10 TAKEAWAYS FROM "THE BOGLE EFFECT"

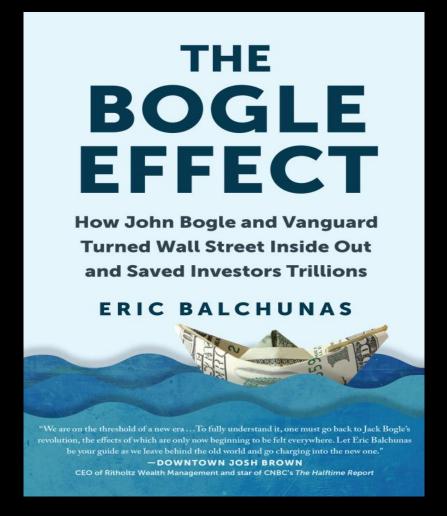
Eric Balchunas, Senior ETF Analyst

Fall 2022

Bloomberg

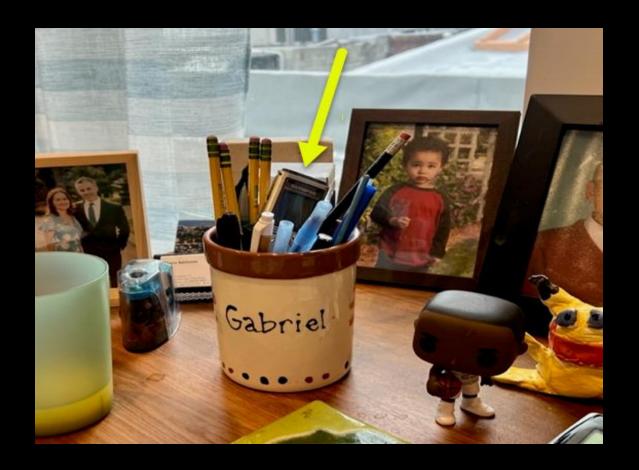
FROM MY NEW BOOK

Takeaways from a year spent researching...



WHY DID I WRITE THIS BOOK?

My Dictaphone kept bothering me...



AN ABNORMAL GUY

2016



Indexing Needed Vanguard Way More Than Vanguard Needed Indexing

INDEXING GOT LUCKY

Only 4-5% as Big with No Vanguard/Bogle

12,000

Index Fund Assets \$B

500 Without Vgrd/Bogle

THE STRUCTURE IS THE REAL DISRUPTER

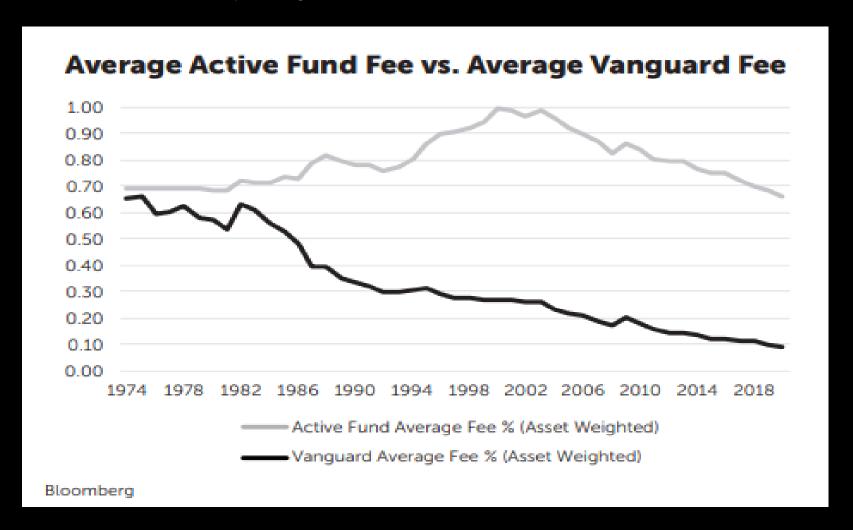
Two Years Before Vanguard Launched First Index Fund...

"If you create a mutual structure, you will destroy this industry"

- Jonathan Lovelace, Capital Group, July 1974

THE INDUSTRY'S FEES VS VANGUARD'S FEES

Only Vanguard Lowered Fees on Purpose



HIGH-COST INDEX FUNDS

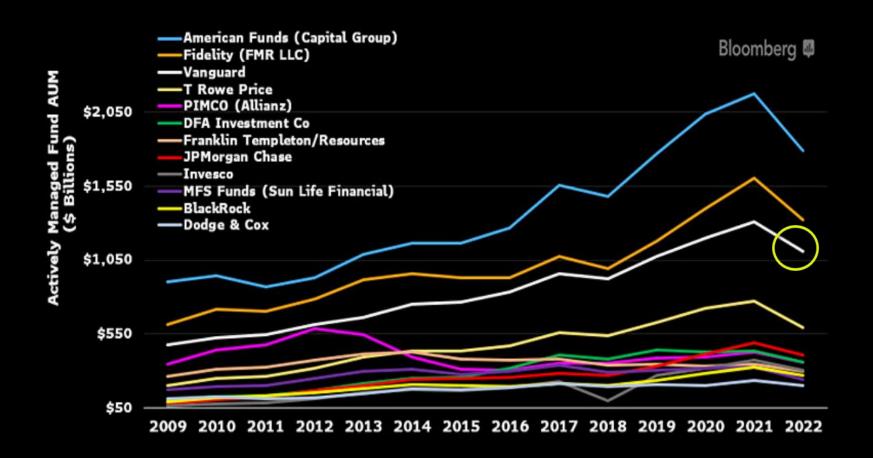
Most Expensive Index Funds

Not-So-Cheap US Equity Index Funds

		Expense	
Ticker	Name	Ratio %	Category
RYSPX	RYDEX S&P 500 FUND-H	1.66	Blend
SBSPX	FRANK S&P 500 INDEX FUND-A	0.59	Blend
HSTIX	HOMESTEAD STOCK INDEX	0.59	Blend
MUXYX	VICTORY S&P 500 INDEX-Y	0.45	Blend
WFILX	WF S&P 500 INDEX FUND-A	0.44	Blend
GRISX	NATIONWD S&P 500 INX-INS SRV	0.42	Blend
PLFPX	PRINCIPAL L/C S&P 500-R5	0.41	Blend
MMIEX	MM S&P 500 INDEX FUND-SV	0.37	Blend
IIRLX	VOYA RUSSELL L/C INDX-INIT	0.36	Blend
VSTIX	VALIC I STOCK INDEX FUND	0.36	Blend
SPIDX	INVESCO S&P 500 INDEX-Y	0.32	Blend
WINDX	WILSHIRE 5000 INDEX PORT-INS	0.31	Blend
POMIX	T ROWE PRICE TOTAL EQTY MKT	0.3	Blend
MSPIX	MNSTY MCKY S&P 500 INDX-I	0.29	Blend
INGIX	VOYA US STOCK INDX PORT-INIT	0.27	Blend

BIGGEST ACTIVE FUND COMPANIES

Vanguard is 3rd with \$1.1T...



LOWER FEES = MORE OUTPERFORMANCE

Morningstar Study Shows Correlation Between Fees and Outperformance

Active Funds' Success Rates by Category and Cost								
Active Fund	Active Funds' Success Rate by Category (%)							
Category	1.Voor	7.Voor	5.Voor	10-Year	15.Voor	20.Voor	10-Year (Lowest Cost)	10-Year (Highest Cost)
U.S. Large Blend	44.8	27.4	26.4	11.0	9.9	10.3	23.4	4.0
U.S. Large Value	48.8	29.3	31.3	18.8	19.2	16.3	27.9	5.8
U.S. Large Growth	25.6	42.8	32.1	11.9	5.1	8.6	24.7	5.8

WELLINGTON BIGGEST OF 90+ YR OLD FUNDS

20x Bigger Than Any Other Early-Era Fund

	Ticker	Inception Date	Fee %	Assets Today (\$MM)
Massachusetts Investors Trust	MITTX	1924-07-15	0.69	5,890
Pioneer Fund	PIODX	1928-02-13	1.04	5,839
Century Shares Trust*	CENSX	1928-03-15	1.13	236
Wellington Fund	VWELX	1929-07-01	0.25	107,303
Scudder Balanced Fund**	SCDGX	1929-05-31	0.57	3,721
CGM Mutual Fund	LOMMX	1929-11-05	1.22	263

Bogle's "Mission" Not Yet Realized

BOGLE'S DREAM NOT YET REALIZED

"The first sign that Vanguard's mission has created a better world for the investor will be when our market share begins to erode."

-Bogle in speech to crew in 1991

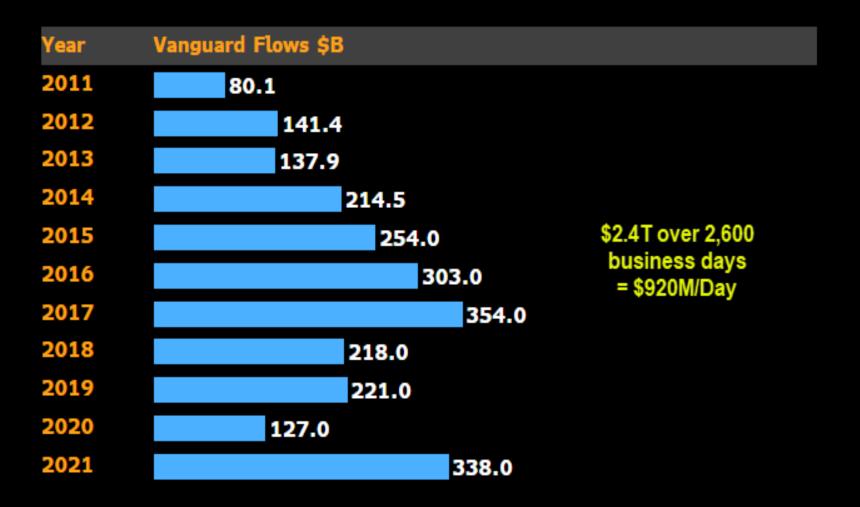
VANGUARD MARKET SHARE NOT ERODING

While Its Revenue Share Remains The Same



KING OF FLOWS

Nearly a Billion a Day for a Decade



TOP 15 BIGGEST FUNDS IN THE US

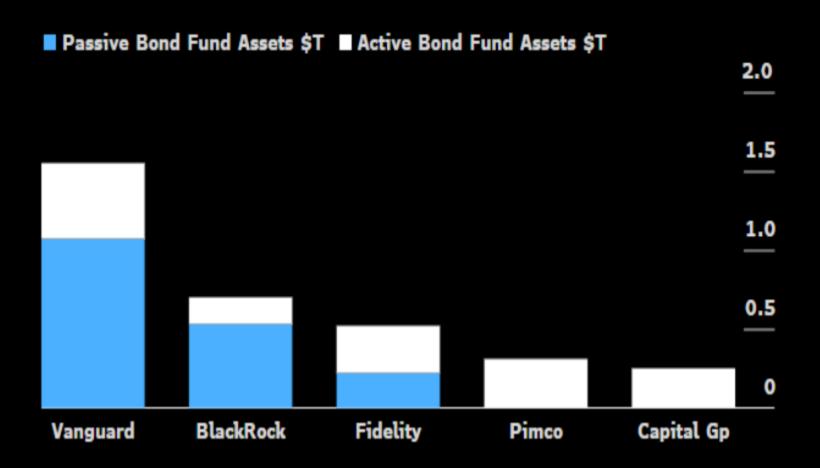
Top 10 Are All Cheap Index Funds

Ticker	Name	Index or Active	Fund Asset Clas Focus	ss Assets \$B
VTSMX	Vanguard Total Stock Market	Index	Equity	909.6
VFINX	Vanguard 500 Index Fund	Index	Equity	490.2
SPY	SPDR S&P 500 ETF Trust	Index	Equity	336.3
FXAIX	Fidelity 500 Index Fund	Index	Equity	326.8
VGTSX	Vanguard Total International	Index	Equity	294.1
IVV	iShares Core S&P 500 ETF	Index	Equity	275.9
VOO	Vanguard S&P 500 ETF	Index	Equity	247.7
VTI	Vanguard Total Stock Market ETF	Index	Equity	245.0
VINIX	Vanguard Institutional Index	Index	Equity	243.1
VTBIX	Vanguard Total Bond Market II	Index	Fixed Income	231.2
VBTIX	Vanguard Total Bond Market	Index	Fixed Income	200.1
AGTHX	Growth Fund of America/The	Active	Equity	197.4
QQQ	Invesco QQQ Trust Series 1	Index	Equity	150.4
AWSHX	Washington Mutual Investors	Active	Equity	139.5
AEPGX	EuroPacific Growth Fund	Active	Equity	122.7
				Bloomberg Intelligence BI



THE NEW 'BOND KING'

Top 5 Biggest Bond Fund Shops



Vanguard Wouldn't Exist if not for a Ton of Serendipity

FORTUNATE TO PICK UP FORTUNE

December 1949



LOW-COST HOTELS?

Time Magazine, Dec 1949



NOT HIS FIRST CHOICE

Bogle Looked for 'Middle of the Road' Partner

- 1. Capital Group
- 2. Incorporated Investors
- 3. Franklin Funds
- 4. Thorndike, Doran, Paine & Lewis

"(Thorndike) was my best opportunity but not my most desired opportunity. I wanted to do something with a more middle of the road fund, but we had to act we were dying."

- Bogle on the Bogleheads Podcast

PERFECT TIMING

Dr Samuelson in Journal of Portfolio Management 1974

"At the least, some large foundation should set up an in-house portfolio that tracks the S&P 500 Index—if only for the purpose of setting up a naïve model against which their in-house gunslingers can measure their prowess."

Bogle Shared Many Traits with Punk Rock

BOGLE ON FINANCIAL TV

Here comes the cold water...



"Trading is a loser's game"

"There is no there there"

"There's no way around the fact the index fund wins"

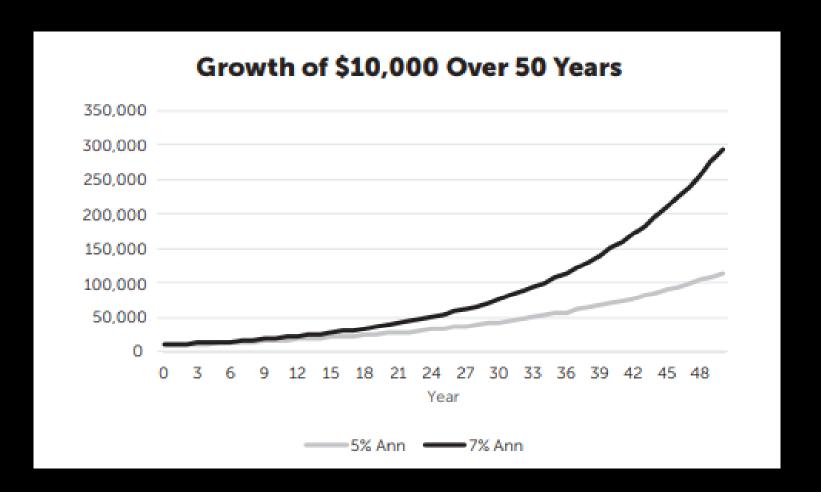
ADDITION BY SUBTRACTION

The birth of punk rock...

"What we did was take out everything that we didn't like about rock & roll and use the rest, so there would be no blues influence, no long guitar solos, nothing that would get in the way of the songs."

Johnny Ramone

NOTHING TO GET IN THE WAY OF THE RETURNS



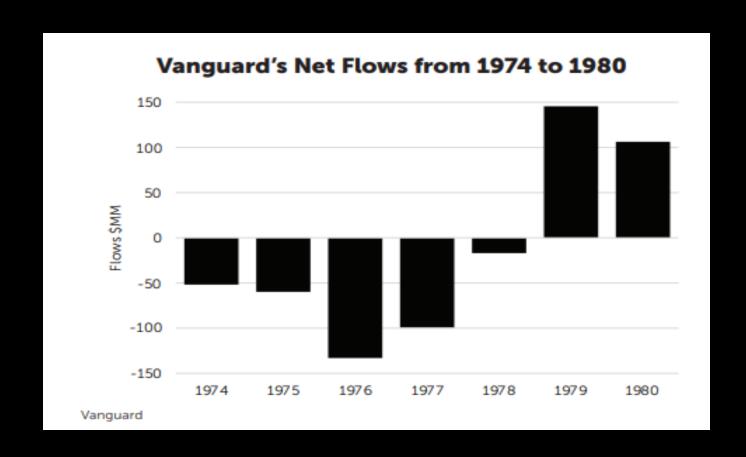
BOGLE TO BROKERS:



My offer is this: nothing.

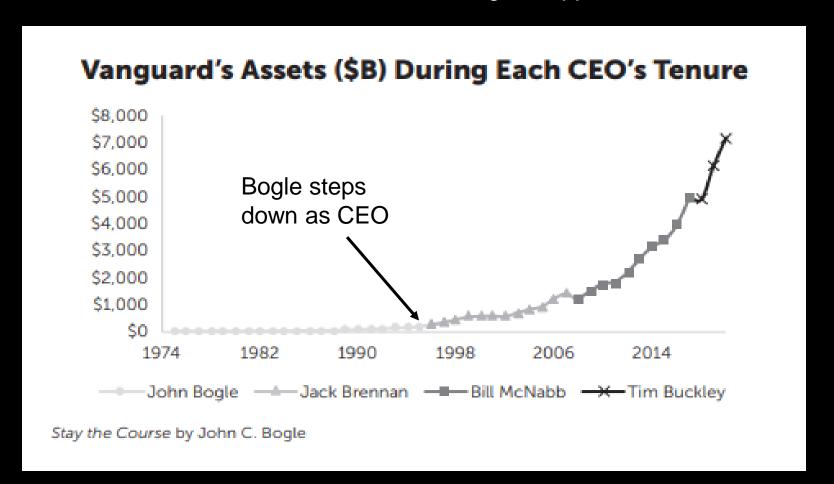
THE BAD TIMES

Vanguard's Flows in First Years



VANGUARD ASSETS BY CEO TENURE

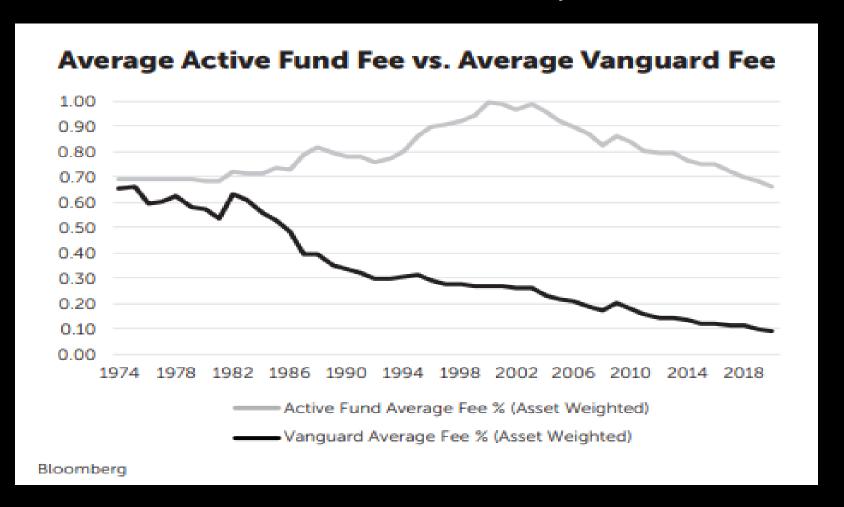
97% of Aum Came After Bogle Stepped Down



Active Funds' Root Problem Isn't Underperformance

SHARING ECONOMIES OF SCALE

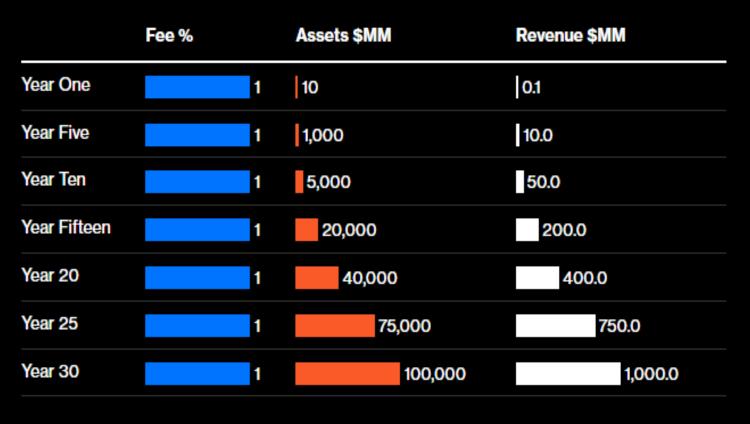
Should Have Shared the Gravy More



PERCENT FEES VS DOLLAR FEES

Should Have Lowered Fees

The Growth of a Mutual Fund

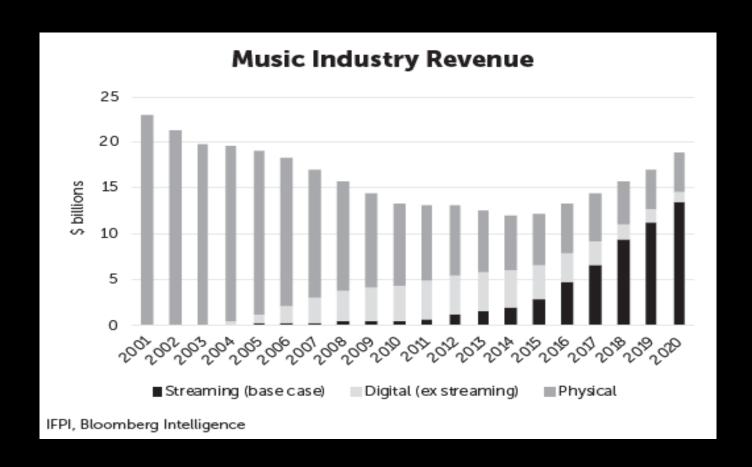


THE STEVE JOBS RULE

"If you don't cannibalize yourself, someone else will."

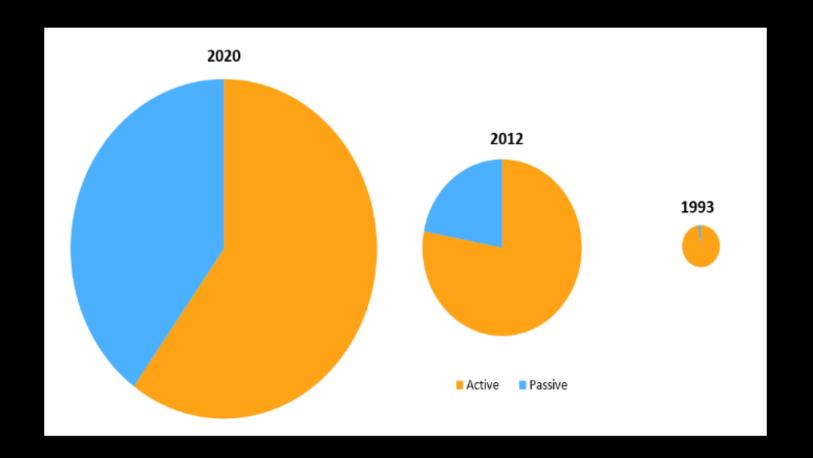
THE MP3 CUT MUSIC REVENUE IN HALF

Fund Industries Mirrors Music Industry



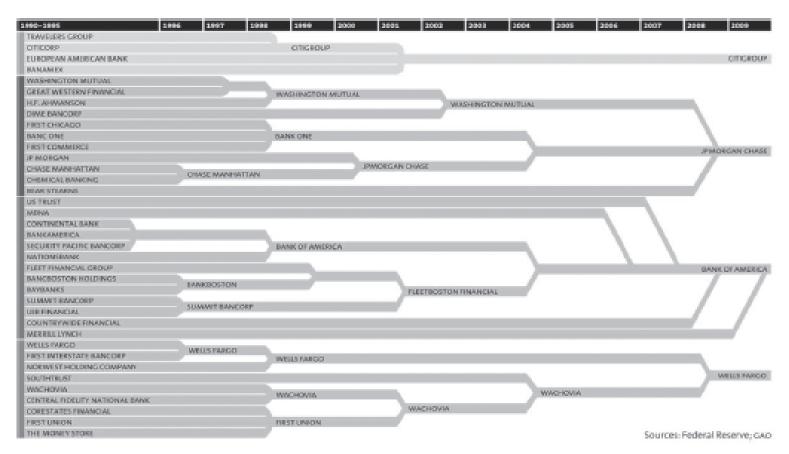
THE BULL MARKET SUBSIDY

Pie Growth Makes Up for Slice Shrinkage



CONSOLIDATION COMING...

The Consolidation of Banks Between 1990 and 2010

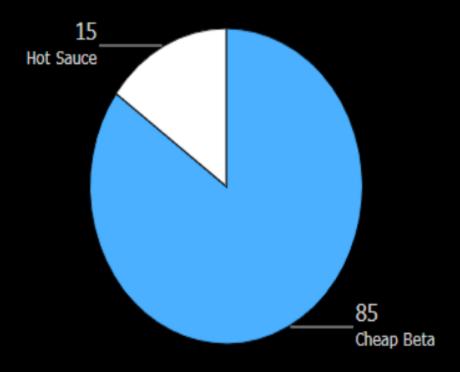


Visual Capitalist

The Bigger Passive Gets the More Active Active Will Become

THE PORTFOLIOS ARE A CHANGIN'

Hot Sauce Compliments Cheap Vanilla





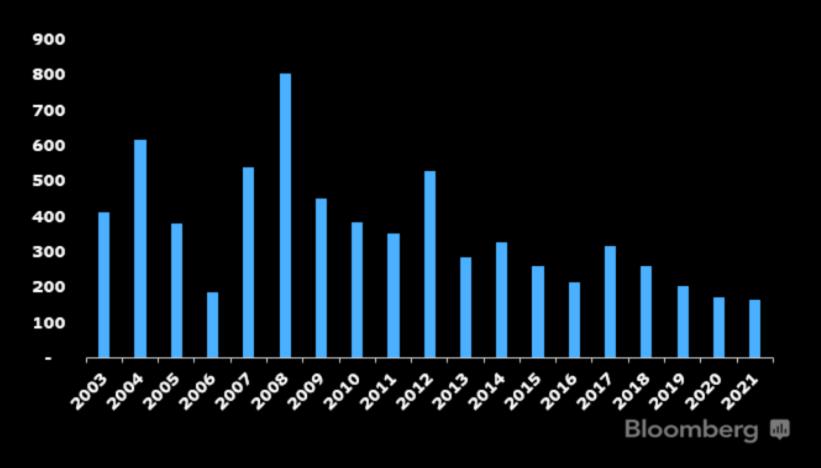
THE "MIDDLE" IS IN TROUBLE

Flows Show You Need to Be Cheap or Shiny



CONCENTRATION IS RISING IN NEW ETFS

Number of Holdings In New Equity ETFs



THE THREE'S C'S FOR ETF SUCCESS

Number of Holdings In New Equity ETFs

	Definition	Assets \$B	Example ETFs	
Cheap	Charge 0.20% or less	4,300	VTI, GSLC	
	Sculpt unique outcomes or capture new themes, typically in a way that is 50% more volatile than the market	800	ARKK, URNM	
	Rely on relationships with advisors to funnel money into ETFs that are more traditional both in strategy and (high) fees	900	FVD, PTLC	

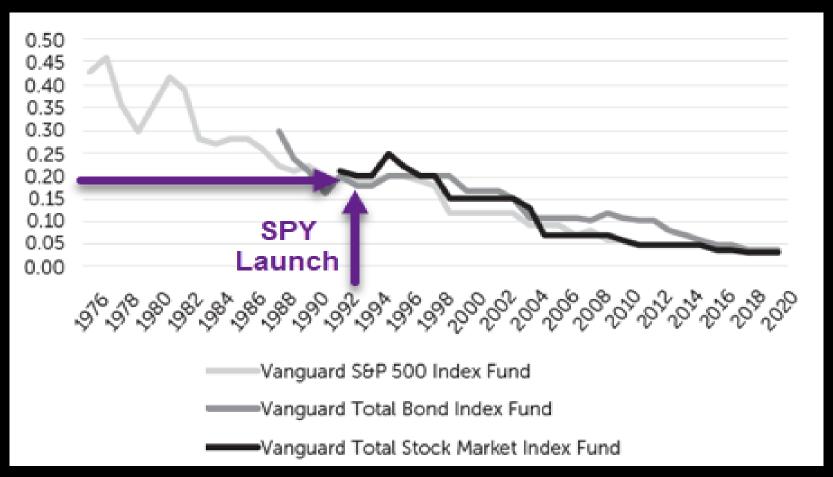
Bloomberg 📮

Bogle's Relationship with ETFs was Complicated

Bloomberg 43

SPY COPIED VANGUARD 500 FEE IN 1993

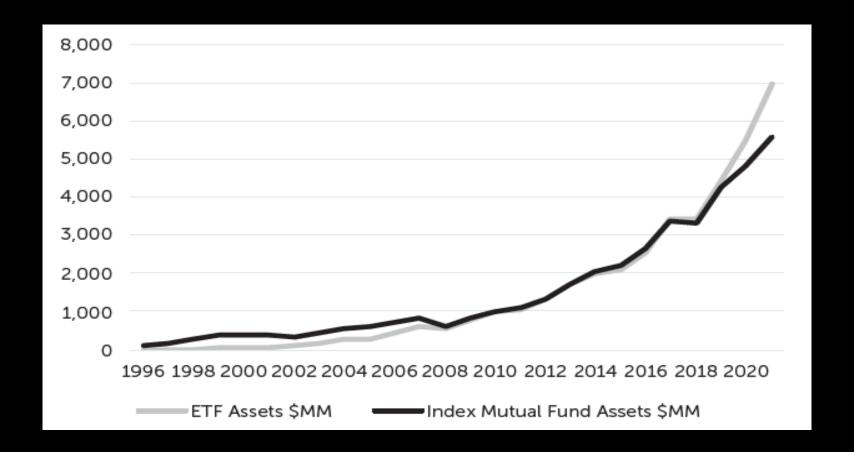
SPY Came to Market with Fee of 0.20%



Source: Bloomberg, Vanguard

ETFS ARE NOW BIGGER THAN INDEX FUNDS

ETF vs 'TIF' Assets

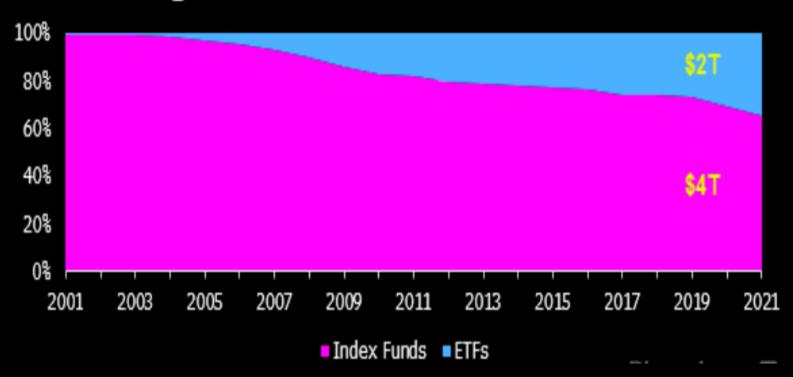


Source: Bloomberg, Vanguard

ETFS GROWING FAST INSIDE VANGUARD

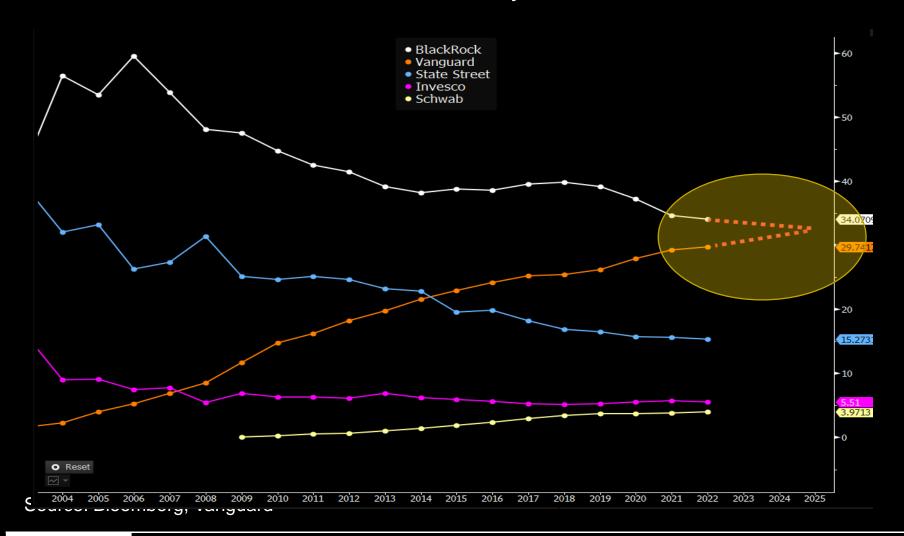
Vanguard ETF vs 'TIF' Assets

Vanguard ETF vs Index Fund Assets



VANGUARD'S ETF MARKET SHARE

Due to Pass BlackRock by 2025



TRADING WAS HIS BIG PROBLEM

"The average turnover for an ETF is 400 percent a year. And SPDR is 3,000 percent. And here you are talking to a guy who thinks 3 percent turnover is pushing the envelope."

- Bogle (in 2014 interview)

SOME ETFS ARE TRADED, OTHERS ARE NOT

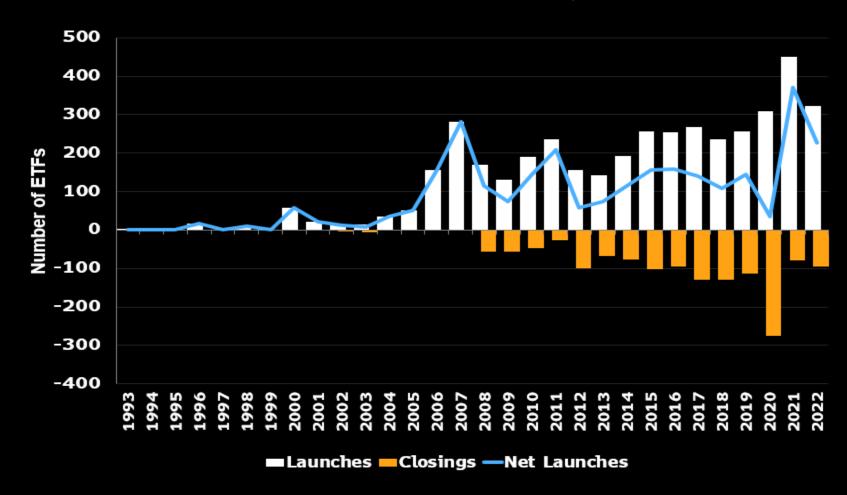
Annual Turnover Over Popular ETFs

ETF	Issuer	Market Cap \$B	2021 Turnover \$B	Annual Turnover %
SPY	State Street	355	7,879	2,219
IVV	BlackRock	292	483	165
VOO	Vanguard	261	431	165
VTI	Vanguard	258	211	82
TQQQ	ProShares	11	1,128	10,255
				Bloomberg DT

Bloomberg Intelligence BI

ETF LAUNCH-FEST

ETF Launches and Closures by Year



HE ALSO DIDN'T LIKE THE "INNOVATION"

"I'm afraid that the new jazzed-up iterations (largely ETFs) of the simple index fund that I spawned all those years ago are helping to lead the way. No wonder I wake up some mornings feeling like Dr. Frankenstein. What have I created?"

- Bogle in *Enough*

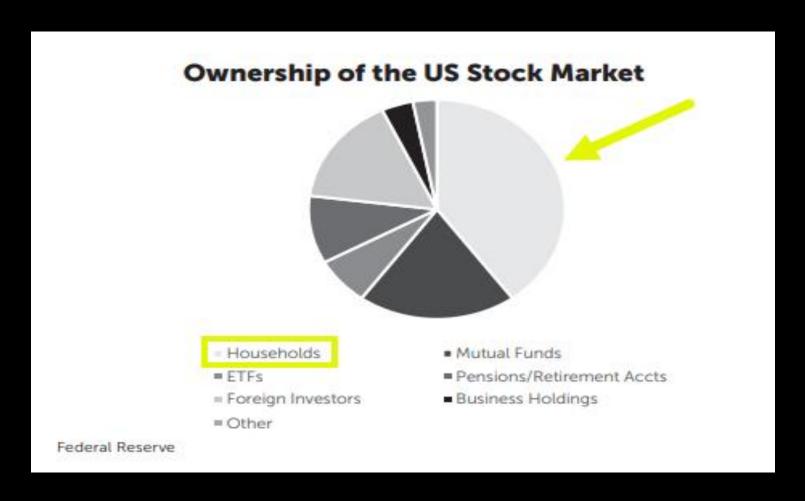
BOGLE'S FAVORITE ETF TICKER

CRZY

(Most) Passive Worries Are Overblown

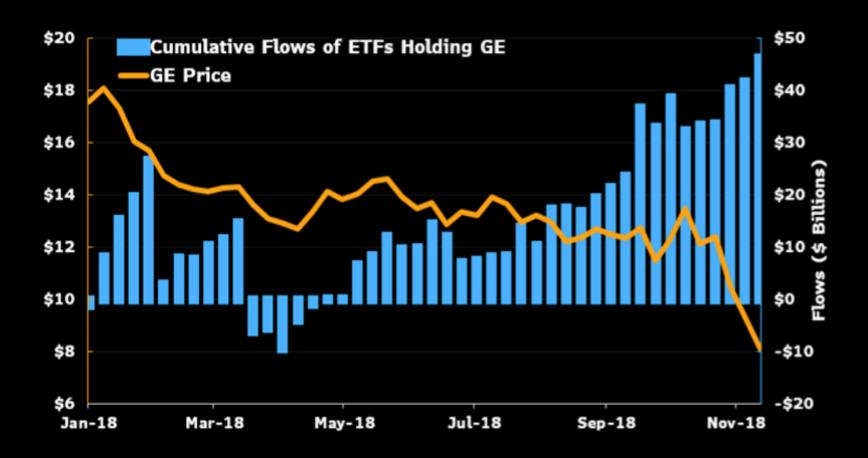
FUNDS OWN LESS THAN HALF STOCK MARKET

Households are Biggest Owner of Stocks



STOCKS STILL TRADE ON FUNDAMENTALS

GE Got Killed Despite Passive Inflows



THE S&P 500 INDEX ISN'T TRULY "PASSIVE"

Stocks That Were Kicked Out of the S&P 500 in 2020

	Deletion Date	Date Joined Index	Return While in Index	Ownership
Helmerich & Payne Inc.	5/22/2020	2/26/2010	-33.3%	27%
Capri Holdings	5/12/2020	11/1/2013*	-82.2%	24%
Macy's	4/6/2020	11/30/1995	-36.6%	24%
Cimarex Energy	3/3/2020	6/20/2014	-77.1%	14%

VANGUARD BIGGEST OWNER OF MOST COS

Top Holders of Microsoft

Holder Name	Ticker	% Out	Mkt Val
1. • Vanguard Group Inc/The	5125Z US	8 . 42	159 . 07BLN
2. BlackRock Inc	BLK US	7.01	132.34BLN
3. State Street Corp	STT US	3 . 94	74 . 34BLN
4. Capital Group Cos Inc/The	5389Z US	3 . 64	68 . 66BLN
5. FMR LLC	5079Z US	2.78	52 . 53BLN
6. T Rowe Price Group Inc	TROW US	2.63	49.67BLN
7. • Geode Capital Management LLC	3880486Z	1.84	34.68BLN
8. ■ JPMorgan Chase & Co	JPM US	1.22	23 . 05BLN
9. Northern Trust Corp	NTRS US	1.1 3	21.28BLN
10. Bank of America Corp	BAC US	1.10	20.71BLN

BUFFETT'S TAKE

Public Policy Issue

I continue to advise investors to buy an S&P 500 index fund and not to try to pick specialty ETFs or index funds.

If index funds continue to grow, there will be public policy issues down the line, but that's a subject for another day.

Sincerely,

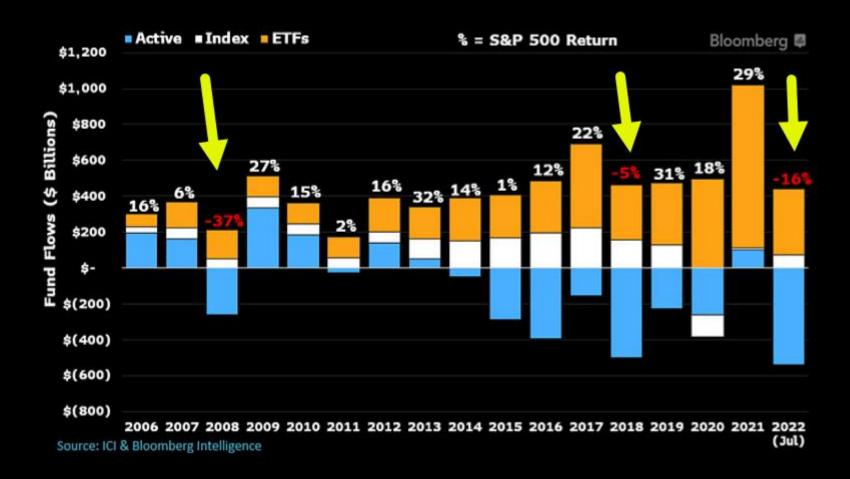
Warren

A Cheap Index Fund is Way Under-credited for Improving Investor Behavior

Bloomberg

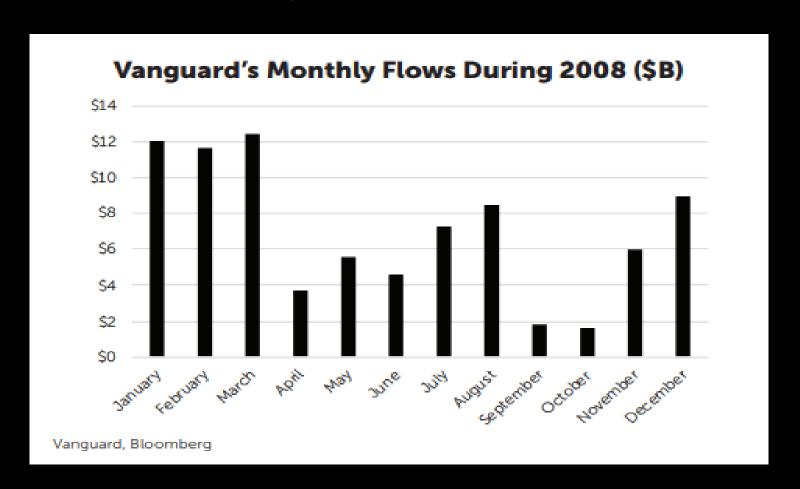
NAVY SEALS-LEVEL DISCIPLINE

Passive Inflows Regardless Market Conditions



VANGUARD'S FLOWS DURING 2008

Navy Seals-level Discipline



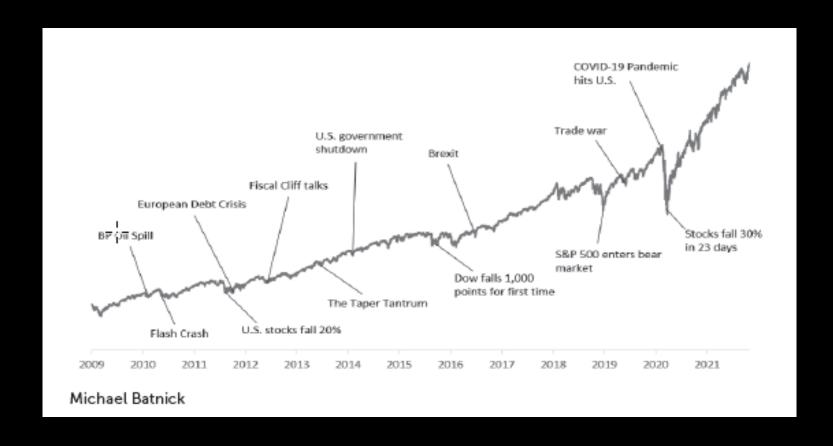
THE KNOCK-ON EFFECT

"I always thought the index fund had this other knock-on effect in the value it had for people's lives because they could just stop thinking about this stuff... It's enabled me to be a much better writer because I'm not worrying about that."

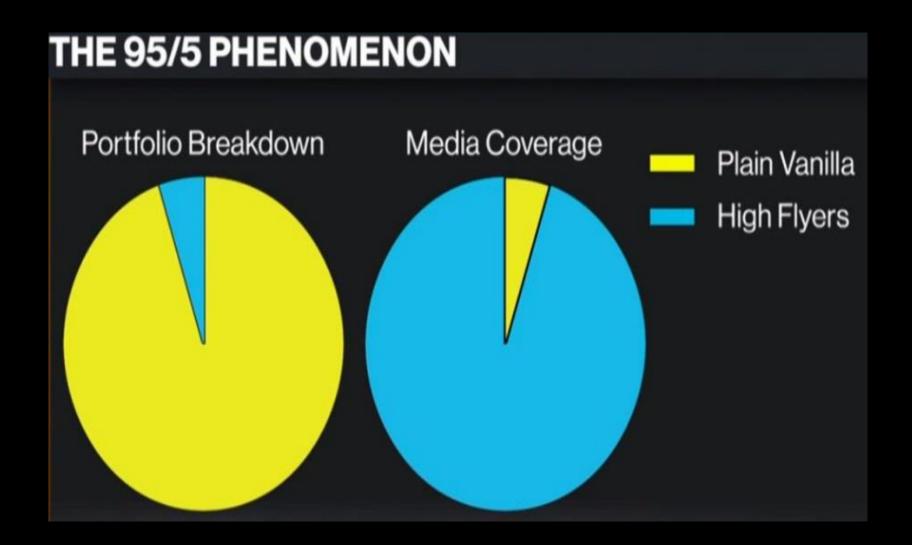
- Michael Lewis

THERE'S ALWAYS A REASON TO SELL

S&P 500 Largely Plows Upward Through Bad News



MEDIA LOVES TO CAUSE FOMO



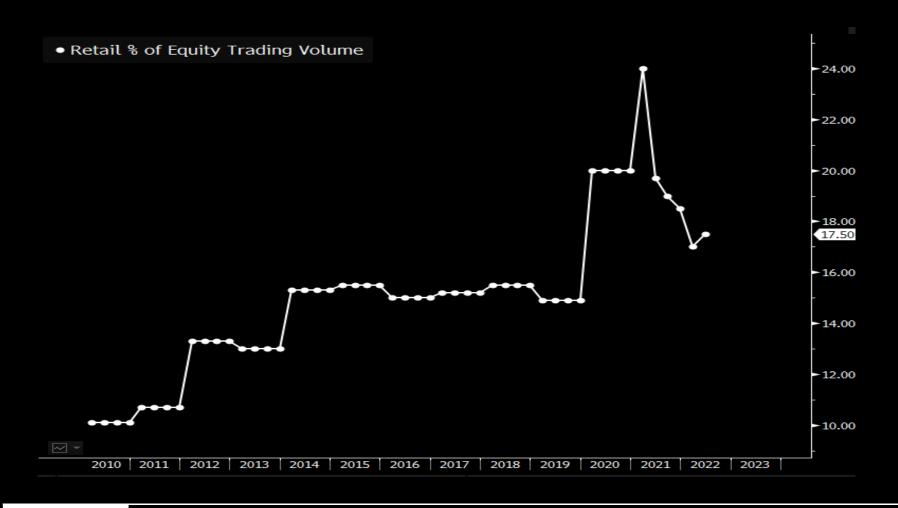
THROWN IN "FREE" TRADING

Cost to Trade Has Come Down to Nothing

Era	Cost per Trade via Schwab
1970s	\$70
1990s	\$30
2000s	\$13
2020s	\$0

THE RISE AND FALL OF RETAIL TRADING

The Robinhood Army



YOUNG PEOPLE WILL FIND 'BOGLE'S HACK'

The 'War Games' Approach to Investing

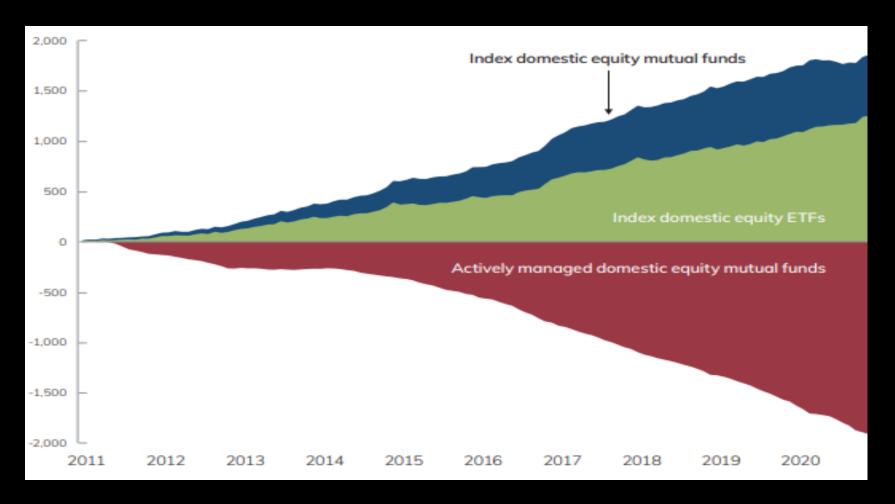
A STRANGE GAME.
THE ONLY WINNING MOVE IS
NOT TO PLAY.

The Bogle Effect is Much
Bigger Than Vanguard (and
it's only just beginning)

Bloomberg

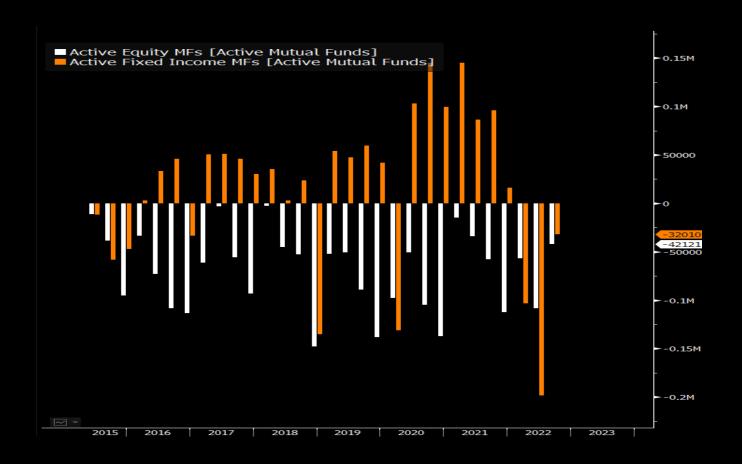
EQUITY FUNDS FIRST VICTIM OF BOGLE EFFECT

A \$2 Trillion Swing



BOND FUNDS COULD BE NEXT

First Tough Market in Ages



BOND MANAGERS NEXT

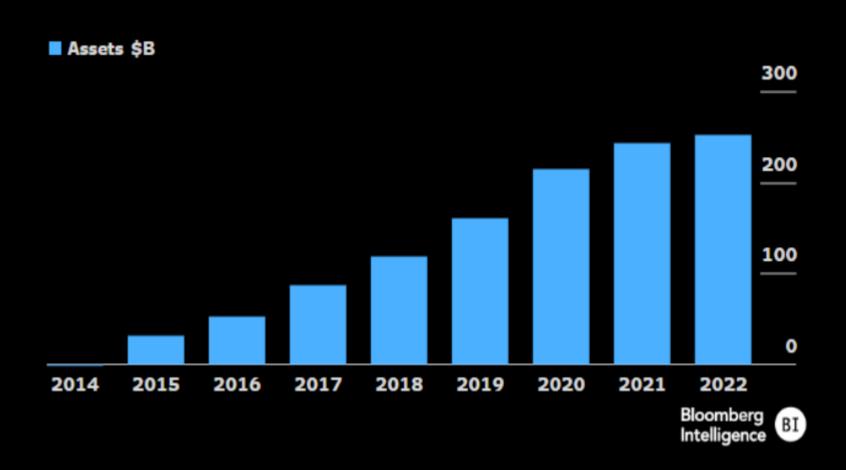
How Advisor View Bond Managers vs How they View Equity Managers





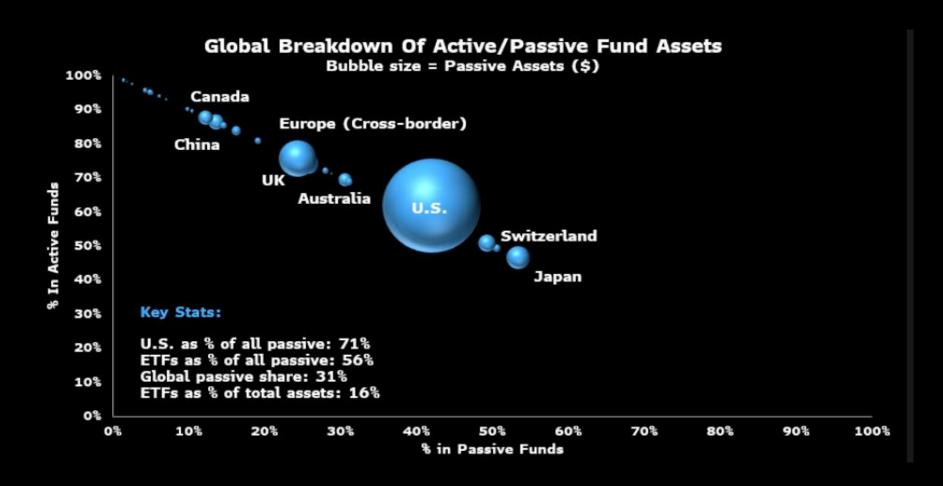
THE FINANCIAL ADVISOR

Assets in Vanguard's PAS



REST OF WORLD IN EARLY INNINGS

Low-Cost Passive Wave Just Beginning to Break Overseas



BOGLEHEADS

Bogle on the Bogleheads:

The Bogleheads have not only helped one another but they are also independent and have nothing to do with us. They have nothing to sell but good grace and good advice. So the Bogleheads stand alone in being a huge asset to Vanguard and a huge asset to indexing.

HALF THE COUNTRY IS NOT INVESTING

Who Owns the Stock Market

Households by Net Worth	% Ownership of Stock Market	
Top 1%	54	
Top 90-99%	35	
50%-99%	10	
Bottom 50%	1	
Federal Reserve		

THANK YOU FOR YOUR TIME!

