

Analysts

Russell Lui – Lead Analyst

Russell.lui@u.nus.edu

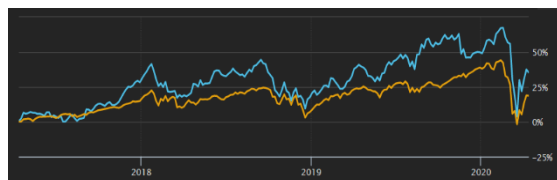
Jared Lim – Analyst

Jared_lyj@u.nus.edu

Basic Information as of 16 April 2020

Last Closed Price:	US\$198.48
12M Target Price:	US\$279.73
+/- Potential	+40.9%
Bloomberg Ticker:	HD:NYSE
GICS Sector:	Consumer Discretionary
GICS Sub-Industry:	Consumer Durables

1Y Price v Relative Index



Blue (HD), Orange (S&P500)

Company Description

The Home Depot, Inc. ("HD" or "The Company") is a home improvement retailer. The Company sells an assortment of building materials, home improvement products, and lawn and garden products, and provides various services. The Home Depot stores serves three primary customer groups: do-it-yourself ("DIY") customers, do-it-for-me ("DIFM") customers and professional customers.

Key Financials

Market Cap	US\$210.71b
Basic Shares O/S	1.05b
Enterprise Value	US\$248.77b
52 Week High-Low	140.63 – 247.36
Fiscal Year End	3 Feb 2019

(US\$M)	FY18A	FY19A	FY20E	FY21E
Revenue	100,904	108,203	101,895	109,444
Gr Rate	6.7%	7.2%	(5.8%)	7.4%
EBITDA	16,492	17,647	19,161	20,461
Gr Rate	8.6%	7.0%	8.6%	6.8%
Net Income	8,630	11,121	12,253	13,249
Gr Rate	8.5%	28.9%	10.2%	8.1%
ROA	0.19	0.25	0.28	0.29
ROE	5.94	(5.92)	(6.01)	(5.94)
EV/EBITDA	31.44	29.38	27.06	25.34
D/E	18.59	(15.55)	(14.72)	(13.62)

We are initiating coverage of Home Depot (HD) with a BUY rating and a \$279.73 12M price target.

4Q19 Earnings Highlights

- Comparable sales for 4Q19 increased 5.2%
- Net earnings of US\$2.48b vs US\$2.34b in 4Q18, representing an increase of 5.8%
- Announced a 10% increase in quarterly dividend to US\$1.5 per share
- Sales per retail square foot increased from US\$414.17 to US\$425.70, representing a 2.8% increase, while store growth remains flat
- Diluted weighted average common shares dropped 2.9% from 1.11b to 1.08b in accordance to repurchase program
- Dallas distribution centre built as part of a US\$1.2b supply chain investment launched in 2018, with another in Seattle end FY20

Investment Thesis

- **Poised to continue increasing market share** amidst economic uncertainty due to HD's second half omnichannel expansion bolstered by a resilient balance sheet ahead of competitors
- **Widening operating efficiencies** through investments in One Home Depot – a multi-year strategy to integrate the physical and digital shopping experience and cater to an under-penetrated Professional market
- **Momentum in vertically integrated supplier acquisition** ahead of competitors exemplifies HD's bargaining power over suppliers and dulls the competitive edge of competitors through product offerings

Catalysts

- Extended measures to curb the spread of COVID-19 will demonstrate the effectiveness of HD's robust sales model and e-commerce platform ahead of competitors without effective online sales platforms
- A forecasted drier summer ahead in the US will encourage outdoor projects and ventilation upgrades in hotter regions. Expected sales boost due to extreme weather forecasts anticipated to drive outdoor replacement projects and weather-proofing product sales

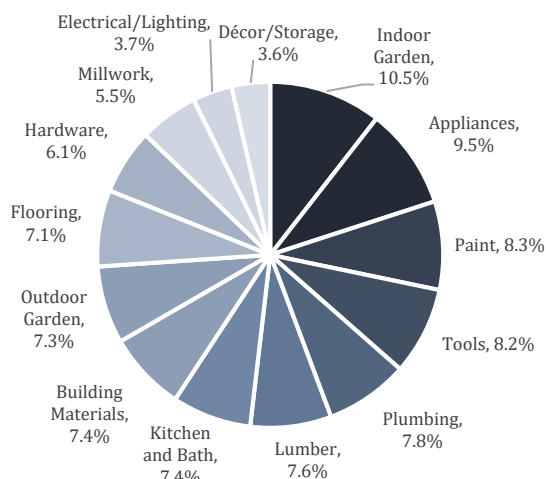
Valuation

Our 12M price target from date of coverage is US\$279.73. Valuation was derived through a weighted average price blend obtained from a Discounted Cash Flow model, Dividend Discount Model and Comparable Company Analysis

Investment Risks

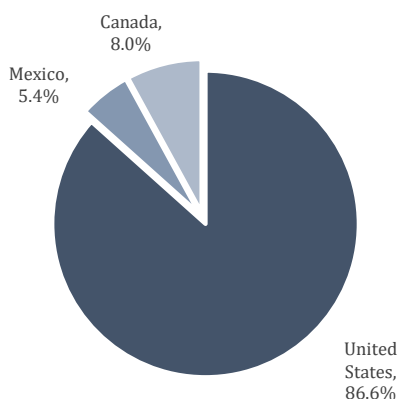
- Supply chain efficiencies from One Home Depot may take a longer time to be realized due to economic strain from COVID-19
- High gearing and low liquidity amidst increasing CAPEX might put downward pressure on HD's creditworthiness
- Supply chain disruptions due to COVID-19 might result in loss of customer base to competitors

Figure 1. Home Depot distribution of sales across various product lines



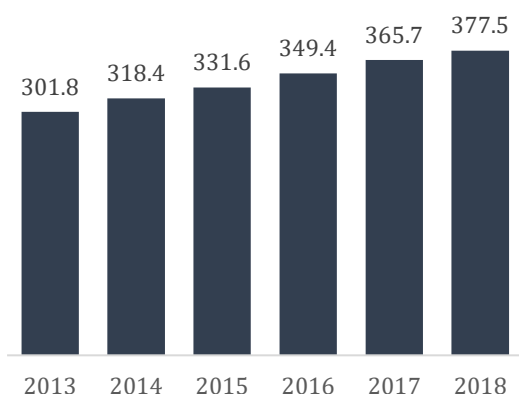
Source: Home Depot Annual Report

Figure 2. Net Sales by Geographical Region



Source: Home Depot Annual Report

Figure 3. Historic US Home Improvement Market Size (US\$b)



Source: Home Depot Annual Report

Company Overview

Home Depot is a home improvement retailer that engages in the sale of building materials and home improvement products. HD's product line includes building materials, lawn and garden products, and decor products. It offers home improvement installation services, and tool and equipment rental. The company was founded on 29 June 1978 and is headquartered in Atlanta, GA.

Apart from home improvement tools, HD also operates a Maintenance Repair Operations ("MRO") arm which consists of Heating & Ventilation units, Janitorial Supplies, Plumbing and Electrical parts as well as Appliance and Repair parts.

HD markets these products to 3 main segments: Professional Contractors for Businesses, Professional Contractors for Home Improvement, and the smallest group, DIY Customers. DIY Customers consist of homeowners who choose to complete their own projects. HD's recently-revamped Home Depot Pro caters to Professional Contractors for businesses which require materials for projects, including those purchased from the MRO range. Many business functions revolve around the Pro line, and HD's loyalty program, ProXtra, provides added benefits beyond product offerings. Lastly, HD leverages existing Pros on their ProXtra platform to perform services for DIFM or "Do-It-For-Me" customers. DIFM customers represent individuals who require installation services and consultations.

HD's customer loyalty program, ProXtra, is mainly tailored towards retaining their B2B relationships, which has a higher recurrence over customers purchasing equipment for single DIY projects. This features a card-linked expense tracker, a portal that tracks tool usage and jobs, and annual rebates.

4Q19 Earnings Highlights

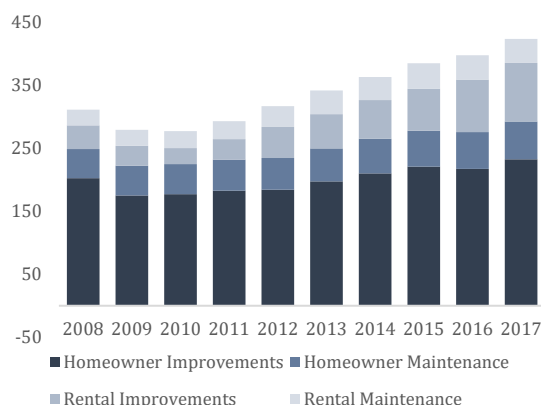
- 3.5% increase in net sales bringing diluted EPS to \$10.25, a y-o-y increase of 5.3%
- Comparable sales increase of 5.2% beat consensus of 4.7%
- Average comparable ticket size increased 4.4%, transaction volume up 0.8%
- Online sales represented 9.3% net sales, +19.4% for FY19
- All merchandise segments reported positive comparable sales apart from Lumber due to commodity price deflation
- Sales per retail square foot +1.8% for FY18/19 due performance drag in 1H19
- Average ticket size +2.4% due to strengths in big-ticket items such as appliances and vinyl plank flooring

COVID-19 Development

As part of safety measures, HD has implemented earlier store closures to allow more time for sanitization and restocking. Apart from limiting the number of in-store customers, HD has eliminated major in-store promotions to discourage excessive store traffic. Within the US, 15 of their underperforming stores will be closed (among a total of 2,291 stores) and their pipeline of 50 new stores will be suspended, anticipating higher concentration of sales on their e-commerce platforms.

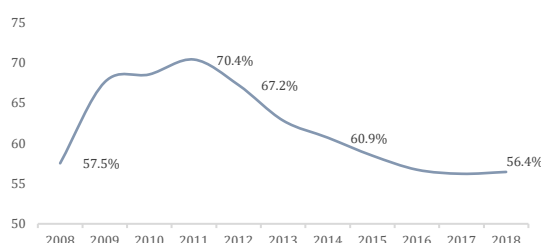
HD has expanded free curb-side order pickup to most stores as an extension of their buy online pickup in-store option. It has also expanded delivery options on online order while extending their return policy from 90 to 180 days. HD has pulled its 2020 guidance and is expected to incur US\$850m in pre-tax costs due to COVID-19 countermeasures. However, this constitutes 0.8% projected revenue and 6.9% of projected Net Income.

Figure 4. Post 2008 Home Improvement Market Segments (US\$m)



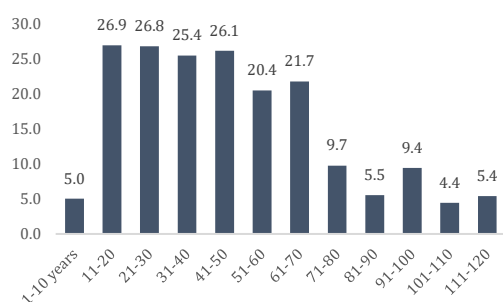
Source: Home Improvement Research Institute

Figure 5. Improvement & Repairs as Share of Residential Investment



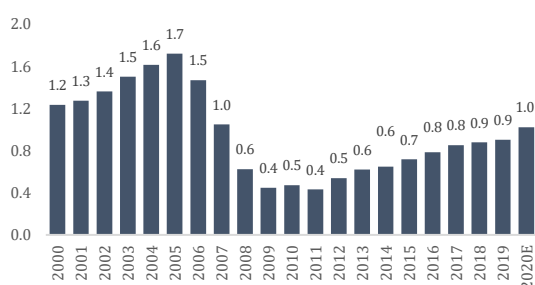
Source: US Census Bureau

Figure 6. Improvement & Repairs as Share of Residential Investment (US\$)



Source: US Census Bureau

Figure 7. Number of Single-Family Housing Starts 2000-2020 (US\$m)



Source: US Census Bureau

Industry Outlook

Home improvement can be categorised into either discretionary (e.g. kitchen and bath remodels) or maintenance (e.g. roof and window upgrades and replacements). The DIY market has grown significantly since the 2008 housing crisis and is a way for homeowners to upgrade and maintain their homes amidst rising labour costs, or for rental property owners to provide substantial upgrades to their units in order to increase rental yields.

According to the US Census Bureau, improvement and repair expenditure on US housing stock has shown steady growth since 2010, hitting a new high of \$546.0b in 2019. Compared to 2015, this represents a 27.5% increase and a 124.6% increase from the lows experienced in 2010.

Home Improvement Based on Occupancy Type

Rental

Higher home prices as construction costs rose post-crisis drove rental property owners to adopt the strategy of catering to the demand for updated homes via investing in high-end upgrades for affordable units. The outcome was an increase in their share of spending from 25% historically, to 30% in 2017, a trend that is set to continue as demand for rental properties is strengthened by that of the younger generation. (see *Renewed Strength in Younger Homeowners*)

Owned

The foreclosure crisis as a result of rampant mortgage defaults left homes across the US vacant for extended periods and led to widespread conversion of previous owner-occupied housing to rentals. As homeownership began to recover, many of these units have been converted back to owner occupancy and substantial improvements have been made to improve their condition. Consequently, the number of units converting from rental or vacant status to owned homes jumped from 5.2m in 2010 & 2011 to 6.6m in 2016 and 2017, signaling the lag between construction of new housing and homeownership demand.

The shift in dynamics within the US Housing market has propelled home improvement and repair spending. From 2011 to 2017, average per-owner spending rose from US\$6,500 to US\$7,500, of which more than 30% of spending on converted homes were for larger-ticket projects, such as kitchen and bath remodels as well as room additions.

US Housing Market

US Home Age

Data from the US Census Bureau and US Department of Housing and Urban Development shows that new construction has been slow to recover from historic lows. Although single-family housing starts have experienced growth at a 3.1% CAGR since 2008, there is a long runway for recovery as 2019's 0.9m still falls below previous norms above exceeding 1.0m. This results in 80% of the nation's 137m homes at least 20 years old, and 50% at least 50 years old. This presents an opportunity in the home improvement industry for massive growth in upgrades and remodels which are generally more cost-effective as opposed to purchasing a new property.

Impact of rising housing prices

Housing prices have been climbing steadily and are positively correlated to home improvement expenditure as it serves as an incentive for homeowners to invest in their properties by raising the equity values of the homes. Hence, home improvement expenditure is generally higher in metropolitan areas such as Boston, Dallas and San Francisco, where price appreciation is more prevalent.

Figure 8. Changes in Owner-Occupied Housing Stock

Rental/Vacant Units Converted to Owner-Occupied	2010- 2011	2012- 2013	2016- 2017
Number of Units (Millions)	5.0	5.7	6.6
Share of Owner- Occupied Units (%)	6.6	7.6	8.6
Average Per Owner Improvement Spending (US\$)	6,500	6,900	7,500
Total Improvement Expenditure (US\$b)	33.0	39.6	50.0
Share of Total Improvement Expenditure (%)	9.2	10.4	11.1

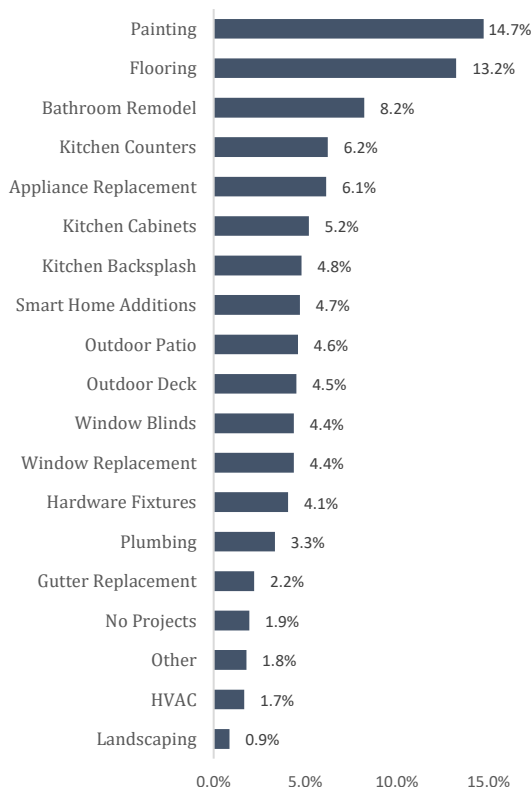
Source: 2017 American Housing Survey

Figure 9. Increasing Home Prices in a Post-Recession Economy



Source: McKinsey, JCHS

Figure 10. Home Improvement Projects Americans Aim to Complete in 2020



Source: Housethmethod.com

For the older population, this impact is mitigated by their decreased need to move to accommodate growing families. This decline in relocation serves as a headwind for the home improvement industry as those who relocate would typically spend 25-30% more on remodeling projects in the few years following their relocation.

First time buyers typically face low incomes and savings, and high levels of student debt. Hence, homeowners under 35 account for 9% of total home improvement spending since 2012. However, areas with more affordable homes in the Midwest and South-Central metros experience a better rise in home improvement spending for younger owners. Cities such as Dallas, Minneapolis, Chicago and Houston have average home values under 4x average household income, and consequently have owners under 35 contributing 9-14% of the home improvement expenditure.

In comparison, potential young homeowners burdened by student loans in most high-cost metros on the East and West coast such as Miami, Phoenix and Boston, only account for 4-7% of the home improvement expenditure. The migration to more affordable regions results in a concentration of a younger home improvement market in the Midwest, away from high-cost metros thereby driving demand for home improvement products.

In the long term, it is expected that homeownership rates continue to experience tailwinds from recent lows of 63.7% in 2016 as this has consistently grown to 65.1% in 2019. There is substantial headroom for future growth, with record highs at 69.2% achieved in 2004.

Stable Base of Baby Boomer Spending

While the home improvement consumer base has predominantly consisted of homeowners above 55, the evolving retail scene is catered to the differing demands between the two broad-based age groups, supported by spending data from the American Housing Survey and the US Census Bureau.

Higher Concentration of Maintenance Projects

Average spending amongst homeowners aged 55 and over increased 57% between 1997 to 2017, bringing their real aggregate spending to US\$117b. This represents a 150% expansion in average spending from 1997 to 2017. For maintenance projects, 51% of their home improvement dollars are dedicated to replacing home components such as roofing, windows and plumbing, compared to younger homeowners at 43%.

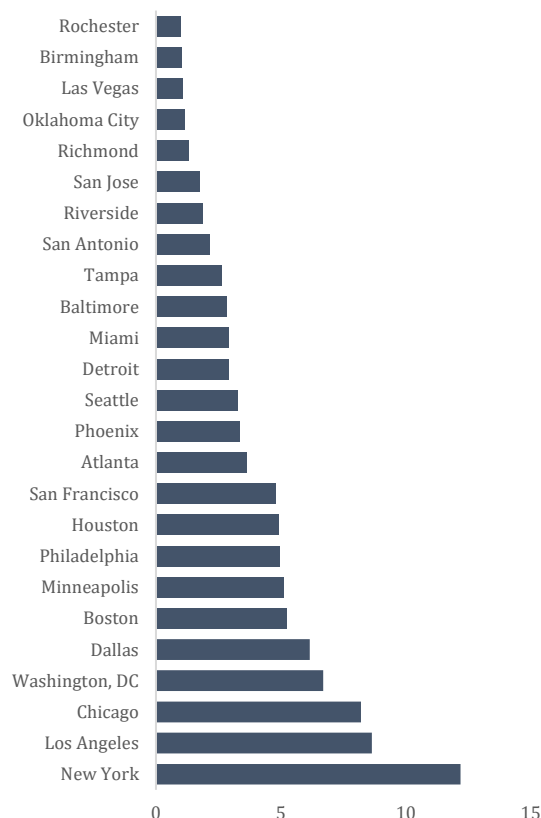
Accessibility-Driven Projects for the Elderly

Furthermore, many homeowners cite reasons such as increasing accessibility for the elderly or disabled as their motivation for their home improvement projects. On average, accessibility improvements drive a larger expenditure than discretionary home improvement projects, resulting in a spread of 30% for homeowners under 55 and 40% for those above 55.

Homeowners within US aged 55 and above have increased 60% since 1997, from 26m to 42m. Furthermore, average annual home improvement spending increased 57% to US\$2,800. This growing demographic also contributes to larger-ticket items.

Increased life expectancy does not negate the ailments of old age. In a survey by the JCHS, 72% of those aged 55 and above reported one or more projects aimed at increasing accessibility for the elderly or disabled. These range from large projects such as bathroom remodels, anti-slip tiling and room additions to allow for single floor living, or smaller projects like the installation of railings. This trend is structural, resulting in real demand from the elderly to improve the accessibility of their homes and are thereby less discretionary

Figure 11. Aggregate Home Improvement Expenditure, 2018 (US\$b)



Source: American Housing Survey

Figure 12. Home Improvement Spending by Owners Under 35 in 2017



Share of Spending in More Affordable Metros

- Under 8.5% (Down to 3.3%)
- 8.5% and Over (Up to 14.1%)

Share of Spending in Less Affordable Metros

- Under 8.5% (Down to 4.1%)
- 8.5% and Over (Up to 9.2%)

Source: American Housing Survey

expenditures. It is expected that this quasi-essential demand will serve as the foundation for future home improvement demands.

Renewed Strength in Younger Homeowners

Historically, despite being presented with affordability barriers for first-time buyers, spending among the younger generation has seen an uptick led by the increase in per-owner expenditure due to an increase in median household income. Since 2013, the median household income of homeowners under 35 has risen 17% to US\$80,000 with a background of a restrictive credit environment in younger homeowners.

However, since 2013, average per-owner expenditure has increased 38% to \$2,900. In comparison, this exceeds the growth within homeowners above 35, signifying a trend forecasted to surpass prior peaks of US\$3,000 in 2007.

Younger generations of homeowners are faced with affordability issues with large student loans, reduced savings and low income. Furthermore, the post-2008 housing crisis significantly raised the affordability barrier, owing to sharply rising mortgage interest rates and increased prices of entry-level homes. From 2015 to 2017, the number of homeowners under 35 rose 6%, the first increase in the decade. Real home improvement spending grew 20% during this period, matching prior peaks pre-financial crisis.

Widening Market for Younger Homeowners

A rise in social media marketing has been a source of inspiration for the younger generation, driving them to undertake more discretionary remodelling projects. Discretionary remodelling represents a viable substitute to purchasing a newer home as reflected in younger homeowners spending 21% of their home improvement dollars on kitchen and bath remodels in 2017.

Compared to the older generation, this relates to 34% of undertaken projects costing above US\$50,000. Although lower than the peak of 41% in 2007, this indicates potential for expansion further encouraged by increased accessibility to online inspiration. As mobile applications such as Pinterest and YouTube continue to assist in providing ideas for home improvement, high-end improvements will be the theme for homeowners below 35 who consider these upgrades an alternative to purchasing a newer home. Hence, it is expected that home improvement retailers who can capitalise on online sales platforms will be able to retain their younger customers.

Key Growth Drivers

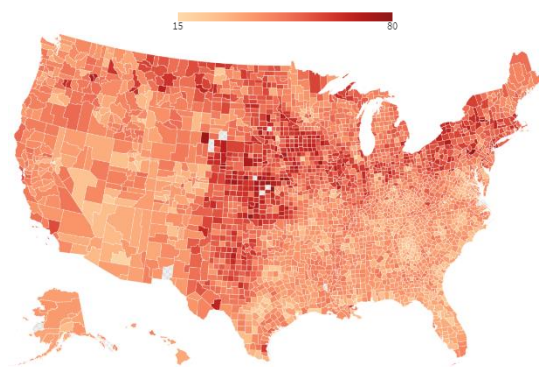
Recent spending data has indicated that average ticket sizes for home improvement purchases have been steadily increasing at a yearly rate of approximately 2%. This alludes to higher sales of large-ticket items which are involved in home systems such as ventilation and outdoor replacements.

Updating Homes and Improving Efficiency

The consequence of an ageing national stock of single-family homes places greater emphasis on system upgrades and replacement projects for both interior and exterior. The median age of owner-occupied homes has risen from 29 in 1997, to 32 in 2007 and 39 in 2017. With age and mobility playing a large part in the decision-making process, longer-term owners are more likely to spend more on improvement budgets and large replacement projects.

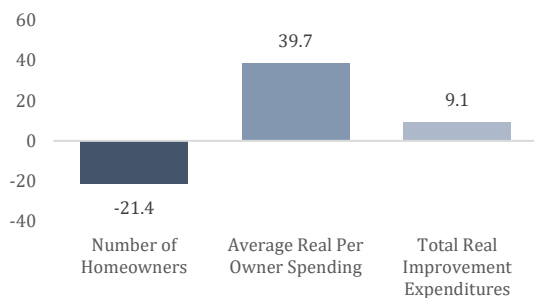
Such replacements are often associated with improving home energy efficiency, with a recent expenditure of US\$68.0b (29% total owner market expenditure) improvements to roofing, windows, heating, ventilation and air conditioning (“HVAC”) systems and insulation targeted at generating large energy savings. The

Figure 13. Median Home Age in the US



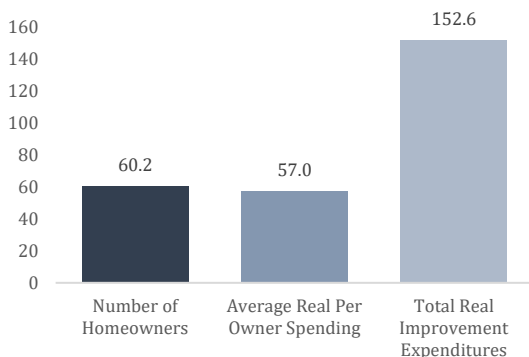
Source: US Census Bureau

Figure 14. Change in Market for Younger Homeowners <35, 2007-2017 (%)



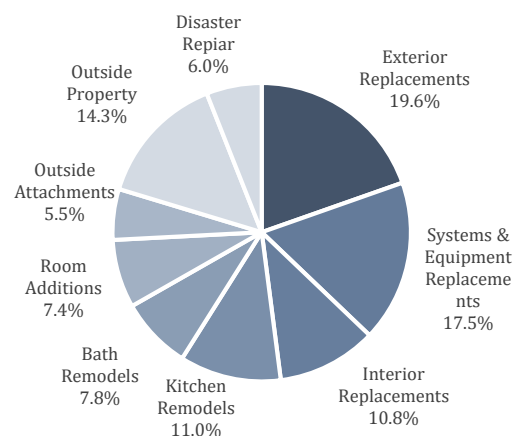
Source: American Housing Survey

Figure 15. Change in Market for Older Homeowners >55, 2007-2017 (%)



Source: American Housing Survey

Figure 16. Share of US Homeowner Improvement Budgets 2019 (%)



Source: American Housing Survey

popularity of home upgrades for energy-saving purposes and an update to ageing home systems is evident in 17% of homeowners citing energy efficiency as a key motivation for their projects in the American Housing Survey. This figure increases in areas with older housing stock and harsher weather conditions such as Boston (23%) and Minneapolis (26%).

DIY Market's Transition to DIFM

The decrease in share of spending in DIY projects over the past 20 years can be attributed to the ageing population and that older owners are less inclined to take on DIY projects compared to younger owners. DIY's share of spending declined from 25% in 1997 to 18% over a span of 20 years. On the flip side, in 2019, 88% of home improvement spending by homeowners above 65 was for professionally installed projects.

While the market for DIY products may not suffer as large an impact due to the overlap of product applications to amateur and professionals, it does point to a consolidation of the professional market for both maintenance and discretionary projects. Currently, 86% of home improvement spending on larger-scale maintenance projects was for professional installation, notably larger than 76% share for discretionary projects.

Project Financing

Funding new projects usually comes out of pocket, with 77% of home improvement projects being funded from savings. The remaining portion is a mix of credit cards, home equity loans and contractor-arranged financing. Financing depends on the type of project and the cost of the project.

However, cash expenditure is limited to DIY projects, where 84% of owners use cash for DIY jobs ranging from US\$600-US\$1,200. However, more expensive projects which require professional services often result in homeowners tapping their equity, or line of credit, as shown in the American Housing Surveys. This suggests a possible uptrend in large-ticket purchases in a low interest rate environment.

Disaster Repairs

Concurrently, spending on disaster repairs is expected to climb. A study found that post-disaster renovations and repairs are carried out over 3 years. With destructive hurricanes and wildfires in 2018, a backlog of repair spending may have developed. NASA research forecasts that rising ocean temperatures will cause harsher hurricanes, such as the recent Hurricane Dorian.

Porter's Five Forces

Accounting the aforementioned industrial tailwinds, we analysed HD's position as a future-looking, customer-oriented company via a Porter's Five Forces analysis.

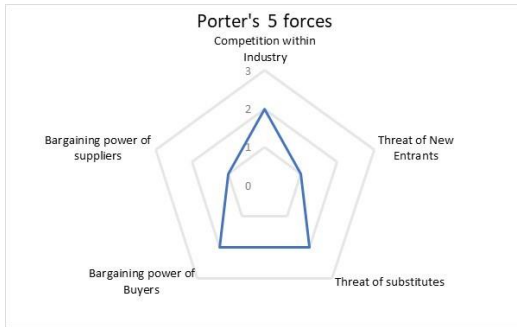
Competition Within Industry – Moderate

HD remains USA's largest pure-play home improvement retailer with FY19 net sales of US\$110.2m, compared to their closest competitor Lowe's at US\$72.1b. HD also holds a larger number of stores in the US, 2,291 vs Lowe's 2,002. While places like Amazon and Walmart do offer DIY tools, HD offers a range of items suited for various-sized tasks and remains the go-to for project-specific home repairs and improvement.

Threat of New Entrants – Low

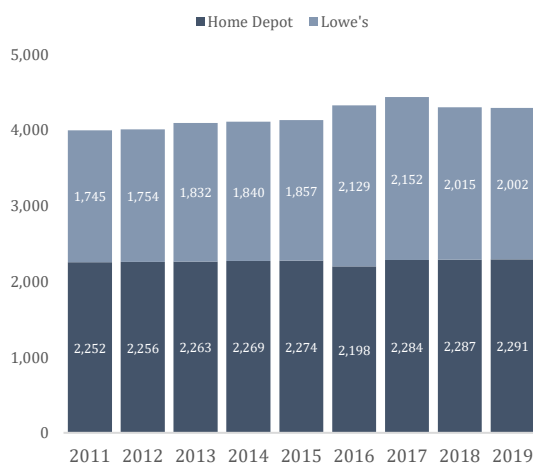
HD has built an elaborate supply chain network and brand equity over the years through its main selling point – strong customer service. Considering their strong reputation for low prices, quality service accessibility due to its presence across all states, it is unlikely that any new entrants to the market will develop quickly

Figure 17. Porter's Five Forces



Source: NUS Investment Society Estimates

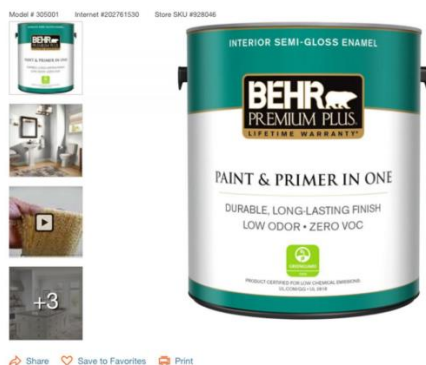
Figure 18. Home Depot vs Lowe's Stores



Source: Home Depot & Lowe's Annual Report

Figure 19. Home Depot vs Amazon Prices

At Home Depot, Behr Paint & Primer In One is priced at \$29.98. On Amazon, the price is \$43.19 for the same product.



Behr Paint & Primer In One from Home Depot, Home Depot

Home Depot price: \$29.98

Amazon price: \$43.19

Source: Business Insider

enough to rival HD as a whole foreseeable future.

Threat of Substitutes – Moderate

While HD has taken steps to secure agreements to sell most top-of-the-line DIY and home improvement items, many products are raw construction material and experience immaterial product differentiation. However, HD has limited this effect by ensuring ease of accessibility to their brick-and-mortar and online stores.

Bargaining Power of Buyers – Moderate

Direct customers and those who purchase HD's goods through professional contractors range from both ends of the income spectrum. HD provides customers with a price guarantee, where the exact same products found elsewhere can be purchased at their stores for a 10% discount. As a result, HD's existing product offerings are significantly less expensive than other retailers, and are either lower or on par with prices on Amazon. Hence, while consumers have a degree of bargaining power, HD is not a complete price taker as they sell a wide range of high quality, specialised products.

Bargaining Power of Suppliers – Low

For a large number of suppliers, HD remains their largest partner, contributing more than 50% of their annual revenue consistently. In many other cases such as in Scott's Miracle-Gro (a garden fertiliser brand), HD contributes 36.3% of their revenue, ahead of Lowe's 19.1%. This imbalance ensures that HD remains their top customer, and any significant bargaining power would be eroded due to their reliance on HD.

Investment Thesis

1. Well-positioned to consolidate market share in an economically uncertain environment

We expect HD to seize this cycle's economic slowdown in in-store sales as an opportunity to capture greater market share against competitors

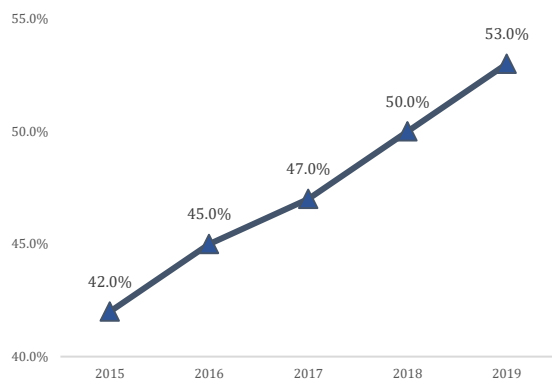
Omni-Channel Integration

Home Depot has the first-mover advantage in entering the e-commerce space and developing an integrated platform. Unlike the majority of retailers outside the home improvement sector which were affected by the proliferation of e-commerce giants such as Amazon, the bulkiness of home improvement products has limited the impact of new entrants via e-commerce. Hence, while top-line growth for home improvement retailers is closely related to number of locations and sales per square foot, it also leaves the e-commerce space available for incumbent companies to expand their footprint.

Currently, HD has the largest online outreach due to superior e-commerce integration. With the added advantage of an expansive store network of 2,291 stores, and online sales representing 9.3% of net sales, HD has achieved greater omni-channel implementation relative to other pure-play home improvement companies through a calculated expansion into the e-commerce space.

HD's e-commerce chain does not rely solely on the "Buy Online, Distribute From Store" ("BODFS") model and has included a "Buy Online, Pickup in Store" ("BOPIS") option, which is the brand's fastest growing e-commerce channel. Currently, 54% of online orders are picked up in store. This is especially critical for HD where customers are purchasing larger, higher-ticket items, or contractors on a job are searching for a specific supply needed immediately. Apart from preventing the increased sales volume from placing excessive strain on costs required to operate a delivery fleet for managing bulky items, the strategy allows HD to continue to leverage customers' in-store-time to present additional value-adds available close to where they pick up an online order. Currently,

Figure 20. BOPIS Uptake as Percentage of Transactions (HD Approximates)



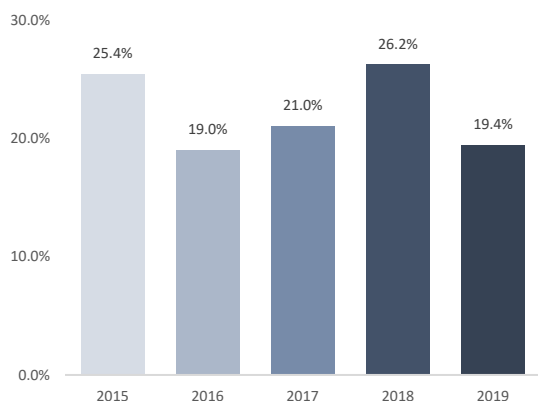
Source: Home Depot Annual Reports

40% of stores have been updated to facilitate this via automated lockers and store redesigns that make order pickups quicker and easier. To HD's advantage, an Adobe study shows that large companies which offer BOPIS can experience a 65% boost in sales during the holiday season due to a larger variety of goods offered.

As a result, HD has been able to keep their store growth low, with only 5 new stores in the past 3 years – a mere 0.1% store growth. However, their sales per square foot has increased by 9.6% over the past 3 years, with consumer transactions rising 2.7%. HD's neutral store growth has allowed them to increase their operating leverage, translating to HD's sales per retail square foot of US\$454.82 vs Lowe's \$346.60 in 2019.

The integration of online initiatives and brick-and-mortar would enable it to continue increasing top line growth and maintain higher margins than its peers, leading to higher EBIT and free cash flow growth. Their operating margin of 14.4% surpasses Lowe's 5.6% and Bed Bath and Beyond's 3.8%. HD's omnichannel strategy has met much success, with online sales now occupying close to 10% of total revenues, up from 6% in 2017. Apart from increasing online sales faster than its biggest competitor, Lowe's, HD has been able to better integrate online and physical stores, as evidenced by a stable COGS/revenue of 66.2% for the past 3 years, leading to stable EBIT margins which enables it to churn out greater cash flow. In contrast, Lowe's saw a spike in 2019 COGS/revenue which relates to lower efficiency and contraction of gross margins, now at 32.7% vs HD's 34.3%

Figure 21. Y-o-Y Growth of Online Purchases



Source: Home Depot Annual Reports

Considering current measures to increase social distancing amidst the COVID-19 outbreak, we expect HD's momentum with BOPIS to remain a viable option for sustained operations, as customers reduce their in-store time browsing and conducting research on suitable materials for their projects. Meanwhile, as smaller players such as Ethan Allen Interiors face the possibility of bankruptcy, HD will be able to capitalise on capturing greater market share from failing competitors.

We believe that this will cushion the impact to their top line sales ahead of competitors while capturing customers of other brands lagging in the online sales space who may not be able to receive the same service in this current climate.

2. Widening operating efficiencies through investments in One Home Depot – a multi-year strategy to integrate the physical and digital shopping experience will lead to increased operating leverage and stronger cash flows.

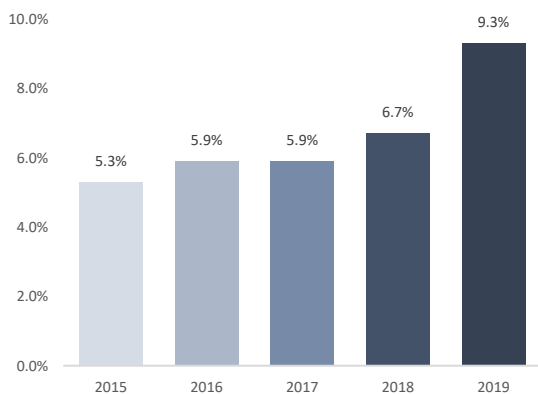
Renewed strength in improving supply chain efficiencies and catering to a fragmented professional market will allow HD to obtain future top line accretion even as a matured company, while improvements in bottom line efficiencies will allow them to expand margins without overextending asset expansion.

HD's expansive store count of 2,291 ahead of peers such as Lowe's with 2,002 has allowed the brand to grow its top line at a consistent pace. We believe that HD's continuous initiative to retain customers, segment and dominate the home improvement market, and improve operational efficiency will enable HD to maintain an edge over peers in "future-proofing" without overextending existing assets.

Balanced Strength in Segmented Markets

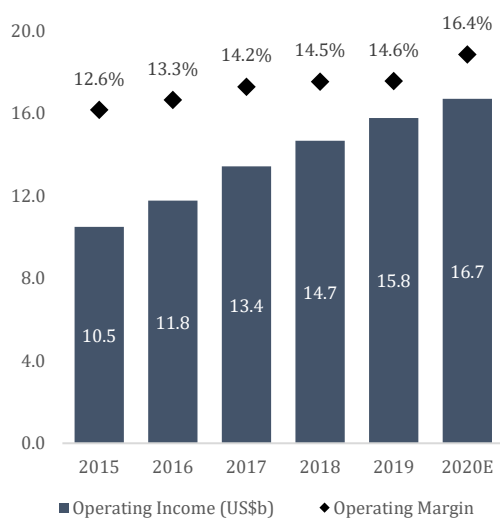
Beyond the market for basic home improvement products, HD's expansion of its Pro eco-system to cater to an under-penetrated B2B market alongside online expansion has allowed it to segment and retain the home improvement consumer base. Currently, sales

Figure 22. Online Sales as Percentage of Net Sales



Source: Home Depot Annual Reports

Figure 23. Operating Income & Margins (US\$b)



Source: Home Depot Annual Reports

from Pros make up ~45% of all HD sales. Further expansion in this category complements the sales of a premium selection of big-ticket items that it markets exclusively and will widen the competitive gap ahead of peers in providing MRO products. As such, average ticket size has grown 6.7% in 3 years and stands at US\$67.3, with expected Y-o-Y accretion of ~2% in line with a conservative outlook on income growth.

E-commerce is a recurring theme for retailers in the digital age, and HD has taken advantage of the fragmented nature of Pro markets due to their tendencies to specialise. Currently, HD has onboarded more than 1m Pro clients on their online B2B platform. This aids Pros in selecting items for purchase or rental, leveraging HD's loyalty program, and connecting Pros with potential customers. We believe the full potential of this development has not been realised yet, as the ongoing change of their customer demographics are fundamental in increasing the demand for HD's Pro services. In conjunction with HD's loyalty program, we believe that the Company's existing Pro network will be difficult to replicate by competitors. Increased demand for professional services in accessibility-related projects will continue to grow amongst HD's senior customers.

Modernisation of Supply Chain

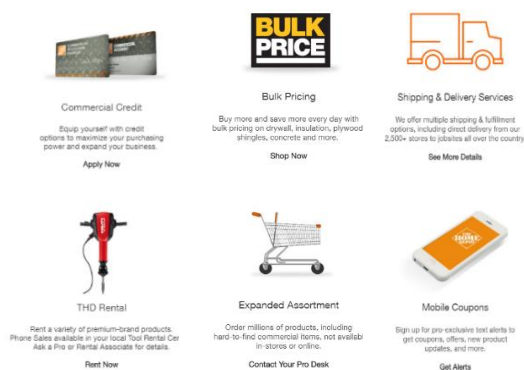
In line with superior integration of online initiatives, HD has also been pivoting to a modernized supply chain strategy by centralizing its distribution centres. Prior to HD's rapid store expansion, 75% of HD inventory was delivered direct to store from suppliers. HD's US\$1.2b investment over a 5-year plan began in 2018 with the inclusion flatbed distribution centres. The first distribution centre was launched in Dallas, Texas, and HD expects another in Seattle in late 2020. Through this, HD hopes to achieve 90% same-day or next-day delivery status in 2020, which would diminish the time lag between purchasing an item at the store or online.

This can help expedite the movement of bulky goods such as lumber, concrete blocks, from warehouses to the customers or the brick-and-mortar stores, which typically come in large shipments and are difficult to transport. Further, potential cost savings through achieving better economies of scale can lead to potential gross margin expansion. While the impact of the COVID-19 has affected store opening hours, HD maintains that Q1 inventory is already in place or en-route.

Prior to the outbreak of COVID-19, HD has stated that the bulk of their supply chain investments will be enacted in 2020. As such, we expect the strength of existing investments to be realised with an upswing in online activity, and future investments paying off in line with economic recovery down the road.

Although Lowe's is pursuing a similar plan with a US\$1.7b investment into distribution centres, we expect HD to reach 90% next-day-deliveries ahead of Lowe's due to their head start without significantly drawing down on their cash position. (HD's US\$13.7b vs Lowe's US\$6.2b). HD boasts superior operating margins compared with Lowe's standing at a 3-year average of 14.4% compared with an average of 7.9% for Lowe's. HD's cash conversion cycle has fallen from 43 in 2015 to 39 in 2019 as a result of these supply chain developments. We expect further improvements in this area with 1Q20 cash conversion cycle performance within the low-30s region. HD has also achieved better revenue flow through to profits as evidenced by the markedly higher net margins of 10.7% compared with Lowe's which has hovered around 4-5%. This implies that over the long haul, HD will be able to make better use of its capital investments than Lowe's.

Figure 24. Options for Pro Customers



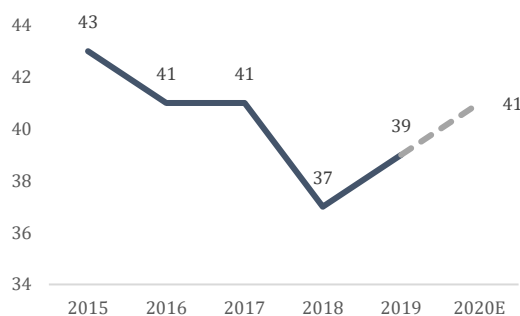
Source: Home Depot Professional Contractor Website

Figure 25. Home Depot's Dallas Flatbed Distribution Centre



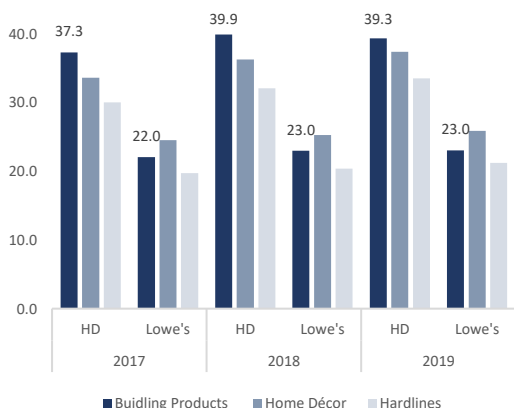
Source: Home Depot

Figure 26. Home Depot's Historic Cash Conversion Cycle



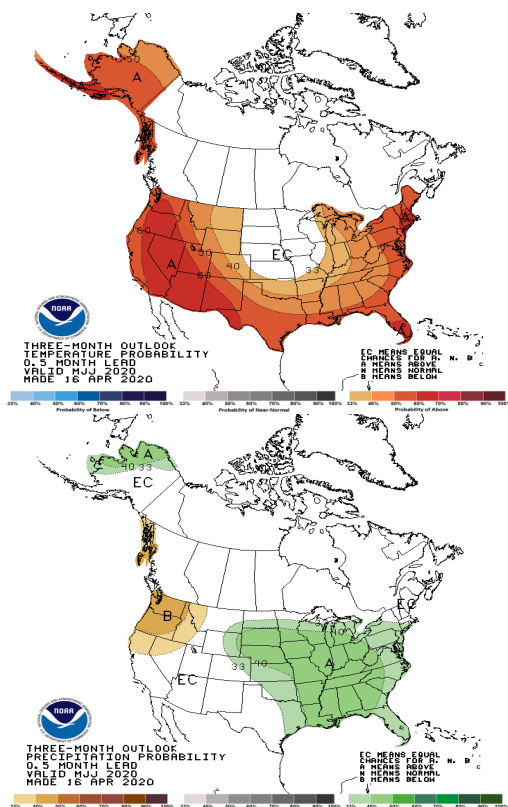
Source: NUS Investment Society Estimates

Figure 27. Home Depot vs Lowe's Net Sales in Comparable Merchandising Segments



Source: Discover CI, Home Depot

Figure 28. Temperature and Precipitation Charts (Next 3 Months)



Source: National Weather Service Climate Prediction Center

3. Momentum in Strategic Supplier Acquisition

HD boasts an increasing scope of exclusive brands through acquisitions and agreements that would not only help consolidate their position in the home improvement market, but also prevent entrants to the market.

Paints

BEHR brand paint products are sold principally to HD, which contributes 90.1% of BEHR's net sales. In comparison, Lowe's paint segment sales contribute 57.6% of Sherwin-Williams net sales. BEHR is also the third largest paint company in the US. Additionally, Lowe's principal paint producer, Sherwin-Williams, generated US\$8,950.4m in net sales within USA, their largest market. HD's paint segment eclipsed this with US\$8,620.0m in net sales. With strong relationships with high-performing suppliers, HD's size and influence over producing companies ensure that its supply remains a priority for their mutual benefit.

MRO products

HD's foresight into home improvement market trends drove it to make a US\$1.7b acquisition of Interline brands to begin expanding its entrance into the MRO market. Conversely, Lowe's followed 2 years after with a US\$512.0m acquisition of Maintenance Supply Headquarters. This reiterates HD's management's ability to identify market trends and the ability to act quickly on it, as trends within the home improvement supply market are generally driven by forecasted changes in demographic-based preferences which takes time to be baked into consumer patterns (see **Figure 10**). As such, having the first-mover advantage would require fewer resources in capturing the market, especially for MRO products which have strong customer loyalty due to complementary products within the ecosystem.

Many key suppliers derive more than 50% of their revenues from HD's purchases, which creates a strong level of interdependence between the two, ensuring that it is in the interests of their longstanding relationships to put HD first. In cases where both HD and Lowe's source from the same supplier, revenue from HD usually takes a larger share such as in Fortune Brands Home & Security (HD 15%, Lowe's 14%), and Scotts Miracle-Gro for lawn and garden care products (HD 36%, Lowe's 19%). Hence, we project that acquisitions of these companies may be considered as they are within the top 3 highest revenue-generating merchandising segments.

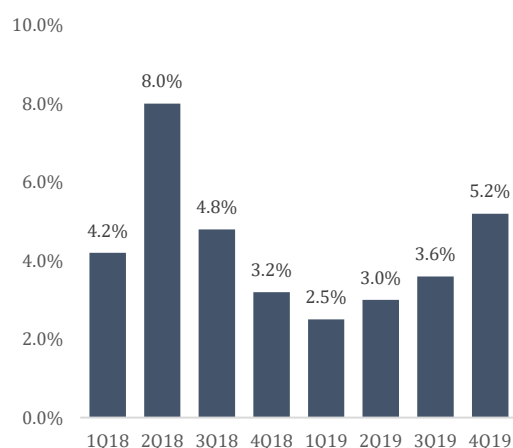
As HD's bargaining power and their position as a market leader in the home improvement market continues to expand, we expect to see a reduced competitive edge in Lowe's portfolio of acquired suppliers. We believe that HD's ability to set trends and Lowe's tendency to follow despite being at the same level of financial health will eventually benefit HD and diminish Lowe's ability to compete.

Catalysts

1. Extended COVID-19 Prevention Measures

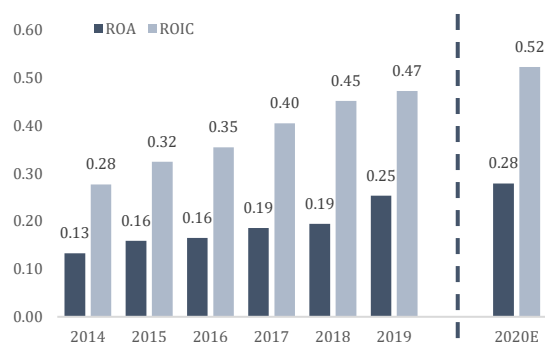
The outbreak of the COVID-19 pandemic has resulted in most residents staying at home. Within the US, we expect moderate impact to HD's sales due to their superior e-commerce platform, existing BOPIS model and supporting infrastructure. We forecast an increase in online penetration within 10-15% and growth in their online sales by 60-70% mainly due to existing customers migrating to online channels. This is highly beneficial considering the existing investments and measures that HD has taken to boost e-commerce sales and distribution ahead of peers. Furthermore, the low demand environment will accelerate HD's market share consolidation by capturing customers switching away from smaller players suffering from financial distress.

Figure 29. Historical Same-Store Sales Growth



Source: Home Depot Annual Reports

Figure 30. Projected & Historical ROA & ROIC Chart



Source: NUS Investment Society Estimates

Figure 31. Weighted Average Cost of Capital

WACC

Equity Weight	98.20%
Debt Weight	1.8%
Weighted Tax Rate	21.00%
Levered Beta	0.930
Risk Free Rate	0.70%
Equity Risk Premium	6.00%
Country Risk Premium	7.50%
Cost of Equity	6.28%
Pre-Tax Cost of Debt	3.80%
Debt / Value	0.07%
Equity / Value	6.2%
WACC	6.24%

Source: NUS Investment Society Estimates

While the effects of COVID-19 negatively affects all players, HD stands to benefit the most from a post COVID-19 market due to their existing infrastructure.

2. Summer Weather

Dry weather and sunshine are associated with an uptrend in home improvement expenditure as outdoor projects are usually conducted during Spring and Summer. 2020's weather forecast predicts a hot Summer with Hurricane season beginning on June 1, and likely to occur in mid-September from Florida to North Carolina. Although good weather will aid in promoting a general upswing in home improvement expenditure, extreme weather such as hurricanes and heat waves, will encourage larger projects like home rebuilding and HVAC upgrades respectively. Homeowners will also spend more of home fortification for future disaster prevention, ultimately boosting HD's net sales. This would consequently result in a higher average ticket price and stronger revenues for the year.

Financial Analysis

Stable Leverage Ratios

Debt-to-asset ratio is projected to remain around 0.68-0.64 over the next 5 years. Interest payments are also likely to be covered well as EBITDA/Interest is projected to increase from 16.79 to 19.62 over the next 5 years. This bodes well for HD's financial strength and its ability to weather crises and refinance debt.

Financial Ratios

	Historical FY19	FY20	FY21	FY22	FY23	FY24
EBITDA	17,647	19,161	20,461	21,545	22,819	24,140
Operating Margin	15%	16%	16%	16%	16%	16%
Net Margin	10%	12%	12%	12%	12%	12%
ROA	0.25	0.28	0.29	0.30	0.31	0.32
NOPAT	12,464	13,196	14,174	15,085	15,983	16,877
Invested Capital	25,546	25,297	25,291	25,504	25,731	25,920
ROIC	0.49	0.52	0.56	0.59	0.62	0.65
Total Debt Ratio	66%	68%	67%	66%	66%	65%
EBITDA/Interest	16.79	16.72	17.36	19.19	18.67	19.62

Higher Asset Efficiency, Margin Expansion

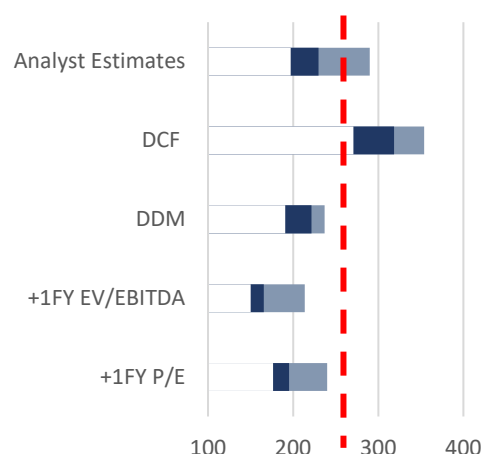
Operating and net margins are expected to remain stable at 15% and 12% respectively. HD has been able to grow its revenues significantly without any material increases in SG&A. We expect HD to be able to continue doing so especially with its US\$1.2b expansion plans toward One Home Depot.

ROA is also expected to increase slightly as HD pushes for EBIT expansion towards 16%. ROIC is also expected to increase from 50% to around 65%, driven by NOPAT increasing at a faster rate than revenues due to income tax reductions and stabilizing of total leverage undertaken. However, this might be slowed down by a delay in ROI for One Home Depot and demand pullback (which leads to revenue contraction) as a result of a COVID-19 induced recession. EPS is projected to increase at an annualized rate of 12%, marginally higher than net income growth, as we expect share buyback plans to resume after COVID-19 lockdowns which would lead to consumer demand recovery.

Liquidity to Provide Flexibility

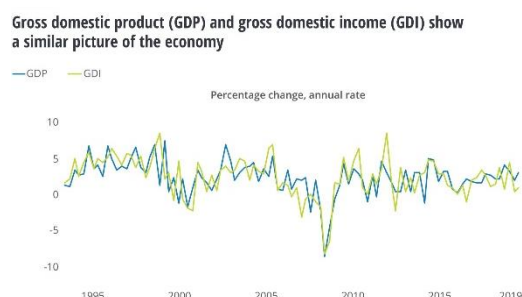
Plans for share buybacks are tentatively suspended as of mid-March. Prior to suspension, HD had repurchased approximately US\$600m (2.5m shares outstanding). In late March, HD increased

Figure 32. Football Field



Source: NUS Investment Society Estimates

Figure 33. Closely Related GDP and GDI



Source: Deloitte

Figure 34. Gordon Growth Method

Gordon Growth Method	
Terminal Growth Rate	1.50%
Terminal Value	360,135.14
PV of Terminal Value	266,145.02
PV of FCFF	61,819.43
Implied Enterprise Value	327,964.46
Less: Debt	-30,015.59
Less: Stock-based Compensation	0
Add: Cash	3,426.83
Add: Short-term Investments	0
Implied Equity Value	301,375.70
Share Count	864.56
Equity Value (USD) / Share	348.59

Source: NUS Investment Society Estimates

its commercial paper program from US\$3.0b to US\$6.0b while also expanding their revolver credit facility from US\$3.0b to US\$6.5b, allowing them to weather the COVID-19 storm by strengthening their liquidity position.

HD's FY19 cash conversion cycle stands at 38.7, ahead of peer Lowe's at 47.8, which demonstrates HD's liquidity and ability to take on short term loans even while both companies have engaged in heavy investments with a backdrop of economic uncertainty.

Current TTM dividend yield stands 2.5%, with a pay-out ratio of 52.9%. HD has managed to grow its dividends at for seven consecutive years (3-year average growth rate of 19.0%). We forecast that 2020 gross dividend amount and pay-out ratio is likely to stabilise or contract modestly on the backdrop of tightening credit conditions and contracting revenue.

Valuation

Valuation Price Target: **US\$279.73** +40.9%

DCF Model

A Discounted Cash Flow model was used to estimate the intrinsic value of HD's share. The model adopts a 5-year forecast period, given the diminishing accuracy of estimating beyond the COVID-19's recovery.

Revenue Growth

HD's performance as a home improvement company is dependent on the performance of the US housing market. A key consideration was the greater exposure in the US (87.2% of revenue) and limited expansion in surrounding regions such as Canada and Mexico.

Although revenue models within the retail industry typically rely on metrics such as sales per retail square foot, number of transactions and average ticket size, HD's status as a mature company with a stabilised store growth rate would not be reflected.

Furthermore, it may not factor in 1) higher revenue due to increased supply chain efficiencies resulting in heightened customer retention, and 2) extended outreach due to online sales. Hence, we based our revenue projection on 1 key driver: National income growth. Our projections are illustrated in the following formulae:

$$\text{Total Revenue} = \text{US Rev.} + \text{Mexico Rev.} + \text{Canada Rev.}$$

$$\text{US Rev.} = \text{Weighted US Median Income} \times \frac{\text{Median Income}}{\text{Revenue}}$$

$$\frac{\text{Median Income}}{\text{Revenue}} = (1 + \text{Hist. Annualized Change in ratio}) \times \text{Projected Median Income}$$

Each state in the US contributes a different share to HD's revenue, with higher contribution seen states such as California, Texas and Florida. 4 steps were used in forecasting the revenue. Using the 8-year historical revenue from each of the 50 states, we obtained HD's revenue growth per state. From data on historical median household income for each of the states, we calculated the average contribution to HD per state, as a percentage of household median income. A weighted median income/HD revenue ratio was determined and projected. Hence, we forecasted national income based on HD's revenue growth per state. From data on historical median household income for each of the states, we calculated the average contribution to HD per state, as a percentage of household median income. A weighted median income/HD revenue ratio was used. Hence, the forecasted national income growth of each of the

Figure 35. Exit Multiple Method

Exit Multiple Method	
Median EBITDA Multiple of Peers	12
Terminal Value	289,678.39
PV of Terminal Value	214,076.47
PV of FCFF	61,819.43
Implied Enterprise Value	275,895.91
Less: Debt	-30,015.59
Less: Stock-based Compensation	0
Add: Cash	3,426.83
Add: Short-term Investments	0
Implied Equity Value	249,307.15
Share Count	864.56
Equity Value (USD) / Share	288.36

Source: NUS Investment Society Estimates

Figure 36. Trading Multiples

	+1FY P/E	+1FY EV/EBITDA	+1FY EV/EBIT
25th Percentile	13.42	9.27	11.72
Median	14.84	10.09	12.01
75th Percentile	26.46	12.63	19.36
Average	18.24	11.21	14.44

Source: NUS Investment Society Estimates

Figure 37. Target Price

Weighted Average Target Price	\$	318.47
Current Stock Price	\$	198.48
Upside		60.46%
Weightage		0.6
Blended Upside		40.94%
Target Price	\$	279.73

Source: NUS Investment Society Estimates

50 states and other regions were fed to generate HD's forecasted revenue.

Cost of Equity

CAPM was used to estimate the cost of equity. Risk free rate of 0.7% was used in accordance to the current 10-year US Treasuries. An unlevered Beta of 0.93 was obtained from Bloomberg. A cost of equity of 6.3% was used, alongside a cost of debt of 3.8%, arriving at our WACC of 6.2%.

Terminal Growth

We blended the terminal growth method and exit EBITDA multiple method. Using a terminal growth of 1.5% reflects the forecasted sustainable US GDP growth, and an EBITDA multiple of 12.0x (HD's current multiple because we believe HD is in a premium position relative to comps), we arrived at a blended target price of US\$291.42, representing an upside of 46.8%.

DDM Model

For the DDM, a cost of equity of 6.3% was used alongside a terminal growth of 1.5%. We referenced a dividend pay-out ratio of 60% as HD's growth within the online space (which requires less incremental CAPEX) would produce a higher operating leverage, generating greater free cash flow. HD also has the largest market share within the home improvement market, signifying a stable customer base. We expect these two factors to support strong future cash flows, translating to incrementally pay out more in dividends in line with their performance. With these assumptions, we arrived at a target price of US\$221.61, representing an upside of +11.7%.

Trading Multiples and Relative Valuation

HD currently trades at TTM P/E of 23.9x and a forward P/E of 25.1x while TTM EV/EBITDA and Price/Cash Flow sits at 16.5x and 19.2x respectively. HD trades at a 21.3% premium F P/E and a 39.5% EBITDA multiple premium relative to its comps. HD has historically traded at an elevated multiple relative to its peers due to their outsized market share and net sales relative to their peers.

In our relative valuation, we arrived at a +1FY P/E target price (using an average +1FY P/E of 18.24 and a projected EPS of 13.15) of US\$239.88; a +1FY EV/EBITDA target price (using a 75 Percentile +1FY EV/EBITDA of 12.63 and a projected EBITDA of US\$19,160.95) of US\$213.79. We selected the 75 Percentile +1FY EV/EBITDA as it reflects HD's dominant position in the market against smaller players.

Final Valuation

Finally, the blended target price for both methods is **US\$279.73**, representing an upside of **+40.9%**.

Our screening criterion for HD's comparable companies were retailers that specialized in home improvement. Companies like Walmart and Amazon that provide some home improvement services were not included. This is due to their diversified product offerings with key differences in inventory management. HD was overvalued against comps across all multiples (P/E, EV/EBITDA, and EV/Revenue).

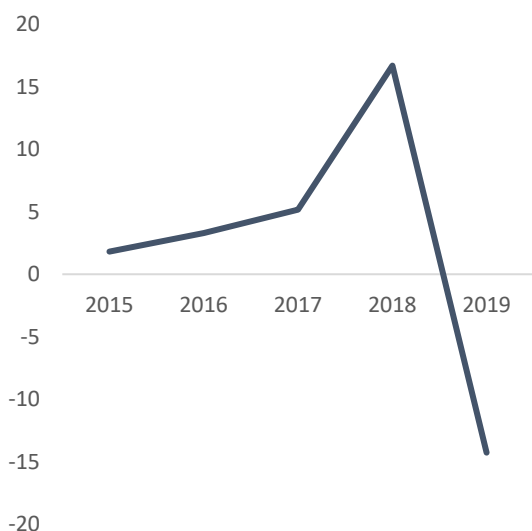
However, we believe this is attributed to HD's leading market position, track record of maintaining that lead, and the fact that it is significantly larger than many of the other comps (in the multiples). Additionally, Home Depot operates in a duopolistic market with Lowe's. Markets have factored this in, resulting in richer valuations for HD for many years. As such, we believe RV does not give a full picture of Home Depot's current valuation.

Figure 38. Risk Matrix

SCALE OF LIKELIHOOD	SCALE OF SEVERITY			
		ACCEPTABLE	TOLERABLE	GENERALLY UNACCEPTABLE
	NOT LIKELY	LOW	MEDIUM	R2 MEDIUM
	POSSIBLE	LOW R1	MEDIUM	HIGH
	PROBABLE	MEDIUM	R3 HIGH	HIGH

Source: NUS Investment Society Estimates

Figure 39. Historical Debt/Equity Ratio



Source: Home Depot Annual Reports

Investment Risks

The “One Home Depot” plan and investment may not result in the desired expansion of their bottom line. (R1)

Efforts to integrate e-commerce with the brick-and-mortar stores might not synergize as well as expected. Efforts to centralize its supply chain might not lead to desired COGS reduction. Home Depot has announced that its 3Q19 and 4Q19 results did not express the benefits of its digital investments. Same store sales were up 3.6% globally and 3.8% in the US. CEO, Craig Menear, has iterated that HD is on track with its technology investments but that returns would take longer to realize than initial assumptions due to added time required to change consumer habits.

Coupled with the current economic crisis, this may not be achieved within their 5-year plan, especially considering languishing consumer demand and tightening credit conditions. However, due to the current limitations caused by COVID-19 reducing the number of walk-in customers, we expect HD to use this opportunity to prove its effectiveness in ensuring business continuity via their online sales platforms.

High gearing and low liquidity, amidst increasing CAPEX may place downward pressure on HD’s creditworthiness. (R2)

High debt levels (quick ratio of 0.23), low net cash position, and plans to fund a centralization strategy may significantly impact operating cash flows and hurt its ability to repay debt, refinance, and perform the buyback of shares as pledged. As of mid-March, HD’s share buyback program has also been terminated indefinitely. However, HD has a stronger financial position than its main competitor Lowe’s (Quick ratio of 0.23 for HD versus 0.06 for Lowe’s) and is also currently rated A2 by Moody’s which places it in a strong position within IG bonds to refinance at competitive rates.

HD’s supply chain may experience shocks due to the COVID-19 Outbreak (R3)

COVID-19 has led to supply chain disruptions as most US states have implemented state-wide lockdowns. General weakness in demand as US heads into a possible recession is likely to erode top line growth for 2020. Delays in sourcing and deliveries can also result in customers switching brands to competitors. Mass unemployment in the aftermath of COVID-19 lockdowns/recession can lead to a fall in house renovations or new home purchases. Deterioration in labour markets coupled with tightening of mortgage credit conditions can exacerbate housing demand which dominoes over to home improvement demand.

US consumer debt is also sitting at record levels in 2020. With the backdrop of demand pullback due to a COVID-19-induced recession, we expect to see subdued growth in number of house renovations and new purchases which may temper HD’s revenue growth. Nonetheless, we expect the impact of overall home improvement spending to be limited as homeowners who had intentions of purchasing a new home may decide to seek renovations in 2H19 as an alternative. Furthermore, supply chain shocks will be moderately impacted as HD sources ~70% of goods within the US.

Disclaimer

This research material has been prepared by NUS Invest. NUS Invest specifically prohibits the redistribution of this material in whole or in part without the written permission of NUS Invest. The research officer(s) primarily responsible for the content of this research material, in whole or in part, certifies that their views are accurately expressed and they will not receive direct or indirect compensation in exchange for

expressing specific recommendations or views in this research material. Whilst we have taken all reasonable care to ensure that the information contained in this publication is not untrue or misleading at the time of publication, we cannot guarantee its accuracy or completeness, and you should not act on it without first independently verifying its contents. Any opinion or estimate contained in this report is subject to change without notice. We have not given any consideration to and we have not made any investigation of the investment objectives, financial situation or particular needs of the recipient or any class of persons, and accordingly, no warranty whatsoever is given and no liability whatsoever is accepted for any loss arising whether directly or indirectly as a result of the recipient or any class of persons acting on such information or opinion or estimate. You may wish to seek advice from a financial adviser regarding the suitability of the securities mentioned herein, taking into consideration your investment objectives, financial situation or particular needs, before making a commitment to invest in the securities. This report is published solely for information purposes, it does not constitute an advertisement and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments. No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained herein. The research material should not be regarded by recipients as a substitute for the exercise of their own judgement. Any opinions expressed in this research material are subject to change without notice.

© 2020 NUS Investment Society

Pro-Forma Financial Statements

Home Depot Financial Statements

Figures In '000,000 USD

	Historical			Forecasted				
	2017	2018	2019	2020	2021	2022	2023	2024
Income Statement								
Revenues	94,595	100,904	108,203	101,895	109,444	116,480	123,414	130,314
COGS	62,282	66,548	71,043	66,901	71,858	76,477	81,030	85,560
Less: Depreciation & Amortization	1,754	1,811	1,870	2,457	2,519	2,450	2,588	2,777
Gross Profit	30,559	32,545	35,290	34,994	37,586	40,002	42,384	44,754
SG&A	(17,132)	(17,864)	(19,513)	(18,290)	(19,645)	(20,908)	(22,152)	(23,391)
R&D	-	-	-	-	-	-	-	-
Operating Income	13,427	14,681	15,777	16,704	17,942	19,095	20,232	21,363
Non-Operating Income (Loss)	(936)	(983)	(974)	(1,194)	(1,170)	(1,190)	(1,141)	(1,242)
Interest, Net	(936)	(983)	(958)	(1,194)	(1,170)	(1,190)	(1,141)	(1,242)
Interest Expense	(972)	(1,057)	(1,051)	(1,194)	(1,170)	(1,190)	(1,141)	(1,242)
Interest Income	36	74	93	-	-	-	-	-
Other Non-Op Income (Loss)	-	-	16	-	-	-	-	-
Pretax Income (Loss)	12,491	13,698	14,803	15,510	16,771	17,905	19,090	20,121
Abnormal Losses (Gains)	-	-	247	-	-	-	-	-
Pretax Income, GAAP	12,491	13,698	14,556	15,510	16,771	17,905	19,090	20,121
Income tax expense (Benefit)	4,534	5,068	3,435	3,257	3,522	3,760	4,009	4,225
(Income) Loss from Affiliates	-	-	-	-	-	-	-	-
Net Extraordinary Losses (Gains)	-	-	-	-	-	-	-	-
Net Income Inc. MI	7,957	8,630	11,121	12,253	13,249	14,145	15,081	15,896
Minority Interest	-	-	-	-	-	-	-	-
Net Income, GAAP	7,957	8,630	11,121	12,253	13,249	14,145	15,081	15,896
EPS	6.5	7.3	9.7	11.7	13.2	14.7	16.5	18.4
Balance Sheet								
Total Assets								
Cash, Cash Equivalents & STI	2,538	3,595	1,778	2,680	2,878	3,063	3,245	3,427
Cash & Cash Equivalents	2,538	3,595	1,778	2,680	2,878	3,063	3,245	3,427
ST Investments	-	-	-	-	-	-	-	-
Accounts receivable	2,029	1,952	1,936	1,993	2,141	2,279	2,414	2,549
Inventory	12,549	12,748	13,925	13,136	14,109	15,016	15,910	16,800
Other ST Assets	608	638	890	890	890	890	890	890
Total Current Assets	17,724	18,933	18,529	18,699	20,018	21,248	22,460	23,666
PPE, net	21,914	22,075	22,375	22,693	23,017	23,324	23,602	23,840
PPE	40,426	41,414	42,939	45,283	47,800	50,479	53,318	56,316
Accumulated Depreciation	18,512	19,339	20,564	22,590	24,783	27,155	29,716	32,476
LT Investments	-	-	-	-	-	-	-	-
Other LT Assets	3,328	3,521	3,099	2,668	2,342	2,264	2,237	2,220
Total Intangible Assets	2,093	2,275	2,252	1,821	1,495	1,417	1,390	1,373
Misc. LT Assets	1,235	1,246	847	847	847	847	847	847
Total Noncurrent Assets	25,242	25,596	25,474	25,361	25,359	25,588	25,839	26,060
Total Assets	42,966	44,529	44,003	44,060	45,377	46,836	48,300	49,726
Liabilities & Shareholder's Equity								
Revolver Facility/ST Debt	1,252	2,761	2,395	3,209	5,343	6,958	11,211	12,846
Account payables and accruals	10,704	11,108	11,883	11,285	12,121	12,900	13,668	14,432
Other ST Liabilities	2,177	2,325	2,438	2,330	2,502	2,663	2,822	2,979
Total Current Liabilities	14,133	16,194	16,716	16,823	19,966	22,521	27,701	30,258
LT Debt	22,349	24,267	26,807	26,807	25,057	24,057	20,457	19,457
Other LT Liabilities	2,151	2,614	2,358	2,469	2,585	2,706	2,834	2,967
Total Noncurrent Liabilities	24,500	26,881	29,165	29,276	27,642	26,763	23,291	22,424
Total Liabilities	38,633	43,075	45,881	46,099	47,608	49,285	50,992	52,682
Share Capital	9,875	10,281	10,667	11,087	11,523	11,976	12,447	12,936
Treasury Stock	40,194	48,196	58,196	65,561	73,526	82,028	91,094	100,649
Retained Earnings	35,519	39,935	46,423	53,208	60,544	68,376	76,727	85,528
Other Equity	(867)	(566)	(772)	(772)	(772)	(772)	(772)	(772)
Minority Interest	-	-	-	-	-	-	-	-
Total Equity	4,333	1,454	(1,878)	(2,039)	(2,231)	(2,448)	(2,692)	(2,956)
Total Liabilities & Equity	42,966	44,529	44,003	44,060	45,377	46,836	48,300	49,726

Statement of Cash Flows								
Cash from operating activities								
Net Income, GAAP	7,957	8,630	11,121	12,253	13,249	14,145	15,081	15,896
Add: Changes in Working Capital	(147)	1,339	(235)	25	(112)	(105)	(103)	(103)
Changes in Accounts receivable				(57)	(148)	(138)	(136)	(135)
Changes in Inventory				789	(973)	(907)	(894)	(889)
Changes in other ST Assets				-	-	-	-	-
Changes in Accounts Payable				(598)	836	779	768	764
Changes in other ST Liabilities				(108)	173	161	159	158
Changes in ST Investments				-	-	-	-	-
Add: Depreciation & Amortization	1,973	2,062	2,152	2,457	2,519	2,450	2,588	2,777
Cash provided by operating activities	9,783	12,031	13,038	14,735	15,656	16,490	17,566	18,570
Cash from investing activities								
Change in LT Investments	-	-	-	-	-	-	-	-
CAPEX	(1,583)	(1,850)	(2,409)	(2,344)	(2,517)	(2,679)	(2,839)	(2,997)
Net Cash from Acq & Div	-	(378)	(7)	-	-	-	-	-
Cash from investing activities	(1,583)	(2,228)	(2,416)	(2,344)	(2,517)	(2,679)	(2,839)	(2,997)
Cash from financing activities								
Dividends Paid	(3,404)	(4,212)	(4,704)	(5,468)	(5,913)	(6,312)	(6,731)	(7,094)
LT Debt Additions (Repayment)	2,274	3,298	2,037	-	(1,750)	(1,000)	(3,600)	(1,000)
Repayment of LT Liabilities	-	-	-	111	116	122	127	133
Proceeds from Issuance of common stock	-	-	-	420	436	453	471	490
Repurchase of Equity	(6,662)	(7,745)	(9,727)	(7,365)	(7,964)	(8,503)	(9,066)	(9,555)
Revolver Payments	(78)	(211)	(26)	(2,395)	(3,209)	(5,343)	(6,958)	(11,211)
Revolver Proceeds				3,209	5,343	6,958	11,211	12,846
Cash from financing activities	(7,870)	(8,870)	(12,420)	(11,490)	(12,941)	(13,625)	(14,545)	(15,391)
Net Change in Cash	322	1,057	(1,817)	902	199	185	182	181

Revenue Projections

Revenue Projection

Item	Historical			Forecasted				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Home Improvement Market Size	373,500	391,400	407,100					
HD Revenue	94,595	100,904	108,203	101,895	109,444	116,480	123,414	130,314
HD Market Share	25.3%	25.8%	26.6%	27.2%	27.8%	28.4%	29.1%	29.7%
Market Share Growth			2.3%					

		Case Toggle							Base
Post-Tax Median Income		FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
United States	Tax Rate								
Alabama	39.70%	30,821	30,066	30,066	29,048	29,694	30,189	30,567	30,854
Alaska	26.40%	53,162	54,719	54,719	53,334	55,434	57,071	58,335	59,304
Arizona	31.60%	41,810	40,524	40,524	39,343	40,590	41,555	42,296	42,861
Arkansas	34.20%	32,129	30,967	30,967	29,933	30,629	31,163	31,571	31,880
California	57.50%	29,648	31,993	31,993	31,368	32,965	34,225	35,205	35,961
Colorado	55.00%	33,377	32,379	32,379	31,450	32,475	33,269	33,879	34,345
Connecticut	54.70%	32,969	34,586	34,586	33,560	34,590	35,386	35,997	36,463
Delaware	43.90%	34,960	36,356	36,356	35,233	36,228	36,995	37,583	38,031
Florida	6.00%	50,460	55,231	55,231	53,855	56,018	57,706	59,011	60,011
Georgia	54.10%	26,170	36,817	36,817	36,599	40,556	43,845	46,512	48,633
Hawaii	31.80%	50,178	37,908	37,908	35,601	35,586	35,575	35,567	35,560
Idaho	42.60%	34,559	37,327	37,327	36,518	38,221	39,559	40,597	41,395
Illinois	50.80%	31,788	27,427	27,427	26,820	27,328	27,717	28,012	28,236
Indiana	35.30%	38,091	38,791	38,791	37,911	39,603	40,929	41,957	42,747
Iowa	42.80%	36,311	33,301	33,301	32,225	33,044	33,674	34,156	34,522
Kansas	34.50%	37,906	32,912	32,912	32,093	32,657	33,087	33,414	33,662
Kentucky	41.60%	29,987	27,977	27,976	27,137	27,950	28,578	29,060	29,427
Louisiana	33.30%	29,283	37,087	37,087	36,278	37,961	39,282	40,307	41,096
Maine	41.90%	30,017	48,364	48,364	48,225	53,736	58,341	62,091	65,084
Maryland	47.10%	42,893	42,233	42,233	40,868	41,906	42,705	43,315	43,779
Massachusetts	61.90%	27,899	21,602	21,601	20,024	19,894	19,796	19,724	19,670
Michigan	37.10%	36,293	44,228	44,228	43,367	45,583	47,329	48,689	49,738
Minnesota	48.50%	37,039	23,029	23,029	20,533	20,036	19,673	19,405	19,207
Mississippi	29.30%	30,713	38,516	38,516	37,600	39,195	40,442	41,407	42,148
Missouri	52.50%	27,020	26,281	26,281	25,501	26,284	26,888	27,352	27,706
Montana	47.40%	31,080	31,332	31,332	30,807	32,547	33,926	35,004	35,838
Nebraska	50.80%	29,333	28,854	28,854	27,906	28,285	28,573	28,791	28,956
Nevada	0.00%	56,550	74,991	74,991	74,101	79,010	82,936	86,026	88,431
New Hampshire	27.00%	54,605	59,670	59,670	57,999	59,970	61,499	62,674	63,573
New Jersey	50.10%	36,426	23,537	23,537	20,863	20,304	19,896	19,596	19,375
New Mexico	27.10%	34,886	49,458	49,458	48,915	52,243	54,909	57,011	58,647
New York	62.40%	23,480	20,249	20,249	19,628	19,915	20,134	20,299	20,425
North Carolina	50.00%	25,172	31,919	31,918	31,188	32,569	33,649	34,487	35,131
North Dakota	12.60%	52,340	49,041	49,041	49,182	55,366	60,588	64,873	68,315
Ohio	31.40%	41,001	35,620	35,620	34,477	35,367	36,051	36,575	36,973
Oklahoma	38.70%	33,719	38,880	38,880	37,924	39,470	40,678	41,611	42,327
Oregon	75.00%	16,153	15,226	15,226	14,789	15,272	15,646	15,933	16,152
Pennsylvania	38.80%	38,662	12,421	12,421	9,241	8,336	7,723	7,298	6,996
Rhode Island	43.50%	37,510	36,352	36,352	35,463	36,921	38,059	38,939	39,615
South Carolina	42.80%	31,443	29,919	29,919	29,177	30,356	31,275	31,986	32,531
South Dakota	0.30%	56,723	56,105	56,105	54,391	55,962	57,174	58,103	58,811
Tennessee	13.40%	47,838	45,357	45,357	44,082	45,571	46,726	47,614	48,293
Texas	0.00%	59,295	60,629	60,629	58,938	60,955	62,520	63,724	64,644
Utah	52.60%	33,805	33,850	33,850	32,981	34,255	35,247	36,013	36,600
Vermont	27.00%	46,578	44,371	44,371	42,968	44,119	45,006	45,684	46,200
Virginia	61.90%	27,163	27,652	27,652	26,759	27,438	27,961	28,360	28,664
Washington	0.00%	75,418	74,073	74,073	72,229	75,133	77,398	79,149	80,491
West Virginia	38.10%	28,098	52,741	52,741	52,974	59,798	65,576	70,329	74,151
Wisconsin	47.60%	33,248	23,107	23,107	21,108	20,828	20,621	20,467	20,353
Wyoming	0.00%	57,837	60,773	60,773	58,662	59,866	60,787	61,489	62,021

US Derived Revenues Per State

State	Revenue Share P	FY2017	FY2018	FY2019	FY2020	FY2020	FY2020	FY2020	FY2020
Alabama	1.22%	378.84	368.59	356.10	364.02	370.09	374.73	378.24	380.90
Alaska	0.31%	163.36	167.70	163.46	169.89	174.91	178.79	181.76	184.02
Arizona	2.45%	1,027.80	993.59	964.63	995.20	1,018.86	1,037.03	1,050.89	1,061.43
Arkansas	0.61%	197.46	189.81	183.48	187.74	191.02	193.52	195.41	196.85
California	10.14%	3,019.42	3,249.70	3,186.22	3,348.49	3,476.40	3,575.99	3,652.83	3,711.69
Colorado	2.01%	673.99	652.11	633.40	654.05	670.04	682.33	691.71	698.84
Connecticut	1.31%	419.72	439.13	426.11	439.19	449.29	457.05	462.97	467.46
Delaware	0.39%	138.12	143.26	138.83	142.75	145.78	148.09	149.86	151.20
Florida	6.69%	3,366.96	3,699.78	3,607.61	3,752.55	3,865.62	3,952.98	4,019.99	4,071.09
Georgia	3.94%	1,045.44	1,450.77	1,442.16	1,598.09	1,727.69	1,832.77	1,916.38	1,981.94
Hawaii	0.31%	154.19	116.18	109.11	109.06	109.03	109.00	108.99	108.97
Idaho	0.48%	166.88	179.77	175.88	184.08	190.52	195.52	199.37	202.31
Illinois	3.32%	1,060.52	912.63	892.45	909.35	922.27	932.09	939.54	945.17
Indiana	1.05%	401.31	407.61	398.37	416.15	430.08	440.88	449.18	455.53
Iowa	0.44%	159.40	145.80	141.09	144.68	147.44	149.54	151.15	152.36
Kansas	0.70%	266.24	230.56	224.82	228.77	231.79	234.08	235.81	237.12
Kentucky	0.61%	184.29	171.48	166.34	171.32	175.17	178.13	180.38	182.09
Louisiana	1.22%	347.08	454.65	444.74	465.37	481.57	494.13	503.80	511.20
Maine	0.48%	144.94	254.10	253.37	282.32	306.52	326.22	341.95	354.31
Maryland	1.79%	772.01	758.12	733.63	752.26	766.59	777.54	785.87	792.19
Massachusetts	1.97%	551.13	425.60	394.52	391.95	390.03	388.61	387.54	386.74
Michigan	3.06%	1,115.25	1,355.50	1,329.12	1,397.01	1,450.53	1,492.21	1,524.36	1,549.00
Minnesota	1.44%	536.56	332.73	296.67	289.49	284.24	280.37	277.51	275.39
Mississippi	0.61%	188.75	236.09	230.47	240.25	247.89	253.81	258.35	261.82
Missouri	1.49%	403.29	391.22	379.62	391.26	400.26	407.17	412.44	416.44
Montana	0.26%	81.86	82.31	80.93	85.50	89.12	91.95	94.15	95.83
Nebraska	0.35%	103.01	101.06	97.74	99.07	100.08	100.85	101.42	101.86
Nevada	0.92%	521.31	689.50	681.31	726.45	762.54	790.96	813.07	830.11
New Hampshire	0.87%	479.41	522.51	507.87	525.13	538.52	548.81	556.68	562.67
New Jersey	2.93%	1,071.34	690.46	612.02	595.62	583.65	574.85	568.35	563.53
New Mexico	0.57%	199.09	281.51	278.41	297.36	312.53	324.49	333.81	340.99
New York	4.37%	1,030.73	886.58	859.35	871.93	881.51	888.77	894.26	898.40
North Carolina	1.75%	441.99	558.99	546.21	570.38	589.31	603.98	615.25	623.87
North Dakota	0.09%	45.95	42.94	43.07	48.48	53.05	56.81	59.82	62.20
Ohio	3.06%	1,259.90	1,091.68	1,056.64	1,083.92	1,104.90	1,120.95	1,133.15	1,142.41
Oklahoma	0.70%	236.83	272.37	265.66	276.50	284.96	291.50	296.51	300.34
Oregon	1.18%	191.45	180.00	174.83	180.54	184.95	188.35	190.94	192.91
Pennsylvania	3.06%	1,188.03	380.68	283.24	255.48	236.71	223.66	214.41	207.77
Rhode Island	0.35%	131.73	127.33	124.22	129.32	133.31	136.39	138.76	140.56
South Carolina	1.09%	345.08	327.49	319.36	332.26	342.33	350.11	356.08	360.63
South Dakota	0.04%	24.90	24.56	23.81	24.50	25.03	25.44	25.75	25.98
Tennessee	1.71%	819.00	774.48	752.71	778.14	797.86	813.02	824.61	833.43
Texas	7.83%	4,633.24	4,751.57	4,619.06	4,777.15	4,899.77	4,994.10	5,066.21	5,121.07
Utah	0.96%	326.48	326.05	317.68	329.95	339.51	346.88	352.54	356.84
Vermont	0.13%	61.34	58.28	56.44	57.95	59.11	60.01	60.68	61.20
Virginia	2.14%	584.27	593.23	574.07	588.65	599.86	608.42	614.94	619.88
Washington	1.97%	1,489.82	1,459.41	1,423.07	1,480.29	1,524.93	1,559.41	1,585.86	1,606.04
West Virginia	0.26%	74.01	138.55	139.16	157.09	172.27	184.75	194.79	202.73
Wisconsin	1.18%	394.08	273.15	249.52	246.22	243.77	241.95	240.60	239.59
Wyoming	0.22%	126.95	133.04	128.42	131.05	133.07	134.61	135.77	136.66

Forecasted HD Expenditure Growth Rate

State	Historic Growth rate	2019	2020	2021	2022	2023	2024
Alabama	0.2%	-3.4%	2.2%	1.7%	1.3%	0.9%	0.7%
Alaska	1.9%	-2.5%	3.9%	3.0%	2.2%	1.7%	1.2%
Arizona	1.2%	-2.9%	3.2%	2.4%	1.8%	1.3%	1.0%
Arkansas	0.3%	-3.3%	2.3%	1.7%	1.3%	1.0%	0.7%
California	3.1%	-2.0%	5.1%	3.8%	2.9%	2.1%	1.6%
Colorado	1.3%	-2.9%	3.3%	2.4%	1.8%	1.4%	1.0%
Connecticut	1.1%	-3.0%	3.1%	2.3%	1.7%	1.3%	1.0%
Delaware	0.8%	-3.1%	2.8%	2.1%	1.6%	1.2%	0.9%
Florida	2.0%	-2.5%	4.0%	3.0%	2.3%	1.7%	1.3%
Georgia	5.8%	-0.6%	10.8%	8.1%	6.1%	4.6%	3.4%
Hawaii	-2.0%	-6.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Idaho	2.7%	-2.2%	4.7%	3.5%	2.6%	2.0%	1.5%
Illinois	-0.1%	-2.2%	1.9%	1.4%	1.1%	0.8%	0.6%
Indiana	2.5%	-2.3%	4.5%	3.3%	2.5%	1.9%	1.4%
Iowa	0.5%	-3.2%	2.5%	1.9%	1.4%	1.1%	0.8%
Kansas	-0.2%	-2.5%	1.8%	1.3%	1.0%	0.7%	0.6%
Kentucky	1.0%	-3.0%	3.0%	2.2%	1.7%	1.3%	0.9%
Louisiana	2.6%	-2.2%	4.6%	3.5%	2.6%	2.0%	1.5%
Maine	6.4%	-0.3%	11.4%	8.6%	6.4%	4.8%	3.6%
Maryland	0.5%	-3.2%	2.5%	1.9%	1.4%	1.1%	0.8%
Massachusetts	-2.7%	-7.3%	-0.7%	-0.5%	-0.4%	-0.3%	-0.2%
Michigan	3.1%	-1.9%	5.1%	3.8%	2.9%	2.2%	1.6%
Minnesota	-4.4%	-10.8%	-2.4%	-1.8%	-1.4%	-1.0%	-0.8%
Mississippi	2.2%	-2.4%	4.2%	3.2%	2.4%	1.8%	1.3%
Missouri	1.1%	-3.0%	3.1%	2.3%	1.7%	1.3%	1.0%

Montana	3.6%	-1.7%	5.6%	4.2%	3.2%	2.4%	1.8%
Nebraska	-0.6%	-3.3%	1.4%	1.0%	0.8%	0.6%	0.4%
Nevada	4.6%	-1.2%	6.6%	5.0%	3.7%	2.8%	2.1%
New Hampshire	1.4%	-2.8%	3.4%	2.5%	1.9%	1.4%	1.1%
New Jersey	-4.7%	-11.4%	-2.7%	-2.0%	-1.5%	-1.1%	-0.8%
New Mexico	4.8%	-1.1%	6.8%	5.1%	3.8%	2.9%	2.2%
New York	-0.5%	-3.1%	1.5%	1.1%	0.8%	0.6%	0.5%
North Carolina	2.4%	-2.3%	4.4%	3.3%	2.5%	1.9%	1.4%
North Dakota	7.6%	0.3%	12.6%	9.4%	7.1%	5.3%	4.0%
Ohio	0.6%	-3.2%	2.6%	1.9%	1.5%	1.1%	0.8%
Oklahoma	2.1%	-2.5%	4.1%	3.1%	2.3%	1.7%	1.3%
Oregon	1.3%	-2.9%	3.3%	2.4%	1.8%	1.4%	1.0%
Pennsylvania	-11.8%	-25.6%	-9.8%	-7.3%	-5.5%	-4.1%	-3.1%
Rhode Island	2.1%	-2.4%	4.1%	3.1%	2.3%	1.7%	1.3%
South Carolina	2.0%	-2.5%	4.0%	3.0%	2.3%	1.7%	1.3%
South Dakota	0.9%	-3.1%	2.9%	2.2%	1.6%	1.2%	0.9%
Tennessee	1.4%	-2.8%	3.4%	2.5%	1.9%	1.4%	1.1%
Texas	1.4%	-2.8%	3.4%	2.6%	1.9%	1.4%	1.1%
Utah	1.9%	-2.6%	3.9%	2.9%	2.2%	1.6%	1.2%
Vermont	0.7%	-3.2%	2.7%	2.0%	1.5%	1.1%	0.8%
Virginia	0.5%	-3.2%	2.5%	1.9%	1.4%	1.1%	0.8%
Washington	2.0%	-2.5%	4.0%	3.0%	2.3%	1.7%	1.3%
West Virginia	7.9%	0.4%	12.9%	9.7%	7.2%	5.4%	4.1%
Wisconsin	-3.3%	-8.7%	-1.3%	-1.0%	-0.7%	-0.6%	-0.4%
Wyoming	0.1%	-3.5%	2.1%	1.5%	1.2%	0.9%	0.6%

Revenue Subtotals

USA	FY2017	FY2018	FY2019	FY2020	FY2020	FY2020	FY2020	FY2020
Weighted USA Median Income	32,745	32,494	31,487	32,674	33,616	34,354	34,925	35,364
yoy Growth	1.9%	-0.8%	-3.1%	3.8%	2.9%	2.2%	1.7%	1.3%
Weighted US Median Income/HD Revenue Ratio	0.43	0.40	0.39	0.37	0.36	0.34	0.33	0.32
Change in ratio	-5.2%	-7.0%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%
US Derived Revenues	75,355.05	80,399.31	70,283.27	81,040.69	90,525.02	98,584.44	105,236.94	110,605.05
yoy Growth	7.5%	6.7%	-12.6%	15.3%	11.7%	8.9%	6.7%	5.1%
Canada								
Canada Median Income	35,680	35,680	35,680	33,896	35,930	36,604	37,292	37,992
yoy Growth	3.7%	0.0%	0.0%	-5.0%	6.0%	1.9%	1.9%	1.9%
Canada Median Income/HD Revenue Ratio	4.72	4.44	4.14	3.96	3.78	3.61	3.45	3.29
Change in Ratio	-3.3%	-6.0%	-6.6%	-4.5%	-4.5%	-4.5%	-4.5%	-4.5%
Canada Derived Revenue	7,558.14	8,042.05	8,612.96	8,566.30	9,506.40	10,139.39	10,814.52	11,534.61
yoy Growth	7.2%	6.4%	7.1%	-0.5%	11.0%	6.7%	6.7%	6.7%
Mexico								
Mexico Median Income	16,110	16,298	16,294	14,664.51	14,661.08	14,657.65	14,654.22	14,650.79
yoy Growth	-0.2%	1.2%	0.0%	-10.0%	0.0%	0.0%	0.0%	0.0%
Mexico Median Income/HD Revenue Ratio	3.23	3.02	2.78	2.64	2.51	2.39	2.27	2.16
Change in Ratio	-10.0%	-6.4%	-8.1%	-4.9%	-4.9%	-4.9%	-4.9%	-4.9%
Mexico Derived Revenue	4,985.16	5,388.27	5,864.60	5,550.82	5,836.23	6,136.30	6,451.81	6,783.54
yoy Growth	10.9%	8.1%	8.8%	-5.4%	5.1%	5.1%	5.1%	5.1%

Financial Projections

Home Depot Financial Projections

Figures In '000,000 USD

	Historical			Forecasted				
	2017	2018	2019	2020	2021	2022	2023	2024
Revenue	94,595	100,904	108,203	101,895	109,444	116,480	123,414	130,314
Pretax Income	12,491	13,698	14,803	15,510	16,771	17,905	19,090	20,121
Net Income	7,957	8,630	11,121	12,253	13,249	14,145	15,081	15,896
Cost Build								
COGS	62,282	66,548	71,043	66,901	71,858	76,477	81,030	85,560
COGS as % of revenue	66%	66%	66%	66%	66%	66%	66%	66%
SG&A	(17,132)	(17,864)	(19,513)	(18,290)	(19,645)	(20,908)	(22,152)	(23,391)
SG&A as % of revenue	(0)	(0)	(0)	-18%	-18%	-18%	-18%	-18%
Dividends Paid Out	3,404	4,212	4,704	5,468	5,913	6,312	6,731	7,094
% of Net Income	0	0	0	0	0	0	0	0
Income Tax Expense				3,257	3,522	3,760	4,009	4,225
% Tax Rate				21%	21%	21%	21%	21%
LT Investments	-	-	-	-	-	-	-	-
% of Net Income	-	-	-	-	-	-	-	-
Net Working Capital								
Accounts Receivable	2,029	1,952	1,936	1,993	2,141	2,279	2,414	2,549
Accounts receivable as % of revenue	0	0	0	2%	2%	2%	2%	2%
Inventory	12,549	12,748	13,925	13,136	14,109	15,016	15,910	16,800
Inventory as % of COGS	0	0	0	20%	20%	20%	20%	20%
Short Term Investments	-	-	-	-	-	-	-	-
ST Investments as % of Revenue	-	-	-	0%	0%	0%	0%	0%
Other ST Assets								
As % of Revenue								
Accounts Payable	10,704	11,108	11,883	11,285	12,121	12,900	13,668	14,432
Accounts payable as % of COGS	0	0	0	17%	17%	17%	17%	17%
Accrued Taxes								
Accrued taxes as % of SG&A								
Inventory								
Inventory as % of COGS								
Other ST Liabilities	2,177	2,325	2,438	2,330	2,502	2,663	2,822	2,979
As % of Revenue	0	0	0	2%	2%	2%	2%	2%
Net Working Capital								
NOWC	1,053	(856)	35	(804)	(2,826)	(4,336)	(8,486)	(10,019)
Changes in NOWC		(1,909)	891	(839)	(2,022)	(1,510)	(4,150)	(1,533)
Minority Interest								
Minority Interest as % of Equity	3,591	2,739	1,813	1,876	52	(1,273)	(5,241)	(6,592)
		(852)	(926)	63	(1,824)	(1,325)	(3,968)	(1,351)
Non-Current Accounts								
LT Investments	-	-	-	-	-	-	-	-
As % of Revenue	-	-	-	0%	0%	0%	0%	0%
LT Liabilities	2,151	2,614	2,358	2,469	2,585	2,706	2,834	2,967
As % of Revenue	0	0	0	14%	14%	14%	14%	14%
Repurchase of Equity	7,745	9,727	6,685	7,365	7,964	8,503	9,066	9,555
As % of Net Income	97%	113%	60%	60%	60%	60%	60%	60%
Treasury Stock	40,194	48,196	58,196	65,561	73,526	82,028	91,094	100,649
Share Count			1,088	1,049	1,007	963	915	865
Proceeds from Share Issuance				420	436	453	471	490
Share Capital	9,875	10,281	10,667	11,087	11,523	11,976	12,447	12,936
Increase of Share Capital				4%	4%	4%	4%	4%
Share Count			2,876					
PPE Build								
Depreciation Schedule								
CAPEX	1,897	2,442	2,678	2,344	2,517	2,679	2,839	2,997
Capex as % of revenue	0	0	0	2%	2%	2%	2%	2%
Accumulated Depreciation	18,512	19,339	20,564	22,590	24,783	27,155	29,716	32,476
PPE								
Land	8,207	8,352	8,363	-	-	-	-	-
Buildings	17,772	18,073	18,199	18,358	18,530	18,712	18,905	19,108
Furnitures, fixtures, and equipment	11,020	11,506	12,460	-	-	-	-	-
Leashold Improvements	1,519	1,637	1,705	-	-	-	-	-
Construction in progress	739	538	820	1,193	1,594	2,021	2,473	2,950
Capital Leases	1,169	1,308	1,392	1,424	1,458	1,495	1,534	1,575
Total	40,426	41,414	42,939	20,976	21,582	22,228	22,911	23,634

Acquisitions								
Land	58	145	11	159	171	182	193	204
Buildings	105	301	126	373	401	427	452	477
Furnitures, fixtures, and equipment	741	486	954	1,372	1,474	1,568	1,662	1,755
Leashold Improvements	38	118	68	154	165	176	186	197
Construction in progress	69	(201)	282	32	34	37	39	41
Capital Leases	149	139	84	253	272	290	307	324
CAPEX	1,160	988	1,525	2,344	2,517	2,679	2,839	2,997

Acquisitions as % of CAPEX			AVG CAPEX into Respective PPE					
Land	5.0%	14.7%	0.7%	6.8%				
Buildings	9.1%	30.5%	8.3%	15.9%				
Furnitures, fixtures, and equipment	63.9%	49.2%	62.6%	58.5%				
Leashold Improvements	3.3%	11.9%	4.5%	6.6%				
Construction in progress	5.9%	-20.3%	18.5%	1.4%				
Capital Leases	12.8%	14.1%	5.5%	10.8%				

Depreciation Expense								
Buildings				15	16	17	18	19
Furnitures, fixtures, and equipment				125	134	143	151	160
Leashold Improvements				6	7	7	7	8
Capital Leases				10	11	12	12	13
SUM				156	168	178	189	199
Depreciation Expense	1,754	1,811	1,870	2,026	2,193	2,372	2,561	2,760

Type of PPE (Midpoint of range given in 10K)								
Building	25							
Furniture and Fixture	11							
Leasehold Improvements	25							
Total Intangible Assets	2,093	2,275	2,252	1,821	1,495	1,417	1,390	1,373
Annual Amortization Expense				431	326	78	27	17
Total Depreciation & Amortization Expense				2,457	2,519	2,450	2,588	2,777

Debt Schedule

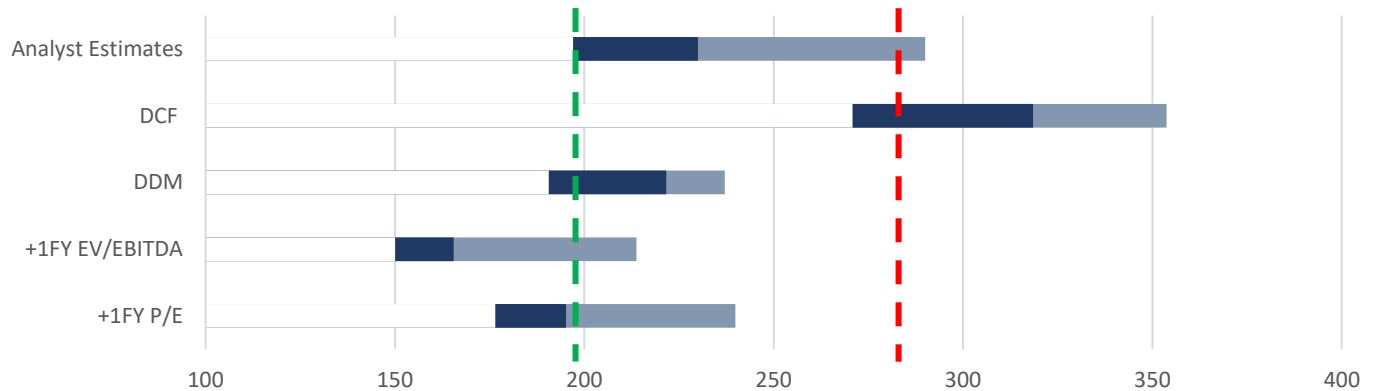
LT DEBT	Year	Principal	Interest Repayment Schedule					
Floating Rate Senior Note	2020	500						
1.80% Senior Notes	2020	750						
3.95% Senior Notes	2020	500	Interest Paid	1,122	1,074	1,030	933	906
4.40% Senior Notes	2021	1,000	Total Repayments (Less Interest)	-	1,750	1,000	3,600	1,000
2.00% Notes	2022	1,350						
Floating Rate Senior Note	2022	300						
3.25% Senior Notes	2022	700						
2.625% Senior Notes	2022	1,250						
2.70% Senior Notes	2023	1,000						
3.75% Senior Notes	2024	1,100						
3.35% Senior Notes	2025	1,000						
3.00% Senior Notes	2026	1,300						
2.125% Senior Notes	2026	1,000						
2.80% Senior Notes	2027	1,000						
3.90% Senior Notes	2028	1,000						
2.95% Senior Notes	2029	1,750						
5.875% Senior Notes	2036	3,000						
5.40% Senior Notes	2040	500						
5.95% Senior Notes	2041	1,000						
4.20% Senior Notes	2043	1,000						
4.875% Senior Notes	2044	1,000						
4.40% Senior Notes	2045	1,000						
4.25% Senior Notes	2046	1,600						
3.90% Senior Notes	2047	1,150						
4.50% Senior Notes	2048	1,500						
3.125% Senior Notes	2049	1,250						
3.50% Senior Notes	2056	1,000						
		29,500						

Short Term and Long Term Debt

ST Debt								
Beginning balance			2,395	3,209	5,343	6,958	11,211	
Additions			3,209	5,343	6,958	11,211	12,846	
Repayment			(2,395)	(3,209)	(5,343)	(6,958)	(11,211)	
Ending balance			2,395	3,209	5,343	6,958	11,211	12,846
Interest rate on short term debt								
Interest paid			72	96	160	209	336	
Long Term Debt								
Beginning balance			26,807	26,807	25,057	24,057	20,457	
Additions			-	-	-	-	-	
Repayment			-	(1,750)	(1,000)	(3,600)	(1,000)	
Ending balance			26,807	26,807	25,057	24,057	20,457	19,457
Total Interest Paid			1,194	1,170	1,190	1,141	1,242	
Cash	2,538	3,595	1,778					
Cash as % of revenue	2.7%	3.6%	1.6%					
Minimum target cash balance			2,680	2,878	3,063	3,245	3,427	
Minimum target cash balance (% of revenue)			2.6%	2.6%	2.6%	2.6%	2.6%	
Cash needed from the revolver								
Cash available at beginning of period (BOP)			1,778	2,680	2,878	3,063	3,245	
Cash generated during current year			88	(1,936)	(1,430)	(4,071)	(1,454)	
Minimum cash desired			2,680	2,878	3,063	3,245	3,427	
Cash surplus / (deficit)			(814)	(2,135)	(1,615)	(4,253)	(1,635)	

Valuation

Football Field



Discounted Cash Flow Model

WACC

Equity Weight	98.20%
Debt Weight	1.8%
Weighted Tax Rate	21.00%
Levered Beta	0.930
Risk Free Rate	0.70%
Equity Risk Premium	6.00%
Country Risk Premium	7.50%
Cost of Equity	6.28%
Pre-Tax Cost of Debt	3.80%
Debt / Value	0.07%
Equity / Value	6.2%
WACC	6.24%

	Forecasted				
DCF Analysis	FY2020	FY2021	FY2022	FY2023	FY2024
Method 1	Year 1	Year 2	Year 3	Year 4	Year 5
Net Income, GAAP	12,253	13,249	14,145	15,081	15,896
EBITDA	19,160.95	20,460.98	21,544.63	22,819.34	24,139.87
EBIT	16,704.00	17,941.53	19,094.91	20,231.74	21,362.82
OCF	14,734.79	15,656.44	16,489.68	17,565.96	18,570.01
IT Tax Shield	943.42	924.58	940.41	901.61	981.08
CAPEX	2,343.75	2,517.39	2,679.22	2,838.73	2,997.44
FCFF	13,334.46	14,063.63	14,750.87	15,628.84	16,553.66
Discount Factor	6.24%				
Discount Period/Years	1	2	3	4	5
Discount Factor	0.941	0.886	0.834	0.785	0.739
FCFF to be Discounted	13,334.46	14,063.63	14,750.87	15,628.84	16,553.66
Present Value of FCFF	12,551.80	12,461.17	12,302.95	12,270.13	12,233.39

Gordon Growth Method		Exit Multiple Method	
Terminal Growth Rate	1.50%	Median EBITDA Multiple of Peers	12
Terminal Value	360,135.14	Terminal Value	289,678.39
PV of Terminal Value	266,145.02	PV of Terminal Value	214,076.47
PV of FCFF	61,819.43	PV of FCFF	61,819.43
Implied Enterprise Value	327,964.46	Implied Enterprise Value	275,895.91
Less: Debt	-30,015.59	Less: Debt	-30,015.59
Less: Stock-based Compensation	0	Less: Stock-based Compensation	0
Add: Cash	3,426.83	Add: Cash	3,426.83
Add: Short-term Investments	0	Add: Short-term Investment	0
Implied Equity Value	301,375.70	Implied Equity Value	249,307.15
Share Count	864.56	Share Count	864.56
Equity Value (USD) / Share	348.59	Equity Value (USD) / Share	288.36

Weighted Average Target Price	\$ 318.47
Current Stock Price	\$ 198.48
Upside	60.46%
Weightage	60.0%
Blended Upside	40.94%
Target Price	\$ 279.73

		WACC (6.50% - 9.25%)											
Gordon Growth Model Terminal Growth Rate 2.00% - 3.00%		5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	7.75%
	1.00%	425.89	398.60	374.35	352.65	333.13	315.47	299.42	284.76	271.34	258.98	247.58	237.03
	1.10%	436.48	407.90	382.57	359.97	339.68	321.36	304.74	289.60	275.74	263.01	251.28	240.43
	1.20%	447.62	417.65	391.17	367.61	346.50	327.48	310.26	294.60	280.29	267.17	255.08	243.93
	1.30%	459.37	427.90	400.19	375.59	353.61	333.85	316.00	299.79	285.00	271.46	259.02	247.54
	1.40%	471.78	438.69	409.64	383.94	361.03	340.49	321.96	305.17	289.89	275.91	263.08	251.26
	1.50%	484.89	450.05	419.57	392.68	368.78	347.40	328.17	310.76	294.95	280.51	267.28	255.10
	1.60%	498.77	462.03	430.01	401.85	376.89	354.62	334.62	316.57	300.20	285.27	271.62	259.07
	1.70%	513.50	474.69	441.00	411.46	385.37	362.15	341.35	322.61	305.64	290.21	276.11	263.17
	1.80%	529.15	488.08	452.58	421.57	394.26	370.02	348.36	328.89	311.30	295.33	280.76	267.41
	1.90%	545.80	502.28	464.80	432.20	403.58	378.25	355.68	335.44	317.18	300.64	285.57	271.80
2.00%	563.57	517.35	477.73	443.40	413.37	386.87	363.32	342.25	323.30	306.15	290.56	276.33	

		WACC (6.50% - 9.25%)											
		5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	7.75%
EXIT Multiple Method EBITDA Multiple 11.50 - 14.00	11.50	294.89	291.39	287.93	284.53	281.17	277.85	274.58	271.36	268.18	265.04	261.94	258.88
	11.75	300.36	296.79	293.28	289.81	286.38	283.01	279.68	276.39	273.15	269.96	266.80	263.69
	12.00	305.83	302.20	298.62	295.08	291.60	288.16	284.77	281.43	278.13	274.87	271.66	268.50
	12.25	311.30	307.60	303.96	300.36	296.82	293.32	289.87	286.46	283.11	279.79	276.53	273.30
	12.50	316.77	313.01	309.30	305.64	302.03	298.47	294.96	291.50	288.08	284.71	281.39	278.11
	12.75	322.24	318.41	314.64	310.92	307.25	303.63	300.06	296.53	293.06	289.63	286.25	282.91
	13.00	327.71	323.82	319.98	316.20	312.46	308.78	305.15	301.57	298.04	294.55	291.11	287.72
	13.25	333.17	329.22	325.32	321.47	317.68	313.94	310.25	306.61	303.01	299.47	295.97	292.53
	13.50	338.64	334.63	330.66	326.75	322.90	319.09	315.34	311.64	307.99	304.39	300.84	297.33
	13.75	344.11	340.03	336.00	332.03	328.11	324.25	320.44	316.68	312.97	309.31	305.70	302.14
	14.00	349.58	345.43	341.34	337.31	333.33	329.40	325.53	321.71	317.94	314.23	310.56	306.94

Dividend Discount Model

Multi-Period Dividend Discount Model - Net Income Growth							
[In USD millions except for share price]	Historical	Projected					Perpetuity
	FY2019	FY2020	FY2020	FY2020	FY2020	FY2020	
Net Income	11,121.00	12,252.74	13,249.23	14,144.57	15,081.46	15,895.55	358,532.95
Dividends Paid	4,704.00	5,468.19	5,912.90	6,312.47	6,730.59	7,093.91	
Period		1	2	3	4	5	
PV of dividends	4,704.00	5,145.07	5,234.77	5,258.29	5,275.30	5,231.52	
Terminal Value							215,119.77
PV of perpetuity							160,750.00
Total	191,598.96						
Implied Share Price	\$221.61						
Current Share Price	\$ 198.48						
Implied Upside	11.66%						

Assumptions	
Net Income Growth	As Projected
Perpetual Growth Rate	1.50%
Payout Ratio	60.00%
Risk Free Rate	0.70%
Beta	0.93
Market Risk Premium	6.00%
Cost of Equity	6.28%
Shares Outstanding	865

DDM - Sensitivity Analysis												
		Required rate of return (5.00 - 7.50%)										
		5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%
Perpetual Growth Rate (4.50% - 5.50%)	2.00%	247.01	246.79	246.56	246.34	246.13	245.91	245.70	245.49	245.28	245.07	244.87
	2.00%	247.01	246.79	246.56	246.34	246.13	245.91	245.70	245.49	245.28	245.07	244.87
	2.10%	252.61	252.39	252.17	251.95	251.73	251.51	251.30	251.09	250.88	250.67	250.47
	2.20%	258.51	258.28	258.06	257.84	257.62	257.41	257.20	256.98	256.78	256.57	256.37
	2.30%	264.72	264.50	264.28	264.06	263.84	263.62	263.41	263.20	262.99	262.78	262.58
	2.40%	271.28	271.06	270.84	270.62	270.40	270.18	269.97	269.76	269.55	269.34	269.14
	2.50%	278.22	277.99	277.77	277.55	277.33	277.12	276.90	276.69	276.49	276.28	276.08
	2.60%	285.56	285.34	285.11	284.89	284.68	284.46	284.25	284.04	283.83	283.62	283.42
	2.70%	293.35	293.12	292.90	292.68	292.46	292.25	292.04	291.82	291.62	291.41	291.21
	2.80%	301.62	301.40	301.18	300.96	300.74	300.52	300.31	300.10	299.89	299.68	299.48
2.90%	310.43	310.21	309.98	309.76	309.55	309.33	309.12	308.91	308.70	308.49	308.29	