



MONTGOMERY PLANNING

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aspen hill minor master plan amendment

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# Retail Feasibility Study

Prepared by the

**RESEARCH & SPECIAL PROJECTS DIVISION**

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## ASPEN HILL MINOR MASTER PLAN AMENDMENT

# Retail Feasibility Study

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## INTRODUCTION

This report was prepared in support of the Aspen Hill Minor Master Plan Amendment and assesses the market potential for retail uses within the Minor Amendment area. It is aimed at addressing two key concerns:

- Determining the amount of unmet retail demand within the Aspen Hill Trade Area and, consequently, the type of retail space that could be supported.
- Evaluating the impact to existing retailers from new retail development on the BAE/Vitro site that could potentially undermine existing businesses and create vacancies in nearby shopping centers.

## METHODOLOGY AND ASSUMPTIONS

This analysis seeks to determine the economic feasibility of retail development in the Minor Amendment area by assessing the overall retail market in Aspen Hill. In order to quantify the amount of new retail space that could be supported, annual retail expenditures by residents (demand) were compared to estimated retail sales from businesses (supply). Uncaptured sales represent the retail gap or “leakage” that could be used to support additional retail development.

The study evaluated retail market potential among all retail categories and, in accordance with surrounding land uses, identified the potential type of retail and its format, which could be supported by the findings. The Minor Master Plan Application (MMPA) submitted by the BAE/Vitro property owner in 2012 that triggered this larger planning effort states that a prospective tenant is interested in building a 118,000 square foot (SF) big-box department store on the BAE/Vitro site; with a roughly equivalent mix between general merchandise and groceries. This report also evaluates the economic viability of that scenario.

## EXISTING RETAIL ASSESSMENT

### Retail Inventory

Aspen Hill’s existing commercial base overwhelmingly consists of big-box retail and shopping plazas. Roughly 1.26 million square feet of retail space is contained in 52 buildings within the Aspen Hill Master Plan Area. Of this amount, around 74,000 square feet (5.8 percent) was vacant at the end of 2013. Most of the area’s shopping centers were built before 1970. Occupancy rates are high, between 96 percent and 100 percent in most centers. The exception is Plaza del Mercado, which accounts for nearly half of Aspen Hill’s vacant retail space <sup>1</sup>.

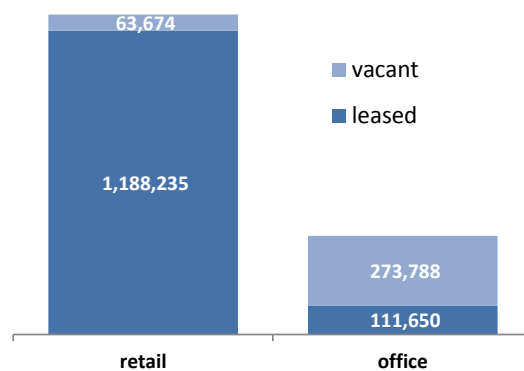
**Table 1: Community Tapestry Segmentation**

Montgomery County, MD  
Source: CoStar

Retail Inventory	Aspen Hill	Montgomery County
Buildings	52	2,255
Existing SF	1,262,028	39,652,767
Under Construction	0	370,468
Retail Leasing	Aspen Hill	Montgomery County
NNN Rent Per SF	\$26.51	\$25.09
Vacant SF	73,793	1,720,544
Vacancy Rate	5.85%	4.34%

**Figure 1: Aspen Hill Commercial Space by Occupancy**

Source: CoStar



**Table 2: Shopping Centers in Aspen Hill**

Community and Neighborhood Centers located in the Aspen Hill Planning Area  
Source: CoStar, Montgomery County Planning Department

Center Name	Center Type	Year Built	Retail GLA	Leased	Anchors	Anchor sf
Aspen Hill Shopping Center	Community Center	1962	170,499	98%	Giant Food	54,000
Northgate Plaza Shopping Center	Community Center	1960	158,410	98%	Kohl’s	36,700
Plaza del Mercado*	Neighborhood Center	1969	104,232	64%	CVS	14,999
Rock Creek Village Center	Community Center	1968	103,075	100%	Safeway	48,262
Leisureworld Plaza	Neighborhood Center	1986	94,712	96%	Giant Food	55,425
Aspen Manor	Neighborhood Center	1971	76,467	100%	AutoZone	7,547
Aspen Manor Shopping Center	Neighborhood Center	1954	72,769	100%	Lotte Supermarket	24,692

\*Former 25,000 sf Giant Food store closed in 2011; anchor space has not been relet.

<sup>1</sup> NNN rent, or “triple net” rent, represents the rental rate for which the tenant is responsible for all costs relating to the asset being leased, such as real estate taxes, net building insurance and net common area maintenance.

## Demographic and Economic Assessment

Retail space in the Aspen Hill market is generally stable. No new retail space has come on line in the past decade. With a fixed inventory and steady demand, retail occupancy rates and average asking rents in the area have been relatively high, compared to the County as a whole. In a small market such as Aspen Hill, store closings or turnovers tend to have a more visible impact.

Aspen Hill's overall retail vacancy rate spiked from 2.5 percent to 12.0 percent in 2011 following the closure

of two area grocery stores. The vacancy rate fell to 4.4 percent in 2012 after Kohl's department store replaced the former SuperFresh grocery store in Northgate Plaza, but it has steadily ticked up since then. One factor is that Plaza del Mercado has not yet secured a new anchor tenant to replace the 25,000 square-foot Giant Food grocery store that closed in 2011 when the company consolidated its Aspen Hill stores. Area vacancies reached 7.7 percent in 2013, potentially putting downward pressure on Aspen Hill rents.

Figure 2: Retail Vacancy Rate

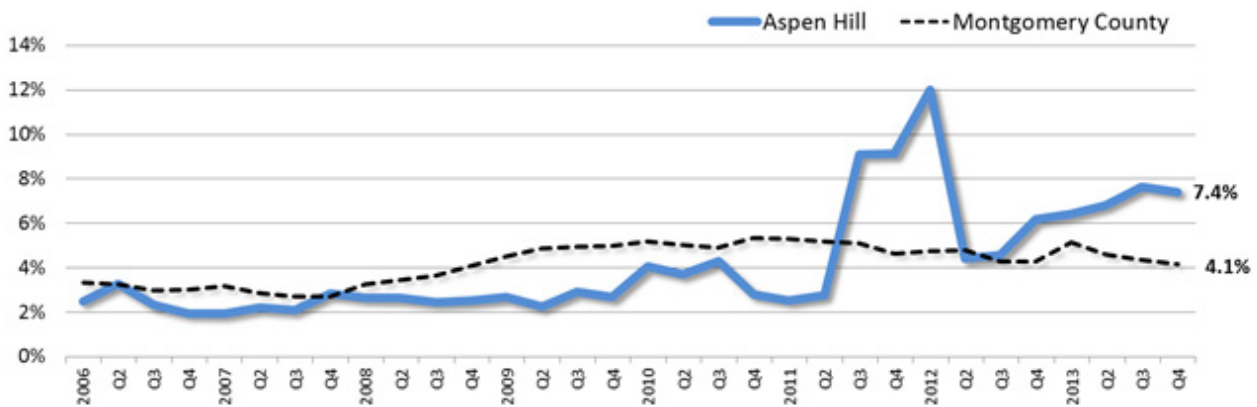
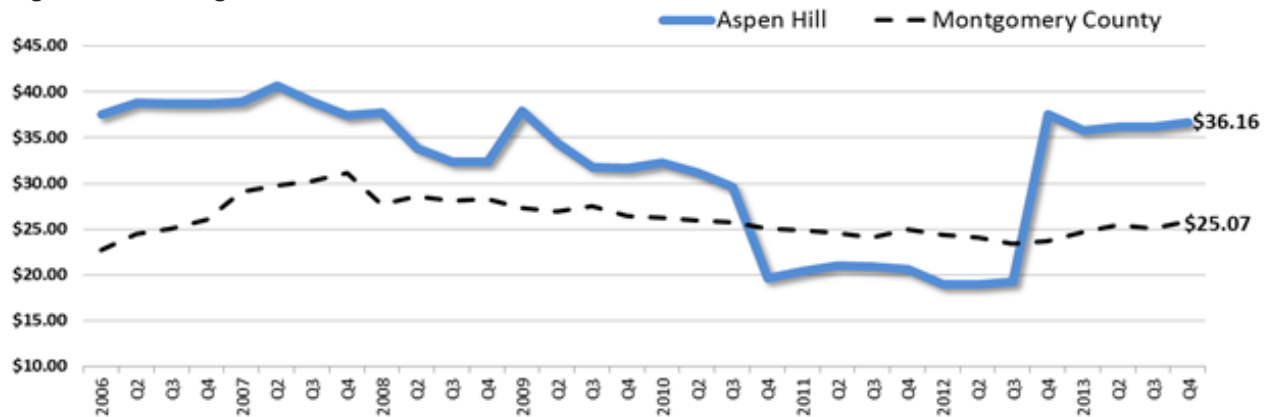


Figure 3: Average Retail Rent



## PRIMARY TRADE AREA ANALYSIS

### Primary Trade Area Definitions

The retail market analysis focuses on two Primary Trade Areas (PMAs):

- 5-minute drive shed from the Aspen Hill BAE/Vitro site.
- 10-minute drive shed from the Aspen Hill BAE/Vitro site.

A Primary Trade Area is the geographic area from which most of a retail establishment's customers originate. However, trade areas can differ based on the type of products offered. For example, the trade area for a convenience good, such as milk, is typically smaller than that for a shoppers good or a "comparison" good, such as furniture or apparel. The distance a consumer will travel to buy a gallon of milk is significantly shorter than the travel distance tolerated to buy a new sofa.

Another factor affecting the trade areas for convenience and shoppers goods is comparison shopping. To purchase a gallon of milk, one does not need to compare brands or stores. To purchase furniture, consumers are willing to travel farther to compare various merchandise. Trade areas are also impacted by competitive retail destinations. A shopping

district with little nearby competition will have a much larger trade area than one with significant regional competition.

Given the character of the Aspen Hill commercial environment, as well as its significant nearby competition, the PMA for this market study is defined as a 5-minute drive shed for convenience goods and a 15-minute drive shed for shoppers goods (see Figure 2). While shoppers goods generally have a longer drive shed – for instance, big-box retail tends to have a 30-minute PMA drive shed according to the Urban Land Institute – a 15-minute drive shed was defined for this study, given the considerable retail competition in the DC metro area.

### Primary Trade Area Demographics

Table 3 indicates that there are around 28,405 households and 81,945 residents within a 5-minute drive shed of the BAE/Vitro site. Within a 15-minute drive shed, there are nearly 174,000 households. The data also show that Aspen Hill's primary customer base has lower disposable incomes relative to potential customers in the wider trade area. This difference suggests that there could be relatively high demand for price-competitive retail in the area.

**Figure 2: PMA for Convenience and Shoppers Goods**



**Table 3: Primary Trade Area Demographic Characteristics**

Montgomery County, MD  
 Source: ESRI Business Analyst Online

	5 Minutes	15 Minutes
2013 Population	81,945	468,406
2013 Households by Disposable Income	28,405	173,749
< \$15,000	2,390	9,017
\$15,000 - \$24,999	2,187	7,337
\$25,000 - \$34,999	3,077	10,969
\$35,000 - \$49,999	4,001	19,012
\$50,000 - \$74,999	5,274	26,835
\$75,000 - \$99,999	3,412	21,089
\$100,000 - \$149,999	4,956	35,630
\$150,000 - \$199,999	1,710	20,413
\$200,000+	1,397	23,446
2013 Median Household Income	\$59,673	\$89,708
2013 Average Household Income	\$81,501	\$117,157
2013 Per Capita Income	\$28,581	\$43,701

## RETAIL SUPPLY AND DEMAND ANALYSIS

### Retail Supply and Demand by Trade Area

This analysis quantifies existing retail demand and supply in the Primary Trade Area (PMA) for convenience goods within the 5-minute drive shed and shopper goods within the 15-minute drive shed. Both convenience and shoppers goods are organized by the North American Industrial Classification System (NAICS) codes.

- The four principal retail categories under convenience goods are: 1. food and beverage stores; 2. health and personal care stores; 3. miscellaneous store retailers; and 4. food service and drinking places.
- The six principal retail categories under shoppers goods are: 1. furniture and home furnishings stores; 2. electronics and appliance stores; 3. building materials, garden equipment and supply stores; 4. clothing and clothing accessories stores; 5. sporting goods, hobby, book and music stores; and 6. general merchandise.

Consumer expenditures (retail potential) provide a measure of household demand for retail goods and services for different retail categories. Retail sales provide a measure of retail inventory and supply for the same categories. The retail gap – retail demand minus retail sales – represents available purchasing power or retail opportunities.

If supply is greater than demand, the retail market is considered saturated and there is no surplus demand to support a new store. If estimated spending by area

households (demand) exceeds sales by existing retailers (supply), the area is losing sales to outside retailers. A new store or an existing store that repositions itself in the market could try to capture at least a percentage of those sales.

However, residents will frequently make retail purchases outside their trade area. Examples include purchases made near the buyer’s place of employment or while traveling, and business purchases (consumer expenditures noted above cover only expenditures for personal use). Therefore, market “capture rates” were derived for each retail category. Capture rates are a measure of the percentage of household expenditures captured from or made within a defined PMA. Sales not captured represent a retail gap or “leakage”- expenditures that take place outside of the retail trade area.

Capture rates can vary given certain factors. These include the nature of a retail establishment, the retail category, the age, quality and variety of merchandise, the customer base, a store’s competitive position and whether an establishment caters to local or regional consumers. As a rule, for retail categories where convenience and proximity are essential – such as grocery or convenience stores – there is a comparatively larger share of sales derived from PMA households (approximately 60 to 70 percent). Categories that draw people regionally, such as furniture and home furnishings stores, have a smaller share of sales derived from PMA households (with a high range of 30 to 40 percent).

**Table 4: 2013 Retail Supply and Demand**

Montgomery County, MD  
Source: ESRI Business Analyst Online

Industry Group	"Demand (Retail Potential)"	"Supply (Retail Sales)"	Existing Capture Rate from HH (assumed)	Retail Gap
<b>Convenience Goods (5-Minute Driveshed)</b>				
Food and Beverage Stores	\$168,440,978	\$88,184,242	75%	\$60,192,552
Health and Personal Care Stores	\$65,026,257	\$153,136,318	70%	\$(61,677,043)
Miscellaneous Store Retailers	\$25,196,427	\$7,792,905	50%	\$8,701,761
Food Services and Drinking Places	\$95,029,156	\$38,044,314	65%	\$37,040,147
<b>Shoppers Goods (15-Minute Driveshed)</b>				
Furniture and Home Furnishings Stores	\$158,883,485	\$184,143,464	25%	\$(6,314,995)
Electronics and Appliance Stores	\$195,981,703	\$172,564,342	35%	\$8,196,076
Building Materials, Garden Equipment and Supply Stores	\$247,494,338	\$89,552,975	40%	\$63,176,545
Clothing and Clothing Accessories Stores	\$467,254,342	\$296,956,802	20%	\$34,059,508
Sporting Goods, Hobby, Book & Music Stores	\$187,997,998	\$153,638,481	30%	\$10,307,855
General Merchandise	\$1,016,006,167	\$218,539,329	40%	\$318,986,735

As shown in Table 4 above, the retail gap is largest in food and beverage stores (in the convenience goods category) at \$60.1 million and general merchandise (in the shoppers goods category) at \$319 million. Based on these two categories, a new big-box retailer selling general merchandise and groceries (represented as food and beverage stores) could be introduced to the Aspen Hill market to fill the gaps. The relatively large retail gaps in building materials/supply stores, clothing and accessories stores, and food services and drinking places potentially offer additional retail opportunities.

The current gaps for most retail categories indicate that retail development on the BAE/Vitro site is unlikely to affect existing businesses adversely. Existing retailers can still tap the available purchasing power within the PMAs without strictly competing for existing household expenditures. Any new commercial development on the BAE/Vitro site should, however, be appropriately scaled so as not to create oversupply, especially in categories with a limited demand (small or negative retail gap).

### Supportable Retail Space

Projections for supportable retail space in the respective PMAs (see Table 5) are provided for the existing retail environment, using the capture rates

and retail gap for each category. Retail sales gaps for respective categories were divided by sales productivity factors for new development, based on sales per square foot<sup>2</sup> to arrive at supportable space estimates.

Estimates indicate that Aspen Hill would find its greatest support for retail space in the general merchandise and grocery category. Assuming new retail development is not large enough to cause a supply and demand imbalance, the BAE/Vitro site would likely be able to support a big-box store with an approximately 50/50 mix between general merchandise and groceries, consistent with the Aspen Hill Minor Master Plan Amendment. A following calculation demonstrates that sufficient support likely exists for this store:

\*MMPA Application: 118,000 total square feet (SF) x 50 percent = 59,000 SF each for general merchandise and groceries\*

- 59,000 SF grocery store = 47 percent of food and beverage store potential (125,663 SF)
- 59,000 SF general merchandise = 5 percent of general merchandise potential (1,260,817 SF)

Estimates also indicate support, albeit more limited, for clothing and clothing accessories retailers, building materials and supply stores, as well as food services and drinking places<sup>3</sup>.

<sup>2</sup> Sales per square foot were obtained from the Urban Land Institute, Dollars & Centers of Shopping Centers 2008, using the sales PSF factors for regional shopping centers.

<sup>3</sup> Supportable Retail Space in PMA estimates apply across the PMA but are not site-specific. Properly sizing site-specific development requires a case-by-case approach, since retail gravitation changes as newer, large-scale retail is introduced into a market

**Table 5: Supportable Retail Space in PMA**

Montgomery County, MD

Source: ULI Dollars and Cents of Shopping Centers 2008: Regional Centers

Industry Group	Retail Gap	PSF Productivity Factors	Supportable SF in PMA
Convenience Goods (5-Minute Driveshed)			
Food and Beverage Stores	\$60,192,552	\$479	125,663
Health and Personal Care Stores	\$(61,677,043)	\$231	(267,579)
Miscellaneous Store Retailers	\$8,701,761	\$339	25,669
Food Services and Drinking Places	\$37,040,147	\$470	78,809
Shoppers Goods (15-Minute Driveshed)			
Furniture and Home Furnishings Stores	\$(6,314,995)	\$302	(20,911)
Electronics and Appliance Stores	\$8,196,076	\$412	19,893
Building Materials, Garden Equipment and Supply Stores	\$63,176,545	\$325	194,389
Clothing and Clothing Accessories Stores	\$34,059,508	\$345	98,676
Sporting Goods, Hobby, Book & Music Stores	\$10,307,855	\$311	33,144
General Merchandise	\$318,986,735	\$253	1,260,817

### Potential Retail Models for Aspen Hill

This analysis primarily focused on assessing the economic feasibility of retail uses on the BAE/Vitro site, rather than identifying particular store sizes, layouts or tenants. However, the following retail formats could be appropriate, given surrounding land uses and market demand:

- **Big-Box Retail:** Big-box retail is a large format retail store ranging from 20,000 to 170,000 square feet. The types and mix of goods sold widely varies by store (see Appendix A for big-box retail characteristics and trends). The area around the BAE/Vitro site already includes various big-box stores, such as Home Depot to the north and Kohl's across Connecticut Avenue. These stores are generally large, freestanding, rectangular, single-story buildings that are surrounded by parking lots. Many of the retail categories with a potential for additional sales in the Aspen Hill PMA are commonly served by big-box retail, particularly in the categories of general merchandise, food and beverage stores, and building materials and supply stores. Examples of a big-box store with a 50/50 mix between general merchandise and groceries include discount department stores, such as a WalMart or a Target Supercenter.
- **Shopping Plaza:** Shopping plazas usually range from 5,000 square feet to more than 100,000 square feet with open-air layouts. Stores are arranged in a row, with a sidewalk in front, and are generally

developed as a single unit. Shopping plazas are generally anchored by a big-box retailer and/or a grocery store. The ancillary retail may vary widely, from dry cleaners and smaller restaurants (small shopping plazas) to electronic stores, bookstores and home improvement stores (larger shopping plazas). The BAE/Vitro site could accommodate a larger shopping plaza given market demand, with a discount department or a grocery store as the anchor. Smaller, ancillary stores would complement the anchor store, tapping retail categories with available demand.

### Impacts on Existing Retail

Commercial development of the BAE/Vitro site may affect existing businesses differently, depending on whether the merchandise sold is complementary or competitive with surrounding businesses.

#### Potential impact on complementary retail

New big-box stores or shopping plazas do not necessarily cause nearby stores to decline. For example, they may enhance the competitiveness of existing stores that sell similar or complementary products by increasing the overall number of customers drawn to the area. Assuming some sort of general merchandise or grocery use on the BAE/Vitro site, complementary uses in the vicinity may benefit from:

- The site's adjacency to an existing Home Depot, which commonly co-locates with large discount department stores such as Wal-Mart or Target.



- The site’s location across the street from the Northgate shopping center anchored by Kohl’s and Michael’s. Neither store typically competes directly with a large discount department store.
- The potential mix of adjacent large format retailers near the BAE/Vitro site could result in the draw of a power center; with a comparable draw of additional customers that may enhance nearby existing stores.

**Impact on directly competitive retail**

The most important factor affecting the viability of existing businesses in Aspen Hill – whether or not the BAE/Vitro site is developed for retail uses-- is the ability to attract the same level of consumer expenditures, in their respective trade areas, from potential customers. Consequently, if demand for groceries, general merchandise or other retail categories is sufficiently high as shown by this study, the introduction of a major new competitor could have minimal adverse economic impacts on existing businesses in Aspen Hill. However, given the types of potential uses on the BAE/Vitro site, the following should nevertheless be considered:

- Traditional supermarkets within a 5-minute drive time of the study area may be disadvantaged by the selection, price and one-stop shopping advantages

of a hybrid discount department store/grocery store. If such advantages are significant enough to result in a store closing, the loss of a grocery store anchor could jeopardize the viability of an existing shopping center. This loss could, in turn, impact the viability of other stores, especially those in the center. However, a discount department store with a slightly scaled-down grocery component could reduce that potential.

- Nontraditional supermarkets provide convenience, have a wider customer base and know the local market well; a large format retailer may lack these advantages. For example, Lotte offers a wide selection of international foods at very low prices; the store also has a different customer base and a wider trade area than other supermarkets in the area. Consequently, such a retailer is less likely to be affected by the arrival of a large grocery store.
- While a direct competitor in the discount department store category, the existing K-Mart is older, less visible from main streets, and only has a dry grocery component. Without improvements, K-Mart may experience increased competition and could potentially face significant economic pressures. If a vacancy results, it could be challenging to find a similar tenant.

**APPENDIX A: BIG-BOX RETAIL: CHARACTERISTICS AND TRENDS**

The term “big box” describes a wide range of large format retail stores that vary by size, the kinds of items they sell and their main customer base. Big-box stores generally fall into four subcategories (see Table 6).

These categories are not necessarily fixed. Big-box retailers are continually developing new store models and refining their product mix, target markets and location strategies to respond to changing market conditions and consumer preferences. A brief review

of characteristics and trends of big-box retail, as well as how big-box retailers interact with other retailers, follows.

Big-box stores reflect a long term trend toward retail consolidation. Sears and Woolworths are early examples of large format stores and retail chains that gradually displaced many smaller, locally-based businesses. Large scale retailers do not necessarily operate large scale stores. Their key economic

**Table 6: Big-box Subcategories**  
Montgomery County, MD

Category	Size Range (square feet)	Examples
Warehouse clubs	1000,000 to 170,000	Costco, Sam’s Club
Discount department stores	80,000 to 130,000	Wal-Mart, Kmart, Target
Category killers	20,000 to 120,000	Staples, Home Depot
Outlet stores	20,000 to 80,000	Nordstrom Rack, Burlington Coat Factory

advantages as large enterprises—including price, selection, branding and shared overhead—enable them to achieve comparable market coverage and profitability with smaller, multi-site store formats.

Discount department stores nearly always include food sales, from basic non-perishables to full service grocery stores. The proportion of store area dedicated to food sales has steadily increased since the 1980s, when the major national chains (Wal-Mart, Kmart and Target) introduced “hypermarkets” combining department store and grocery store formats into one 150,000-square-foot or larger superstore. Grocery items generate a higher average sales per square foot compared to general merchandise items (\$479 versus \$253), but due to low profit margins, groceries are not necessarily a highly lucrative product line. The impetus behind adding grocery sales is to compete on the basis of one-stop shopping convenience, not just price.

Big-box stores commonly co-locate with other large retailers. Co-location can benefit a big-box retailer by increasing the overall number of customers drawn to an area. Big boxes often are clustered with other large-format retailers in non-competing retail categories. One example is the 250,000 to 1 million square-foot “power center” featuring three or more big-box retailers in freestanding or in-line configurations. For example, Wal-Mart stores tend to co-locate with large hardware and building supply stores, such as Lowe’s or Home Depot; furniture stores also appear to benefit from proximity to a national discount retailer. If the consumer base is sufficiently large and differentiated, stores selling similar product lines, such as groceries, can coexist with large discount chains by targeting a different market segment. For example, an Aldi supermarket and a forthcoming Wegman’s are adjacent to a Wal-Mart in Germantown, Maryland.

Big boxes also co-locate with smaller retailers by anchoring regional shopping malls or smaller scale community centers. Smaller retailers can survive by fulfilling a retail niche (e.g., offering specialty products, convenience or a superior customer experience), or by locating in established small scale shopping districts or under-retailed areas. Small businesses that differentiate can survive or even thrive with an increase in traffic generated by a large retailer. Depending on the location, restaurants, specialty food markets and service-oriented retail, such as hair salons, generally are least at risk.

Big-box retail formats are evolving. Due to their large footprint, most hypermarkets and power centers built to date are located in auto-oriented rural or suburban settings. Recent trends are forcing retailers and developers to come up with new formats and location strategies since rural and outer suburban markets are largely saturated. More significant is that population growth—and purchasing power—is migrating back to cities and older suburbs. To retain or expand market share, retailers need to follow.

Very large big-box store formats do not readily adapt to denser urban environments. Higher land prices, more complex regulations, potential compatibility issues with existing uses and political opposition make these very large stores more challenging to build. Consumer preferences also are more fragmented, making it more difficult to compete primarily on the basis of price and convenience. In large, diverse consumer markets already served by established retailers of all sizes and types, the potential for any new retailer to dominate the market is extremely limited. In such an environment, big-box chain retailers can take advantage of localized gaps in retail coverage, but competition will limit their potential trade area and supportable square footage.

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