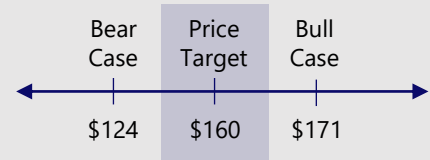




RESEARCH REPORT

January 13, 2020

Stock Rating	HOLD
Price Target	\$160
Current Price	\$153



Ticker	DG
Market Cap (MM)	\$39,486
P/E LTM	24.1x
EV/EBITDA LTM	18.3x

52 Week Performance



Consumers

Reid Kilburn
rkilburn@quiconline.com

Bronwyn Ferris
bferris@quiconline.com

James Boulter
jboulter@quiconline.com

Anchal Thind
athind@quiconline.com

Ruchira Gupta
rgupta@quiconline.com

Dollar General Corporation

A Gem of Rural America

Dollar General's highly efficient discount retail stores have been operational since 1939, when JL Turner opened the first location in Scottsville, Kentucky. Since then, DG has expanded to over 16,000 locations concentrated throughout towns in the south-east and rust belt.

DG is one of rural America's most profitable companies, generating \$1.6B in profit on \$25.6B in revenue during 2018 and sustaining a streak of continuous same-store sales growth for nearly three decades.

Investment Thesis

- (1) **Location Advantage:** DG operates a non-traditional strategy to meet the needs of under-served consumers in small towns. This enables efficient store formats which keep opening and operating costs low.
- (2) **Growth Runway:** Programs to increase location count, average basket size, and store traffic provide an upside to already strong SSSG
- (3) **Strong Financial Foundation:** DG is a strong cashflow generator. Combined with their relatively capital-light retail strategy, the firm can fund growth without sacrificing capital to return to shareholders.

The Consumers team believes that Dollar General presents an unfavorably asymmetric risk-return profile – our analysis reveals the majority of DG's upside is currently priced into the name, and a credible downside scenario exists. We value Dollar General at \$160 per share, a 5% premium to the current price.

The information in this document is for EDUCATIONAL and NON-COMMERCIAL use only and is not intended to constitute specific legal, accounting, financial or tax advice for any individual. In no event will QUIC, its members or directors, or Queen's University be liable to you or anyone else for any loss or damages whatsoever (including direct, indirect, special, incidental, consequential, exemplary or punitive damages) resulting from the use of this document, or reliance on the information or content found within this document. The information may not be reproduced or republished in any part without the prior written consent of QUIC and Queen's University.

QUIC is not in the business of advising or holding themselves out as being in the business of advising. Many factors may affect the applicability of any statement or comment that appear in our documents to an individual's particular circumstances.



Table of Contents

Overview and Background of Dollar General	3
Discount Retail Industry Primer	4
Thesis I: Location Advantage	6
Thesis II: Runway for Growth	7
Thesis III: Strong Financial Foundation	9
Discussion of Key Risks	11
Valuation	12
References	14
Appendix	15

Company Overview

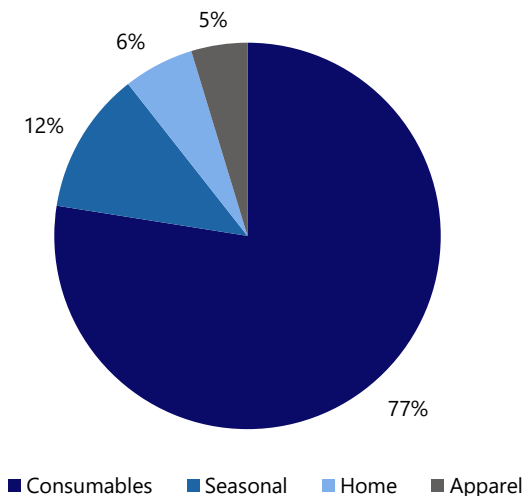
In the midst of a retail relapse, where typical brick and mortar retailers have been under fire from Amazon.com, a select few firms have thrived by differentiating themselves from the competition. One such retailer is Dollar General Corporation, outperforming Amazon over the past year as it continues to execute on its unconventional strategy.

Founded in 1939 and headquartered in Goodlettsville, Tennessee, Dollar General is one of the largest discount retailers in America. With 16,094 stores (as of November 2019), DG has found success by locating itself in the forgotten towns of rural America, where competition is limited, and it is able to operate on a small store format.

The company offers a selection of low-priced merchandise, offering a wide variety of consumable, seasonal, home, and apparel items. Its prices are generally 20% to 40% lower than typical grocery and drug stores, attracting cost-conscious customers.

EXHIBIT I

2018 Revenue Breakdown



Source(s): Company Filings

The company's merchandise comprises national brands from leading manufacturers, as well as its own private brand selections with prices at substantial discounts to national brands.

Excellent Q3 2019 Performance

Dollar General posted better-than-expected third quarter fiscal 2019 results, wherein both the top and the bottom line continued to improve YoY. The increase in the bottom line can be attributed to higher net sales, cost containment efforts as well as share repurchase activity.

Additionally, 2018 was the 29th consecutive year of same-store sales growth for the company. Same-store sales increased 4.6% YoY during the third quarter 2019 as a result of the rise in average transaction volume and customer traffic.

Corporate Strategy

Dollar General takes steps to ensure great control over the costs of their operations. The company is now offering 40 unique private label lines and plans to continue to release new proprietary products as it expands. With the expansion of these private label categories, not only can DG exert more oversight on manufacturing costs, but it can realize higher margins.

The company also chooses to combat oscillating third-party costs by expanding its private fleet of trucks and taking greater control of its supply chain. In 2018, the store's fleet of carrier trucks grew from 80 to 200. This will likely lead to more efficient routes and predictable delivery schedules for the company.

Going forward, it is expected that Dollar General leverage substantial long-term growth potential in the U.S., particularly in urban markets, where the company is under-penetrated. The stock may achieve new highs with a solid growth runway, brand recognition, and strategic endeavors likely to act as drivers.

Industry Analysis: The Discount Retail Space

Market Profile

The retail industry's prospects are correlated with the purchasing power of consumers. A solid job market, as evident from the 50-year low unemployment rate of 3.5% in September of 2019, and decent wage growth indicates that consumers are in good shape. Per-capita disposable income is expected to grow at an annualized rate of 1.3 percent over the next five years. This works in favor of industry players.

It is expected that the dollar and variety stores' industry revenue will grow at an annualized rate of 0.8 percent over the next five years. To the extent that the country faces economic pressures, discount and dollar stores will benefit as they pick up opportunistic shoppers trying to make ends meet.

Dollar General has broadened its customer base through a combination of low prices and conveniently located stores. This is driven by the economic necessity on the part of U.S. consumers and a reduction in the pre-recession social stigma that surrounded shopping at dollar stores.

Competition

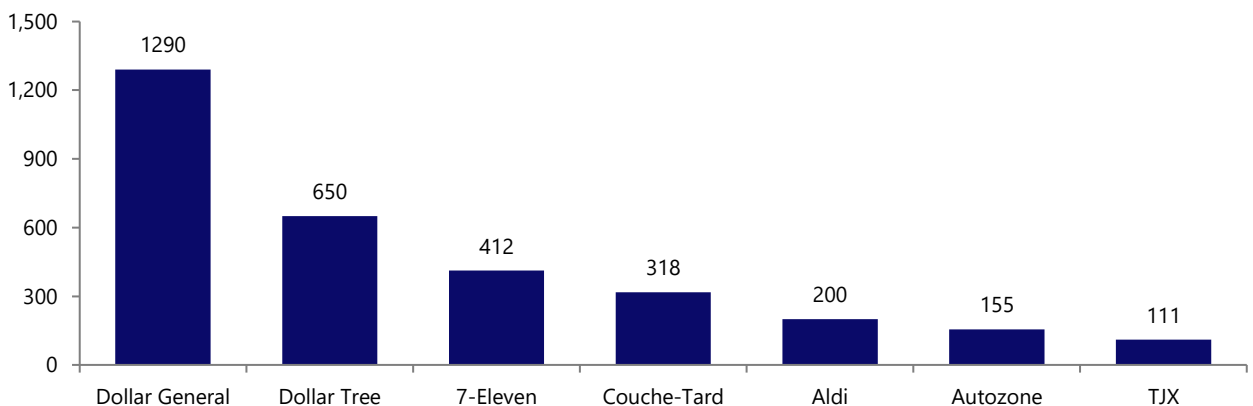
Dollar General operates in the highly competitive discount retail industry, with competition from other general merchandise, discount, food, furniture, arts and crafts and dollar store retailers, that market both in-store and online. The company's major competitors include Dollar Tree Inc., Target Corp., and Walmart Inc. DG's key differentiator in this market is its gear towards value-conscious consumers, particularly during a slowing economy that will pressure disposable personal income and increase the allure of bargain hunting.

Trade War Worries

The headwinds from the implementation of President Trump's 10% duties on \$200 billion worth of Chinese imports must be noted. According to a CFRA analysis, approximately 20% of items singled out by the U.S. Trade Representative (USTR) tariff list, released on September 17, belong to the textiles, apparel & luxury goods industry. Further, tariffs threaten to reduce consumer confidence, a primary driver of the industry.

EXHIBIT II

Retail Store Count Growth 2017



Source(s): Quartz

Industry Analysis: The Discount Retail Space

However, DG can be considered a tariff-safe haven, as the company generates a large portion of the sales in necessities like food and consumables, which are produced from within America. For Dollar General, apparel only accounted for 5.0% of 2018 sales, while at Dollar Tree, the segment accounted for 6.6%. If tariffs continue or escalate, DG's comparatively low exposure to apparel would likely be favorable. Still, the company remains committed to protecting its position as a low-cost operator. The retailer proactively tackled the effect of tariffs through vendor negotiations, product substitution, redesign, and point-of-origin substitution.

Additionally, Dollar General has worked to diversify the countries from which it sources. Exposure to China has already been reduced by 7% in 2019, with the company's pre-existing relationships in Vietnam, Cambodia, Mexico, India, and elsewhere becoming strengthened to offset reliance on China.

Growth Drivers

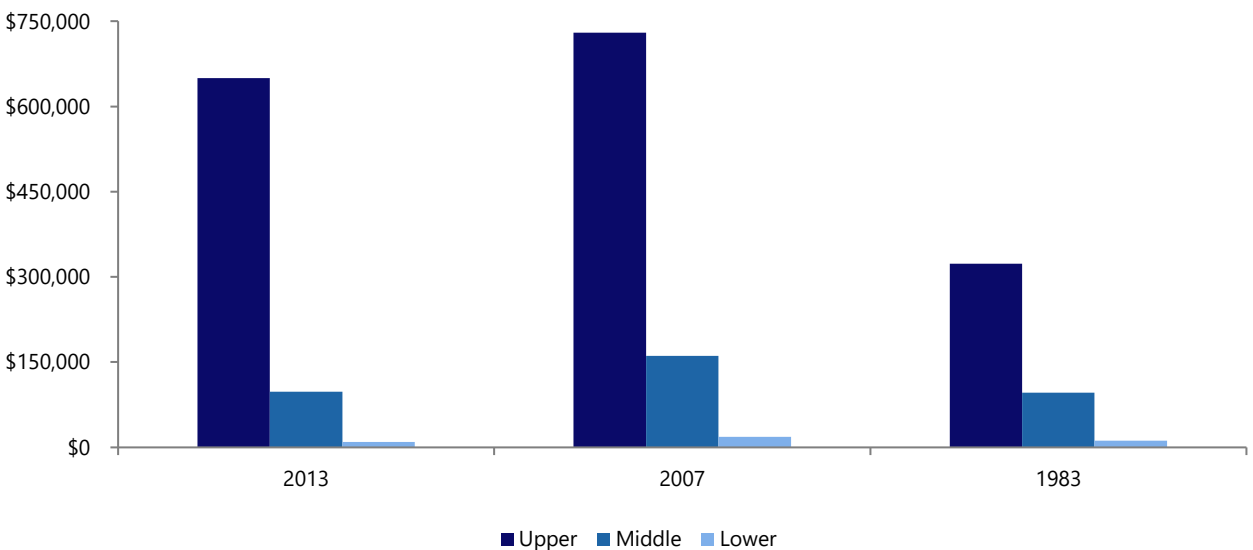
Dollar stores have been taking advantage of the growing gap between middle and upper class (*Exhibit III*). This gap, as the less wealthy see income and wellbeing stagnate, has led to an increased number of people looking for ways to save.

Additionally, the lack of effective financial planning is increasingly an issue in the United States. With 34% of Americans indicating that they do not have any retirement savings, a significant portion of the population will retire without adequate savings in the decades ahead. Although unfortunate, growth in poor demographics will drive traffic to discount retailers such as Dollar General.

These are the additional macroeconomic tailwinds that the company should benefit from in the years to come.

EXHIBIT III

Growing Wealth Gap Between Upper and Middle-Income Families



Source(s): Quartz

Investment Thesis I: Location Advantage

Since it opened its first store in a small town in Kentucky in 1939, Dollar General has stayed true to its roots, predominantly serving rural and suburban low-income customers. The nature of its locations allows the company to have low overhead and opening costs.

The company has established a competitive advantage by serving markets that had been vastly underserved. The company has located itself in rural America with about 75% of stores located in towns with 20,000 or fewer people. Competition in these areas is extremely limited as one third of residents live over 10 miles from a grocery store selling fresh produce. In contrast, 75% of Americans live within five minutes of a Dollar General, while 37% live within the equivalent distance from a Walmart.

Target Customer

The retailer's target shopper comes from a household making \$40,000 or less a year and is often living in areas that are miles away from access to grocery stores, where stores cost less to operate. Catering to the basic everyday and household needs of this underserved population at highly competitive prices has been key to the company's strategy.

Small Store Format

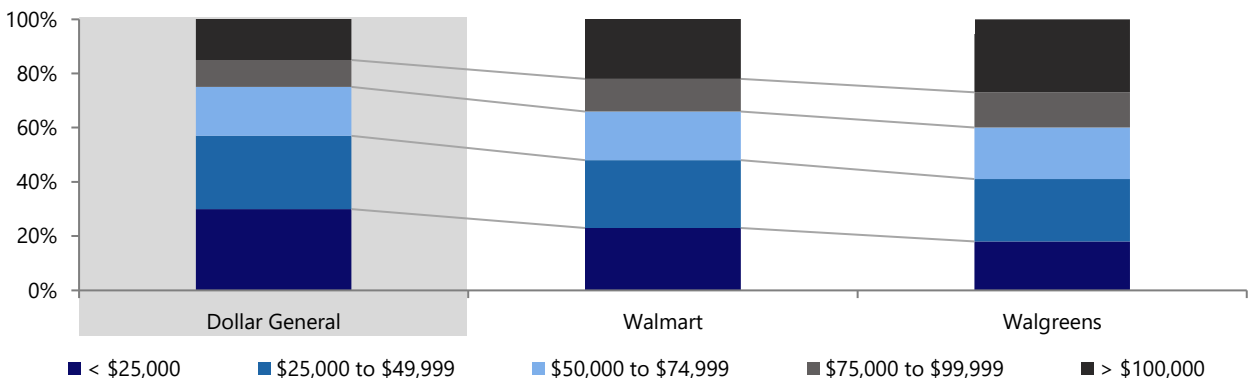
The company operates on a small store format at an average store size of 7,300 square feet, which is one-tenth the size of the average Walmart store. This makes capital expenditure requirements less than other retailers. The consequent low initial investment cost has been critical for the rapid expansion of the company.

DG's SKU count per store of less than 10,000 is appealing, as each store only requires between two and three employees at any given time. It also has a warehouse design, ideal for the customer seeking a quick shopping experience. DG reports that the average visit requires just 12 minutes, illustrating the relevance of their slogan - "save time, save money".

Furthermore, DG does not own its stores, keeping real estate costs down and making it easier to relocate quickly should a location not be successful. It costs around \$250,000 to open a new store, significantly lower than what it costs a big-box retailer to build a new location. With real estate and labor costs low, the company can keep the majority of its items under \$10 and still turn a profit.

EXHIBIT IV

Household Income of Retailer Consumer Base



Source(s): Kantar

Thesis II: Runway for Growth

Dollar General has three core levers to drive growth in the coming years: (1) store expansion, (2) transaction size growth, and (3) traffic volume.

Store Expansion

Last year, DG added 975 locations and is aiming to open 1,000 stores per year in the near term, elevating from the current footprint of ~15,500 stores. DG's store growth has outpaced key rival Dollar Tree while posting strong same-store sales growth, suggesting that the pace of expansion has not become cannibalistic to existing locations.

While there are certainly regions of America underpenetrated by DG (*Exhibit V*), including some states with no locations at all, store expansion will likely center around pushing outward from distribution centers in the south-east rather than disrupting the regional dominance of rivals in the north-west. Management believes there are up to 12,000 potential expansion opportunities of this kind.

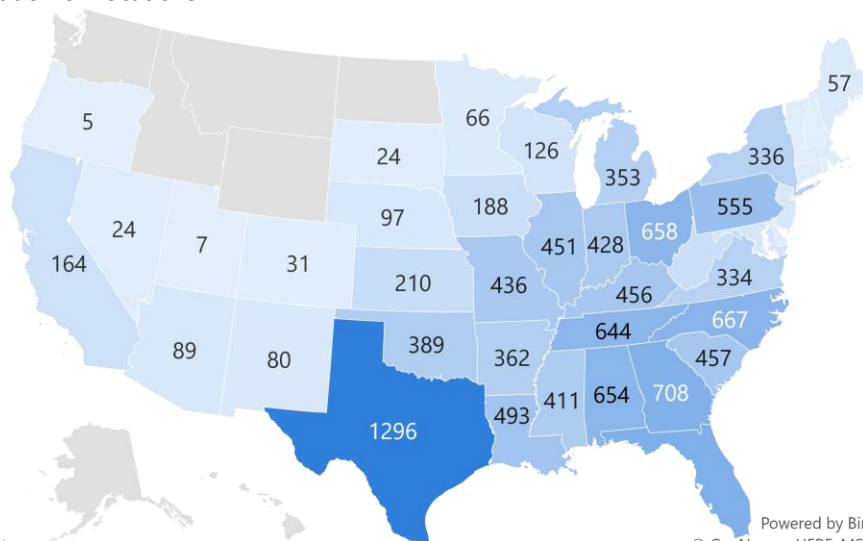
Since 2016, new store openings have generated an average "first year revenue" of \$1.3MM in per store. In comparison, established stores generate \$1.7MM of revenue per year. The relatively small gap in productivity between new and existing stores is an encouraging signal that there is underlying support in the market for store expansion.

Transaction Size

DG's "Non-Consumable Initiative" (NCI) is a pilot program which increases the variety of durable goods throughout the year. Typically, durable goods are cycled 2-3 times per year. Under NCI, products are cycled 5-6 times per year to more accurately account for seasonality, holidays, and regional needs. The NCI program has helped stores increase basket sizes by more accurately reflecting consumer buying behavior and decreasing the need to shop elsewhere. The NCI is currently in 2,100 stores, with an additional 3,000 planned for the end of 2020.

Exhibit V

Geographic Distribution of Locations



Source(s): Company Filings

Powered by Bing
© GeoNames, HERE, MSFT

Thesis II: Runway for Growth

Store Traffic

In addition to increasing the number of stores and number of items bought within the store, DG has several programs underway to drive more traffic through their stores.

The primary initiative to increase store traffic is a remodeling program to carry a broader range of consumable products like fresh produce, dairy, and frozen food. The goal is to come closer to DG’s vision of “big box selection in a convenience store package”. Tactically, this requires updating store refrigeration to include higher capacity coolers that can handle a greater product selection. DG has achieved this by adding doors to coolers, which allows 45% more refrigeration space without compromising square footage or coolant efficiency. These remodels have seen sales increase by 4-5%, and remodels which include further expansions to cooler capacity where floorspace permits have seen sales increase by 10-15%. To make fresh produce economical at a discount

price point, DG is bringing distribution in house. At present, 5,000 stores are served by 4 refrigerated distribution centers, with plans to serve 12,000 stores with by the end of 2020. Controlling distribution lowers costs as well as allowing for the proliferation of private label brands, which are higher-margin and create stickier buying patterns compared to national brands.

Additionally, DG’s digital solutions have gained traction. While not revolutionary, self checkout options allow customers to avoid lines for small purchases and create a more frictionless store experience. DG’s app has also benefitted store traffic – the ability to accurately personalize offers and predict shopping habits has shown app-using customers visit more frequently and have 2x the average basket size. At present, the app has gained 17MM coupon subscribers. Continued effort to build out DG Digital programs, such as app-based scanning and payment capabilities, will contribute to a compelling customer experience that paves a long runway for growth.

Exhibit VI

Older, low-capacity coolers



Source(s): Company Filings

Exhibit VII

New high-capacity coolers



Source(s): Company Filings

Thesis III: Strong Financial Foundation to Fund Growth

Over the years, DG has managed to build up an extremely strong financial foundation as a platform to weather unexpected events and continue growing.

Recession Resistance

First, as a discounter targeting low-income individuals, it experiences a relatively counter-cyclical business model. While most companies see a meaningful decrease in revenue during an economic downturn, DG has experienced increases in revenue during both the 2001 and 2008 recessions. Between the years of 2007 to 2009, DG saw an increase in revenue of \$1.2B despite the macroeconomic struggles that plagued the economy and reduced revenues of many consumer retailers over the same time period. DG's value proposition of "save time, save money" strengthens as consumer's wallets tighten, which helps insulate against recessionary risks.

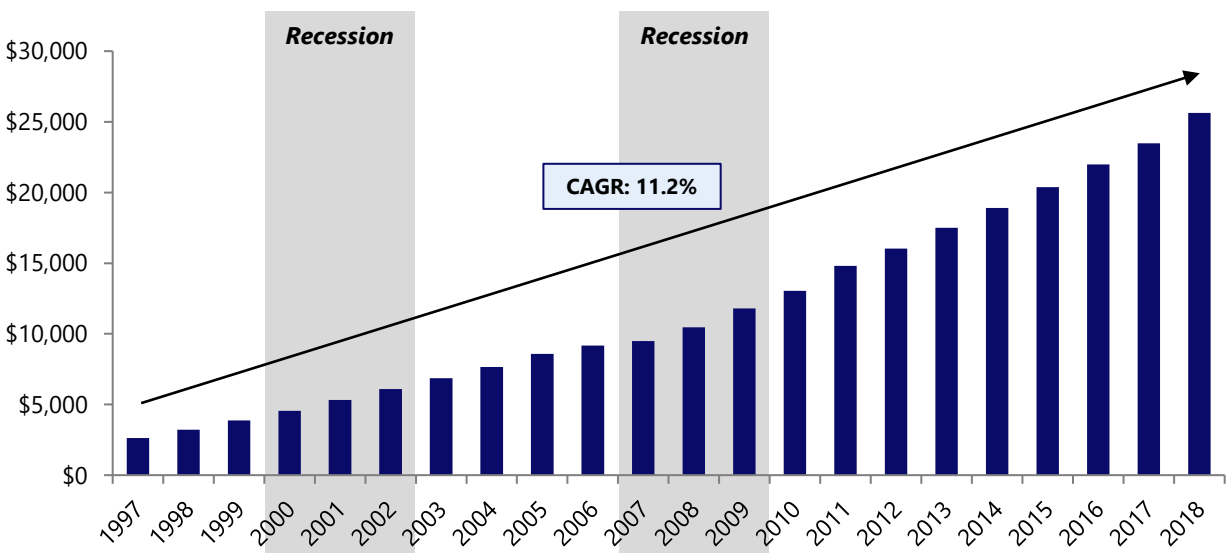
Capital Light Retail Footprint

Second, DG requires relatively little capital to open new stores. This means that their aggressive expansion plans to not require a high degree of leverage to fund, and instead can be supported primarily with operating cash flow.

DG is able to keep costs of opening a new store at approximately \$250k due to their smaller square footage requirements and decision to lease locations rather than outright purchasing the land and building. In comparison, Dollar Tree (DG's closest competitor) requires approximately \$620k to open a new store. Low store opening costs allow DG expand more quickly, relocate underperforming stores more efficiently, and maintain their commitment to return capital to shareholders.

Exhibit VIII

DG Revenue (\$MM)



Source(s): Company Filings

Thesis III: Strong Financial Foundation to Fund Growth

Commitment to Return Capital to Shareholders

Since DG requires less upfront capital to fund growth compared to competitors, the firm can leverage strong operating cashflow to return capital to shareholders without sacrificing funding for the outlined store expansion plan.

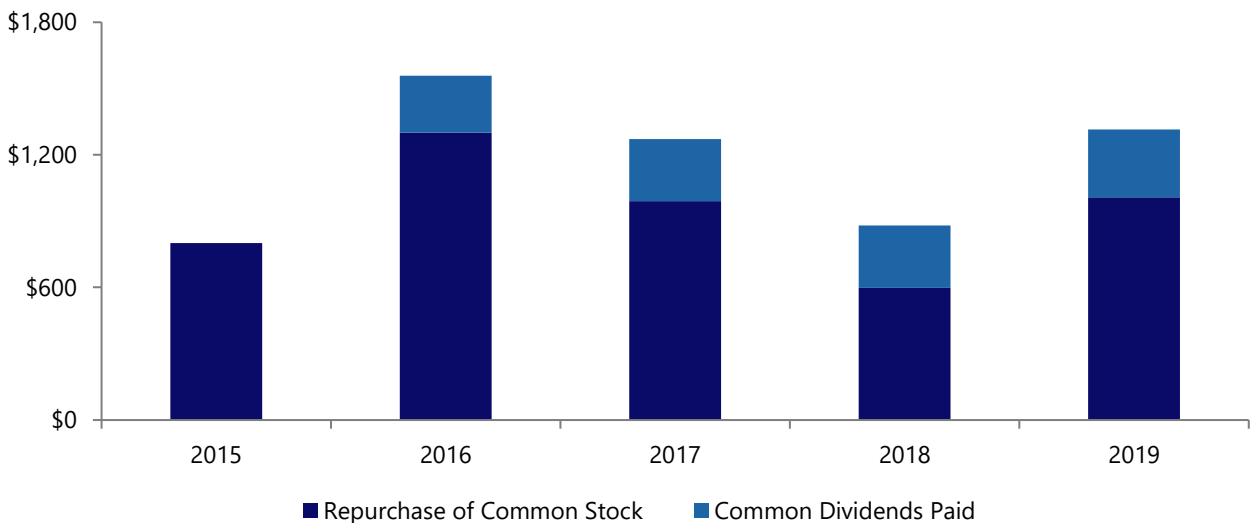
DG displays a strong cashflow profile. Over the last three years, the company has generated \$5.6B in operating cash flow and incurred just \$1.9B in CapEx, primarily from opening 3,125 stores and remodeling 3,568 existing locations. DG is planning to increase buybacks and dividends in the coming years given their ability to distribute cash generated without compromising capital available to invest into the business. Historically, DG has consistently returned cash to shareholders via dividends and buybacks. They look to continue this as there was a recent announcement of additional authorization of \$1.6B for the repurchase program.

This planned increase in buybacks and dividends proves to stakeholders that they are financially stable and anticipate consistent growth in the future. More importantly, however, it shows that there is room for re-investing into the business on important strategic initiatives without sacrificing opportunities to return capital to shareholders.

Interestingly, management has indicated that there are no large new investment initiatives coming down the pipe. Rather, the company will continue to maintain existing projects to completion. Management appears to be happy with progress of the 2016 pricing optimization program, the 2017 labor productivity and store management program, and the 2018 digital modernization program – all of which have begun to show progress. If this attitude holds, we may see further increases to the dividend and buyback programs as the aforementioned investments bear fruit and require less capital to service.

Exhibit IX

Capital Issuance (\$MM)



Source(s): Company Filings

Key Risks

Macroeconomic Factors

While DG is relatively insulated from the risk that an economy in recession poses to the business model, there are various macroeconomic factors that still may affect discretionary sales. For example, tariffs on products from China are applied to both direct imports and domestic purchases. Any unfavourable changes in trade policy may result in higher prices for customers, driving customers away. A policy change like this may also negatively impact consumer budgets, and therefore their discretionary spending. Moreover, any cuts in the Supplemental Nutrition Assistance Program, which is expected to lower the purchasing power of low-income consumers, may also impact sales of DG. This program was reduced in 2016 and was cited by management as a primary reason for weak same-store sales growth during the year

Brand Transfer for New Store Openings

The expansion efforts of DG may not gain the anticipated traction. America is divided by regional brand clusters where consumers in different states prefer to shop from different stores. It is extremely hard for one region's brand to gain share in another, and it is a mistake to assume that DG can penetrate everywhere in the U.S. to the same extent as its current markets.

SSSG Mean Reversion

DG's recent quarterly same-store sales growth figures (Q2'19 4.0%, Q3'19 4.6%) are elevated from historical averages around 3% (see Exhibit X). While it is reasonable that DG's recent investments in productivity, produce, and digital engagement are driving increased traffic, it is unlikely that DG's comps will stay in the mid-high 4% range over the long term.

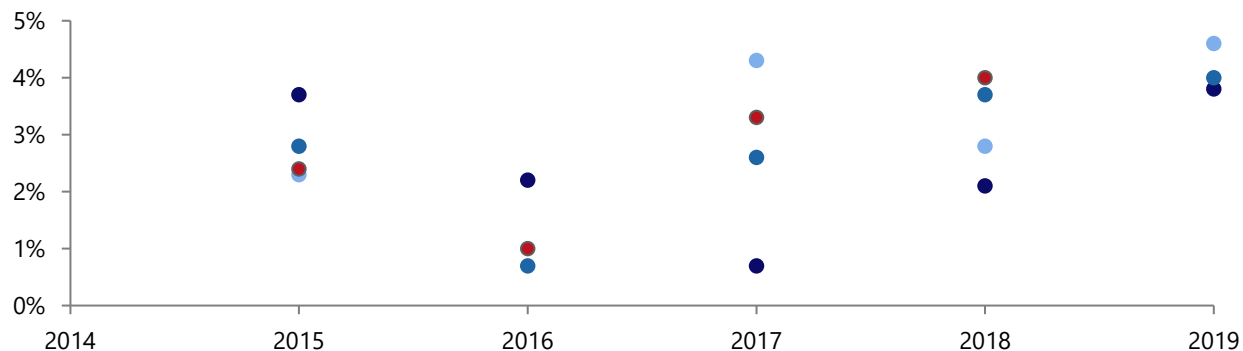
Margin Dilution

DG is undergoing a mix shift towards consumable goods, which are generally lower margin than durable goods (though more frequently purchased). Management believes that the NCI initiative will simultaneously boost sales of higher-margin durable goods and thus result in no substantial change to net margins, though this is far from a guarantee. Though sales may increase in aggregate, there is a risk that the a consumable-heavy product exerts negative pressure on margins.

Secondarily, DG's expansion plans expose the company to risk of pricing pressures which could erode margins from elevated promotional spending and customer acquisition costs. Attracting new customers in areas without existing brand recognition is often an expensive endeavour.

Exhibit X

Dollar General Quarterly Same-Store Sales Growth



Source(s): Business Insider, Company Filings

● Q1 ● Q2 ● Q3 ● Q4

Valuation: Financial Model Output and DCF

QUIC values Dollar General through a 5 year DCF. The key value drivers for the business are (1) additional store openings, (2) margin improvement, and (3) same-store sales growth (SSSG). Margin improvement can be derived from cost savings and favorable shifts in product mix. Same-store sales growth can be derived from improvements to transaction size (price) and store traffic (volume).

We expect SSSG to maintain the currently elevated clip of 3-4% per quarter in the near term as prior year investments in store traffic and productivity bear fruit, before tapering to reflect historical averages of 2-3%. Our forecasting period assumes a total of 6,000 new store openings, beginning with 1,000 openings in 2020 (as guided by management) and finishing with 700 openings in 2025. We model the revenue contribution from existing stores based on projected SSSG, and attribute contributions from new store openings based

on average revenue in a new store's first year. This assumes stores do not become increasingly cannibalistic as more are opened, but we believe there may be enough underpenetrated areas to support this assumption. Finally, we believe operating margins will improve by 70-90bps as the company undergoes a favorable mix shift and experiences cost savings from bringing fresh produce distribution in-house.

Our valuation arrives at a target price of \$160.16, a 5% premium to the current price of \$153.22 assuming a discount rate of 8% and terminal growth rate of 2%. However, we are hesitant on DG; the business is undergoing a risky expansion plan and does not have a true moat to insulate from competitive threats. The "grey sky" scenario on the following page is perhaps an equally likely scenario, and results in a discount of nearly 20% to the current price.

US\$ Millions, unless otherwise stated		2017	2018	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Operational Summary	Revenue	23,471	25,625	27,999	30,239	32,557	34,723	36,920	39,148	39,008
Blue Sky	Existing Store Revenue	22,580	24,222	26,599	28,979	31,297	33,533	35,765	38,028	38,028
	Growth Rate (SSSG)	2.7%	3.2%	3.8%	3.5%	3.5%	3.0%	3.0%	3.0%	3.0%
	New Store Revenue	891	1,403	1,400	1,260	1,260	1,190	1,155	1,120	980
	Growth Rate	-37.9%	57.4%	-0.2%	-10.0%	0.0%	-5.6%	-2.9%	-3.0%	-15.2%
	Operating Margin	8.6%	8.3%	8.5%	8.8%	9.0%	9.2%	9.2%	9.2%	9.3%
	New Stores Added	1,300	975	1,000	900	900	850	825	800	700
	Ending Store Count	14,534	15,370	16,370	17,270	18,170	19,020	19,845	20,645	20,545
	Existing Rev. / Store (\$MM)	1.71	1.68	1.71	1.75	1.79	1.83	1.86	1.90	1.90
	New Opening Rev. / Store (\$MM)	0.69	1.44	1.40	1.40	1.40	1.40	1.40	1.40	1.40
	Same Store Sales Growth	2.7%	3.2%	3.8%	3.5%	3.5%	3.0%	3.0%	3.0%	3.0%
	Operating Income	2,019	2,127	2,380	2,661	2,930	3,195	3,397	3,602	3,628
	Interest Expense	(99)	(102)	(102)	(102)	(102)	(102)	(102)	(102)	(102)
	Tax Rate	19.3%	21.1%	22.3%	22.3%	22.3%	22.3%	22.3%	22.3%	22.3%
	Less: Cash Taxes	(370)	(427)	(508)	(571)	(631)	(690)	(735)	(780)	(786)
	Net Income	1,648	1,700	1,872	2,090	2,299	2,505	2,662	2,821	2,841
	Add: Stock Based Compensation	34	41	45	48	52	56	59	63	62
	Subtract: Working Capital Delta	48	(3)	56	60	65	69	74	78	78
	Add: D&A	404	454	496	536	577	615	654	694	691
	Gross Cash Flows	2,038	2,198	2,357	2,614	2,863	3,106	3,301	3,499	3,517
	Less: CAPEX	(646)	(734)	(784)	(665)	(651)	(694)	(738)	(783)	(780)
	Free Cash Flows	1,392	1,464	1,573	1,949	2,212	2,412	2,563	2,716	2,737
	Growth Rate	24.2%	5.1%	7.4%	23.9%	13.5%	9.0%	6.3%	6.0%	6.8%

Valuation At Feb 1, 2020	
Discount Rate:	8.0%
PV of Forecast Period	9,741
PV of Terminal Value	33,527
Enterprise Value	43,268
Add: Cash + ST, LT Investments	276
Less: Debt	(2,864)
Equity Value	40,680
FD Shares O/S	254
Price Per Share	\$ 160.16

Terminal Growth at FY2024	
FY2025 FCF	2,737
Terminal EV (FY2024)	45,614
Terminal Growth	2.0%

Valuation: Grey Sky Scenario & Summary

Our "grey sky" model represents a less optimistic future scenario, where DG is (1) unable to sustain the current pace of SSSG, (2) experiences margin contraction of ~50bps from elevated promotional spending in newly opened stores combined with an unfavorable mix shift, and (3) new stores become cannibalistic and generate less organic revenue on a yearly basis. In this case, we value Dollar General at \$123.74, a 19.2% discount to the current price of \$153.22.

While we admire DG's remarkable performance in the last 50 years, we believe most of the upside is already priced in and the downside risk is credible – it is difficult to have conviction that DG can outcompete entrenched regional players like DLTR and WMT in the highly competitive discounting space while expanding into regions with less brand recognition than competitors. See Appendix I for a map of America's most popular discounters by state.

US\$ Millions, unless otherwise stated		2017	2018	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Operational Summary	Revenue	23,471	25,625	27,884	29,980	32,035	34,005	35,954	37,961	37,801
Grey Sky	Existing Store Revenue	22,580	24,222	26,445	28,720	30,820	32,900	34,923	36,961	36,961
	Growth Rate (SSSG)	2.7%	3.2%	3.2%	3.0%	2.8%	2.7%	2.7%	2.8%	2.8%
	New Store Revenue	891	1,403	1,439	1,260	1,215	1,105	1,031	1,000	840
	Growth Rate	-37.9%	57.4%	2.6%	-12.4%	-3.6%	-9.1%	-6.7%	-3.0%	-18.5%
	Operating Margin	8.6%	8.3%	8.2%	8.0%	7.5%	7.5%	7.5%	7.5%	7.5%
	New Stores Added	1,300	975	1,000	900	900	850	825	800	700
	Ending Store Count	14,534	15,370	16,370	17,270	18,170	19,020	19,845	20,645	20,545
	Existing Rev. / Store (\$MM)	1.71	1.68	1.70	1.74	1.76	1.79	1.81	1.84	1.84
	New Opening Rev. / Store (\$MM)	0.69	1.44	1.44	1.40	1.35	1.30	1.25	1.25	1.20
	Same Store Sales Growth	2.7%	3.2%	3.2%	3.0%	2.8%	2.7%	2.7%	2.8%	2.8%
	Operating Income	2,019	2,127	2,286	2,398	2,403	2,550	2,697	2,847	2,835
	Interest Expense	(99)	(102)	(102)	(102)	(102)	(102)	(102)	(102)	(102)
	Tax Rate	19.3%	21.1%	22.3%	22.3%	22.3%	22.3%	22.3%	22.3%	22.3%
	Less: Cash Taxes	(370)	(427)	(487)	(512)	(513)	(546)	(579)	(612)	(609)
	Net Income	1,648	1,700	1,799	1,886	1,890	2,004	2,118	2,235	2,226
	Add: Stock Based Compensation	34	41	45	48	51	54	58	61	60
	Subtract: Working Capital Delta	48	(3)	56	60	64	68	72	76	76
	Add: D&A	404	454	494	531	568	602	637	673	670
	Gross Cash Flows	2,038	2,198	2,282	2,406	2,444	2,593	2,741	2,892	2,880
	Less: CAPEX	(646)	(734)	(781)	(660)	(641)	(680)	(719)	(759)	(756)
	Free Cash Flows	1,392	1,464	1,501	1,746	1,804	1,913	2,022	2,133	2,124
	Growth Rate	24.2%	5.1%	2.6%	16.3%	3.3%	6.1%	5.7%	5.5%	5.1%

Valuation At Feb 1, 2020	
Discount Rate:	8.0%
PV of Forecast Period	7,995
PV of Terminal Value	26,022
Enterprise Value	34,017
Add: Cash + ST, LT Investments	276
Less: Debt	(2,864)
Equity Value	31,429
FD Shares O/S	254
Price Per Share	\$ 123.74

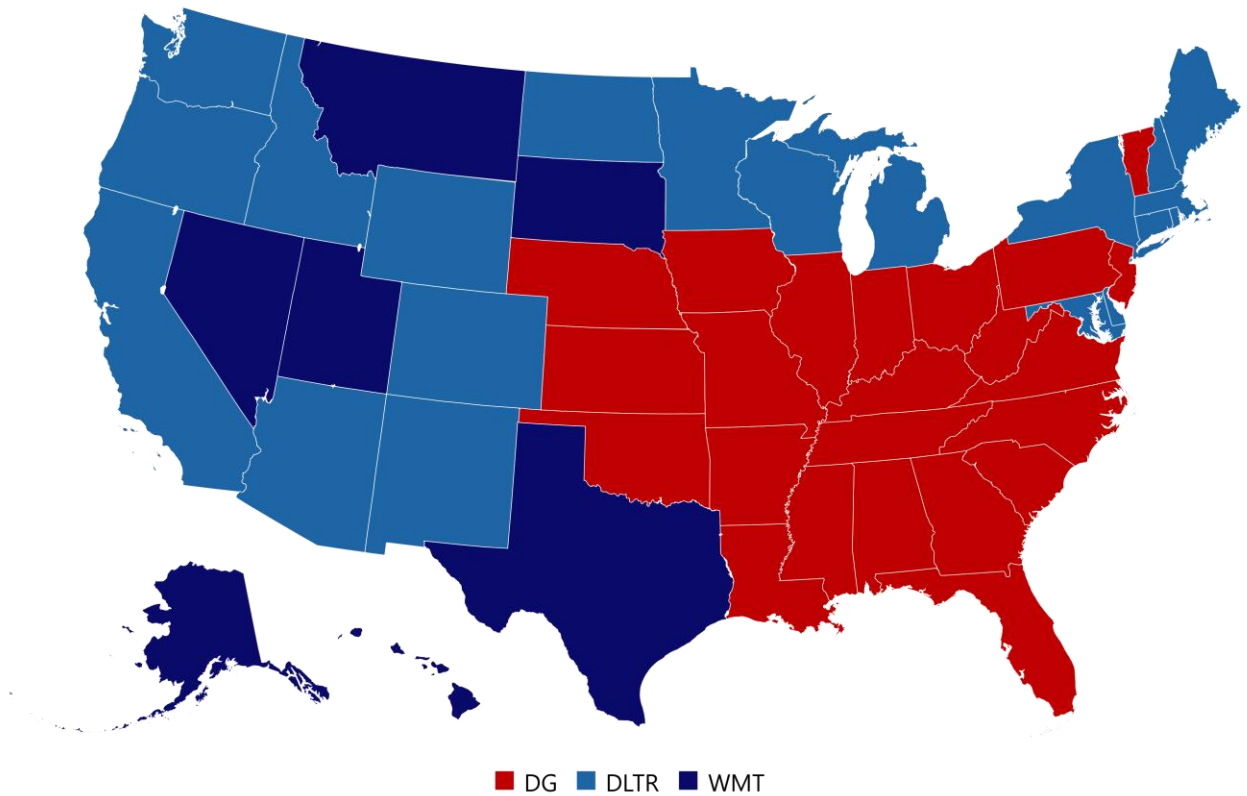
Terminal Growth at FY2024	
FY2025 FCF	2,124
Terminal EV (FY2024)	35,403
Terminal Growth	2.0%

Valuation Summary - Dec 31, 2019		
DG Share Price @ Jan 13, 2020	Blue Sky	Grey Sky
	\$ 153.22	\$ 153.22
DCF Value	\$ 160.16	\$ 123.74
Implied Return	5%	(19.2%)

References

1. BMO Capital Markets
2. Company Filings
3. Evercore ISI
4. Financial Times
5. The Globe and Mail
6. Google Images
7. Investor Presentations
8. Morgan Stanley
9. Progressive Grocer Magazine
10. Quartz
11. RBC Capital Markets
12. S&P Capital IQ

Appendix I: Most Popular Discount Stores by US State



Source(s): Morgan Stanley Research