

November 30, 2017

Company Name: TOL

Michael Diotalevi

Sector: Consumer Discretionary
Industry: Household Durables
Current Price: 50.18
Target Price: 57.52

Founded in 1967, Toll Brothers are an industry leader in the luxury homebuilding segment. The Toll brothers continue to prove their excellence as they have just been awarded The World's Most Admired Companies- #1 Homebuilder by *Fortune Magazine* for the third consecutive year. The Toll Brothers build in 20 states and operate in approximately 50 "high-end" housing markets and apartment living facilities nationwide. The company maintains a balanced footprint across the East, West and Southern regions of the United States. The company constructs approximately 8,000 homes annually with a majority of the homes being single-family luxury developments. The Toll Brothers are managed by a team of individuals who founded the company in 1967.

BUY/HOLD/SELL

Current Price: \$50.18

Target Price: \$56.13

Market Cap: 7.9B

Volume: 2.52M

WACC: 5.3

ROIC: 5.6

Sales Growth: 18.35%

EBITDA Margin Growth: 19.41%



Thesis: As confidence continues to gain for the future housing industry, the Toll Brothers corporation will continue to increase revenues as the group diversifies its' portfolio into new housing markets. The company will enter new, high demand housing markets while continuing to complete work within their strong pipeline of backlog. Taking advantage of a newly incorporated business segment the company is prepared for demand from an emerging market with high value. Maintaining strong operating margins will contribute to the Toll Brother's ability to outperform its competitors in a "bottom line" analysis.

Catalysts:

- Short Term: Expansion of the *Suburban High Density* segment.
- Mid Term: Increasing demand within the housing sector.
- Long Term: Median housing prices upward trend and the contribution to revenue.

Earnings Performance:

Ending quarter three on August 22nd, the Toll Brothers have continued to produce stronger results compared to the company's previous quarters, year over year. Revenues have increased at a stable rate while operating margins continue to increase and outperform the industry and the companies competitor average. "The Toll Brothers reported a better-than-expected quarterly profit, helped by strong demand for it's' homes in an improving job market (B.Insider)". The company narrowed its full-year revenue forecast range to \$5.6

billion-\$6.0 billion from \$5.4 billion-\$6.1 billion. Revenues for the quarter totaled \$1.5 billion and the 1,899 units of homes delivered rose 18% in dollars and 26% in units compared to quarter three of 2016. The company appears to be on track for revenue projections as quarter four nears its end (12/05/2017). Third quarter net income rose 41% compared to third quarter 2016 results. Net income for the quarter totaled \$148.6 million. Toll Brother shares gained 48% within the last year, while the rest of the industry recognized gains of 41.5%.

Net signed contracts for the quarter increased 26% in units compared to the fiscal year 2016 third quarter. For the company, this past quarter was the, 12th consecutive quarter of year-over-year growth in total contract dollars and units. Third quarter backlog of \$5.31 billion and 6,282 units rose 21% in dollars and units sold compared to the previous year's correlating quarter. For 2017's third quarter, contract signings and contract dollars were the highest third quarter totals in the past 12 years for the Toll Brothers. The Toll Brothers have a strong pipeline of backlog work to complete within the upcoming quarters, which will contribute to an upward momentum in revenue. Looking at third quarter demographics of construction the company recognized a 63% increase in contract units from California, and a 39% increase in units from the western region. The Toll Brothers expansion of demographic presence will be further evaluated later on in this analysis. The company is also recognizing rapidly increasing sign-ups within their *community living* segments and *apartment-style living* segment introduced in previous quarters. Further expanding into these highly influential markets is something the Toll Brothers are expected to do in upcoming quarters.

Looking at the Toll Brother's last twelve months, adjusted to cash basis EBITDA margin, the Toll Brothers have maintained an EBITDA margin above its most similar competitors. Bloomberg projections for the remaining 2017 fiscal year, and the 2018 fiscal year suggest the Toll Brother's to outperform their competitors and industry average. It is important to recognize that because of the most recent natural disasters, supply costs are inflated for the entire market. It is expected that the inflated costs of materials will rebalance during 2018, but this is an industry wide occurrence effecting all competitors EBITDA margins as well. With current costs inflated I believe this more strongly demonstrates how efficient the Toll Brother's operations are, as they outperform their competitors during an inflated period. The following chart shows the Toll Brother's adjusted EBITDA margin compared to their competitor's EBITDA margin. The chart compares the Toll Brother's performance to their corresponding industries' average, for current results and future projections as well.

EBITDA Performance and Estimates:

	LTM Ebitda Margin	FY 2017 Estimate	FY 2018 Estimate
Toll Brothers Inc.	10.00	15.6	15.1
CalAtlantic Group Inc.	8.53	10.5	11
Lennar Corp-A	9.06	10.8	11.9
Tri Pointe group Inc.	7.92	12.6	10.9
NVR Inc	10.32	14.1	12.4
Industry Average	9.17	Industry Average:	10.72
			10.26

The Toll Brother's performance is highlighted above in yellow and the industry average is highlighted above in orange. With stronger projections of EBITDA performance ending FY2017, and increased FY2018

EBITDA projections, the Toll Brothers will outperform its competitors from the nation-wide economies of scale. I assume that when the costs of materials rebalances from the previous natural disasters the Toll Brothers will perform at higher margins.

Strategic Target Locations for Millennial Investors:

Traditionally, the Toll Brothers have offered high-end housing developments for luxury residential housing consumers. The company once catered to consumers with an annual income of ~\$800,000 and above. Originally, the company only catered to move-up, empty-nester, active adult, and second-home buyers in the United States. In October 2016, the Toll Brothers were operating in 19 states. After acquiring substantially all of the assets of Coleman Real Estate Holding in November of 2016 the company has expanded into new states and an additional market segment. This was an acquisition performed through cash for \$85.2 million. The acquisition included 1,750 homes sites either owned or controlled through land purchase agreements.

Ending the previous quarter the Toll Brothers inventory consisted of the following:

	July 31, 2017	October 31, 2016
Land controlled for future communities	\$ 81,512	\$ 71,729
Land owned for future communities	1,153,712	1,884,146
Operating communities	6,398,344	5,398,092
	<u>\$ 7,633,568</u>	<u>\$ 7,353,967</u>

The company has expanded their community and residential living segments while newly introducing their *Suburban High Density* segment back in 2017. Expanding this segment is something Toll Brothers expect to do within the FY 2018 and continuing periods. The Toll Brothers have shifted their focus toward a millennial demand based model as the company looks to capture as much demand as possible from the newly emerging millennial market. In their most recent investor's presentation a member of management mentions, "With the millennial generation now entering their thirties and forming families, we are starting to benefit from the desire for home ownership from the affluent leading edge of this huge demographic wave. In Q1 FY 2017, approximately 26% of our settlements included one primary buyer thirty-five years of age or under." This strategy is something the company will continue to pursue looking to the future as the company continues to gain market share.

The following map is a demonstration of the geographical locations of where the Toll Brothers have already introduced, and plan to introduce their *Suburban High Density* segment.



To meet the demand from millennial consumers the Toll Brothers have identified demographic trends targeting the baby boomers looking for “city living” environments. Currently the Toll Brothers occupy communities in NYC, North Jersey’s Gold Coast, Philadelphia, and Urban Metro DC. The Toll Brothers have completed construction on 30 buildings, totaling ~3,900 units. Their 2018 pipeline consists of six buildings, totaling ~1000 units available for sale. The company looks to expand their geographic offering of apartment style living as the Toll Brothers are currently exploring Boston, San Francisco & Miami.

Directing their focus on meeting millennial expectations, the 50-200 unit range located in upper scale neighborhoods. Shifting their focus from the “Super Luxury” as in the past, to more median-upper income range consumers, the Toll Brothers will capture more of the millennial target market. Using their well-established brand the company will maintain their reputation in the market place, while expanding their market share from the millennial population. The Toll Brothers have a goal of controlling land for an additional 5,254 future apartments throughout the Northeast/Mid-Atlantic, Dallas, Fort Worth, Atlanta, Phoenix & Fremont, CA within the FY2017 – FY2018. In their most recent investor conference there was no reference as to how the Toll Brothers will fund these investments in the future years. The investor presentation does mention that the Toll brothers have ~\$1.3 billion of available liquidity with a strong credit rating of BBB+. The presentation did mention that management updated their guidance with regard to homes and apartments delivered to 7,000 and 7,300 in FY2017 compared to the previous guidance of 6,950-7,150 units.

The following charts demonstrate what the Toll Brothers have done to target the millennial buyers, along with what the company projects to complete by 2018 with regard to the units in development. The chart refers to the Toll Brothers City Living Condos and Apartment Living Rental facilities.

City Living (Condo for Sale)	Apartment Living (Rental)*
<ul style="list-style-type: none"> - Manhattan, Brooklyn, and Queens, NYC - Hoboken and Jersey City, NJ - Metro Washington, DC - Philadelphia, PA 	<ul style="list-style-type: none"> - Located in Urban and Suburban locations - 6 projects (2,961 units) stabilized - 2 projects (598 units) leasing - 4 projects (1,430 units) under development - 18 projects (5,254 units) in the pipeline

Industry Demand:

The Toll Brothers perform business in an industry where demand and supply have strong correlation with one another. Supply plays a strong role in the valuation of the industry and the pricing of homes in the market. Supply's correlation to demand can either positively affect or negatively affect the pricing of the homes the Toll Brothers offer. Currently the housing industry has entered a state where supply is beginning to tighten,

but demand is increasing and expected to continue throughout 2018. A tightening supply of the physical homes available for sale, land availability, number of building permits available, and lowered interest rates should all be considered when analyzing the health of the housing industry.

Fortunately, for the Toll Brothers, these characteristics look favorable. The housing industry itself is prevailing from the limited inventory within the United States. Strong employment, income growth, growing interest from first-time homebuyers, relatively low mortgage interest rates and low inventory of new and existing homes are some of the factors that have been supporting sustained growth in housing market.

Job creation is one of the main determinants in investment rates in the housing industry. Currently the employment market has averaged almost 200,000 jobs created each month since the start of 2016. In addition, employment among the critical 25-34-year-old has improved dramatically and is hovering near a post-recession peak.

For interest rates the “30-year fixed mortgage rate remains favorable at 3.91% and isn’t expected to reach 5% until 2020 at the earliest.(Mortgage Bankers Association)” These low rates are helping to maintain affordability as housing prices rise by mid-single-digits. Along with low mortgage rates, credit availability continues to expand. New down payment plans have been introduced by creditors and builders allowing more buyers to enter the market. This is something the Toll Brothers have focused on in the past quarter.



Existing home inventories have continued to remain at historically low levels. There is strong potential that as demand continues to rise, new-home markets will emerge and further expand. Resale inventories have been declining consistently since 2015. Optimism for the new-homes market is high as the industry attempts to meet the market’s demand. The following chart is a representation of the existing home inventory and the new-home inventory statistics and projections. I believe that the Toll Brothers will experience strong revenue growth throughout 2018 and the following years due to the previously mentioned influences of demand.

The Commerce Department reports the following:

- Housing starts rose to 1,290k vs 1,135k in the prior month.
- Starts rose 13.7% in Oct. An upward trend is projected for November and December.
- Single family starts rose to 877K: multifamily starts rose to 413k in October.
- Building permits rose to 1,297k vs 1,225k in September.



The Toll Brothers are well prepared for the rising demand within the housing industry. The Company has positioned themselves to maintain an adequate supply of land for construction of homes within regions the company deems most profitable. “The Toll Brothers have secured some of the most sought-after urban locations in the country, where the land is scarce and approvals are not easy to obtain.(E.Statement)” Acquiring land in these highly demanded locations can contribute to higher pricing for the Toll Brothers to offer. Strategically these land acquisitions are deemed, “the most profitable and highly demanded by consumers” mentions a member of management in the most recent investor conference.

The Toll Brothers have a unique strategy as to how the company acquires land for development. The company uses land option agreements and joint partnership to lower capital expenses associated with acquiring the land for developments. After extensive market research, management will obtain the desired land. JLand options allow the Toll Brothers to prolong acquiring portions of properties owned by the sellers until the group has determined when to exercise the contract, and when to begin construction. The Toll Brothers will only exercise an agreement once they have received a down payment from the buyer for the portion of land. Strategically this prevents the Toll Brothers from purchasing any land that may not be executed in development.

The Toll Brothers will continue to secure urban locations in areas such as New York City, Northern New Jersey, Washington D.C, California, and Philadelphia. The Toll Brothers will continue to outperform their applicable housing niche competitors by strategically identifying their target markets, and continuing to offer a product designed for their target markets. The Toll Brothers will shift their focus more toward the smaller-family housing developments and community living centers to meet the demands from millennial consumers.

The following chart represents the locations where the Toll brothers either own or have optioned the purchase of land for future development. The data provided is from the 10-K statement.

	Number of communities	Number of home sites
Traditional Home Building:		
North	39	3,733
Mid-Atlantic	49	4,522
South	20	2,035
West	81	8,373
California	33	4,108
Traditional Home Building	222	22,771
City Living	8	1,250
Total	230	24,021

The market has recognized a strong increase in demand for single-living housing and apartment complex living. The U.S Census Bureau states, “Per the latest jointly released report by the U.S. Census Bureau and the U.S. Department of Housing and Urban Development, constructions for new homes increased 13.7% in October 2017 to 1.29 million units (seasonally adjusted annual rate) from the prior month. This also marks the biggest surge in 12 months as housing starts witnessed big gains in single-family homes and apartments. (Y.Finance)” As the Toll Brothers have done within the fiscal year, they will continue to introduce new apartment and single-family living complexes throughout fiscal year 2018. The group has recognized high returns on the implementation of apartment living facilities.

For example, with regard to their newly included New York City market, looking at the Grove Street PATH station apartment complex the company has taken 49 agreements since opening six weeks ago. The companies apartment living platform has continued to grow at the Toll Brothers expect to reach 100% occupancy in the roughly 3,000 units in six separate communities. Past performance suggests that the company has establish preforming guidelines as to recognizing where new developments should be located, and how effective the

company will be at selling the units. Ending FY 2017, the company projects in their Q3 earning report that their “apartment living segment will produce \$22.8 mm of profit compared to \$4.6mm in FY2016.”

Demand Driven, Rising Value:

Increasing demand within the industry will have a direct correlation on the median pricing of homes within the sector. These increasing rates of demand will cause the median price of homes to increase as the market has already seen within the previous quarters. “U.S. home prices rose by 7% from September 2016 to September 2017, according to CoreLogic. The firm expects home values to continue to land in the "plus" category in 2018, at a growth rate of ~5%. (WSJ)” Limited inventory within the sector has contributed to the upward movement of pricing.

Demand within the industry has recently spiked from locations known as high-demand pockets. These pockets are city locations, which are experiencing higher rates of demand by millennials and new buyers. High-demand pocket housing prices are expected to grow at double-digit growth rates throughout 2018, ~10%. A vast majority of the Toll Brothers backlogged inventory and current land ownership occupy the regions of Los Angeles, New York City, and Florida.

As previously mentioned Boston is another high-demand pocket for consumers, and a location where the Toll Brothers will expand their operations. For these pocket locations, I expect the Toll Brothers to receive increased revenue due to increasing prices of homes fueled by rising rates of demand. I have projected revenue for the year 2018 to grow by ~24% with a strong portion driven by these pocket locations. Currently the CAGR for *City Living* is 19%, I expect the segment to see the strongest growth in revenue in 2018, preforming higher than the current CAGR.

The following chart demonstrates my analysis explained above.

Business Segments		Reclassified						CAGR	Average CAGR
For the Fiscal Period Ending		12 months Oct-31-2011 USD	12 months Oct-31-2012 USD	12 months Oct-31-2013 USD	12 months Oct-31-2014 USD	12 months Oct-31-2015 USD	12 months Oct-31-2016 USD		
Currency Revenues									
Traditional Home Building - North		320.8	350.6	485.1	662.7	702.2	814.5	0.204853335	
			9.3	38.3	36.6	6.0	16.0		
Traditional Home Building - Mid-Atlantic		465.1	535.7	652.9	817.3	845.3	895.7	0.140036863	
			15.2	21.9	25.2	3.4	6.0		
Traditional Home Building - South		273.3	361.8	641.3	836.5	892.3	849.5	0.254609884	
			32.4	77.3	30.4	6.7	(4.8)		
Traditional Home Building - West (Excl. California)		-	-	369.7	517.9	665.3	903.7	0.195734627	
					40.1	28.5	35.8		
Traditional Home Building - California		-	-	354.7	795.8	750.0	1,448.5	0.325015115	
					124.4	(5.8)	93.1		
City Living		107.1	196.7	170.7	281.3	316.1	257.5	0.191785542	
			83.7	(13.2)	64.8	12.4	(18.6)		
Traditional Home Building - West		309.6	437.9	-	-	-	-	0.218672561	
Total Revenues		1,475.9	1,882.8	2,674.3	3,911.6	4,171.2	5,169.5		6,299.94

The following chart represents the Toll Brothers current city living pipeline. The locations listed are of operations the Toll Brothers have completed, but have remaining collectable revenue due to unoccupied units. It is important to notice that a majority of these locations are in these high-demand pocket locations as previously mentioned. I believe these locations, and expansion locations will be the main drivers for the Toll brothers increasing growth in revenue. The outlook for upcoming quarters looks favorable for the Toll Brothers. I believe it is fair to assume the Toll Brothers will experience increased revenue from increasing prices at each location displayed below.

CURRENT CITY LIVING PIPELINE*								
	Total Units	Settled Units	Sold (Not Settled) Units	Units Left to Sell	Estimated Remaining Revenue**	Construction Start	Open for Sale	1st Settlement
400 Park Ave South (Manhattan)	81	77	1	3	\$17.5 - \$20.3 million	Q3 2012	Q4 2014	Q4 2015
Pierhouse at BBP (Brooklyn) †	106	84	2	20	\$112.5 - \$134.9 million	Q3 2013	Q2 2014	Q4 2016
1110 Park Ave (Manhattan)	9	7	0	2	\$28.8 - \$32.0 million	Q3 2013	Q3 2014	Q4 2015
The Sutton (Manhattan) ††	89	68	7	14	\$75.4 - \$90.6 million	Q3 2014	Q1 2015	Q4 2016
Hampden Row (Bethesda)	55	23	7	25	\$44.0 - \$52.0 million	Q1 2015	Q1 2015	Q2 2017
55 W 17th Street (Manhattan)	52	24	8	20	\$113.7 - \$129.5 million	Q1 2015	Q4 2015	Q2 2017
1400 Hudson (Hoboken)	236	55	155	26	\$188.7 - \$195.2 million	Q1 2015	Q4 2015	Q3 2017
100 Barrow Street (Manhattan) §	25	0	8	17	\$116.0 - \$130.4 million	Q2 2015	Q3 2016	Q4 2017
121 East 22nd Street (Manhattan) §§	140	0	31	109	\$414.8 - \$506.9 million	Q2 2016	Q1 2017	Q4 2018
10 Provost Street (Jersey City)	242	0	29	213	\$185.5 - \$226.7 million	Q2 2016	Q3 2017	Q3 2018
Total	1,035	338	248	449	\$1.30 - \$1.52 billion			

With regard to expansion into new locations the Toll Brothers will continue to expand into these high-demand pocket locations. The company specifically looks to further expand into the locations of New York, New Jersey, and Boston for the years 2018 and 2019. The Toll Brothers have not yet disclosed any information for Boston locations, but the following chart represents the company's future expectations of revenue for the new city locations. These locations are either nearing completion, or will be completed within the next two years.

FUTURE CITY LIVING PIPELINE*					
	Total Units	Estimated Revenue	Construction Start	Open for Sale	1 st Settlement
Provost Square III (Jersey City)	259	\$182.8 - \$223.5 million	Q4 2018	Q3 2019	Q4 2020
91 Leonard (Manhattan) **	111	\$272.8 - \$333.4 million	Q3 2016	Q4 2017	Q2 2019
1451 Hudson (Hoboken)	99	\$104.6 - \$127.8 million	Q3 2017	Q2 2018	Q2 2019
1000 Maxwell Lane (Hoboken)	58	\$57.4 - \$70.2 million	Q4 2017	Q4 2018	Q4 2019
77 Charlton (Manhattan)	162	\$295.4 - \$361.1 million	Q4 2017	Q1 2018	Q1 2020
Total	689	\$1.10 - \$1.34 billion			

Increased pricing will directly affect the Toll Brother's operations and revenue cash flows. Increasing prices of homes will cause increased costs of operations with regard to raw materials necessary for construction. The Toll Brothers have prepared for this through integrated construction systems. The company has established panel and truss manufacturing locations nationwide. At these locations, the company manufactures and distributes wall panels, floor and roof trusses, signature millwork, windows, and doors. This strategy has been effective in improving the timeliness, quality, costs, and waste control of operations. The strategy also reduces the company's dependence on skilled carpenters in times of labor shortages and increasing market costs of labor. This will be a crucial contributor in increasing bottom line profits as I expect costs of operations to increase in upcoming quarters. My assumption comes from the increasing costs the entire industry is expected to encounter during a time of rising values.

Conclusion:

In conclusion, I recommend the Toll Brothers stock as a buy at the current price of \$50.18. I have projected a one year target price for the stock of \$57.52 generating a one year target return of 15.01%. Based on my analysis I have projected the Toll Brothers to experience higher than expected growths in revenue as the industry itself is predicted to experience growth in upcoming quarters. Real estate analysts have projected that the housing industry will experience increased pricing due to higher demand and favorable market conditions. Increased pricing will contribute to strong revenue growth for the company within the segments of operations. I believe that the company already has strong operating margins with the ability to handle increasing rates of revenues, leading to value creation for the firm.

Restructuring and developing a newly introduced strategic plan to meet the demand from the millennial market will highly contribute to the growth of margins. The Toll Brothers have strong representation in high demand locations expected to grow the fastest as millennials enter the market place. Expansion into new locations is backed by extensive research prior to committing to any location. Meeting the changing characteristics of the market, the company is well positioned to meet the variables of demand within the industry. Shifting their focus to the millennial market share while maintaining all other segments of business, I expect the company to be an industry leader in the upcoming quarters.

Toll Brothers, Inc. (TOL)
Analysis by Michael Diotalevi
12/11/2017
CENTER FOR GLOBAL FINANCIAL STUDIES
NEUTRAL
Target 1 year Return: 15.01%
Probability of Price Increase: 97.5%


