

# Golf Course Communities as Multisided Markets: Ownership Implications

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## Abstract

This study investigates the relationship between property values and ownership of golf facilities by homeowners associations (HOAs). The research considers whether HOA ownership of golf facilities affects lot values in those golf course communities when compared to similar properties in communities where golf amenities are alternatively owned. This research informs appraisers, developers, homeowners, investors, municipal authorities, and policymakers of the potential impacts of HOA ownership of golf facilities at golf course communities. The study finds that while HOA ownership of golf facilities might be seen as the best alternative for maintaining values in such communities, HOAs should consider additional approaches for ensuring the financial security of their golf course communities, such as repositioning the assets, investing in training, and increasing access to low-cost financing.

## Introduction

Charles Fraser was a pioneer in the development of master-planned community resorts, and he is credited with inventing the concept of golf course communities. His most notable development is Sea Pines Plantation, in Hilton Head Island, South Carolina. This development, which began in 1956, became a training ground for community developers, architects, and land planners.<sup>1</sup> Fraser was often quoted as saying he could sell all of the waterfront real estate he had at Hilton Head, but Sea Pines and his other

iconic residential developments never would have been possible without golf courses creating value on the interior property.<sup>2</sup>

The US golf industry is experiencing a period of natural correction following a twenty-year period of the most dramatic growth in the game's history. Since the downturn in the real estate market in 2006—followed by the Great Recession and economic stagnation—the golf industry has been in a decline, with around 200 golf course closings per year versus 10 to 15 openings. This trend continues today. The literature indicates that the loss of golf as an amenity

1. Fraser received the Urban Land Institute's Citation for Excellence in Large Scale Recreational Community Development and the American Institute of Architects' Certificate of Excellence in Private Community Planning for his Sea Pines development. In addition, Sea Pines has hosted the Professional Golfers' Association's Heritage Tournament since 1969, which largely began with Fraser's involvement. Through protective covenants, deed restrictions, design guidelines, and a myriad of design decisions, Sea Pines demonstrated the principles of sustainability practiced today. See Robert Benedict, "Why Charles Fraser Matters," *Upstate Business Journal*, April 23, 2015, available at <https://bit.ly/3bid0tA>. "A master plan concept was created in which the natural environment deliberately dominates the man-made environment. Land uses were assigned in direct relationship to the ability of the landscape to absorb the character and density of the proposed program." See R. F. Gatehouse, "Land Planning for Large-Scale Residential Development," *Urban Land* 40 (October 1981): 12–18. The excellence of land planning plays an important role in helping to generate vacationer enthusiasm, tending to high revenues. See Michael N. Danielson, *Profits and Politics in Paradise: The Development of Hilton Head Island* (Columbia, SC: University of South Carolina Press, 1995), 41.

2. For what was an outsized investment of \$750,000 at the time, Fraser created Sea Pines' first golf course in 1960 to attract buyers to the more than 300 interior lots spread along its fairways and lagoons, worth an estimated \$2,000,000. Danielson, *Profits and Politics in Paradise*.

adversely affects property values in golf course communities (GCCs). Faced with the risk imposed by a failing business model, residents of GCCs must decide how best to manage their golf facilities and, in the worst-case scenario, plan for “life after golf.” This research evaluates the decision by many GCC homeowners associations<sup>3</sup> to purchase their golf facilities in order to avoid the consequences of their discontinued operations and to preserve the value created by the resulting views.

This study of vacant lots in GCCs introduces a new variable into the literature on real estate pricing. It is the first known study to construct a hedonic model to examine the effect of golf course ownership (HOA versus developer or other private entity ownership) on lot sale price. The research focuses on eight mature GCCs in Beaufort County, South Carolina. Data was collected on 227 vacant lots sold between January 2008 and December 2018 with a total transaction value of \$18 million.

The study begins with a review of the academic literature on the pricing of vacant lots in GCCs. Next, a hedonic model is constructed to estimate the pricing of vacant lots at GCCs in Beaufort County. The results are then summarized and implications for homeowners and their associations at GCCs are discussed. Finally, possible approaches that might help these communities offset the effects of current negative market trends are discussed.

## Literature Review

### Impact of Golf Course Amenities

The positive impact of a golf course view on property values in golf course communities has been well documented in the literature.<sup>4</sup> Properties within GCCs may carry premiums of 35% to 40% compared to similar properties in non-GCCs.<sup>5</sup> Since the majority of purchasers in GCCs do not actually play golf,<sup>6</sup> the premium paid for property adjacent to a golf course appears also to be related to the views afforded by the golf course in addition to the prestige of being located in a golf community.

The academic studies of golf course developments have concentrated primarily on the price premium paid for golf course lots (i.e., a proximity effect) from the developer’s perspective during the “sell out” stage of a planned community’s life cycle. The trade literature suggests that golf course lot premiums can range from as little as 5%, for merely being located within a golf course community, to more than 100% for prime property located on a fairway.<sup>7</sup>

Hedonic pricing models are frequently used to understand the contributions of a property’s attributes to its price and are generally well accepted in the real estate literature. Sirmans, Macpherson, and Zietz<sup>8</sup> provide an overview of real estate hedonic pricing studies, which offers guidance in choosing independent variables to include in a model. Sirmans and Macpherson<sup>9</sup> also provide a

3. “A homeowners association (HOA) is a governance body within a subdivision, planned community, or condominium that makes and enforces rules for the properties and their residents. Those who purchase property within an HOA’s jurisdiction automatically become members and are required to pay dues, known as HOA fees.” James Chen, Investopedia (September 17, 2019), s.v. “homeowners association,” <https://www.investopedia.com/terms/h/hoa.asp>.
4. Sarah Nicholls and John L. Crompton, “The Impact of a Golf Course on Residential Property Values,” *Journal of Sport Management* 21, no. 4 (October 2007): 555–570; Gary Grudnitski and A. Quang Do, “Adjusting the Value of Houses Located on a Golf Course,” *The Appraisal Journal* (July 1997): 261–266; Paul Asabere and Forrest E. Huffman, “Negative and Positive Impacts of Golf Course Proximity on Home Prices,” *The Appraisal Journal* (October 1996): 351–355; James R. Rinehart and Jeffrey J. Pompe, “Estimating the Effect of a View on Undeveloped Property Values,” *The Appraisal Journal* 67, no. 1 (January 1999): 57–61; Jerry T. Haag, Ronald C. Rutherford, and Thomas A. Thomson, “Real Estate Agent Remarks: Help or Hype?” *Journal of Real Estate Research* 20, no. 1/2 (2000): 205–215; Dean H. Burgess, “Lending to Golf Course Communities,” *Journal of Commercial Bank Lending* 74 (March 1991): 19–30; and Margot Lutzenhiser and Noelwah R. Netusil, “The Effect of Open Spaces on a Home’s Sale Price,” *Contemporary Economic Policy* 19, no. 3 (July 2001): 291–298.
5. Burgess, “Lending to Golf Course Communities.”
6. Nicholls and Crompton find that typically only 20%–40% of buyers in golf course developments actually play golf. Nicholls and Crompton, “The Impact of a Golf Course on Residential Property Values.”
7. David A. Mulvihill et al., *Golf Course Development in Residential Communities* (Washington, DC: Urban Land Institute, 2001), 36.
8. G. Stacy Sirmans, David A. Macpherson, and Emily Norman Zietz, “The Composition of Hedonic Pricing Models,” *Journal of Real Estate Literature* 13, no. 1 (2005): 3–43.
9. G. Stacy Sirmans and David A. Macpherson, *The Composition of Hedonic Pricing Models: A Review of the Literature* (Washington, DC: National Association of Realtors, December 2003), <https://bit.ly/2WdCWH>.

comprehensive review of the literature on hedonic models for the National Association of Realtors; that literature review identified the following categories and characteristics for consideration:

1. Structural features: lot size, square feet, age, number of bathrooms, and number of bedrooms;
2. Internal features: full baths, half baths, fireplace, air conditioning, hardwood floors, and basement;
3. External features: garage spaces, deck, pool, porch, carport, and garage;
4. Natural environmental features: lake view, lakefront, ocean view, and good view;
5. Neighborhood and location: location, crime, distance, golf course, and trees;
6. Public services: school district, public sewer;<sup>10</sup>
7. Marketing, occupancy, and selling factors: assessor's quality, assessed condition, vacant, owner-occupied, time on the market, and time trend; and
8. Financing: FHA financing, VA financing, foreclosure, favorable financing, and property taxes.

Hedonic pricing models are effective predictors of value in healthy real estate markets. However, they are less reliable when markets are distorted by oversupplies of housing inventory and unanticipated stochastic events.

Golf course ownership structure is neither an intrinsic property attribute (e.g., lot size, location) nor an amenity (disamenity), but the result

of a strategic decision made by golf course communities. It has grown in importance because of the increasing number of golf course failures within the industry.

### **Decline of US Golf Industry**

The development of amenity-based master-planned communities in the United States, led by Charles Fraser in the late 1950s, has been a source of wealth and ruin for developers over the past sixty years. Rooney and Higley<sup>11</sup> found that in many instances the addition of a golf course immensely increased the value of vacant lots in rural communities; for example, grazing parcels selling for \$500–\$600 per acre had been transformed into half-acre golf course lots priced upwards of \$40,000 each. Developers of golf course communities did not care if they lost money on the golf course because the higher prices they garnered from lot sales more than subsidized their losses. What would be considered irrational for the golf course owner (i.e., operating at a loss) was rational for the developer.<sup>12</sup> However, the high-profile bankruptcies of golf course projects like Sea Pines and Port Royal Plantation in Hilton Head Island, Reynolds Plantation and Sea Island in Georgia, Bella Collina and Old Palm in Florida, and the Cliffs Communities in North Carolina and South Carolina provide cautionary examples of the consequences of developer overexuberance.<sup>13</sup>

A boom in the business of golf started in the mid-1980s, with player participation peaking in 2000 when approximately 30 million individuals

10. In their 2003 report, Sirmans and Macpherson also cite "percent of school district minority" as a public service amenity characteristic in hedonic pricing model studies. However, the Ethics Rule of the Uniform Standards of Professional Appraisal Practice states, "An appraiser... must not use or rely on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value." Appraisal Standards Board, *Uniform Standards of Professional Appraisal Practice*, 2020–2021 ed. (Washington, DC: The Appraisal Foundation, 2020), Lines 198–200.

11. John F. Rooney, Jr., and Stephen R. Higley, "From Johns Island to Palm Springs: An Analysis of the Golf–Real Estate Connection," *Sports Place* 6, no. 2 (1992): 3–19.

12. Jonathan R. Laing, "A Rough Round: Why Golf's Prospects Are Dimming," *Wall Street Journal* (July 28, 2003).

13. Scott Kauffman, "Golf Course Communities: Back from the Brink," *World Property Journal*, March 6, 2015, <https://bit.ly/3brPiLo>; Albert Scardino, "A Gust of Bankruptcy and Scandal Rattles Elegant Hilton Head Island," *New York Times Business*, March 15, 1987; Danielson, *Profits and Politics in Paradise*.

played 515 million rounds in the United States. During the period from 1986 to 2005, almost 5,000 new golf courses were constructed—a 44% increase in the total stock of American golf courses.<sup>14</sup> By the early 2000s, three-quarters of all golf course construction was tied to real estate developments.<sup>15</sup> The driving force for the real estate developers was the positive premium earned in sales of both golf-course-fronting and interior lots in GCCs. Mothorpe and Wyman<sup>16</sup> studied sales of lots in three high-end GCCs bordering South Carolina's Lake Keowee. They found that the mean price of interior lots (i.e., lots without a premium lake, mountain, or golf course view amenity) sold at three times the mean sale price of comparable interior lots in non-GCCs in Pickens County in 2000.

In recent years, however, the golf course industry has been on the decline. US Census Bureau data shows a decrease in approximately 800 golf courses between 2009 and 2016, about a 7% decrease.<sup>17</sup> Industry revenues declined by an estimated 1.1% between 2017 and 2018, with a corresponding increase in expenses of 2.2%.<sup>18</sup> These figures correspond to a 20% decrease in golfers between 2006 and 2017.<sup>19</sup> One study found that while championship golf courses were key to the successful sale of high-end lots, these courses were too expensive, too difficult, and took too long to play for the average golfer.<sup>20</sup>

Mothorpe and Wyman<sup>21</sup> note that the jolt of the “financial economic crisis of the late 2000s,” and the ensuing capital market freeze, impacted the financing of vacant lot purchases by consumers and was the catalyst for the collapse in the market for vacant lots at GCCs. This market collapse persists today in South Carolina and nationally. Because of the lack of available financing, developers' traditional launch marketing programs became ineffective and were canceled. Another key factor that has stifled GCC lot sales is the heavy annual carrying costs that can be associated with owning a piece of property in a GCC. For example, vacant lot owners in the Belfair golf community in Bluffton, South Carolina, incur mandatory annual association fees of \$15,000.<sup>22</sup> Such carrying costs do not include mortgage payments or property taxes. Wyman, Hutchison, and Tiwari<sup>23</sup> found that interior lot prices started to fall precipitously, earning them the nickname “inferior interiors.” However, the results of the present study suggest that even the once-desirable golf course frontage lots have not been left unscathed.

The perceived and actual risk of golf course closure can have an adverse effect on GCC property values. One consequence of the rise in golf course closures has been the attempt by HOAs to mitigate the perceived and actual risk to property values from golf course closures. An HOA's pur-

14. National Golf Foundation, <https://www.ngf.org/golf-industry-research/>.

15. Laing, “A Rough Round.”

16. Chris Mothorpe and David Wyman, “Collapse: The Decline and Fall of Master Planned Golf Course Communities,” *Journal of Property Investment & Finance* 35, no. 6 (August 2017): 638–651.

17. US Census Bureau, see <https://www.census.gov/data/tables/2009/econ/susb/2009-susb-annual.html>.

18. US Census 2018 Estimated Quarterly Revenue for Employer Firms, Seasonally Adjusted, table 21-2018Q4, see <https://www.census.gov/services/index.html>.

19. See chart at <https://bit.ly/GolfParticipants>. This data was accumulated from reports published by the National Golf Foundation available at <https://www.ngf.org/golf-industry-research/>.

20. David Hueber and Elaine Worzala, “‘Code Blue’ for US Golf Course Real Estate Development: ‘Code Green’ for Sustainable Golf Course Redevelopment,” *Industry Perspectives, Journal of Sustainable Real Estate* (2010).

21. Mothorpe and Wyman, “Collapse.”

22. Fees do not include club dues of \$20,000 per year. Several real estate professionals in the Hilton Head–Bluffton area interviewed for this study reported that Belfair HOA sells vacant lots from its inventory at \$1 if the buyer agrees to assume its regime of fees.

23. David Wyman, Norman Hutchison, and Piyush Tiwari, “Testing the Waters: A Spatial Econometric Pricing Model of Different Waterfront Views,” *Journal of Real Estate Research* 36, no. 3 (July–Sept. 2014): 363–382.

pose is to preserve and/or enhance the value of its members' home investments. When presented with a failing golf facility, a HOA is faced with limited options:

1. Buy the golf facility (e.g., out of foreclosure);
2. Enter into an arrangement with a third-party owner to maintain the course and clubhouse;
3. Permit some or all of the golf course land to be developed for other purposes (e.g., more homes, commercial property); or
4. Return the former golf course land to natural, planted, or maintained open space that is operated by the GCC or by a local parks and recreation entity.

This study takes a closer look at the implications of the first option, i.e., HOA purchase of the golf facility. Under this scenario, the HOA finances the purchase of the golf facility with the expectation that through a combination of volunteer efforts by the members, the hiring of a professional golf management company, and higher assessment fees, the HOA can make the golf enterprise work financially.<sup>24</sup>

## Case Study

### Study Area

Golf is a major tourist attraction for South Carolina; the United States Golf Association lists 355 golf courses in the state. This represents 2.5% of the nation's 14,482 active golf facilities. Beaufort County, South Carolina, has a rich and storied tradition of golf-centered residential developments, with Charles Fraser's Sea Pines

Country Club and Resort in Hilton Head Island being the first major community in the United States built on this model. There are 68 golf courses in Beaufort County, 78% of which are concentrated in the Hilton Head–Bluffton area. Some of the world's best golf architects have left their mark in the sand there, including Robert Trent Jones, Davis Love III, Rees Jones, Gary Player, Arnold Palmer, Pete Dye, Jack Nicklaus, and George Fazio. Hilton Head is also home to the Professional Golfers' Association's RBC Heritage Tournament.

An analysis of the sustainability of Beaufort County's golf market offers mixed results. On the one hand, the existence of 68 active golf venues across the county suggests a vast oversupply of golf courses in the area. A common industry rule of thumb is that an 18-hole course requires a surrounding population of 30,000–40,000 people to be viable.<sup>25</sup> The US Census Bureau's population estimate for Beaufort County was 186,844 for 2017.<sup>26</sup> Based on conventional wisdom, then, the average estimated demand from Beaufort County residents would support six golf courses at best. Recent course failures in Beaufort County and other parts of the state are consistent with national trends and suggest that the number of golf courses in Beaufort County represents a saturated market.<sup>27</sup>

On the other hand, the demand from golf tourism appears more than adequate to support the number of courses in the area. According to golf business strategist J. J. Keegan, demand and supply are considered "in balance" in a market when 1,711–2,268 golfers are available per 18-hole golf course (e.g., national average versus top-100 golf market).<sup>28</sup> With an estimated average 3,095 golf

24. Examples include Sapelo Hammock Golf Club in Shellman Bluff, Georgia, where the club closed in 2010 due to a financial shortfall and local residents raised the money to buy it, reopened the course, and currently volunteer to help maintain it; Crickentree Golf Club residents, who expressed concern about a potential plan to replace their bankrupt golf course with up to 450 homes in Richland County, South Carolina; and Mungo Homes, which donated its 116-acre course, the former Coldstream Golf Club, to Irmo Chapin Recreation Commission in Lexington County, South Carolina.

25. This guideline was suggested in an email from Steven M. Ekovich, senior managing director of Marcus & Millichap and national managing director of the company's Leisure Investment Properties Group, whose focus includes golf courses and master planned communities.

26. See US Census Bureau Quick Facts for Beaufort County, <https://bit.ly/2XfbVNV>.

27. Within the first few months of 2020, the Sanctuary Club at Cat Island was sold for \$425,000 and a new owner bought Crescent Pointe and Eagle's Pointe in Bluffton, each as a result of foreclosures. In addition, prospective new owners of Bluffton's Island West golf course plan a mix of residential and commercial development on part of the existing golf property. Stephen Fastenau, "Closed Beaufort Co. Golf Course Has Raised Questions about Possible Development," *Island Packet*, March 10, 2020, <https://bit.ly/2Z4hPUY>.

28. James J. Keegan, *The Business of Golf—What Are You Thinking? How to Create Value for Golfers and Enhance the Financial Performance of Your Golf Course* (Castle Rock, CO: J&JKeegan+, 2016).

trips per course in the Hilton Head market, the boost from tourism exceeds the benchmarks for success.<sup>29</sup> Therefore, the rash of golf course foreclosures may actually be a marketing problem (e.g., ineffective business practices) rather than a supply problem.

While concern about the health of the golf industry in Beaufort County may not be warranted, the sheer volume of GCCs appears to have created an oversupply of vacant golf course lots. This oversupply, combined with poor management practices, could have dire implications for all real estate values in GCCs across the county.

### Beaufort County Assessment Process

Beaufort County appraises and taxes real property every five years at 100% of fair market value or at the taxable capped value.<sup>30</sup> The county assessor's office maintains a database of the physical characteristics for over 129,000 properties within Beaufort County. The data includes information such as heated square footage, garages, decks, pools, type and quality of construction, land area, water features, and several other attributes required for the mass appraisal process. The county groups properties into one of approximately 900 appraisal models based on similar market characteristics.

The county uses a computer-assisted mass appraisal (CAMA) platform to update its property database. According to the International Association of Assessing Officers (IAAO), "Properly administered, the development, construction, and use of a CAMA system results in a valuation system characterized by accuracy, uniformity, equity, reliability, and low per-parcel cost."<sup>31</sup> Licensed staff appraisers test property val-

ues for each of the appraisal models based on an analysis of actual vacant and improved property sales. After testing, the result of the mass appraisal model for Beaufort County is then measured against statistical standards of the IAAO. Structural improvements to the land are valued using a market-based sales model provided by the Marshall & Swift product suite from CoreLogic. The valuations produced for each appraisal model are tested for accuracy using actual market sales.<sup>32</sup>

The market value of real property is constantly changing due to factors such as location, market demand, age and physical condition of a neighborhood, and the state of the economy. Therefore, the assessed values represented are only a reasonable proxy for actual market value. Even so, they give a rough measure of the phenomenon under investigation. For the purposes of this study, assessed value, as determined by the Beaufort County assessor's office, serves as a reasonable benchmark against which to determine discounts from, and premiums over, market value.

Exhibit 1 shows that in GCCs where the HOA owns the golf facility, vacant lots sell at a greater discount (lower premium) to the assessed value than in communities where the golf facilities are privately held. This appears true at golf courses where access is open to the public as well as where it is restricted to private members only. The data is from eight golf communities in Beaufort County. Lots in GCCs where HOAs own their golf amenities sell more consistently below assessed value than those where the facilities are owned by third parties. Exhibit 2 ranks eight GCCs in Beaufort County by the size of the change in assessed value of vacant lots between 2008 and 2018. GCCs where HOAs owned their golf facilities exhibited the worst performance.

29. A report of the South Carolina Golf Course Owners Association estimates there were 210,490 golf trips to Hilton Head Island in 2018 or an estimated average of 3,095 golf trips per course ( $210,490 \div 68$ ), which exceeds Keegan's benchmark for success. See Dudley Jackson, "The Economic Impact of Golf in South Carolina," report prepared for the South Carolina Golf Course Owners Association by South Carolina Department of Parks, Recreation and Tourism (April 2019), 12, accessed March 19, 2020, <https://bit.ly/35YkBwe>.

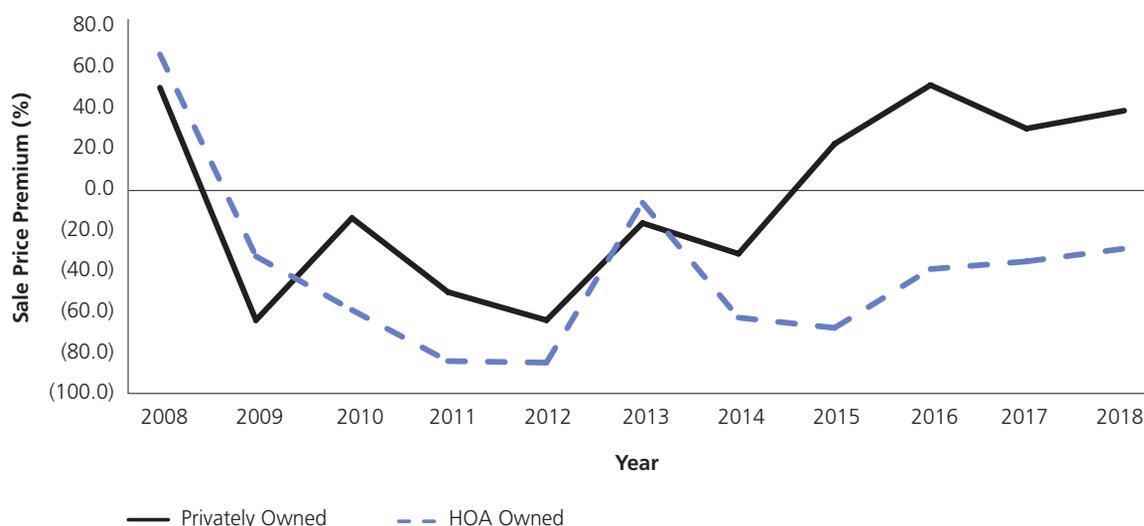
30. South Carolina, with five-year reassessments, has a cap of 15% over the period between assessments. The assessment cap is in response to complaints from property owners about huge jumps in assessed valuation at reassessment, and thus in their property tax bills. When a property is sold, it is assessed at the new market value with no cap on the increase (excluding transfers within families and other special cases).

31. *Standard on Mass Appraisal of Real Property* (Kansas City, MO: International Association of Assessing Officers, July 2017), 5, <https://bit.ly/IAAOcama>.

32. Beaufort County Assessor, *Reassessment. Citizen's Guide Beaufort County Reassessment Program 2018*, <https://bit.ly/3dPSe5Z>.

**Exhibit 1** Average Lot Sale Price Premium over Assessed Value

Comparison of Lots in GCCs with HOA-Owned Golf Facilities and with Privately Owned Golf Facilities



Data Source: Beaufort County online research service, Propertymax, <https://bit.ly/2z0LS50>

**Exhibit 2** Percentage Change in Assessed Value of Vacant Lots in GCCs, 2008 vs. 2018

Golf Course Community	HOA or Privately Owned	Number of Vacant Lots	% Change in Assessed Value (2008 vs. 2018)
Lady's Island Golf Club	Private	36	86.6
TGC at Pleasant Point Plantation	Private-HOA*	26	53.4
The Sanctuary at Cat Island	Private	43	19.9
Indigo Run Golf Course	Private	51	(23.2)
Hampton Hall	Private	53	(30.7)
Dataw Island Country Club	HOA	94	(36.8)
Wexford Plantation	HOA	53	(43.9)
Belfair Golf Club	HOA	61	(76.0)
Total Lots		417	

\*Pleasant Point HOA purchased golf facilities from bank in 2012. Prior to that, assets were privately owned.

Data Source: Beaufort County Assessor Propertymax database

### Research Method

This study examines the effects of golf course ownership on property values in GCCs. Because the study data is collected from two different types of ownership structures, within separate communities, it has the form of a natural experiment.<sup>33</sup> The goal of this research is twofold:

1. To determine if the decision of HOAs to purchase golf facilities positively impacts lot value in GCCs; and
2. To determine if private membership golf courses preserve lot value better than golf courses with public access.

The sale price premium or discount over assessed value (i.e., whether or not investors can beat the market) is used as a proxy for value created or destroyed for property owners.

The hedonic approach suggests that a property's sale price is derived from a bundle of individual attributes, with each contributing to the value of the whole and each attribute having its own implicit price. The purpose of the hedonic pricing method is to separate a property into its constituent elements in order to calculate the implicit price of a particular attribute. Under the hedonic approach, the factors that influence the price of a property are the result of a complex set of interactions between individual attributes.

In Model 1, sale price of individual GCC properties is the preferred measure of value (and thus the dependent variable) in the hedonic analysis, because it reflects the buyer's allocation of expenditures among a range of competing alternatives in real estate. The assessed valuation is an alternative measure, used here to validate the initial findings. However, assessed value is widely perceived to be a less accurate measure because it relies on an assessor's best estimate rather than the price actually paid. Both sale price and assessed value are used as dependent variables in this study. This enables comparisons to be made between the two sets of results and determine the extent that HOA price premiums

or discounts are recognized by county assessors. Spurious figures were removed from the sales data (e.g., tax sales, as indicated by deed type; and transactions of less than \$1,000). The independent variables included were determined by their availability in the Propertymax database, Esri GIS technology,<sup>34</sup> and information obtained from the Beaufort County Tax Assessor's website. Maps of properties were acquired in electronic format to display the study area through a feature offered in Propertymax. Exhibit 3 lists the full set of dependent and independent variables used in the study as well as the expected sign on the coefficient of each variable in the regression analyses. Except for HOA ownership—which is presumed to have a negative impact—the expectation is that the coefficients will be positive and statistically significant.

For this study, the property records for eight gated GCCs in Beaufort County, South Carolina, are examined. The primary variables of interest are golf facility ownership structure (HOA) and whether or not golf access is restricted to members only (*PRIVATE*). The research hypotheses are as follows:

- H<sub>1</sub> HOA ownership of golf course assets is negatively associated with the sale prices of vacant lots in GCCs.
- H<sub>2</sub> The restriction of access to golf course facilities to club members is positively associated with the sale price of vacant lots in GCCs.

Other independent variables include whether or not the lot is located on a golf course (*GOLF*), the size of the lot in acres (*ACREAGE*),<sup>35</sup> and the year the property was sold (*YEAR*). Based on the previous literature, all three variables are expected to be positive in direction and significant.

Sale price and assessed value information was available for 2008–2018, representing \$18 million in total transaction value over this period. Exhibit 4 contains descriptive statistics for the

33. A "natural experiment" is an empirical study in which research observations exhibit experimental and control conditions that are determined by nature or by other factors outside the control of the investigators. The process governing the distribution of the attribute of interest among the observations resembles a random assignment.

34. Propertymax is the legacy brand name for a software product line offered by Manatron, now owned by Thompson-Reuters. An enterprise information management system with embedded Esri GIS technology, Propertymax (now Aumentum Cadastre) helps local municipalities collect and manage property data and make it accessible to the public; for more information about this product, see <https://tmsnr.rs/3cyej8V>. For more information regarding Esri GIS technology and products, see <https://www.esri.com/en-us/home>.

35. *ACREAGE* was not used in the final analysis because its coefficient was not found to be significant and the  $R^2$  was low for all treatments.

**Exhibit 3** Dependent and Independent Variables

Variable	Description of Variable	Expected Sign on Coefficient	Type of Variable*
SALES	Sales price (in dollars)	NA	C
ASSESS	Assessed value (in dollars)	NA	C
HOA	Golf facilities owned by homeowners association	-	D
PRIVATE	Access to golf course restricted to members	+	D
GOLF	Property located directly on golf course	+	D
ACREAGE	Lot size (in acres)	+	C
YEAR	Year property was sold	+	D

\* Refers to representation of variable in multiple regression equation (C=continuous, D=dichotomous[dummy]). For dummy variables, 0 always represents properties without that characteristic (e.g., not owned by an HOA or not located on a golf course), whereas 1 represents properties with that characteristic.

**Exhibit 4** Descriptive Statistics

Variable	Mean	Median	Standard Deviation	Maximum Value	Minimum Value
SALES (\$)	80,010	58,000	79,032	659,900	250
ASSESS (\$)	111,042	71,500	101,109	715,000	8,000
HOA	0.37	0	0.48	1	0
PRIVATE	0.63	1	0.48	1	0
GOLF	0.73	1	0.44	1	0
ACREAGE	0.45	0.42	0.22	1.43	0.11
YEAR	2014	2015	NA	2018	2008

*n* = 227 sales; *n* = 227 assessed values; *n* = 83 lots with HOA ownership of golf facilities; *n* = 144 corporate ownership of golf facilities; *n* = 143 private membership-only access to golf facilities; *n* = 84 public access to golf facilities; *n* = 144 lots with golf course frontage; *n* = 61 lots not located on golf course; *n* = 147 lots with acreage values; *n* = 227 lots with year values.

entire data set. The final sample pool consisted of 227 vacant lot sales. This represents the total number of lots sold in the eight communities during the study period. The data excludes tax sales, multiple transactions involving the same parcel within six months, transactions with a sale price below \$1,000, and parcels with a water view. In addition, a random sample of 106 properties was selected from this pool on which the initial regression analysis was run. Since only a subset of properties in the Propertymax database included information on lot size, a smaller sam-

ple of 74 lots was also developed to run a parallel regression analysis using the variable *ACREAGE*. However, *ACREAGE* was not found to be significant in any of the models, therefore this variable was not included in the final regression analysis and the larger sample was used. Using the GIS data available in the Propertymax system, each parcel was labeled with the following attributes: golf-course-fronting or interior lot, lot size (where available), year the lot sold, assessed value of lot, and whether or not the golf course facilities were owned by an HOA or by a

private entity. From each GCC website it was determined whether or not course play was open to the public or restricted to members only.

### HOA Impact Model

A standard regression model was used to examine the relationships between lot price, golf facility ownership structure, exclusivity of the golf course (i.e., open to public or not), golf course proximity, and assessed sale year. The Model 1 may be written as follows:

$$SP_i = \beta_0 + \beta_1 HOA + \beta_2 PRIVATE + \sum_{j=2}^n \beta_j Y_{ji} + \varepsilon \quad (1)$$

where,

$SP_i =$	Sale price of the $i$ th vacant lot
$HOA =$	(1,0) dummy variable representing HOA ownership of the golf course or not
$Private =$	(1,0) dummy variable indicating golf privileges are open to the public or not
$\Sigma Y_{ji} =$	Standard lot amenities and other control variables that account for the remaining value impacts on lot prices (as defined in Exhibit 2)
$\beta =$	Parameters to be estimated including a constant term
$\varepsilon =$	Random error term

It is expected that the coefficient  $\beta_1$  on  $HOA$  in equation (1) would be negative because of the initial observation that HOA ownership of golf assets is correlated with deeper discounts in sale

price on both abutting and interior lots. However, it is presumed to be statistically significant. The impact of restricted golf course access is captured by the  $\beta_2$  coefficient. It is expected to be positive and statistically significant.

Using the natural log of the sale price allows for an estimate of the percentage change in sale price associated with each of the explanatory variables. Both forms have been accepted in prior regression studies of this type.<sup>36</sup>

### Results

The results of the regression analysis are shown in Exhibit 5. The variables of interest— $HOA$  and  $PRIVATE$ —both had a statistically significant impact on sale price of the approximate magnitude and in the direction expected. Because the study's purpose is to assess the externality effect of HOA ownership of golf course facilities on sale price, equation 1 is expressed as the natural logarithm of the sale price of property  $i$ :

$$\ln(SP_i) = \dots - 0.80 * HOA_i \quad (2)$$

The coefficient of  $HOA$  is positive and significant at the 0.001 level. These findings led to rejection of the null hypothesis that HOA ownership of golf facilities within a GCC has no effect on a lot's sale price.<sup>37</sup> An  $HOA$  coefficient of  $-0.80$  implies a 55%<sup>38</sup> discount for vacant lots at GCCs compared to GCCs where HOAs do not own their facilities.

Similarly, the coefficient of  $PRIVATE$  is positive and significant at the 0.001 level. This leads to rejection of the null hypothesis that restricted access to golf facilities within a GCC to membership only has no effect on a lot's sale price. The percentage change in the dependent variable for a one-unit change in

36. David Wyman and Steve Sperry, "The Million Dollar View: A Study of Golf, Mountain, and Lake Lots," *The Appraisal Journal* 78, no. 2 (Spring 2010): 159–168; Asabere and Huffman, "Negative and Positive Impacts of Golf Course Proximity"; and A. Quang Do and Gary Grudnitski, "Golf Courses and Residential House Prices: An Empirical Examination," *Journal of Real Estate Finance and Economics* 10, no. 3 (1995): 261–270.

37. Peter E. Kennedy, "Estimation with Correctly Interpreted Dummy Variables in Semilogarithmic Equations," *American Economic Review* 71, no. 4 (September 1981): 801.

38. Applying the Kennedy technique to the  $HOA$  coefficient,  $\text{EXP}(-0.80) - 1$  yields a 55% discount for HOA ownership. Kennedy, "Estimation with Correctly Interpreted Dummy Variables in Semilogarithmic Equations."

**Exhibit 5** Regression Results

<b>Model 1</b>			<b>Model 2</b>		
<b>DEPENDENT = ln(SALES)</b>			<b>DEPENDENT = ln(ASSESS)</b>		
<b>Variable</b>	<b><math>\beta</math></b>	<b>t-ratio</b>	<b>Variable</b>	<b><math>\beta</math></b>	<b>t-ratio</b>
HOA	-0.80	-4.13***	HOA	-0.15	-1.05
PRIVATE	0.71	3.74***	PRIVATE	0.62	4.36***
YEAR	0.00	-0.11	YEAR	-0.12	-6.44***
GOLF	0.07	0.38	GOLF	0.09	0.61
Intercept	15.94	0.33	Intercept	243.29	6.74***
$R^2$	0.31		$R^2$	0.40	
F-Statistic	12.80		F-Statistic	18.60	

\*\*\* Significant at 0.001 level or below

the corresponding independent variable results in a *PRIVATE* coefficient of 0.71 and implies a 103%<sup>39</sup> premium on sale price for vacant lots at GCCs compared to GCCs where golf facilities are open to the public.

The coefficients of determination,  $R^2$ , for Models 1 and 2 are 0.31 and 0.40, respectively. The relatively low values compared with other regression analyses on undeveloped property values suggest that there are explanatory variables missing from the formula. Some of these variables have been suggested in the previous literature, including the effects of neighborhood conditions and of proximity to amenities and disamenities. However, the goal of this research is neither to identify nor to reconfirm all the elements of price but to assess the impact of heretofore unexamined variables. The results show no evidence of multicollinearity among the various measures of property characteristics using a standard technique, indicating the general reliability of the regression results. Upon comparison with Model 2, *HOA* shows no significant impact on assessed value, whereas *PRIVATE* is significant at the 0.001 level. This suggests that county assessors may not be aware of the potential impairment on sales value that *HOA* ownership of golf

course facilities might impose. On the other hand, assessors appear keenly aware of the value created by the exclusivity factor.

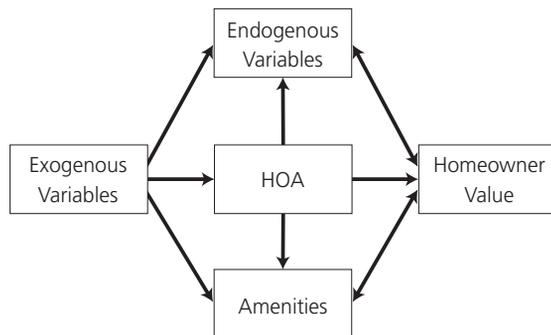
Model 1 provides strong evidence that *HOA* ownership of golf course amenities has a negative effect on the sales price (value) of vacant lots in golf course communities. The very low  $p$ -value of the independent variable *HOA* (i.e., less than 0.001) when regressed against other variables in Model 1 suggests that it is a fundamental factor in the model. When regressed by itself in a  $t$ -test against sales, *HOA* ownership of golf facilities explains 24% of the change in sale prices (i.e., adjusted  $R^2$  of 0.24).

### Discussion

This research identifies the adverse effect on lot sale price that results from the decision of an *HOA* to purchase its community golf facility. This finding was developed through a grounded theory of amenity ownership structure through a natural experiment. The research suggests the conceptual framework, shown in Exhibit 6, where homeowner (investor) value is driven by the interaction between both exogenous and endogenous variables, which are mediated by *HOA* decisions and the existence of amenities.

39. Applying the Kennedy technique to the *PRIVATE* coefficient,  $\text{EXP}(0.71) - 1$  yields a 103% premium for membership exclusivity.

**Exhibit 6** Conceptual Framework to Illustrate the Effects of HOA Decisions Regarding Amenity Investments



The popular golf literature of the 1990s agreed that a frontage lot on a golf course should sell for an average premium of 40%–70% relative to an interior lot in the same community or up to double the value of an equivalent lot in a non-golf master-planned development.<sup>40</sup> The academic literature estimates a premium of 7.6%–7.9% for a completed frontage home over the price of a home not on the golf course.<sup>41</sup> Rinehart and Pompe estimate price premiums for undeveloped golf course lots at 39%.<sup>42</sup>

The present study did not find golf course frontage to be a significant influence on sale price in the eight seasoned, master-planned golf communities examined. Also no significant relationship was seen between sale price and lot size.<sup>43</sup> These findings do not support the findings in much of

the earlier literature. Whereas the earlier research was done in the context of a healthy market for vacant lots at GCCs, the findings here could be indicative of an apparent collapse in demand. This observation corresponds with the work of Mothorpe and Wyman, which identifies a convergence in price for golf-course abutting, interior, and nearby non-GCC lots beginning in 2011.<sup>44</sup> There is evidence that lots at many seasoned GCCs represent perceived and/or actual risk to investors and prospective homebuilders.

In addition, given that all of the transactions observed were in GCCs, the golf course proximity effect may have been offset by the influence on sale price of confounding variables, such as other amenities (e.g., pool, dining, tennis, exercise facilities). This is consistent with contradicting findings by Benefield, who found the effect of different bundles of amenities to have contradictory effects depending on the components of the bundle of amenities offered.<sup>45</sup>

Other issues that can distort a planned community's micro-market for undeveloped lots include foreclosure on the golf assets owned by a third party, high recurring HOA fees for investors in undeveloped lots, and pending HOA debt service events. Similarly, a growing body of literature shows the indirect impact of HOA restrictions on property values.<sup>46</sup> In examining the direct effects of HOA governance on amenities and its indirect effects on lot value, this research breaks new ground. The impact of HOA decisions regarding golf course ownership on home prices has yet to be determined and will be considered in future research.

40. Christine Dugas, "Golf Drives Housing Trend: Gated Living Makes Fairway Fashionable," *USA Today*, November 18, 1997; Arthur E. Gimmy and Martin E. Benson, *Golf Courses and Country Clubs: A Guide to Appraisal, Market Analysis, Development, and Financing* (Chicago: Appraisal Institute, 1992); J. R. McElyea, A. G. Anderson, and G. P. Krekorian, "Golf's Real Estate Value," *Urban Land* (February 1991): 14–19; and Desmond Muirhead and Guy L. Rando, *Golf Course Development and Real Estate* (Washington DC: Urban Land Institute, 1994).

41. Grudnitski and Do, "Adjusting the Value of Houses Located on a Golf Course"; Asabere and Huffman, "Negative and Positive Impacts of Golf Course Proximity on Home Prices."

42. Rinehart and Pompe, "Estimating the Effect of a View on Undeveloped Property Values."

43. Because of a lack of significance in any of the models in which *ACREAGE* was used (e.g., *Sales*, *Assess*, *InSales* and *InAssess*), the research used the larger sample (including properties without lot size data) to run the analysis shown here.

44. Mothorpe and Wyman, "Collapse."

45. Justin D. Benefield, "Neighborhood Amenity Packages, Property Price, and Marketing Time," *Property Management* 27, no. 5 (2009): 348–370.

46. William H. Rogers, "The Housing Price Impact of Covenant Restrictions and Other Subdivision Characteristics," *Journal of Real Estate Finance and Economics* 40, no. 2 (2010): 203–220; Daniel S. Scheller, "Neighborhood Governments and Their Role in Property Values," *Urban Affairs Review* 51, no. 2 (2014): 290–309.

A possible reason for the discount observed on lot price at GCCs where HOAs own the golf facilities is a stigma effect. For example, because HOA leadership may lack the acumen required to run a golf operation effectively, the value of the lot is discounted for that implied risk. Another conceivable reason is the implication that such a purchase is indicative of failing golf operations. A third possible reason for the observed HOA effect on lot pricing is the likelihood that when HOAs own golf facilities, the lot owner will be subject to mandatory assessment fees to cover operating deficits. This has an effect similar to an explicit tax on the land.

Hedonic regression models commonly used in real estate appraisal suggest that the value of residential real estate depends primarily upon features specific to the property (such as lot size, number of rooms, the view), which are endogenous to the property. However, hedonic models are notorious for their omitted-variable bias.<sup>47</sup> Capitalization theory addresses the omitted-variable problem by suggesting that, in addition to physical differences (e.g., market goods), residential real estate values are also positively affected by exogenous variables such as geographic differences (e.g., proximity to central city) and the level of public services (nonmarket goods) available to a property.

Public services include those provided by the municipality in which the property is located (e.g., police, fire, public education). The value of public services is evident in the price premium homeowners are willing to pay to purchase a property located in a community with better schools, parks, and other attractive features. The literature also suggests that property value is adversely affected by the property taxes.<sup>48</sup> Prop-

erty taxes are the allocated costs to provide public benefits enjoyed by a specific property.

Taking these factors into account, a generalized predictive model of residential real estate valuation can be specified as follows:

$$V = f(D,G,T,F) \quad (3)$$

where,

- V = Property value
- D = Distance from the center city (i.e., commuting distance to job)
- G = Present value of public benefits
- T = Present value of property taxes
- F = Bundle of property-specific features

A 1969 study by Oates is the only empirical research on property tax capitalization published to date.<sup>49</sup> His findings indicate that an increase in property taxes unaccompanied by an increase in the output of local public services will be capitalized in the form of reduced property values. Conversely, an increase in public services (e.g., improved school system) will offset (and possibly more than offset) the negative effect of higher local property taxes. These results are consistent with the Tiebout model,<sup>50</sup> which suggests that rational consumers are willing to pay more to live in a community that provides a high-quality program of public services or, conversely, a community that provides the same services with lower taxes.

Property taxes vary based on a property's assessed value. They tend to grow over time, if only because of inflation, but primarily as public infrastructure continues to be enhanced. Tax capitalization theory suggests that real estate val-

47. Omitted variable bias occurs when a statistical model leaves out one or more relevant variables; see Joshua K. Abbot and H. Allen Klaiber, "An Embarrassment of Riches: Confronting Omitted Variable Bias and Multiscale Capitalization in Hedonic Price Models," *Review of Economics and Statistics* 93, no. 4 (2011): 1331–1342; Kevin A. Clarke, "The Phantom Menace: Omitted Variable Bias in Econometric Research," *Conflict Management and Peace Science* 22, no. 4 (2005): 341–352.

48. G. Stacy Sirmans, Dean H. Gatzlaff, and David A. Macpherson, "The History of Property Tax Capitalization in Real Estate," *Journal of Real Estate Literature* 16, no. 3 (2008): 327–343; P. Linneman, "The Capitalization of Local Taxes: A Note on Specification," *Journal of Political Economy* 86, no. 3 (1978): 535–538; Wallace E. Oates, "The Effects of Property Taxes and Local Public Spending on Property Values: An Empirical Study of Tax Capitalization and the Tiebout Hypothesis," *Journal of Political Economy* 77, no. 6 (1969): 957–971; and Charles M. Tiebout, "A Pure Theory of Local Expenditures," *Journal of Political Economy* 64, no. 5 (1956): 416–424.

49. Oates, "Effects of Property Taxes."

50. Tiebout, "Theory of Local Expenditures."

ues will vary directly with receipt of different levels of local government services and inversely with the cost of those services.<sup>51</sup> Since property taxes have attributes similar to growing perpetuities, the present value of their depressive impact on property value can be captured using the Gordon Discount Model<sup>52</sup> as shown below:

$$T_0 = \frac{\Pi_1}{(r - g)} \quad (4)$$

where,

- $T_0$  = Present value of all future property tax payments  
 $\Pi_1$  = Next property tax payment  
 $r$  = Discount rate<sup>53</sup>  
 $g$  = Growth rate

The higher the anticipated growth rate in property taxes, the greater the negative impact on overall property value, all else being equal.

Property values in certain subdivisions and planned unit developments are also affected by “club goods.”<sup>54</sup> Club goods are quasi-public amenities that are available exclusively to a particular subdivision (e.g., a golf course, pool, clubhouse) or on a membership basis. HOA fees are like property taxes in that they are levied on all properties located within a subdivision and are typically the primary means used to support the cost of providing amenities within a subdivision. Unlike a property tax, the HOA fee is a flat charge levied on each unit of property owned by members of a community (as opposed to an ad valorem tax). This study holds that HOA fees have a capitalization effect on property value similar to property taxes. To the extent that the present value of HOA fees is greater than the perceived benefits of quasi-public amenities received, property values will be adversely affected.

This research considers the effect of HOA ownership of golf course facilities on property values within GCCs. In choosing to sample only vacant lots in GCCs within Beaufort County, South Carolina, the researchers were able to isolate the effects of HOA ownership on property value.<sup>55</sup> This variable proved to have a significantly negative relationship with vacant lot values. Property values in gated communities where HOAs owned their golf facilities were on average 55% lower than property values where the facilities were owned by an independent outside party.

The negative effect of HOA ownership on community property values can be explained by the aforementioned model for property tax capitalization. The researchers submit that it is the expectation that HOA fees will grow faster when HOAs own golf facilities that causes the depressive effect observed on property value. This may be because the typical HOA leadership team has neither the management experience nor the industry expertise to make the business decisions necessary to minimize golf facility operating costs. Such inexperience might increase the likelihood that the board would recommend an increase in HOA fees over other more creative options to compensate for an increase in amenity costs over time. Moreover, in communities where average home values and household incomes are lower, homeowners may not be able to collectively invest in the type of new infrastructure and/or amenity improvements wherein the benefits would outweigh the additional costs. This is especially true if the utilization of current amenities is already at a sub-scale level and access to additional land limits the community’s growth potential. Therefore, as amenities grow older and maintenance fees increase, the burden to subsidize the anticipated monetary deficits will fall increasingly on property owners through increasing HOA fees. To the extent that buyers are able to get similar club-level benefits for lower HOA

51. Tiebout, “Theory of Local Expenditures.”

52. Myron J. Gordon and Eli Shapiro, “Capital Equipment Analysis: The Required Rate of Profit,” *Management Science* 3, no. 1 (1956): 102–110.

53. Do and Sirmans found that buyers appear to use an average discount rate of 4% to capitalize taxes into the prices of purchased properties. A. Quang Do and C. F. Sirmans, “Residential Property Tax Capitalization: Discount Rate Evidence from California,” *National Tax Journal* 47, no. 2 (1994): 341–348.

54. James M. Buchanan, “An Economic Theory of Clubs,” *Economica* 32, no. 125 (1965): 1–14.

55. The research design controls for effects on value caused by distance from the central city, differences between municipalities, and specific property features other than lot size and golf course view. In addition, the same methodology is used to appraise all properties in the sample.

fees (or more benefits for the same fees, all else held equal), the supply of lots will tend to be elastic and capitalized HOA fees will depress lot values. Given the large number of GCCs in Beaufort County and the availability of vacant lots, this appears to be the case.

The research also finds the private club effect to be significant. Over the study period, the saturated market has driven down prices for vacant lots even in high-end, membership-restricted golf communities. However, in communities where club membership is both exclusive and mandatory for homeowners, the increase in benefits appears to offset the depressive effects of higher HOA fees on property value. As a result, lots in these communities on average sell for more than their appraised value. Buyers appear willing to pay more to live in a community that provides a high-quality program of public services.<sup>56</sup>

### Golf Communities as a Two-Sided Market

This research offers evidence that the current business model followed by many GCCs regarding their golf course operations is not working. With an understanding of the conundrum that many golf communities face today, industry operators are exploring innovative ideas to generate additional revenue to offset anticipated losses. These range from greater investment in hospitality activities (e.g., restaurants and event hosting) to repositioning the golf facilities to appeal to larger audiences (e.g., Topgolf<sup>57</sup>).

Golf operations in GCCs have many elements of two-sided (platform) markets. *Platform markets* are characterized by the existence of one or more

user groups linked by a service or product provider that mediates their interactions in the presence of network externalities. In other words, platform users' utility is related to the number of other users on the platform.<sup>58</sup> The platform must enable a direct relationship between users and have its own membership.<sup>59</sup>

This understanding of a successful platform market suggests HOAs should seek alternatives to the traditional HOA golf-facility ownership model. The financial benefits provide a rationale for why GCCs should consider transitioning their golf facilities to this business model. The economics literature identifies circumstances that are applicable to GCCs' golf courses and suggests it is more profitable to charge a flat fee, such as a homeowners' annual assessment, and to subsidize some user groups as in other examples of platform business models, rather than charge all users a marginal cost-based price per round of golf.

*Network externalities* also can increase the benefits enjoyed by the different user groups in various ways. Subsidizing one user group and charging the other is a common way of attracting and retaining a critical mass of users in a platform market.<sup>60</sup> A classic example of a platform strategy is a credit card system that subsidizes cardholders by issuing a free credit card. This attracts merchants who pay a fee. As a result of that basic exchange, other services are offered, such as extended payment programs and frequent flyer miles.

Similarly, residents of planned communities can view their golf course and club facilities as an economic platform. The opportunity to play a round of golf can be offered at a low price

56. Oates, "Effects of Property Taxes."

57. The Topgolf games can be played by all ages and skill levels. Micro-chipped golf balls score themselves, providing players with instant feedback on each shot's accuracy and distance. Topgolf venues feature climate-controlled hitting bays for year-round play, food, beverage, music, and HDTVs on which various sports games are shown. Some locations also offer golf lessons, leagues, tournaments, concerts, and corporate and social events. See Steve Goldberg, "Forget WeWork. Topgolf Is Fast Becoming the Cool Place to Do Business," *Inc.* (Winter 2018/2019), <https://bit.ly/3bLZILp>; and "Topgolf Can Now Be Played 24/7 on the WGT Golf App," Topgolf press release, July 12, 2016, <https://bit.ly/3cMUTNX>.

58. Thomas Eisenmann, Geoffrey Parker, and Marshall Van Alstyne, "Platform Envelopment" *Strategic Management* 32, no. 12 (2011): 1270–1285; Thomas R. Eisenmann, Geoffrey Parker, and Marshall W. Van Alstyne, "Strategies for Two-Sided Markets," *Harvard Business Review* (2006); J. Rochet and J. Tirole, "Platform Competition in Two-Sided Markets," *Journal of the European Economic Association* 1, no. 4 (2003): 990–1029; David S. Evans, "The Antitrust Economics of Multi-Sided Platform Markets," *Yale Journal of Regulation* 20 (2003): 325–381; Mark Armstrong, "Competition in Two-Sided Markets," *RAND Journal of Economics* 37, no. 3 (Autumn 2006): 668–691; and Michael Katz and Carl Shapiro, "Systems Competition and Network Effects," *Journal of Economic Perspectives* 8, no. 2 (1994): 93–115.

59. Andrei Hagiu and Julian Wright, "Multi-Sided Platforms," *International Journal of Industrial Organization* 43 (2015): 162–174.

60. Evans, "Antitrust Economics"; and Nicholas Economides, "Network Externalities, Complementarities, and Invitations to Enter," *European Journal of Political Economy* 12 (1996): 211–233.

and bundled with other services to incent repeat customers (e.g., loyalty cards). As the number of repeat golf course users grows, merchants will be attracted by the opportunity to provide ancillary services to visitors and residents alike, such as restaurants, grocery stores, education programs, and health activities. If the HOA is willing to lease some of its golf course real estate on a build-to-suit basis, the rental fees also will offset homeowner assessments that otherwise may have been required.

“Themed” *planned communities* are another approach to enhance the feasibility of a GCC and its golf amenities. The emergence of the themed planned community is indicative of the possibilities of using community facilities as a platform that can foster economic exchanges between third-party service providers and homeowners and visitors. One example of a themed planned community is The Villages, an older adult community located in central Florida. The Villages’ developers adapted the concepts of active lifestyle community and New Urbanism design to add value to the development. The Villages’ themes are “Florida’s Friendliest Hometown” and “year-round vacation.”<sup>61</sup>

## Conclusions

With every boom in golf course development and participation there has been a corresponding bust. The first boom (private clubs) occurred in the 1920s, and that bubble burst with the Great Depression. The second boom (public golf courses), following the nation’s recovery from WWII, occurred in the 1960s. The third boom (real estate/private clubs) occurred in the 1990s. Today, the outlook for golf courses is uncertain. Right sizing is occurring as the supply of golf courses is adjusted and redefined to meet declining demand. The economic future of golf course developments will depend on a new golf course business model.

Golf operations at GCCs are by definition not-for-profit. They were used as a mechanism by developers to sell interior lots. While it makes sense for HOAs to own their golf facilities (i.e., to maintain control over assets that affect property

values and to avoid property tax, to name two reasons), they might benefit from considering additional models. For GCCs and their HOAs there are ways to avoid some of the pains of economic adjustment—assuming the communities are willing to deal with the current realities. They must realize that the practice of providing too many amenities to too few paying homeowners is unsustainable. Private, membership-only golf course communities appear to have dealt with this dilemma because members commit to preserve real estate value by subsidizing the costs of amenities. New home buyers in golf communities, however, often are unaware of the risk to property values when community members refuse to support their golf club. Homeowners ultimately pay for the cost of amenities, either by subsidizing the cost through higher homeowner assessment fees or through the loss in the value of their homes by not doing so. It therefore behooves GCCs’ HOAs to seek additional revenue streams to help offset likely deficits resulting from golf course operations.

This article makes a case for the professionalization of HOA leadership. A firm understanding of real estate development and management principles will better equip these organizations with the skills required to implement the best business operating practices in the interest of the homeowners they serve. Many HOAs outsource the operations and governance activities to professional property management companies; however, the work herein considered requires a more hands-on commitment. HOA training and certification opportunities are available through organizations such as the Institute of Real Estate Management (IREM) and the Community Associations Institute (CAI). With many states currently exploring initiatives to regulate HOAs, this article provides a rationale for why this might be an appropriate path to consider.

In order to support the new platform-centric business model suggested in this article, HOAs will have to learn to operate more effectively. Unfortunately, HOAs lack the incentives to make the suggested operational changes and to attract the talent such new strategies might require. Therefore, training and some regulatory oversight may be required. In addition, new state

61. Hugh Bartling, “Tourism as Everyday Life: An Inquiry into The Villages, Florida,” *Tourism Geographies* 8, no. 4 (2006): 380–402.

laws may be required to allow HOAs to issue tax-exempt debt to raise funding necessary for new capital projects. Future research will include the effect of HOA ownership on lot values in other counties and states, key success factors in the operation of themed communities, and the operational differences between community development districts and HOAs.

The study suggests that HOA fees will be higher where the HOA owns the golf course. This is probably due to a number of interrelated factors, including (1) lack of HOA management expertise; (2) insufficient number of paid mem-

berships to cover costs of the golf amenity and thereby shield homeowners from having to cover the costs; and (3) choice of opening golf facilities to nonmembers, which results in loss of exclusivity, which, in turn, drives down property values. Higher HOA fees have an effect similar to that of a property tax. After a certain point, the assessment fee drives down property value. To avoid this negative feedback loop, property owners should investigate the possibility of converting common areas to cash-generating activities. Future research will investigate these relationships.

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### Additional Reading

Recommended by the Authors

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### Additional Resources

Suggested by the Y. T. and Louise Lee Lum Library

#### Appraisal Institute

- **Lum Library, Knowledge Base [Login required]**
  - Special use properties/sports, recreation, and entertainment/golf courses
- **Publications**
  - *Analysis and Valuation of Golf Courses and Country Clubs*
  - *Golf Property Analysis and Valuation: A Modern Approach*

#### Lincoln Institute of Land Policy—Research and Data Research

<https://www.lincolnst.edu/research-data>

#### National Golf Foundation

- **Golf Industry Facts**  
<https://www.ngf.org/golf-industry-research/>
- **Golf Participation in the United States**  
<https://www.ngf.org/report/golf-participation-in-the-u-s/>

#### Urban Land Institute

##### *Urban Land—Golf*

<https://urbanland.uli.org/search-results?q=golf>