Canada Goose Holdings Inc.

31st December 2020

Market Cap: USD $3.3 B
Target Price: USD $56.6
Current Price: USD $31

Industry: Luxury Goods
Ticker: GOOS (NYSE, TSX)
Average Rating: Overweight

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My View: BUY

1. Background

Canada Goose (NYSE: GOOS) is a vertically integrated manufacturer and retailer of luxury outdoor winter apparel. Founded in 1957 as a family business, GOOS manufactures its products in Canada, all known for quality, durability, and style – with the winter parka being the iconic flagship product and accounting for most of the revenue. CEO Dani Reiss sold 70% of his shares to Bain Capital in 2013 but maintained control over the company. GOOS went public in March 2017. The company has established substantial brand equity in Canada and the US, which together account for ~60% of revenue, and is rapidly expanding into Asia and Europe. It now operated 20 flagship stores worldwide. The company also sells its products through e-commerce, as well as wholesale distributors. Luxury winter parka is a niche market, with Canada Goose and Moncler forming a duopoly.

2. Thesis Summary

GOOS is in a rare position for a luxury brand in that they have ample room for further growth, both geographically and in their product portfolio. Geographically, GOOS is making a grand entry into Asia and Europe, with a focus on China. The company is also expanding its product lines to include light jackets, sweaters, and raincoats. As a premium globally recognized brand with a strong direct-to-customer (DTC) distribution channel, GOOS is poised to succeed. GOOS's growth in cash flow, operating income and net income outplays its peers by two to three times, but its trading multiples are only in line with the set's medians. I believe GOOS should be trading at multiples in the upper quartile.

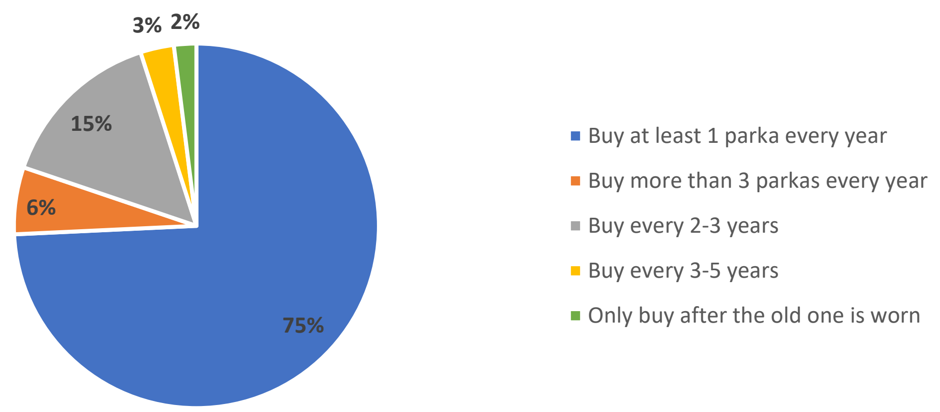
Ticker	Company	2020-12-20 EV/EBIT	2020-12-20 P/E	2020-12-20 EV/Sales
GOOS	**Canada Goose**	**47.7**	**56.6**	**6.2**
MC	LVMH	34.3	55.8	5.7
NKE	NIKE Inc.	61.4	81.2	5.9
COLM	Columbia Sportswear	37.6	46.9	2.3
UHR	Swatch	81	NM	1.7
RMS	Hermes International	50.1	80.7	14.3
BRBY	Burberry	26.9	NM	3.4
UAA	Under Armour	NM	NM	1.9
MONC	Moncler	34.1	47	8.3
LULU	Lululemon	64	87.6	12
Median		**47.7**	**56.6**	**5.8**

Over the past year, investors have penalized the company for missing short-term targets (see historic chart in **Appendix B**). GOOS indeed had a rough FY2020 in Canada, the US, and Europe. But the key to GOOS's future success is China. In fact, even if the rest of the world halts revenue growth, China alone is worth more than the current price. **Overall, I get a 16.2% IRR with an 8% revenue CAGR and a 35x exit P/E. My base case is already conservative, but even so, the bear case still has a 5.8% IRR.** I believe that GOOS is an excellent investment opportunity with a high margin of safety.

What the capital market might have overlooked:

While there is a historical perception that winter parkas are durable goods that last many years, a more recent analysis of China's online sales data shows that more than 80% of parka buyers in China buy at least one parka every year (see **Exhibit 1**).

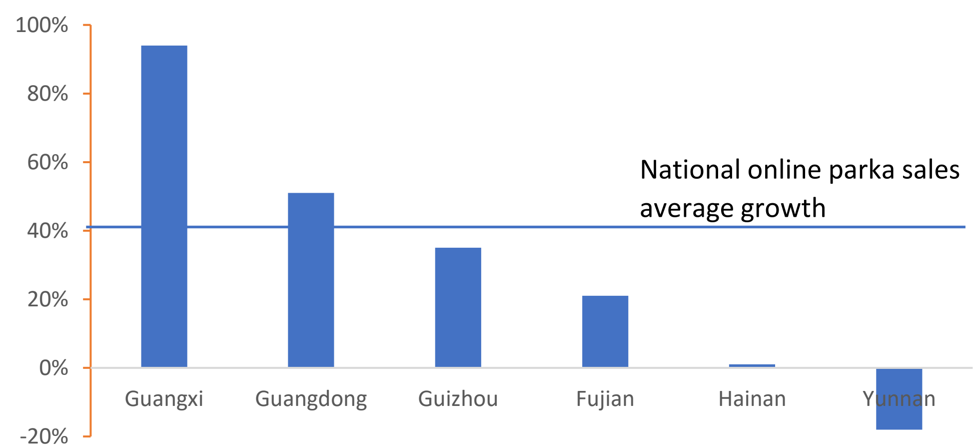
Exhibit 1: 2017-2019 Chinese parka consumers' buying frequency



Source: Tmall

More interestingly, from 2017 to 2019, the CAGR of parka sales in two southern subtropical provinces, Guangdong and Guangxi, was above the national average (see **Exhibit 2**). The winter temperature range is 10-16℃ in Guangdong and 15-21℃ in Guangxi. Neither province is cold enough for parkas.

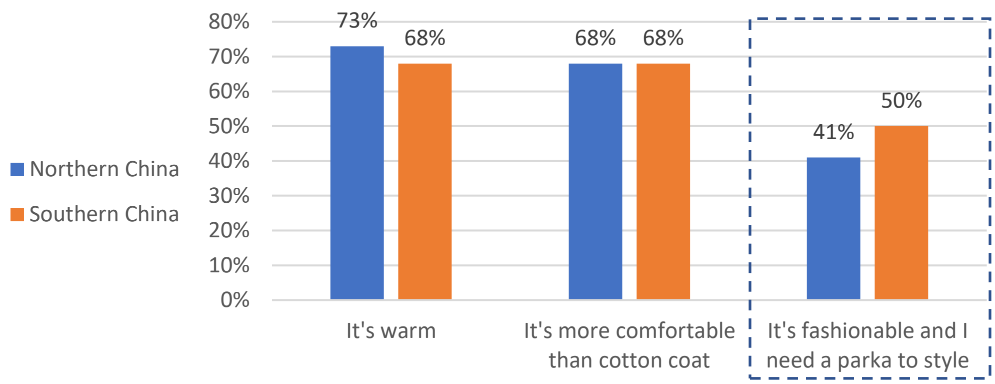
Exhibit 2: 2017-2019 Southern provinces' parka sales growth



Source: Tmall

Why are consumers purchasing so frequently, and why are consumers in warmer geographies buying? The best explanation is that warmth is not the only driver for winter parkas sales in China; in fact, a recent survey shows that almost half of the consumers wear winter parkas for fashion (see **Exhibit 3**). It appears that fashion is becoming another critical driver for parka market growth in China. That explains why GOOS plans to open its next flagship store in Chengdu, a Southwestern city in a geographic basin shielded from cold airflow. In the *2020 New Fashion Centre Index Report* published by *Vogue Business in China*, Chengdu ranked first with a total score of 9.3. It also ranked first in 'fashion consumption power', 'fashion business potential,' and 'fashion cultural power.' The addressable market in China might be much larger than previously expected due to the rise of fashion as a critical growth factor.

Exhibit 3: Survey: Why do you wear a parka?

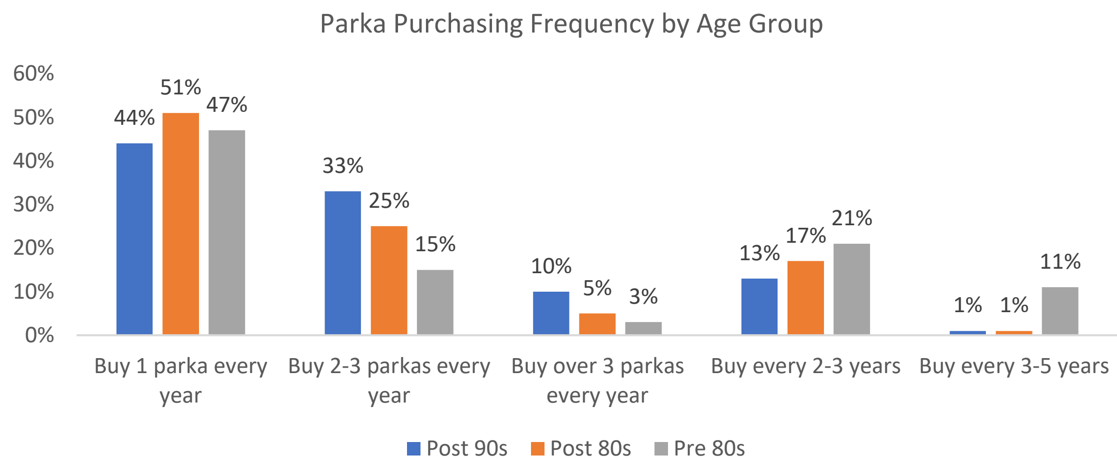


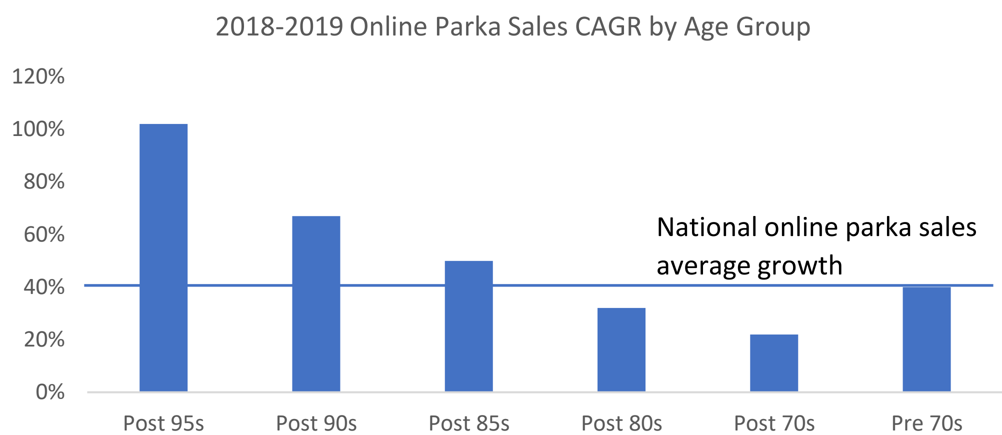
Source: CBNData Survey

Fashion gives GOOS a unique advantage in China because GOOS has the most fashionable collections comparing to its competitors. In the luxury segment, GOOS has two competitors in China: Moncler, the Italian luxury parka brand, and Bosideng, a Chinese parka manufacturer trying to transform into the luxury segment. Please see **Appendix C** for screenshots of the three companies' collections. As shown in Appendix C, GOOS beats Moncler in colour, design, and diversity. Baidu Index also indicates that Moncler lags far behind GOOS in popularity in China. Moncler's formal and mature designs are popular among middle-aged consumers, while GOOS's more youthful and energetic designs appeal to younger consumers, the primary and rising consumption power. Younger consumers are buying more frequently, and sales growth in the younger age group is significantly higher than the national average (see **Exhibit 4** on the next page). GOOS can benefit from this trend with its more youthful designs. Bosideng also has very competitive designs but has not successfully established brand equity in the luxury segment. Bosideng made a mistake by launching its luxury transition in the European market instead of the domestic market. The company closed its first and only flagship store in London this summer after failing to attract affluent consumers in Europe. Bosideng is still popular in the mid-and low-price range, but as of December 2020, it has removed all the parkas above $500 from its website. I think Bosideng will have a place in the luxury segment, but the recent failure forced Bosideng to take a step back before rechallenging GOOS in the future. Thus, GOOS is safe from local competitors in China in the near future.

In conclusion, GOOS's competitive position in China is stronger than the consensus expectation as fashion is becoming a critical driver for growth. GOOS's revenue in Asia, almost all of which comes from China, should be able to grow at a high rate sustainably.

Exhibit 4: China's younger generation is the rising consumption power





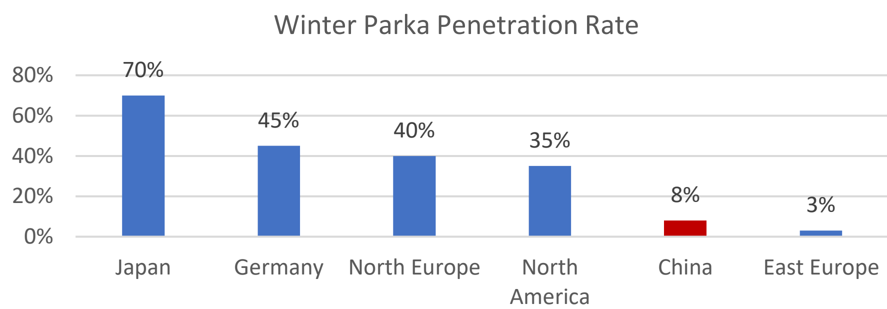
Source: Tmall, CBNData Survey

Asian revenue can keep growing at 25% CAGR:

Given China's huge addressable market size and low penetration rate of winter parka (see **Exhibit 5** on the next page), the room for growth is virtually unlimited. China National Garment Association predicted that the market would double in size by 2024 (from $16B to $31B) and become increasingly favourable to high-end parkas.

GOOS sells in three Asian countries: China, Japan, and Korea. It is safe to assume that China accounts for almost all of GOOS's Asian revenue because Korea's population is only 3.5% of China's, and GOOS is rare in Japan. GOOS's revenue in Asia was growing at ~80% y/y before the pandemic. With limited competition in China's luxury parka segment, my forecast of GOOS's revenue CAGR in Asia is 25% from FY2020 to FY2025 (31 Mar 2025), which I justify below.

Exhibit 5: Winter parka penetration rate and GOOS's potential sales in China*



Potential Sales in China

Fall/Winter Units per 1,000 People	Addressable Market % of Affluent Urban Population: 9.00%	9.50%	10.00%	10.50%	11.00%	11.50%	12.00%
5.2	$491	$519	$546	$573	$601	$628	$655
7.2	$680	$718	$756	$794	$832	$870	$907
9.2	$870	$918	$966	$1,014	$1,063	$1,111	$1,159
11.2	$1,059	$1,117	$1,176	$1,235	$1,294	$1,353	$1,411
13.2	$1,248	$1,317	$1,386	$1,455	$1,525	$1,594	$1,663
15.2	$1,437	$1,516	$1,596	$1,676	$1,756	$1,836	$1,915
17.2	$1,626	$1,716	$1,806	$1,897	$1,987	$2,077	$2,167

Notes: 1) The affluent urban addressable population in China is based on household income of >US$34,000; 2) The market penetration rate in Canada is based on addressable customers living above the 37th parallel with >$100,000 of household income.

* GOOS's current sales in China is ~$220M, 45% of TD's most pessimistic estimates of future potential
Source: China National Garment Association, TD Securities Inc., McKinsey, company reports

Because GOOS entered China only three years ago and historical data is unavailable, we need to take a leap of faith when forecasting China's sales growth. To provide some logical ground, we can look at the historical trends of other products that are similar to GOOS but have completed the early phase in China. Luckily, we have data on Moncler's parka. Moncler entered Asia/China in 2010, and it sells luxury winter parkas similar to GOOS's except that Moncler's are slightly more expensive, lighter in weight, and less fashionable. We can look at Moncler's early-year sales in Asia to make a more educated forecast on GOOS's growth in the next few years. **Exhibit 6** shows Moncler's Asian sales data.

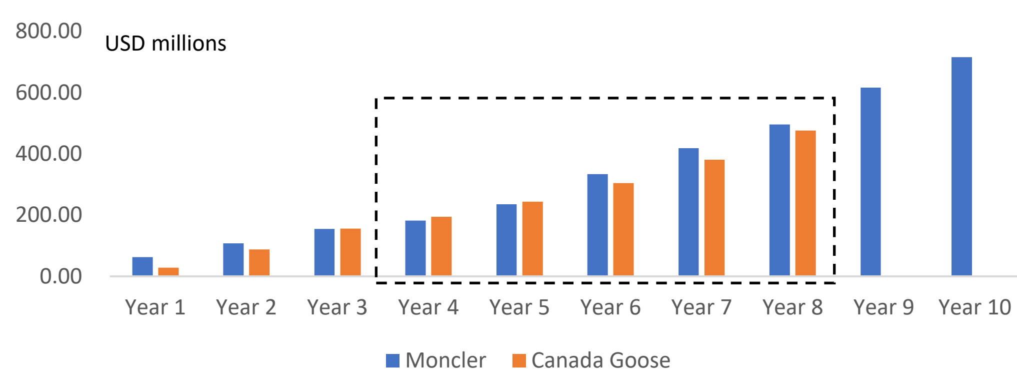
Exhibit 6: Moncler's revenue in Asia

in million USD	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Moncler's revenue in Aisa	62.90	108.20	155.00	181.60	235.20	333.50	418.50	495.50	616.10	715.20
y/y		*72%*	*43%*	*17%*	*30%*	*42%*	*25%*	*18%*	*24%*	*16%*
5Y CAGR						*40%*	*31%*	*26%*	*28%*	*25%*

Source: Capital IQ

GOOS in 2020 is like Moncler in 2012, i.e., selling in Asia for only three years, gaining more traction every month, and limited competition. Furthermore, the economic condition from 2021 to 2025 is like 2011 to 2015. The world was recovering from one of the worst economic recessions in history, and consumption was rebooted to an uptrend cycle. Moncler's five-year CAGR in Asia has never been lower than 25% since it entered Asia in 2010. Since GOOS has a more fashionable collection and higher popularity among the younger generation of Chinese consumers, I am optimistic that GOOS can grow its Asian revenue faster than Moncler ten years ago. One may raise the concern that Moncler had no competitor in Asia ten years ago and GOOS has one now, but the winter parka market has grown multi-folds too. China's winter parka market has been growing at 17% CAGR from 2014 to 2019. There is ample room for growth for both companies in a $16 billion market that is expected to double in size over the next four years. China's economy has almost fully recovered from the pandemic, and China's historically low temperature in this coming winter can compensate for some losses in H1 FY2021. Drawing a parallel between GOOS and Moncler, a 25% CAGR for GOOS in Asia for the next five years does not seem farfetched (see **Exhibit 7**).

Exhibit 7: Asian revenue trajectory and forecast since entering the Asian market*

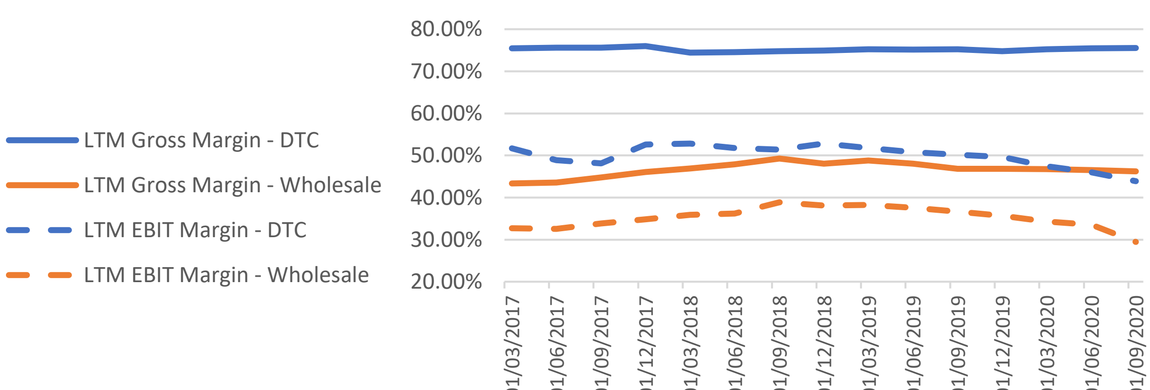


* GOOS's revenues from year 4 to year 8 are based on proprietary forecast with 25% CAGR
Source: Capital IQ

Expanding EBIT and gross profit margin:

GOOS has been transforming its distribution model from low-margin wholesale to high-margin direct-to-customer (DTC). DTC's gross margin and EBIT margin are both higher than wholesale's (see **Exhibit 8**).

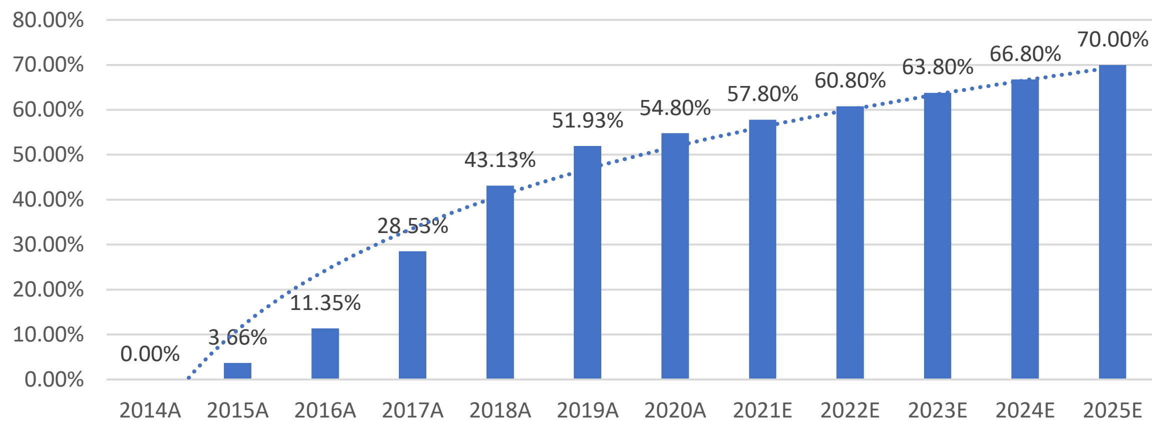
Exhibit 8: Margins estimates by sales channel



Source: GOOS quarterly financial statements, proprietary estimates

A growing DTC segment increases the company's operating cash flow and profitability. Furthermore, continued e-commerce penetration can further improve DTC margins beyond current levels. My base case assumes that DTC's revenue share will increase from 55% to 70% by FY2025 (see **Exhibit 9**), slightly lower than Moncler, which sells 77% of its products DTC.

Exhibit 9: DTC's revenue share



Source: GOOS quarterly financial statements, proprietary estimates

Product expansion on the way:

GOOS acquired Baffin, a boutique winter footwear manufacturer, at the end of 2018. Investors were divided on whether this acquisition was the right move. On the one hand, extreme weather footwear fits into GOOS's image. On the other hand, GOOS has no expertise in footwear, and it remained to be seen whether the company can create synergies between footwear and parka. We still have not seen the GOOS footwear category, and investors seemed to have forgotten about Baffin. I believe footwear is only the first step of GOOS's long-term blueprint. Many analysts have compared GOOS with Lululemon, one of the most successful sportswear brands in the world. Both companies started in Canada and then expanded into the US and then Europe. Both started in wholesale and then shifted to DTC. Most articles titling "Canada Goose is the next Lululemon" cited the similarity in their business models and histories. But few noticed that Canada Goose is following Lululemon's long-term strategy as well. Lululemon started as a specialized manufacturer for one product, women's yoga pants, and then expanded into other categories after establishing brand equity. GOOS is following the same strategy:

- Develop the world's best product in a niche market (yoga pants vs. functional winter parka).
- Establish brand awareness in this specialized category.
- Monetize its brand equity to include other products.

By doing so, Lululemon has dramatically expanded its addressable market, and so will GOOS.

GOOS conducted a mini try-out of product expansion with fleece, and according to Dani Reiss, the result was exceptional. GOOS is rolling out the product expansion very discreetly, which I see as a positive sign because GOOS's culture dictates that it must perfect the products to the highest possible quality before releasing to the market. GOOS's footwear line should materialize in FY2022 or FY2023. The footwear expansion may bring GOOS closer to Lululemon's multiples, which are currently ~1.5x of GOOS's.

3. Management

GOOS's company culture is very stable. Dani Reiss, the current CEO, is the son of former CEO David Reiss. David Reiss is the son-in-law of GOOS's founder Sam Tick. GOOS has all the attributes of a family business. Even though Bain Capital is the largest shareholder (28%), Dani Reiss has full control of the company's operation and strategy. GOOS's corporate culture is deeply rooted in the pursuit of the highest possible product quality. Maintaining the family business management style helps GOOS sustain its culture.

Dani Reiss demonstrated his entrepreneurship by spearheading the most critical transitions in GOOS's history, e.g., inviting strategic investors, IPO, global expansion, and DTC transition. All these decisions have proven to be very successful. Reiss's proven success in leading the family business is why I am optimistic about his product expansion ambition. Dani Reiss is 47 years old and will not retire any time soon. GOOS's small but entrepreneurial management team is expected to be stable in the next few years.

An alerting factor is that the management team recently sold a large chunk of their shares. The selling list includes CEO, CMO, VP of Product, and Executive VP of Manufacturing & Supply Chain. Most insider sells were due to executing options in management's compensation.

4. Valuation

To avoid the accusation of manipulating the valuation, I used a set of very conservative parameters.

Use the lowest exit multiples: I used a 25x exit EV/EBIT and a 35x exit P/E, both are the pre-pandemic lowest. GOOS's two-year average P/E before the pandemic was 68x. In **Appendix D**, I calculated the intrinsic value of GOOS's P/E and showed that 35x gave us a margin of safety.

Put a pause on the rest of the world: I assumed that revenues in Canada, the US, and Europe would return to pre-pandemic (FY2020) level in FY2022, then grow at half of pre-pandemic lowest y/y growth rate. This means that ex-Asia revenue's CAGR from FY2022 to FY2025 would be only 2.6%. To see how conservative this is, let us look at Lululemon, which shares GOOS's business model and strategy, and Moncler, which sells the same products as GOOS, after the last economic recession (see **Exhibit 10**). Moncler's five-year CAGR was 8% and Lululemon's was 30%. Even today, in their mature stage, both companies are still growing at 10+% y/y. Compared to Lululemon and Moncler, my assumption of 2.6% post-pandemic CAGR for GOOS's ex-Asia revenue is very conservative.

Exhibit 10: Lululemon's and Moncler's revenue growth after the last economic recession*

in million USD	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Moncler's total revenue ex. Asia	366.40	405.60	334.20	399.00	459.00	546.90	591.80	698.20	804.00	912.50
y/y		*11%*	*-18%*	*19%*	*15%*	*19%*	*8%*	*18%*	*15%*	*13%*
5Y CAGR						*8%*	*8%*	*16%*	*15%*	*15%*
Lululemon's revenue in North America	452.3	695.1	969.9	1301.5	1506.4	1691.7	1925.3	2173.3	2403.6	2928.5
y/y		*54%*	*40%*	*34%*	*16%*	*12%*	*14%*	*13%*	*11%*	*22%*
5Y CAGR						*30%*	*23%*	*18%*	*13%*	*14%*

* Lululemon does not report Asian revenue separately
Source: Capital IQ

But even under such conservative consumptions, GOOS still appears to be a robust investment opportunity. I get an expected IRR of 17.11% using 25x EV/EBIT and 16.24% using 35x P/E in the base case. The sensitivity table is presented below.

IRR Sensitivity Analysis, FY2021 ~ FY2025

		Exit EV/EBIT				
		15	20	25	30	35
FY2025 DTC % Total Revenue	55%	-0.65%	7.50%	14.13%	19.77%	24.72%
	60%	0.28%	8.48%	15.15%	20.83%	25.81%
	65%	1.19%	9.43%	16.14%	21.86%	26.87%
	70%	2.07%	10.36%	$\boxed{17.11\%}$	22.86%	27.91%
	75%	2.93%	11.26%	18.05%	23.84%	28.92%
	80%	3.77%	12.14%	18.97%	24.80%	29.91%

		Exit P/E				
		25	30	35	40	45
FY2025 DTC % Total Revenue	55%	4.30%	9.17%	13.46%	17.31%	20.81%
	60%	5.18%	10.08%	14.41%	18.29%	21.83%
	65%	6.03%	10.97%	15.33%	19.25%	22.81%
	70%	6.86%	11.85%	$\boxed{16.24\%}$	20.19%	23.78%
	75%	7.68%	12.70%	17.13%	21.10%	24.72%
	80%	8.47%	13.53%	17.99%	22.00%	25.64%

		Exit EV/EBIT				
		15	20	25	30	35
Asian Revenue CAGR	15%	-2.36%	5.70%	12.26%	17.83%	22.71%
	20%	-0.26%	7.91%	14.56%	20.22%	25.17%
	25%	2.07%	10.36%	$\boxed{17.11\%}$	22.86%	27.91%
	30%	4.61%	13.03%	19.90%	25.77%	30.90%
	35%	7.36%	15.93%	22.94%	28.91%	34.16%

		Exit P/E				
		25	30	35	40	45
Asian Revenue CAGR	15%	2.70%	7.49%	11.71%	15.50%	18.95%
	20%	4.67%	9.55%	13.85%	17.72%	21.24%
	25%	6.86%	11.85%	$\boxed{16.24\%}$	20.19%	23.78%
	30%	9.28%	14.37%	18.87%	22.90%	26.57%
	35%	11.90%	17.12%	21.72%	25.86%	29.62%

EV/EBIT=25		FY2025 DTC % Total Revenue				
		60%	75%	70%	75%	80%
Asian Revenue CAGR	15%	10.36%	13.17%	12.26%	13.17%	14.07%
	20%	12.63%	15.49%	14.56%	15.49%	16.39%
	25%	15.15%	18.05%	$\boxed{17.11\%}$	18.05%	18.97%
	30%	17.91%	20.87%	19.90%	20.87%	21.80%
	35%	20.90%	23.92%	22.94%	23.92%	24.87%

P/E=35		FY2025 DTC % Total Revenue				
		60%	75%	70%	75%	80%
Asian Revenue CAGR	15%	9.94%	12.56%	11.71%	12.56%	13.39%
	20%	12.06%	14.72%	13.85%	14.72%	15.57%
	25%	14.41%	17.13%	$\boxed{16.24\%}$	17.13%	17.99%
	30%	16.99%	19.77%	18.87%	19.77%	20.66%
	35%	19.81%	22.65%	21.72%	22.65%	23.56%

Please see the complete financial forecast and assumptions in **Appendix A**.

Bull, bear, and base cases:

For the bull case, I assumed that Asian revenue would grow at 30% CAGR, and DTC will account for 75% of GOOS's total sales by FY2025, in line with Moncler's current level. For the bear case, I assumed Asian revenue will grow at 15% CAGR and DTC will account for 60% of GOOS's total sales by FY2025, which basically means that GOOS suspends its DTC transition.

	Bear	Base	Bull
FY2025 Exit P/E	30	35	40
Exit Share Price	38.82	56.60	72.91
Asia Revenue FY20-25 CAGR	15%	25%	30%
Ex-Asia Revenue FY22-25 CAGR	2.6%	2.6%	2.6%
World Revenue FY20-25 CAGR	5%	8%	10%
FY2025 DTC % Total Revenue	60%	70%	75%
IRR (Mar 2025)	5.79%	16.24%	23.84%
Probability	33%	33%	33%
Weighted Avg. IRR		**15.14%**	

Ex-Asia revenue should be higher than my assumptions. I only used these conservative assumptions as a stress test. If China grows as expected, it is enough to justify the buy recommendation. If ex-Asia revenue reaches 10% y/y after FY2022 as in the last economic crisis, the expected IRR for base case would be 19.9%.

5. Risks

Counterfeit: As GOOS's brand awareness continues to grow, so will the potential for counterfeit products. GOOS's lack of product verification mechanism opens doors for rampant fake production, especially in China, which is expected to become GOOS's primary market within five years but is also a market with state-of-art counterfeit technology. GOOS parkas are reported to be all hand-made in Canada, which can hopefully reduce the risk of being counterfeited, for now.

Comps contraction: GOOS's P/E might decline in the next few years. As shown in **Exhibit 10**, S&P500's P/E ratio tends to surge during economic recessions due to plummeting earnings and then drop below the pre-recession level after the economy recovers. If P/E falls to 20x, we would lose the margin of safety.

Exhibit 10: S&P 500 P/E Ratio*

* Shadowed area marks economic recession

Source: Macrotrends

Animal welfare: The public is increasingly concerned with animal welfare. PETA is actively fighting against using coyote fur and goose down for apparel. From past instances in the market, a PETA-organized boycott campaign can easily hurt luxury brands' share prices by 10-20%. GOOS has announced plans to cease purchasing furs from trappers by 2022 and instead use reclaimed or recycled fur, which may help to mitigate the risk but may also hurt the product quality.

Chinese boycott: Investors are concerned about a potential Chinese boycott as China is seeking to retaliate against Canada. I believe GOOS is safe on that front. Despite the government's social media propaganda, Chinese consumers rarely played along in recent years. GOOS opened its Beijing flagship store in the heat of the Meng Wanzhou extradition case. But at the grand opening, consumers waited in line in the cold wind for hours to buy their first GOOS parka. The same happened with the NBA pre-season games in Shanghai and Shenzhen last year when basketball fans ignored the government's call for boycott and went to cheer for their favourite players at the stadiums. Furthermore, the luxury industry is too small to be the target of retaliation. In the past, the Chinese government only targeted commodities and agricultural sectors for political retaliation. As long as GOOS does not subjectively engage in geopolitical affairs, GOOS need not worry about the Chinese boycott.

(Word count: 2,958)

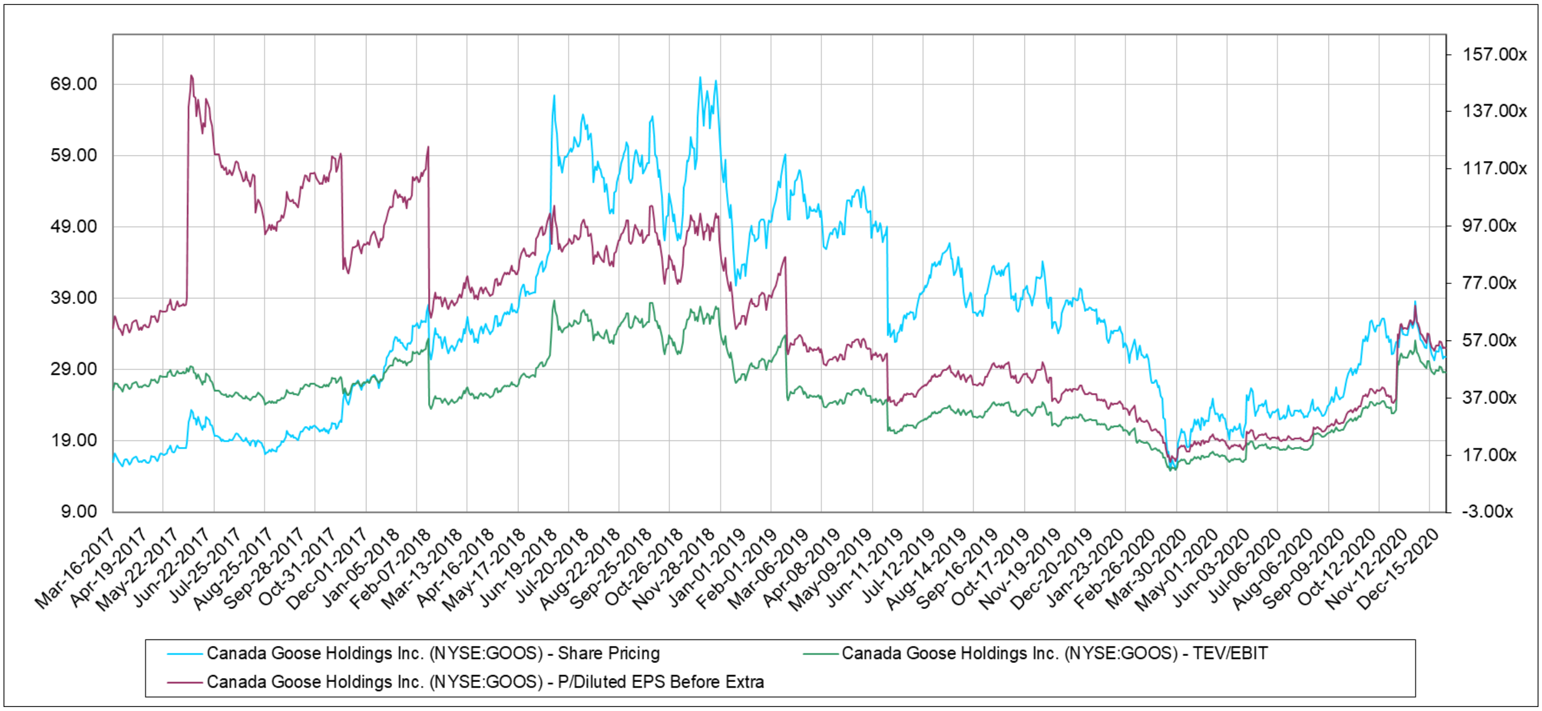
Appendix A: Income Statement & Forecast

	31/03/2014	31/03/2015	31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020	31/03/2021	31/03/2022	31/03/2023	31/03/2024	31/03/2025
In CAD Millions	**2014A**	**2015A**	**2016A**	**2017A**	**2018A**	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**
Income Statement												
Revenue by region												
Canada	72.54	75.73	95.24	155.10	228.80	293.30	293.10	205.17	287.24	287.24	287.24	287.24
US	33.57	56.99	103.41	131.90	184.20	251.10	279.00	167.40	276.21	290.02	304.52	319.75
Asia	0.00	0.00	0.00	0.00	36.10	112.10	199.90	249.88	312.34	390.43	488.04	610.05
Europe	45.98	85.70	92.18	116.80	142.10	174.00	186.10	130.27	188.89	194.56	200.39	206.41
Revenue by channel												
Direct-to-customer	0.00	8.00	33.02	115.20	255.00	431.30	525.00	435.04	647.28	741.47	855.12	996.41
Wholesale	152.09	210.42	257.81	288.60	334.60	394.70	424.00	317.68	417.40	420.78	425.08	427.03
Other	0.00	0.00	0.00	0.00	1.60	4.50	9.10	0.00	0.00	0.00	0.00	0.00
Total revenue	**152.09**	**218.41**	**290.83**	**403.80**	**591.20**	**830.50**	**958.10**	**752.72**	**1,064.68**	**1,162.25**	**1,280.19**	**1,423.44**
Gross profit by channel												
Direct-to-customer	0.00	5.87	24.21	87.00	189.80	324.60	395.00	326.28	485.46	556.10	641.34	747.31
Wholesale	55.76	82.74	121.41	125.10	157.50	192.50	197.80	142.95	187.83	189.35	191.28	192.16
Other	0.00	0.00	0.00	0.00	0.30	-0.30	0.50	0.00	0.00	0.00	0.00	0.00
Total gross profit	**55.76**	**88.61**	**145.62**	**212.10**	**347.60**	**516.80**	**593.30**	**469.23**	**673.29**	**745.45**	**832.62**	**939.47**
EBIT by channel												
Direct-to-customer	0.00	4.48	10.08	59.50	128.20	223.30	249.00	217.52	323.64	370.73	427.56	498.20
Wholesale	3.90	45.58	94.37	94.40	121.10	151.10	145.10	111.19	146.09	147.27	148.78	149.46
Unallocated	0.00	-23.40	-63.50	-113.40	-111.20	-177.70	-202.00	-158.07	-223.58	-244.07	-268.84	-298.92
Total EBIT	**3.90**	**26.66**	**40.95**	**40.50**	**138.10**	**196.70**	**192.10**	**170.64**	**246.15**	**273.93**	**307.49**	**348.74**
Net interest expense	-3.60	-7.10	-7.90	-11.80	-12.50	-13.60	-20.60	-27.30	-39.38	-43.83	-49.20	-55.80
Income tax	-0.50	-4.71	-6.47	-8.90	-29.10	-38.90	-12.00	-30.71	-44.31	-49.31	-55.35	-62.77
Other income (expenses)	0.00	-0.43	-0.09	1.80	-0.40	-0.60	-7.80	-1.50	-1.50	-1.50	-1.50	-1.50
Net Income	**-0.20**	**14.43**	**26.49**	**21.60**	**96.10**	**143.60**	**151.70**	**111.12**	**160.96**	**179.30**	**201.45**	**228.67**
EPS	-0.00	0.13	0.24	0.20	0.87	1.30	1.38	1.01	1.46	1.63	1.83	2.07
Net Debt												
Cash and equivalent	0.00	5.92	7.23	9.68	95.30	88.60	31.70	33.34	48.29	53.79	60.43	68.60
Short-term debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00	15.00	20.00	25.00	30.00
Long-term debt	0.00	110.13	138.25	146.09	137.30	145.20	158.10	166.01	174.31	183.02	192.17	201.78
Long-term lease	0.00	0.00	0.00	0.00	0.00	0.00	192.00	223.20	250.00	270.00	290.00	310.00
Net debt	**0.00**	**104.22**	**131.02**	**136.41**	**42.00**	**56.60**	**318.40**	**366.87**	**391.02**	**419.23**	**446.74**	**473.18**
Y/Y Growth												
Revenue												
Canada		4.39%	25.77%	62.86%	47.52%	28.19%	-0.07%	-30%	40%	0%	0%	0%
US		69.78%	81.46%	27.55%	39.65%	36.32%	11.11%	-40%	65%	5%	5%	5%
Asia						210.53%	78.32%	25%	25%	25%	25%	25%
Europe		86.39%	7.56%	26.71%	21.66%	22.45%	6.95%	-30%	45%	3%	3%	3%
EBIT		583.54%	53.60%	-1.09%	240.99%	42.43%	-2.34%	-11.17%	44.25%	11.29%	12.25%	13.41%
Net income		-7459.69%	83.60%	-18.44%	344.91%	49.43%	5.64%	-26.75%	44.85%	11.39%	12.35%	13.51%
Long-term debt			25.53%	5.67%	-6.02%	5.75%	8.88%	5.00%	5.00%	5.00%	5.00%	5.00%
Margins												
Gross margin												
Direct-to-customer		73.36%	73.32%	75.52%	74.43%	75.26%	75.24%	75.00%	75.00%	75.00%	75.00%	75.00%
Wholesale	36.67%	39.32%	47.09%	43.35%	47.07%	48.77%	46.65%	45.00%	45.00%	45.00%	45.00%	45.00%
EBIT margin												
Direct-to-customer		56.04%	30.53%	51.65%	50.27%	51.77%	47.43%	50.00%	50.00%	50.00%	50.00%	50.00%
Wholesale	2.56%	21.66%	36.60%	32.71%	36.19%	38.28%	34.22%	35.00%	35.00%	35.00%	35.00%	35.00%
Net income margin	-0.13%	6.60%	9.11%	5.35%	16.26%	17.29%	15.83%	14.76%	15.12%	15.43%	15.74%	16.06%
Ratios												
DTC Rev. % Total Rev.	0.00%	3.66%	11.35%	28.53%	43.13%	51.93%	54.80%	57.80%	60.80%	63.80%	66.80%	70.00%
Unallocated EBIT % Total Rev.	0.00%	-10.71%	-21.83%	-28.08%	-18.81%	-21.40%	-21.08%	-21.00%	-21.00%	-21.00%	-21.00%	-21.00%
Net Int. Exp. % EBIT	-92.31%	-26.63%	-19.29%	-29.14%	-9.05%	-6.91%	-10.72%	-16.00%	-16.00%	-16.00%	-16.00%	-16.00%
Tax % EBIT	-12.72%	-17.66%	-15.81%	-21.98%	-21.07%	-19.78%	-6.25%	-18.00%	-18.00%	-18.00%	-18.00%	-18.00%
Cash % Net income	0.00%	41.03%	27.28%	44.81%	99.17%	61.70%	20.90%	30%	30%	30%	30%	30%

Blues are hand-typed input and assumptions; blacks are text and calculated numbers. Boxes on the right side are the most important assumptions.

Appendix B: Historic Trading Data and Financial Snapshot

Historic Chart:



Financial Snapshot:

	Mar '16	Mar '17	Mar '18	Mar '19	Mar '20	5Yr CAGR
Sales	290.8	403.8	591.2	837.0	957.9	34.4%
EBITDA	41.5	80.8	154.9	215.5	254.2	53.1%
EBIT	35.6	72.3	140.6	192.8	191.1	48.1%
Net Inc	26.5	21.6	96.1	143.6	151.7	60.1%
EPS (Dil)	0.25	0.20	0.86	1.28	1.36	58.8%
Assets	353.0	380.9	548.4	725.4	1,112.7	32.3%
Wkg Cap	104.8	99.0	167.4	276.6	322.9	37.9%
LT Debt	138.3	146.1	137.1	145.2	350.1	26.0%
Net Op CF	-6.4	39.3	126.2	73.4	60.2	64.7%
Cap Ex	-21.8	-26.3	-33.8	-49.3	-62.3	
FCF	-21.5	23.5	100.1	43.1	14.9	67.5%
	Mar '16	**Mar '17**	**Mar '18**	**Mar '19**	**Mar '20**	**5Yr Avg**
Gross Margin (%)	48.5	50.9	57.2	60.3	56.6	54.7%
EBITDA Margin (%)	14.3	20.0	26.2	25.7	26.5	22.6%
EBIT Margin (%)	12.2	17.9	23.8	23.0	19.9	19.4%
Net Margin (%)	9.1	5.4	16.2	17.2	15.8	12.7%
ROA (%)	8.2	5.9	21.1	22.6	17.2	15.0%
ROE (%)	20.1	15.0	50.1	44.9	34.3	32.9%
TDebt%TEQ	97.8	99.9	56.3	36.4	74.2	72.9

All monetary values in millions of CAD, except per share data

	31-Dec-20
52 Week Range	$12.94 - 39.32
Avg Daily Vol (3 Mo)	1,351,381.10
Basic Shares (M)	110.1
Market Cap (M)	3,311
Dividend Yield	0.00%
IPO Date	15 Mar '17
FD Shares Out (M)	110.3
FD Mkt Cap (M)	3,315
EV (M)	3,485
Float	99.60%
Institutional	90.80%
Top 10 Inst Hldrs	53.40%
Broker Contributors	16
Avg Rating	Overweight (1.59)

All monetary values in USD

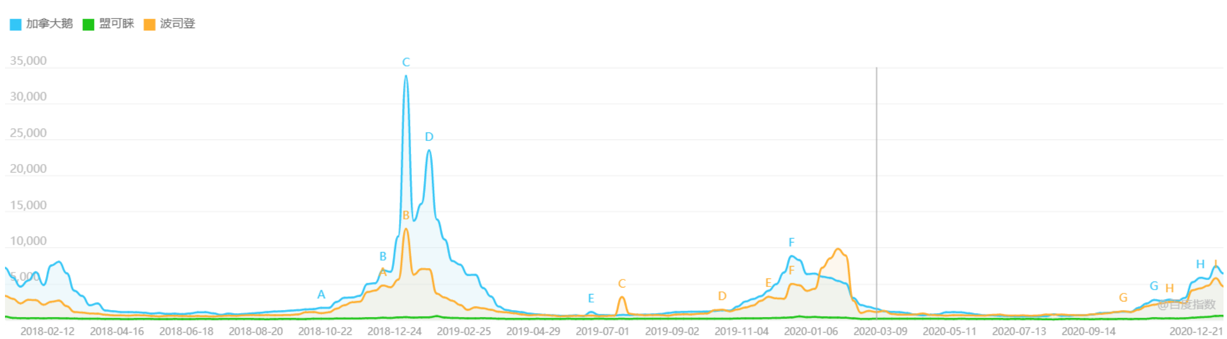
Appendix C: Collections Comparison

Moncler:

Canada Goose:

Bosideng:

Baidu Index (The Chinese version of Google Trends) of the three companies:



* The blue line is Canada Goose, the green line is Moncler, and the orange line is Bosideng

Appendix D: Intrinsic Value of GOOS's P/E Ratio

As proved by Miller and Modigliani (1961) and discussed by Mauboussin (2005), an investor can express the value of a company in two parts:

$$Value = steady\ state\ value + future\ value\ creation$$

And Mauboussin (2005) showed that

$$Steady\ state\ value = \frac{Net\ operating\ profit\ after\ tax}{WACC} + cash\ and\ non\ operating\ assets$$

$$Future\ value = \frac{Investment \times (Return\ on\ capital - WACC) \times Competitive\ advantage\ period}{WACC \times (1 + WACC)}$$

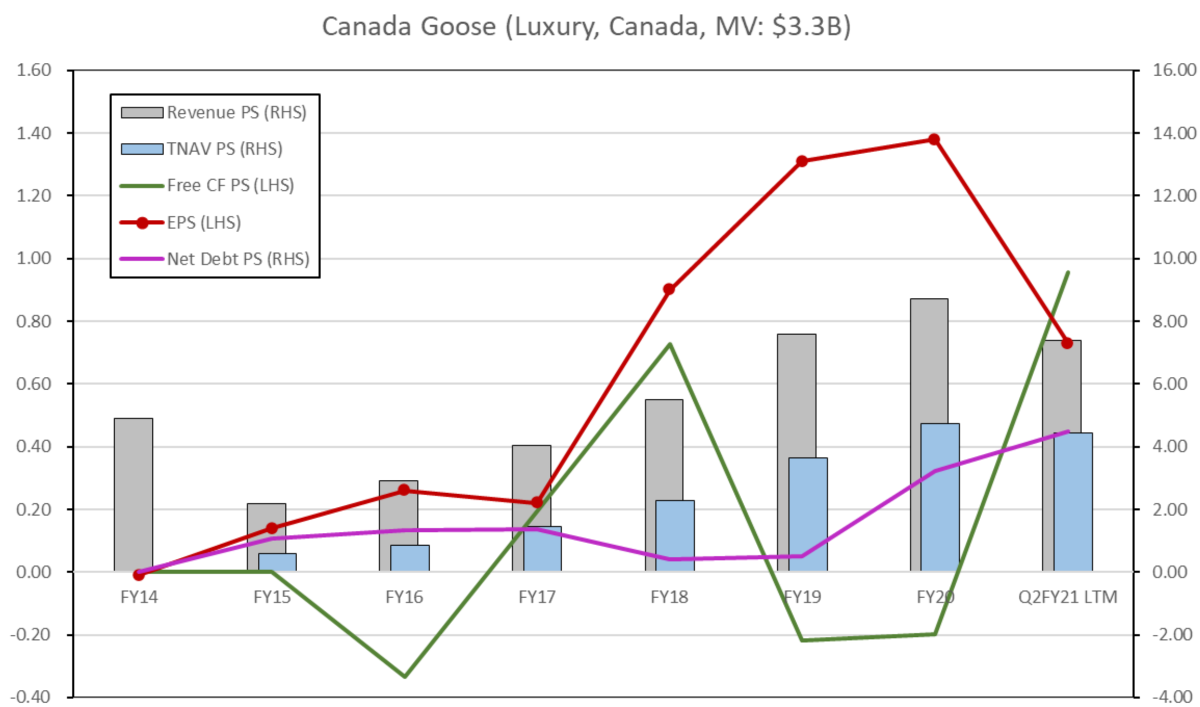
Therefore, steady-state P/E ratio = 1/WACC. GOOS's beta is 1.55, the equity risk premium is 4.97% (Prof. Aswath Damodaran's latest calculation), and the risk-free rate is 0.95%. Thus, GOOS's WACC is around 8.65% and the steady-state P/E should be 1/8.65%=11.6. Note that Investment/Net Profit is the reciprocal of return on invested capital (ROIC); therefore, we have:

$$Future\ value\ P/E = \frac{(ROIC - WACC) \times Competitive\ advantage\ period}{ROIC \times WACC \times (1 + WACC)}$$

GOOS's average ROIC in the two years before the pandemic was 21.75% and I expect the company's ROIC to return to this level after the pandemic. Because no existing luxury brand is seeking to break GOOS and Moncler's duopoly in luxury winter parka market any time soon, and Bosideng will not be able to rechallenge GOOS at least for another five years, I assumed that GOOS's competitive advantage period will be five years. Plug these numbers into the formula above, GOOS's future value P/E would be 32.

Therefore**, GOOS's intrinsic P/E ratio is 11.6+32=43.6**. Furthermore, GOOS has been accelerating investment in factories in recent years to increase its production capacity in response to the high demand. In that case, future value P/E would be higher. I used a 35x P/E in valuation, and that should provide enough margin of safety.

Appendix E: Historic Fundamental Data



Appendix F: How did I find this stock?

In value investing, the first step is to look for potentially undervalued stocks. I borrowed an analytical algorithm from operational research, the Data Envelopment Analysis (DEA), to help me find companies whose valuation comps are not warranted by their financial statements.

DEA is a method that enables us to compare and rank records based on their features without making any prior assumptions about the importance or weights of the features. Each record/stock has M inputs that measure the financial performances, and N outputs that measure the company's valuation.

$$Efficiency\ of\ stock\ i = \frac{weighted\ average\ of\ outputs}{weighted\ average\ of\ inputs} = \frac{\sum_{r=1}^{r=N} u_{r,i} y_{r,i}}{\sum_{s=1}^{s=M} v_{s,i} x_{s,i}}$$

where u and v are the weights of each output and input of the record. Then the problem of finding the best weights for a particular record i can be formulated as follows:

$$maximize\ h = \frac{\sum_{r=1}^{r=N} u_{r,i} y_{r,i}}{\sum_{s=1}^{s=M} v_{s,i} x_{s,i}}$$

$$subject\ to\ \frac{\sum_{r=1}^{r=N} u_{r,i} y_{r,j}}{\sum_{s=1}^{s=M} v_{s,i} x_{s,j}} \leq 1\ for\ every\ j\ record$$

$$u_{r,i}, v_{s,i} \geq 0$$

The above optimization problem can be solved with Linear Dynamic Programming. The h in the first equation is called efficiency. A low efficiency indicates that the company might be undervalued. To apply this algorithm to assist value investing, I used each company's financial statistics as inputs and valuation comps as outputs (see table below).

Inputs	Beta, operating margin, profit margin, revenue per share, return on assets, return on equity, EPS, revenue growth, leverage ratio
Outputs	Trailing P/E, forward P/E, EV/Sales, EV/EBIT, P/BV, PEG, P/sales

I ran this algorithm to all the stocks in the consumer discretionary industry with a market capitalization above $3 billion. I then ranked all the stocks by their efficiencies from low to high. The stocks with the lowest efficiency have the best chance of being undervalued, i.e., their financial statistics tell a different story from their valuation. What the algorithm gave me was a lead to a story that had to be developed. I would take a more in-depth look into the most undervalued stocks and analyse their fundamentals to decide if they are cheap for a valid reason.

On top of my list were Canada Goose (GOOS) and Carmax (KMX). Carmax also appears undervalued but whether the stock can become a two-bagger depends on whether Carmax can regain same-store-sales growth with its omnichannel roll-out, which I am not entirely confident about. I believe GOOS has the best chance of becoming a two-bagger and has a much bigger margin of safety.