



## COMPANY EVALUATION

## Table of Contents

Executive Summary.....	3
Overview of Costco	
History.....	3
Major Operations.....	3
Costco's Competitive Advantage.....	4
Key Competitors.....	4
Geographical Segments .....	5
Stock Performance.....	6
Historical Financials.....	7
Financial Forecast of Costco.....	7
Beta and WACC Calculations .....	9
Comparable based Valuation.....	10
Appendix .....	11
A1: Segment by Geography.....	11
A2: DCF Model 1.....	11
A3: DCF Model 2.....	13
A4: DCF Model 3.....	16
A5: Beta template.....	18
A6: Historical ratios template.....	18
A7: Segment by geography and other strategic and important factors.....	19

## Executive Summary

At the close of business on Nov 29, 2018, Costco's share price reported was **\$259.05<sup>1</sup>** with market capitalization of **\$100.86 billion**. With an increase in e-commerce and membership renewals, Costco continues to be a leader in the retail industry. We have estimated the Costco's share price at **\$235.80**. This price appears to be in line with the given share price. The price is slightly above the market, so we recommend buying.

## Overview of Costco

### History

Costco's history<sup>2</sup> starts with the creation of another company, Price Club. Price Club was started in 1976 in San Diego, California. It was the first warehouse retailer and the concept for Costco was born. In 1983, Costco opened its first warehouse store in Seattle. Ten years later, Price Club and Costco merged, initially taking the name PriceCostco, to be changed later to the current name, Costco Wholesale Corporation. As years passed, Costco expanded worldwide, up to the point of having more than 750 warehouses in eleven countries, including 528 in the United States. In 2017, according to Fortune 500, Costco was ranked as 15<sup>th</sup>.

### Major Operations

Costco's main operation is its retail warehouse club which consists of selling various items at low prices. The company sells bulk goods to restaurants, other businesses, as well as families. This is one of the main ways they are different from other retail stores. They operate in big warehouses and do away with many of the sales people and frills of many retailers, to keep their overhead cost low and pass the saving along to the customers.

Costco continues to expand and is not just a retail or food store. For example, Costco is also known for its auto program. Costco partners with local dealers for new and preowned cars and does the price negotiations for the buyer. It is the second largest car dealer in the USA<sup>3</sup>

Additionally, Costco optical provides optometrist services in Costco locations. For this membership is not required. With a price of about \$49, customers can get a full-service eye exam and have their glasses ready to pick up the next week. With an average price per pair of \$157, 30,000 lens wearers chose Costco over any other vision store.<sup>4</sup>

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<sup>1</sup> [Yahoo Finance](#)

<sup>2</sup> <https://www.costco.com/membership-information.html>

<sup>3</sup> <https://www.businessinsider.com/costco-car-buying-program-explained-2018-3>

<sup>4</sup> <https://www.cbsnews.com/news/5-things-you-should-buy-at-costco/>

Lastly, Costco operates their own version of a travel agency, called Costco Travel.<sup>5</sup> Costco partners with specific hotels and rental car companies to offer a discount when booked through Costco travel. Overall, this travel program is well received. A 2017 study by Forbes shows that while Costco can offer some savings, because of their limited partnerships with rental car companies and hotels, it is often just as beneficial to book through an existing credit card that offers travel points.

Costco believes in keeping costs down and passing the savings on to its members. Its large membership base and many buying options resulted in the best possible prices for its members. Since 1997, the company has increased total sales in recent fiscal years exceeding \$64 billion. Costco warehouses have 4,000 stock keeping units as compared to the 30,000 found at most supermarkets.<sup>6</sup> By carefully choosing products based on quality, price, brand, and features, the company can offer the best value to members.

### **Costco's Competitive Advantage**

People prefer Costco because of the different experience the store offers. Because of the membership requirement, Costco does not offer the traditional food retail as an average Walmart or local supermarket. Costco believes that paying for membership strengthens the customer's relationship with Costco. Customers get the feeling of being on the list of premium members. This creates competitive advantage for Costco in comparison with its other competitors. Last year, the membership renewal rates were 90% in the U.S. and 87% worldwide. Shelves in Costco have more bulk items, which leads to selling in bulk at a lower price and still maintaining its quality of products. As per 2017 Fortune 500 list, Costco ranks 15 in the list with revenue at \$1,29,025,000. Its previous rank was 18. Costco's profit has continued to increase, growing by 14% since the previous year.<sup>7</sup>

### **Key competitors**

- Walmart (97.46 share price)
- Target (71.88 share price)
- Dollar Tree (83.32 share price)
- Dollar General (110.36 share price)
- Five Below (105.70 share price)
- Big Lots (43.78 share price)
- Kroger (30.25 share price<sup>11</sup>)
- Macy's (34.42 share price<sup>11</sup>)
- Amazon (1,677.75 share price<sup>11</sup>)

It is interesting to note that the share price of Costco (220.6) is substantially higher than that of its competitors, except for Amazon.

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<sup>5</sup> <https://www.forbes.com/sites/johnnyjet/2017>

<sup>6</sup> <http://investor.costco.com/>

<sup>7</sup> <http://fortune.com/fortune500/costco/>

Low cost retailers, such as Dollar Tree (22.55 billion in 2017), Dollar General (20.37 billion in 2015) and Five Below (1 billion in 2016) are part of Costco's direct competition. Costco's revenues generally are higher than any of those.

Traditional retailers like Walmart (500 billion in FY18 vs 141 billion for Costco), Kroger (122.7 in 2017 vs 129 billion Costco) and Macy's (25.84 billion in FY18 vs 141 Costco) are also potential competition. However, they do not operate as warehouses and consumer behavior is significantly different between those two types of retailers, thus not representing a direct competition. To note, Costco does sell clothing items as well, making it comparable to Macy's.

Amazon, with revenue of 77.9 billion in 2017 vs 129 billion for Costco seems to be a major threat. Amazon's share price is high (1,677.75) and is expected to keep growing strong. This is much higher than any of the other competitors. Amazon and Costco don't directly compare, but they are certainly a large threat. Additionally, Amazon offers a type of membership benefit like Costco, with its Amazon Prime membership. This membership offers discounts, free shipping and member only services, like what Costco offers.

As you will notice, some of these competitors are not mentioned with our comparables included below. Because of the diversity of Costco, we wanted to pull a full scope the competition. Generally, one wouldn't think that Dollar General and Costco are competition, because they have such different business models and offer different products. Because Costco is both a grocery store and a clothing store, we included information from Macy's and Kroger's in our above analysis. Finally, we talk specifically about some of the other bulk retailers, Sam's Club and BJ's Wholesale. Neither of these companies have the scope or reach that Costco has, but they should also be evaluated.

## Geographical segments

As of August 2018, Costco had 781 warehouses around the world<sup>8</sup>. It has operational membership warehouses in the United States (U.S.) and Puerto Rico, 100 in Canada, 28 in the United Kingdom (U.K.), 39 in Mexico, 26 in Japan, 15 in Korea, 10 in Australia, 2 in Spain, France, Iceland, and through a majority-owned subsidiary 13 in Taiwan.

Currently, the US operations still account for most revenues (72.2% in FY 2018) while the Canadian represent 14.6% and the other international stores (Mexico, Japan, South Korea, U-K, Taiwan, Australia, Spain, Iceland, France) account for the rest (13.1%) (see A7). As one could expect, the number of warehouses is very strongly correlated with the revenues. 69.6% of warehouses are in the US and account for 72.2% of revenues, 13% of warehouses are in Canada and amount for 14.6% of revenues while the other countries, 17.4% of warehouses are in other countries and account for the remaining

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<sup>8</sup> [Sec-Edgar: Segments](#)

13.1% of revenues.<sup>9</sup> . Costco's US sales are dependent on California, with 30% of sales revenue coming from the one state.

Of note, the split in revenues between the US, Canada and other countries has only slightly changed from 2009 with 79.2%, 13.6% and 7.2% in 2009 and 72.2%, 14.6% and 13.1% in 2018. However, the small increase in the proportion of other international countries in the revenue proves the globalization process of Costco sales is effective.

## Stock Price Performance



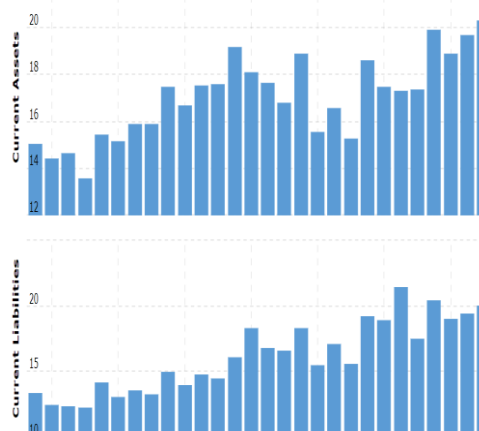
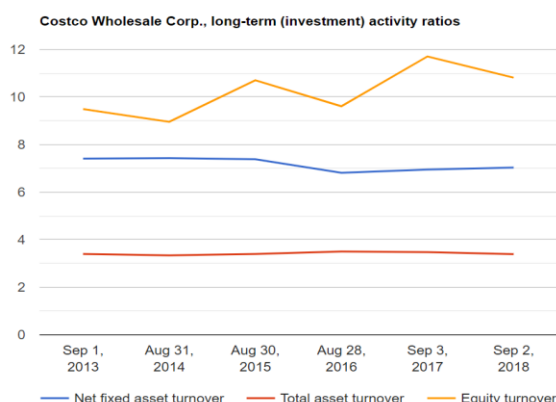
The above graph shows the Costco stock prices compared to the SPX index<sup>10</sup>. At first glance, it would appear to be seasonal, because there are clearly peaks in the data. However, upon further analysis, the peaks do not appear at the same time of the year, so it would be faulty to assume that this stock follows a seasonal trend. The variations seem to be accidental instead. Generally retail companies follow a seasonal trend. Because Costco is a retail company, it would make sense for it to be seasonal. But Costco gets most of its revenue from membership fees, and this retail company is based on bulk purchases, so it wouldn't be as influenced by seasonality as a more traditional retail store would be. Globally, SPX index is increasing, and Costco is following the same trend. This stock would be considered cyclical.

<sup>9</sup> [NASDAQ](#)

<sup>10</sup> Bloomberg

## Historical Financials

As per IBIS World, even though the retail industry is growing at a slow rate of approximately 1%, Costco has managed to lead the race by huge sales growth of nearly 10%. Costco's 2018 performance has been above market expectations. Costco has not only added new members, but also retained 90% of its previous members. This is a huge success for Costco, as it relies on its customer membership fees. The fixed asset turnover ratio for the Costco has improved from 2016 to 2018<sup>11</sup>. The current asset and current liabilities ratios of Costco are slightly better than the previous years. Costco's dividend payout ratios continue to fluctuate, changing from high to low or vice versa. We have kept the marginal tax rate constant for each year equal to 21%. The depreciation rate for the company has decreased slightly from the last year by .75%. (Refer Appendix A6)



## Financial forecast of Costco

For the financials we used the latest year in the forecasting because it best resembles the numbers going forward. We did consider what the trend was during the previous year to see if the latest year would be a good representation of the future forecast and we believe the latest years will offer the most accurate results.

The sales of the company are growing at a 9.7% in the current financial year. This number is excellent compared to the rest of the industry growth. Costco has a slightly higher percentage of current liabilities to sales than current assets to sales, which means that they do not have as good of liquidity as some of its potential competitors, but the other payables appear in line with the comparables.

The different ratios were all helpful in forecasting the income sheet and balance sheet. All three of the models gave us positive numbers, but we have chosen to focus on model

<sup>11</sup> <https://www.stock-analysis-on.net/NASDAQ/Company/Costco-Wholesale-Corp/Ratios/Long-term-Investment-Activity>



2. This model has stable equity, debt and cash. The price of the share forecasted is slightly higher than the market value of the share, but the number is comparable.

Sales growth	9.73%					
Initial Sales	141,576					
GFA_Sales	22.0%					
CA_Sales	10.1%	Note: CA excluding cash				
CL_Sales	13.6%					
COGS_Sales	92.2%	87%				
Interest on Debt	1.3%	(Based on Average Debt Outstanding)				
Interest on Cash, Mkt. Securities	0.78%	(Based on Average Cash Outstanding)				
Dividend Payout	29.94%					
Tax Rate	21.0%					
Depreciation rate	4.2%	(Based on Average Gross Fixed Assets)				
Cost of Capital	8.7%					
FCF growth rate after Year 5	1.60%					
<b>Year</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Income Statement</b>						
Sales	141,576	155,351	170,467	187,053	205,254	225,225
Cost of Goods Sold	137,096	143,234	157,171	172,463	189,244	207,657
Depreciation	1,437	1,327	1,520	1,668	1,830	2,008
Interest expense	159	83	83	83	83	83
Interest income	75	42	65	97	129	161
EBT	4,442	9,817	9,842	9,794	10,145	10,275
Taxes	1,263	2,062	2,067	2,057	2,130	2,158
Net income	3,134	7,755	7,775	7,737	8,015	8,117
Dividend	938	2,322	2,328	2,317	2,400	2,430
Addition to Retained Earnings	2,196	5,433	5,447	5,421	5,615	5,687
<b>Balance Sheet</b>						
Cash and Marketable Securities	4,546	6,251	10,429	14,457	18,543	22,552
Current Assets (non cash)	12,771	15,613	17,132	18,799	20,628	22,635
Fixed Assets						
Gross Fixed Assets	28,341	34,124	37,444	41,087	45,085	49,472
Accumulated Depreciation	10,180	11,507	13,027	14,695	16,525	18,534
Net Fixed Assets	18,161	22,617	24,417	26,392	28,560	30,938
Other Assets	869	869	869	869	869	869
Total Assets	36,347	45,350	52,847	60,517	68,600	76,995
Current Liabilities	17,495	21,065	23,114	25,363	27,831	30,539
Debt	6,573	6,573	6,573	6,573	6,573	6,573
Equity						
Stock	4,790	4,790	4,790	4,790	4,790	4,790
Accumulated Retained	6,289	11,722	17,170	22,590	28,205	33,892
Other Liabilities	1,200	1,200	1,200	1,200	1,200	1,200
Total Liabilities & Equity	36,347	45,350	52,847	60,517	68,600	76,995



Total Debt			
Long-term liabilities		USD mn	6573.0
Short-term borrowings		USD mn	23114.3
Less: Cash		USD mn	13314.0
Net Debt		USD mn	16,373
Equity Value		USD mn	113,516
Total diluted no of shares		mn no.s	438.2
<b>Price per share</b>		<b>USD</b>	<b>259.05</b>

For the Dividend ratio, the information was pulled from Bloomberg since the company has a history of vastly varying dividend payout ratios. Costco has paid very high dividends in the past, showing how valuable the customers are for the company. The company has large cash and cash equivalents. The future cash flow ratio for the company is based off the fcf ratio on Ibis World, which is 1.6% for the industry.

The interest and cash on market securities was very small since the interest expense and interest income make up a small amount of the financials. The cost of goods sold is also increasing in coming years. In our calculations, we have assumed the tax rate to have constant value of 21%. Because of good company growth, the net income, net revenue, and addition to return in earning is expected to increase. These forecasted numbers generally reflect what we have seen in the historical data for Costco as well.

## Beta and WACC calculations:

The beta asset and beta equity for the company is higher than the average beta asset of all the other companies. We used the raw beta value from the Bloomberg for the last two years. This raw beta is beta equity of the company. We have added Moody's credit rating and compared them with the Fama French rating to get the value of the debt beta. Costco's beta comes under high premium rating description. Some of Costco's competitors such as Dollar Tree, Dollar General comes under 'lower medium grade' rating. Five Below, Big Lots and Dollarama do not have a credit rating available.

Name	Ticker	Market Cap - Consolidated	Enterprise Value	Net Debt	D/E	Beta Equity	Debt Beta Estimation		
							Rating	Debt Beta	Beta Asset
COSTCO WHOLESALE CORP	COST US	100.86b	100.46b	-0.765b	(0.01)	0.77	Aa3	0.20	0.76
WALMART INC	WMT US	284.06b	343.52b	35.69b	0.10	0.62	Aa2	0.20	0.58
TARGET CORP	TGT US	36.51b	47.34b	8.76b	0.19	0.76	A2	0.20	0.67
DOLLAR GENERAL CORP	DG US	29.59b	32.14b	2.74b	0.09	0.76	Baa2	0.31	0.72
DOLLAR TREE INC	DLTR US	20.91b	25.23b	4.58b	0.18	0.84	Baa3	0.31	0.75
FIVE BELOW	FIVE US	5.77b	5.56b	-244.63b	(43.99)	0.89	N/A		
BIG LOTS INC	BIG US	1.76b	2.12b	148.62b	70.10	0.73	N/A		
DOLLARAMA INC	DOL CN	8.74b	9.97b	1.31b	0.13	0.87	N/A		
Average Beta Asset								0.68	

Industry average beta asset	0.68
D/E for Costco	(0.01)
Beta debt	0.20
Beta equity	0.770

The D/E ratio for the Costco is negative .01. It implies that the company has more cash than debt. This means that the company is financially stable. This trend is commonly seen in the retail and technology companies. Costco is string standing as compared to its competitors.

## Comparable based Evaluation

EBIDTA/Sales is a financial metric to measure a company's profitability. Costco's EBIDTA/Sales ratio has increased from 2012 to 2018. The top two companies that compete with Costco are Walmart and Target. People who don't want to pay the huge membership price but still want reasonable price for the products switch to firms like Walmart and Target. The other companies, like Dollar Tree and Dollar General compete with Costco because of their extremely low prices.

EV/EBIDTA suggests the good valuation of the company. Costco has third highest value of EV/EBIDTA and EV/EBIT. P/E ratio suggests investors expect higher growth of the company in the future. Costco is overvalued than the market price. Costco's P/E value is more than the average P/E value of all its 5 or 9 peers. Costco is second highest in its P/E ratio ranking as compared to its competitors. Company is performing above average in all the ratios.

EBIDTA value of the company is forecasted to increase in the coming year, which is a good sign of growth. The net debt is forecasted to be negative which means that the company will have more cash than it owes, which is considered as financial stability and strength.

## Appendix

### A1: Segment by Geography:

		United States Operations	Canadian Operations	Other International Operations	Total
Total revenue	\$	102,286	20,689	\$ 18,601	\$ 141,576
Operating income		2,787	939	754	4,480
Depreciation and amortization		1,078	135	224	1,437
Additions to property and equipment		2,046	268	655	2,969
Net property and equipment		13,353	1,900	4,428	19,681
Total assets		28,207	4,303	8,320	40,830

Fig 1. Captures the sales and revenue details from national and international markets

### A2: DCF Model 1

Year	0	1	2	3	4	5
<b>Income Statement</b>						
Sales	141,576	155,351	170,467	187,053	205,254	225,225
Cost of Goods Sold	137,096	148,764	163,239	179,122	196,551	215,675
Depreciation	1,437	1,327	1,520	1,668	1,830	2,008
Interest	159	96	102	85	65	44
EBT	4,442	5,192	5,669	6,253	6,893	7,592
Taxes	1,263	1,090	1,190	1,313	1,448	1,594
Net income	3,134	4,102	4,479	4,940	5,445	5,998
Dividend	938	1,228	1,341	1,479	1,630	1,796
Addition to Retained Earnings	2,196	2,874	3,138	3,461	3,815	4,202

<b>Balance Sheet</b>						
Current Assets	17,317	22,262	24,428	26,805	29,413	32,275
Fixed Assets						
Gross Fixed Assets	28,341	34,124	37,444	41,087	45,085	49,472
Accumulated Depreciation	10,180	11,507	13,027	14,695	16,525	18,534
Net Fixed Assets	18,161	22,617	24,417	26,392	28,560	30,938
Other Assets	869	869	869	869	869	869
Total Assets	36,347	45,748	49,714	54,066	58,842	64,082
Current Liabilities	17,495	21,858	23,985	26,318	28,879	31,689
Debt	6,573	8,737	7,439	5,997	4,396	2,625
Equity						
Stock	4,790	4,790	4,790	4,790	4,790	4,790
Retained Earnings	6,289	9,163	12,300	15,761	19,576	23,778
Other Liabilities	1,200	1,200	1,200	1,200	1,200	1,200
Total Liabilities plus equity	36,347	45,748	49,714	54,066	58,842	64,082

<b>Free Cash Flow</b>						
EBIT		5,260	5,708	6,263	6,872	7,541
less Taxes		1104.63	1198.62	1315.24	1443.22	1583.64
add Depreciation		1,327	1,520	1,668	1,830	2,008
less inc. in NWC		582	39	43	47	52
less Capex		5,783	3,320	3,643	3,998	4,387
add Terminal Value						50,685
Free Cash Flow (excluding TV)		-882	2,670	2,929	3,214	3,527
Free Cash Flow (including TV)		-882	2,670	2,929	3,214	3,527

<b>Cost of Capital</b>			
Rf ( 10 year US Treasury Bond)			2.33%
Beta (equity)			0.77
Market risk premium			7.2%
Cost of equity			7.9%
Debt : Equity			-0.01
Cost of debt			4.0%
Tax rate			21.0%
<b>Weighted Average Cost of Capital</b>			7.9%
<b>PV of future cash flows</b>			USD mn
Present value of forecast horizon			8,584
Present value of terminal value			34,620
<b>Enterprise Value</b>			43,204

Total Debt			
Long-term liabilities		USD mn	7439.0
Short-term borrowings		USD mn	21857.9
Less: Cash		USD mn	13314.0
Net Debt		USD mn	15,983
Equity Value		USD mn	27,221
			438.2
Total diluted no of shares		mn no.s	
<b>Price per share</b>		<b>USD</b>	<b>62.12</b>

### A3: DCF Model 2

Sales growth	9.73%		
Initial Sales	141,576		
GFA_Sales	22.0%		
CA_Sales	10.1%	Note: CA excluding cash	
CL_Sales	13.6%		
COGS_Sales	92.2%	87%	
Interest on Debt	1.3%	(Based on Average Debt Outstanding)	
Interest on Cash, Mkt. Securities	0.78%	(Based on Average Cash Outstanding)	
Dividend Payout	29.94%		
Tax Rate	21.0%		
Depreciation rate	4.2%	(Based on Average Gross Fixed Assets)	
Cost of Capital	8.7%		
FCF growth rate after Year 5	1.60%		

Year	0	1	2	3	4	5
<b>Income Statement</b>						
Sales	141,576	155,351	170,467	187,053	205,254	225,225
Cost of Goods Sold	137,096	143,234	157,171	172,463	189,244	207,657
Depreciation	1,437	1,327	1,520	1,668	1,830	2,008
Interest expense	159	83	83	83	83	83
Interest income	75	42	65	97	129	161
EBT	4,442	9,817	9,842	9,794	10,145	10,275
Taxes	1,263	2,062	2,067	2,057	2,130	2,158
Net income	3,134	7,755	7,775	7,737	8,015	8,117
Dividend	938	2,322	2,328	2,317	2,400	2,430
Addition to Retained Earnings	2,196	5,433	5,447	5,421	5,615	5,687

<b>Balance Sheet</b>						
Cash and Marketable Securities	4,546	6,251	10,429	14,457	18,543	22,552
Current Assets (non cash)	12,771	15,613	17,132	18,799	20,628	22,635
Fixed Assets						
Gross Fixed Assets	28,341	34,124	37,444	41,087	45,085	49,472
Accumulated Depreciation	10,180	11,507	13,027	14,695	16,525	18,534
Net Fixed Assets	18,161	22,617	24,417	26,392	28,560	30,938
Other Assets	869	869	869	869	869	869
Total Assets	36,347	45,350	52,847	60,517	68,600	76,995
Current Liabilities	17,495	21,065	23,114	25,363	27,831	30,539
Debt	6,573	6,573	6,573	6,573	6,573	6,573
Equity						
Stock	4,790	4,790	4,790	4,790	4,790	4,790
Accumulated Retained	6,289	11,722	17,170	22,590	28,205	33,892
Other Liabilities	1,200	1,200	1,200	1,200	1,200	1,200
Total Liabilities & Equity	36,347	45,350	52,847	60,517	68,600	76,995
<b>Year</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Free Cash Flow</b>						
EBIT		10,791	11,776	12,922	14,179	15,559
less Taxes		2,266	2,473	2,714	2,978	3,267
add Depreciation		1,437	1,327	1,520	1,668	1,830
less inc. in NWC		(728)	(530)	(582)	(639)	(701)
less Capex		5,783	3,320	3,643	3,998	4,387
add Terminal Value						149,225
Free Cash Flow (excluding TV)		4,907	7,840	8,667	9,511	10,436
Free Cash Flow (including TV)		4,907	7,840	8,667	9,511	10,436

Cost of Capital			
Rf ( 10 year US Treasury Bond)			2.89%
Beta (equity)			0.80
Market risk premium			7.2%
Cost of equity			8.7%
Debt : Equity			-0.01
Cost of debt			4.0%
Tax rate			21.0%
<b>Weighted Average Cost of Capital</b>			<b>8.7%</b>
<b>PV of future cash flows</b>			<b>USD mn</b>
Present value of forecast horizon			31,582
Present value of terminal value			98,307
<b>Enterprise Value</b>			<b>129,889</b>
Total Debt			
Long-term liabilities		USD mn	6573.0
Short-term borrowings		USD mn	23114.3
Less: Cash		USD mn	13314.0
Net Debt		USD mn	16,373
Equity Value		USD mn	113,516
Total diluted no of shares		mn no.s	438.2
<b>Price per share</b>		<b>USD</b>	<b>259.05</b>



## A4: DCF Model 3

### Model 3: Debt and equity are the plugs

Sales growth	9.73%			
Initial Sales	141,576.0			
GFA_Sales	22.0%			
CA_Sales	14.4%			
CL_Sales	13.6%			
COGS_Sales	92.2%			
Interest on Debt	1.3%	(Based on Average Debt Outstanding)		
Dividend Payout	29.9%			
Tax Rate	21.0%			
Depreciation rate	4.2%	(Based on Average Gross Fixed Assets)		
Cost of Capital	8.5%			
FCF growth rate after Year 5	1.6%			

Year	0	1	2	3	4	5
<b>Income Statement</b>						
Sales	141,576	155,351	170,467	187,053	205,254	225,225
Cost of Goods Sold	137,096	143,234	157,171	172,463	189,244	207,657
Depreciation	1,437	1,327	1,520	1,668	1,830	2,008
Interest	159	103	127	138	149	162
EBT	4,442	10,705	11,691	12,842	14,105	15,490
Taxes	1,263	2,248	2,455	2,697	2,962	3,253
Net income	3,134	8,457	9,236	10,145	11,143	12,237
Dividend	938	2,532	2,765	3,037	3,336	3,664
Addition to Retained Earnings	2,196	5,925	6,471	7,108	7,807	8,573
<b>Balance Sheet</b>						
Current Assets	17,317	22,371	24,547	26,936	29,557	32,432
Fixed Assets						
Gross Fixed Assets	28,341	34,124	37,444	41,087	45,085	49,472
Accumulated Depreciation	10,180	11,507	13,027	14,695	16,525	18,534
Net Fixed Assets	18,161	22,617	24,417	26,392	28,560	30,938
Other Assets	869	869	869	869	869	869
Total Assets	36,347	45,857	49,833	54,197	58,985	64,240
Current Liabilities	17,495	21,065	23,114	25,363	27,831	30,539
Debt	6,573	9,714	10,508	11,379	12,334	13,383
Equity						
Stock	4,790	1,664	-3,673	-9,537	-15,979	-23,054
Accumulated Retained	6,289	12,214	18,685	25,792	33,599	42,172
Other Liabilities	1,200	1,200	1,200	1,200	1,200	1,200
Total Liabilities & Equity	36,347	45,857	49,833	54,197	58,985	64,240

Year	0	1	2	3	4	5
<b>Free Cash Flow</b>						
EBIT		10,791	11,776	12,922	14,179	15,559
less Taxes		2,266	2,473	2,714	2,978	3,267
add Depreciation		1,327	1,520	1,668	1,830	2,008
less inc. in NWC		1,484	127	139	153	168
less Capex		5,783	3,320	3,643	3,998	4,387
add Terminal Value						143854.7052
Free Cash Flow (excluding TV)		2,585	7,376	8,094	8,881	9,745
Free Cash Flow (including TV)		2,585	7,376	8,094	8,881	9,745
<b>Cost of Capital</b>						
Rf ( 10 year US Treasury Bond)						2.89%
Beta (equity)						0.77
Market risk premium						7.2%
Cost of equity						8.4%
Debt : Equity						-0.01
Cost of debt						4.5%
Tax rate						21.0%
<b>Weighted Average Cost of Capital</b>						8.5%
<b>PV of future cash flows</b>						USD mn
Present value of forecast horizon						27,889
Present value of terminal value						95,745
<b>Enterprise Value</b>						123,634
<b>Total Debt</b>						
Long-term liabilities				USD mn		10507.8
Short-term borrowings				USD mn		23114.3
Less: Cash				USD mn		13314.0
Net Debt				USD mn		20,308
Equity Value				USD mn		103,326
Total diluted no of shares				mn no.s		438.2
<b>Price per share</b>				<b>USD</b>		<b>235.80</b>

## A5: Beta template

Beta and Cost of Capital									
		Scale 1,000,000 Currency USD							
Name	Ticker	Market Cap - Consolidated	Enterprise Value	Net Debt	D/E	Beta Equity	Debt Beta Estimation		
							Rating	Debt Beta	Beta Asset
WALMART INC	WMT US	284.06b	343.52b	35.69b	0.10	0.62	Aa2	0.20	0.58
TARGET CORP	TGT US	36.51b	47.34b	8.76b	0.19	0.76	A2	0.20	0.67
DOLLAR GENERAL CORP	DG US	29.59b	32.14b	2.74b	0.09	0.76	Baa2	0.31	0.72
DOLLAR TREE INC	DLTR US	20.91b	25.23b	4.58b	0.18	0.84	Baa3	0.31	0.75
FIVE BELOW	FIVE US	5.77b	5.56b	-244.63b	(43.99)	0.89	N/A		
BIG LOTS INC	BIG US	1.76b	2.12b	148.62b	70.10	0.73	N/A		
DOLLARAMA INC	DOL CN	8.74b	9.97b	1.31b	0.13	0.87	N/A		
Average Beta Asset									0.68
Industry average beta asset			0.68						
D/E for Costco			(0.01)						
Beta debt			0.20						
Beta equity			0.770						

## A6: Historical ratios template

Financial year	2018	2017	2016	2015	2014	2013	2012
Sales growth	9.70%	1.09%	1.02%	1.03%	7.12%	6.07%	1.06%
GFA Sales	21.97%	22%	22.01%	20.37%	40.26%	39.98%	21.98%
CA Sales	13.42%	13.42%	12.82%	14.89%	15.61%	15.06%	15.21%
CL Sales	13.56%	13.56%	13.12%	14.23%	12.79%	18.75%	13.79%
COGS Sales	86.71%	87%	79.75%	86.98%	87.41%	7.50%	87.43%
Dividend Payout	29.94%	143.00%	31.00%	118.00%	27.00%	172%	25%
Tax Rate (average)	32.81%	33%	30.77%	33.16%	34.69%	32.44%	35.29%
Tax rate (marginal)	21.00%	21%	21%	21%	21%	21%	21%
Depreciation rate	4.25%	5%	5.04%	4.86%	2.35%	64.09%	4.79%

Definitions:				
GFA Sales	Gross Fixed Assets / Sales			
CA Sales	Current Assets / Sales			
CL Sales	Current Liabilities / Sales			
COGS Sales	Cost of Goods Sold / Sales			
Dividend payout ratio	Dividends paid / net income			
Tax rate (average)	Tax paid / pre-tax income			
Depreciation rate	Depreciation / Average gross fixed assets			

## A7: Segment by geography and other strategic and important factors

### Costco Wholesale Corp (COST US) - By Geography

In Millions of USD except Per 12 Months Ending	FY 2009 08/30/2009	FY 2010 08/29/2010	FY 2011 08/28/2011	FY 2012 09/02/2012	FY 2013 09/01/2013	FY 2014 08/31/2014	FY 2015 08/30/2015	FY 2016 08/28/2016	FY 2017 09/03/2017	FY 2018 09/02/2018
<b>Revenue</b>	<b>71 422,0</b>	<b>77 946,0</b>	<b>88 915,0</b>	<b>99 137,0</b>	<b>105 156,0</b>	<b>112 640,0</b>	<b>116 199,0</b>	<b>118 719,0</b>	<b>129 025,0</b>	<b>141 576,0</b>
United States Operations	56 548,0	59 624,0	64 904,0	71 776,0	75 493,0	80 477,0	84 351,0	86 579,0	93 889,0	102 286,0
Canadian Operations	9 737,0	12 051,0	14 020,0	15 717,0	17 179,0	17 943,0	17 341,0	17 028,0	18 775,0	20 689,0
Other International Operations	5 137,0	6 271,0	9 991,0	11 644,0	12 484,0	14 220,0	14 507,0	15 112,0	16 361,0	18 601,0
<b>Retail - Number of Locations</b>	<b>20,00</b>	<b>14,00</b>	<b>24,00</b>	<b>17,00</b>	<b>26,00</b>	<b>30,00</b>	<b>26,00</b>	<b>33,00</b>	<b>28,00</b>	<b>25,00</b>
Worldwide	20,00	14,00	24,00	17,00	26,00	30,00	26,00	33,00	28,00	25,00
<b>Retail - Number of Locations</b>	<b>4,00</b>	<b>1,00</b>	<b>4,00</b>	<b>1,00</b>	<b>0,00</b>	<b>1,00</b>	<b>3,00</b>	<b>4,00</b>	<b>2,00</b>	<b>4,00</b>
Worldwide	4,00	1,00	4,00	1,00	0,00	1,00	3,00	4,00	2,00	4,00
<i>Retail number of net openings</i>	<i>16,00</i>	<i>13,00</i>	<i>20,00</i>	<i>16,00</i>	<i>26,00</i>	<i>29,00</i>	<i>23,00</i>	<i>29,00</i>	<i>26,00</i>	<i>21,00</i>