

GREENHAVEN  
ROAD CAPITAL

FINDING VALUE  
OFF THE BEATEN PATH  
Manual of Ideas  
Wide Moat Conference 2016

# GREENHAVEN ROAD



## Who We Are

- A long-biased hedge fund.
- Concentrated and patient.
- Pursue both quality companies (compounders) and special situations (spinoffs, rights offerings, SPAC, etc.)

## Operating Background of Portfolio Manager

- Managed a manufacturing business after graduating college.
- Co-Founder of Acelero Learning. Several roles including CFO, CTO, Chief Strategy Officer, and currently board member. Acelero has grown from three co-founders in a tiny office to 1,100+ employees in 15 states.
- A touch of traditional - Worked in private equity, a long/short fund, Stanford MBA.

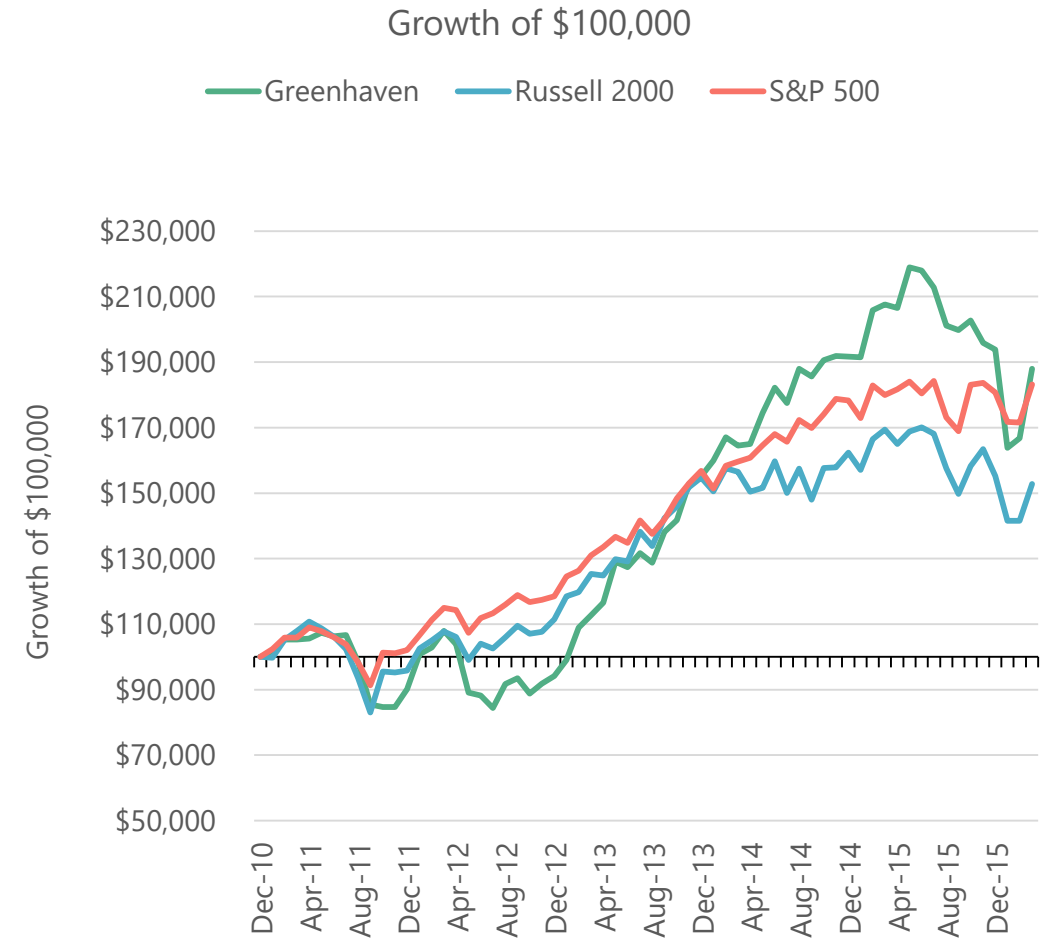
## What I Believe

- Fundamentals matter, balance sheets matter, cash flow matters, management matters, and incentives matter.
- An investment committee of one is the perfect size – the aspiration is to be a small boutique manager.

# PERFORMANCE HISTORY THROUGHOUT LIFE OF STRATEGY

Strategy and fund have outperformed relevant indices.

	Greenhaven Road	S&P 500	Russell 2000
2005	30.54%	4.89%	4.55%
2006	19.47%	15.79%	18.37%
2007	36.95%	5.49%	-1.57%
2008	-40.01%	-37.00%	-33.79%
2009	132.45%	26.46%	27.17%
2010	49.68%	15.05%	26.85%
	Fund	Launch	
2011	-9.85%	2.11%	-4.18%
2012	4.42%	15.98%	16.35%
2013	64.79%	32.41%	38.82%
2014	23.56%	13.69%	4.89%
2015	1.60%	1.39%	-4.41%
2016 (5/31)	0.3%	3.6%	2.3%





# INTERACTIVE BROKERS



TICKER:	IBKR	\$3.8B Excess Regulatory Capital
PRICE (6/21):	\$36.41	Insider Ownership: 84%
MARKET CAPITALIZATION	\$15B	52-Week High/Low: \$29.50/ \$45.95

## Business Description

- **The Company's Words:** Interactive Brokers “Provides trading solutions for institutions and investors”. They are the largest on-line broker by trade volume.
- **Glass Half-Empty View:** Limited float, volatile earnings, and expensive.
- **My View:** Highest margin, lowest cost broker with a very long runway ahead of it and secular tailwinds behind it.

# THE PAST AND THE FUTURE

## The Roots are in Market Making

- **1977:** Thomas Peterffy, the Chairman of the Interactive Brokers Group, buys a seat on the American Stock Exchange (AMEX) and becomes a member, trading as an individual market maker in equity options.
- **1982:** Timber Hill Inc. is formed. Initially, the company trades equity options at the AMEX, clearing through Spear, Leeds & Kellogg. Traders receive telephone instructions identifying pairs and prices.
- **1993:** Interactive Brokers Inc. (now known as IB LLC) is incorporated as a U.S. broker-dealer, making Timber Hill's vast intercontinental electronic network and trade execution services available to customers.

## The Future is Brokerage

- **1999:** IB begins to clear online trades for customers trading stocks and equity derivatives through the IB system.
- **2005:** IB is ranked the #1 software based broker, and #1 for lowest trade cost by [Barron's](#).
- **2011:** Interactive Brokers becomes the largest online U.S. broker as measured by Daily Average Revenue Trades reported.
- **2013:** IB's Hedge Fund Capital Introduction ramps up with 60% of funds receiving at least one investment and the funds reporting an average 2013 rate of return of 20%.\*

Source <https://gdcdyn.interactivebrokers.com/en/index.php?f=564>

# THE FUTURE OF INTERACTIVE BROKERS

*“I'm obsessed with trying to grow this to become the largest brokerage in the world. That's the only thing I care about.”*

- Thomas Peterffy  
CEO Interactive Brokers  
Q1 2016 Earnings Call

## KEY STATISTICS

### Healthy, Growing, and Profitable

- **Largest US Electronic Broker:** As measured by revenue trades
- **Industry Leader:** Was recognized by Barron's for 6 straight years as the #1 electronic broker
- **Global Reach:** Access to 100+ markets in 24 countries
- **Consistent 15%+ Customer Account Growth:** The company has consistently grown accounts for the past several of years. Brokerage is the future.
- **Scalable and Efficient:** \$1.1M net revenue/employee

345,000  
Client Accounts\*

\$5.7B  
Equity Capital\*

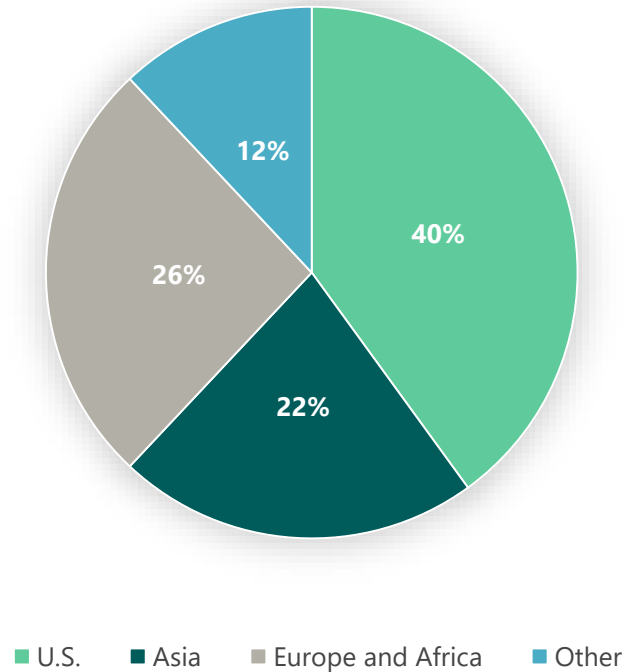
607,000  
DARTS\*  
Daily Avenue Revenue Trades

60%+  
Brokerage Pre-Tax  
Profit Margin\*

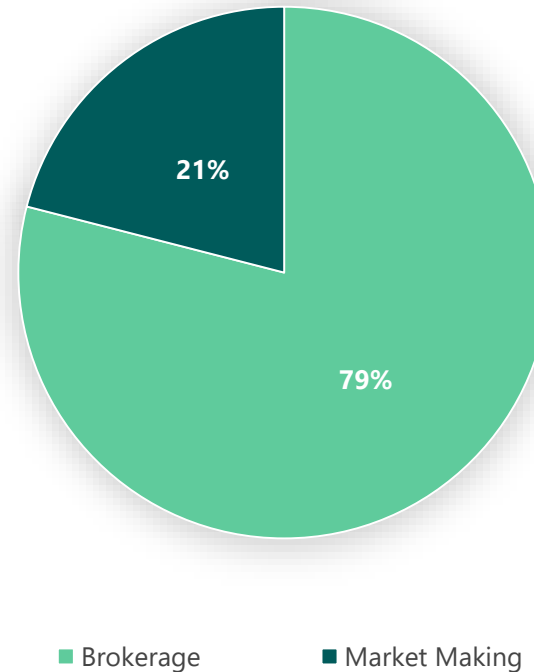
\*Q1 2016

# INTERACTIVE BROKERS – BUSINESS BREAKDOWN

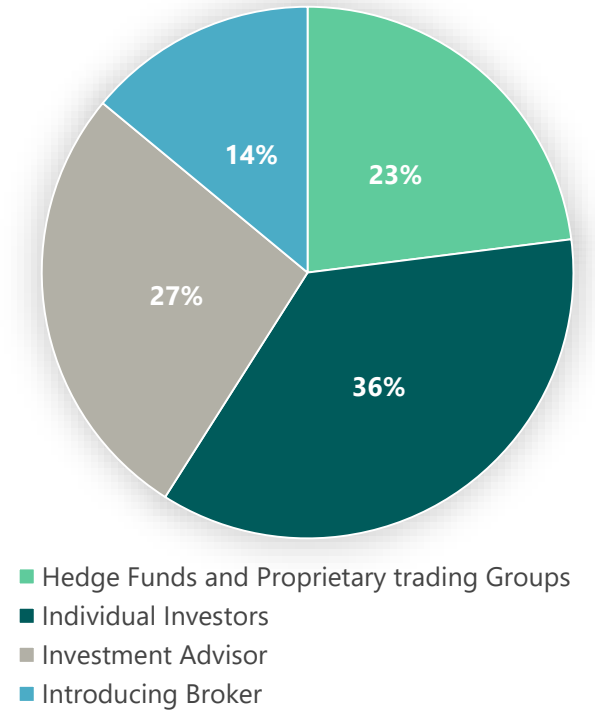
### Accounts by Region



### Pre-Tax Profit



### % of Equity

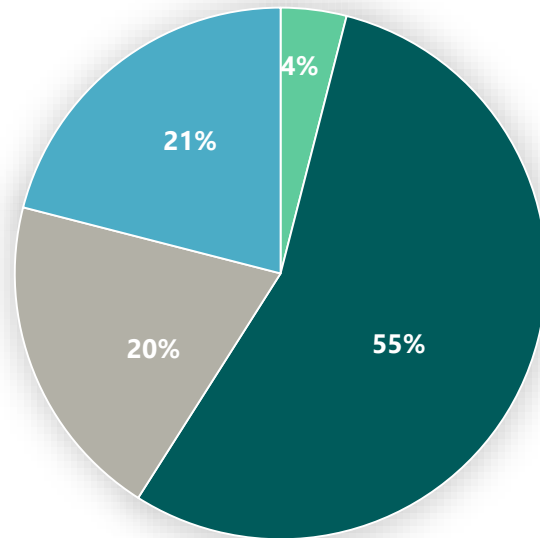




# BREAKDOWN OF CUSTOMERS

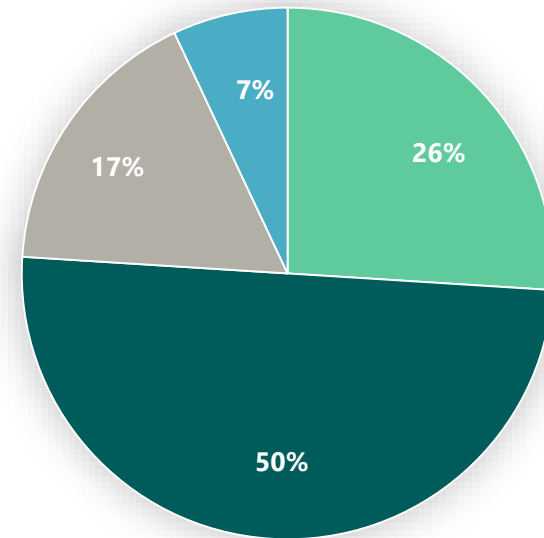
Hedge Funds = Good

**% of Accounts**



- Hedge Funds and Proprietary trading Groups
- Individual Investors
- Investment Advisor
- Introducing Broker

**% of Commissions**



- Hedge Funds and Proprietary trading Groups
- Individual Investors
- Investment Advisor
- Introducing Broker

# PRODUCT DIFFERENTIATION

- **Cost:** IB is the clear market leader on cost for margin loans and trading commissions.
- **Execution:** IB uses smart routing technology to route orders to get customers the best possible price.
- **Order Flow Not Sold:** IB puts their customers first and does not allow their orders to be “front run” by high frequency traders.
- **Breadth:** IB provides access to 100+ markets in 24 countries.
- **Security Financing Services:** IB will lend out securities to other investors and share the revenue with their customers. A simple way to improve performance / earn money.
- **Investor Marketplace:** More than 1,100 providers in the investor marketplace.
- **Advanced Trading Tools:** Includes 60+ order types and algos.





# POSITIVE FEEDBACK LOOP

- “So the question is why does Interactive Brokers do more trades than any other broker? The answer is because it's the least expensive broker. Why is Interactive Brokers the least expensive broker? Because it does more trades than any other broker.”

- *Thomas Peterffy*  
*CEO Interactive Brokers*



# VALUE PROPOSITION



## The Lowest Cost Broker on Multiple Measures

U.S. Margin Loan Rates Comparison					U.S. Commission Rate Comparison		
	\$25K	\$200K	\$1.5M	\$3.5M	100 Shares	1 Stock Option	1 E-mini S&P 500 Future
Interactive Brokers <sup>4</sup>	1.86%	1.61%	1.23%	0.97%	\$ 1.00	\$ 1.00	\$ 0.85
E-Trade	7.94%	6.14%	3.89%	3.89%	\$ 7.99	\$ 8.74	\$ 2.99
Fidelity	7.575%	6.575%	3.75%	3.75%	\$ 7.95	\$ 8.70	N/A
OpitonsXpress	8.25%	7.00%	6.00%	6.00%	\$ 8.95	\$ 12.95	\$ 3.50
Schwab	8.00%	6.875%	6.25%	6.00%	\$ 8.95	\$ 9.70	N/A
TD Ameritrade	8.75%	7.75%	6.50%	6.50%	\$ 9.99	\$ 10.74	\$ 2.25

Source: Company website June 2016



## MY BROKER IS HONEST – IS YOURS?

### E-Trade

According to their 10K, E-Trade received more than \$170M for selling their order flow in the last two years

	2015	2014
Order flow revenue	\$85	\$92

### Ameritrade

According to their 10K, Ameritrade received more than \$800M for selling their customer order flow

Measuring and evaluating performance and the results of our operations

	Fiscal Year			'15 vs. '14	'14 vs. '13
	2015	2014	2013	% Change	% Change
Total trades (in millions)	115.85	106.94	92.85	8%	15%
Average client trades per day	461,541	426,888	373,630	8%	14%
Average client trades per funded account	17.9	17.4	15.8	3%	10%
Activity rate – funded accounts	7.1%	6.9%	6.3%	3%	10%
Trading days	251.0	250.5	248.5	0%	1%
Average commissions and transaction fees per trade	\$ 12.09	\$ 12.62	\$ 12.61	(4)%	0%
<b>Order routing revenue (in millions)</b>	<b>\$ 299</b>	<b>\$ 304</b>	\$ 236	(2)%	29%
Average order routing revenue per trade <sup>1</sup>	\$ 2.58	\$ 2.84	\$ 2.54	(9)%	12%

<sup>1</sup> Average order routing revenue per trade is included in average commissions and transaction fees per trade.

# BETTER EXECUTION

Is it really a surprise that the execution is better?

*“When I entered into this business some forty years ago, I was a computer programmer and ever since that time I have remained a computer programmer and surrounded myself with other computer programmers. So, unlike other businesses, we do not, as much, focus on sales ... which may be a problem ... but we focus on building technology. Our forte is to automate everything and everybody we can automate. That gives us the opportunity to service our customers at a much, much lower cost than our competitors do and for that reason we can charge very low commissions. So, it's magic. The magic is called automation.”*

- Thomas Peterffy  
CEO Interactive Brokers  
May 2014

## Execution Price Improvement Comparison

	US Stocks (per 100 shares)	US Options (per contract)	European Stocks (per 100 shares)
Interactive Brokers	\$ 0.45	\$ 0.91	€ 0.30
Industry	\$ 0.35	\$ 0.64	-€ 0.48
IB Advantage	\$ 0.10	\$ 0.27	€ 0.78

Source for Execution Data: Company website June 2016

# STICKY PRODUCT

*“We have very, very few accounts transferred to another brokerage firm. I think that it's in the neighborhood of like 300 in a month... they are usually registered investment advisor accounts and they change investment advisors. -- they change investment advisors, or in some cases there are deaths, and that sort of thing. So we lose very few accounts because people are unhappy with our service.”*

- Thomas Peterffy  
CEO Interactive Brokers  
Q1 2016 Earnings Call

## MOST ATTRACTIVE CUSTOMERS

Last quarter brokerage pre-tax profit was more than 60%, which is substantially higher than competitors.

### Higher Trading Volume, Larger Accounts

- **Higher Margin:** Last Quarter Brokerage pre tax profit was over 60% which is substantially higher than competitors.
- **More Active Accounts:** The average IB customer trades 60X as often as the average Schwab customer.
- **Larger Accounts:** With the exception of Schwab, IB has larger average accounts vs. its competitors.

Company	Brokerage Accounts	Trades/Day	Estimated Trades Per Year Per Account	Equity Per Account
Interactive Brokers	344K	607K	513	\$205K
Ameritrade	6.8M	463K	19	\$105K
ETRADE	3.3M	157K	13	\$88K
Schwab	9.9M	278K	8	\$260K



# BUSINESS ADVANTAGES



## Superior Cost Structure

- **No Branches:** IB has no branches, TD Ameritrade has more than 100, ETRADE has over 30
- **Lower Customer Acquisition Costs:** IB spends 2.5% of revenue on advertising while competitors spend approximately 5%.
- **More Automation = Lower Compensation:** IB has the lowest comp as a % of revenue as well.

Company	Sales and Marketing as a % of Revenue	Occupancy as % of Revenue	Compensation as \$ of Revenue
Interactive Brokers	2%	4%	19%
Ameritrade	8%	5%	25%
ETRADE	9%	6%	33%

## DESCRIPTION OF THE FLY WHEEL

*“We have a huge advantage because we’ve been at this for several decades, right. Building automation, and the automation is not only in the software we give to our clients but also in the software that the company runs on. So that we as I said we have 750k trades per day in 27 different currencies over 100 different exchanges in many countries that we have to clear and settle and account for and corporate actions and custodial functions etc. and we do all that with 1,100 employees. Most firms that do our volume have 10 times as many employees. So with the automation we are able to take the cost out of the business and we are passing the bulk of that on to our customers and that’s why we get more and more customers every year.”*

- Thomas Peterffy  
CEO Interactive Brokers

## SECULAR TAILWINDS



- **Prime Brokers Firing “Small” Hedge Fund Customers:** Goldman, Morgan Stanley, and JP Morgan are imposing fees on sub-\$50M funds. Effectively saying go somewhere else. IB says welcome.
- **Regulation:** The compliance burdens are only increasing on broker dealers. Increased regulatory expenses, coupled with decreasing commissions. puts pressure on smaller players.
- **Increased Wealth:** The number of high net worth individuals is growing in the developing countries even as the overall economic growth may be slowing.
- **Aging Population:** According to the company “As money moves from old hands to younger hands, younger people are more inclined to manage their own financial affairs and look for brokers with superior technology and lower cost.”



# INTRODUCING BROKER OPORTUNITY=WIN/WIN/WIN



*“And so as I expect that when it becomes very well known that we are in the business that other introducing potential introducing brokers will look at us and some folks that are currently self-clearing will give some thought to the idea of doing away with their own clearing systems and come to us because I think that net that would make them money.”*

- Thomas Peterffy  
CEO Interactive Brokers  
Q4 2015 Earnings Call

**Introducing Broker Description:** IB clears trades for another broker on the IB platform. The customer gets better execution, the introducing broker gets bundled pricing from IB, and IB gets incremental volume/profits

**Very Scalable:** There is the opportunity to become the de facto plumbing for the brokerage industry like Fiserv/Jack Henry for banks.

**Proposition for Introducing Broker:** They can offer increased functionality, retaining customers profitably.



# LONG RUNWAY FOR GROWTH



*“While we do have considerable market share among individuals and prop traders it seems that we have so far penetrated less than 1% of our total addressable market and accordingly, we could easily grow a hundredfold and still have room left over.”*

- Thomas Peterffy  
CEO Interactive Brokers  
Q4 2015 Earnings Call

Type of Account	Market Share
Proprietary Trading group	25%
Hedge Funds	0.2%
Individual Investors	15%
Investment Advisors	0.1%
Introducing Brokers	1%

Source: Q4 2015 Conference call – Introducing Brokers is an estimate (not provided on call)

# RISKS



- **Automation Error:** This is effectively a software company. Knight Trading effectively went bankrupt because of faulty code was not caught in time. They have been doing this a long time, and the CEO has \$12B to lose – but clearly there is some risk that automation goes awry.
- **Currency Moves:** There are limits on leverage related to currency – but the unpegging of the Swiss currency put a \$100M+ hole in the balance sheet.
- **Blockchain/Technological Innovation:** There is a chance that via innovation such as block chain – the whole brokerage industry is disrupted. This would likely erode Interactive Brokers moat.
- **Thomas Petterfy Dies:** There is an anointed successor with more than 20 years of experience at the company, but Thomas has overseen incredible growth while maintaining profitability. He also owns 75% of the company.
- **Trading Activity Slows:** YTD through May – DARTS are +4% Y/Y.
- **New Account Growth Slows:** For the company to justify its current valuation, it must continue to grow profitably. YTD account growth through May was running an annualized 13.4% down from 14.7% one year ago.

# MODEST HEDGES



- **Cost Matters – People Notice When Performance Is Bad:** “We are the least expensive brokers, and investors switch their accounts to us even more when they are not doing well with other brokers.”
- **Volatility Drives Trade Volumes:** There has been a high correlation between trading volumes and market volatility.
- **Volatility Creates Market Making Opportunities:** Historically, when the VIX is elevated, the market maker tends to be more profitable. This has decreased with the rise of high frequency trading. Changes to high frequency trading and/or the selling of order flow by competitors may create additional opportunities for market making. It is in many ways a call option.
- **Benefit from Rising Interest Rates:** The net interest rate margin will increase with rising rates (most of the benefit will be passed to customers – particularly after the first 50bps).

# VALUATION QUESTIONS

## Who Are the Correct Comps?

- **Other Brokerage Companies:** Ameritrade is the closest. ETRADE and Schwab have other businesses and interest rate sensitivity that complicate comparisons.
- **Technology Companies:** Given the majority of employees are engineers and the moat is largely software-based, companies such as Oracle are potential acquirers.

## How Much is the Company Underearning By?

- **Raise Margin Rates:** A 1% increase in margin rates on \$15B in margin balances would yield an incremental \$150M in revenue (assuming inelastic demand), translates into 36 cents of pre-tax earnings.
- **Raise Commission Rates:** If one annualizes Q1 trading activity, a 15 percent increase in commission translates into 25 cents of pre tax earnings.

## How Much is the Company Overcapitalized By? ?

- **\$9 Per Share:** The company has \$9 per share in excess capital (above regulatory requirements). This is used by the market maker segment and to give existing customers comfort. This excess capital will not be returned to shareholders under current ownership, but in an acquisition when applying a multiple it would likely be backed out.



# VALUATION

## The Most Expensive Stock I Own

- **On a PE Basis:** Shares are more 22X 2016 Earnings.
- **Have to Believe:** Customers accounts will grow, margins will expand, and compounding works.

## In an Acquisition (Aggressive Scenario)

IBKR Valuation	2017	2018
<b>E-Broker:</b>		
E-Broker Pretax Profit	957	1109
E-Broker net income (38% tax)	593	688
Shares Outstanding	410	410
E-broker EPS	\$ 1.45	\$ 1.68
NTM PE multiple	25	25
<b>E-broker Share Price Value</b>	<b>\$ 36</b>	<b>\$ 42</b>
<b>Adjustments:</b>		
Excess Capital	\$9	\$9
Under Earning	\$5	\$5
<b>Combined Value:</b>		
IBKR Value per Share (end 2016)	\$50	
IBKR Value per Share (end 2017)		\$56
<i>Upside to today's price (\$36.41)</i>	<i>38%</i>	<i>54%</i>

- **Adjust for Excess Cash:** While current management is committed to being very over-capitalized, in an acquisition by an Oracle or another cash rich acquirer – the company would “get credit” for the cash.
- **Adjust for Under-Earning:** There is clearly an ability to raise prices (perhaps at the cost of some growth) – a modest increase in prices would be all margin and could contribute another \$5+ of value (40 cents\*20X – taxes)

## WHAT TO WATCH? HOW TO GET SMARTER?



**Conference Calls** – More so than with most managers – Thomas Petterfy is very candid about the health and direction of the business.

**Value Investor Club** – Even on a 45-day delay, anything written by Cuyler is worth reading – he was early in identifying and articulating the opportunity. <https://valueinvestorsclub.com>

**Monthly Statistics** – I focus on new customers as trading and margin balances are influenced by market volatility and other factors. This investment will not compound if customer accounts stall for a prolonged period. They are posted on the investor relations section of the website. <https://investors.interactivebrokers.com/ir/main.php#>

**Interest Rates / Volatility** – The market tends to bid up the price when there are expectations for a rate rise. This can often explain price movements.

# NOT READY FOR PUBLIC CONSUMPTION

Next Letter Will Include Another Wide Moat Idea


- **Sign up on the Website for Quarterly Letters** – visit the URL: <http://www.greenhavenroad.com/connect/>
- **Indicate in the Message Section:** Tell me you are from the Wide Moat Conference and indicate if you want one letter or to just be added going forward.
- **Wait**

## Lets Connect

**Name \***

Scott	Miller
First	Last

**Email \***

Scott@greenhavenroad.com	
--------------------------	---

**Please Select All that Apply**

- Accredited Investor
- Would Like More Information
- Quarterly Letters – Would You Like to be Added to the Distribution List

**Message –**

Please let me know that you are  
1) From Manual of Ideas / Wide Moat  
2) If you would like only 1 letter OR to be added to the distribution|

Submit



**Scott Miller**

[scott@greenhavenroad.com](mailto:scott@greenhavenroad.com)

[www.greenhavenroad.com](http://www.greenhavenroad.com)

[www.greenhavenroad.com](http://www.greenhavenroad.com)



# DISCLAIMER



This document, which is being provided on a confidential basis, shall not constitute an offer to sell or the solicitation of any offer to buy which may only be made at the time a qualified offeree receives a confidential private offering memorandum (“CPOM”) / confidential explanatory memorandum (“CEM”), which contains important information (including investment objective, policies, risk factors, fees, tax implications and relevant qualifications), and only in those jurisdictions where permitted by law. In the case of any inconsistency between the descriptions or terms in this document and the CPOM/CEM, the CPOM/CEM shall control. These securities shall not be offered or sold in any jurisdiction in which such offer, solicitation or sale would be unlawful until the requirements of the laws of such jurisdiction have been satisfied. This document is not intended for public use or distribution. While all the information prepared in this document is believed to be accurate, Greenhaven Road Capital Fund 1 LP and MVM Funds makes no express warranty as to the completeness or accuracy, nor can it accept responsibility for errors, appearing in the document.

An investment in the fund/partnership is speculative and involves a high degree of risk. Opportunities for withdrawal/redemption and transferability of interests are restricted, so investors may not have access to capital when it is needed. There is no secondary market for the interests and none is expected to develop. The portfolio is under the sole trading authority of the general partner/investment manager. A portion of the trades executed may take place on non-U.S. exchanges. Leverage may be employed in the portfolio, which can make investment performance volatile. An investor should not make an investment, unless it is prepared to lose all or a substantial portion of its investment. The fees and expenses charged in connection with this investment may be higher than the fees and expenses of other investment alternatives and may offset profits. There is no guarantee that the investment objective will be achieved. Moreover, the past performance of the investment team should not be construed as an indicator of future performance. Any projections, market outlooks or estimates in this document are forward-looking statements and are based upon certain assumptions. Other events which were not taken into account may occur and may significantly affect the returns or performance of the fund/partnership. Any projections, outlooks or assumptions should not be construed to be indicative of the actual events which will occur.

The enclosed material is confidential and not to be reproduced or redistributed in whole or in part without the prior written consent of Greenhaven Road Capital Fund 1 LP and MVM Funds. The information in this material is only current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Statements concerning financial market trends are based on current market conditions, which will fluctuate. Any statements of opinion constitute only current opinions of Greenhaven Road Capital Fund 1 LP and MVM Funds, which are subject to change and which Greenhaven Road Capital Fund 1 LP and MVM Funds do not undertake to update. Due to, among other things, the volatile nature of the markets, an investment in the fund/partnership may only be suitable for certain investors. Parties should independently investigate any investment strategy or manager, and should consult with qualified investment, legal and tax professionals before making any investment.

The fund/partnership is not registered under the investment company act of 1940, as amended, in reliance on an exemption thereunder. Interests in the fund/partnership have not been registered under the securities act of 1933, as amended, or the securities laws of any state and are being offered and sold in reliance on exemptions from the registration requirements of said act and laws.

The S&P 500 and Russell 2000 are indices of US equities. They are included for informational purposes only and may not be representative of the type of investments made by the fund.