AMM

AMERICAN MONEY MANAGEMENT, LLC

SEC Registered Investment Advisor

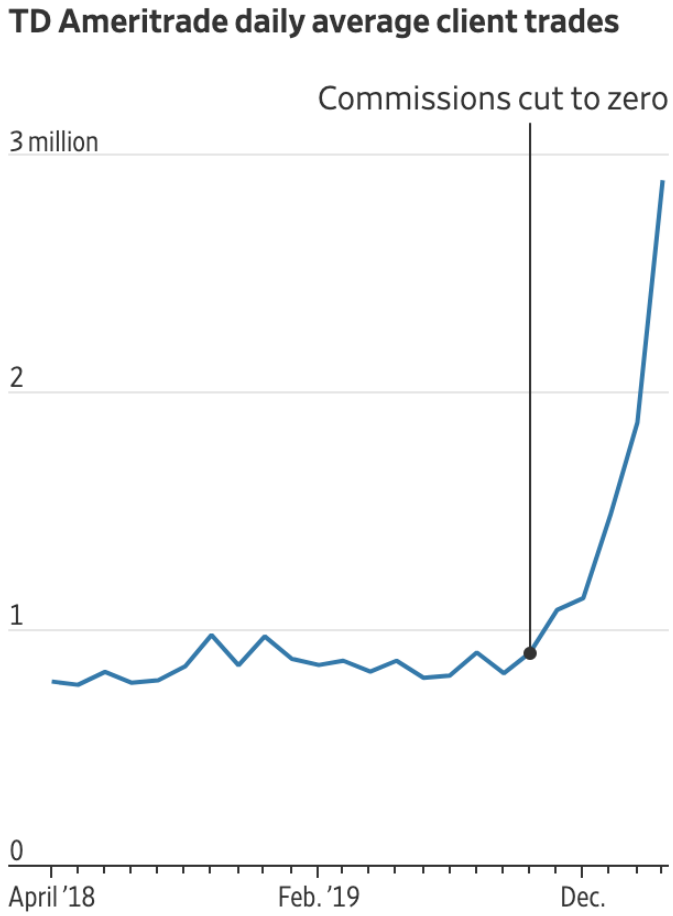
Costco a ROIC Growth Company

Everyone is walking around with a computer in their pocket. With a few taps of the finger you can buy and sell any stock you want.

Now with stay-at-home orders people have more free time.

And stock trading is commission free now at the major discount brokers.

The result?



From the WSJ

Fidelity and Schwab are now allowing individual investors to buy fractional shares in companies that are a part of the S&P 500. We expect this to result in even more excessive trading.

It doesn't help that well-known sports bloggers who have no sports to watch [have switched to day trading stocks](#).

But just because you can do something doesn't mean it's a good idea.

From [Trading is Hazardous to Your Wealth](#)

> Individual investors who hold common stocks directly pay a tremendous performance penalty for active trading. Of 66,465 households with accounts at a large discount broker during 1991 to 1996, **those that trade most earn an annual return of 11.4 percent, while the market returns 17.9 percent**.

Day trading is speculation. It is the belief that you know the right time to get in and out of stocks. It is **a form of overconfidence**. Just like how we all think we're better looking than the average person and better drivers too.

One of our favorite experiments is a flashing light guessing game. As outlined by Jason Zweig in his article The Trouble with Humans. The subjects are people, rats, and pigeons. A series of red and green lights randomly flash in front of the subject. If the subject correctly guesses the color of the next light flashed, they win a reward.

The twist is that the green light will flash 80% of the time. Because the pattern is random and there is no way to know when a red light will flash, the optimal strategy is to guess green every time. You'll receive a reward 80% of the time.

Rats and pigeons do not suffer from overconfidence and they end up guessing green every time with an 80% success rate.

The **human subjects end up with a 68% success rate.** They incorrectly thought they could figure out when a red light would flash out of a random pattern. Human subjects would guess red 1 of out every 5 guesses and this dropped their success rate to 69%.

Investing in the stock market is a little more complex than the flashing light experiment. Real money is at risk and with that comes all our behavioral biases. But at its core it is still about probabilities.

The chart below is from A Wealth of Common Sense. It is the probability of a positive outcome in the stock market over a given time frame.

S&P 500: 1926-2015

Time Frame	Positive	Negative
Daily	54%	46%
Quarterly	68%	32%
One Year	74%	26%
5 Years	86%	14%
10 Years	94%	6%
20 Years	100%	0%

Source: Returns 2.0

The goal of investing, just like the light guessing game, is to maximize your reward. This comes from time in the market and not from timing the market.

We featured this table from The Irrelevant Investor in a recent update letter. It shows the expected returns after a given level of market correction.

Percent From High	3 Months	6 Months	1 Year	3 Year	10 Year	20 Year
0%-5%	2.0%	4.1%	8.3%	8.3%	6.6%	6.1%
5%-10%	1.8%	3.6%	7.1%	6.8%	6.4%	6.5%
10%-15%	2.2%	3.6%	7.1%	6.7%	7.6%	8.0%
15%-20%	0.9%	1.7%	9.3%	5.7%	8.5%	9.1%
20%-25%	1.3%	3.5%	9.5%	8.4%	7.9%	9.0%
25%-30%	2.4%	3.8%	8.4%	8.5%	6.9%	9.6%
30%-35%	5.2%	8.6%	13.7%	9.3%	7.0%	9.0%
35%-40%	1.7%	7.8%	14.0%	9.5%	7.2%	9.5%
40%-45%	4.6%	13.7%	23.8%	12.2%	8.2%	9.9%
45%-50%	8.7%	19.2%	34.8%	16.0%	10.0%	10.4%
50%+	24.2%	36.8%	53.1%	22.7%	14.2%	*Data from Ycharts*

A deeper correction or sell off historically leads to a higher future return. However, faced with steep losses, investors often **ignore the odds** and choose to sell and get out of the way. They do this with the misplaced confidence that they know the market is going to fall further and that they will know when it is safe to get back in.

We don't know when stocks will correct, and we don't know when they'll rise. Instead we rely on our core principles to guide our investment decision making. This one is particularly fitting right now.

> **Time is your ally, but returns are not linear.**
>
> Patience is a virtue. Investment success tends to come from time in the market, as opposed to timing the market. Predicting when markets will have a good or bad day, week, or year is nearly impossible. Instead, we accept the fact that market returns are choppy and may periodically result in downside. In return for taking on this near-term risk and

> remaining patient, we seek to benefit from the long-term compounding of returns.

We focus our dividend growth strategy on high quality companies. Companies that generate excess cash, have high returns on invested capital, and/or have strong reinvestment opportunities to expand their business moat during periods like these.

The subject of this letter, Costco (COST), is just such a company.

Dividend Stock in Focus

Costco (COST): $299.74

Price as of May 14, 2020

As a high-school swimmer, Glenn spent most of the swim season alternating between time in the pool and time gorging himself with calories to sustain the 4000+ yard daily swim workouts.

To afford his extreme calorie intake, Glenn's parents made the thrifty choice to become Costco members. This provided Glenn an endless supply of performance enhancing microwaveable burritos and bowls of Cap'n Crunch's Crunch Berry cereal.

We don't know how they did it. But somehow Glenn's parents were able to save enough for retirement while still being able to feed him.

You would think that once Glenn went college and moved out of their house that they would end their subscription to Costco. No need to buy gallons of peanut butter anymore. But they kept their subscription.

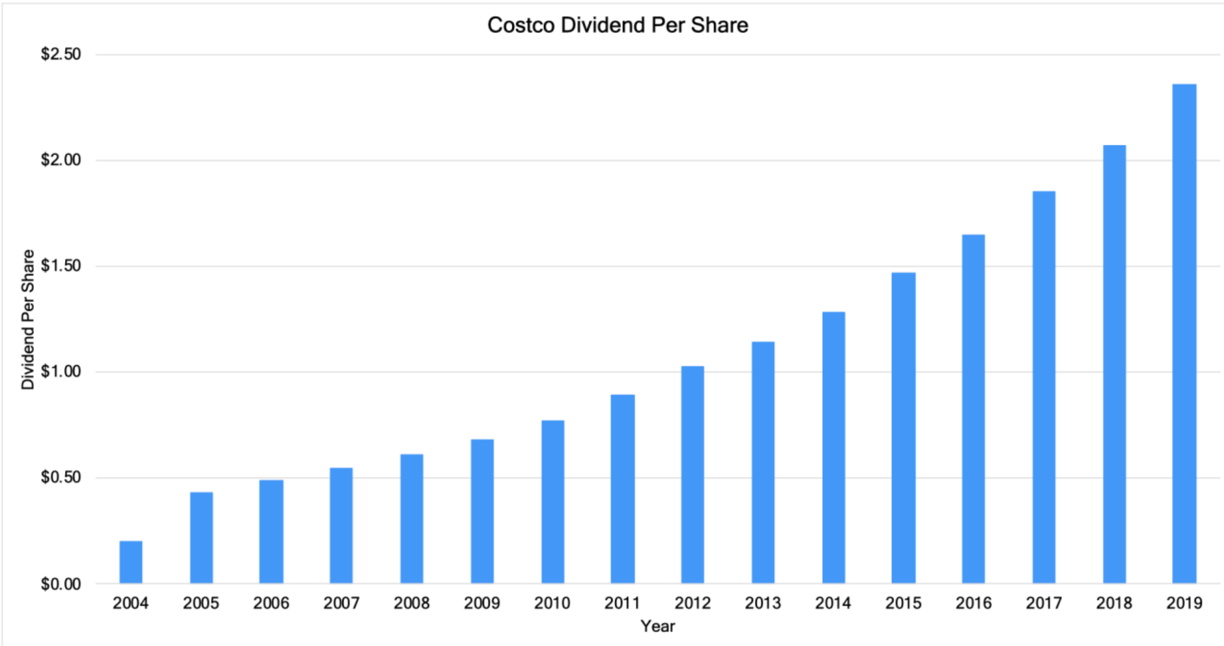
And 22 years later Glenn says they still have their subscription to Costco.

A Costco subscription is one the stickiest retail customer relationships in the economy.

That stickiness coupled with high level inventory management provides Costco with a powerful competitive moat. They consistently generate high returns on capital and returns on assets with only single digit profit margins. Costco also consistently generates excess free cash flow that it returns to shareholders through consistently rising dividends, share buybacks, and special dividends.

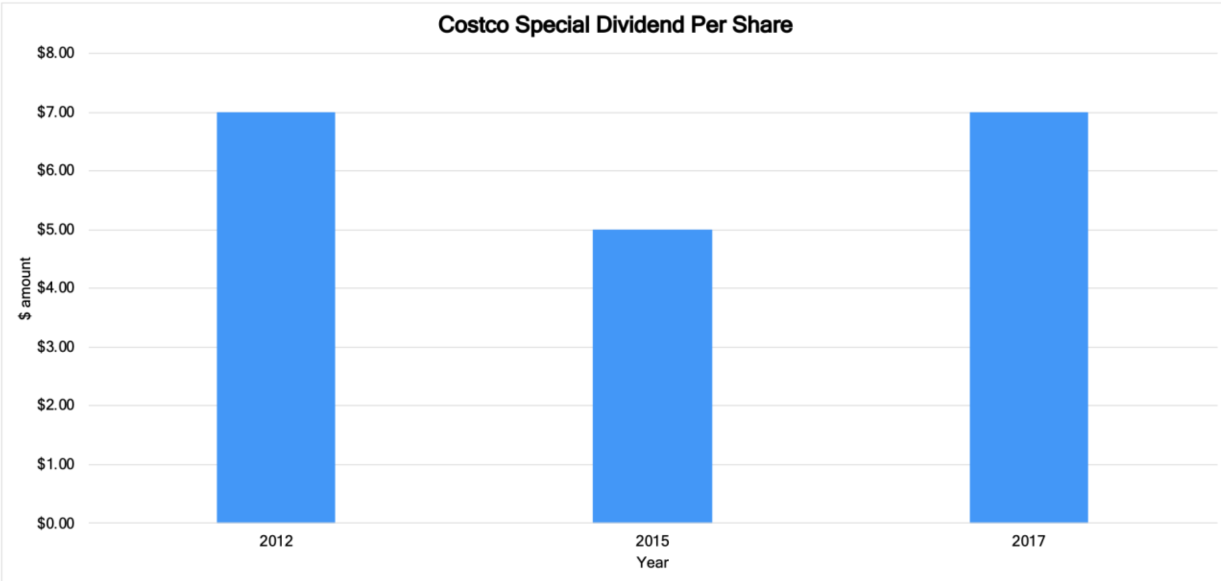
Dividend History

We’re classifying Costco as a dividend stalwart. The company started paying a dividend in 2004 and they have increased their dividend every year for the last 15 years. This is a **compound annual growth rate of 17.89%**



Costco is a well-run company that generates excess cash flow. It is also an efficient user of capital. If too much cash builds up that Costco can’t reinvest within the next few years, the company will return the excess cash to shareholders through a special dividend.

Costco has issued 3 special dividends so far.



Even with the disruption from the coronavirus, Costco recently raised its quarterly dividend another 8% to $0.70 per share.

Dividend Safety

Dividend Payout Ratio < 60%?	29.40%	✓
Cash Dividend Payout Ratio < 60%?	27.41%	✓
FCFE Coverage Ratio > 100%?	242.95%	✓
Debt to Equity < 1.00?	0.41	✓
Interest Coverage > 2.00?	48.68	✓

It isn’t a shock to see that a well-run company like Costco passes all our dividend safety checks.

Catalysts for Price Appreciation and Dividend Growth

A Growth Company

When you hear growth company, you’re probably thinking about a company that is rapidly growing its revenue. One that may or not be profitable. You’re probably not thinking about a 37-year-old club warehouse company with razor thin margins.

But Costco is a growth company.

It is a return on invested capital growth company.

When a new warehouse is built, the initial returns on the investment are low. But over time, the total cardholders around the new warehouse increase and the average sales per warehouse increase.

Average Sales Per Warehouse*

(Sales In Millions)

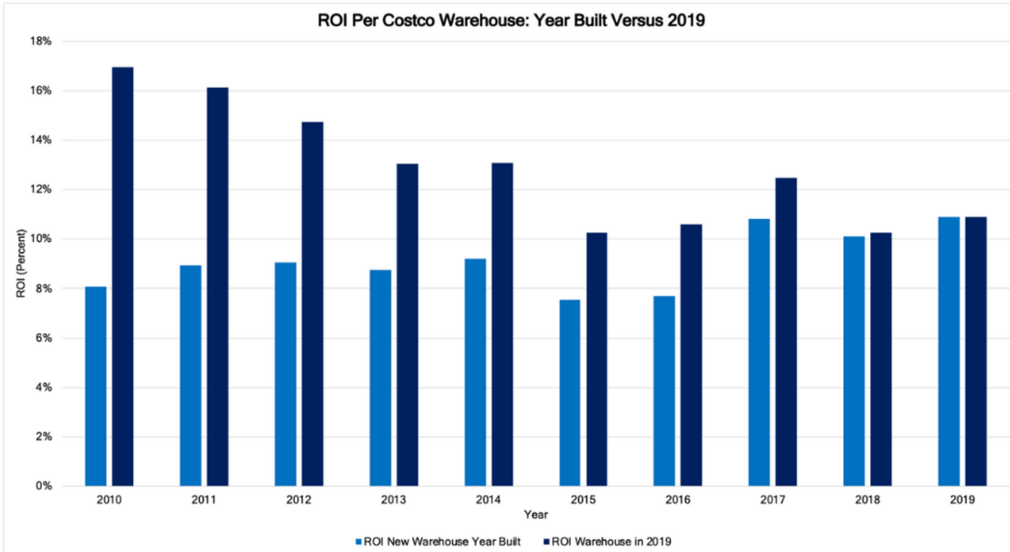
Year Opened	# of Whses	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
2019	**20**										$ 129
2018	**21**									$ 116	119
2017	**26**								$ 121	142	158
2016	**29**							$ 87	97	118	131
2015	**23**						$ 83	85	94	112	122
2014	**30**					$ 108	109	115	125	140	144
2013	**26**				$ 99	109	113	116	124	137	144
2012	**15**			$ 105	115	124	128	130	139	152	158
2011	**21**		$ 103	120	130	136	139	139	148	163	170
2010 & Before	**571**	$ 139	148	157	166	172	172	172	177	190	197
Totals	**782**	$ 139	$ 146	$ 155	$ 160	$ 164	$ 162	$ 159	$ 163	$ 176	$ 182

Fiscal Year

*First year sales annualized.
2012 and 2017 were 53-week fiscal years

From Costco 2019 10K

Over time as the warehouse matures its return on investment increases.



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ROI New Warehouse Year Built	8.08%	8.94%	9.06%	8.74%	9.20%	7.56%	7.71%	10.83%	10.11%	10.90%
ROI Warehouse in 2019	16.96%	16.14%	14.75%	13.04%	13.06%	10.24%	10.58%	12.48%	10.26%	10.90%

Costco warehouses are no frill affairs and require little maintenance capital to maintain them. The growing returns on investment lead to growing excess capital that Costco returns to shareholders through dividends, share buybacks, and special dividends.

Return on Incremental Invested Capital

Another way to look at the growing returns on new warehouses is Costco's return on incremental invested capital (ROIIC).

We want to invest in a company that can reinvest its capital at high rates. Are the old warehouses the source of Costco's high rates of return? Or can Costco invest in new warehouses and generate equivalent or better returns?

Over the last 10 years, Costco grew its net operating profit after tax (NOPAT) from $1,099 to $3,581. For Costco, our calculation of NOPAT came out equivalent to Net Income after Taxes. The capital invested during those 10 years was $10.5 billion generating a return on incremental invested capital of 23.49%.

Costco still has plenty of opportunity to reinvest at a high rate.

The $10.5 billion in invested capital is around a 43% reinvestment rate from Costco's 10-year cumulative earnings. The reinvestment rate times ROIIC is what we expect the intrinsic value of Costco to compound at over time, not accounting for dividends or share buybacks.

Return on Incremental Invested Capital

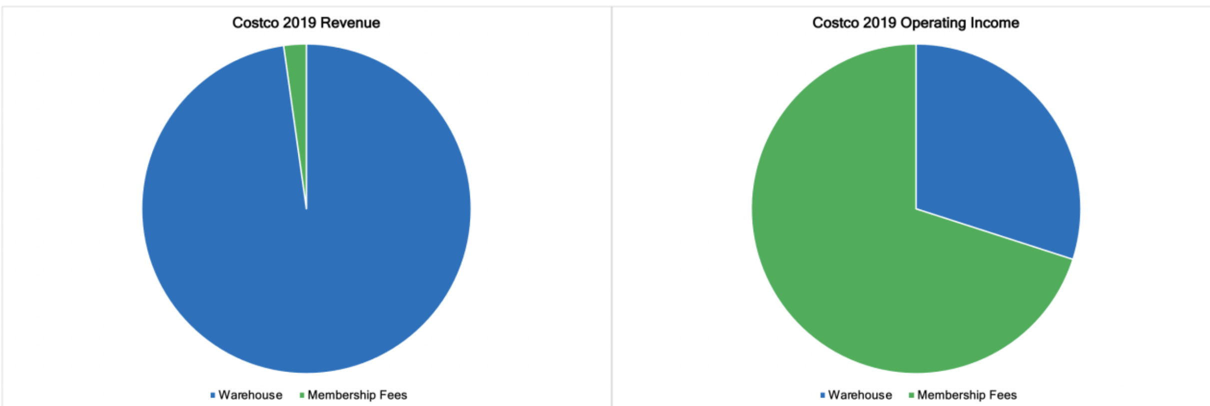
	2009	2019	Change	
NOPAT	$ 1,099	$ 3,581	$ 2,482	
Equity	$ 10,024	$ 15,243		
Debt	$ 2,226	$ 7,244		
Capital Leases	$ 162	$ 421		
Less Goodwill	$ 71	$ -		
Total Capital Invested	$ 12,341	$ 22,908	$ 10,567	
Cumulative 10 Year Earnings	$ 24,158			
Total Capital Invested	$ 10,567			
Reinvestment Rate	43.74%	*(Total Cap / Cum. 10 Yr Earnings)*		
Return on Incremental Invested Capital (ROII(	23.49%	*(Change in Net Income / Change in Total Capital)*		
Value Compounding Rate of the Company	10.27%	*(Reinvestment Rate * ROIIC)*		

Costco' growing returns on investment in new warehouses and its high rates of return on incremental invested capital stem from its growing membership base.

Membership Growth & Loyalty

The big driver for Costco's growing returns on incremental capital is its growth in memberships and the loyalty of its members.

The bulk of Costco's profits come from its membership fees. In 2019 around 70% of Costco's operating profit came from its membership fees.



To continue driving profits and returns, Costco needs to continue to grow its membership base while maintaining a high renewal rate.

Costco achieves these goals several ways. Members must feel like they are saving money. Because Costco relies on membership fees it can offer very low prices on key consumer goods. It can even sell those items at a loss to attract customers while traditional retailers can't.

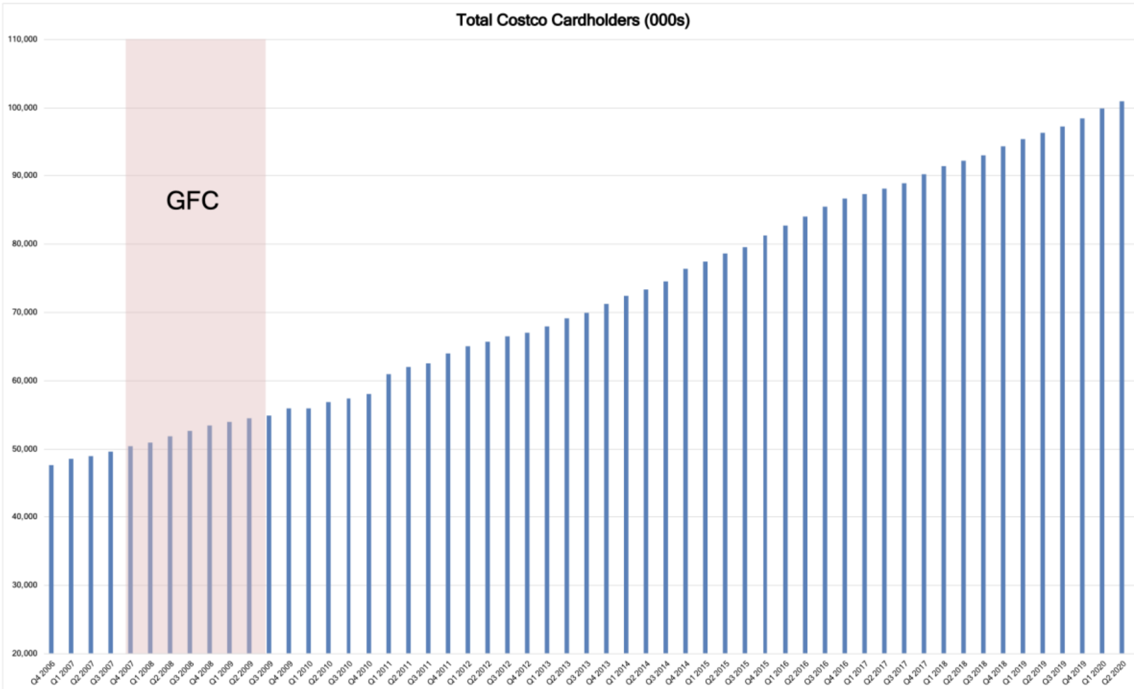
One example is rotisserie chicken. Costco sells their rotisserie chicken for $4.99. They'll sell it at a loss because they know it brings in traffic to their store.

> While Kroger and Mariano’s display their chickens near the front of the store, Costco puts them at the back, hoping people will add to their carts on their way to getting a chicken. Costco has sold rotisserie chickens for $4.99 since 2009. When a bird flu outbreak prompted higher prices for ready-to-cook chickens in 2015, **Costco took a $30 million to $40 million profit hit to keep its rotisserie prices steady**.

Costco is so averse to raising the price on its rotisserie chicken that the company built its own chicken processing plant. It allows Costco to have more control over its chicken supply chain and to keep its prices low.

Costco also keeps its inventories low. A Costco store on average sells 3,800 items compared to non-club stores that may sell several hundred thousand items. It creates a treasure hunt aspect. What new items are in stock this week at low prices?

Because of these two aspects, Costco keeps growing its subscriber base with renewal rates above 90% even during periods of economic hardship like the Great Financial Crisis of 2008.



Kirkland

Kirkland is Costco’s white label brand. While most white label brands are viewed as a cheaper lower quality product, Kirkland is quickly becoming its own name brand premium product because it is.

min2themax 4.4k points · 2 hours ago

I work in marketing and did a ton of research on Costco as part of a pitch. The Kirkland brand is known for their quality. They won't put their name on a product unless independent market and product research shows it meets or exceeds whatever the industry leader is. Toothbrushes, chocolate covered almonds, paper plates. Everything has to be better than the top rated brand or it isn't good enough for the Kirkland label.

Reply Give Award Share Report Save

reasonableliberty 1.9k points · 1 hour ago

It goes even deeper than that. I used to work for a large company that supplied for Costco. If you have what they deem to be the premium product on the market, they will actually ask you to make the Kirkland brand. They catch is that it has to be at least 1% better than your product. Thats not a joke. They'll identify a metric in which their Kirkland branded product has to be slightly better than your market leading product.

As a supplier, you jump on it, because the data is clear that it jacks your sales. Usually your product sits right next to theirs on the shelf. So the consumer has 2 choices. Yours, or yours (at slightly worse margin).

You can be assured that the Kirkland brand is always the best, because it literally is.

Reply Give Award Share Report Save

Kirkland Signature is a big source of revenue for Costco accounting for about 30% of its revenue.

White label brands are more profitable. White label product sales tend to generate profit margins around 35% versus 26% for traditional retailers.

For Costco, the natural higher profit margin on its Kirkland Signature brands means it can sacrifice that margin and lower the price far below the premium brands. Costco is not looking to generate wide profit margins on the products it sells. Selling a premium product at a low price is part of the feedback loop that keeps current cardholders renewing their membership every year.

International Growth

Everything Costco does is to fuel its flywheel of customer acquisition and long-term retention. It is now taking its low-cost scale advantage and customer acquisition flywheel on the road.

	Own Land and Building	Lease Land and/or Building[1]	Total
United States and Puerto Rico	437	106	543
Canada	86	14	100
Mexico	38	1	39
United Kingdom	23	6	29
Japan	13	13	26
Korea	12	4	16
Taiwan	—	13	13
Australia	8	3	11
Spain	2	—	2
Iceland	—	1	1
France	1	—	1
China	—	1	1
Total	620	162	782

(1) 114 of the 162 leases are land-only leases, where Costco owns the building.

Costco recently opened a store in Shanghai, China and it caused a major traffic jam.

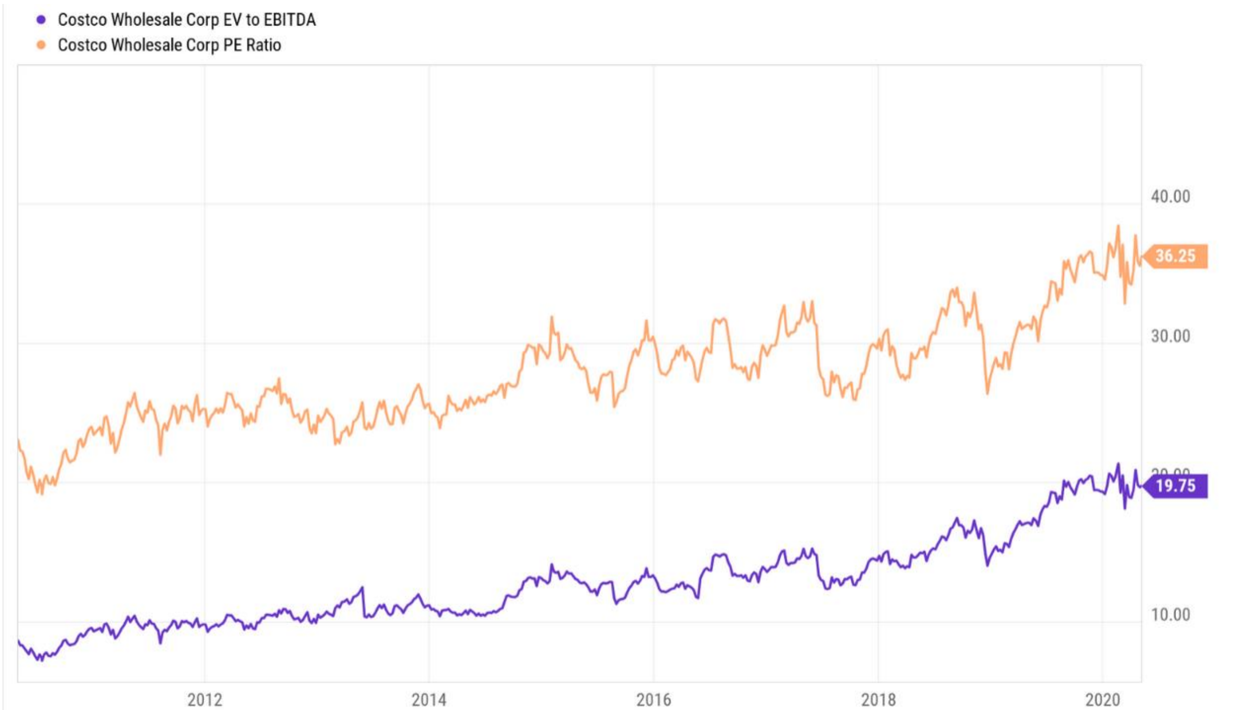
Image from CNN

Costco is deliberate in its growth. It will take time to build out its international stores, but the growth should provide a long tailwind of growth for Costco.

Risks

High Price

Costco’s P/E ratio is 35x and its EV/EBITDA ratio is 19x. Both are near 10-year highs.



Data from [YCharts]

All else being equal, the lower price you pay for an asset the higher your returns should be.

Our concern is we paid too high a price for Costco and the potential rewards do not justify the risk we took. We're defining risk here as below average returns, not impairment of capital.

Our counterpoint is what multiple would you pay for a business that generates ROIC of 20%, grows topline revenue around 10%, with recurring revenue that renews at a 90+% rate, and a weighted average cost of capital around 7%?

The table below is from Epoch Investment Partners. The top row is the difference between return on invested capital less the weighted average cost of capital [ROIC-WACC].

Return on Invested Capital (ROIC) by itself is a pretty good indicator that a company is creating value. But you want to know how much that capital costs. Capital is either debt or equity or a combination of the two. The cost of debt is simple. It’s the tax adjusted interest expense. The cost of equity is a little harder and the general way to calculate equity capital is with a capital asset pricing model. The weighted average cost of capital (WACC) is a company’s total cost of capital between its debt and equity.

If ROIC is higher than WACC then the company is creating value with each dollar of capital it brings in. The higher the spread the higher the value creation.

The left side of the chart is the expected earnings growth of the company.

Where the tables meet is the justified P/E ratio for that company.

If a company is creating excess capital, can reinvest that capital at a high rate, and has above average growth then you’d be willing to pay up for it.

Costco’s ROIC-WACC spread is about 13% and it is expected to grow at 10% per year over the next few years.

Table 1: Fair Value P/E ratios (if $r = 9.5\%$)

	ROIC-Cost of Capital Spread											
Earnings Growth	-1%	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
8%	3.9	10.5	15.9	20.3	24.0	27.2	29.9	32.3	34.3	36.2	37.8	39.3
7%	7.1	10.5	13.3	15.7	17.6	19.3	20.7	21.9	23.0	24.0	24.9	25.6
6%	8.4	10.5	12.2	13.7	14.9	15.9	16.7	17.5	18.2	18.8	19.3	19.8
5%	9.2	10.5	11.6	12.6	13.3	14.0	14.6	15.1	15.5	15.9	16.2	16.5
4%	9.6	10.5	11.3	11.9	12.4	12.8	13.2	13.5	13.8	14.0	14.3	14.5
3%	10.0	10.5	11.0	11.4	11.7	12.0	12.2	12.4	12.6	12.7	12.9	13.0
2%	10.2	10.5	10.8	11.0	11.2	11.4	11.5	11.6	11.7	11.8	11.9	12.0
1%	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.0	11.1	11.1	11.1	11.2
0%	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5

Source: Epoch Investment Partners

Based on this Costco's P/E ratio of 35 is justified. But we would feel a lot better about our expected future returns if we were getting the same company at a P/E ratio below 20 and an EV/EBITDA ratio closer to 10.

Thucydides' Trap

Thucydides' Trap is a term coined by Graham Allison in his book Destined for War. It is a good book and we highly recommend reading it because our brief summary will not do it justice.

The book's primary premise is that the risk of war becomes significant whenever an ascendant world power challenges an incumbent world power for economic and/or military supremacy. The book catalogs 16 historical examples of the trap and nearly all ended in a hot war between the two powers. A notable exception was the rising United States and the waning United

Kingdom in the late 19th century, which did not lead to armed conflict.

Today China is a rising power and the U.S. the established power. Where the U.S. and UK shared political, religious, and economic belief systems, China and the U.S. seem to have little in common, save for a symbiotic economic relationship.

We're not predicting war. But the onset of COVID-19, which originated in China, has further frayed the relationship between the world's 2 most powerful countries. A further weakening of the relationship between China and the U.S. would likely act as a headwind to Costco's long-term international growth plans.

Coronavirus

The initial coronavirus panic was a boon to Costco. If you need to stock up before sheltering in place, Costco is the best place to shop.

The concern is the long-term effects the virus may have on retail traffic. The expectation is that there will be a vaccine and eventually herd immunity, or the virus will mutate to a less viral form.

If it takes a long time to get the virus under control how much harm does it do to the economy and to consumers? Will loyal Costco members cancel their memberships? Will it change the

Costco experience? No more food sample kiosks? No more food courts?

We don’t have the answers which is why we include this as a potential risk to our thesis. Everything Costco does is to add to the experience of being a member so that you will remain a member for a long time. If parts of that experience are lost, does it reduce membership growth and renewal rates?

Valuation

If we run a standard discounted cash flow model, our estimate of fair value for Costco is $310 per share. With the stock around $300 this is not much of a discount to our estimate of fair value.

But Costco is a return on invested capital story.

We want to value Costco based on its ability to generate high returns on invested capital and its ability to reinvest capital at high rates. The best way to do this is with an economic profit model.

Below is our base case economic profit model for Costco.

Costco Economic Profit Model						
Year	**Invested Capital** *$ million*	**ROIC** *%*	**WACC** *%*	**Economic Profit** *$ million*	**Discount @ WACC**	**PV of Economic Profit** *$ million*
2021	$ 25,721	20.00%	6.81%	$3,393.70	*6.81%*	$3,177.45
2022	$ 27,509	20.00%	6.81%	$3,629.55	*6.81%*	$3,181.72
2023	$ 29,420	20.00%	6.81%	$3,881.79	*6.81%*	$3,186.01
2024	$ 31,465	20.00%	6.81%	$4,151.55	*6.81%*	$3,190.30
2025	$ 33,652	20.00%	6.81%	$4,440.07	*6.81%*	$3,194.59
2024	$ 35,990	20.00%	6.81%	$4,748.64	*6.81%*	$3,198.90
2025	$ 38,492	20.00%	6.81%	$5,078.65	*6.81%*	$3,203.20
2026	$ 41,167	20.00%	6.81%	$5,431.60	*6.81%*	$3,207.52
2027	$ 44,027	20.00%	6.81%	$5,809.07	*6.81%*	$3,211.84
2028	$ 47,087	20.00%	6.81%	$6,212.78	*6.81%*	$3,216.16
Continuing Value						$ 120,159.47
Present Value of Economic profit						$152,127.15
Iinvested Capital Current Year						$ 24,050
Invested Capital & Economic Profit Value						$176,176.91
Value of Cash						$8,715.00
Value of Investments						$0.00
Total Value						$184,891.91
Less: Value of Debt						$6,161.00
Less: Value of Unfunded Retirement Obligations						$0.00
Equity Value						$178,730.91
Total Shares Outstanding						442.00
Equity Value Per Share						$404.37

Based on our base case economic profit model, Costco is trading at a significant discount to our estimate of fair value.

A caveat. We don’t adjust every little thing in our model and proforma. We think this leads to the fallacy of false precision. Our time is better spent understanding the quality of the business and how Costco can maintain and expand its business moat. In the long run we think this is more valuable than if we estimated Costco's 2021 tax deferred assets correctly.

But we will take our DCF valuation and average it with our Economic Profit model to arrive at an estimate of fair value of **$357 per share**.