



A Comparative Expected Value Analysis Study on Luxury Items Purchased in the United States

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ABSTRACT: The present study conducted expected value analysis on eleven luxury item purchases in the United States. The cost to rent from a time-share from a current owner was less than the cost of the annual maintenance fee suggesting that is never a scenario in which the purchase of this time-share would provide economic value, even if one purchased it used on the secondary market for 1 cent on the dollar. Chartering one’s yacht 64 days per year for 10 years would generate \$419,000 in revenue (chartering agency fees of 20% included). There would also be an additional maintenance cost of \$12,000 resulting in total net charter net income of \$407,000. The average cost to rent a forty-foot yacht would be \$444 per day. Therefore a yacht owner would need to use the yacht 135.81 days (\$60,300 / \$444) a year in order to break even if one purchased the yacht instead of renting it. An R8 car owner that rents out the car on weekends could generate \$2,500 a month, which would more than cover the monthly cost of owning an R8 (\$2,182) and result in a net gain of \$318 per month. An average motor home owner would need to use it 445 (\$23,100 / \$51.93) nights per year in order for the motor home to provide more value than staying in a hotel. However, there are only 365 days per year so the purchase of a motorhome would never provide value. The total annual cost of pool ownership is \$4,302, which comes to \$36 (\$4,302 / 120 days) per day cost based on 120 days of use each year. If the pool is only used on weekends over a 4-month time frame then the cost per day use would be \$134 (\$4,302 / 32 days). A \$5,000 a diamond ring will lose about 60% of its value, the annual cost to insure is \$75. If the \$5,000 cost of the diamond ring had been invested and compounded at 5% annually it would be worth \$13,524 in 20 years representing an opportunity cost of \$426 per year. The total annual cost of ski boat ownership is 24,165, which comes to \$201 (\$24,165 / 120 days) per day cost based on 120 days of use each year. If the ski boat is only used on weekends over a 4-month time frame then the cost per day use would be \$755 (\$24,165 / 32 days). Passengers that purchase a middle seat as well as the aisle and window seat would pay 300% more and receive 300% more space, which was found to have provided more value than purchase of a first class ticket. A prenuptial agreement that cost \$2,500 would provide an expected benefit of \$6,400.

KEY WORDS: Timeshare, sports car, first-class airline ticket, motor home, yacht, swimming pool, diamond ring, condo, pre-nuptial agreement and ski boat

INTRODUCTION

There was a time when luxury items were available mostly to the very wealthy, but in recent years marketers with creative promotion and pricing strategies have been able to effectively coax lower and middle class consumers to purchase them. As a result, luxury item revenues are expected to total \$63 billion in 2020 and the market is expected to grow annually 0.9% the next three years (Statista, 2020). This present study sought to determine to what degree the following luxury items provided value: timeshares, sports cars, first-class airline tickets, motor homes, yachts, swimming pools, diamond rings, condos, pre-nuptial agreements and ski boats.

Time-Share

A Marriott Newport Coast Villa time-share costs around \$35,000 on-site or \$31,500 if purchased online (\$31,500). Closing costs for a time-share typically range from \$300 to

\$500. A two-bedroom time-share with two bathrooms had an average annual cost of \$2,736 per week amortized over 25 years. The Marriott Newport Coast Villa can be booked on-line out for \$2,380 per week (Marriott, 2019) or can be purchased in the secondary market for \$3,500 not including closing costs or the \$1,320 annual maintenance fee. It was found that time-share owners would rent out their time-shares for as low as \$1,050 per week (Redweek, 2019), which is lower than the annual maintenance fee (AMF). The annual cost was determined by totalling purchase price and closing costs and amortizing over 25 years.

Marriott Newport Coast Villa	Purchase Price	Closing Costs	Annual Cost	AMF	Weekly Costs
Rent from owner	\$1,050	-		-	\$1,050
Purchase used	\$3,500	\$400	\$156	\$1,320	\$1,476

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Book Marriott.com	\$2,380	-		-	\$2,380
Purchase on-line	\$31,500	\$400	\$1,276	\$1,320	\$2,596
Purchase on-site	\$35,000	\$400	\$1,416	\$1,320	\$2,736

The cost to rent from a time-share from a current owner was found to be less than the cost of the annual maintenance fee. Therefore, there is never a scenario in which the purchase of this time-share would provide economic value, even if one purchased it used on the secondary market for a single cent on the dollar.

Yacht

According to the Sailo Boat Calculator (2019) the total cost of ownership for a 2015 forty-foot yacht would be \$776,000 (financing \$402,000, docking \$94,000, fuel \$46,000, maintenance \$133,000, insurance \$53,000, taxes \$42,000, add-ons \$3,700 and other \$2,500), based on an average use of 99 days year, over ten years (\$77,600 per year).

Forty Foot Yacht	Cost	Charter Income	Resale Value	Net Cost	Annual Costs
¼ Ownership/Charter	194k	101,750	43,250	049,000	4,900
¼ Ownership	194k	0	43,250	150,750	15,750
Purchase / Charter	776k	407,000	173,000	196,000	19,600
Purchase	776k	0	173,000	603,000	60,300

Chartering one’s yacht **64** days per year for **10** years would generate **\$419,000** in revenue (chartering agency fees of **20%** included). There would also be an additional maintenance cost of **\$12,000** resulting in total net charter net income of **\$407,000**. The average cost to rent a forty-foot yacht would be \$444 per day. Therefore a yacht owner would need to use the yacht 135.81 days (\$60,300 / \$444) a year in order to break even if one purchased the yacht instead of renting it.

A yacht owner would need to use the yacht 44.14 days (\$19,600 / 444) to break even if they purchased and chartered, instead of renting it. A yacht owner would need to use yacht 11.03 days (\$4,900 / \$444) to break even if they were a ¼ owner and chartered the yacht instead of renting it. However, they would only have the yacht available 27 days (91days – 64 days)of use per year once the days of renting are taking into account. A yacht owner would need to use the yacht 35.47 days per year (\$15,750 / \$444) to break even if they were a ¼ owner instead of renting it.

Sports Car

A 2020 Audi R8 that costs \$172,900 would depreciate \$85,400 in value in 5 years and the five-year costs for gas, insurance, repairs, and maintenance are projected to be around \$45,500 for a 5 year total cost of \$130,900 or roughly \$2,182 per month.

Audi R8	Cost	Total Costs 5 years	Monthly Costs	Monthly Income	Monthly Net
Buy/Rent	\$172k	\$130,900	\$2,182	\$2,500	\$318
Purchase	\$172k	\$130,900	\$2,182		-\$2,182

The R8 rents for \$249 for 5 laps at the Exotics Race Cars at the Fontana Speedway every Saturday for \$249. Exotic Racing collects 50% for renting Fontana Speedway track so the R8 car owner nets around \$125 per race. An R8 car owner that rents out car 5 times every Saturday would net \$625 a weekend or \$2,500 a month, which would more than cover the monthly cost of owning an R8 (\$2,182) and result in a net gain of \$318 per month.

Motor Home

According to the Recreation Vehicle Industry Association, the average motor coach, which combines vehicle and living quarters, costs \$100,000 plus another 10% in tax, title and license. One would pay around \$760 per month for a 15 year \$110,000 loan with a 3% interest rate. The average storage costs for a motorhome are around \$200 per month or \$2,400 per year. Once the manufacturer’s warranty expires in a year, service plans can be purchased for around 2.5% of the vehicles value. A motor home will depreciate by 72.33% in 15 years (Camper Guide, 2019) resulting in a \$100,000 motor home to have a residual value of \$27,670 in 15 years with an annual cost of \$4,822 (\$72,330 / 15 years). Insurance for a Class A motorhome ranges from around \$1,000 to \$4,000 or more per year depending upon the age, value and owner’s driving record.

The \$100,000 cost of the motor home if it had been invested and compounded at 5% annually would be worth \$270,481 in 20 years. The 20 year difference in value would be \$170,481 (\$270,481 - \$100,000) representing an annual opportunity cost of \$8,524 (\$170,481 / 20 years).

The average cost per day for a Class A Motor home (not including the cost of the motor home) would range from \$45 to \$115 per day to park an RV and the additional cost of fuel (\$80 average). The day rates to park an RV range from \$20 to \$70 (Butterman, 2014) and the cost of fuel are about 3 times higher for a class A motor home (10 mpg vs 30 mpg) so the additional cost for driving a motor home 250 mile trip would be around \$45. The average daily rate of hotels in the United States as of September 2019 was 131.93 U.S. dollars (Statista, 2019), which is \$51.93 (\$131.93 - \$80 = \$51.93) more than staying in a motor home.

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Motor Home	Annual Costs
Payments (includes interest)	\$9,120
Maintenance Plan	\$2,500
Insurance	\$2,500
Residual Value	(\$1,844)
Storage Costs \$200 per month	\$2,400
Motorhome Registration Fees	\$500
Opportunity Cost	\$8,524
Total Annual Costs	\$23,100

An average motor home owner would need to use it 445 (\$23,100 / \$51.93) nights per year in order for the motor home to provide more value than staying in a hotel. However, there are only 365 days per year so the purchase of a motorhome would never provide. The average cost to rent a Class A ranges from \$225 per night (10+ years or older) to \$400 per night (newer) to rent a Class A motor home (Wandering RV, 2019). Therefore the average cost to rent would be \$312.50 per night.

Swimming Pool

According to the National Association of Realtors' homeowners with pools will lose 52% of the amount spent on the pool at resale. In another words, a \$30,000 pool would depreciate \$15,600 when the house is sold in 20 years. A swimming pool increases cost of electricity by \$300 per year. The average cost to maintain a standard 14-foot-by-28-foot pool (\$30,000) is around \$125 per week or \$500 per month in use (\$20,000 ten-year cost), the cost to increase the amount of umbrella liability policy from \$100,000 - \$300,000 to \$1 million will be \$150 a year (\$1,500 ten-year cost) and once the kids grow up and the novelty has worn off the cost to get a licensed engineer to permanently fill a standard in-ground swimming pool averages around \$5,000, according to HomeAdvisor.com (Taylor, 2019).

Swimming Pool	Annual Costs
Opportunity Cost	\$2,572
Depreciation	\$780
Electricity (based 4 months)	\$300
Insurance	\$150
Maintenance (based on 4 months)	\$500
Total Annual Costs	\$4,302

The total annual cost of a \$30,000 swimming pool amortized over 20 years would be \$15,600 for depreciation. The \$30,000 cost to build a pool if it had been invested and compounded at 5% annually would be worth \$81,144 in 20 years. The 20 year difference in value would be \$51,144 (\$81,144 - \$30,000) or roughly \$2,572 per year. The total annual cost of pool ownership is \$4,302, which comes to \$36 (\$4,302 / 120 days) per day cost based on 120 days of use each year. If the pool is used on weekends only over a 4-month time frame then the cost per day use would be \$134 (\$4,302 / 32 days).

Diamond Ring

A \$5,000 a diamond ring will lose about 60% of its value and have a resale price of around \$2,000 (Schmalbruch, 2018).A decline in value of \$3,000 in 20 years would represent an annual cost of \$150. The annual cost to insure a diamond ring is \$1 to \$2 for every \$100 or about \$75 for every \$5,000 (Gilbert, 2019).The \$5,000 cost of the diamond ring if it had been invested and compounded at 5% annually would be worth \$13,524 in 20 years. The 20 year difference in value would be \$8,524 (\$13,524 - \$5,000) representing an opportunity cost of \$426 per year.

Diamond Ring	Diamond Ring
Depreciation	\$150
Insurance	\$75
Opp. Cost	\$426
Total Annual Cost	\$651

Ski Boat

The Super Air Nautique G23 (\$166,053 base MSRP) will lose 61.9% (\$102,786) of its resale value in 15 years or \$6,852 annually (\$102,786 / 15 years). Insurance rates average about 1.5% of the boat's insured replacement valueor around \$1,660 per year and registration fees total around \$200, water dock storage space can range from \$1,000 to \$5,000 per season (Discover Boating, 2019).

Ski Boat	Annual Costs
Price	\$166,053
Depreciation	\$6,852
Insurance	\$1,660
Maintenance	\$12,453
Storage	3,000
Electricity	
Registration	\$200
Opp. Cost	-
Annual Cost	\$24,165

The annual maintenance is roughly 5-10% of the cost of the boat's value, which comes to around \$8,302- \$16,605 per year or roughly \$12,453. The total annual cost of ski boat ownership is 24,165, which comes to \$201 (\$24,165 / 120 days) per day cost based on 120 days of use each year. If the ski boat is only used on weekends over a 4-month time frame then the cost per day use would be \$755 (\$24,165 / 32 days).

Las Vegas Condo

There is a listing for a Trump Tower condo priced at \$329,800. Trump Organization Homeowner's association fees for this condo are \$500 a month or \$6,000 per year for 15 years. The Trump Tower room can be booked on a nightly basis for \$157.07 per night (includes resort fees and taxes). A Trump Tower condo listing was found for \$3,654 per month, which averages around \$121.00 per night. The \$2,332 cost of ownership would require that one spend the

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night roughly 19 nights per month in order for the outright purchase to provide value (\$2,332 / \$121)

Las Vegas Condo	Cost	Fees	Monthly Cost	Per night Rate
Purchase Price	\$329,800	\$6,000	\$2,332	\$78
Rent from owner			\$3,654	\$121
Book On-Line			\$157	\$157

First Class Ticket

According to McCartney, (2019) the average cost of a first-class domestic ticket is \$1,356 and the average cost of a coach ticket is \$432. A premium round-trip ticket to Europe cost on average \$5,133 and a coach ticket costs on average around \$1,082. A first-class domestic ticket costs 313% (\$1,356 / \$432) more, but you only get 45% more space, while a first-class ticket to Europe will cost 571% (\$6,215 / \$1,082) more. Passengers that purchase a middle seat as well as the aisle and window seat would pay 300% more and receive 300% more space, which provides more value than purchase of a first class ticket.

Pre-Nuptial Agreement

A pre-nuptial agreement typically costs around \$2,500, but can cost more if you spend a while haggling out various issues (Hoffower, 2018). The national average in total divorce costs is \$12,800 (Lawyers.com, 2019). About 50% of married couples in the United States divorce and the divorce rate for subsequent marriages are even higher (American Psychological Association, 2019). A prenuptial agreement that cost \$2,500 would provide an expected benefit of \$6,400 (\$12,800 * .5).

CONCLUSIONS

The cost to rent a time-share from a current owner was found to be less than the cost of the annual maintenance fee. Therefore, there is never a scenario in which the purchase of this time-share would provide economic value, even if the time-share can purchased used on the secondary market for a single cent on the dollar.

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	Diamond Ring	Swimming Pool	Motor Home	Ski Boat
Price	\$5,000	\$30,000	\$100,000	\$166,053
Depreciation	\$150	\$780	\$4,822	\$6,852
Insurance	\$75	\$150	\$2,500	\$1,660
Maintenance	-	\$500	\$2,500	\$12,453
Storage	-	-	\$2,400	3,000
Electricity	-	\$300		
Registration	-	-	\$500	\$200
Opp. Cost	\$426	\$2,572	\$8,524	-
Annual Cost	\$651	\$4,302	\$21,246	\$24,165
Daily Rental	-	-	\$312.50	\$600

A \$5,000 diamond ring will lose about 60% of its value (Schmalbruch, 2018), the annual cost to insure about \$75 (Gilbert, 2019) and if the \$5,000 cost of the diamond ring had been invested and compounded at 5% annually it would be worth \$13,524 in 20 years representing an opportunity cost of \$426 per year.

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A passenger purchasing a middle seat as well as the window and aisle seat would pay 300% more, but would receive 300% more space, which provides more value than purchase of a first class ticket in terms of price and space. A prenuptial agreement costing \$2,500 would provide an expected benefit of \$6,400 (\$12,800 * .5).

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