DARK STORE THEORY: EXAMINING THE TAX LOOPHOLE'S RELEVANCE IN WISCONSIN FROM MULTIPLE PERSPECTIVES

Daniel H. Boylan[1], Jeffrey W. Cline[1]

Abstract

Originally encouraged through legislative reformation during the 1950s, big-box retailers play a major role in the United States' economy. Built to thrive in the suburbs, they were welcomed by municipalities and property owners who believed that the increased sales taxes that the stores would generate would, in turn, lead to increased tax revenues and lower property taxes. Municipalities and residential property owners are now pushing for legislative action to close a tax loophole that was ostensibly allowed through recent tax reform. However, there is a substantial amount of confusion over the legitimacy of the loophole, as analysts have opposing viewpoints. This research examines the relationship between the presence of big-box retailers and the property tax levies of local municipalities in Wisconsin. It then investigates the phenomenon known as the dark store loophole and analyzes the opposing perspectives held by specialists within the industry. It also considers the overall impact of the loophole on residential property owners. This research finds that imposing legislation to close the dark store loophole would enable local governments to lower residential property taxes.

JEL Classification Codes: H11, H71, K11, K25, M48, N42, R51
Keywords: Property Tax, Municipality, Big-box Retailer, Dark Store Theory, Tax Loophole, Property Owner

1. INTRODUCTION

Big-box retailers such as Walmart, Target, and Ikea have effectively transformed the way that Americans shop for everything from everyday items to decade-lasting furniture and appliances. These stores make products accessible to broad new markets. Consumers have benefited from the affordable products sold by big-box retailers (Sciara et al., 2018). On the downside, however, many believe that big-box stores have a negative impact on local small businesses.

In the decades following World War II, the American legislature's attitude toward business changed. Notably, suppliers could no longer set "manufacturer's suggested retail prices" (MSRPs). For the first time, retailers were permitted to buy large quantities of goods at volume discounts. These changes resulted in the development of a new working model that defined the business plans of big-box retailers (NPR Staff, 2012). Stores such as the ones listed previously began to expand rapidly, building in multiple locations throughout the United States. As this expansion occurred, local governments experiencing slow tax revenue growth found that big-box retailers could provide them with much-needed funds. By allowing a few stores like this to open in their areas, local governments could increase both sales taxes and property taxes. This growth could, in turn, allow cities to lower residential property taxes (McGarry, 2005; Vandegrift & Loyer, 2014).

[1] Assistant Professor, Doermer School of Business, Purdue University, Fort Wayne, Indiana, USA.

At first, big-box retailers promised many benefits to communities that welcomed them. These benefits included lower property taxes, lower sales taxes, products and services at lower prices, community engagement, additional property development, and newly created jobs (Mast, 2020). Big-box retailers have often claimed that the real estate taxes they pay to communities reduce existing property taxpayers' burdens. This benefit is significant considering the fact that local property tax is the largest single funding source for communities (Sellers & Konikoff, 2019). These taxes help to pay for public schools, streets and roads, and public safety services. Public safety services include the police, fire departments, and many health programs (Texas Comptroller of Public Accounts, 2019). More recently, the tax benefits that local governments receive from big-box stores have changed, as these stores have begun to challenge their property tax assessments (Sellers & Konikoff, 2019).

Most states require localities to assess real property at a percentage of market value (Schieck, 2017). Market value presumes a transfer of ownership (Fanning et al., 2018). As many homeowners would know, value is relatively easy to assess when a property has been sold via an "arm's length" transaction. In contrast, it can be harder to assess the value of newly built stores that have never been sold, stores that have been owned for several years, and stores that have gone through several changes in ownership (Lennhoff & Parli, 2019).

When there is controversy about an assessment, it often begins with a debate about what "fair market value" means. There are many opinions about this. Many entities may weigh in on the issue, including assessors, local elected officials, the community, and the property owner (Mast, 2020). Each entity will have its own concerns about the relationship of property rights to market value (Lennhoff & Parli, 2019) and to the community's best interest (Harrison & Seim, 2019). Arguments sometimes arise about whether a property is unique or standard, and whether special conditions relate to it (Lennhoff & Parli, 2019). Some of these special conditions include economic development, community needs, and architecture (Heiland II, 2019). An additional consideration is that often, in commercial real estate, the tenant does not vacate the property. This is the case in "sale-leaseback at market rate" transactions. Here, there is no "second generation" user to create a strong argument for an "arm's length" transaction where a price is easily determined because of the original owner leasing the property back from the new owner (The Appraisal Foundation, 2012).

Historically, operating stores attract higher assessments than similar stores that are closed ("dark stores"). This is due to an understanding that profit-generating stores have higher fair market values than closed or vacant properties. The argument presented by big-box retailers, however, suggests this assessment to be inaccurate, as these properties have historically sold at similar prices to dark stores (Fanning et al., 2018). Many retail stores claim that they have been unfairly over-assessed, and thereby over-taxed, by taxing jurisdictions (International Association of Assessing Officers Special Committee on Big-Box Valuation, 2018).

This study intends to decipher whether the past property tax promises are still relevant today, using the U.S. state of Wisconsin as an example. As such, the focus behind this study includes the research question:

> *"Does the dark store theory have an adverse effect on the revenues of municipalities? In other words, do Wisconsin municipalities have a lawful basis to oppose recent rulings lowering the property tax assessments of big-box retailers?"*

To answer this question, data investigations are conducted into the real impact of big-box stores on local property taxes, based on records obtained from several Wisconsin municipalities. In addition, the study details the idea behind the dark store theory and evaluates the sources of its support from both theoretical and legislative standpoints. This study considers the possible ramifications of big-box property tax reform on residential property tax rates in Wisconsin municipalities. It also examines the plausible motivations behind the dark store theory of tax assessments.

The rest of this paper has five sections. It starts with a brief overview of dark store theory. The second section summarizes the literature related to this research. The third section explains the methodology used, including the research structure, categories of data collection, and hypothesized findings employed. The fourth section details the results. The final section describes the conclusions of the research, specifies any limitations associated with this study, and offers recommendations for future studies.

2. THEORY

During the decline of the automotive industry in Detroit, automakers wanted their tax burdens in respect of vacant factories to be reduced. Lawyers for the industry argued that these factories should not be valued as if they were in use but as if they were vacant or "dark". The City of Detroit was financially strapped and unable to fight these companies in court. It was also concerned that if it did fight them, there could be a risk to the remaining auto jobs in Detroit (Pettypiece, 2016). As a result of the automakers' success, other industries soon followed suit and a movement began (Baudot et al., 2019).

Dark store theory is the premise that big-box stores should be assessed as if they were "vacant and available for secondary use" (Fanning et al., 2018, p.172). In other words, the "dark store" name is derived from the proposition that a fully functioning, vibrant store should be valued as if it were "dark" or vacant. Big-box retailers advocate for the use of dark store theory based on an interpretation of the fair market value assessment of the store.

From an assessment perspective, dark store theory rivals the approach taken by the property assessors, who have been calculating higher assessments for years (Farmer, 2016). These higher assessments take profitability, building design, and capital outlays benefiting the current property owner into account (International Association of Assessing Officers Special Committee on Big-Box Valuation, 2018). These costs can often have a negative effect on a property's resale value (Heiland II, 2019). For example, Best Buy spends a great deal of money integrating its logo into its buildings. Other retailers see no value in doing this. From the perspective of retailers, the assessed value should not include these items. Instead, the argument is that it should only take the recent sales value of other comparable properties that are empty into account; a value that has plummeted in recent years because of the 2007-2011 economic recession (Jauer et al., 2017).

From a legislative perspective, court rulings have changed local tax laws, and in many states, these changes have favored big-box retailers by reducing property assessments (Grant, 2019). Some cuts exceed 50 percent (Baudot et al., 2019). Occasionally, big-box retailers have claimed that their properties hold fair market values that are far lower than the initial costs they incurred when buying land and building their stores (International Association of Assessing Officers Special Committee on Big-Box Valuation, 2018; Romell, 2017). This has led to strong opposition from local governments, which argue that the rulings have created a dark store loophole that allows for the inaccurate assessment of big-box properties in operation. This loophole is the basis for dark store theory and is the cause of municipalities' desires to change property tax legislation back to its previous state (Farmer, 2016).

A common argument in taxation is the notion of fairness and equity. The "ability to pay principle" is an economic principle that results in two notions of fairness and equity—vertical and horizontal equity (Cornia & Slade, 2005). Vertical equity is a method of taxation where those with higher incomes should pay more than those with lower incomes. This concept relates directly to real estate taxation (Finocchiaro Castro & Rizzo, 2014). For example, under this valuation method, the amount of tax charged in respect of a building measuring 100,000 square feet should essentially be twice the amount charged in respect of a building measuring 50,000 square feet. This directly relates to fair market value, as that same 100,000 square feet building will cost at least twice as much as the 50,000 square feet building. Cities will often argue that more tax should be charged in respect of the bigger building because it costs the local government more to service. For example, the existence of a small structure may not require the local fire department to make changes, while the addition of a new big-box store could mean that larger and more expensive fire trucks are needed. Additionally, it is likely that law enforcement authorities will need to make additional service calls to larger stores on a regular basis to deal with incidents of shoplifting (Wolfe & Pyrooz, 2014). Horizontal equity, on the other hand, is a method of taxation where entities of similar sizes or with similar income levels pay similar taxes (Finocchiaro Castro & Rizzo, 2014). It has been argued that two nearly identical facilities may pay significantly different taxes due to differences in ownership (Cornia & Slade, 2005). In this scenario, imagine that two competing pharmacies, each occupying 15,000 square feet, are located directly across the street from each other. One of those pharmacies is locally owned while the other is part of a major national chain. While the locally owned pharmacy may lack the funds and expertise to challenge its tax bill, it is likely that the major national chain will possess these. This puts the locally owned entity at a competitive disadvantage to the national chain (Baudot et al., 2019).

It is worth noting that the dark store theory revaluation is unique to commercial enterprises. Homeowners are not permitted the same reduction. In fact, a homeowner with a second or a vacation home cannot claim that home to be "dark" in an attempt to reduce their taxes. In fact, homes that are rented out are often taxed at the higher "commercial" property level (Ito et al., 2015). It is important to understand dark store assessments, as any reduction to the amount of taxes received from commercial property in a municipality shifts the tax burden to residential property owners (Kim & Warner, 2018).

3. LITERATURE REVIEW

The title "big-box retailer" is used to describe large retailers that own many store locations throughout the United States. Each of these stores is large when compared to the stores of other retailers and is usually a rectangular or box-shaped building, measuring 50,000 square feet or larger, that sits on an expansive parking lot. These retailers stock a wide variety of products and often implement a high sales volume, low-profit-margin business plan that allows them to outcompete smaller retailers (Hayes, 2019).

Before the Second World War, laws precluded retailers from obtaining large amounts of merchandise from suppliers at volume discounts. This prevented the development of the large sales volume, low-profit-margin business plans that discount big-box retailers use today. There were also laws that gave manufacturers the right to define the selling prices of goods, regardless of the retailer supplied. In an environment that favored manufacturing, retailers had difficulty setting the terms of sale. This meant that they did not have the product volumes or the ability to discount prices required to earn a competitive advantage. In the 1950s, the American legislature slowly modified laws to allow mass selling. By the 1960s, retail giants such as Walmart and Target had emerged (NPR Staff, 2012).

Figure 1. Retail pricing before 1950s legislative reform.

It is important to understand how municipalities calculate property tax levies. When a municipality's revenues are increased by sales taxes and new property taxes, there may be capacity to lower the taxes paid by existing property taxpayers (Schieck, 2017). To understand why reducing a tax levy is important, one must understand how taxes in the United States are calculated. There are several steps involved when determining tax rates (State of Wisconsin Department of Revenue, 2020):

1. A taxing jurisdiction, such as a school or city, develops and adopts a legal budget.
2. The taxing jurisdiction calculates revenues from sources other than the property tax.
3. Those revenues are subtracted from the adopted budget to determine a shortfall. This shortfall becomes the tax levy or the amount of money needed to be raised through property taxes.
4. Next, a tax rate needs to be determined. The taxing jurisdiction divides the tax levy by the total taxable assessed value of all property in the jurisdiction.
5. As tax rates are generally expressed as "per $1,000 of taxable assessed value", this ratio is multiplied by 1,000.

For example:

- Town A's tax levy = $10,000,000.
- Town A's total taxable assessed value = $200,000,000.
- Tax rate = $50 per $1,000 of taxable assessed value.
- Tax bill for property in Town A with a taxable assessment of $1,500,000 = $75,000.

Figure 2. A high-level representation for calculating municipal property tax rates.

The taxing process described above explains how big-box retailers can work to inadvertently lower property taxes for themselves. Specifically, because zoning requirements must be consistent, communities find that they are invaded by many similar stores. For example, once a McDonald’s has been zoned, a Chick-fil-A, a Wendy’s and a Chipotle may arrive, creating a strip of restaurants. Branches of Walgreens and CVS pharmacies are typically located near each other. As a result, a city could find that several retailers fight their assessments. This idea is known and accepted, and is partly responsible for big-box retailers’ success in terms of increasing the number of stores that they have (Vandegrift et al., 2011).

This behavior magnifies the effect of dark store theory. It increases the complexity and reduces the transparency of assessment which, in turn, weakens the integrity of the taxing process (Mangioni, 2011). This is because it creates a situation where municipalities and residential property owners have grown to rely on the taxes generated while some retailers are strategizing in order to reduce their tax bills. Given both the need for revenues and the zoning requirements, it can be rather difficult to limit big-box retailers. Lydia Wheeler, quoted in McGarry (2005), effectively summarized this lack of control when stating that “towns limiting big business are dying because their property taxes are skyrocketing”. Many towns have grown to depend on sales tax revenue. As such, municipalities can have trouble containing the growth of big-boxes once those retailers have established a presence in their jurisdictions.

To understand the motivation behind the big-box retailers’ property tax challenges, it is useful to view the politics of taxation from a broader perspective. Big-box retailers have an incentive to reduce their tax burdens to the level that would result in the largest reductions. Therefore, as taxes have declined at the national level, many big-boxes have devoted resources to challenging taxes at the local level (Rubin, 2020). This strategy started in the 1960s in California. Initially, the challenges were a response to large tax increases. As corporations had success in court and saw their tax bills decreasing, the push morphed into an “expense reduction” philosophy rather than an “overtaxing” revolt (Martin, 2008). Another issue that became important was the American ideal of the pursuit of prosperity. This fueled a consumer attitude that favored low prices and mass consumption, transforming American life (Cohen, 2004). As big-box retailers grew, they realized that they had the resources and expertise to challenge taxing institutions. This change happened when tax assessments became more market-oriented and centralized (Martin, 2008).

The circumstances at the time created an ideal situation for taxpayers to rebel. Now the problem wasn't that taxes were too high, but that reforms happened too late. Those accustomed to the old system were entrenched in their privileges while those that did not benefit from the system felt that it was unfair. As a result, these organizations placed blame on politicians. The politicians worked towards blame avoidance and were willing to provide unwarranted benefits in order to protect their careers. This cycle accelerated, as these “unwarranted benefits” became public knowledge and “every organization” demanded similar treatment (Martin, 2008).

At present, although municipalities benefit from the sales tax revenue collected from larger retailers, local governments have become reliant on the associated property taxes. However, several changes in legislation have resulted in changes related to property appraisal. As a result, many local governments stand to lose up to half of the revenue of property taxes generated from big-box retailers. This will cause significant changes to their budgets. For example, municipal officials in Bexar County, Texas, predict that changes in property appraisal legislation could lead to an $850 million decline in budgeted funds for county schools. Although the loss of property taxes can be difficult to accommodate, a city can incur a multitude of legal fees while fighting tax protests by large retailers (Chatham, 2020). These fees can often reach $300,000 per case (Jauer et al., 2017). Therefore, cities need to find ways to deal with such losses. The two main strategies used are to reduce public services or to raise the property tax levy. Municipal officials in Wisconsin predicted that there would be an increase of 7-8% to the property tax levy over the years following changes to tax legislation (Romell, 2017). The reason for the increase is that local budgets are not very flexible with regard to downward trends in revenue. Local community expenses tend to be fixed in nature and cannot easily be discontinued. They include the costs involved in the provision of streets, street lights, fire departments, parks, and labor. Due to court rulings, a city cannot just turn off its street lights. Typically, in periods of revenue decline, local communities rely on their cash balances in order to make ends meet (Meklin et al., 2000). In the event that tax revenues need to be repaid, the local community is hit twice—first, by the lost tax revenues, and second, by the lost cash balance.

This research examines the effects of dark store theory. Previous researchers have decided that big-box retailers are valuable both to municipalities and their residential property owners. A benefit is derived from the increased sales taxes and property taxes that they pay. This allows taxing authorities to lower property taxes for the remaining taxpayers (Vandegrift et al., 2011). Currently, however, cities are challenging recent court rulings, claiming that a property tax loophole exists that allows big-box stores to operate legally without living up to the promises they have made to local governments (Farmer, 2016). An alternative perspective suggests the loophole to be nothing more than a faulty perception held by municipal officials who would like to increase property tax collections (Engel & Linne, 2017).

4. METHODOLOGY

This research examines the tax loophole created by dark store theory and its effect on the property tax levies of local governments in Wisconsin. It seeks to understand the relationship between municipal sales and property taxes. This study analyzes the opposing viewpoints of local governments and property tax specialists, and evaluates the arguments of each. This defines the relevance of the dark store theory to residential property owners.

This research employs both quantitative and qualitative approaches. Preexisting data is used to analyze the impact of changing assessments. The League of Wisconsin Municipalities and local Wisconsin assessors provided all of the data used in this research. Data for this analysis was retrieved from scholarly studies associated with the *Journal of Regional Science* and the *Munich Personal RePEc Archive*. Descriptions of the calculation of property tax levies with respect to local budgets are represented by information provided by the State of Wisconsin Department of Revenue. Opposing viewpoints of dark store theory concepts and an analysis of the loophole's legitimacy are drawn from *Governing.com* and Bloomberg Industry Group. Other qualitative sources utilized in this study include *NPR.org*, *Comptroller.Texas.Gov*, the *Milwaukee Journal Sentinel*, and *The Post Star* (previously known as *Knight Ridder Tribune*

Business News). The research hypothesis is: The dark store theory is likely to have multiple effects on the different property tax stakeholders and their interests.

Separate and independent sources of data are utilized in this research, as preexisting studies are used to form the basis of the research setting's statistical and qualitative data. Information is drawn from various resources in order to describe and evaluate the process of calculating property tax levies, and to explain the relationship between sales taxes and property taxes. Preexisting qualitative studies are examined in order to represent the opposing opinions of analysts within the field of municipal tax. When collated, the data from these studies is predicted to support the author's hypothesis.

5. FINDINGS

This section describes the results from this study, which were obtained by analyzing statistical research and qualitative data collected from pre-existing studies. The data was examined in order to understand the existing relationship between the sales tax generated from big-box retailers and the value of local property tax levies. The historical benefits for residential property owners in big-box retailers' areas of operation are evaluated. The premise behind the dark store theory and how the associated loophole may impact residential property owners is then examined. An analysis of the loophole's impact based on opposing arguments from multiple property tax specialists follows. Finally, we look into the current tax legislation and how it relates to the legality of the dark store theory.

The first result involves the existing relationship between the sales tax generated from big-box retailers and the value of local property tax levies. Vandergrift et al. (2011) conducted a study in which they found a positive relationship between the presence of a new Walmart and the local government sales tax bases. The existence of an increased municipal tax base suggests that there has been an increase in the area's overall economic growth that has allowed the municipality to either increase its budgeted spending or maintain its previous budget and lower its property tax levy. While increases to budgeted spending could result in improvements to roadways, education, and many other facets of local public services, reducing the local property tax levy could be a viable option for municipalities looking to maintain their current economies rather than to seek economic expansion. Similarly, Vandergrift and Loyer (2014) found a relative reduction in a community's finances due to Walmart's arrival. While sales tax (which often only benefits the state) increased, the benefits to the local community were negligible. Additionally, this study also found that once one retailer had challenged its assessment, other big-box stores followed suit.

When determining the dark store loophole's impact, two opposing arguments made by specialists within the field of property tax were evaluated. Engel and Linne (2017) presented one such viewpoint in support of the recent court rulings in states such as Michigan, Wisconsin, and Indiana. From their perspective, an accurate assessment of big-box properties would be comparable to the selling price of "dark store" properties—the same conclusion reached by tax courts in multiple states. These analysts emphasize the importance of fair market value when assessing property value for taxation purposes.

Fair market value is determined by evaluating local markets and considering the historical selling prices of comparable local properties. These tactics compare two or more "comparable properties" to make a determination. IRS state assessors can use any one of three different methods to decide on a value. First, the assessor can use a comparable sales approach. This method allows the assessor to consider sales from similar stores in order to make a valuation. Second, the assessor can use a capitalized income approach. This method values property by taking the net operating income of rent collected and dividing it by a capitalization rate. Third, the assessor can use the Replacement Cost New method. This allows an assessor to take any property and price it at the cost of rebuilding it as new (Williamson, 2017).

Many big-box retailers appeal tax assessments because, if they are successful, the tax reductions they receive can be substantial. For example, Walmart is an organization that can save millions of dollars a year by appealing its assessments. Walmart is in the process of appealing all of its statewide assessments in Wisconsin with a current rate of more than $40 per square foot. At present, most Walmart stores are assessed in the $55-$65 per square foot range. This represents a goal to lower tax assessments by at least 25%.

The opposing viewpoint is presented by Farmer (2016), who calculates property appraisals based on operating value; a metric that includes the property owner's costs when acquiring the land and building on it, capital expenditures (such as the cost of equipment), and any other costs relating to the retailer's operations (including rentals of the property). Including these costs inflates the appraised value of the property, occasionally doubling the big-box retailer's property taxes. From this viewpoint, the recent court rulings in favor of fair market value considerably reduce local governments' property tax revenues in what can be called a tax loophole (Farmer, 2016).

Farmer's (2016) study revealed that the current tax legislation applicable to the dark store theory was introduced in Michigan shortly after the economic recession of 2007-2011. Large retailers began to file lawsuits protesting their property tax assessments, claiming that the fair market value approach prescribed by law was not being practiced. This practice has since started spreading to Wisconsin and other states (Horner et al., 2016). In the view of big-box retailers, local cities were overcharging them by assessing their properties at well above the fair market value. Organizations challenging their assessments cited comparable sites with little relevance to their own situation. For example, when Menards built a store in Village of Howard, WI, in 2012, the costs included roughly $5 million for land and $5.6 million for the building. Menards challenged their $12.5 million assessment, citing comparable stores as justification. Three of these comparable stores were a former Cub Foods in Green Bay, WI (nearly 2.4 miles away), a former Sears store in Sheboygan, WI, that was in an enclosed mall (roughly 70 miles away), and a former Home Depot in Beaver Dam, WI (around 95 miles away). Ironically, the organization was satisfied with these cost assessments when depreciating the value of the land to decrease its federal corporate tax burden.

The following table shows assessed values vs. sales prices for several Walgreens stores in municipalities throughout Wisconsin in order to highlight the effect of dark store theory across the state.

Table 1. Wisconsin Walgreens and CVS assessed value vs. sales price

Data in Millions	Assessed Value	Sales Price	Undervalue	Lost Assessment %
Cudahy	2.4	4.9	2.5	51.0
Milwaukee	2.4	4.2	1.8	42.9
Wauwatosa	3.4	8.7	5.3	60.9
Mount Pleasant 1	2.6	6.3	3.7	58.7
Mount Pleasant 2	2.8	5.8	3.0	51.7
Franklin	2.1	5.6	3.5	62.5
Appleton	1.9	4.5	2.6	57.3
Kenosha	2.5	5.5	3.0	54.5
Waukesha	2.4	6.4	4.0	62.5

The first two columns of Table 1 show the assessed values against the sales prices for various Walgreens and CVS stores in Wisconsin. The third column of the table shows that all seven properties sold were undervalued. As a result, there were lost assessments ranging from 42.9% to 62.5%, as shown in the final column. This means that the local communities lost tax revenues of this same percentage from the properties. Table 1 shows that the property in Wauwatosa, WI, had the largest "undervaluation", at $5.3 million, while the property in Milwaukee, WI, had the lowest "undervaluation", at $1.8 million (League of Wisconsin Municipalities, 2018).

Table 2 shows the potential tax shift to residential property owners (based on a legal decision with Walgreens), should Walgreens and CVS capitalize on this "undervaluation".

Table 2. Wisconsin Walgreens and CVS lost tax revenues and city budget comparison

City Budget in Millions Lost Tax Revenues are Actual	Undervalue	2018 City Budget	Lost Tax Revenues ($)	Lost Tax Revenues (%)
Cudahy	2.5	13.3	66,560	0.5
Milwaukee	1.8	1,200.0	43,520	0.0
Wauwatosa	5.3	60.0	135,700	0.2
Mount Pleasant 1	3.7	19.0	94,720	0.5
Mount Pleasant 2	3.0	19.0	76,800	0.4
Franklin	3.5	25.0	89,600	0.4
Appleton	2.6	93.0	66,560	0.1
Kenosha	3.0	80.5	76,800	0.1
Waukesha	4.0	65.0	102,400	0.2

Table 2 shows the lost tax revenues by city if the Walgreens legal decision were to be fully implemented. This includes tax losses in both dollar amounts and percentages. Researchers used the tax calculator from Smartasset.com to estimate lost revenues. Two properties in Mount Pleasant were impacted. These two properties account for $171,520 ($94,720 and $76,800 respectively) lost dollars and almost 1% of all of the communities' tax revenues. The next most impacted communities were Cudahy and Franklin, with revenue losses of 0.5% and 0.4%

respectively. Milwaukee was the least impacted in both dollar and percentage terms. This does not mean that Milwaukee, a large city, will not have been impacted by other big-boxes. The total loss from all properties in the table was $752,660.

Table 3. Potential tax shift to residential property owners if Walgreens' legal decision is fully implemented

Data in Millions	Assessed Value	Value "At Risk"	50%	Value Loss %	Tax Rate Increase %	Per Home
Pleasant Prairie	2,667.5	777.9	389.0	14.6	17.1	892.50
Hudson	1,532.7	261.3	130.6	8.5	9.3	374.58
La Crosse	3,078.6	409.1	204.5	6.6	7.1	197.12
Onalaska	1,653.2	240.3	120.1	7.3	7.8	
Fitchburg	2,592.8	302.3	151.2	5.8	6.2	
Town Brookfield	973.5	126.4	126.4	6.5	6.9	
Oconomowoc	1,893.5	273.8	136.9	7.2	7.8	360.96
Appleton	4,891.8	410.1	205.0	4.2	4.4	
Wauwatosa	5,268.4	716.9	358.4	6.8	7.3	383.12
West Bend	2,402.8	391.0	195.5	8.1	8.9	253.89
Brookfield-City	6,619.5	668.7	334.3	5.1	5.3	233.80

Table 3 illustrates the potential tax shift to residential property owners if Walgreens' legal decision were to be fully implemented. It shows the assessed value for the town and the value "at risk" due to the Walgreens ruling, as well as the percentage of the assessed value that would be lost assuming that the legal decision was applied to 50% of the "at risk" properties. The tax rate increases are calculated based on percentages and the impacting increase in taxes per home. The per home increases assume that the local government cannot reduce its expenses and its budget. Some communities did not calculate the per home increase. Of those that did, Pleasant Prairie calculated the highest, at almost $900 more per home and La Crosse calculated the lowest (League of Wisconsin Municipalities, 2017).

Typically, the organizations that appeal for tax relief using dark store theory are large big-box retailers. These entities include Walmart, Meijer, Target, Lowe's, Menards, Walgreens, CVS, and Home Depot. These are not the only retailers competing for consumers' patronage. Small family-owned companies often lack the legal knowledge and the financial wherewithal needed to be able to challenge property tax assessments. This puts them at a competitive disadvantage (Vachon, 2016).

Big-boxes not only provide revenue for communities but also cause them to incur expenses. They often arrive with promises of jobs and sales tax revenue increases but rarely mention the jobs and revenues that will be lost when existing businesses in the area close down. Local communities are duped into thinking that these retailers will create limitless consumer markets and that residents will be content with minimum-wage jobs (Mitchell, 2006). It can be expensive to have a big-box business as a community member. Costs can be incurred because fire stations need larger trucks, roads need to be widened, and there is a drain on social services due to the low wages of employees. Additionally, these organizations try to change local laws to suit themselves, require more law enforcement time, and create additional pollution (Vachon, 2016).

Local merchants and big-box retailers operate differently in a community. For example, the owners of a local store may take out a loan from the local bank and rent a downtown storefront from a local landlord. Local organizations also tend to retain local advertising, legal, and accounting firms. As all of these entities thrive, there is a reciprocal effect. Alternatively, stores like Walmart often use services located near their headquarters rather than in the community. Additionally, the money made by a big-box store is usually drained from the local community, as it is sent to the organization's bank account overnight (Mitchell, 2006).

6. CONCLUSIONS AND FUTURE RESEARCH

This research examines the effect of the presence of large retailers on local property tax levies from sales tax and property tax perspectives. It studies the impact that big-box retailers have had on Wisconsin municipalities. It explains the phenomenon of dark store theory and its associated tax loophole. It uses data collected from preexisting research and secondary data to validate and measure the dark store theory from a legislative and a theoretical standpoint. It also considers opposing viewpoints from tax specialists within the field. It details the possible impacts of dark store theory and the accompanying tax reform on the local tax levy for residential property owners.

This study seeks to answer the question: “Do Wisconsin municipalities have a lawful basis to oppose recent rulings lowering the property tax assessments of big-box retailers?”. More generally, this research investigates whether the dark store theory has an adverse effect on the revenues of municipalities.

Overall, this research found the dark store loophole phenomenon to be a legal challenge under current tax legislation as determined through the court systems of Michigan, Wisconsin, Indiana, and several more to come. These tax courts have ruled that the tax loophole, as described by municipal officials, does not exist. The courts have also determined that the laws, as written, allow for the taxes paid in respect of a fully operational store to be compared to those paid in respect of a store that is vacant or “dark.”

Several other conclusions were reached. First, the entrance of big-box retailers into a local economy effectively increases the local sales tax base and causes growth within such an economy. On becoming operational, a big-box retailer draws customers from surrounding municipalities, which results in a higher volume of local sales. The growth in sales boosts the local government’s sales tax revenue. Greater revenue allows the municipality to either increase spending and grow its economy or to keep its previous budget in place and decrease its property taxes.

Second, the increase in sales tax revenue generated by larger retailers benefits local residents. When a local government chooses to grow its economy, its residents will benefit from improved public services provided to them through municipal spending. There may be increases to school budgets, infrastructure improvements, and increased library services. If the municipality chooses to use the revenues to reduce its property tax levy, residents will benefit from lower property taxes and will be able to retain funds that can be used to purchase services that are not publicly provided.

Third, though property taxes are supposed to be determined based on fair market value, many big-box properties are assessed at values well below their sales prices or fair value. The discount is often more than 50% of the sales price. Reassessments are often completed by parties with vested interests or courts who do not have assessment expertise, rather than by professional assessors.

Fourth, local taxing authorities and municipalities need to work with state legislators to minimize the impact of dark store reassessments. As big-boxes want to join communities, they often tout the benefits that they can provide. These include higher sales tax and property tax revenues, and lower product prices. Municipal officials are concerned about a conflict, i.e., that big-box stores make public commitments to communities while quietly working to undermine those promises.

Finally, altering appraisal legislation for big-boxes in order to favor claims made by municipal officials would significantly increase valuations. This would then increase the property taxes paid by big-box retailers, allowing residential property taxes to decrease. If the property tax levy remains the same and fair value appraisals of big-box properties increase, the percentage of the local tax levy charged to residents will decrease.

Multiple benefits result from this research. First, this study increases public understanding of "dark store theory". The situation in Wisconsin is occurring elsewhere in the U.S. and if other states understand the theory, they can address the issue before it becomes a larger problem. Second, the work educates municipalities about the risks of assuming that a company wanting a property to be rezoned in order to enter the area will do what it claims and will not modify its "promise to the community" later. Third, it strengthens understanding of the direct sales tax and indirect property tax benefits provided to municipalities and local residential property owners. It also improves understanding of the dark store loophole and how the theory came to be conceptualized. Finally, it details current property tax legislation and analyzes multiple interpretations of it.

Several limitations exist with this research. There was no discussion of the differentiation in tax legislation between jurisdictions at state or local government levels. The specifics of sales tax and other forms of municipal revenue are not provided. The risk of big-box retailers moving operations in response to changes in tax legislation is not considered. Similarly, an analysis of the cost-benefit and risk of big-box retailers moving because of increased property or lower sales tax revenues is not performed. No specific data was gathered, or polls taken, in respect of residential property owners' opinions about the dark store theory and changing tax legislation. The relevance of the dark store loophole was not considered from an ethical perspective.

The concept of this study offers multiple opportunities for possible future research. Such research could expand on this study by including the ramifications of the dark store theory for the value of residential properties and implied tax. Different perspectives could be gained by conducting polls among various municipalities located throughout the United States. Another study could research the theory from an ethical standpoint to find out whether changes to local government tax legislation are morally justified. Since changes to tax legislature occur locally, big-box retailers could decide to shut down the stores they operate within that region, either to avoid increased taxes or to make a public statement. A study could research the economic loss that a municipality could experience in this scenario, and provide a risk assessment and cost-benefit analysis.

An additional study could consider the financial impact on localities, cities, and residential property values. It should look at the overall impact on a town where a big-box store has been built and study the impacts at one-year, two-year, five-year, and ten-year intervals. This study could analyze the impact on overall property values, the number of new business start-ups versus the number of closures, and the changes in residential property tax rates over time. It could compare the changes to the commercial tax rate to residential property tax changes to see if there is a relationship between these changes. The research hypothesis would be that, over time, residential property tax rates will decrease as commercial tax rates increase. As commercial development occurs in a locality, will the unemployment, property values, and the overall general financial health of the community improve?

REFERENCES

The Appraisal Foundation. (2012, March 7). *APB valuation advisory 2: Adjusting comparable sales for seller concessions.* https://www.appraisalfoundation.org/imis/docs/Valuation_Advisory_2_Adjusting_Comparable_Sales_for_Seller_Concessions_Final_030712.pdf

Baudot, L., Johnson, J. A., Roberts, A., & Roberts, R. W. (2019). Is corporate tax aggressiveness a reputation threat? Corporate accountability, corporate social responsibility, and corporate tax behavior. *Journal of Business Ethics, 163*, 197-215. https://doi.org/10.1007/s10551-019-04227-3

Chatham, A. (2020, February 12). Wisconsin small businesses urge lawmakers to close tax loophole that helps “big box” businesses. *The Daily Cardinal.* https://www.dailycardinal.com/article/2020/02/wisconsin-small-businesses-urge-lawmakers-to-close-tax-loophole-that-helps-big-box-businesses

Cohen, L. (2004). A consumers' republic: The politics of mass consumption in postwar America. *Journal of Consumer Research*, *31*(1), 236-239. https://doi.org/10.1086/383439

Cornia, G. C., & Slade, B. A. (2005). Property taxation of multifamily housing: An empirical analysis of vertical and horizontal equity. *The Journal of Real Estate Research*, *27*(1). 17-46. https://doi.org/10.1080/10835547.2005.12091152

Engel, J. & Linne, L. (2017). *The Dark Store Theory and other lies the government told*. n.p: Bloomberg BNA.

Fanning, S. F., Wright, L. T., & Muenks, R. J. (2018). Highest and best use and property rights - Does it make a difference? *The Appraisal Journal*, *86*(3), 171-191. https://www.appraisalinstitute.org/assets/1/29/TAJ_Sum18_171-191_Feat1-HBU-PropRights_ForWeb.pdf

Farmer, L. (2016, September). *Big-box stores battle local governments over property taxes.* Governing. http://www.governing.com/topics/finance/gov-big-box-retail-property-taxes.html

Finocchiaro Castro, M., & Rizzo, I. (2014). Tax compliance under horizontal and vertical equity conditions: An experimental approach. *International Tax and Public Finance*, *21*(4). 560-577. https://doi.org/10.1007/s10797-014-9320-5

Grant, S. W. (2019). Who’s afraid of the dark: Shedding light on the practicality and future of the dark store theory in big-box property taxation. *Virginia Tax Review*, *38*(3), 445-486.

Harrison, T. D. & Seim, K. (2019). Nonprofit tax exemptions, for-profit competition and spillovers to community services, *The Economic Journal, 129*(620), May 2019, 1817-1862. http://doi.org/10.1111/ecoj.12615

Hayes, A. (2019, September 2). *Big-box retailer*. Investopedia. https://www.investopedia.com/terms/b/big_box_retailer.asp

Heiland II, G. E. (2019). Property rights brought to light: Principles and misconceptions. *The Appraisal Journal*, *87*(3), 190-201.

Horner, D., Ivacko, T. M. & Mills, S. (2016). *Michigan local leaders say property tax appeals are common, disagree with 'dark stores' assessing* (Michigan Public Policy Survey, 2016). https://closup.umich.edu/michigan-public-policy-survey/58/michigan-local-leaders-say-property-tax-appeals-are-common-disagree-with-dark-stores-assessing

International Association of Assessing Officers Special Committee on Big-Box Valuation. (2018). Commercial big-box retail: A guide to market-based valuation. *Journal of Property Tax Assessment & Administration*, *15*(1), 47-67. https://researchexchange.iaao.org/jptaa/vol15/iss1/3

Ito, J., Scoggins, J., & Pastor, M. (2015). *Getting real about reform: Estimating revenue gains and changes to California's systems of assessing commercial real estate.* https://dornsife.usc.edu/assets/sites/242/docs/Commercial_Property_Tax_Brief_PERE_web_updated2.pdf

Jauer, J., Garza, O., & Wright, B. (2017, February). *Dark store theory and property taxation legal interpretation could cost state millions.* Comptroller.Texas.Gov. https://comptroller.texas.gov/economy/fiscal-notes/2017/february/dark-store.php

Kim, Y., & Warner, M. E. (2018). Shrinking local autonomy: Corporate coalitions and the subnational state. *Cambridge Journal of Regions, Economy and Society, 11*(3), 427-441. https://doi.org/10.1093/cjres/rsy020

League of Wisconsin Municipalities. (2017). *Overturn the Walgreens decision*. Madison, WI: League of Wisconsin Municipalities.

League of Wisconsin Municipalities. (2018). *Dark store tax loophole.* Madison, WI: League of Wisconsin Municipalities.

Lennhoff, D. C., & Parli. R. L. (2019). Through the looking-glass: Debunking the "dark store" idiom. *The Appraisal Journal, 87*(3), 180-188.

Mangioni, V. (2011). Transparency in the valuation of land for land tax purposes in New South Wales. *eJournal of Tax Research, 9*(2), 140-152.

Martin, I. W. (2008). *The permanent tax revolt: How the property tax transformed American politics.* Redwood City, CA: Stanford University Press.

Mast, E. (2020). Race to the bottom? Local tax break competition and business location. *American Economic Journal: Applied Economics, 12*(1), 288-317. http://doi.org/10.1257/app.20170511

McGarry, B. (2005). Big box, or not big box? Students debate. *The Post Star.* http://poststar.com/news/local/big-box-or-not-big-box-students-debate/article_40a85f2a-3d93-5e96-9034-48d7b0093c40.html

Meklin, P., Liinavuori, J., & Nummikoski, J. (2000). Expenditure inflexibility in the state budget: The fiscal policy latitude of the Council of State in Finland. *Public Administration, 78*(1). 193-207. http://doi.org/10.1111/1467-9299.00199

Mitchell, S. (2006). *Big-box swindle: The true cost of mega-retailers and the fight for America's independent businesses.* Boston, MA: Beacon Press.

NPR Staff. (2012, November 19). The past and future of America's biggest retailers. *NPR.* http://www.npr.org/2012/11/19/165295840/the-past-and-future-of-americas-biggest-retailers

Pettypiece, S. (2016, December 8). How big-box retailers weaponize old stores. *Bloomberg Businessweek.* https://www.bloomberg.com/news/articles/2016-12-08/how-big-box-retailers-weaponize-old-stores

Romell, R. (2017, January 14). Retailers seek tax cuts with 'dark store' theory. *Milwaukee Journal Sentinel.* https://www.jsonline.com/story/money /business/2017/01/14/retailers-seek-tax-cuts-dark-store-theory/96502204/

Rubin, I. S. (2020). *The politics of public budgeting: Getting and spending, borrowing and balancing.* Thousand Oaks, CA: CQ Press.

Schieck, A. (2017). Valuation of big-box-stores and the dark store theory - A changing of the tide? *Real Estate Taxation, 44*(3), 128-133.

Sciara, G.-C., Lovejoy, K., & Handy, S. (2018). The impacts of big box retail on downtown: A case study of Target in Davis (CA). *Journal of the American Planning Association, 84*(1). 45-60. https://doi.org/10.1080/01944363.2017.1404926

Sellers, L. P., & Konikoff, P. K. (2019). Valuation methods and dark big-box theories. *Appraisal Journal*, *87*(3), 165-179.

State of Wisconsin Department of Revenue. (2020). *Use-value assessment.* Wisconsin.Gov. https://www.revenue.wi.gov/Pages/FAQS/slf-useassmt.aspx

Texas Comptroller of Public Accounts. (2019). *Property tax system basics.* Comptroller.Texas.Gov. https://comptroller.texas.gov/taxes/property-tax/basics.php

Vachon, C. J. (2016). Big fish, small sea: Big companies in small towns. *Mitchell Hamline Law Review*, *42*(4), 1106-1137. https://open.mitchellhamline.edu/cgi/viewcontent.cgi?article=1039&context=mhlr

Vandegrift, D., & Loyer, J. (2014). The effect of Walmart and Target on the tax base: Evidence from New Jersey. *Journal of Regional Science*, *55*(2), 159-187. http://doi.org/10.1111/jors.12122

Vandegrift, D., Loyer, J., & Kababik, D. (2011). *The effect of Walmart on the tax base: Evidence from New Jersey* (MPRA Paper No 30937). Munich Personal RePEc Archive. https://mpra.ub.uni-muenchen.de/30937/1/MPRA_paper_30937.pdf

Williamson, R. (2017, February 17). *"Dark store theory" seen as threat to Texas tax bases.* The Bond Buyer. https://www.bondbuyer.com/news/dark-store-theory-seen-as-threat-to-texas-tax-bases

Wolfe, S. E., & Pyrooz, D. C. (2014). Rolling back prices and raising crime rates? The Walmart effect on crime in the United States. *British Journal of Criminology*, *54*(2), 199-221. https://doi.org/10.1093/bjc/azt071