COSTCO WHOLESALE CORPORATION

Costco operates a chain of 840 membership warehouses located in thirteen countries. Warehouses feature well known branded merchandise sold at prices far below conventional retailers as well as Costco's Kirkland Signature private label which has earned a reputation for delivering quality on par with or better than national brands. Warehouses have few frills or amenities and average 146,000 square feet. Costco strives to deliver products to customers at the lowest possible gross margin, creating an undeniably compelling value proposition.

Costco's low prices are available only to customers who purchase an annual membership. There are 118.9 million Costco cardholders representing 65.8 million paid memberships. In the United States, a Gold Star membership costs $60 and provides basic access to warehouses while a $120 Executive membership provides additional benefits including the opportunity to earn reward certificates worth up to $1,000 per year. Members renew at rates in excess of 90 percent and are known to be very loyal shoppers.

In Costco's latest fiscal year, the company posted revenue of $227 billion, operating income of $7.8 billion, and net income of $5.8 billion. The market has rewarded Costco's long track record of profitability and growth with a valuation of $220 billion assigning the shares a premium multiple of 38 times trailing earnings. In this report, we will examine Costco's business and consider whether the market's positive assessment is justified.

 October 25, 2022

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Introduction

Costco is a difficult business to understand if you have never visited one of the company's cavernous warehouses. The massive size and scale of the store footprint and the assortment of products offered to consumers is quite different from the typical retail merchandising approach and it is very easy to form mistaken impressions if you are more fixated on numbers on a spreadsheet than roaming the aisles of the warehouse.

It is not always possible for outside observers to get up close and personal with the operations of a business. One can attempt to apply Philip A. Fisher's "scuttlebutt" approach to investment research, but it is rare for outsiders to be permitted to see how a business truly operates.[1] Analysts trying to learn about a company with no consumer facing operations must rely on the company's investor communications perhaps supplemented by discussions with company insiders, suppliers, and competitors.

Retail analysts at least have the opportunity to interact anonymously with a business as a potential customer, but only at the final stage of the distribution channel. If one walks into a typical department store or specialty retailer, it is possible to see the front of the store where individual products are displayed. However, the back of the store is usually cordoned off and inaccessible to customers.

Costco's retail approach is very different. When the company calls their stores "warehouses", they mean it literally. The inside of a typical 146,000 square foot store has very few frills. The floors are concrete, displays are bare-bones, merchandise is stacked high above the shelving, and it is not unusual to see products displayed on shipping pallets. Only a small portion of a Costco warehouse is hidden from view, so we can see much more of how the store operates than in a typical retail operation.

I started to analyze Costco in the same way I would look at any business. I downloaded the latest annual report and started reading. This was followed by building spreadsheets using many years of annual reports, reading old letters to shareholders, reviewing conference call transcripts, and searching for articles and interviews online. It was only after spending nearly two weeks on the company when it occurred to me that it would be absurd to publish a write-up on Costco without actually walking in the shoes of a member.

I arrived at Costco on a Monday afternoon hoping that it would be relatively quiet. However, I could see from the parking lot that the warehouse was very busy. I purchased a basic Gold Star membership for $60 at the member services counter after declining to pay an additional $60 for the Executive membership upgrade.[2] The next stop was the food court where I ordered the Costco's famous $1.50 hot dog combo deal and a slice of cheese pizza for a grand total of $3.84. Did I travel back in time to the early 1990s? No, the food court is just famously cheap. While this is not the type of food I would normally choose, it was undeniably filling. In fact, the quarter pound all beef hot dog alone would have been more than sufficient.

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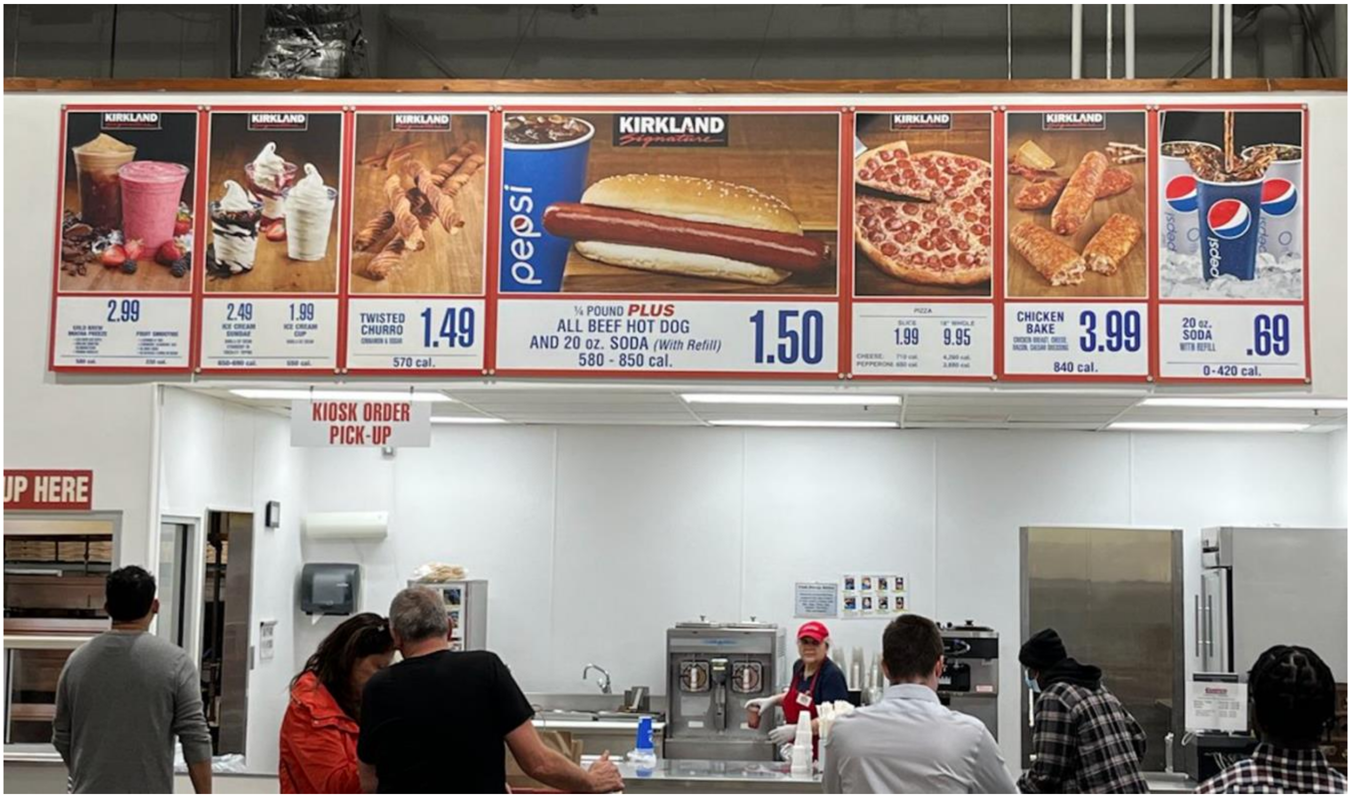
[1] For more on Phil Fisher's investment approach, please read The Rational Walk's review of *Common Stocks and Uncommon Profits*. The book was originally published in 1957 and has become an indispensable investment classic.
[2] The different membership levels are covered in detail later in this report.



The food court represents a microcosm of the warehouse. It fulfills a common need at extremely low prices and gains efficiencies from a limited set of menu items, all of which can be prepared in advance and kept warm and fresh without risk of going stale due to the high volume of business. In the short amount of time I spent in the food court, I saw several fresh pizzas deposited in the warmer and served to a constant stream of customers.

After eating, I walked through every aisle in the warehouse. Although my purpose was to better understand the business, I still managed to purchase $240 of merchandise. I didn't go crazy on impulse buys. These were all products that I regularly use. Costco co-founder Jim Sinegal has often claimed that customers will quickly recover the cost of membership. This was true in my case based on just a few of my purchases:

Item	Quantity	Costco Pricing	Comparable Product	Savings
Walnuts	6 lbs.	$3.33/pound in 3 pound bags	Trader Joe's: $5.99/lb.	$15.96
Almonds	5 lbs.	$4.16/pound in 2.5 pound bags	Trader Joe's: $6.99/lb.	$14.15
Cashews	2.5 lbs.	$5.92/pound in 2.5 pound bags	Trader Joe's: $7.99/lb.	$5.18
Peet's Coffee	4 lbs.	$0.375/ounce in 2 pound bags	Community Coffee: $0.50/ounce	$8.00
Dishwasher Pods	115	$.094/each in 115 count bag	Safeway: $0.15/each in 60 count bag	$6.44
Toilet Paper	30 rolls	$0.67/each in 30 roll package	Safeway: $1/roll in 6 roll package	$9.90
			Savings for Selected Items	**$59.63**

With the exception of Peet's coffee, all of the products shown above are Costco's Kirkland private label brand and the comparable product is the house brand for Trader Joe's and Safeway. For the coffee comparison, I used Louisiana based Community Coffee, my regular brand which I believe is on par with the Peet's Coffee brand.

In addition to the items shown, I purchased several additional food items including both packaged and fresh foods and various household supplies. My only impulse purchase was a pair of Puma brand sweatpants for $20. My savings for the trip exceeded the $60 membership cost on just a few items that I regularly purchase.

The obvious question we must ask is how Costco manages to provide such a compelling value proposition for its members and that will be the primary focus of this report. The short answer is that Costco operates on a gross margin that is significantly lower than competitors and this translates directly to the central value proposition.

Costco's fiscal 2022 gross margin was 10.5 percent. The comparable gross margin figure for Wal-Mart is 24.4 percent. Target operates at an even higher gross margin of 28.3 percent.[3] To take a conservative viewpoint, if Costco's products have an average price advantage of 15 percent over Target and Wal-Mart, a customer only has to spend an average of $400 before recouping the $60 annual membership fee. As we can see from my example, it is possible to recover the membership fee with an even lower volume of spending.

Costco's management team is fanatical about driving prices as low as possible. While most retailers might strategize about opportunities to increase gross margin, Costco does the opposite. To earn a profit, management relies on efficiencies gained by offering only a limited number of stock keeping units (SKUs) sold in large quantities in a no-frills environment with vendors financing the inventory. One might ask why management does not raise gross margin given that there is clearly a very large advantage. However, this would violate the corporate ethos of viewing Costco as a *fiduciary* for members as well as a profit-making enterprise.[4]

At a surface level, Costco's business model is very simple, but it takes quite a bit of time and effort to come to grips with unintuitive aspects of the business, such as management's desire to reduce gross margin as much as possible rather than optimizing for short-term profits. The end result is a very high degree of customer trust that manifests itself in membership renewal rates in excess of 90 percent in the United States and Canada.

In order to understand Costco, we must go back to Sol Price who created the concept of membership-based discount warehouses. In many ways, Costco is an intellectual descendant of Sol Price's FedMart chain. Jim Sinegal, Costco's co-founder, worked for FedMart from its founding in 1954 until 1977. When Costco opened its first location in 1983, it built upon the FedMart legacy. Sol Price founded Price Club in 1976 which merged with Costco in 1993. Although today's Costco is not the actual successor of FedMart, Costco's intellectual lineage and corporate ethos clearly traces back to Sol Price's innovations at FedMart.

After developing the proper historical context, we will examine Costco's business model, operating history, capital allocation, competitive landscape, and growth opportunities in more detail. Finally, we conclude with a discussion regarding what the future might hold for Costco within the context of the lofty expectations of market participants. Costco is a remarkable business, but this is hardly a well-kept secret.

[3] These figures are taken from the latest 10-K report for each company. Costco's fiscal 2022 ended on 8/28/22. Target's fiscal 2022 ended on 1/29/22. Wal-Mart's fiscal 2022 ended on 1/31/22. Wal-Mart's reported gross margin includes both Sam's Club, its membership warehouse, and Wal-Mart supercenters. Wal-Mart supercenters are likely to have a gross margin similar to Target's company-wide gross margin.
[4] Sol Price, Jim Sinegal's mentor, often described his role as a fiduciary for customers.

Sol Price's Influence

Sol Price

It is impossible to research Costco in any depth without studying the career of co-founder Jim Sinegal, and it is equally impossible to read about Jim Sinegal without encountering Sol Price, the man who invented the retailing concepts that still drive the business model of membership-based discount warehouses today.

Mr. Sinegal began working at FedMart shortly after Mr. Price opened the first store in 1954. He was eighteen years old at the time and rose to Executive Vice President in charge of all merchandising and operations by the time he left the company in 1977. Sol Price's influence on Mr. Sinegal cannot be overstated.

> *"He motivated us to do our very best, not just because he had a formidable presence, but we really did not want to let him down. We idolized the guy. We thought about him on a continual basis. What would he do? How would he handle this situation? And, it influenced our lives."*
>
> *— Jim Sinegal*[5]

Since there is no doubt that Sol Price's influence played a major role in the development of Costco, it is very important to be familiar with the man and his approach to business. Much material is available regarding Sol Price and FedMart, but one source stands out. Robert Price wrote *Sol Price: Retail Revolutionary and Social Innovator*, shortly after his father's death in 2009.[6] In addition, some material from the book was published in an article, *Sol Price: Retail Revolutionary The FedMart Years—1954 to 1975*, which covers the origin of FedMart. Although the book is worth reading, much of the key information about FedMart can be found in the article.

When studying great entrepreneurs, one quickly begins to realize that very few had a grand "master plan" in mind when they embarked on their journey. This was certainly the case for Sol Price who got into discount retailing quite accidentally. Mr. Price was working as a young attorney in the 1940s and early 1950s, a period in which he learned a great deal through exposure to the legal problems facing small businessmen. When his father-in-law died in 1949, Mr. Price was responsible for handling the financial affairs of his mother-in-law and advised her to purchase a warehouse in southeast San Diego as an investment property. In 1953, she purchased the building, and it was up to Mr. Price to find a tenant in order to generate income.

One of Mr. Price's business associates advised him to visit Fedco, a membership-based department store in Los Angeles. The idea was that Fedco could expand to San Diego and rent the warehouse building. However, Fedco had no interest in the proposal, so Mr. Price decided that he would open a "Fedco-style store" himself. Discount retailing was in its infancy in the early 1950s and most shopping was concentrated in central business districts. San Diego was no exception and Mr. Price's warehouse was located far from the commercial district.

[5] Sol Price: Retail Revolutionary, The FedMart Years – 1954 to 1975 by Robert E. Price (San Diego History Center)
[6] Sol Price: Retail Revolutionary and Social Innovator is a biography published by Robert Price in 2012.

In the 1950s, "Fair Trade Laws" allowed manufacturers to set minimum selling prices for their products, an arrangement that was inherently anti-competitive. Retail hours were short and inconvenient for customers, but in return for high prices and limited hours, consumers expected to receive personal service. With just $50,000, which is equivalent to $550,000 in today's money, Mr. Price and his partners only had sufficient capital to buy very basic equipment and inventory. By necessity, they had to make the first store operate on a shoestring.[7]

> *"When we didn't know what we were doing, it only took $50,000 to start a business and five years later, when we were really experienced at running FedMart, it took $5 million to open."*
>
> *— Sol Price [8]*

FedMart was initially founded to serve federal government workers and their families.[9] To shop at FedMart, one had to purchase a lifetime membership for $2. Hours were limited but tilted toward the evening when working people would have more time to shop. The lack of capital made it necessary to display products on improvised fixtures or pallets. Customers could only purchase a couple versions of a product rather than dozens, and the store was self-service rather than having the personalized service that many had come to expect. Due to "Fair Trade" laws, the assortment was initially limited to suppliers who did not impose minimum pricing.

The first FedMart location in San Diego, California

The response to FedMart's opening was far greater than Mr. Price anticipated, and the store posted $3 million in sales in its first year. This generated immediate criticism and opposition from established retailers who correctly perceived a major threat to their previously comfortable existence.

[7] The BLS inflation calculator suggests that $50,000 in September 1954 is equal to $553,746 in September 2022.
[8] Sol Price: Retail Revolutionary, The FedMart Years – 1954 to 1975 by Robert E. Price (San Diego History Center)
[9] In 1963, the requirement to work for the Federal government was dropped and FedMart was opened to all customers.

Community opposition contributed to Mr. Price's insistence on establishing a lofty moral code that would put the business above any suspicion of unfair or unethical dealings. Part of this involved very limited advertising:

> *"You had a duty to be very, very honest and fair with them and so we avoided sales and advertising. We have in effect said that the best advertising is by our members...the unsolicited testimonial of the satisfied customer."*
>
> *— Sol Price* [10]

It is critical to understand that Sol Price's approach to retailing was *not* similar to other "discount retailers" operating in the 1950s and 60s. Discounters sold at prices that were lower than traditional retailers but still marked up as much as possible. Mr. Price had a different approach. He wanted to mark up products *as little as possible.* Products were priced at a level where the gross margin covers selling costs and a small profit. Rather than referring to his strategy as "discount retailing", Mr. Price described FedMart as a "low margin retailer".

We can already see the outline of the membership warehouse club forming from the earliest days of FedMart. Like Costco today, FedMart had an obsessive focus on offering its customers a limited array of high quality products selling at the lowest possible prices. In the decades to come, FedMart stores pioneered many of the features of today's Costco including a private label brand, large package sizes, and pharmacy departments.[11]

The membership club business model relies on long-term relationships with members which are built on trust. Customers began to view FedMart as a retailer sure to sell products at the lowest possible price without sacrificing quality. Similarly, employees were treated exceptionally well with high wages and benefits in exchange for hard work and loyalty. This is exactly the same approach taken by Costco to this day.
Sol Price's success did not escape the notice of other retailers including Sam Walton:

> *"I learned a lot from Sol Price, a great operator who had started FedMart out in San Diego in 1955. I guess I've stolen—I actually prefer the word 'borrowed' as many ideas from Sol Price as from anybody else in the business...I really liked Sol's FedMart name, so I latched right on to Walmart."*
>
> *— Sam Walton* [12]

FedMart was purchased by a German company in 1975 and Sol Price was abruptly fired soon after the acquisition. After looking into a number of new business ideas, Sol and Robert Price settled on the concept of Price Club, a membership warehouse catering to the needs of wholesale customers in the San Diego area.

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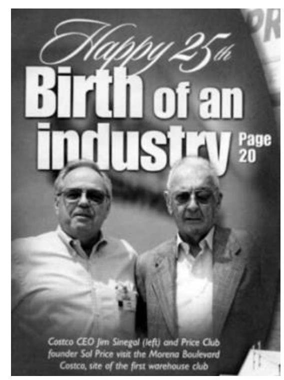
[10] Sol Price: Retail Revolutionary, The FedMart Years – 1954 to 1975 by Robert E. Price (San Diego History Center)
[11] Incumbent pharmacists were outraged, and the company's first pharmacist received death threats.
[12] Sol Price: Retail Revolutionary, The FedMart Years – 1954 to 1975 by Robert E. Price (San Diego History Center)

The first Price Club opened in July 1976. After a rough start, Price Club refined its business model and achieved success in 1977. Price Club's economics proved to be very different than FedMart. Price Club's markup of 11.7 percent was far below FedMart's typical 30 percent markup. FedMart's operating expenses were running at 17 percent of sales while Price Club's operating costs were just 9 percent of sales. Price Club did far more business per square foot of selling space, turned over its inventory more frequently, and negotiated payment terms with suppliers that resulted in nearly 90% of its inventory being financed by payables to suppliers.[13]

In 1982, Bernie Brotman approached Sol and Robert Price to discuss a potential franchise agreement in which Brotman would operate Price Clubs in the Northwest. Price Club decided to enter the Northwest themselves rather than enter into a franchise agreement. As a result, in 1983 Bernie Brotman and his son, Jeff Brotman, raised capital and hired Jim Sinegal to become the CEO of a new company called Costco.[14] Price Club and Costco combined in merger that took place in 1993, with Mr. Sinegal running the combined company.

Many aspects of Costco's business model are not immediately intuitive. For example, why not try to boost gross margins on products where the next cheapest competitor is charging far more? Why leave money on the table?

Costco's approach of reducing prices as much as possible goes back to Sol Price's business philosophy. Mr. Price knew that offering the lowest prices on a limited assortment of high quality products would build extraordinary member loyalty over time. The membership model itself builds loyalty by making customers feel like they are part of the organization which is working on *their* behalf. They are *members*, not merely *customers*.



Sinegal and Price, July 2001

All great entrepreneurs have heroes they look up to. There is no doubt that Jim Sinegal learned much of what he knew about warehouse club retailing from Sol Price and that Costco's business model was built on foundational knowledge that came from FedMart. Mr. Sinegal has the following to say when Sol Price died in December 2009:

> *"[Sol Price] was an incredibly generous person, compassionate and a great teacher. One time a reporter found out how long I had worked for Sol. He said, 'you must have learned a lot.' 'That's inaccurate,' I said. I learned everything. I was a fly on the wall observing Sol. I had such a great admiration for him, and the things he stood for and his intellect."* [15]

In the preface of Sol Price's biography, Mr. Sinegal writes about receiving a letter from Sol Price shortly before his death in 2009. Mr. Price was known to be sparing with compliments, so his flattering words meant a great deal to Mr. Sinegal who reflected that even though he was in his 70s, he was *still* seeking approval from his mentor. As we delve into the details of Costco, it is very important to realize that Sol Price's influence and legacy has directly impacted many of the company's policies and attitudes to this day.

[13] Sol Price: Retail Revolutionary and Social Innovator, p. 142.
[14] Ibid., p. 147.
[15] Sol Price, philanthropist and entrepreneur, dies at 93 by Peter Eisner, December 14, 2009. (San Diego Jewish World)

Costco's Business Model

"You just wouldn't believe how efficient and sophisticated Costco's warehouse operation is. Jim Sinegal is a fabulous business operator — like a Carnegie, Rockefeller, or James J. Hill. I consider him to be one of the top five retailers of the past century. He's that good. He works eighty hours a week and sets a terrific example for his entire organization in terms of work ethic, integrity, loyalty, and selflessness. He's a moral leader as well as a practical leader. These are not minor virtues. We have our own living, breathing Sam Walton at Costco."

– Charlie Munger [16]

Every aspect of Costco's business model is designed to achieve the company's mission of providing members with the lowest possible prices without compromising on quality. In this section, we drill down into five key aspects of the company's business model, each of which combines to form the self-reinforcing feedback loop that has driven growth of the business over nearly four decades.

- **Membership Dues** provide a stable source of recurring revenue, encourages loyalty, and allows management to price products at a very low gross margins. Management seeks to make the value proposition so obvious and undeniable that it would be irrational to *not* maintain a membership.

- **Shopping Frequency.** Pharmacies, food courts, vision and hearing centers, and gasoline stations encourage customers to visit often. Costco has a "treasure hunt" atmosphere due to offering very low prices on merchandise that varies from store to store and is only available for a limited time.

- **Inventory Management.** Costco offers a limited number of stock keeping units (SKUs) compared to most other large retailers. This merchandising strategy simplifies the process of sourcing, distributing, and managing inventory. Products are offered in bulk quantities which provides efficiencies in terms of packaging, warehouse-level inventory management, and reduces the risk of shoplifting.

- **Scale Economics.** The limited selection within each product category makes it possible to acquire large amounts of each SKU increasing Costco's negotiating leverage with suppliers. This brings prices down and results in attractive payment terms. Since Costco turns its inventory over twelve times per year, suppliers effectively finance Costco's inventory with payables typically exceeding the value of inventory.

- **Low Operating Costs.** Costco warehouses average 146,000 square feet and a typical warehouse stocks 4,000 SKUs, far less than other retailers. Warehouses have few amenities and products are displayed on simple fixtures or on pallets. As a result, inventory can be moved directly from trucks to the selling floor. Warehouse hours are also shorter than competitors. These factors allow Costco to achieve high employee productivity while paying above-average wages and retaining employees for the long term.

[16] Poor Charlie's Almanack, Third Edition, page 147.

Membership Dues

The most important aspect of Costco's business model is the membership program. With the exception of the pharmacies, an active annual membership is required to shop at the company's warehouses. Members can bring up to two non-members as guests, but only the member is allowed to actually purchase merchandise.

> *"The membership format is an integral part of our business and has a significant effect on our profitability. This format is designed to reinforce member loyalty and provide continuing fee revenue. The extent to which we achieve growth in our membership base, increase the penetration of our Executive members, and sustain high renewal rates materially influences our profitability."*
>
> *— Costco's Fiscal 2022 10-K [17]*

In the United States and Canada, a Gold Star or Business membership costs $60 per year. Upgrading to an Executive membership costs an additional $60 per year and offers a two percent reward on merchandise with an annual maximum reward of $1,000. Effectively, any member who spends more than $3,000 per year at Costco receives rewards sufficient to justify the additional cost of Executive membership.

The following table shows fees for Gold Star and Executive memberships in each country in which Costco has operations along with the U.S. dollar equivalent.[18]

Country	Gold Star Membership		Executive Membership	
	Local Currency	USD Equivalent	Local Currency	USD Equivalent
United States	60.00	60.00	120.00	120.00
Canada	C$ 60.00	43.21	C$ 120.00	86.43
Mexico	M$ 500.00	24.91	M$ 1,100.00	54.80
Japan	¥ 4,840.00	32.54	¥ 9,900.00	66.55
United Kingdom	£ 33.60	37.54	£ 74.40	83.12
South Korea	₩ 33,000.00	22.89	₩ 80,000.00	55.49
Taiwan	NT$ 1,350.00	42.22	NT$ 3,000.00	93.82
Australia	A$ 60	37.18	Executive membership not offered	
Spain	€ 36.30	35.29		
France	€ 36.00	35.00		
China	CN¥ 299.00	41.58		
Iceland	ISK 4,800.00	33.20		

Dues data are for individual memberships and were retrieved on 10/14/22. Exchange rates as of 10/15/22.

Costco provides a money-back guarantee for all memberships but does not provide day passes, trial periods, or similar promotions. This is an important aspect of preserving the integrity of the membership model and retaining a perception of exclusivity. As we will see, membership dues revenue is critical for Costco's economic

[17] Costco's FY2022 10-K, p. 23.

[18] Membership fee data were obtained from Costco's international websites on October 14, 2022. According to Costco's Fiscal 2022 10-K, executive memberships are only offered in the U.S., Canada, Mexico, the U.K., Japan, Korea, and Taiwan.

model, but dues also have psychological benefits for the business. A Costco member is likely to feel driven to justify the membership fee and will be more likely to choose to shop at Costco rather than at other retailers.

Costco members are loyal, and renewal rates are in excess of 90 percent in the United States and Canada, and slightly lower in other countries. Costco exercises restraint when it comes to increasing membership fees. The latest increase took place in 2017 when a basic membership rose from $55 to $60 in the United States. Dues increased by $5 in 2006 and 2012, so there has been a pattern of a five dollar increase about every five years. If this pattern holds, Costco is likely to increase dues to $65 or perhaps even $70 at some point over the next year.

The following exhibit shows selected membership statistics over the past dozen years:

	Fiscal Years Ending On											
	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12	8/28/11
MEMBERSHIP STATISTICS *(in thousands)*												
Gold Star	54,000	50,200	46,800	42,900	40,700	38,600	36,800	34,000	31,600	28,900	26,700	25,000
Business, including affiliates	11,800	11,500	11,300	11,000	10,900	10,800	10,800	10,600	10,400	10,100	10,200	10,300
Total paid members	65,800	61,700	58,100	53,900	51,600	49,400	47,600	44,600	42,000	39,000	36,900	35,300
Household cards	53,100	49,900	47,400	44,600	42,700	40,900	39,100	36,700	34,400	32,200	30,100	28,700
Total cardholders	**118,900**	**111,600**	**105,500**	**98,500**	**94,300**	**90,300**	**86,700**	**81,300**	**76,400**	**71,200**	**67,000**	**64,000**
Executive memberships *(in thousands)*	29,100	25,600	22,600	21,021	19,092	18,772	18,564	17,394	16,380	14,820	14,022	13,414
Executive members as % of paid members - U.S. and Canada	57%	55%	39%	39%	37%	38%	39%	39%	39%	38%	38%	38%
Executive members as % of paid members - Other International	22%	17%										
Executive membership as % of worldwide net sales	71%											
Annual cost of membership - United States	60	60	60	60	60	60	55	55	55	55	55	50
Membership renewal rate: U.S. and Canada	93.0%	91.0%	91.0%	91.0%	90.0%	90.0%	90.0%	91.0%	91.0%	90.0%	87.8%	89.0%
Membership renewal rate - worldwide	90.0%	89.0%	88.0%	88.0%	88.0%	87.0%	88.0%	88.0%	87.0%	86.0%	86.4%	86.0%
Notes: Membership increased from $55 to $60 on 1/1/17, Membership increased from $50 to $55 on 1/1/12, Membership increased from $45 to $50 on 7/1/06												
Membership Fees per Paid Member (worldwide)	64.19	62.84	60.95	62.19	60.89	57.75	55.59	56.79	57.81	58.62	56.23	52.89

Source: Annual Reports and SEC Filings

In an interview at the end of 2011, shortly before his retirement as CEO, Jim Sinegal was interviewed by The Seattle Times regarding his hopes for Costco's performance over the coming decade.[19]

> *"I would hope that 10 years from now, Costco would have sales of probably close to twice what they are right now and that they're significantly more profitable and that we have an even bigger presence internationally than we have today, that we have twice as many members shopping with us, and that we have established ourselves as a leading consumer advocate in the countries where we do business."*

At the end of fiscal 2011, Costco had 35.3 million paying members and that figure rose to 65.8 million at the end of fiscal 2022, a bit short of Mr. Sinegal's prediction. As we will see, his other predictions were easily exceeded.

In recent years, Costco has released more granular data on Executive memberships which now comprise 57 percent of paid members in the United States and Canada and 22 percent in other international markets. Executive members accounted for 71 percent of worldwide sales in fiscal 2022, demonstrating how important

[19] Retiring CEO of Costco takes a look back on his legacy by Melissa Allison, December 17, 2011 (The Seattle Times)

they are for Costco's business model. If regular members feel a drive to consolidate their spending at Costco, this is even more true for Executive members who qualify for a 2 percent reward.

Maintaining the integrity of the membership system is critical for Costco's financial results and to ensure that paying members feel that they are part of an exclusive group that enjoys access to low prices and other benefits. For this reason, Costco has strict rules in place when it comes to sharing a membership. However, one free household card is available to any other person over the age of eighteen who lives at the same address as the paying member. In addition, members are allowed to bring up to two guests during visits to a warehouse.

When non-members are exposed to Costco, chances are that some of them will eventually become paying members. When a free household card holder moves to a new address, such as when a young adult forms a new household, there's a good chance that the Costco habit will result in a new paid membership.

The membership model has other benefits. Since membership is checked at the entrance of warehouses, shoplifting is lower than at retailers with less restrictive access. When coupled with bulk packaging, Costco's rate of shrinkage is lower than other retailers.[20] The customer who is willing to pay $60 or $120 for a membership is less likely to commit thefts. Costco's customer base skews toward higher income customers who have discretionary income sufficient to buy in bulk. Customers facing financial problems are unlikely to be willing or able to part with $60 for a membership or to have enough income to purchase bulk quantities of merchandise.

How much does a member need to purchase to justify the $60 annual cost? We can ballpark this figure by comparing Costco's gross margin with competitors. Costco's gross margin was 10.5 percent in fiscal 2022. Wal-Mart's company-wide gross margin (which includes both Wal-Mart and Sam's Club) was 24.4 percent in its latest fiscal year while Target's gross margin was 28.3 percent. It seems reasonable to believe that Costco members are paying at least 15 percent less for merchandise compared to Wal-Mart and Target customers. If that's the case, it would only take about $400 of purchases at Costco to offset the cost of the $60 membership fee.

> *"We have raised the membership fee about every five years. We've taken the attitude that those dollars are fungible. They really lower the prices. We use all the membership fees we charge to keep lower prices on the shelf. We think that helps us control pricing and bring better value to the consumer, and that's what we do."*
>
> *– Jim Singegal [21]*

If we take Costco's fiscal 2022 net sales of $222.7 billion and divide by 65.8 million paying members, we arrive at an average of $3,384 in spending per member. Additional precision is unnecessary to conclude a typical Costco member is enjoying a compelling value proposition in exchange for the membership fee.

[20] "By strictly controlling the entrances and exits and using a membership format, we believe our inventory losses (shrinkage) are well below those of typical retail operations.", Costco's FY2022 10-K, p. 4.
[21] Complete Q&A with Costco founder, CEO Jim Sinegal by Melissa Allison, November 15, 2009 (Seattle Times)

A common misconception is that Costco relies on membership fees for the bulk of its profits while selling merchandise close to cost. In reality, management has long viewed membership dues revenue and merchandise sales in conjunction with membership dues allowing management to lower prices. In *Sol Price: Retail Revolutionary and Social Innovator,* Robert Price discussed how his father included membership fees in his calculation of merchandise gross margin.[22] This example taken directly from the book is instructive:

Example 1	**Example 2**
No membership fee	$25 membership fee. Average member spends $1,000/year
Product cost from supplier: $10.00	Product cost from supplier: $10.00
Product selling price: $11.12	Product selling price: $10.86
Margin: ~ 10.5%	Margin: 8% markup plus 2.5% of membership fee = ~ 10.5%

The example is outdated but the principle still applies today. In fiscal 2023, Costco collected $4,224 million in membership fees and had 65.8 million members which equals $64.19 in fees for each paying member. Net sales per paying member was $3,385 per year, so dues as a percentage of net sales is approximately 1.9 percent, quite similar to the economics in the table. Management does not consider membership fees in isolation as the bulk of the company's profits, but as part of an overall strategy to reduce gross margin as much as possible.

Shopping Frequency

In any situation where a flat fee is paid on a periodic basis in exchange for important benefits, there is an incentive to achieve a certain amount of leverage from the fee. For example, if you visit an all-you-can eat buffet, the incentive is to go when you are particularly hungry, so the flat cost of the buffet purchases the most caloric volume of food. When I purchase an annual pass for a national park, I tend to visit the park more frequently than I otherwise would because doing so reduces the per-visit cost of the pass.

The membership warehouse dues concept is not exactly the same as an all-you-can-eat buffet because the member is paying for the privilege of spending *more money* at the warehouse which includes a marginal cost to the consumer, albeit at prices that are usually lower than other alternatives. From the perspective of the business, the member's motivation to spend more money at the warehouse is a good thing because each incremental sale has a positive gross margin and drives forward scale economics and profitability.

The desire to get the most out of a membership is only one feature of Costco that drives frequent visits. One of Sol Price's early innovations at FedMart was the introduction of pharmacies. The very nature of the pharmacy business model encourages repeat visits because prescription drugs are often needed on a recurring basis. Costco's pharmacies are not restricted to members due to government regulations and the prices are among the lowest in the industry.[23] For the sake of efficiency, prescription customers are quite likely to shop for other merchandise while at Costco which would drive new memberships as well as increased volume of merchandise

[22] Sol Price: Retail Revolutionary and Social Innovator by Robert Price, page 122.
[23] Comparison of Spending on Common Generic Drugs by Medicare vs. Costco Members by Erin Trish, Laura Gascue, and Rocio Ribero, July 6, 2021, (Journal of the American Medical Association)

sales. A similar dynamic exists with the food court. Costco's $1.50 hot dog combo meal and low prices on other items, such as a slice of pizza for $1.99, makes the food court a very cheap place to feed a hungry family. It makes sense to combine eating at the food court with shopping for merchandise. The fact that some food courts do not check membership status means that new membership sales could also be driven by food court sales.[24]

The other major driver of high shopping frequency is the concept of a "treasure hunt" atmosphere. Costco uses its massive buying power to opportunistically purchase inventory of special products at deep discounts. Such products are often branded goods in high demand by members. On my recent visit to Costco in mid-October, the area immediately after the warehouse entrance was stocked with high quality winter clothing such as gloves, insulated pants, and other outerwear at very low prices.

In *Influence, The Psychology of Persuasion*, Robert Cialdini describes scarcity, or the perception of scarcity, as one of the most important factors that can drive consumer behavior.[25] Costco has embraced this strategy, as we can see from this statement on the company's website:

> *"One of the most exciting things about shopping in our warehouses is you never know the kind of incredible deals you'll find from one visit to the next! Costco members know the trick to getting the best value on exclusive or one-time-buy merchandise: Visit often! And, because we rotate out and introduce new merchandise all the time, we encourage you to purchase items that interest you sooner rather than later to avoid missing out."* [26]

The fear of missing out drives members to visit more frequently and also encourages impulse buys. It can take more time to shop at Costco compared to a neighborhood store, but if there is the possibility of finding a great value, that could tilt the decision in favor of making the trip. Granted, only certain types of customers are prone to making impulse purchases, but a scarcity mindset can apply even to those not normally inclined to do so.

Gasoline is offered at nearly 80 percent of Costco locations. Many members sign up primarily for savings on gasoline.[27] If a member is already at a Costco location in order to buy gas, it would make sense to go into the warehouse to purchase merchandise as well. Obviously, gasoline is a recurring purchase for most members in suburban locations. Contrary to popular belief, gasoline is *not* a loss leader for Costco. Gross margins for gasoline are not disclosed, although management does tell us that the margin on gasoline is lower than overall gross margin. This is likely done with the hope that gasoline customers will shop in the warehouse as well.

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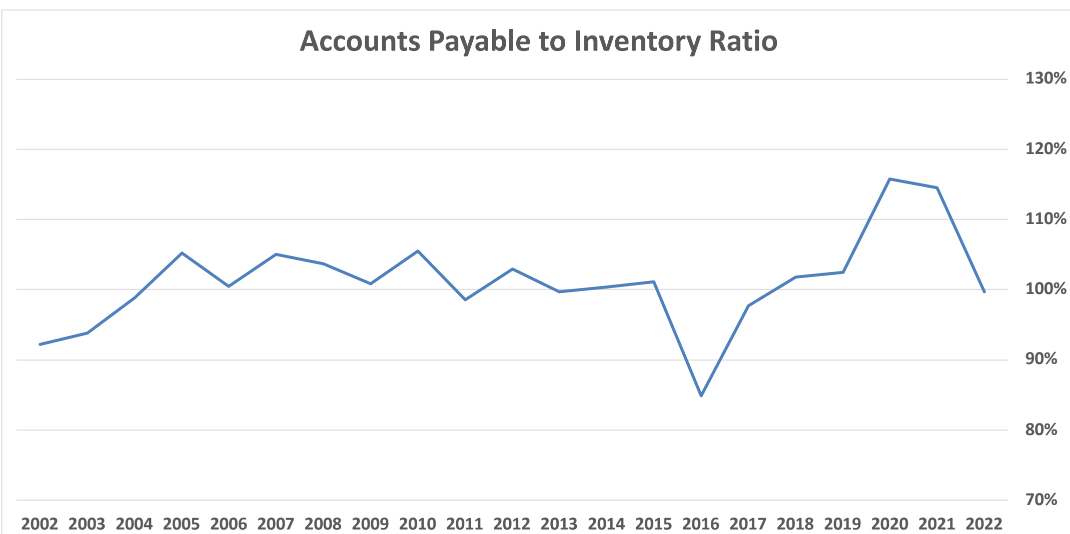
[24] There appears to be no published policy on whether membership is required to eat at the food court. On my recent visit to Costco, I purchased a membership and then went to the food court. My membership was not verified at the self-ordering kiosk or by the person serving the food. Discussions on Twitter seem to indicate that some locations are more liberal than others when it comes to checking membership.
[25] Influence: The Psychology of Persuasion by Robert B. Cialdini, Chapter 6.
[26] Why does Costco have a treasure hunt atmosphere?, retrieved from Costco's website on October 21, 2022.
[27] For example, on October 21, 2022, regular gasoline at Costco's Fairfax, Virginia location was $3.359/gallon. The Sunoco station across the street was at $3.699/gallon while the lowest retail price in Fairfax was $3.499/gallon at an Exxon. The BJ's wholesale club in Fairfax also offered gasoline for $3.359/gallon. Source: GasBuddy.com

Inventory Management

Costco's inventory turns over roughly every month. For comparative purposes, Wal-Mart turned over inventory 8.5 times and Target turned over inventory 6.1 times during their latest fiscal years.[28] The chart below shows that Costco's inventory turnover varies slightly from year to year but averages close to 12 over the long run:

Costco's rapid inventory turnover has very important implications for working capital requirements. Holding less inventory relative to sales volume means that Costco needs less working capital to support the business. Even more importantly, Costco's payment terms with suppliers and rapid inventory turnover combines to result in the company selling merchandise before suppliers must be paid.



[28] Inventory turnover is calculated by dividing cost of goods sold for a fiscal year by the average of the inventory balance at the start and end of the year. Inventory turnover figures are derived from the latest 10-K report for each company. Costco's fiscal 2022 ended on 8/28/22. Target's fiscal 2021 ended on 1/29/22. Wal-Mart's fiscal 2021 ended on 1/31/22.

The potential for suppliers to finance a membership warehouse club's inventory was noticed immediately by Sol Price when he founded Price Club in 1976. At FedMart, the ratio of accounts payable to suppliers to inventory was roughly 60 percent. Shortly after Price Club opened, the payable-to-inventory ratio was 90 percent. By 1981, Price Club's payable-to-inventory ratio had shot up to 120 percent.[29] As we can see from the chart on the preceding page, Costco typically has a payable-to-inventory ratio of slightly over 100 percent. Suppliers rather than shareholders effectively finance a large portion of Costco's working capital requirements.

Costco carries approximately 4,000 SKUs and stores all of its inventory within the warehouses which directly function as selling space to customers. Bulk packaging makes inventory easier to handle which reduces the amount of labor required to keep the warehouse stocked. Trucks deliver merchandise to Costco's loading docks and merchandise is transported directly from the dock to the selling location. To better understand these efficiencies, it is helpful to walk around a warehouse and observe how employees are handling inventory.

Richard Galanti, Costco's chief financial officer, estimates that inventory shrinkage amounts to only 0.11 percent to 0.12 percent of sales. This compares favorably to the industry average of 1.33 percent of sales.[30] Having an advantage in excess of one percent of sales is enormous in the context the low margins in retailing and this translates directly to lower prices for members. The fact that warehouses are restricted to members coupled with large package sizes makes shoplifting difficult. Receipts are also checked at the exit adding another touch point which increases the risk of detection. Employees are paid well which makes insider theft less common.

Scale Economics

In the United States, Costco is the second largest bricks-and-mortar retailer behind Wal-Mart. Costco had revenue of over $165 billion in its United States segment in fiscal 2022 with the vast majority channeled through its 578 domestic warehouses.[31] The company has a similarly dominant position in Canada and has been rapidly expanding into other international locations in recent years. In fiscal 2022, gasoline accounted for 14 percent of total net sales through a network of 668 fuel stations.

The scale economics of funneling such a large volume of merchandise through a relatively small number of warehouses cannot be overstated. In contrast to retailers with thousands of selling locations and numerous distribution centers, Costco has a much simpler logistical network. The logistics advantage is accentuated by the limited number of SKUs that are offered. It is easy to see how the complexity of managing 4,000 SKUs in network of 578 domestic warehouses is orders of magnitude less complex than handling 140,000 SKUs through a network of dozens of distribution centers and thousands of retail stores.[32]

From the supplier's standpoint, Costco represents a customer that accounts for a very large portion of their sales. This might seem like a disadvantage, but in exchange for providing merchandise on favorable terms, suppliers gain greater visibility into demand, especially for seasonal products. When Costco negotiates with

[29] Sol Price: Retail Revolutionary and Social Innovator by Robert Price, page 142.
[30] Costco Beats Retail Rivals When it Comes to Shoplifting by Áine Cain, May 29, 2019. (Business Insider)
[31] E-Commerce sales have been increasing in recent years but still only accounted for 7 percent of sales in fiscal 2022.
[32] In a 2019 interview, Jim Sinegal said that a typical Costco carries 3,700-4,000 SKUs while Wal-Mart carries 140,000 SKUs.

suppliers for products, such as toys, for the holiday season, they focus on a limited number of products that are expected to have the greatest demand. A supplier might receive a purchase order from Costco that represents 30 to 50 percent of sales which is extremely important for production planning purposes. Costco usually provides more flexible terms to suppliers in terms of receipt of inventory in contrast with competitors who might fine suppliers for missing a delivery window. In general, Costco uses its scale to obtain advantageous pricing for members while also offering a compelling proposition as a very large buyer for suppliers.[33]

Costco's Kirkland Signature private label brand is another example of the power of scale. The concept of a private-label brand dates all the way back to Sol Price and FedMart, but before the 1980s, private labels had a difficult time competing with branded consumer products. However, as branded consumer product companies began to increase prices at a more rapid clip, the opportunity for private label brands increased.

In a 2019 interview, Jim Sinegal spoke at length about how Costco took advantage of rapid inflation in branded consumer products by creating the Kirkland private label in 1995.[34] Mr. Sinegal spoke about how he insisted on providing the best value for top quality merchandise that is as good or better than the leading national brand. The goal is for customers to save at least 15 to 20 percent off what the national brand sells for at Costco. Rather than creating a separate private label for different categories of merchandise, Costco opted to use the Kirkland brand across categories. The Kirkland and branded products are usually displayed side-by-side in the warehouse, allowing customers to make quick comparisons. In a consumer-friendly move, Costco usually displays the cost per unit of merchandise (such as cost per pound) to allow easy comparisons across package sizes.

Costco's massive scale is the primary reason that the company is able to negotiate advantageous pricing for the Kirkland private label. It is an open secret that the manufacturer of many Kirkland products is also the manufacturer for the equivalent branded product. While it took a long time to establish Kirkland, the effort has paid significant dividends. Many customers have come to view Kirkland Signature *itself* as a branded product.

Low Operating Costs

Costco's value proposition for members is primarily due to the company's ability to purchase merchandise at a very low cost due to economies of scale and management's strategy of limiting markups and accepting extremely low gross margins. However, what makes Costco viable as a for-profit business is its ability to deliver returns to shareholders. Without the ability to keep tight control over operating costs, Costco would have to choose between offering a less compelling value proposition to members by marking up merchandise more aggressively or accepting subpar profitability.

There are many factors that contribute to Costco's ability to keep operating costs very low as a percentage of sales. The scale economics that have already been discussed in detail are the foundation that makes low operating costs possible. In addition, the company does not spend much on advertising.

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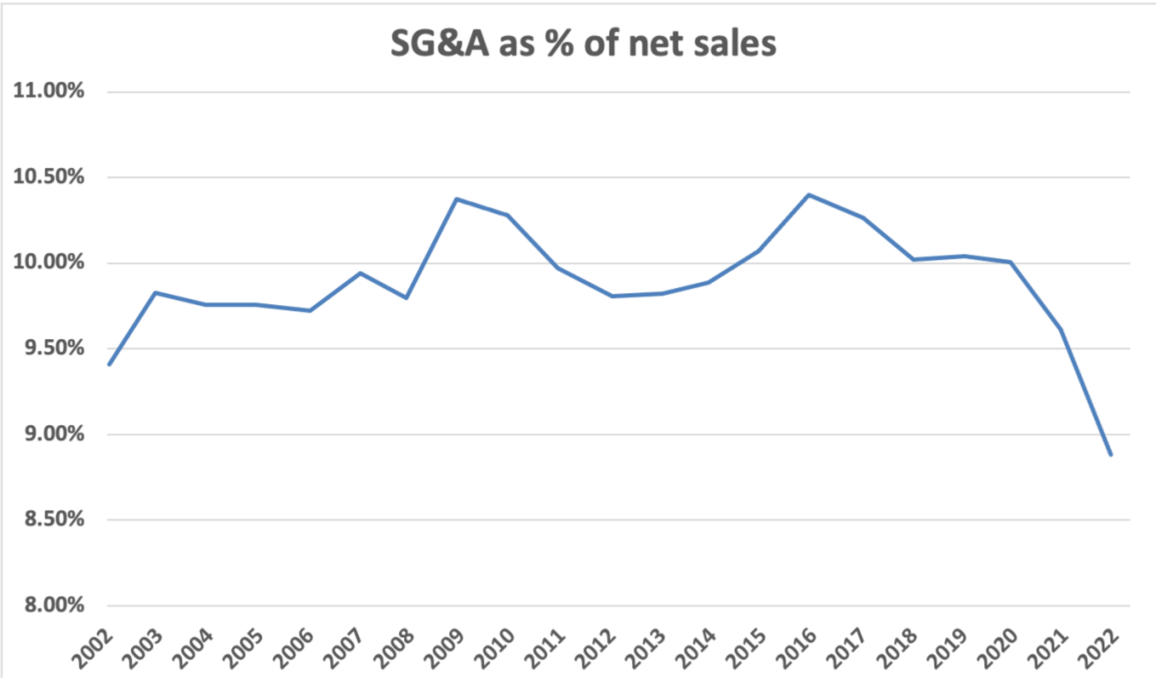
[33] I found the discussion between Patrick O'Shaughnessy, Zach Fuss, and Chris Bloomstran on the April 14, 2021 episode of the Business Breakdowns podcast helpful in general, and specifically helpful with respect to the supplier value proposition.
[34] Costco Wholesale Corporation Co-Founder and Former CEO Jim Sinegal, December 9, 2019 (Georgetown McDonough)

Selling, general and administrative (SG&A) costs as a percentage of net sales is typically in the neighborhood of 10 percent, but this figure can vary depending on sales mix. In years such as fiscal 2022 where gasoline represents an unusually high percentage of sales, SG&A as a percentage of sales will be lower.[35]

The following exhibit displays SG&A costs as a percentage of net sales over the past two decades:



How is management able to keep SG&A costs in check given the company's reputation for offering higher than average wages and benefits to employees? Yet again, we need to go back to Sol Price's business philosophy to understand Costco's approach to employee relations. Mr. Price believed in paying higher than average wages and generous benefits in exchange for hard work. This is in sharp contrast with many leading retailers that tend to pay low wages and limit benefits. Costco's management believes that higher labor costs are more than offset by better productivity that is driven by a high level of employee loyalty.

> *"We don't want to turn our people. We want to turn our inventory."*
>
> *– Jim Sinegal [36]*

Costco has a long-standing policy of promoting employees from within the company and offering not just a job but a career path. Jim Sinegal has estimated that employee turnover is typically around 5 percent for employees who have been on the job for at least a year. This compares extremely favorably with the 60 percent turnover

[35] Costco's fiscal 2022 10-K, p. 22-23.
[36] Costco Wholesale Corporation Co-Founder and Former CEO Jim Sinegal, December 9, 2019 (Georgetown McDonough)

that is typical in the retail industry.[37] Approximately 95 percent of Costco's 304,000 employees are employed in the company's warehouses and only 10 percent are represented by unions.

Although Sol Price and Jim Sinegal both believed in the moral duty to provide well-paying jobs and a career path, Costco's policy toward employees is fully aligned with creating long term shareholder value as well. Happy employees who stay with the company for years or decades are more likely to work hard, and productivity is enhanced when average tenure is high. Inventory shrinkage is lower when employees are not disgruntled.

Other aspects of Costco's low operating cost model involve the inherent advantages of scale that have already been discussed at some length, as well as the overall corporate ethos. Jim Sinegal has said that culture is not just the most important thing at Costco, but that it is the *only thing* that matters in the long run. Costco's CEO, Craig Jelinek, has been with the company almost since its founding and twelve of the company's thirteen top executive officers have been with Costco for over 25 years.[38]

In the course of reviewing Costco's business model, we have encountered a few of the financial metrics that are important when it comes to analyzing the business. Now it is time to turn our attention to a detailed review of the company's recent financial results so we can better understand what drives returns to shareholders.

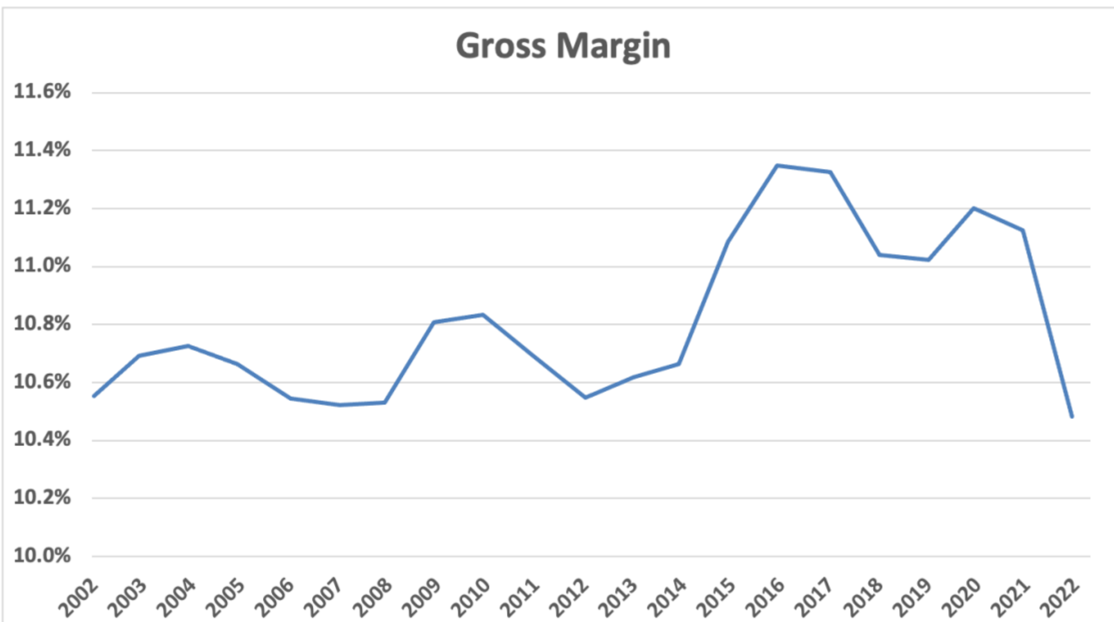
[37] Ibid.
[38] Costco's fiscal 2022 10-K, p. 8.

Operating History

The previous section focused mainly on describing the qualitative aspects of Costco's business model and operating philosophy. We now turn our attention to important quantitative metrics needed to evaluate how the business model has translated into financial results. Readers may find it useful to consult the balance sheet, income statement, and cash flow statement information presented at the end of this report in conjunction with reviewing the information presented in this section.

Gross Margin

Previous sections discussed management's strategy of operating on a very low gross margin relative to competitors. The combination of Costco's ability to negotiate low prices with suppliers and low gross margin drives the majority of Costco's value proposition for members. Although gross margin in the chart below appears to vary quite a bit from year to year, note that the y-axis represents a relatively narrow range.



The year-to-year variation in gross margin is most sensitive to shifts in sales mix, particularly with respect to gasoline. Costco does not price gasoline below cost as a "loss leader" but does accept lower gross margins on gasoline than on other products. In years when gasoline prices are higher than average, more of Costco's sales mix will be tilted toward gasoline assuming relatively constant volume.

Much of the variation in gross margin over the past few years is related to gasoline. In fiscal 2019, gasoline accounted for 11 percent of net sales. This dropped to 9 percent in fiscal 2020 and 2021 before rising to 14 percent in fiscal 2022. We can see how gross margin increased between fiscal 2019 and fiscal 2020 and then dropped significantly in fiscal 2022. Although a greater proportion of gasoline sales lowers gross margin, SG&A costs are lower for gasoline than for other product lines so this acts to dampen the effect on operating income. We can see this effect in the chart showing SG&A costs presented on page 20.

Regional Analysis

Costco's financial results are segmented by region. In fiscal 2022, the United States accounted for 73 percent of sales and 68 percent of operating income. Canadian operations contributed 14 percent of sales and 17 percent of operating income while all other international operations were responsible for 13 percent of sales and 15 percent of operating income. The following exhibit shows revenue by region over the past decade:

	Fiscal Years Ending On									
Figures in millions except per share amounts	**8/28/22**	**8/29/21**	**8/30/20**	**9/1/19**	**9/2/18**	**9/3/17**	**8/28/16**	**8/30/15**	**8/31/14**	**9/1/13**
Revenue by Region: *(millions)*										
United States	165,294	141,398	122,142	111,751	102,286	93,889	86,579	84,351	80,477	75,493
Canada	31,675	27,298	22,434	21,366	20,689	18,775	17,028	17,341	17,943	17,179
Other International	29,985	27,233	22,185	19,586	18,601	16,361	15,112	14,507	14,220	12,484
Total	**226,954**	**195,929**	**166,761**	**152,703**	**141,576**	**129,025**	**118,719**	**116,199**	**112,640**	**105,156**
Operating Income by Region *(millions)*										
United States	5,268	4,262	3,633	3,063	2,787	2,644	2,326	2,308	1,880	1,810
Canada	1,346	1,176	860	924	939	841	778	771	796	756
Other International	1,179	1,270	942	750	754	626	568	545	544	487
Total	**7,793**	**6,708**	**5,435**	**4,737**	**4,480**	**4,111**	**3,672**	**3,624**	**3,220**	**3,053**
Operating Margin by Region										
United States	3.19%	3.01%	2.97%	2.74%	2.72%	2.82%	2.69%	2.74%	2.34%	2.40%
Canada	4.25%	4.31%	3.83%	4.32%	4.54%	4.48%	4.57%	4.45%	4.44%	4.40%
Other International	3.93%	4.66%	4.25%	3.83%	4.05%	3.83%	3.76%	3.76%	3.83%	3.90%
Total Company	**3.43%**	**3.42%**	**3.26%**	**3.10%**	**3.16%**	**3.19%**	**3.09%**	**3.12%**	**2.86%**	**2.90%**

Source: Costco's Annual Reports and 10-K Filings

Costco's operating model is similar across all regional segments, but margins differ significantly. International operations typically have lower wage and benefit costs as a percentage of sales. International locations also typically face less intense competition with many locations not having any direct competition with other membership warehouses. In contrast, the United States has intense retail competition, both with other warehouses such as Sam's Club and BJ's Wholesale as well as with other big-box stores.

An executive with over thirty years of experience at Costco believes that higher levels of customer traffic in certain international locations has an impact on lifting international operating margin:

> *"To get to why do they make more margin, if you were to see foot traffic in some nations, other than America, you would see that the income or the membership is significantly higher in some nations because the populous and the sheer volume of foot traffic going through those buildings is a multiple of what you see in the US nation. That enhances margin. It goes straight to the bottom line."* [39]

Costco does not have a "corporate" segment where the costs of running the overall firm are separated from regional segments. Prior to fiscal 2022, stock-based compensation was not allocated to international segments and was carried in the U.S. segment. This had the effect of depressing U.S. operating income relative to international segments. In fiscal 2022, management started allocating stock based compensation to segments

[39] Costco's International Growth Opportunity: Former Senior Manager at Costco, October 8, 2022 (In Practise)

and restated operating income for fiscal 2020 and 2021. However, the data presented in the exhibit above remains as originally reported in order to provide better continuity for the ten year period.[40]

Comparable Sales Growth

The exhibit below provides data on changes in sales starting with the raw unadjusted change in net sales by region. This is followed by changes in comparable warehouse sales which management defines as sales from warehouses open for more than one year. Increases in comparable sales excluding changes in foreign exchange and gasoline prices provides a gauge of the underlying health of each region's business after stripping out the volatility that often exists in currency exchange rates and fuel prices.

	Fiscal Years Ending On									
Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13
Increases in net sales:										
United States	17%	16%	9%	9%	9%	8%	3%	5%	7%	5%
Canada	16%	22%	5%	3%	10%	10%	-2%	-3%	4%	9%
Other International	10%	23%	13%	5%	14%	8%	4%	2%	14%	7%
Total Company	**16%**	**17%**	**9%**	**8%**	**10%**	**9%**	**2%**	**3%**	**7%**	**6%**
Increases in comparable sales:										
United States	16%	15%	8%	8%	9%	4%	1%	3%	5%	6%
Canada	15%	20%	5%	2%	9%	5%	-3%	-5%	2%	9%
Other International	7%	19%	9%	2%	11%	2%	-3%	-3%	3%	1%
Total Company	**14%**	**16%**	**8%**	**6%**	**9%**	**4%**	**0%**	**1%**	**4%**	**6%**
Increases in comparable sales excl Δ forex and gas prices										
United States	10%	14%	9%	6%	7%	4%	3%	6%	5%	6%
Canada	12%	12%	7%	5%	4%	4%	8%	8%	9%	9%
Other International	10%	13%	11%	6%	7%	4%	4%	6%	4%	2%
Total Company	**11%**	**13%**	**9%**	**6%**	**7%**	**4%**	**4%**	**7%**	**6%**	**6%**

Source: Costco's Annual Reports and 10-K Filings

Growth in sales, excluding the impact of foreign exchange and fuel, can be driven by a higher physical volume of merchandise or due to inflation. It appears that Costco has achieved real growth in comparable sales over long periods of time given that the final set of figures are higher than inflation rates. As the world has experienced higher rates of inflation over the past two years, we can see how Costco's sales have grown commensurately. It is plausible to believe that Costco's value proposition might actually *benefit* from inflation to a certain extent as customers who are experiencing flat or declining wages attempt to obtain more value for their money.

Product Category Analysis

Food and Sundries represents the largest category accounting for 38 percent of sales in fiscal 2022. This includes dry grocery items, candy, cooler, freezer, deli, alcoholic beverages, and tobacco products. Fresh Foods, including the meat, produce, bakery, and deli departments, represented 13 percent of sales. Non-Foods, accounting for 27 percent of sales, includes products such as appliances, hardware, garden, patio, sporting goods, tires, apparel, furniture, and jewelry. Ancillary products, primarily gasoline, represented 21 percent of sales.

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[40] Restated operating income for fiscal 2021 is as follows: United States: $4,470 million, Canada: $1,093 million, Other International: $1,145 million. Fiscal 2020 restated operating income: United States: $3,822 million, Canada: $778 million, Other International: $835 million. Source: Fiscal 2022 10-K, page 63.

As we can see from the exhibit below, year-to-year variability in sales by product category is primarily due to ancillary products which is dominated by gasoline sales at 14 percent of total sales for fiscal 2022.

	Fiscal Years Ending On									
Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13
NET SALES BY PRODUCT CATEGORY										
Fresh Food	13%	14%	14%	13%	14%	14%	14%	14%	13%	13%
Food	38%	40%	42%	40%	41%	21%	22%	22%	22%	21%
Sundries						20%	21%	21%	21%	22%
Hardlines	27%	29%	17%	16%	16%	16%	16%	16%	16%	16%
Softlines			10%	11%	11%	12%	12%	11%	11%	11%
Ancillary and other (includes gasoline sales)	21%	16%	16%	19%	18%	17%	15%	16%	17%	17%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Costco's Annual Reports and 10-K Filings

After fiscal 2015, management stopped reporting the number of ancillary businesses except for gas stations. The exhibit below shows the penetration of ancillary businesses through fiscal 2015:

	Fiscal Years Ending On											
Figures in millions except per share amounts	8/30/15	8/31/14	9/1/13	9/2/12	8/28/11	8/29/10	8/30/09	8/31/08	9/2/07	9/3/06	8/25/05	8/29/04
Total Number of Warehouses	**686**	**663**	**634**	**608**	**592**	**540**	**527**	**512**	**488**	**458**	**433**	**417**
ANCILLARY BUSINESS TYPES AS % OF TOTAL WAREHOUSES	*The company stopped providing counts of ancillary businesses after FY 2015.*											
Food Courts	99.1%	99.1%	99.1%	99.0%	99.0%	98.9%	98.9%	98.8%	98.8%	98.7%	98.6%	98.8%
Optical Dispensing Centers	96.5%	96.7%	96.8%	96.9%	97.0%	96.9%	96.6%	96.9%	96.7%	96.5%	95.6%	95.2%
Photo Processing Centers	95.6%	97.9%	98.1%	97.2%	98.1%	98.1%	98.3%	98.4%	98.4%	98.3%	97.7%	97.8%
Pharmacies	88.3%	88.8%	89.1%	89.5%	89.4%	88.9%	88.0%	88.1%	87.9%	87.6%	86.4%	86.1%
Hearing-Aid Centers	84.7%	82.8%	79.2%	77.1%	72.1%	66.1%	57.5%	53.5%	48.6%	42.8%	38.8%	34.3%
Gas Stations	68.8%	67.1%	65.3%	64.8%	62.2%	63.5%	61.3%	60.0%	57.2%	54.6%	52.0%	50.6%
Print Shops and Copy Centers				1.6%	1.7%	1.9%	1.9%	1.4%	1.6%	2.0%	2.3%	2.4%
Car Washes				1.2%	1.2%	1.3%	0.4%	0.4%	0.2%	0.0%	0.0%	0.0%

Source: Costco's Annual Reports and 10-K Filings

At the end of fiscal 2022, there were 668 gasoline stations in operation, representing almost 80 percent of total warehouse locations. The volume of gasoline sold at Costco is very significant, as we can see below:

	Fiscal Years Ending On			
Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19
GAS STATIONS				
Number of stations	**668**	**636**	**615**	**593**
Gasoline sales as % of total net sales	14%	9%	9%	11%
Estimated gasoline sales (millions)	31,182	17,285	14,690	16,429
Gasoline sales per station (millions)	47	27	24	28

Source: Costco's Annual Reports and 10-K Filings

Management has provided gasoline sales as a percentage of sales over the past four years which allows us to come up with a ballpark number for total gasoline sales which I've estimated at $31.2 billion for fiscal 2022. If we divide this figure by the number of stations in operation, it appears that Costco gas stations average about $47 million in revenue per year which would be nearly 12 million gallons of fuel per year, or 33,000 gallons per day if we assume an average cost of $4/gallon. This is obviously a tremendous amount of volume per station.[41]

[41] Costco's Cheap Gas Prices Are a Big Hit by Andrew Bary, June 12, 2022. In this article, Costco CFO Richard Galanti estimated that Costco could sell $30 billion of gasoline in fiscal 2022, with $25 billion in the United States. He also stated that approximately 90 percent of U.S warehouses sell gasoline, above the ~80 percent figure for all warehouses.

Warehouse Analysis

Costco's success has been driven by optimizing the efficiency the business model at the individual warehouse level and then replicating this success through expansion in the United States and internationally. At the end of fiscal 2002, the company had a total of 374 warehouses with 78 percent located within the United States. Twenty years later, there were 838 warehouses with 69 percent located within the United States. Management tends to be conservative and the expansion of the warehouse concept within the United States represents the more certain path to growth. However, as we have seen, international expansion is very attractive because operating margins tend to be higher. The following exhibit illustrates warehouse growth over the past decade:

	Fiscal Years Ending On									
Figures in millions except per share amounts	**8/28/22**	**8/29/21**	**8/30/20**	**9/1/19**	**9/2/18**	**9/3/17**	**8/28/16**	**8/30/15**	**8/31/14**	**9/1/13**
WAREHOUSES AT FISCAL YEAR-END										
United States and Puerto Rico	578	564	552	543	527	514	501	480	468	451
Canada	107	105	101	100	100	97	91	89	88	85
Mexico	40	39	39	39	39	37	36	36	33	33
Japan	31	30	27	26	26	26	25	23	20	18
United Kingdom	29	29	29	29	28	28	28	27	26	25
Korea	17	16	16	16	15	13	12	12	11	9
Taiwan	14	14	13	13	13	13	12	11	10	10
Australia	13	12	12	11	10	9	8	7	6	3
Spain	4	3	3	2	2	2	2	1	1	-
France	2	1	1	1	1	1	-	-	-	-
China	2	1	1	1	-	-	-	-	-	-
Iceland	1	1	1	1	1	1	-	-	-	-
Total	**838**	**815**	**795**	**782**	**762**	**741**	**715**	**686**	**663**	**634**
% increase in store count	*2.8%*	*2.5%*	*1.7%*	*2.6%*	*2.8%*	*3.6%*	*4.2%*	*3.5%*	*4.6%*	*4.3%*
Compound average increase in store count - Past ten years	*3.3%*	*3.2%*	*3.9%*	*4.0%*	*4.1%*	*4.3%*	*4.6%*	*4.7%*	*4.7%*	*4.8%*

Source: Costco's Annual Reports and 10-K Filings

We can see that the growth rate of warehouse counts has declined over the past decade, but the company has entered a number of new international markets.[42] We can see incremental growth in the international markets in which Costco has long been present. The fact that there are very few locations in continental Europe and China could indicate significant growth potential. In September 2022, Costco opened its first location in New Zealand. The Auckland warehouse is likely to be followed by warehouses in Christchurch and Wellington.[43] This seems like a logical new market to enter given management's long history in Australia.

As we would expect, total warehouse square footage has increased along with the number of warehouses in operation. The exhibit on the next page shows total square feet per warehouse by region. The average warehouse has slightly over 146,000 square feet and this figure has been trending upward slowly over the years. Would it make sense for management to expand warehouses even further, perhaps to 200,000 square feet? Wal-Mart Supercenters average 178,000 square feet, with the largest Supercenter coming in at an immense 260,000 square feet, so there is potential room for a larger format.[44]

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[42] Peter Testa provides an interesting narrative of Costco's geographic growth in Decoding the Formation of a Retail Giant: The Evolving Geography of Costco's Store Network, an academic thesis dated December 2015. (University of North Texas)
[43] Wellington and Christchurch are next in line for a Costco, followed by another in Auckland, but where else? By Rob Stock, September 29, 2022. (Stuff)
[44] Wal-Mart's fiscal 2022 10-K, page 7.

Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13
	Fiscal Years Ending On									
WAREHOUSE SQUARE FEET (millions)										
United States	85.4	83.2	81.4	79.9	77.5	75.4	73.3	69.9	68.1	65.5
Canada	15.2	14.9	14.3	14.0	13.9	13.5	12.6	12.3	12.1	11.7
Other International	21.9	20.8	20.4	20.0	19.3	18.4	17.3	16.5	15.1	13.6
Total	**122.5**	**118.9**	**116.1**	**113.9**	**110.7**	**107.3**	**103.2**	**98.7**	**95.3**	**90.8**
% increase in warehouse square footage	*3.0%*	*2.4%*	*1.9%*	*2.9%*	*3.2%*	*4.0%*	*4.6%*	*3.6%*	*5.0%*	*4.5%*
Compound average increase in warehouse sf - Past ten years	*3.5%*	*3.5%*	*4.2%*	*4.2%*	*4.3%*	*4.6%*	*4.9%*	*5.3%*		
SQUARE FEET PER STORE (average)										
United States	147,751	147,518	147,464	147,145	147,059	146,693	146,307	145,625	145,513	145,233
Canada	142,056	141,905	141,584	140,000	139,000	139,175	138,462	138,202	137,500	137,647
Other International	143,137	142,466	143,662	143,885	142,963	141,538	140,650	141,026	141,121	138,776
Average for all stores	**146,181**	**145,890**	**146,038**	**145,652**	**145,276**	**144,804**	**144,336**	**143,878**	**143,741**	**143,218**

Source: Costco's Annual Reports and 10-K Filings

Although Costco might benefit from further growth in square footage per warehouse, we should be more focused on the productivity of warehouses. The exhibit below shows revenue per warehouse by region along with revenue per square foot by region. We can see dramatic growth in productive use of space in recent years:

Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13
	Fiscal Years Ending On									
REVENUE PER WAREHOUSE BY REGION (millions)										
United States	289	253	223	209	197	185	177	178	175	170
Canada	299	265	223	214	210	200	189	196	207	206
Other International	201	189	158	143	140	129	126	130	139	135
All Regions	**275**	**243**	**211**	**198**	**188**	**177**	**169**	**172**	**174**	**169**
Note: Above data includes all revenue, not just net sales, because regional data are not broken down by net sales and membership fees. Since membership fees are a small percentage of total revenue, the difference is not analytically meaningful. The figures are calculated by taking total revenue for each region divided by the average of the number of warehouses at the end of the current and previous fiscal year.										
REVENUE PER SQUARE FOOT BY REGION										
United States	1,961	1,718	1,514	1,420	1,338	1,263	1,209	1,222	1,205	1,169
Canada	2,105	1,870	1,585	1,532	1,510	1,439	1,368	1,421	1,508	1,500
Other International	1,404	1,322	1,098	997	987	917	894	918	991	975
All Regions	**1,880**	**1,667**	**1,450**	**1,360**	**1,299**	**1,226**	**1,176**	**1,198**	**1,211**	**1,184**

Source: Costco's Annual Reports and 10-K Filings

It takes several years for new warehouses to approach the productivity of well-established locations. For this reason, opening a large number of new locations will tend to suppress the aggregate statistics shown above. To assist investors in better understanding the economics of opening new locations, management discloses average sales per warehouse for each year's cohort.

Average Sales Per Warehouse*
(Sales In Millions)

Year Opened	# of Whses	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2022	**23**										$ 150
2021	**20**									$ 140	158
2020	**13**								$ 132	152	184
2019	**20**							$ 129	138	172	208
2018	**21**						$ 116	119	141	172	202
2017	**26**					$ 121	142	158	176	206	237
2016	**29**				$ 87	97	118	131	145	173	204
2015	**23**			$ 83	85	94	112	122	136	163	189
2014	**30**		$ 108	109	115	125	140	144	155	182	208
2013 & Before	**633**	$ 160	167	168	167	173	186	193	203	230	261
Totals	**838**	160	164	162	159	163	176	182	192	217	245

Fiscal Year

*First year sales annualized.
2017 was a 53-week fiscal year but it has been normalized for purposes of comparability

Source: Costco's 2022 10-K

To better understand the data, I have adapted the data provided by the company to show the average sales per warehouse of each year's cohort as a percentage of all warehouses. This allows us to see how new warehouses grow their productivity over time to eventually approach the company-wide average:

Year Opened	# Warehouses	Sales as Percentage of Average of all Warehouses									
2022	**23**										61%
2021	**20**									65%	64%
2020	**13**								69%	70%	75%
2019	**20**							71%	72%	79%	85%
2018	**21**						66%	65%	73%	79%	82%
2017	**26**					74%	81%	87%	92%	95%	97%
2016	**29**				55%	60%	67%	72%	76%	80%	83%
2015	**23**			51%	53%	58%	64%	67%	71%	75%	118%
2014	**30**		66%	67%	72%	77%	80%	79%	81%	84%	85%
2013 & Before	**633**	100%	102%	104%	105%	106%	106%	106%	106%	106%	107%
Totals	**838**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**

Source: Costco's 2022 10-K, Author's calculations

For example, take a look at the row representing the 26 warehouses that opened in fiscal 2017. We can see that in their first year of operations, these warehouses posted only 74 percent of the sales volume of all warehouses. This increased to 81 percent in 2018, 87 percent in 2019, 92 percent in 2020, 95 percent in 2021, and 97 percent in 2022, getting very close to the productivity of all locations. While the figures vary based on each year's cohort, likely due to the regional mix of openings, we can see a clear pattern.

If management wanted to optimize purely for growth in average sales per warehouse, the way to do that would be to stop expanding and to focus exclusively on driving sales gains at long-established locations. However, a key aspect of Costco's growth strategy is to replicate the successful business model at new locations. Doing so entails not only an initial capital investment but the reality that these new locations will depress company-wide sales efficiency until the new locations mature. As long as management is successful in identifying good locations for expansion, waiting five to ten years for a new warehouse to fully mature seems worthwhile.

As a final set of data points, let's take a look at operating income per warehouse for each region:

	Fiscal Years Ending On									
Figures in millions except per share amounts	**8/28/22**	**8/29/21**	**8/30/20**	**9/1/19**	**9/2/18**	**9/3/17**	**8/28/16**	**8/30/15**	**8/31/14**	**9/1/13**
OPERATING INCOME PER WAREHOUSE BY REGION (millions)										
United States	9.2	7.6	6.6	5.7	5.4	5.2	4.7	4.9	4.1	4.1
Canada	12.7	11.4	8.6	9.2	9.5	8.9	8.6	8.7	9.2	9.1
Other International	7.9	8.8	6.7	5.5	5.7	4.9	4.7	4.9	5.3	5.3
All Regions	**9.4**	**8.3**	**6.9**	**6.1**	**6.0**	**5.6**	**5.2**	**5.4**	**5.0**	**4.9**

Note: The figures are calculated by taking operating income for each region divided by the average number of warehouses at the end of the current and previous fiscal year.

Source: Costco's Annual Reports and 10-K Filings

These figures are derived by taking operating income for each region and dividing by the average number of warehouses during a fiscal year. It should be noted that these figures include not only net sales but also membership fees and e-commerce. For this reason, the figures are approximations. Costco does not disclose net warehouse sales per region, only total revenue, which leads to some imprecision in these figures. However, the main point is to gain a better understanding of the economics of the business at the warehouse level over time.

Net Income

The following exhibit shows the subset of the income statement from operating income to net income along with per-share data and a summary of margins and the effective tax rate.

	Fiscal Years Ending On										
Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12
Operating Income	**7,793**	**6,708**	**5,435**	**4,737**	**4,480**	**4,111**	**3,672**	**3,624**	**3,220**	**3,053**	**2,759**
Other income (expense):											
Interest expense	(158)	(171)	(160)	(150)	(159)	(134)	(133)	(124)	(113)	(99)	(95)
Interest income and other, net	205	143	92	178	121	62	80	104	90	97	103
Income Before Income Taxes	**7,840**	**6,680**	**5,367**	**4,765**	**4,442**	**4,039**	**3,619**	**3,604**	**3,197**	**3,051**	**2,767**
Provision for income taxes	1,925	1,601	1,308	1,061	1,263	1,325	1,243	1,195	1,109	990	1,000
Net income including noncontrolling interests	5,915	5,079	4,059	3,704	3,179	2,714	2,376	2,409	2,088	2,061	1,767
Net income attributable to noncontrolling interests	(71)	(72)	(57)	(45)	(45)	(35)	(26)	(32)	(30)	(22)	(58)
Net income attributable to Costco	**5,844**	**5,007**	**4,002**	**3,659**	**3,134**	**2,679**	**2,350**	**2,377**	**2,058**	**2,039**	**1,709**
Diluted shares outstanding	444.8	444.3	443.9	442.9	441.8	440.9	441.3	442.7	442.5	440.5	439.4
Net income per diluted share	13.14	11.27	9.02	8.26	7.09	6.08	5.33	5.37	4.65	4.63	3.89
Growth in net sales	**16%**	**18%**	**9%**	**8%**	**10%**	**9%**	**2%**	**3%**	**7%**	**6%**	**12%**
MARGIN ANALYSIS											
Gross margin	10.48%	11.13%	11.20%	11.02%	11.04%	11.33%	11.35%	11.09%	10.66%	10.62%	10.55%
Operating margin	3.43%	3.42%	3.26%	3.10%	3.16%	3.19%	3.09%	3.12%	2.86%	2.90%	2.78%
Net margin	2.57%	2.56%	2.40%	2.40%	2.21%	2.08%	1.98%	2.05%	1.83%	1.94%	1.72%
SG&A as % of net sales	8.88%	9.61%	10.01%	10.04%	10.02%	10.26%	10.40%	10.07%	9.89%	9.82%	9.81%
Effective Tax Rate	24.6%	24.0%	24.4%	22.3%	28.4%	32.8%	34.3%	33.2%	34.7%	32.4%	36.1%

Source: Costco's Annual Reports and 10-K Filings

Over the period presented in the exhibit, we can see that operating margin has increased significantly from 2.78 percent to 3.43 percent, as discussed in more detail earlier in this report. The result is that operating income has grown at a rate faster than revenue over this period. Debt has increased from just under $5 billion at the end of fiscal 2013 to $6.6 billion at the end of fiscal 2022 which has resulted in some growth in interest expense.

When we look at net income growth, it is important to recognize the tailwind generated by the federal corporate income tax cut that took effect at the beginning of calendar year 2018. The tax cut took effect four months into Costco's fiscal 2018 and was fully in effect for fiscal 2019 and beyond. Operating margin growth and the tax tailwind drove net profit margin from 1.72 percent in fiscal 2012 to 2.57 percent in fiscal 2022.

Diluted shares outstanding as been relatively constant throughout this period with repurchases not being a major factor in Costco's capital allocation strategy. Net income per diluted share advanced from $3.89 in fiscal 2012 to $13.14 in fiscal 2023, a compound annual rate of 12.9 percent. This compares favorably to compound annual growth of revenue of 8.7 percent and compound annual growth of operating income of 10.9 percent.

Anytime we observe net income growth exceeding revenue and operating income growth, it is worth pausing to consider whether such trends can continue in the long run. Costco has demonstrated an ability to gain efficiencies in operations, as measured by productivity per square foot, and international expansion should be a tailwind for operating margins. Interest expense could rise in the future as debt with a low rate is refinanced at higher rates, but as we will see in the next section, this effect is likely to be muted. Tax policy could adversely impact net income in the future, but would have a similarly negative effect on other retailers as well.

Capital Structure

The following exhibit displays the key figures describing Costco's capital structure over the past decade. For full balance sheet data, please refer to the financial statements section of this report.

	Fiscal Years										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12
Total Debt	6,557	7,491	7,609	6,823	6,577	6,659	5,161	6,135	5,093	4,998	1,382
Total Equity	20,647	18,078	18,705	15,584	13,103	11,079	12,332	10,843	12,515	11,012	12,518
Total Capital	**27,204**	**25,569**	**26,314**	**22,407**	**19,680**	**17,738**	**17,493**	**16,978**	**17,608**	**16,010**	**13,900**
Debt as % of Total Capital	*24%*	*29%*	*29%*	*30%*	*33%*	*38%*	*30%*	*36%*	*29%*	*31%*	*10%*
Current ratio	1.02	1.00	1.13	1.01	1.02	0.99	0.98	1.01	1.22	1.19	1.10
Return on average equity	30.6%	27.9%	23.9%	26.1%	26.6%	23.4%	20.7%	20.7%	17.8%	17.6%	14.0%
Return on average capital	22.1%	19.3%	16.4%	17.4%	16.8%	15.2%	13.6%	13.7%	12.2%	13.6%	11.9%

Source: Costco's Annual Reports and 10-K Filings

Management has implemented a conservative capital structure with reasonable use of debt. Not pictured in this exhibit but described previously, the company has an enviable situation when it comes to working capital since merchandise receivables have typically exceeded inventory. With over $10 billion of cash on the balance sheet at the end of fiscal 2022 and long-demonstrated earnings power, Costco's debt load is very manageable.

The following exhibit illustrates Costco's long-term debt by maturity. We can see that the debt carries low interest rates and maturities occur gradually over the next decade. It is impossible to predict where interest rates will be when Costco refinances its debt, so interest costs could increase in the future, but it is worth noting that Costco has no real need to carry debt on its balance sheet at all and enjoys significant flexibility.

	2022	2021
2.300% Senior Notes due May 2022	$ —	$ 800
2.750% Senior Notes due May 2024	1,000	1,000
3.000% Senior Notes due May 2027	1,000	1,000
1.375% Senior Notes due June 2027	1,250	1,250
1.600% Senior Notes due April 2030	1,750	1,750
1.750% Senior Notes due April 2032	1,000	1,000
Other long-term debt	590	731
Total long-term debt	6,590	7,531
Less unamortized debt discounts and issuance costs	33	40
Less current portion(1)	73	799
Long-term debt, excluding current portion	$ 6,484	$ 6,692

(1) Net of unamortized debt discounts and issuance costs.

Maturities of long-term debt during the next five fiscal years and thereafter are as follows:

2023	$ 73
2024	1,088
2025	110
2026	81
2027	2,250
Thereafter	2,988
Total	$ 6,590

Source: Costco's 2022 10-K

Capital Allocation

Let's begin our review of Costco's capital allocation by considering cash flow from operations, capital expenditures, and free cash flow as shown in the exhibit below. For complete cash flow statements since 2012, please refer to the financial statements section of this report.

	Fiscal Years Ending											
Figures in millions	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12	Cumulative
Cash flows from operations	7,392	8,958	8,861	6,356	5,774	6,726	3,292	4,285	3,984	3,437	3,057	62,122
Less additions to property and equipment	(3,891)	(3,588)	(2,810)	(2,998)	(2,969)	(2,502)	(2,649)	(2,393)	(1,993)	(2,083)	(1,480)	(29,356)
Free Cash Flow	**3,501**	**5,370**	**6,051**	**3,358**	**2,805**	**4,224**	**643**	**1,892**	**1,991**	**1,354**	**1,577**	**32,766**
FCF as % of Net Income	*59%*	*106%*	*149%*	*91%*	*88%*	*156%*	*27%*	*79%*	*95%*	*66%*	*89%*	*93%*

Source: Costco's Annual Reports and 10-K Filings

We should note at the outset that the calculation of free cash flow in this exhibit is understated because a significant percentage of Costco's additions to property and equipment is attributable to expansion rather than maintenance of existing warehouses. While management does not provide a breakdown of maintenance versus expansion capex, we are provided with capex, property and equipment, and total assets by region:

	Fiscal Years Ending										
Figures in millions	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12
CAPEX BY SEGMENT											
United States	2,795	2,612	2,060	2,186	2,046	1,714	1,823	1,574	1,245	1,090	1,012
Canada	388	272	258	303	268	277	299	148	204	186	170
Other International	708	704	492	509	655	511	527	671	544	807	298
Total	**3,891**	**3,588**	**2,810**	**2,998**	**2,969**	**2,502**	**2,649**	**2,393**	**1,993**	**2,083**	**1,480**
PROPERTY & EQUIPMENT, NET BY SEGMENT											
United States	17,205	15,993	14,916	14,367	13,353	12,339	11,745	10,815	10,132	9,652	9,236
Canada	2,459	2,317	2,172	2,044	1,900	1,820	1,628	1,381	1,662	1,621	1,664
Other International	4,982	5,182	4,719	4,479	4,428	4,002	3,670	3,205	3,036	2,608	2,061
Total	**24,646**	**23,492**	**21,807**	**20,890**	**19,681**	**18,161**	**17,043**	**15,401**	**14,830**	**13,881**	**12,961**
TOTAL ASSETS BY SEGMENT											
United States	44,904	39,589	38,366	32,162	28,207	24,068	22,511	22,988	21,929	20,608	18,401
Canada	6,558	5,962	5,270	4,369	4,303	4,471	3,480	3,608	4,892	4,529	4,237
Other International	12,704	13,717	11,920	8,869	8,320	7,808	7,172	6,421	6,203	5,146	4,502
Total	**64,166**	**59,268**	**55,556**	**45,400**	**40,830**	**36,347**	**33,163**	**33,017**	**33,024**	**30,283**	**27,140**

Source: Costco's Annual Reports and 10-K Filings

We are provided with the number of net new warehouses opened by country, which I have aggregated into net new openings by reporting region in the exhibit below.

	Fiscal Years Ending										
	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12
NET NEW WAREHOUSES BY SEGMENT											
United States	14	12	9	16	13	13	21	12	17	12	10
Canada	2	4	1	0	3	6	2	1	3	3	0
Other International	7	4	3	4	5	7	6	10	9	11	6
Total	**23**	**20**	**13**	**20**	**21**	**26**	**29**	**23**	**29**	**26**	**16**

Source: Costco's Annual Reports and 10-K Filings

It seems clear that free cash flow, if defined as cash flows from operations less maintenance capex, is higher than the figure presented at the start of this section. If management wanted to slow expansion, more cash would be available for allocation, but clearly management sees incremental expansion as an intelligent use of cash. With this in mind, the exhibit on the following page shows aggregate information for fiscal 2012 to 2022.

Selected sources and uses of cash:	FY 12 - FY 22
Sources of cash:	
Free cash flow	32,766
Net debt issued	5,631
Total	**38,397**
Uses of cash:	
Repurchases	(4,144)
Dividends	(22,557)
Acquisitions, including acquisitions of minority interests	(2,794)
Net effect of equity based compensation	(1,880)
Total	**(31,375)**

Source: Costco's Annual Reports and 10-K Filings, Author's estimates and calculations

Over the eleven fiscal years under consideration, free cash flow after maintenance *and* expansion capital expenditures totaled $38.4 billion which was 93 percent of reported net income over the period. Of this amount, management allocated $4.1 billion toward repurchases and $22.6 billion toward dividends.

In fiscal 2020, Costco acquired Innovel for $998 million which provides "final mile delivery, installation and white-glove capabilities for big and bulky products across the United States and Puerto Rico".[45] In the same fiscal year the company acquired Navitus for $165 million, a pharmacy benefit manager intended to "lower the health care spend for patients at our pharmacies, optical and hearing aid departments."[46] In fiscal 2022, Costco acquired the equity interest of its former joint-venture partner in Taiwan for $842 million.[47] In fiscal 2012, Costco acquired the equity interest of its joint-venture partner in Mexico for $789 million.[48]

With Costco's common stock selling at relatively high valuations in recent years, management has opted to increase its modest regular dividend. The quarterly dividend has been annually, rising from $0.24 per share in 2012 to $0.90 per share in 2022. In addition, special dividends were paid in 2012, 2015, 2017, and 2020.[49] This approach to returning capital to shareholders provides management with a great deal of flexibility when expansion opportunities arise since the regular dividend is modest. Management can then evaluate whether repurchases or special dividends make the most sense to return additional excess cash.

It is reasonable to expect management to continue their past approach to capital allocation in the future. If more aggressive expansion makes sense, management clearly has the capacity to pursue it. While Costco must allocate cash when opening new locations, it is worth remembering that suppliers effectively finance incremental inventory needed to stock warehouses with products. We can see this in action over time as merchandise inventories rose from $7.1 billion at the end of fiscal 2012 to $17.9 billion at the end of fiscal 2022 while accounts payable rose from $7.3 billion to $17.8 billion over the same period.

[45] Costco's fiscal 2020 10-K, page 49.
[46] CEO Craig Jelinek's fiscal 2020 letter to shareholders included in the company's annual report.
[47] Costco's fiscal 2022 10-K, page 24.
[48] Costco's fiscal 2012 10-K, page 22.
[49] Stock split and dividend history is available on Costco's website. Costco has been paying a regular dividend in 2004.

Competition

Broadly defined, Costco competes with other retailers offering merchandise that overlaps with Costco's product and service lineup. Obviously, Costco members have the option of shopping at large grocery store chains and big-box merchants such as Wal-Mart Supercenters, Target, Home Depot, Lowes, as well as dollar stores and various mall-based retailers. However, comparing Costco to all retailers is far too broad.

It is more useful to examine the competition between players in the warehouse club industry. A major obstacle facing all membership-based retailers is overcoming the resistance of customers to pay the membership fee. Customers must be convinced that not only is it worthwhile to belong to a membership club, but that Costco is the best choice among all available options. Relatively few consumers are likely to purchase memberships for Costco as well as another warehouse club, so the membership decision is typically exclusive to one club.

If we define the competitive landscape as the warehouse club industry, Costco has two direct competitors within the United States: Sam's Club, a reporting segment of Wal-Mart, operates warehouses in 44 states and Puerto Rico. BJ's Wholesale Club operates in 17 states primarily on the east coast. Although a full analysis of these competitors is beyond the scope of this report, a brief description of each company is warranted.

Sam's Club

The first Sam's Club was opened in 1983 in Oklahoma City after Sam Walton visited Sol Price in San Diego and toured a Price Club location.[50] There are a total of 600 Sam's Clubs with close to a nationwide footprint. Sam's Club locations range from 32,000 to 168,000 square feet with an average size of 134,000 square feet. In the fiscal year ended on January 31, 2022, Sam's Club posted $73.6 billion of revenue and $2.3 billion of operating income representing an operating margin of 3.1 percent. Gasoline sales accounted for 11.8 percent of sales.

Sam's Club Segment

	Fiscal Years Ended January 31,		
(Amounts in millions, except unit counts)	2022	2021	2020
Including Fuel			
Net sales	$ 73,556	$ 63,910	$ 58,792
Percentage change from comparable period	15.1 %	8.7 %	1.6 %
Calendar comparable sales increase	15.0 %	8.7 %	1.6 %
Operating income	$ 2,259	$ 1,906	$ 1,642
Operating income as a percentage of net sales	3.1 %	3.0 %	2.8 %
Unit counts at period end	600	599	599
Retail square feet at period end	80	80	80
Excluding Fuel (1)			
Net sales	$ 64,860	$ 59,184	$ 52,792
Percentage change from comparable period	9.6 %	12.1 %	0.9 %
Operating income	$ 1,923	$ 1,645	$ 1,486
Operating income as a percentage of net sales	3.0 %	2.8 %	2.8 %

(1) We believe the "Excluding Fuel" information is useful to investors because it permits investors to understand the effect of the Sam's Club segment's fuel sales on its results of operations, which are impacted by the volatility of fuel prices. Volatility in fuel prices may continue to impact the operating results of the Sam's Club segment in the future. Management uses such information to better measure underlying operating results in the segment.

Source: Wal-Mart's Fiscal 2022 10-K

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50 Sol Price: Retail Revolutionary and Social Innovator by Robert Price, pages 147-148.

Membership fees were increased in October 2022. The basic Club membership costs $50 per year with the Plus membership priced at $110 per year. Sam's Club does not disclose membership counts in its SEC filings, but management indicated that member counts reached a record high at the end of the company's fiscal second quarter, rising 9 percent over the past year.[51] Membership fee revenue was $2.2 billion for fiscal 2022 compared to $1.7 billion for fiscal 2021 validating management's recent statements regarding membership growth.[52]

With fiscal 2022 net sales of $73,556 million and 80.351 million square feet of selling space, Sam's Club recorded $915 of sales per square foot. In comparison, Costco's United States operations recorded $165,294 million of revenue and had 85.4 million square feet of selling space at the end of the fiscal year which works out to $1,935 of sales per square foot. Although Sam's Club has slightly more warehouses in the United States compared to Costco, its warehouses are not even half as productive on a sales per square foot basis.

Gross margin is not disclosed for Sam's Club, although we are told that it is lower than Wal-Mart's company-wide gross margin of 24.4 percent. It seems almost certain that Sam's Club has a higher gross margin than Costco based on differences in warehouse productivity. Although Sam's Club's operating margin of 3.1 percent is quite similar to Costco's 3.2 percent operating margin for its U.S. segment, it is worth noting that Sam's Club is a division of Wal-Mart which has significant corporate expenses not allocated to any segment.

Sam's Club leverages some of the infrastructure of Wal-Mart for distribution of inventory. As we can see from the exhibit below, Wal-Mart's corporate segment posted an operating loss of $1,662 million in fiscal 2022, and at least part of this must be related to oversight of Sam's Club. As a result, if Sam's Club was a stand-alone corporate entity, its operating margin would likely be lower that its reported result as a division of Wal-Mart.

(Amounts in millions)	Walmart U.S.	Walmart International	Sam's Club	Corporate and support	Consolidated
Fiscal Year Ended January 31, 2022					
Net sales	$ 393,247	$ 100,959	$ 73,556	$ —	$ 567,762
Operating income (loss)	21,587	3,758	2,259	(1,662)	25,942
Interest, net					(1,836)
Loss on extinguishment of debt					(2,410)
Other gains and (losses)					(3,000)
Income before income taxes					$ 18,696
Total assets	$ 125,044	$ 91,403	$ 14,678	$ 13,735	$ 244,860
Depreciation and amortization	6,773	1,963	601	1,321	10,658
Capital expenditures	8,475	2,497	622	1,512	13,106

Source: Wal-Mart's Fiscal 2022 10-K

From a competitive standpoint, Sam's Club offers its Plus members the ability to shop early in the morning before stores are open to other members. In addition, the company's "Scan & Go" technology is a mobile checkout and payment feature that allows members to bypass checkout lines. Costco does not have early shopping hours for Executive members or a way to bypass checkout lines. However, I believe that Costco operates at a lower gross margin, and given that most members are price sensitive, cheaper prices represent the most compelling reason to opt for Costco over Sam's Club.

[51] Wal-Mart's Q2 2023 earnings call
[52] Wal-Mart's fiscal 2022 10-K, page 62.

BJ's Wholesale Club

BJ's was founded in Massachusetts in 1984 and still considers New England to be its core market where management estimates that it has almost three times the number of warehouses compared to its next largest competitor.[53] As of July 30, 2022, the company operated 229 warehouse clubs and 160 gas stations in seventeen states. Management claims that members can save 25 percent or more compared to a basket of branded groceries sold at regular prices by typical supermarkets. Importantly, management does not claim to have a price advantage over Sam's Club and Costco, instead considering supermarkets to be its primary competitor.

BJ's warehouses range in size from 63,000 to 163,000 square feet and carry approximately 7,000 SKUs. Although the company does not provide sufficient data to determine the average square footage of its stores, analysts estimated that the average store size was approximately 113,000 square feet in 2011 shortly before BJ's was acquired by private equity interests.[54]

Key operating data for BJ's appears in the exhibit below:

Statement of Operations Data (dollars in thousands):	Fiscal Year Ended	
	January 29, 2022	January 30, 2021
Net sales	$16,306,365	$15,096,913
Membership fee income	360,937	333,104
Total revenues	16,667,302	15,430,017
Cost of sales	13,588,612	12,451,061
Selling, general and administrative expenses	2,446,465	2,326,755
Pre-opening expenses	14,902	9,809
Operating income	617,323	642,392
Interest expense, net	59,444	84,385
Income from continuing operations before income taxes	557,879	558,007
Provision for income taxes	131,119	136,825
Income from continuing operations	426,760	421,182
Income (loss) from discontinued operations, net of income taxes	(108)	(152)
Net income	$ 426,652	$ 421,030

Source: BJ's Fiscal 2021 10-K

In the fiscal year ended on January 28, 2022, BJ's posted $16.7 billion of revenue and $617 million of operating income representing an operating margin of 3.7 percent. BJ's gross margin in fiscal 2021 was 16.7 percent.

BJ's offers a basic membership called Inner Circle for $55 and a Perks Rewards membership for $110. As of July 30, 2022, there were more than 6.5 millions members. BJ's product mix tilts heavily toward grocery items at 71 percent of net sales in fiscal 2021. General merchandise and gasoline accounted for 14 percent and 15 percent of net sales, respectively. Unlike Costco and Sam's Club, BJ's accepts manufacturer's coupons. Price competition prompted BJ's to drop its pharmacy operations in 2007.[55]

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[53] Unless otherwise specified, data in this section is taken from BJ's Wholesale Fiscal 2021 10-K
[54] BJ's Wholesale Club has square footage to spare by Craig M. Douglas, February 4, 2011. BJ's was acquired by private equity interests in 2011 and became a public company again in 2018.
[55] Price Competition Prompts BJ's to Drop Pharmacies, February 1, 2007 (Pharmacy Times)

Although management does not provide information regarding total square footage of its warehouses, if we accept the estimate of 113,000 square feet for an average warehouse, we can arrive at an estimate of 25.9 million total square feet based on 229 warehouses. If we take net sales of $16.3 billion and divide by 25.9 million, we arrive at a rough ballpark estimate of $629 of sales per square foot, far below Costco and Sam's Club.

I found the following slide from a recent investor presentation revealing in terms of BJ's strategy:

Source: BJ's Presentation, August 2022

In terms of *overall* geographic footprint, BJ's cannot compete with Costco or Sam's Club, but *within specific regions*, the company's smaller format and greater focus on competing with grocery stores might appeal to certain customers, especially if a BJ's is located in close proximity. The higher number of SKUs and smaller packaging sizes that appear to be more comparable to supermarkets than the larger warehouse players could also appeal to customers with smaller families or who live in urban locations with less storage space at home.

Management's presentation indicates that pricing is "in line" with Costco and Sam's Club, but BJ's clearly operates with a higher gross margin than Costco and has far less scale which leaves it with less negotiating power with suppliers. Aside from accepting manufacturer coupons, it is difficult to see how BJ's competes well on price with Costco. BJ's management describes price comparison studies with supermarket competitors but is silent when it comes to whether it conducts similar studies with its warehouse club competitors.

Both the tone and substance of management's communications leads me to believe that the main value proposition of membership is the claimed 25 percent savings compared to major supermarkets. The 10-K states that management believes that members can save ten times their $55 Inner Circle membership fee compared to what they would otherwise pay at traditional supermarkets when they spend $2,500 or more per year at BJ's on branded groceries. Between BJ's and Sam's Club, it is clear that Sam's is a more serious competitor for Costco.

Conclusion

Costco has been one of the most widely followed growth companies of the early twenty-first century. Here are a few key statistics documenting the company's rapid growth over the past two decades:

- **Total warehouses** in operation grew from 374 at the end of fiscal 2002 to 838 at the end of fiscal 2022, a compound annual growth rate of 4.1 percent. In 2002, Costco operated warehouses in the United States, Canada, the United Kingdom, Korea, Japan, and Taiwan with a joint venture in Mexico. Today, the company also operates in Australia, Spain, France, China, Iceland, and New Zealand. While the growth in warehouse openings has decelerated over the past decade, opportunities exist to accelerate growth in continental Europe and China where Costco's presence is still minimal.[56]

- **Total revenue** has increased from $38.8 billion in fiscal 2002 to $227 billion in fiscal 2022, a compound annual growth rate of 9.2 percent. Revenue growth was driven by opening new warehouses coupled with an increase in revenue per warehouse which grew from $110 million in fiscal 2002 to $275 million in fiscal 2022, a compound annual growth rate of 4.7 percent. The size of the average warehouse has increased by approximately ten thousand square feet over this period.

- **Operating income** has increased from $1,132 million in fiscal 2002 to $7,793 million in fiscal 2022, a compound annual growth rate of 10.1 percent. On a larger revenue base, Costco has improved its operating margin by approximately fifty basis points over this period enabling operating income to grow somewhat faster than revenue.

- **Net income** has increased from $700 million in fiscal 2002 to $5,844 million in fiscal 2022, a compound annual growth rate of 11.2 percent. This was accomplished by growing revenue and operating income, with an additional tailwind from the corporate income tax cut that took effect in 2018 and a modest reduction in the share count over two decades.

- **Shareholders have been rewarded** over the past two decades with the stock rising from $36 on October 24, 2002 to $496.97 on October 24, 2022. During this period, the company has also paid a cumulative total of $55.90 in regular and special dividends.[57] This represents an annualized rate of return of 14.6 percent including receipt of dividends, but not assuming reinvestment. The increase in the stock price is accounted for by growth in net income coupled with a higher price-to-earnings ratio. The trailing P/E ratio on October 24, 2002 was 24.3 compared to the trailing P/E ratio of 37.8 on October 24, 2022.

Clearly, Costco's business model has been strongly validated by business results over the past twenty years and these strong results have rewarded shareholders with cumulative dividends in excess of the price of the stock at the beginning of the period coupled with significant capital gains. Costco's common stock would not have been regarded as inexpensive at the start of this period, but it is clear in retrospect that the relatively high valuation

[56] See the exhibit on page 26 for regional warehouse counts over the past decade.
[57] Stock price and dividend data was retrieved from Yahoo! Finance on October 25, 2022.

was justified. Market participants have gone on to assign an even richer valuation to Costco shares over the years which have rarely traded at levels that value investors would consider to be inexpensive. The assumption of growth has almost always been "baked into" the price of the stock, and this has been fully justified. As management itself acknowledges, today's stock valuation assumes continued strong growth in the future:

> *"We believe that the price of our stock currently reflects high market expectations for our future operating results. Any failure to meet or delay in meeting these expectations, including our warehouse and e-commerce comparable sales growth rates, membership renewal rates, new member sign-ups, gross margin, earnings, earnings per share, new warehouse openings, or dividend or stock repurchase policies could cause the price of our stock to decline."*[58]

One key question to consider is whether Costco has saturated the market opportunity in the United States and Canada which are both mature markets for the company. There are 685 warehouses between the two countries, up from 521 ten years ago which works out to a compound annual growth rate of 2.8 percent. It is certainly reasonable to expect that existing warehouses in the United States and Canada will grow revenue and operating income in line with nominal GDP growth over the coming decade, but are there opportunities to continue growing the number of warehouses at low-single digit rates?

If the warehouse count in the United States and Canada grows by 2 percent over the next decade, there would be 835 warehouses by 2032. As discussed on pages 27 and 28, new warehouses are initially less productive in terms of revenue generation but typically approach the company average within five to seven years. With average operating income per warehouse of $9.2 million in the United States and $12.7 million in Canada, at the current run-rate, adding 150 new locations could potentially over $1.5 billion of operating income by 2032.

Costco has a total of 153 warehouses outside the United States and Canada, up from 87 ten years ago, a compound growth rate of 5.8 percent. With six warehouses in continental Europe between Spain and France, there are clearly opportunities for expansion within those countries as well as adjacent countries. There are only two warehouses in China where the market opportunity is obviously far greater. If the warehouse count outside the United States and Canada grows by 5 percent per year over the next decade, the count would rise to 249 by 2032. Warehouses outside the United States and Canada currently generate an average $7.9 million of operating income. Adding 96 warehouses could add in excess of $750 million of incremental operating income.

On a global basis, it does not seem unreasonable to expect Costco to have a total of 1,100 warehouses by 2032. The global average operating income per warehouse was $9.4 million in fiscal 2022. If management can continue driving improved productivity at the warehouse level, operating income might grow slightly faster than nominal GDP. If nominal GDP grows at 4 percent over the next ten years, perhaps Costco can grow revenue and operating income by 6 percent achieving operating income per warehouse of $16.8 million. Multiplied by 1,100 warehouses, this could put operating income at $18.5 billion and net income at almost $14 billion by 2032, up from $5.8 billion in fiscal 2022 for a compound growth rate of somewhat over 9 percent.

[58] Costco's fiscal 2012 10-K, page 16.

Assuming a constant share count, net income of $14 billion in fiscal 2032 would translate into earnings per share of approximately $31.50. The question is what price-to-earnings multiple the stock might trade at in the future, a question that we cannot possibly answer today because the valuation will depend not only on Costco's unknown future performance, but the overall valuation level assigned to common stocks in general as well as the market's perception of Costco's *future prospects* from the standpoint of 2032. Markets are always forward-looking and growth opportunities in 2032 will be considered when assigning a valuation to the company's stock.

From a valuation perspective, the risk is that the price-to-earnings ratio could contract. For example, if the market assigns Costco a multiple of 20 times earnings in 2032 and earnings per share are $31.50, that would result in a stock price of $630 which is approximately 26 percent higher than where the stock trades today, working out to annualized price appreciation of just 2.3 percent. Shareholders would also collect regular and potential special dividends which would likely add up to an annualized total return in the mid-single digits. Of course, if the market's assigned price-to-earnings ratio remains in the 35-40x range that it has been in recently, shareholders will realize gains commensurate with gains in net income which is in the high single digits in the preceding example. With dividends, a low double digit annualized total return could be possible.

In order to come up with a scenario in which today's shareholders achieve annualized returns much higher than the low-teens range demands that the company either must grow warehouse count and operating income more rapidly or the market must assign a higher price-to-earnings ratio resulting in multiple expansion. Either of these scenarios is certainly within the realm of possibility given management's excellent track record, but it can hardly be considered assured.

I present this somewhat extended set of extremely imprecise estimates simply as an *illustration* for readers rather than as any sort of prediction of future stock price performance. Every analyst is going to come up with different estimates for the variables that will drive future valuation. The important thing is to identify the correct variables and to make estimates supported by reasonable logic.

In my opinion, the most significant risk to Costco's continued prosperity is to abandon or seriously degrade the corporate culture. It appears very clear that Costco operates at gross margin far below competitors and is also able to source inventory at the lowest possible cost. As a result, Costco enjoys a significant price advantage which it chooses to pass along to members. Management could be tempted to increase gross margin by a couple of percentage points and doing so is not likely to cause members to abandon the company right away. This would result in a short run boost to profitability, but at the risk of long-term member loyalty.

Costco's executive management team appears to be fully on board with the corporate ethos that originated with Sol Price and was relentlessly reinforced by Jim Sinegal. The culture demands that management act as a *fiduciary* for members and drive down prices as far as possible consistent with earning a reasonable return. Growth is made possible not through gross margin expansion but through operating efficiencies and opening new warehouses. Costco's ability to expand depends on member loyalty and the perception that management puts member interests at the forefront. Management cannot control the valuation assigned by the market, but it can control whether the time-tested culture is maintained in the future. If that happens, shareholders are unlikely to get a poor result even given today's lofty valuation and some moderate multiple compression.

Financial Statements

Balance Sheets

	Fiscal Years															
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Figures in millions except per share amounts	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12	8/28/11	8/29/10	8/30/09	8/31/08	9/2/07
ASSETS																
Current Assets:																
Cash and cash equivalents	10,203	11,258	12,277	8,384	6,055	4,546	3,379	4,801	5,738	4,644	3,528	4,009	3,214	3,157	2,619	2,780
Short-term investments	846	917	1,028	1,060	1,204	1,233	1,350	1,618	1,577	1,480	1,326	1,604	1,535	570	656	576
Receivables, net	2,241	1,803	1,550	1,535	1,669	1,432	1,252	1,224	1,148	1,201	1,026	965	884	834	748	762
Merchandise inventories	17,907	14,215	12,242	11,395	11,040	9,834	8,969	8,908	8,456	7,894	7,096	6,638	5,638	5,405	5,039	4,879
Other current assets	1,499	1,312	1,023	1,111	321	272	268	228	669	621	550	490	437	371	400	327
Total current assets	32,696	29,505	28,120	23,485	20,289	17,317	15,218	16,779	17,588	15,840	13,526	13,706	11,708	10,337	9,462	9,324
Other Assets:																
Property and equipment, net	24,646	23,492	21,807	20,890	19,681	18,161	17,043	15,401	14,830	13,881	12,961	12,432	11,314	10,900	10,355	9,520
Operating lease right-of-use-assets	2,774	2,890	2,788	-	-	-	-	-	-	-	-	-	-	-	-	-
Other long-term assets	4,050	3,381	2,841	1,025	860	869	902	837	606	562	653	623	793	742	865	763
TOTAL ASSETS	**64,166**	**59,268**	**55,556**	**45,400**	**40,830**	**36,347**	**33,163**	**33,017**	**33,024**	**30,283**	**27,140**	**26,761**	**23,815**	**21,979**	**20,682**	**19,607**
LIABILITIES AND EQUITY																
Current Liabilities:																
Accounts payable	17,848	16,278	14,172	11,679	11,237	9,608	7,612	9,011	8,491	7,872	7,303	6,544	5,947	5,450	5,225	5,125
Accrued salaries and benefits	4,381	4,090	3,605	3,176	2,994	2,703	2,629	2,468	2,231	2,037	1,832	1,758	1,571	1,418	1,321	1,227
Accrued member rewards	1,911	1,671	1,393	1,180	1,057	961	869	813	773	710	661	602				
Accrued sales and other taxes	-	-	-	-	-	-	-	-	442	382	397	335	322	302	283	268
Deferred membership fees	2,174	2,042	1,851	1,711	1,624	1,498	1,362	1,269	1,254	1,167	1,101	973	869	824	748	692
Short-term borrowings	-	-	-	-	-	-	-	-	-	-	-	-	26	16	134	54
Current portion of long-term debt	73	799	95	1,699	90	86	1,100	1,283	-	-	1	900	-	81	6	60
Other current liabilities	5,611	4,561	3,728	3,792	2,924	2,639	2,003	1,695	1,221	1,089	965	938	1,328	1,190	1,157	1,156
Total current liabilities	31,998	29,441	24,844	23,237	19,926	17,495	15,575	16,539	14,412	13,257	12,260	12,050	10,063	9,281	8,874	8,582
Other Liabilities:																
Long-term debt, excluding current portion	6,484	6,692	7,514	5,124	6,487	6,573	4,061	4,852	5,093	4,998	1,381	1,253	2,141	2,130	2,206	2,108
Long-term operating lease liabilities	2,482	2,642	2,558	-	-	-	-	-	-	-	-	-	-	-	-	-
Other long-term liabilities	2,555	2,415	1,935	1,455	1,314	1,200	1,195	783	1,004	1,016	981	885	681	464	328	224
Total Liabilities	43,519	41,190	36,851	29,816	27,727	25,268	20,831	22,174	20,509	19,271	14,622	14,188	12,885	11,875	11,408	10,914
Equity:																
Common stock	2	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2
Additional paid-in capital	6,884	7,031	6,698	6,417	6,107	5,800	5,490	5,218	4,919	4,670	4,369	4,516	4,115	3,811	3,543	3,118
Accumulated other comprehensive income (loss)	(1,829)	(1,137)	(1,297)	(1,436)	(1,199)	(1,014)	(1,099)	(1,121)	(76)	(122)	156	373	122	110	286	371
Retained earnings	15,585	11,666	12,879	10,258	7,887	5,988	7,686	6,518	7,458	6,283	7,834	7,111	6,590	6,101	5,361	5,132
Total Costco stockholders' equity	**20,642**	**17,564**	**18,284**	**15,243**	**12,799**	**10,778**	**12,079**	**10,617**	**12,303**	**10,833**	**12,361**	**12,002**	**10,829**	**10,024**	**9,192**	**8,623**
Noncontrolling interests	5	514	421	341	304	301	253	226	212	179	157	571	101	80	82	69
Total Equity	20,647	18,078	18,705	15,584	13,103	11,079	12,332	10,843	12,515	11,012	12,518	12,573	10,930	10,104	9,274	8,693
TOTAL LIABILITIES AND EQUITY	**64,166**	**59,268**	**55,556**	**45,400**	**40,830**	**36,347**	**33,163**	**33,017**	**33,024**	**30,283**	**27,140**	**26,761**	**23,815**	**21,979**	**20,682**	**19,607**

Source: Costco's Annual Reports and 10-K Filings

Income Statements

	Fiscal Years Ending On																
Figures in millions except per share amounts	**8/28/22**	**8/29/21**	**8/30/20**	**9/1/19**	**9/2/18**	**9/3/17**	**8/28/16**	**8/30/15**	**8/31/14**	**9/1/13**	**9/2/12**	**8/28/11**	**8/29/10**	**8/30/09**	**8/31/08**	**9/2/07**	**9/3/06**
Revenue:																	
Net sales	222,730	192,052	163,220	149,351	138,434	126,172	116,073	113,666	110,212	102,870	97,062	87,048	76,255	69,889	70,977	63,088	58,963
Membership fees	4,224	3,877	3,541	3,352	3,142	2,853	2,646	2,533	2,428	2,286	2,075	1,867	1,691	1,533	1,506	1,313	1,188
Total Revenue	**226,954**	**195,929**	**166,761**	**152,703**	**141,576**	**129,025**	**118,719**	**116,199**	**112,640**	**105,156**	**99,137**	**88,915**	**77,946**	**71,422**	**72,483**	**64,400**	**60,151**
Operating Expenses:																	
Merchandise costs	199,382	170,684	144,939	132,886	123,152	111,882	102,901	101,065	98,458	91,948	86,823	77,739	67,995	62,335	63,503	56,450	52,745
Selling, general and administrative	19,779	18,461	16,332	14,994	13,876	12,950	12,068	11,445	10,899	10,104	9,518	8,682	7,840	7,252	6,954	6,273	5,732
Preopening expenses	-	76	55	86	68	82	78	65	63	51	37	46	26	41	57	55	43
Provision for impaired assets and closing costs, net	-	-	-	-	-	-	-	-	-	-	-	9	8	17	0	14	5
Operating Income	**7,793**	**6,708**	**5,435**	**4,737**	**4,480**	**4,111**	**3,672**	**3,624**	**3,220**	**3,053**	**2,759**	**2,439**	**2,077**	**1,777**	**1,969**	**1,609**	**1,626**
Other income (expense):																	
Interest expense	(158)	(171)	(160)	(150)	(159)	(134)	(133)	(124)	(113)	(99)	(95)	(116)	(111)	(108)	(103)	(64)	(13)
Interest income and other, net	205	143	92	178	121	62	80	104	90	97	103	60	88	58	133	165	138
Income Before Income Taxes	**7,840**	**6,680**	**5,367**	**4,765**	**4,442**	**4,039**	**3,619**	**3,604**	**3,197**	**3,051**	**2,767**	**2,383**	**2,054**	**1,727**	**1,999**	**1,710**	**1,751**
Provision for income taxes	1,925	1,601	1,308	1,061	1,263	1,325	1,243	1,195	1,109	990	1,000	841	731	628	716	627	648
Net income including noncontrolling interests	5,915	5,079	4,059	3,704	3,179	2,714	2,376	2,409	2,088	2,061	1,767	1,542	1,323	1,099	1,283	1,083	1,103
Net income attributable to noncontrolling interests	(71)	(72)	(57)	(45)	(45)	(35)	(26)	(32)	(30)	(22)	(58)	(80)	(20)	(13)	-	-	-
Net income attributable to Costco	**5,844**	**5,007**	**4,002**	**3,659**	**3,134**	**2,679**	**2,350**	**2,377**	**2,058**	**2,039**	**1,709**	**1,462**	**1,303**	**1,086**	**1,283**	**1,083**	**1,103**
Diluted shares outstanding	444.8	444.3	443.9	442.9	441.8	440.9	441.3	442.7	442.5	440.5	439.4	443.1	446.0	440.5	444.2	457.6	480.3
Net income per diluted share	13.14	11.27	9.02	8.26	7.09	6.08	5.33	5.37	4.65	4.63	3.89	3.30	2.92	2.47	2.89	2.37	2.30
Growth in net sales	**16%**	**18%**	**9%**	**8%**	**10%**	**9%**	**2%**	**3%**	**7%**	**6%**	**12%**	**14%**	**9%**	**-2%**	**13%**	**7%**	**14%**
MARGIN ANALYSIS																	
Gross margin	10.48%	11.13%	11.20%	11.02%	11.04%	11.33%	11.35%	11.09%	10.66%	10.62%	10.55%	10.69%	10.83%	10.81%	10.53%	10.52%	10.55%
Operating margin	3.43%	3.42%	3.26%	3.10%	3.16%	3.19%	3.09%	3.12%	2.86%	2.90%	2.78%	2.74%	2.66%	2.49%	2.72%	2.50%	2.70%
Net margin	2.57%	2.56%	2.40%	2.40%	2.21%	2.08%	1.98%	2.05%	1.83%	1.94%	1.72%	1.64%	1.67%	1.52%	1.77%	1.68%	1.83%
SG&A as % of net sales	8.88%	9.61%	10.01%	10.04%	10.02%	10.26%	10.40%	10.07%	9.89%	9.82%	9.81%	9.97%	10.28%	10.38%	9.80%	9.94%	9.72%
Effective Tax Rate	24.6%	24.0%	24.4%	22.3%	28.4%	32.8%	34.3%	33.2%	34.7%	32.4%	36.1%	35.3%	35.6%	36.4%	35.8%	36.7%	37.0%
REGIONAL ANALYSIS																	
Revenue by Region: *(millions)*																	
United States	165,294	141,398	122,142	111,751	102,286	93,889	86,579	84,351	80,477	75,493	71,776	64,904	59,624	56,548	56,903	51,532	48,466
Canada	31,675	27,298	22,434	21,366	20,689	18,775	17,028	17,341	17,943	17,179	15,717	14,020	12,051	9,737	10,528	8,724	8,122
Other International	29,985	27,233	22,185	19,586	18,601	16,361	15,112	14,507	14,220	12,484	11,644	9,991	6,271	5,137	5,052	4,144	3,564
Total	**226,954**	**195,929**	**166,761**	**152,703**	**141,576**	**129,025**	**118,719**	**116,199**	**112,640**	**105,156**	**99,137**	**88,915**	**77,946**	**71,422**	**72,483**	**64,400**	**60,151**
Operating Income by Region *(millions)*																	
United States	5,268	4,262	3,633	3,063	2,787	2,644	2,326	2,308	1,880	1,810	1,632	1,395	1,310	1,273	1,393	1,217	1,246
Canada	1,346	1,176	860	924	939	841	778	771	796	756	668	621	547	354	420	287	293
Other International	1,179	1,270	942	750	754	626	568	545	544	487	459	423	220	150	156	105	87
Total	**7,793**	**6,708**	**5,435**	**4,737**	**4,480**	**4,111**	**3,672**	**3,624**	**3,220**	**3,053**	**2,759**	**2,439**	**2,077**	**1,777**	**1,969**	**1,609**	**1,626**

Source: Costco's Annual Reports and 10-K Filings

Cash Flow Statements

Figures in millions	8/28/22	8/29/21	8/30/20	9/1/19	9/2/18	Fiscal Years Ending 9/3/17	8/28/16	8/30/15	8/31/14	9/1/13	9/2/12	Cumulative
CASH FLOWS FROM OPERATING ACTIVITIES												
Net income including noncontrolling interests	**5,915**	**5,079**	**4,059**	**3,704**	**3,179**	**2,714**	**2,376**	**2,409**	**2,088**	**2,061**	**1,767**	**35,351**
Adjustments to reconcile net income to net cash provided by op. activities:												
Depreciation and amortization	1,900	1,781	1,645	1,492	1,437	1,370	1,255	1,127	1,029	946	908	14,890
Non-cash lease expense	377	286	194	-	-	-	-	-	-	-	-	857
Stock-based compensation	724	665	619	595	544	514	459	394	327	285	241	5,367
Excess tax benefits on stock-based awards	-	-	-	-	-	(38)	(74)	(86)	(84)	(61)	(64)	(407)
Other non-cash operating activities, net	76	85	42	9	(6)	24	17	(5)	22	(7)	28	285
Deferred income taxes	(37)	59	104	147	(49)	(29)	269	(101)	(63)	7	(3)	304
Changes in operating assets and liabilities:												-
Merchandise inventories	(4,003)	(1,892)	(791)	(536)	(1,313)	(894)	(25)	(890)	(563)	(898)	(490)	(12,295)
Accounts payable	1,891	1,838	2,261	322	1,561	2,258	(1,532)	880	529	718	338	11,064
Other operating assets and liabilities, net	549	1,057	728	623	421	807	547	557	699	386	332	6,706
Net cash provided by operating activities	**7,392**	**8,958**	**8,861**	**6,356**	**5,774**	**6,726**	**3,292**	**4,285**	**3,984**	**3,437**	**3,057**	**62,122**
CASH FLOWS FROM INVESTING ACTIVITIES												
Purchases of short-term investments	(1,121)	(1,331)	(1,626)	(1,094)	(1,060)	(1,279)	(1,432)	(1,501)	(2,503)	(2,572)	(2,048)	(17,567)
Maturities and sales of short-term investments	1,145	1,446	1,678	1,231	1,078	1,385	1,709	1,434	2,406	2,385	2,303	18,200
Additions to property and equipment	(3,891)	(3,588)	(2,810)	(2,998)	(2,969)	(2,502)	(2,649)	(2,393)	(1,993)	(2,083)	(1,480)	(29,356)
Acquisitions	-	-	(1,163)	-	-	-	-	-	-	-	-	(1,163)
Other investing activities, net	(48)	(62)	30	(4)	4	30	27	(20)	(3)	19	(11)	(38)
Net cash used in investing activities	**(3,915)**	**(3,535)**	**(3,891)**	**(2,865)**	**(2,947)**	**(2,366)**	**(2,345)**	**(2,480)**	**(2,093)**	**(2,251)**	**(1,236)**	**(29,924)**
CASH FLOWS FROM FINANCING ACTIVITIES												
Change in bank payments outstanding	-	188	137	210	80	(236)	81	(45)	96	(70)	457	898
Proceeds from short-term borrowings	-	41	-	-	-	-	106	51	68	326	114	706
Repayments of short-term borrowings	-	-	-	-	-	-	(106)	(51)	(103)	(287)	(114)	(661)
Proceeds from issuance of long-term debt	-	-	3,992	298	-	3,782	185	1,125	117	3,717	130	13,346
Repayments of long-term debt	(800)	(94)	(3,200)	(89)	(86)	(2,200)	(1,288)	(1)	-		(900)	(8,658)
Proceeds from exercise of stock options	-	-	-	-	-	-	-	-	38	52	109	199
Tax withholdings on stock-based awards	(363)	(312)	(330)	(272)	(217)	(202)	(220)	(178)	(164)	(121)	(107)	(2,486)
Excess tax benefits on stock-based awards	-	-	-	-	-	38	74	86	84	61	64	407
Repurchases of common stock	(439)	(496)	(196)	(247)	(328)	(469)	(486)	(481)	(334)	(36)	(632)	(4,144)
Cash dividend payments	(1,498)	(5,748)	(1,479)	(1,038)	(689)	(3,904)	(746)	(2,865)	(584)	(3,560)	(446)	(22,557)
Dividend to noncontrolling interest	(208)	-	-	-	-	-	-	-	-	(22)	(161)	(391)
Acquisition of noncontrolling interest	(842)	-	-	-	-	-	-	-	-	-	(789)	(1,631)
Other financing activities, net	(133)	(67)	(71)	(9)	(41)	(27)	(19)	35	(4)	(16)	(6)	(358)
Net cash used in financing activities	**(4,283)**	**(6,488)**	**(1,147)**	**(1,147)**	**(1,281)**	**(3,218)**	**(2,419)**	**(2,324)**	**(786)**	**44**	**(2,281)**	**(25,330)**
Effect of exchange rate changes on cash and cash equivalents	(249)	46	70	(15)	(37)	25	50	(418)	(11)	(114)	(21)	(674)
Net change in cash and cash equivalents	(1,055)	(1,019)	3,893	2,329	1,509	1,167	(1,422)	(937)	1,094	1,116	(481)	6,194
Cash and cash equivalents, beginning of year	11,258	12,277	8,384	6,055	4,546	3,379	4,801	5,738	4,644	3,528	4,009	4,009
Cash and cash equivalents, end of year	**10,203**	**11,258**	**12,277**	**8,384**	**6,055**	**4,546**	**3,379**	**4,801**	**5,738**	**4,644**	**3,528**	**10,203**
Note: Fiscal years ending on 9/3/17, 9/2/2012, and 9/3/2006 were 53 weeks												
Cash flows from operations	7,392	8,958	8,861	6,356	5,774	6,726	3,292	4,285	3,984	3,437	3,057	62,122
Less additions to property and equipment	(3,891)	(3,588)	(2,810)	(2,998)	(2,969)	(2,502)	(2,649)	(2,393)	(1,993)	(2,083)	(1,480)	(29,356)
Free Cash Flow	**3,501**	**5,370**	**6,051**	**3,358**	**2,805**	**4,224**	**643**	**1,892**	**1,991**	**1,354**	**1,577**	**32,766**
FCF as % of Net Income	*59%*	*106%*	*149%*	*91%*	*88%*	*156%*	*27%*	*79%*	*95%*	*66%*	*89%*	*93%*

Source: Costco's Annual Reports and 10-K Filings

