

Dollar General – Analysis & Valuation

By Moritz Neuhäusler

March 1st, 2024

Kontakt: moritz.neuhaeusler@gmx.de; +49 174 519 2648; [Linkedin](#)

Disclaimer: I purchased shares at an average price of \$121 per share, and the position is about 7% of my portfolio. Financial data is retrieved from TIKR.com; additional data is retrieved from DG's annual reports as well as other filings from Dollar General's investor relations section. The analysis is done to the very best of my knowledge, but I recommend that you do your own research and to take your own independent decision! If you have any questions or suggestions, feel free to contact me!

Thesis

Overview

Dollar General is a discount retail chain operating in the US that recently got attention from the value investing community due to its distressed price and the potential discount to its underlying intrinsic value.

Dollar General opened their first store in 1955 and was run as a family business until Cal Turner Jr's retirement in 2002. Up to that point, DG operated 6.000 stores and had sales around \$6.1 (bn). Today DG operates 19.643 stores and has sales around \$39 (bn), which equates to a CAGR in store count of 6.1% and CAGR in revenues of 9.2%.

With a market share of 34.6%, Dollar General is the biggest dollar store chain in the US. 75% of their stores are located in communities with less than 20K inhabitants, which makes them unattractive for bigger retailers like Costco, Kroger's, Walmart, and others that work on scale. While the average Walmart store has 187K square feet, and the average Costco store has around 147K square feet, an average Dollar General location has only 7k square feet.

The majority of their stores are located in the Northeast, Mideast, Southeast, and Midwest of the United States, which leaves space to grow the business in the US, but also in other countries like Canada and Mexico, where they can take advantage of their existing distribution network. In March 2023, Dollar General started their initiative to expand across borders by opening their first super store in the north-eastern part of Mexico. Furthermore, they started to introduce and adapt new store concepts under different brands to target further customer groups. Given the possibilities for potential expansion, the business has plenty of runway for growth in the years to come.

Current headwinds

While the business is steadily growing and highly predictable, it is currently facing multiple issues. Some of them are non-related to the business, while others are business-related but resolvable, which led to a depressed share price and an opportunity to participate in an asymmetric bet. In November 2022, DG was trading at a peak of \$253. Until October 2023, the price fell to \$102 and is currently trading around \$140.

Business-related issues:

1) The retail industry is increasingly facing issues with shrinking (shop lifting) that come partly from eased punishment and an increase in drug-related issues in the US. While this is not a new phenomenon in the retail industry, it seems that the pandemic has exacerbated this problem. While US Retail lost revenues of about \$61.7 billion in 2019, losses due to theft increased roughly 47% to \$90.8 billion in 2020 and roughly 81% to \$112 billion in 2022 (<https://capitaloneshopping.com/research/shoplifting-statistics/>). Even though this issue is not directly related to the depreciation of DG's share price, it contributes to the general attractiveness of the industry to shareholders.

2) Retailers are increasingly facing issues managing their inventory, starting in FY 2022. It seems that between Q1 2022 and Q2 2023, dollar stores like Dollar General and Dollar Tree had bigger problems with piling inventory than many other retailers. Along with changes in accounts payable, this led to a depressed free cash flow for DG in FY 2022 and a cash conversion of only 17.6%, compared to a 10-year average of almost 80%. As announced in their earnings call on August 31st, DG will spend \$25 (mio) to tackle this issue and better forecast demand while also doing promotional markdowns to sell off excess inventory. It seems that these measures already have effects. Still, changes and irregularities in the business environment are definitely challenging for retailers. The upcoming quarters will show whether the issue is resolved sustainably.

3) Due to the operational issues, DG adjusted their guidance in earnings calls on June 1st and August 31st, 2023, each leading to a strong decline in share price the following days. The decline in sales per store, as well as the shrink, markdowns, inventory damages, and inefficiencies concerning their supply chain management, seemed to be more challenging than expected. At the earnings call on August 31st, they adjusted their sales guidance for net sales growth to 1.3% to 3.3% from

previously 3.5% to 5% for FY 2023. They expect same-store sales growth to be in the range of negative 1% to 1%, up from previously expected 1% to 2%. The EPS guidance was adjusted to a range of \$7.1 to \$8.3, or negative 34% to negative 22%.

4) In November 2022, CEO Todd Vasos was replaced by Jeff Owens, who took the lead until he was removed shortly after in October 2023 due to operational issues and the increasing lack of shareholder trust. Todd Vasos, who was in a consultancy agreement with the company, came back to his role as CEO, which led to an immediate stabilization of the share price.

5) The fifth issue is the substantial amount of leverage the business is using. While leverage helps to improve ROE and can be a useful tool in certain environments, it can also cause major issues and even wipe out shareholders. Currently, the business is using about 10x normalized FCF (5y avg. FCF) considering all non-current liabilities and about 4.6x normalized FCF considering non-current liabilities net of capital leases. Their interest coverage is 5.3x FCF (5y avg.). Looking at Dollar Tree, their main competitor, this seems to be standard practice in the dollar store business, but it doesn't change the fact that it can become an issue in an environment of hiking interest rates. Even though the issue of rising inflation seems to have normalized for now, I don't want to engage in speculation about future economic developments. Rising inflation and hiking interest rates are the major threads for Dollar General's profitability and shareholder returns, in my opinion.

Besides problems related to shop lifting, which I don't consider operational issues rather than macro-economic issues, I strongly believe that the seasoned management team around CEO Todd Vasos and Michael Calbert will be able to guide the business back on track sooner or later and that the business will come out of the crisis with lessons learned and more resilience. The outlined issues are part of the regular ups and downs in the business world, and none of them are concerning to the degree that one would consider them to be a major thread, despite the potential hike in interest rates, which should be closely monitored.

Issues that are non-related to the business:

Factors that are non-related to the business itself should be widely known. 2022 and 2023 was dominated by inflation, fear of recession, rate-hikes by the FED, global conflicts, and an increased level of economic uncertainty, which broadly lead to lower valuations. While these are at least partly ongoing concerns, as a long-term investor I think it is not very useful to focus on these aspects, since I believe that there are only two types of economists. Those who know that they can't predict the future and those who don't know that they can't predict the future.

The best way to insure yourself against bad times is either to pick an amazing business at a fair price or a good business at a great price. As I believe, Dollar General is the later.

Competitors

While the retail industry is vast, the segment of dollar and variety stores is comprehensible. With a market share of about 22.8% in 2012, Dollar General was able to expand their market share to a total of 34.6% as of today, which speaks for the strength of their business model. Due to DG's ability to run operations efficiently, to provide lower prices, and the fact that they allocate capital in markets that are not worthwhile for big retailers, Dollar General is able to drive out competitors and gain market share, as seen in the table below.

Company	Revenue (Current)	Revenue (2012)	Market Share (Today)	Market Share (2012)	Chang of Market Share	Time Span	Fade Rate
Dollar General	\$ 39.036,00	\$ 14.807,19	34,6%	22,8%	11,8%	11	1,1%
Dollar Tree	\$ 29.664,90	\$ 6.630,50	26,3%	10,2%	16,1%	11	1,5%
Others	\$ 44.200,79	\$ 43.562,31	39,1%	67,0%	-27,9%	11	-2,5%
Total Dollar & Variety Stores	\$ 112.901,69	\$ 65.000,00	100,0%	100,0%	0	11	0

*Dollar store market revenue in US according to www.ibisworld.com

DG's biggest competitor is Dollar Tree, which is a real dollar store that sells all of its items for \$1.25. In 2015, Dollar Tree acquired Family Dollar, which is a discount retailer that is very similar to Dollar General in terms of price range and items. While Dollar Tree was able to grow revenues at a significantly higher rate than DG, we have to take into account the acquisition. If we take a look at the change in market share before and after the acquisition of Dollar Family, we can see that the change in market share is rather stable and that Dollar General is actually gaining shares over Dollar Tree since 2016 at a rate of 0.7% per year.

Change in Market Share (2004 – 2014)

Company	2014	2004	Market Share 2014	Market Share 2004	Period	Change per Year
Dollar General	\$ 18.909,59	\$ 7.660,93	68,7%	71,0%	10	-0,23%
Dollar Tree	\$ 8.602,20	\$ 3.126,00	31,3%	29,0%	10	0,23%
Sum	\$ 27.511,79	\$ 10.786,93	100,0%	100,0%		

Change in Market Share (2016 – 2023)

Company	Today	2016	Market Share 2014	Market Share 2004	Period	Change per Year
Dollar General	39.036,00	21.986,60	56,8%	51,5%	8	0,7%
Dollar Tree	29.684,60	20.719,20	43,2%	48,5%	8	-0,7%
Sum	68.720,60	42.705,80	100,0%	100,0%	8	

Summarizing, we can see that Dollar General is gaining market share in the market of dollar and variety stores as a whole, as well as versus their main competitor, Dollar Tree, in recent years. Furthermore, we can see that the change in market share is rather stable, which will be relevant to the valuation later on.

Key Metrics vs. Dollar Tree

Key Metrics:	Dollar General			Dollar Tree		
	5y	10y	overall	5y	10y	overall
Growth						
Revenue Growth %	8,8%	8,4%	9,0%	5,4%	14,2%	12,5%
Store Growth %	5,6%	6,8%	6,1%	1,8%	0,0%	10,4%
EPS Growth %	7,8%	10,6%	12,2%	-195,4%	6,9%	12,4%
Free Cash Flow per Share Growth % (incl. Growth Capex)	-17,2%	-0,1%	7,2%	-5,4%	3,6%	28,5%
Total Shares Outstanding	-3,3%	-3,5%	-1,9%	-1,8%	0,6%	-2,2%
Margins						
Gross Margin	31,2%	31,0%	30,3%	30,3%	32,9%	37,3%
Operating Margin	8,9%	9,0%	8,1%	7,0%	8,0%	7,8%
Net Income Margin	6,5%	6,2%	4,8%	4,7%	3,7%	4,0%
Free Cash Flow Margin (less Growth Capex)	5,1%	5,1%	4,1%	3,6%	3,7%	2,2%
Liquidity						
Current Ratio	1,18	1,38	1,62	1,35	1,65	2,22
Management Efficiency						
ROE	35,1%	29,2%	23,7%	16,1%	12,9%	14,9%
ROCE	10,5%	11,6%	10,4%	7,1%	5,7%	7,2%
FCFROE	9,2%	9,2%	8,6%	5,4%	6,7%	7,8%
FCFROE	27,1%	23,3%	19,4%	12,3%	12,4%	13,6%
ROCE (adjusted)	18,0%	16,2%	13,0%	10,0%	7,0%	8,5%
FCFROE (adjusted)	13,9%	13,0%	10,7%	7,6%	6,7%	7,8%
Value Creation Factor (Incr. Revenue to Incr. Capital)	3,26	4,11	2,62	2,81	1,86	2,14
Cash to Investors						
Cash to Investors as % of Revenue	7,0%	6,3%	4,1%	2,1%	1,0%	3,0%
Cash to Investors as % of Free Cash Flow (less Growth Capex)	141,7%	126,9%	90,8%	91,5%	46,3%	69,4%
Cash to Investors as % of Net Income	109,4%	101,4%	74,5%	43,3%	21,8%	51,1%
Cash Conversion						
Cash Conversion	77,3%	79,9%	82,0%	76,4%	96,3%	91,5%
Leverage						
Non-Current Liabilities (less Capital Leases) to 5y avg. FCF (less Gr	Current			Current		
Non-Current Liabilities to 5y avg. FCF (less Growth Capex)	4,57			5,05		
Interest Coverage (5y avg. FCF (less Growth Capex)	10,14			10,83		
	5,29			8,84		

* Overall numbers for Dollar General are calculated from 2001–today; numbers from Dollar Tree are calculated from 2003–today.

**Due to the acquisition of Family Dollar as well as the variance in EPS and FCF growth due to the recent headwinds, the line items in the growth section are less reliable if we look at them on a 5–10-year horizon. Free cash flow growth per share is also not representative of Dollar Tree, even if we look at it from a long-term perspective.

On the table above, we can see that Dollar General is doing better than Dollar Tree on pretty much every metric, with the exception of interest coverage, which is also slightly diluted due to DGs recent issues with cash conversion.

As laid out in the previous section, DG is growing slightly faster than DT in recent years, even though DT's revenue growth for the last 20 years was on average about 3.5% higher due to the acquisition of Family Dollar in 2015. The number of stores grew faster for DG in the last 5 years, and EPS grew about the same rate over 20 years.

Dollar General has higher margins, which tremendously affects the bottom line, considering that retail is a business with thin margins. The current ratio shows that they don't have any issues concerning their liquidity. Yet, Dollar General is managing its assets more effectively than Dollar Tree.

Looking at the metrics under the section management efficiency, we can see that Dollar General's business model and their management are way more effective than Dollar Tree. I don't want to get into every single-line item. What stands out is the adjusted return on capital employed (ROCE (adjusted)—*net of capital leases*). With an average of 18.0% for the last 5 years and an average of 16.2% for the last 10 years, we can see that Dollar General is way better in terms of profitability and value creation compared to Dollar Tree, which has an adjusted ROCE of 10% for the last 5 years and 7% for the last 10 years. Value creation is the difference between ROCE and WACC. Considering a rather conservative weighted average cost of capital of about 8.5% for both, Dollar General is creating an additional value of \$7.7 for every \$100 of capital employed, while Dollar Tree is destroying \$1.5 for every \$100 of capital employed, if we look at it from a 10-year perspective.

The value creation factor is also an important metric that tells a lot about the quality of the business as well as the quality of the management. It measures incremental revenue on incremental capital employed and shows how efficiently management is allocating capital. Management can be considered good when they are able to achieve a value higher than 1.35 (*\$1 of active reinvestment (or additional capital) creates \$1.35 in incremental revenue*). If the value is lower than the cost of capital ($< \$1.09$), the business is destroying value through growth. Obviously, what can be considered good depends on the industry as well as the business. Looking at the last 5 to 10 years, Dollar General's ability to allocate capital is remarkable. In any period, Dollar General is doing way better than Dollar Tree.

Considering the return on capital employed (net of capital leases) of 16.2% for the last 10 years, the value creation factor of 4.11, a revenue growth of 8.4% per year with a growth in the number of stores of 6.8%, as well as the EPS growth of 10.6% combined with a cash conversion of almost 79.9%, Dollar General looks like a very solid business. Given the fact that retail is a very difficult and highly competitive industry, it can be concluded that their success is no less attributed to their seasoned management team.

Management

The management team around CEO Todd Vasos, CFO Kelly Dilts, and Chairman Michael Calbert can be considered well-seasoned. Most of the members of the management team have 10 to 20 years of experience working for Dollar General in different roles or come from well-recognized companies in the retail industry or related fields. The board consists of extremely experienced and highly competent professionals with diverse backgrounds from industries such as private equity, retail, logistics, marketing, and consulting.

Todd Vasos joined Dollar General in 2008 as Executive Vice President, Division President, and Chief Merchandising Officer before he was promoted CEO and joined the board in 2015. As mentioned, Vasos retired at the end of 2022 and went into a consulting agreement with Dollar General before coming back from retirement in October 2023. Vasos is estimated to have a fortune of at least \$50 to \$100 (mio) and currently owns almost 146K shares of Dollar General, which equates to roughly \$20 (mio). His compensation consists of 10% salary, 14% short-term incentives, which focus on adjusted EBIT, and 76% long-term incentives, which are split 50/50 with a focus on the stock price as well as on 1-year adjusted EBITDA plus 3-year adjusted ROIC. Compensation for other non-executive officers consists of 22% salary, 18% short-term incentives, and 60% long-term incentives.

Chairman Michael Calbert is a well-respected private equity guy who joined KKR in 2000, where he led the retail industry team until his retirement in 2014 and has served on the board of DG since 2016. He has also served as director of PVH Corp. since May 2022 and as director of AutoZone from May 2019 to December 2021. In 2022, Calbert got paid \$457.889–\$112.500 as salary, \$326.310 as a bonus in stock awards, and \$19.079 in other compensation. With the exception of Ana Chadwick, Calbert has the highest ratio of stock awards to cash compensation and is the highest-paid member of the board. Furthermore, Calbert owns about 118.5K shares of DG, which equates to roughly \$17 (mio).

Kelly Dilts has served as Executive Vice President and Chief Financial Officer since May 2023. She joined DG in July 2019 as Senior Vice President and oversaw financial planning and analysis, procurement, margin planning, analytics, and investor relations. Prior to her engagement with DG, she served as Executive Vice President and Chief Financial Officer at Francesca's Holdings Corporation, which is a specialty retailer operating a chain of boutiques from April 2016 until July 2019. Her compensation follows the same structure as the compensation of Vasos and other executives. It is not disclosed how much stock she owns.

Looking at the structure of the compensation as well as the ownership of shares, their incentives are aligned with the interests of the shareholders, which, besides competence and integrity, is one of the most important indicators for good results. As Charlie Munger once said, "*Show me the incentives, and I will show you the outcome.*"

Valuation

As laid out in the section “Key Metrics vs. Dollar Tree” I believe that from a business owner perspective, Dollar General is far better than Dollar Tree in many aspects. Yet, Dollar Tree has a higher relative valuation as the following table shows.

Historic Valuation (DG)	Current	Min	Avg	Max
LTM Price / Diluted EPS (P/E)	16,37	12,21	20,09	27,47
LTM Price / Sales (P/S)	0,80	0,67	1,14	1,66

Historic Valuation (DT)	Current	Min	Avg	Max
LTM Price / Diluted EPS (P/E)	27,72 -	16,86	20,18	67,74
LTM Price / Sales (P/S)	1,07	0,60	1,13	2,09

While I don't think it is smart to value businesses relative to others, I still want to demonstrate that, despite being the better business, DG is valued much cheaper than Dollar Tree. EPS is not the best basis for the current comparison due to the variance in earnings. It makes more sense to look at the sales multiple. Considering a 10-year average free cash flow margin of 5.1% for DG and 3.7% for DT, DG has a current FCF yield of 6.4%, while DT is trading at a FCF yield of 3.4%. Dollar General is trading with a discount of almost 50% compared to Dollar Tree, although it is the stronger business!

To determine the intrinsic value, I have decided to triangulate by using three methods. As a first method, I used a simple free cash flow multiple, which I don't see as a valuation, rather than an estimation to double-check results from other valuation methods. As a second method, I used the franchise valuation by Bruce Greenwald. Since I had to tweak the input variables slightly to get a realistic valuation with this method, I've decided to use a DCF scenario analysis as a third method to determine an expected value.

1) Simple FCF Multiple

As demonstrated on the table above, we can see that the average EPS multiple for both businesses is 20x EPS on average (*since 2010 for DG and 2008 for DT*). Considering that DG has a cash conversion of about 80%, a multiple of 20x FCF is slightly more conservative. The multiple of 20, which I used in the graphic below, is calculated like the terminal value in a DCF valuation, with the exception that I didn't use a terminal growth rate, but rather a realistic growth rate that DG is very likely to sustain within 5 to 10 years (*multiple = 1/(WACC-Revenue Growth)*). Since results in the terminal value formula vary strongly compared to small changes in input variables, I don't consider it to be a useful method, so I've set the input variables accordingly to get to the average EPS multiple of DG and DT, which is 20x EPS.

Assuming a FCF multiple of 20x, we get an intrinsic value of \$181,96. Considering cash and debt, we get an intrinsic value of \$144,55.

1) Simple Normalized FCF Multiple on TEV

	Market Cap	TEV
Price per Share	\$ 143,51	
Value per Share	\$ 181,96	\$ 144,55
There is a discount!	-21,1%	-0,7%

Multiple	20,00	25
WACC	9,0%	12,0%
Revenue Growth at Omission	4,0%	8,0%

Simple TEV Multiple	
Cash	\$ 365,45
Debt (no Capital Leases)	\$ 7.845,08
Normalized Free Cash Flow	\$ 1.997,00
Intrinsic Value	\$ 31.729,47
Market Cap	\$ 31.500,00

2) Franchise Value by Bruce Greenwald

According to Bruce Greenwald, a franchise exists when the earnings power value of a business under a no-growth assumption is higher than the asset reproduction costs of the business. While the gap between EPV and ARC is not extremely big for Dollar General, it still exists, so we can consider DG a franchise business. Greenwald's approach is not very handy in my opinion, and I would simplify by saying: If a business would not possess a competitive advantage, it would not be able to have a ROCE that is much bigger than its WACC. Looking at it from a different perspective, we can see that DG has an adjusted return on capital employed of 16.2% on a 10-year perspective while having a weighted average cost of capital of 8.5% under conservative assumptions. If DG did not have a competitive advantage, the gap between ROCE and WACC would be much smaller.

To use this method properly, I had to slightly tweak the input variables. DG has distributed 75% of earnings as cash to investors (dividends and share buybacks) in the last 20 years. This ratio can vary over time and was even higher in the last 5–10 years. To leave enough cash for organic growth plus active reinvestment, I had to adjust cash to investors to 48% of net income in order to get an appropriate growth rate of 8.4% (10-year average revenue growth).

Also, it is not that simple to figure out an appropriate fade rate since you need to know the minimum required market share to compete with Dollar General as well as the change in market share per year. To get to the change in market share, I was comparing DG and DT in the periods 2014–2004 and 2023–2016, since the acquisition of Family Dollar in 2015 would dilute the results. In the first period, we get an average rate of change of 0.23% per year. In the second period, we get an average rate of change of 0.7%.

Figuring out how much of the minimum required market share is needed to compete with DG is much more difficult than that. Greenwald sees the minimum required market share as the market share that a competitor needs to run operations profitably. Dividing the required market share by the change in market share per year gives you a moat that is measured in years. While it doesn't take a huge market share to run a retail store profitably, it does require a bigger share to compete with Dollar General in terms of offering lower prices, which is what discount retail is about. You need to have a certain size to buy in bulk, to run the logistics infrastructure efficiently, to minimize marketing costs per item sold, etc. I would assume that in order to compete with Dollar General, it takes a market share of at least 10% to 15%, but I can't really put a number on it, so I simplified by assuming a moat of 25 years. This gives us a fade rate of 2.9% per year, which I think is rather conservative.

Using Greenwald's method, we get an intrinsic value of roughly \$178 per share. If we consider cash and debt, the value is about \$144 per share.

2) Total Franchise Value by Bruce Greenwald

	Market Cap	TEV
Price per Share	\$ 143,51	
Value per Share	\$ 177,97	\$ 143,89
There is a discount!	-19,4%	-0,3%

	Value	as % of Revenue	Aux	as % of Market Cap
Market Cap	\$ 31.500,00			
Total Enterprise Value	\$ 38.979,63			
Sustainable Revenue	\$ 39.036,00			
Sustainable Net Income	\$ 2.426,17	6,2%		
Cash to Investors	\$ 1.164,56	3,0%	48,0%	3,70%
Organic Growth	\$ 585,54		1,5%	
AP adjustment	\$ 26,35		4,5%	
Organic Growth (adjusted)	\$ 611,89	1,6%		1,94%
Active Reinvestment	\$ 649,72	1,7%		
Value Creation Factor			4,11	
Total Active Reinvestment	\$ 2.669,05	6,8%		8,47%
Total Return		11,4%		14,11%
WACC				8,5%
Fade Rate in Years	25			2,9%
Discount Rate				11,4%
There is a discount of...				-19,36%
Intrinsic Value				\$ 39.064,17
Intrinsic Value considering TEV				\$ 31.584,54

Backtest:

Revenue (current)	\$ 39.036,00	
Revenue (next year)	\$ 42.295,84	
Revenue Growth	\$ 3.259,84	-> incremental revenue considering historic growth
VCF	4,11	-> Value Creation Factor on a 10-year basis
Required Active Reinvestment	\$ 644,58	-> Required active reinvestment (considering VCF) to get to historic revenue growth through organic growth + active reinvestment

DCF Scenario Analysis

While I like Greenwald's method for the fact that it looks at return rather than value, I also think that it is not always easy to apply it properly, and it took me quite some tweaking and assuming to get a useful result. To reassure myself about the appropriate intrinsic value, I use a DCF scenario analysis.

The method is straightforward and doesn't need a lot of explaining. I used a rather conservative scenario, which I weighted with a likelihood of 65%, an optimistic scenario, which I weighted with a likelihood of 20%, and a pessimistic one, which I weighted with a likelihood of 15%. Even though the business is not doing that well at the moment and current EPS is slightly depressed, I used the current EPS value instead of the normalized EPS to get to a rather conservative intrinsic value.

Using the DCF analysis, we get a value of \$174,58 per share, or \$140,50 considering cash and debt.

3) DCF Szenario Analyse

	Market Cap	TEV included
Price per Share	\$ 143,51	
Value per Share	\$ 174,58	\$ 140,50
There is a discount!	-17,8%	2,1%

Assumptions

Szenario Analyse	Conservative	Optimistic	Pessimistic
Multiple of Omission	16,7	22,2	12,5
EPS Multiple Historic (Avg, Max, Min)	20,1	27,5	12,2
WACC	9,0%	8,0%	10,0%
Growth Rate	3,0%	3,5%	2,0%
Discount Rate	10,0%	10,0%	10,0%
EPS Growth Rate	9,5%	12,0%	7,0%
EPS Growth Historic (Avg, Max, Min)	10,6%	12,2%	7,8%
Revenue Growth Historic (Avg, Max, Min)	8,8%	9,0%	8,4%
Cash Conversion	80,0%	85,0%	75,0%
Likelihood	65%	20%	15%
Current EPS	\$ 8,71		
Normalized EPS	\$ 12,12		

Expected Intrinsic Value

Period	1E	2E	3E	4E	5E	6E	7E	8E	9E	10E
Szenario 1 (Conservative)	121,32	126,42	131,46	136,42	141,31	146,13	150,87	155,55	160,16	164,71
Szenario 2 (Optimistic)	173,30	182,15	191,07	200,06	209,12	218,26	227,47	236,75	246,11	255,54
Szenario 3 (Pessimistic)	84,93	88,07	91,11	94,03	96,84	99,55	102,15	104,66	107,08	109,41
Expected Intrinsic Value	126,25	131,82	137,33	142,79	148,20	153,57	158,88	164,16	169,39	174,58

Szenarios

Szenario 1 (Conservative)											
Period	LTM	1E	2E	3E	4E	5E	6E	7E	8E	9E	10E
EPS	8,71	9,54	10,44	11,44	12,52	13,71	15,01	16,44	18,00	19,71	21,59
Free Cash Flow (adjusted)	6,97	7,63	8,35	9,15	10,02	10,97	12,01	13,15	14,40	15,77	17,27
Free Cash Flow (discounted)		6,87	6,77	6,67	6,57	6,48	6,38	6,29	6,20	6,11	6,02
Omission Value (discounted)		114,45	112,79	111,15	109,54	107,95	106,39	104,85	103,33	101,83	100,35
Intrinsic Value		121,32	126,42	131,46	136,42	141,31	146,13	150,87	155,55	160,16	164,71

Szenario 2 (Optimistic)											
Period	LTM	1E	2E	3E	4E	5E	6E	7E	8E	9E	10E
EPS	8,71	9,76	10,93	12,24	13,71	15,35	17,19	19,26	21,57	24,15	27,05
Free Cash Flow (adjusted)	7,40	8,29	9,29	10,40	11,65	13,05	14,61	16,37	18,33	20,53	22,99
Free Cash Flow (discounted)		7,46	7,52	7,58	7,64	7,70	7,77	7,83	7,89	7,95	8,02
Omission Value (discounted)		165,84	167,17	168,50	169,85	171,21	172,58	173,96	175,35	176,75	178,17
Intrinsic Value		173,30	182,15	191,07	200,06	209,12	218,26	227,47	236,75	246,11	255,54

Szenario 3 (Pessimistic)											
Period	LTM	1E	2E	3E	4E	5E	6E	7E	8E	9E	10E
EPS	8,71	9,32	9,97	10,67	11,42	12,22	13,07	13,99	14,97	16,01	17,13
Free Cash Flow (adjusted)	6,53	6,99	7,48	8,00	8,56	9,16	9,80	10,49	11,22	12,01	12,85
Free Cash Flow (discounted)		6,29	6,06	5,83	5,62	5,41	5,21	5,02	4,83	4,65	4,48
Omission Value (discounted)		78,63	75,73	72,92	70,23	67,63	65,12	62,72	60,39	58,16	56,01
Intrinsic Value		84,93	88,07	91,11	94,03	96,84	99,55	102,15	104,66	107,08	109,41

Valuation Summary

Under rather conservative assumptions, the intrinsic value of Dollar General is in a range between \$174 and \$182 if we don't consider cash and debt.

To add another layer of reassurance, I would like to point out that Christopher Bloomstran from Semper Augustus bought the stock for an average price of \$165 and made it the second biggest position after Berkshire Hathaway with a weight of 11.8%. Bloomstran is a highly respected member of the value investing community and a very sophisticated financial analyst who likes

to dive deep and has outperformed the S&P500 for several decades, with an average annual return of 12.45% on his equity investments since 1999 vs. the S&P Composite Total Return of 8.2%.

Bloomstran has been following Dollar General for many years and knows the business and the management team very well. Since he is a huge proponent of Warren Buffett and applies the principles of value investing, I would assume that he is using a margin of safety of at least 25% to 30% for his investment in Dollar General. Given the average price of \$165 he was willing to pay, the intrinsic value of the stock has to be in the range of at least \$220 to \$235 in his mind.

Commentary

As mentioned, I would consider Dollar General to be a good business, but not an incredible business, given the fact that retail is highly competitive and about offering the lowest prices in most cases. Therefore, I would suggest buying only when the market is offering a great price that provides a generous margin of safety to intrinsic value. Personally, I have purchased Dollar General at an average price of \$121 per share, which gives me a margin of safety of about 30% considering the lower end of my personal valuation, which is rather conservative in my opinion. It might as well be a margin of safety of around 40% to 45% if we consider Bloomstran's valuation!

Despite the fact that I still consider the stock to be undervalued, I already have a full position, and I won't add more shares of DG. I would not recommend buying shares at the current price range of \$140 to \$145. As investors, we should always account for potential mistakes, since in the long run, our thesis is only going to be right 1 out of 2 times—maybe 2 out of 3 times at best if we are really good!

I hope this analysis helps you get an overview of the business, the current situation, and the intrinsic value of the stock. If you have any questions, suggestions, or criticism concerning my analysis, please feel free to reach out! You can find my details on the first page.