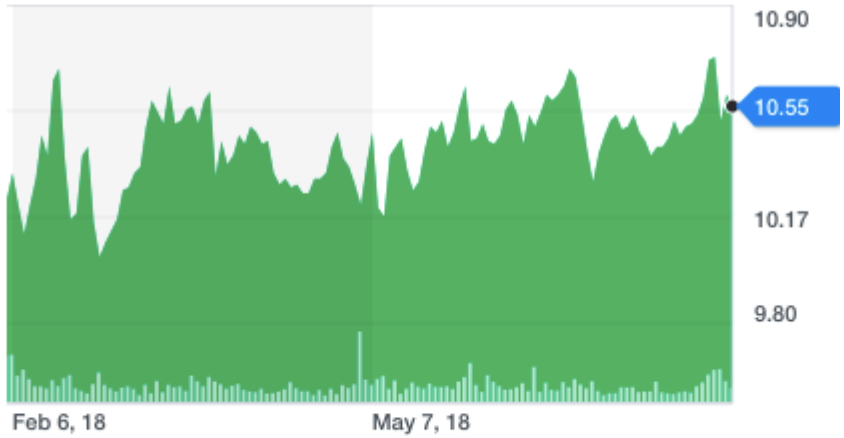
4.1 Valuation Using Dividend Discount Model and Residual Income Valuation

From the annual report of Annaly from 2015 to 2017, it is evident that the company pays dividend for common stocks and preferred stocks every year. Since an assumption for Dividend Discount Model (DDM) is steady dividend with a constant growth rate, DDM is chosen as relatively more accurate representation of company valuation. Meanwhile, the Residual Income Valuation is also applied to value the stock through book value to mitigate the bias that might be brought by the assumptions of DDM as it focuses on the dividends paid.

For DDM, the dividend paid per year (Dt) is derived from Annaly's annual report and discounted rate is retrieved from Factset. Then the formula given is used to calculate the present value (PV) of Dt and PV of the first period after growth begins respectively. By adding them together, the stock value per share is calculated as $10.23017903.

When it comes to the Residual Income Valuation (RIV), the actual numbers in 2017 is used to forecast future valuation. It is assumed that the required rate of return on equity (r) will decrease constantly by 10% each year since risk premium such as inflation will cause an increase in stock price while dividend paid per year remains constant. Since "Forecast ending book value per share = Beginning book value per share (BV)+ Earning per share (E) –Dividend paid(D)", the forecasted ending book value per share is derived. The required rate of return on equity(r) is obtained from Factset and the residual income per share is calculated by subtracting BV multiplied by r from E. As a result, the PV of residual income per share is derived by dividing it by discounted rate, which is $13.87411136.

The difference of stock value between DDM and RIV can be attributed to the difference in assumptions and estimates, while DDM forecasts dividends paid in the following years, RIV forecasts future residual income.



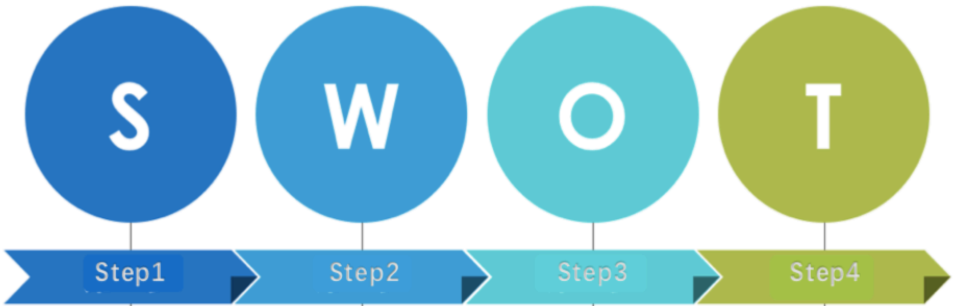
Using these estimates, an expected fair price per share of $12.0521452 is calculated, derived from the average number of both models. Since the company trades at $10.55 on August 3, 2018, the current stock price is undervalued, so a ***buy*** is recommended. The complete model is shown in spreadsheet attached.

4.2 Sensitivity Analysis

	As of December 31, 2016	
Interest Rate Change (bps)	Estimated Percentage Change in Portfolio Value(2)	Estimated Change as a % of NAV(2)(3)
(75)	0.7%	5.0%
(50)	0.6%	4.4%
(25)	0.4%	2.6%
25	(0.5%)	(3.3%)
50	(1.1%)	(7.3%)
75	(1.7%)	(11.8%)

As mentioned in the previous section, one of the risks Annaly face is the fluctuation on the interest rate since the previously owned MBS are needed to be sold at a lower price. Therefore, Annaly's book value will be negatively affected as interest rates rise, on a degree that is shown in the table above. The high sensitivity to volatility and interest rates will cause a pressure to Annaly's share, leverage and capital position. This may also be a drawback for investors who expect a high dividend yield from these mortgage REITs.

5. SWOT Analysis



1. Huge market share: Annaly Capital Management is one of the largest mortgage-based real estate investment trusts in the United States. 2. Diversified product strategy: The product mix investment, portfolio and financial services processes and solutions is guided by the company' s overall business strategy.	1.Negative leverage risks: The high leverage may cause potential debt and low liquidity. 2. Derivatives risks: The use of derivatives may give the company liquidity risks.	1. Favorable industry situation: Real estate is view as a good way to improve portfolio diversification. 2. Sufficient market demand: Consumers have strong demand and optimism for fixed-income products. 3.Positive economic prospect: Stable economic growth may give an attractive economic return.	1. interest rate flotation: Sensitivity to interest rates may make Annaly' s market value and book value may be adversely affected 2. Market volatility effect: Volatile market conditions can result in a significant contraction in liquidity for mortgages and mortgage-related assets.

6. Investment Thesis and Conclusion

Annaly's diversification, scale and liquidity, coupled with an established investment platform, provide a unique investment opportunity in today's markets

Operational Excellence	Annaly's operating expenses as percentage o[f;. assets and equity are 65% and 53% lower than peers, respectively	**Size & Scale**	largest merit with pro forma equity base of over $14 billion~25x the market capitalization of the median merit
Durability &Stability	Beta of 0.55 is lower than any other equity yield index in the S&P 500	**Liquidity & financing**	Annaly utilizes a multitude of funding sources and has pro forma unencumbered assets of over $7.7 billion
Human CaGovernanc epital & Engagement	100% of employees subject to Stock Ownership guidelines are on track to meet them	**Diversified shared capital model**	37 available investment options in nearly 3x more than in 2013
Outper--formance:	Market leading total return of 67% since diversification strategy began	**Market leading consolidator**	Three acquisitions for a combined value of over $3.3 billion since the initiation of annaly's diversification strategy

Annaly is able to make substantial returns through a diversified business model, which brings a stable cash flow and mitigate the risk of losses in a concentrated portfolio of residential mREIT. Its strong capital position enables it to sustain its dividend pay, and results in a fair valuation of stock price using the models above. However, it is notable that the company is still exposed to uncertain risks of losing money over high dividend and share price volatility, especially under an environment of rising interest rates and borrowing costs. Investors are advised to take note on the various risks which might affect Annaly's ability to maintain an adequate cash flow for dividend pays.

7. References

Annaly Capital Management, Inc. (NLY) (2018). Business Summary. Yahoo! Finance. Retrieved from https://finance.yahoo.com/quote/NLY?p=NLY.

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