TITAN CAPITAL MANAGEMENT RESEARCH REPORT FOR: **TCM PRESIDENT'S SCHOLARS**

Analyst(s): Kenneth Sherb, Tyler Peyatt Date: October 5, 2022

COMPANY/TICKER: **PUBLIC STORAGE (PSA)** **Stock** **BUY**

EXECUTIVE SUMMARY

Public Storage is a story of financial stability in a time of market uncertainty and reimagining an aged business model that will promote long-term growth and shareholder value. PSA's stable recurring revenue, high dividend yield, and property development program help augment the changes they are trying to make.

Titan Capital Management has found that Public Storage has an intrinsic value potentially 25% higher than its current value giving us a weighted average price target of $372. Our conviction and research leads us to recommend using the funds from the sale of our Salesforce (CRM) position to purchase **13 shares** of PSA for a 2.9**%** equity portfolio position.

Key Statistics	
Current Price	$297
Wt. Target Price	$372
Discount	25%
52Wk Range	$421.76-280.83
Avg. Daily Volume (3M)	733K
Shares Outstanding	175.5M
Market Cap	$51.1B
EV/Sales LTM	13.46x
P/E LTM	24.98X
Dividend Yield	2.14%

Even for well-established companies, some key uncertainties remain: the threat of recession hurting their recurring revenue, the inability to capture younger customers, shifting population geographies, and their size creating excess exposure.

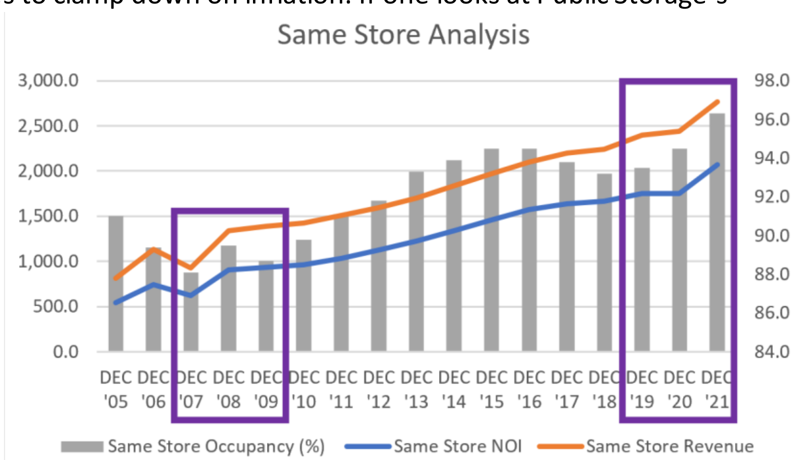
COMPANY OVERVIEW

Public Storage, a real estate investment trust (REIT), is the largest owner and operator of self-storage facilities in the United States and Europe. They are known for their bright orange color schemes and relatively excellent locations for self-storage. They have a wide variety of unique offerings that allow them to cater to individuals looking for extra storage, businesses that need inventory space, and temperature-controlled rooms for medical storage. Public Storage has such a strong brand that it has become the generic term for the industry, allowing them to have lower customer acquisition costs, higher occupancy rates, and an increased price compared to its peers.

CATALYSTS

Stable Recurring Revenue and High Dividend Yield

Concerns over a recession are growing as not only the U.S. Federal Reserve but other national banks around the globe are continually increasing interest rates to clamp down on inflation. If one looks at Public Storage's historical performance, according to our same-store analysis, it benefitted from the recession in 2007-2009. Our research shows that individuals were forced out of their homes due to the housing bubble. Many had to downsize into apartments, move in with family, or find other cheaper housing alternatives. In this downsizing process, individuals sell or lose a lot but not enough of their possessions to completely fit into their new



accommodations; thus, they take out leases in self-storage facilities to store their possessions. If the economy continues to grow, the antithesis is not true: from 2012-2019, the economy grew, and yet Public Storage did not see a decline in revenue or occupancy over this period, making it a unique opportunity that is well positioned for this uncertain market environment.

Public Storage is structured as a REIT and has low tenant turnover. It has benefited from a strong and stable dividend yield. The current dividend yield is 2.71%, below current inflation levels but near the long-term historical average. This provides shareholders with stability in the intrinsic value of the enterprise, and small positive movements in the stock price could be a secure means of outperforming inflation. In addition, the dividend has increased steadily since 2002.

Business Modernization

The most significant portion of Public Storage's and the self-storage industries' costs come from the land and structures. To further differentiate itself from its competitors, Public Storage has focused on minimizing its low variable costs to boost the bottom line and provide a better service than its competitors. Public Storage already has lower customer acquisition costs, higher occupancy, and charges higher rates than its peers. It is continually seeking ways to keep and now expand this divide.

They are modifying lights, HVAC, and other electronic systems to be more energy efficient across all their locations to help lessen their environmental impact and provide lower maintenance and operating costs over the long term. It is also attempting to remodel and rebrand many of its older locations to ensure customer satisfaction.

Its investment in digital solutions has given them unprecedented insight into its customers. It has allowed them to create a dynamic pricing model that quotes different prices to different individuals, enabling them to capture higher revenue from those who can afford it while ensuring its facilities are as complete as possible. Public Storage's scale allows them to have unmatched clarity due to the sheer number of users whom they collect data from. This is compounded as their app's use will enable customers to sign up and move on the same day without interacting with a Public Storage professional. This big data will also allow them to gain new insights into their customers and better fulfill their needs.

At the initial pass of this catalyst, it appears that it may not be very defensible; this, however, is not the case. Customer surveys and data show that Public Storage's current level of customer service is far superior to its competitors. These business modernization programs that Public Storage has implemented are only valuable in addition to its existing customer service program. For its competitors to truly compete with PSA's current and new offerings, it would take considerable investment and time, allowing Public Storage to further its lead in industry occupancy and rates, driving value for investors.

Property Development Program

Traditionally being the biggest player in an industry limits growth prospects. However, the highly fragmented self-storage industry is a field ripe with opportunities for Public Storage to capitalize.

Since 2014 Public Storage has been the only self-storage REIT with a property development program that will allow them to continue to extract value from current markets with unsatisfied demand and new markets that are untapped or with lesser offerings. The program also entails purchasing and renovating existing facilities to fit brand guidelines.

This provides an opportunity for systematic increases in revenue as new supply becomes available. Combined with the extensive experience of Public Storage's leadership in the space and its use of customer data, it is doubtful that these new locations will lower the company's average performance.

PORTER'S FIVE FORCES

Threat of New Entrants (Low)

The self-storage industry requires high capital expenditure to purchase an existing location or develop a new one. This severely limits the individuals and firms willing to enter the industry as a misjudged opportunity could quickly become an unprofitable and burdensome asset. Zoning laws must be modified for better or prime locations in many mature cities. This process is long and expensive and necessitates extensive knowledge of navigating the bureaucratic process for a successful outcome.

Bargaining Power of Supplier (Moderate)

We found the supplier for the self-storage industry to be landowners. As there is no natural substitute for a suitable location, this does shift power to landowners.

Bargaining Power of Buyers (Low)

Most buyers have low particularity regarding self-storage facilities, but the self-storage industry operates almost as a regional monopoly, thus limiting alternatives in given markets. In addition, price sensitivity for existing customers is low as switching costs are high and time-consuming.

Threat of Substitutes (Low)

Individuals typically use self-storage due to not having enough space in their homes. If prices were too high, individuals would likely sell unneeded items as the marginal benefit falls below the marginal cost of holding them. Another alternative would be to bring those items back to their homes.

Rivalry Amongst Firms (High)

Very few firms hold most of the market share in large coastal markets. In middle America, large public self-storage owners/operators have a relatively small market share. Many markets operate as regional monopolies in that once one firm enters the market, they collect most of the demand, and the market thus then grows, or the initial firm must have under-forecasted demand for a competitor to enter a successful competition for market share. The industry's high fixed costs cause it to be slow in adjusting to demand changes, especially when trying to increase supply.

MANAGEMENT ANALYSIS

Public Storage has been helmed by President and CEO Joseph Russell Jr. since 2016, after previously acting as chief executive of sister company PS Business Parks. He is backed by CFO Thomas Boyle, who has been in the office since 2019, along with CAO Natalia Johnson, who was promoted to the position in 2020. The executive suite is end capped by Nathaniel Vitan who has been the Chief Legal Officer since 2019. Overall, the executive team brings knowledge of the operations of the company, as most if not all members were promoted into their positions from within the company. Concerns arise from the age and demographic of the executive team, as the executive suite is predominantly male and lacking representation from younger generations they hope to capture as customers.

FINANCIAL ANALYSIS

Profitability

PROFITABILITY Factors (1 - best, 6 - worst: high is better except Total Debt)

Company Name	Sales Growth (3 yr.)	Gross Margin (NTM)	EBIT Margin (NTM)	ROIC (NTM)	ROE (NTM)	Sales	EBITDA	Total Debt	RANK: Sales Growth	RANK: Gross Margin	RANK: EBIT Margin	RANK: ROIC	RANK: ROE	Total	*Evaluation*
Public Storage	**36.66**	**74.60**	**48.99**	**14.29**	**23.97**	**$3,416**	**$2,708**	**$7,475**	5	1	2	1	2	11	*More Profitable*
Extra Space Storage	37.52	69.40	55.00	12.10	64.33	$1,577	$1,239	$6,316	4	4	1	2	1	12	*More Profitable*
Life Storage	63.90	66.50	43.99	5.33	9.99	$789	$577	$2,804	2	5	3	3	4	17	*Less Profitable*
CubeSmart	48.87	69.70	33.77	4.91	10.70	$823	$597	$3,266	3	3	5	4	3	18	*Less Profitable*
National Storage Affili	97.00	71.30	35.72	2.59	7.26	$586	$460	$2,965	1	2	4	5	5	17	*Less Profitable*
Average	*56.79*	*70.30*	*43.49*	*7.85*	*23.25*	*$1,438*	*$1,116*	*$4,565*							

Public Storage has an impressive ability to convert revenue directly to the bottom line and manifest it into greater value for shareholders. The profitability of the self-storage industry is eye-watering. The sector has an EBIT margin of 43.49, and Public Storage has an even higher EBIT margin of 49. This high EBIT margin, combined with their high return on invested capital at 14.29, will compound over time for impressive results. value.

Leverage

LIQUIDITY, LEVERAGE, YIELD (1 - best, 6 - worst: high is better for current ratio, EBITDA/Int. Exp, and yield; low is better for debt ratios and beta)

Company Name	EBITDA / Int. Exp	Net Debt / EBITDA	LT Debt/ Ttl Capital	Dividend Yield	FCF Yield	Beta (3 Year)	Diluted Shares	RANK: EBITDA / Int. Exp	RANK: Net Debt / EBITDA	RANK: LT Debt/ Capital	RANK: Dividend Yield	RANK: FCF Yield	Total	*Evaluation*
Public Storage	**17.20x**	**2.34x**	**41.80**	**2.56**	**3.49%**	**0.78**	**176.3**	1	1	1	5	1	9	*Less Risk*
Extra Space Storage	8.70x	5.29x	61.60	3.29	2.99%	0.95	142.7	2	2	5	4	2	15	*Avg. Risk*
Life Storage	6.11x	5.33x	42.90	3.70	2.90%	1.16	84.4	5	4	2	3	3	17	*More Risk*
CubeSmart	6.34x	5.30x	54.00	3.98	4.12%	1.11	225.9	4	3	3	2	4	16	*Avg. Risk*
National Storage Affiliates	6.94x	6.81x	60.00	4.75	3.26%	1.09	91.5	3	5	4	1	4	17	*More Risk*
Average	*9.06x*	*5.01x*	*52.06*	*3.66*	*3.35%*	*1.02*								

Even though Public Storage is implementing an extensive property development program and substantially increased its debt in 2020 and 2021, it has the highest EBITDA to Interest Expense of all its peers. In addition, their net debt to EBITDA is 2.34x, meaning if neither net debt nor EBITDA changes, they would be able to pay their debts in just over two years, which is impressive when considering that only 18% of their debts come due within the next three years.

VALUATION ANALYSIS

Relative Value

RELATIVE VALUATION PRICE ESTIMATES (STOCKS) — **Price Estimates Don't Consider Financial Strengths or Weakness!**

Manually adjust overall rating as needed

Company Name	Curr Price	FactSet Price Target	EPS	BV/Share (NTM)	EBITDA	Net Debt	Price Estimates Based On: P/E Multiplier	P/B Multiplier	EV/Sales Multiplier	EV/ EBITDA Multiplier	FCF Yield Multiplier	Multiples Fair Value	*Potential Gain/Loss vs. Comps*	*Rating based on Comps*	*Potential Gain/Loss per FactSet*	*Rating based on FactSet*	Peer Financial Rating
Public Storage	**$297.00**	**$389.46**	**10.93**	**47.12**	**7,475.3**	**17,464**	**$343**	**$245**	**$413**	**$897**	**$391**	**$343**	*15.60%*	*Over-weight*	*31.13%*	*Over-weight*	*Above Avg.*
			Adjust weight if desired by changing these figures=>				*1.0*	*0.0*	*0.0*	*0.0*	*0.0*						
Extra Space Storage	$182.31	$225.09	6.51	26.42	6,315.6	33,415	$205	$137	$236	$805	$203	$205	*12.19%*	*Over-weight*	*23.47%*	*Over-weight*	*Below Avg.*
							1.0	*0.0*	*0.0*	*0.0*	*0.0*						
Life Storage	$116.69	$152.55	4.44	47.69	2,804.1	14,939	$139	$248	$199	$603	$131	$139	*19.38%*	*Over-weight*	*30.73%*	*Over-weight*	*Below Avg.*
							1.0	*0.0*	*0.0*	*0.0*	*0.0*						
CubeSmart	$43.26	$55.89	1.18	12.75	3,265.6	17,298	$37	$66	$78	$263	$69	$37	*-14.55%*	*Under-weight*	*29.19%*	*Over-weight*	*Average*
							1.0	*0.0*	*0.0*	*0.0*	*0.0*						
National Storage Affiliate	$46.28	$61.83	1.19	17.07	2,964.9	20,194	$37	$89	$137	$540	$69	$37	*-19.08%*	*Under-weight*	*33.61%*	*Over-weight*	*Below Avg.*
							1.0	*0.0*	*0.0*	*0.0*	*0.0*						

Using the peer average P/E ratio of 31.41 and forecasted EPS of $10.93, Public Storage is 15.6% undervalued. This is confirmed by FactSet's analyst average, showing a potential upside of 31.13%. A better metric for a multiples analysis would be using the free cash flow yield multiplier due to the strong cash flows that the self-storage industry produces. Still, it is higher than the P/E multiple; thus, we used the more conservative of the two.

Discounted Cash Flow Model

Our weighted scenario DCF model gives Public Storage a fair value of $372.00, a 25% upside from its current $297.00. This is in line with our multiples analysis as well as below FactSet's analyst average. (See: DCF Model)

Revenue Growth: Our base case utilizes a 6.5% annualized revenue growth over the next five years. Much of this growth is forecasted to occur in later periods as more capacity becomes available. This would equate to an annualized average EPS growth of 3.9%.

EBIT Margin: We **forecasted a 2.4% increase in EBIT Margin** for Public Storage from its historical average of 50% to 52.4%. This is due to their business modernization that should lower operating costs and that most of Public Storage's charges are fixed and paid down over time.

WACC: We estimated the **weighted average cost of capital to be 6.93%** for Public Storage. We believe this is a very conservative WACC as the stability of PSA's cashflows are unprecedented for such an extended period of time. At the time of writing, the 10-year Treasury yield is 3.63%; however, as the federal reserve plans to increase interest rates, we used a risk-free rate of 4.5% to help account for this. Our required return was input at 8.5% for a mid-cap and a beta of .86, the three-year trailing average.

Terminal Growth Rate: We used a **terminal growth rate of 3%** as Public Storage has a strong balance sheet and low customer acquisition cost and is the most significant player in a fragmented industry. This should allow PSA to grow moderately faster than its long-term industry average due to these factors.

As represented in the DCF Valuation Sensetivity Analysis table, even if we lower the terminal growth rate to 2.5% or increase weighted average cost of capital to 7.3%, Public Storage still presents ample upside poential according to our model.

DCF Valuation Sensitivity Analysis

^ terminal growth rate ^ / WACC >	**6.8%**	**6.9%**	**7.0%**	**7.2%**	**7.3%**
2.0%	$296	$290	$284	$273	$262
2.5%	$329	$321	$314	$300	$288
3.0%	**$370**	**$361**	**$351**	**$335**	**$319**
3.5%	$424	$412	$400	$379	$359
4.0%	$497	$480	$465	$436	$411

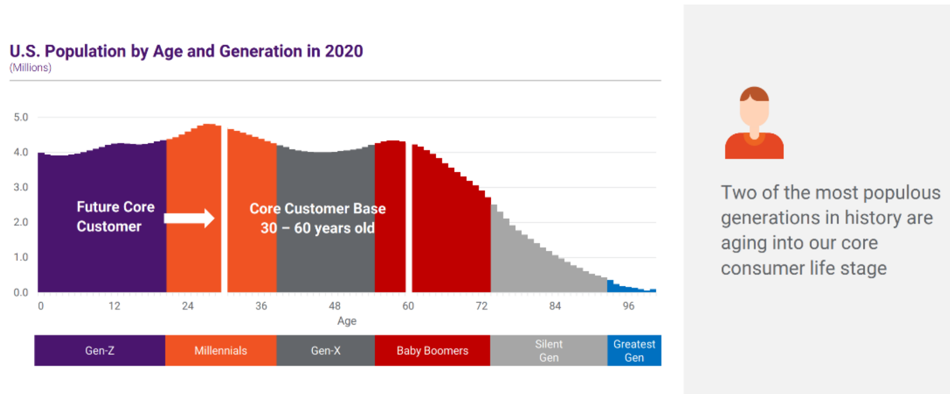
INVESTMENT RISKS

Different Types of Recession

Our analysis of Public Storage's performance in a recession is limited as we only evaluated it from one data point. Public Storage may perform poorly in a recession if many long-term tenants vacate.

Execution Risks in Capturing Younger Tenants

Historically the core customer base for self-storage facilities is 30 to 60-year-olds, as this group tends to be homeowners and have children who need extra space to store various items they do not have space or use for in their homes. Millennials, the generation now entering the target age profile for Public Storage's customer base, have continually proven to have a different outlook on life than previous generations. Millennials are less materialistic, have fewer children, and live a more nomadic lifestyle as serial renters. This contributes to a lessened focus on keeping items, thus decreasing the need for self-storage. When looking at the executive committee of Public Storage, many seem to be Gen-X and, more so, Baby Boomers, causing them to be potentially ill-equipped to understand these generational shifts. This should not be of significant concern as self-storage is a simple business model with limited substitutes.



Shifting Population Geographies

With the rise of working from home or anywhere, many Americans have relocated from urban and dense cities to more rural and cheaper communities in the past few years. Which has yet to be reflected in data, but this could lead to a decline in the use of self-storage in these markets hurting the company's revenue. Furthermore, it would be hard for Public Storage to adjust quickly and enter these new markets. It will take considerable time to develop a new storage facility in these communities or if there is a local option available significant investment to purchase and bring up to the Public Storage brand standard. Suppose Public Storage is available to accomplish the above. In that case, the populace shifts caused by the pandemic may not be permanent and thus could lead to severe losses if individuals leave these more rural communities.

Exposure

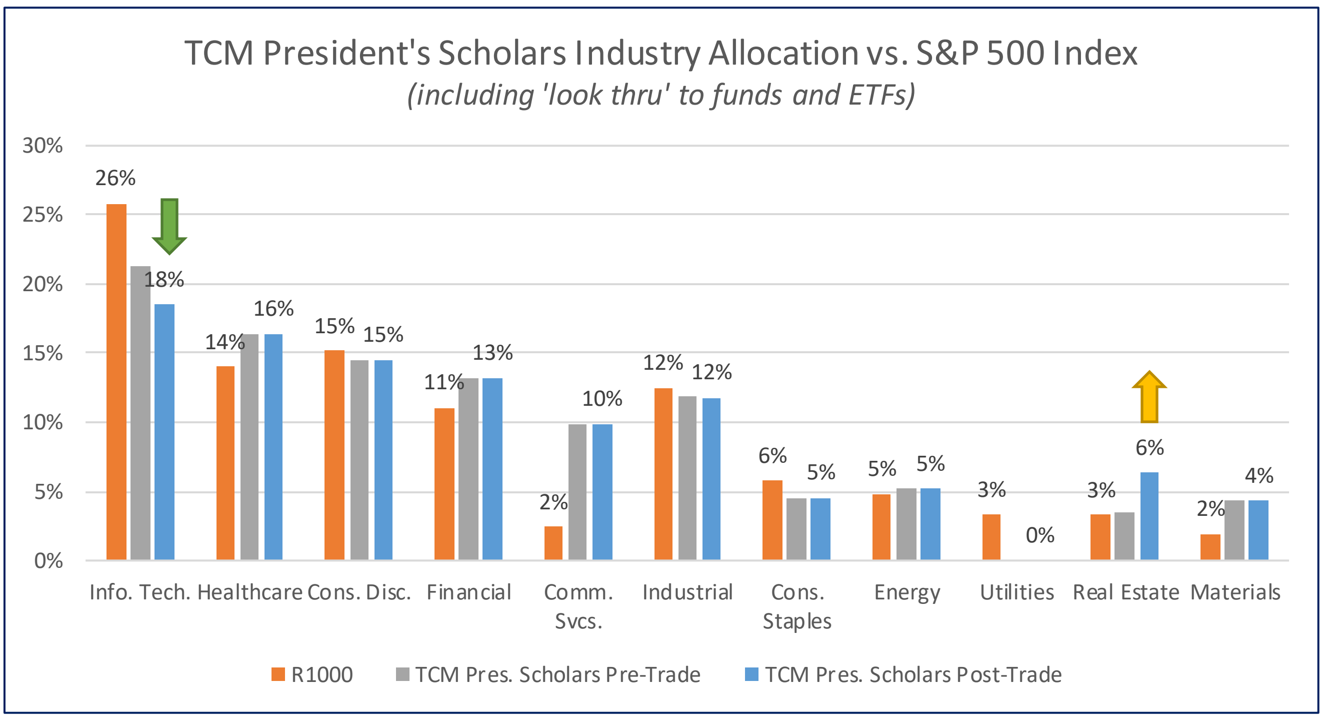
Public Storage's proven business model and continuous growth have allowed it to grow into the world's most prominent self-storage owner and operator. Due to its already brimming capacity and the industry's slow ability to create more, the ability to capture positive trends is limited. However, if a negative industry trend were to occur, its significant exposure and sheer number of locations could cause substantial damage to the continued operation of the business.

PORTFOLIO IMPACT AND SUMMARY

Public Storage's stable cashflows and growing dividends are a welcome buoy in a time of uncertainty. They face challenges such as capturing younger tenants, shifting population geographies, and more. These, however, are well mitigated by their business modernization, property development program, and foundational customer base providing recurring revenues.

Titan Capital Management recommends using the funds from the sale of Salesforce (CRM) to purchase **13 shares** for a **2.9%** equity portfolio position. CRM currently carries a price to earnings(P/E) of over 300, nearly triple the next highest P/E position in the portfolio. Swapping our CRM position for PSA with a P/E of 24.98 will lower the overall portfolio average P/E by over 7, bringing the portfolio considerably closer to the Russell 1000 Index's P/E of 18.60.

	Pre-Trade	Post-Trade
Portfolio Beta	.98	.98
Portfolio P/E	35.72	28.18



APPENDIX

DISCOUNTED CASH FLOW MODEL

REQUIRED RATE OF RETURN CALCULATIONS — Public Storage (PSA)

INPUTS

Current Market Value of Stock	$297.00
Shares Outstanding	176
Short Term Debt *(BS)*	$502
Long Term Debt *(BS)*	$6,973
Book Value of Common Equity *(BS)*	$5,235
Carrying Value of Preferred Stock *(BS)*	$4,100
Preferred Dividend Expense *(IS)*	$210
Interest Expense *(IS)*	$120
Income Before Taxes *(IS)*	$2,265
Income Tax Expense *(IS)*	$14
10-yr. Treasury Yield	3.63%
WACC per FactSet	6.80%
Cost of Equity per FactSet	7.25%
3-yr. beta per FactSet	0.86
Market Risk Premium per FactSet	4.24%
After tax Cost of Debt per FactSet	4.14%

Damodaran Equity Risk Premium ERP 5.30% *< FYI - the Damodaran EFP is only appropriate for large cap companies*

http://pages.stern.nyu.edu/~adamodar/

		Conservative assumptions	*3 yr. β*	*1-yr. β*	*Peer avg. β*
Estimated beta	β	0.86	*0.86*	*0.78*	*1.02*

3 yr beta as PSA has more stable cashflows compared to peers WACC ^

			10-yr. Tsy	*TCM minimum risk free rate*
Risk Free Rate	R_f	4.50%	*3.63%*	*2.00%*

Greater of 10-yr. Treasury yield or 2% to ensure conservative WACC ^

			Large Cap	*Mid Cap*	*Small Cap*
Required Market Return	R_m	8.50%	*7.00%*	*8.50%*	*10.00%*

The TCM standard 'Required Market Return' is the long-term historical required return on equity for companies with small, mid, and large capitalization.

OUTPUTS

		Conservative Outputs	*Aggressive Outputs*
Market Value of Equity	E	$52,144	$52,144
Cost of Equity = $R_f + \beta(R_M - R_f)$	R_E	7.94%	7.08%
Book Value of Long-term Debt	D	$6,973	$6,973
Cost of Debt	R_D	4.14%	4.14%
Corporate Tax Rate	T_C	0.63%	0.63%
Carrying Value of Preferred Stock	P	$4,100.0	$4,100.0
Cost of Preferred Stock	R_{Pfd}	5.11%	5.11%
Total Capitalization = E + D	V	$63,216	$63,216

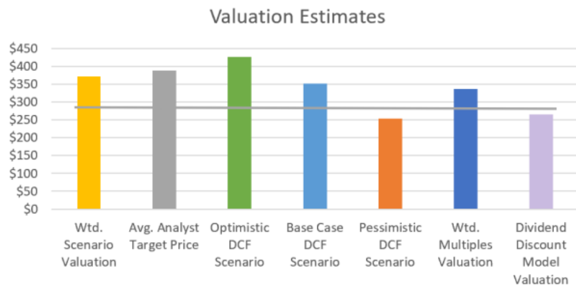
	TCM	*FactSet*	*Cross-check*
Weight of Equity:	*82.5%*	*83.1%*	*weighting O*
Weight of Debt:	*11.0%*	*11.6%*	*weighting O*
Weight of Preferred Stock:	*6.5%*		

< If the company has been receiving tax credits, this formula will defa

Required Return for Discounted Cash Flow Models (DCF)

	Average WACC	*Conservative*	*Aggressive*
TCM WACC using conservative and aggressive inputs	**6.98%**	*7.33%*	*6.63%*
Conservative WACC using Damodaran Equity Risk Premium (ERP)	8.26%		
FactSet reported WACC	6.80%		

FactSet WACC is using the 10-yr. Treasury rate of 3.63% for the risk-free rate, 4.14% for cost of debt and, 0.86 for beta.
FactSet Cost of Equity is using 4.24% for the market risk premium.
TCM conservative WACC calculation uses the higher of the 10-yr. Treasury or 2% for the risk-free rate and the FactSet after-tax cost of debt for the cost of debt.
The TCM aggressive WACC calculation takes the lower of the figures described above.
The Damodaran WACC in this spreadsheet uses the TCM maximum risk free rate plus the Damodaran ERP of 5.3%.
The TCM fair value estimate uses the median 'Average WACC' above and scenario-weighted forecast cash flows.



DCF Valuation Sensitivity Analysis

> terminal growth rate >	WACC >	6.8%	6.9%	7.0%	7.2%	7.3%
	2.0%	$296	$290	$284	$273	$262
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	3.0%	**$370**	**$361**	**$351**	**$335**	**$319**
	3.5%	$424	$412	$400	$379	$359
	4.0%	$497	$480	$465	$436	$411

Discounted Cash Flow Model Valuation

Terminal Growth Rate *g* (after 5 years) => 3.00% *< Industry long-term growth rate > +/- competitive advantage*

	2022	2023	2024	2025	2026	Terminal Value		
Base Case Cash Flow Present Value	**$2,324**	**$2,303**	**$2,161**	**$2,425**	**$2,204**	**$57,017**	*6.98%*	*< Median WACC*
Pessimistic Cash Flow Present Value	$2,249	$2,177	$2,018	$1,710	$1,609	$41,620		
Optimistic Cash Flow Present Value	$2,390	$2,376	$2,308	$2,759	$2,676	$69,234		

	Pessimistic DCF Scenario	**Base Case DCF Scenario**	**Optimistic DCF Scenario**	**FactSet Analyst Average**	
Total Present Value of Cash Flows (EV)	$51,382	**$68,435**	$81,742		
Net Debt (Current Debt + LT Debt - Cash)	$6,741	$6,741	$6,741		
Equity Value (EV - Net Debt)	$44,642	**$61,694**	$75,002		
Number of Shares Outstanding	176	176	176		
Estimated Stock Value (DCF Method)	$254.27	**$351.40**	$427.19	**$388.00**	Avg. Analyst Target Price
Current Market Price	$297.00	**$297.00**	$297.00	Overweight/Buy	Average Analyst Rating
Overvaluation (+), Undervaluation (-)	14%	**-18%**	-44%	-31%	
	Overvalued	*Undervalued*	*Undervalued*	*Undervalued*	
Probability of scenario:	10%	50%	40%	**$372.00**	**Wtd. Scenario Valuation**
				$297.00	
				-25%	
				Undervalued	

Price Range between Pessimistic and Optimistic DCF Scenarios
$254.27 to $427.19

Price Range between Wtd. Avg. Multiples and DCF
$337.1 to $372

Multiples Valuation Estimates ==>	**Earnings Estimate (NTM)**	**P/E Multiplier**	**P/B Multiplier**	**EV/Sales Multiplier**	**EV/ EBITDA Multiplier**	**FCF Yield Multiplier**	**Wtd. Multiples Valuation**	Over/Under Valuation
	$334	**$343**	**$245**	**$413**	**$897**	**$391**	**$337.10**	-14%
	2.0	*1.0*	*0.0*	*0.0*	*0.0*	*0.0*	*<= weight*	*Undervalued*

Revenue Growth Rates

Base Case Forecast Metrics		*Year*	*Base Case*	*Pessimistic*	*Optimistic*
50.04%	EBIT-to-Sales Ratio	2022	8.0%	6.0%	8.5%
0.5%	Tax Rate	2023	6.0%	4.0%	6.7%
8.4%	PP&E-to-Sales Ratio	2024	0.0%	0.0%	3.0%
19.0%	Depreciation-to-Sales	2025	15.0%	-5.0%	22.0%
-4.7%	NWC-to-Sales Ratio	2026	4.0%	4.0%	5.0%
			3.0%	Terminal Growth Rate	

CASH FLOW FORECAST | **Public Storage (PSA)**

Alternative Data Source from 10-K and 10-Q Reports at https://www.sec.gov/edgar/searchedgar/companysearch.html

***Balance Sheet data does not include the last 12 months column (LTM), as the Income Statement does.**

Shaded cells in Column B are using the last fiscal year from Column C instead unless the company has just reported their fiscal year end.

Historical Financials (in millions)	**JUN '22 (LTM*)**	**DEC '21**	**DEC '20**	**DEC '19**	**DEC '18**	**DEC '17**	
Total Revenue or Sales *(IS)*	$3,825	$3,416	$2,915	$2,847	$2,754	$2,669	
Operating Income or EBIT *(IS)*	$1,874	$1,624	$1,359	$1,426	$1,525	$1,378	
Interest Expense *(IS)*	$120	$91	$56	$46	$33	$13	
Provision for Income Tax *(IS)*	$14	$12	$8	$5	$5	$5	
Pre-tax Income *(IS)*	$2,265	$1,903	$1,309	$1,487	$1,679	$1,403	
Depr., Amort., and Depletion *(CF)*	$835	$713	$553	$513	$484	$455	
Purchase/Sale of PPE: Net (CAPEX) *(CF)*	-$392	-$270	-$170	-$187	-$140	-$392	
Cash Eq. and ST Investments *(BS)*	$735	$735	$258	$410	$361	$433	
Total Current Assets *(BS)*	$0	$0	$0	$0	$0	$0	
Total Current Liabilities *(BS)*	$502	$502	$2	$2	$2	$11	
Short-term Debt *(BS)*	$502	$502	$2	$2	$2	$11	
Long-term Debt *(BS)*	$6,973	$6,973	$2,843	$1,900	$1,410	$1,420	
Dividends per Share *(Key Items)*	$8.00	$8.00	$8.00	$8.00	$8.00	$7.30	
Diluted Common Shares Outstanding *(Key Items)*	176	175	175	174	174	174	*0.2%*
Earnings per Share (diluted) *(Key Items)*	$11.74	$9.87	$6.29	$7.29	$8.54	$6.73	*11.8%*

Historical Metrics	**JUN '22 (LTM*)**	**DEC '21**	**DEC '20**	**DEC '19**	**DEC '18**	**DEC '17**	*Average %*
Revenue Growth Rate	11.97%	17.18%	2.40%	3.36%	3.21%	4.22%	*7.1%*
Industry growth rate (for reference)	*6.72%*	*-6.49%*	*2.25%*	*9.30%*	*-0.42%*	*-0.78%*	*1.8%*
EBIT-to-Sales Ratio (profit margin)	48.99%	47.53%	46.63%	50.09%	55.38%	51.62%	*50.0%*
Interest Expense-to-Sales Ratio	3.13%	2.66%	1.93%	1.60%	1.18%	0.48%	*1.8%*
Tax Rate (Income Tax / Pre-tax Income)	0.63%	0.61%	0.61%	0.34%	0.32%	0.34%	*0.5%*
PP&E-to-Sales Ratio	10.25%	7.91%	5.83%	6.58%	5.09%	14.69%	*8.4%*
Depreciation-to-Sales Ratio	21.82%	20.89%	18.98%	18.02%	17.56%	17.03%	*19.0%*
NWC-to-Sales Ratio	-13.14%	-14.71%	-0.06%	-0.07%	-0.07%	-0.42%	*-4.7%*
Common Stock Dividend Payout Ratio	68.15%	81.07%	127.20%	109.70%	93.65%	108.51%	*98.0%*

BASE CASE Projected Cash Flows	**2022**	**2023**	**2024**	**2025**	**2026**		*Annualize*
BASE CASE *Revenue Growth (see avg. H26) >*	*8.0%*	*6.0%*	*0.0%*	*15.0%*	*4.0%*	*6.5%*	*< Annualize*
Total Revenue	**$4,054.2**	**$4,297.5**	**$4,297.5**	**$4,942.1**	**$5,139.8**		
Average Analyst Forecast Sales	*$4,148*	*$4,428*	*$4,126*	*$5,017*	*$5,265*		
Growth (%)	*8.46%*	*6.74%*	*-6.82%*	*21.58%*	*4.96%*	*6.6%*	*< Annualize*
BASE CASE *EBIT Profit Margin (see avg. H28)>*	*52.0%*	*52.0%*	*53.0%*	*54.0%*	*51.0%*	*52.4%*	*< Annualize*
Earnings Before Interest and Taxes (EBIT)	$2,108.2	$2,234.7	$2,277.7	$2,668.7	$2,621.3		
Less: Tax	-$10.0	-$10.6	-$10.8	-$12.7	-$12.4		
Net Operating Profit After Tax (NOPAT)	$2,098.2	$2,224.1	$2,266.9	$2,656.1	$2,608.8		
Less: Interest	-$74.2	-$78.6	-$78.6	-$90.4	-$94.0		
Net Income	**$2,024.0**	**$2,145.5**	**$2,188.2**	**$2,565.7**	**$2,514.8**		
Average Analyst Forecast Net Income	*$2,010.3*	*$2,056.8*	*$2,192.3*	*$2,441.5*	*$2,564.1*		
Growth (%)	*-10.31%*	*2.31%*	*6.59%*	*11.37%*	*5.02%*	*2.7%*	*< Annualize*
Change to shares: buybacks (-), new issues (+) >	*0.0%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.19%*	*< Historical*
Forecast Earnings per Share	**$11.53**	**$12.22**	**$12.44**	**$14.56**	**$14.24**		
Growth (%)	*-1.8%*	*6.0%*	*1.8%*	*17.0%*	*-2.2%*	*3.9%*	*< Annualize*
Average Analyst Forecast Earnings per Share	*$11.22*	*$11.64*	*$12.27*	*$12.68*	*$13.37*		
Growth (%)	*-4.4%*	*3.7%*	*5.4%*	*3.4%*	*5.4%*	*2.6%*	*< Annualize*
	EPS Forecast OK ^			*^ EPS Forecast far from average analyst*			
Plus: Depeciation	$772.3	$818.7	$818.7	$941.5	$979.1		
CapEx % of Sales Forecast (see avg. H31)>	*8.4%*	*8.4%*	*8.4%*	*8.4%*	*8.4%*		
Less: Capital Expenditures	-$340.2	-$360.6	-$360.6	-$414.7	-$431.3		
NWC % of Sales Forecast (see avg. H33) >	*-13.1%*	*-13.1%*	*-13.1%*	*-13.1%*	*-13.1%*		
Net Working Capital	(532.6)	(564.6)	(564.6)	(649.3)	(675.2)		
Less: Increase in Net Working Capital	(30.1)	(32.0)	-	(84.7)	(26.0)		
Free Cash Flow	**$2,486.3**	**$2,635.4**	**$2,646.3**	**$3,177.1**	**$3,088.6**		
Growth (%)	*8.4%*	*6.0%*	*0.4%*	*20.1%*	*-2.8%*	*6.1%*	*< Annualize*
Average Analyst Forecast Free Cash Flow	*$1,335.9*	*$3,068.2*	*$3,270.9*	*-*	*-*		
Growth (%)	*-41.74%*	*129.67%*	*6.61%*	*0.00%*	*0.00%*	*7.4%*	*< Annualize*
Debt maturities:	*$19.2*	*$804.7*	*$253.1*	*$1,150.1*	*$500.0*		
Cash flow sufficient?	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		

PESSIMISTIC SCENARIO Projected Cash Flows	2022	2023	2024	2025	2026	
PESSIMISTIC CASE Revenue Growth Forecast >	*6.0%*	*4.0%*	*0.0%*	*-5.0%*	*4.0%*	*1.7%*
Total Revenue	**$4,054.2**	**$4,216.4**	**$4,216.4**	**$4,005.6**	**$4,165.8**	
Average Analyst Forecast Sales	*$4,148*	*$4,428*	*$4,126*	*$5,017*	*$5,265*	
Growth (%)	*0.0%*	*6.7%*	*-6.8%*	*21.6%*	*5.0%*	*4.9%*
PESSIMISTIC CASE EBIT Profit Margin >	*50.0%*	*50.0%*	*50.0%*	*48.0%*	*45.0%*	*48.6%*
Earnings Before Interest and Taxes	$2,027.1	$2,108.2	$2,108.2	$1,922.7	$1,874.6	
Less: Tax	-$9.6	-$10.0	-$10.0	-$9.1	-$8.9	
Net Operating Profit After Tax (NOPAT)	$2,017.5	$2,098.2	$2,098.2	$1,913.5	$1,865.7	
Less: Interest	-$74.2	-$77.1	-$77.1	-$73.3	-$76.2	
Net Income	**$1,943.3**	**$2,021.1**	**$2,021.1**	**$1,840.3**	**$1,789.5**	
Average Analyst Forecast Net Income	*$2,010.3*	*$2,056.8*	*$2,192.3*	*$2,441.5*	*$2,564.1*	
Growth (%)	*-10.3%*	*2.3%*	*6.6%*	*11.4%*	*5.0%*	*2.7%*
Change to shares: buybacks (-), new issues (+) >	*0.2%*	*0.2%*	*0.2%*	*0.2%*	*0.2%*	*0.00%*
Forecast Earnings per Share	**$11.09**	**$11.47**	**$11.44**	**$10.40**	**$10.09**	
Growth (%)	*-5.5%*	*3.4%*	*-0.2%*	*-9.1%*	*-2.9%*	*-3.0%*
Average Analyst Forecast Earnings per Share	*$11.22*	*$11.64*	*$12.27*	*$12.68*	*$13.37*	
Growth (%)	*-4.4%*	*3.7%*	*5.4%*	*3.4%*	*5.4%*	*2.6%*
	$9.87	*< **Lowest** FactSet EPS estimate*				
EPS Forecast OK ^						
Plus: Depeciation	$772.3	$803.2	$803.2	$763.0	$793.6	
CapEx % of Sales Forecast (from base case) >	*8.4%*	*8.4%*	*8.4%*	*8.4%*	*8.4%*	
Less: Capital Expenditures	-$340.2	-$353.8	-$353.8	-$336.1	-$349.6	
NWC % of Sales Forecast (from base case) >	*-13.1%*	*-13.1%*	*-13.1%*	*-13.1%*	*-13.1%*	
Net Working Capital	(532.6)	(553.9)	(553.9)	(526.2)	(547.3)	
Less: Increase in Net Working Capital	(30.1)	(21.3)	-	27.7	(21.0)	
Free Cash Flow	**$2,405.6**	**$2,491.7**	**$2,470.4**	**$2,239.5**	**$2,254.5**	
Growth (%)	*4.9%*	*3.6%*	*-0.9%*	*-9.3%*	*0.7%*	*-0.3%*
Average Analyst Forecast Free Cash Flow	*$1,335.9*	*$3,068.2*	*$3,270.9*	*-*	*-*	
Growth (%)	*-41.7%*	*129.7%*	*6.6%*	*0.0%*	*0.0%*	*7.4%*

OPTIMISTIC SCENARIO Projected Cash Flows	2022	2023	2024	2025	2026	
OPTIMISTIC CASE Revenue Growth Forecast >	*8.5%*	*6.7%*	*3.0%*	*22.0%*	*5.0%*	*8.8%*
Total Revenue	**$4,149.8**	**$4,427.9**	**$4,560.7**	**$5,564.1**	**$5,842.3**	
Average Analyst Forecast Sales	*$4,148*	*$4,428*	*$4,126*	*$5,017*	*$5,265*	
Growth (%)	*0.0%*	*6.7%*	*-6.8%*	*21.6%*	*5.0%*	*4.9%*
OPTIMISTIC CASE EBIT Profit Margin >	*52.0%*	*52.0%*	*53.0%*	*54.0%*	*55.0%*	*53.2%*
Earnings Before Interest and Taxes	$2,157.9	$2,302.5	$2,417.2	$3,004.6	$3,213.3	
Less: Tax	-$10.2	-$10.9	-$11.5	-$14.3	-$15.3	
Net Operating Profit After Tax (NOPAT)	$2,147.7	$2,291.6	$2,405.7	$2,990.3	$3,198.0	
Less: Interest	-$75.9	-$81.0	-$83.4	-$101.8	-$106.9	
Net Income	**$2,071.8**	**$2,210.6**	**$2,322.3**	**$2,888.6**	**$3,091.1**	
Average Analyst Forecast Net Income	*$2,010.3*	*$2,056.8*	*$2,192.3*	*$2,441.5*	*$2,564.1*	
Growth (%)	*-10.3%*	*2.3%*	*6.6%*	*11.4%*	*5.0%*	*2.7%*
Change to shares: buybacks (-), new issues (+) >	*0.0%*	*0.0%*	*0.2%*	*0.2%*	*0.2%*	*0.19%*
Forecast Earnings per Share	**$11.80**	**$12.59**	**$13.20**	**$16.39**	**$17.50**	
Growth (%)	*0.5%*	*6.7%*	*4.9%*	*24.1%*	*6.8%*	*8.3%*
Average Analyst Forecast Earnings per Share	*$11.22*	*$11.64*	*$12.27*	*$12.68*	*$13.37*	
Growth (%)	*-4.4%*	*3.7%*	*5.4%*	*3.4%*	*5.4%*	*2.6%*
	$11.50	*< **Highest** FactSet EPS estimate*				
EPS Forecast OK ^						
Plus: Depeciation	$790.5	$843.5	$868.8	$1,059.9	$1,112.9	
CapEx % of Sales Forecast (from base case) >	*8.4%*	*8.4%*	*8.4%*	*8.4%*	*8.4%*	
Less: Capital Expenditures	-$348.2	-$371.6	-$382.7	-$466.9	-$490.3	
NWC % of Sales Forecast (from base case) >	*-13.1%*	*-13.1%*	*-13.1%*	*-13.1%*	*-13.1%*	
Net Working Capital	(545.2)	(581.7)	(599.2)	(731.0)	(767.5)	
Less: Increase in Net Working Capital	(42.7)	(36.5)	(17.5)	(131.8)	(36.5)	
Free Cash Flow	**$2,556.8**	**$2,719.0**	**$2,825.8**	**$3,613.4**	**$3,750.3**	
Growth (%)	*11.5%*	*6.3%*	*3.9%*	*27.9%*	*3.8%*	*10.3%*
Average Analyst Forecast Free Cash Flow	*$1,335.9*	*$3,068.2*	*$3,270.9*	*-*	*-*	
Growth (%)	*-41.7%*	*129.7%*	*6.6%*	*0.0%*	*0.0%*	*7.4%*