GUIDE WEALTH MANAGEMENT

2020 Year in Review

01/07/2020

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Introduction

2020 was a challenging year, and many of us may have experienced some sort of loss from COVID. My goal in this newsletter is to try to highlight some financial positives without making light of the more tragic side of 2020. As such, the majority of this letter will focus on our investment strategy and last year's performance.

Running Guide Wealth and Tax Management during COVID, along with a Presidential election cycle has brought its fair share of complexities. Each problem has brought new solutions and opportunities to improve. Looking back, I think that it is fair to say that all of our clients are in a stronger financial position today than they were before this crisis started, which is quite astonishing.

There are two main factors which drive wealth generation: savings rate and investment growth rates. Subsidies from the government have directly and indirectly aided both of these. I've previously addressed the topic of 'what the market is' (ie, that it is more than just the S&P 500 or Dow Jones). It is important to keep that in mind as we analyze 2020 performance, but I'd also like to use a US Stock market index as a baseline for performance across all asset classes as it will provide a useful lens into diversification within our portfolios.

Passive Vs Active Management Style

Active managers seek to exploit market inefficiencies to provide 'alpha' or 'excess returns'. Passive managers seek to capture 'beta' or 'the market'. When analyzing asset management it is important to note that using an ETF or Mutual Fund does not make a passive manager. Even the most vanilla of funds, such as Vanguard's broad market ETF VTI (also available as VTSAX in mutual fund form) can be used in very aggressive active management styles.

Passive Choices vs Active Choices

A decision for passive management would be to elect to use one asset over another. For example, from a purely passive lens, VTI is considered to be superior to VOO.

	ETF Passive		MF Passive		Active Version
Purpose	Superior	Inferior	Superior	Inferior	-
US Stock Market	VTI	VOO	VTSAX	VFIAX	AIVSX

Incidentally, the performance of the funds here over the past 12 months supports the claim of VTI being superior to VOO (and either of them being superior to AIVSX, which is an actively managed mutual fund). When we explain the 'why' of this ranking system it isn't always reflected in the period performance, so it is a fortunate example to use.

While many might be happy with the performance alone, and that VFIAX (aka VTI) returned 18.34% vs AIVSX returning 11.36%, the real value is in the 'why?'. At Guide, we decided to use VFIAX/VTI rather than VOO because from a passive lens, it is a better investment. We can see that in the return of the trailing 1 year, where VTI (18.34%) outperformed VOO (15.66%). To the passive investor, the nuance here is that VTI is an ETF that seeks to track the CRSP US Total Market Index, whereas VOO is an ETF that seeks to track the S&P 500. The latter is an index of 500 companies, whereas CRSP is tracking 3586, 7x the exposure.

The opportunity to buy 7x the diversification vs the S&P 500 is a strong draw for the passive investor, but both would be preferred over AISVX, for two other reasons: the stock picking mindset of active investment and the profound additional fees. This fund charges 5.75% 'Front Load' and 0.59% expense ratios. If you factor those on top of the performance for 1 year:

	VTI	VOO	AIVSX
Initial Investment	$100,000	$100,000	$100,000
Front Load Fee	$0	$0	$5,750
Annual Fee	$30	$30	$590
Investment Less Fee	$99,970	$99,970	$93,660
1 Year return	$0	$0	$0
Value after 1 year	$118,304	$115,625	$104,300

(illustration uses the annual fee upfront vs annually for simplicity).

It's very easy to 'punch down' on AIVSX here, and the more interesting question is between VTI and VOO. When we selected it we weren't looking for the best performance in terms of price which is more of a side effect of what we were seeking. The key in a well crafted portfolio is the standard deviation of each component and how each component interacts with the others.

Standard deviation simply refers to how broad a range in result we get. The financial notion of the 'efficient frontier' is to seek an optional rate of return in relation to the standard deviation. Simplified example:

	Investment 1	Investment 2
Year 1	1%	3%
Year 2	1%	4%
Year 3	1%	8%
Year 4	1%	19%
Year 5	1%	-30%
Average 5 year	1%	1%

If an investor was presented with these two investments in year 3 and looked only at performance, they might well want to allocate into Investment 2. If they were presented this in year 5, it is likely that they would go with investment 1. The difference between VTI and VOO were not as pronounced as 1% vs -30%, but they were enough to return 18.34% vs 15.66% in a year, which is a meaningful amount.

Why we invested in VOO when we knew VTI was better

There were times in 2020 that we very actively cycled through assets. This process demands skills beyond most rebalancing software tools and robo advisors capabilities, which might use two or three tier levels. Basically, there is a hierarchy of assets to fill each of the various roles in our portfolio. For the US Stock market asset, our ranking is as follows:

Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 6
VTI	ITOT	SCHB	SPTM	VOO	RSP

(see figure 1 in Appendix to view a diagram how these hierarchies work within the broader portfolio)

At times, despite VOO being our 5th choice for this role, it was selected because the prior four choices were not viable. This occurred at periods of high volatility, such as days in Q1 where we saw a drop as high as 9.72%. From a tax loss harvest perspective, we had just traded into the prior day, and instantly found ourselves with another opportunity to repeat the process. If a client had reached the level of Tier 4 (SPTM), it would be prudent to move them into VOO to capture this loss and to rebalance back into VTI when our wash sale window had closed.

This process offered tremendous value to our portfolios, where we have seen tax loss harvest values as high as 4.84% of the total account size. These harvests can be used to exit other less efficient assets and also reduce ordinary income at $3,000 per year until extinguished.

Despite this very 'active participation' in the asset allocation throughout 2020, these aren't what we would strictly call 'active management'. These are simply examples of how passive management can be quite 'hands on and involved' and isn't just a simple 'set it and forget it' method.

How passive ETFs become active

An ETF like VTI is simply a collection of stocks designed to represent the US market. A passive allocation to this might be 70% VTI and 30% BND (Vanguard's Bond ETF). An active management strategy could be implemented using the same two funds. For example, if the market drops by 2%, sell 100% of BND and buy 100% VTI. If it rises 2%, sell 100% of VTI and buy BND.

So while the ETF itself is a tool that passively tracks its index, the manner in which the ETF is held in an account can determine whether it is passive or not. Simply deciding when to rebalance to par (such as 70/30) is an active strategy.

In the case of our portfolios, the active element is often described as 'Smart Beta' in that we don't change our strategy based on market movements. Instead, we are willing to allocate funds into particular sections of the investment universe more heavily than a true passive allocation would suggest. This factor tilt to small caps is found in US, Developed and Emerging portfolios.

Best and Worst Performers of 2020 (Price)

Using Morningstar total return for price returns 2020, the best performer was EEMS. This ETF is more challenging because it is quite thinly traded in relation to the other components in the portfolio, and has higher expense ratios due to less market for such a position. In our view, tilting our emerging market towards the size factor offers value despite this.

	Description	Symbol	Total Return Price
Stocks	US Broad Market	VTI	19.08%
	Developed Markets	VEA	9.74%
	Emerging Markets	VWO	15.19%
	US Small Cap	IJR	11.28%
	Developed Small Cap	SCHC	10.47%
	Emerging Small Cap	EEMS	19.47%
Bonds	TIPS	TIP	10.84%
	Intermediate Term	VCIT	9.46%
	Muni Bonds	MUB	5.12%
	Short Term Treasury	BIL	0.40%
	International Bonds	VWOB	5.66%
	Average		10.61%

Two Steps to Global Allocation

In our global allocation, we first divide the world into three broad categories: US, Developed and Emerging Markets. We next bifurcate each region into two parts: broad market and small cap (size factor).

The weighting method we use is consistent across allocations, using a ratio:

	Description	Symbol	Total Return Price	Allocation
Stocks	US Broad Market	VTI	19.08%	40%
	Developed Markets	VEA	9.74%	26%
	Emerging Markets	VWO	15.19%	6%
	US Small Cap	IJR	11.28%	12%
	Developed Small Cap	SCHC	10.47%	10%
	Emerging Small Cap	EEMS	19.47%	6%
Bonds	TIPS	TIP	10.84%	20%
	Intermediate Term	VCIT	9.46%	25%
	Muni Bonds	MUB	5.12%	25%
	Short Term Treasury	BIL	0.40%	15%
	International Bonds	VWOB	5.66%	15%
	Average		10.61%	

Target Allocation from Ratio

We then apply the above ratios to broad stocks/bonds allocation. EG, if the portfolio as a whole is allocated to 70/30 (Stocks/Bonds), we would calculate the target level for VTI as follows: Stock Weighting*VTI Weighting (70%*40%) = 28%. We then use tolerance bands where the portfolio should generally reside within of 20% (28%*20% = 5.6% low and high bands). The result of this for VTI would be as follows:

	Description	Symbol	Allocation	70/30 Target	Low Band	High Band
Stocks	US Broad Market	VTI	40%	28.00%	22.40%	33.60%
	Developed Markets	VEA	26%	18.20%	14.56%	21.84%
	Emerging Markets	VWO	6%	4.20%	3.36%	5.04%
	US Small Cap	IJR	12%	8.40%	6.72%	10.08%
	Developed Small Cap	SCHC	10%	7.00%	5.60%	8.40%
	Emerging Small Cap	EEMS	6%	4.20%	3.36%	5.04%
Bonds	TIPS	TIP	20%	6.00%	4.80%	7.20%
	Intermediate Term	VCIT	25%	7.50%	6.00%	9.00%
	Muni Bonds	MUB	25%	7.50%	6.00%	9.00%
	Short Term Treasury	BIL	15%	4.50%	3.60%	5.40%
	International Bonds	VWOB	15%	4.50%	3.60%	5.40%

When we look at total geographical exposure on stocks, we would sum the broad position with the small cap position. In the 70/30 model, this would result in the following:

Description	Broad Position	Small Cap Position	Broad Weight	Small Weight	Total Weight
US Region	VTI	IJR	28.00%	8.40%	36.40%
Developed Region	VEA	SCHC	18.20%	7.00%	25.20%
Emerging Region	VWO	EEMS	4.20%	4.20%	8.40%
Total			50.40%	19.60%	70.00%

This shows that while EEMS was our best performing asset in 2020, due to its relatively low weight in the portfolio, its total impact to growth was far less meaningful than VTI because there was relatively little allocated here. If we use a $1,000,000 portfolio allocated to 70/30 with the returns listed above, we would have the following:

	Description	Symbol	$1M Portfolio	Returns of 70/30	Weighted Return
Stocks	US Broad Market	VTI	$280,000	$53,424	43.55%
	Developed Markets	VEA	$182,000	$17,727	14.45%
	Emerging Markets	VWO	$42,000	$6,380	5.20%
	US Small Cap	IJR	$84,000	$9,475	7.72%
	Developed Small Cap	SCHC	$70,000	$7,329	5.97%
	Emerging Small Cap	EEMS	$42,000	$8,177	6.67%
Bonds	TIPS	TIP	$60,000	$6,504	5.30%
	Intermediate Term	VCIT	$75,000	$7,095	5.78%
	Muni Bonds	MUB	$75,000	$3,840	3.13%
	Short Term Treasury	BIL	$45,000	$180	0.15%
	International Bonds	VWOB	$45,000	$2,547	2.08%
			$1,000,000	$122,678	100.00%

We can see some interesting results based on the decisions to weight the portfolio. Overall, it was decided that EEMS is a ‘satellite position’; one where the investment is considered valid, but not at the same quantity as the investment to VTI. This is our approach to emerging markets in general, as we do want to have exposure to these but find it prudent to not overextend into these allocations. In the 70/30 allocation, a total of 8.4% of the 70% in stocks is allocated into emerging markets, of which we divide between the broad emerging market and the small cap offerings equally.

Small Caps and Size Factor defined

In the US, a ‘Small Cap’ is broadly defined as a company that has a ‘market cap’ between $300M and $2B. Market cap is calculated by the share price multiplied by number of shares outstanding.

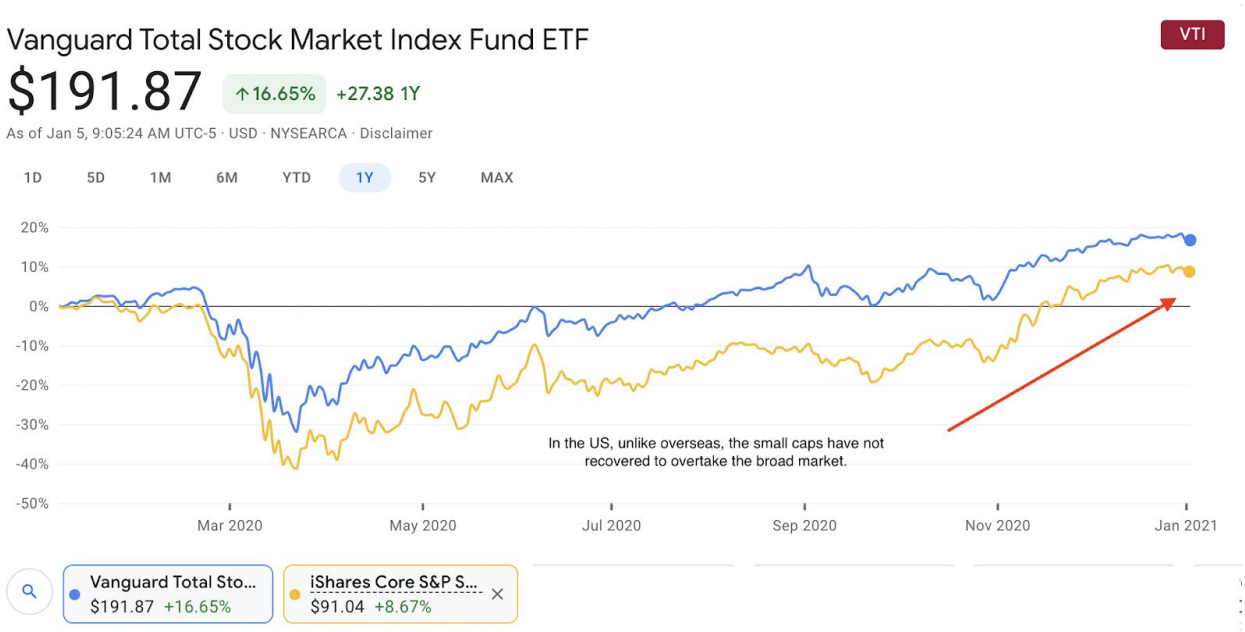
The term ‘Size Factor’ relates to a style of investing that focuses on the size of the company, hence a tilt towards small caps is a ‘Size Factor Strategy’. This is one of the original Factor strategies that was made famous by French Fama in their three factor model. While French and Fama did receive a Nobel Prize for their work on this, there has been much contention on its merits since that time so it is not without some controversy within the financial world.

In most simple terms, the notion of Size and how Small Caps outperform is based on the assumption that larger cap companies have reached stagnation stage while Small Caps are still growing. If we look at 2020, we see that Small Caps were ravaged early in the year because they didn't have the same level of resources that Large Caps possessed. Once the markets began to find stability, the Small Caps outperformed. This occurred both in Developed and Emerging markets, but the US iteration of the strategy lagged behind.

Emerging Small Caps vs Emerging Broad Market

Developed Small Caps vs Developed Broad Market

US Small Caps vs US Broad Market



In conclusion, the active element to our strategy is found within the tilts and weighting across asset classes. This occurs at various levels of granularity, starting from selecting both stocks and bonds and moving through geographical regions and considering size factors.

Our biggest problem - Treasury Rates

Moving forward, the biggest problem we face seems to be in the Treasury Rate. This is a building block that sets the fair market value for all fixed income investments, and by definition bleeds through to the equity markets. In simple terms, if a 3 month treasury bill was paying 15% annually and inflation was under control, we wouldn't be too worried about stock performance. However, if the yield is 0% or perhaps negative (as it may become in future years), how can the investor keep up with inflation, and is a treasury bill allocation a drag on the portfolio?

This question has been discussed broadly in financial circles, and some people are advocating a move into alternative solutions to replace this asset class. We can use BIL ETF in 2020 to explore the impact to the portfolio, but in doing so it is worth remembering that BIL ETF started 2020 in a relatively strong position, therefore its behavior would be different at different times in the year.

BIL ETF vs VTI 2020

This chart is interesting because BIL ETF (an ETF holding 1-3 month treasuries) appears like a flatline (in blue) when compared to VTI. The missing crucial factor from this chart is where the *value* of BIL changes substantially, despite the *price* not changing in a meaningful way.

To explore this, consider three scenarios, each with an investor starting at $1,000,000 in assets.

		01/07/2020			03/23/2020		
		VTI	BIL	Total	VTI	BIL	Total
100% VTI	Investor A	$1,000,000		$1,000,000	$681,962		$681,962
100% BIL	Investor B		$1,000,000	$1,000,000		$1,002,078	$1,002,078
70/30	Investor C	$700,000	$300,000	$1,000,000	$477,374	$300,623	$777,997
	Price Per Share	$164.10	$91.45		$111.91	$91.64	

Here we can see that while the price of BIL was relatively flat, the fact that ‘flat’ is better than ‘down’ has value.

The drag element occurs because the cost to the portfolio has changed during the year. On 01/07/2020, a 3 month treasury yielded 1.54%. On 03/23/2020, it had dropped to 0.02% (dropping to 0% two days later). This poses the crux of the question, why would you buy an asset that yields 0%?

Though this is a valid question, we should consider the table above but before we abandon the humble T-Bill in pursuit of more lucrative asset classes. Investor A (100% VTI) had the worst performance of all three despite not owning what allegedly was the worst asset class. Of course, by the end of the year, VTI had more than recaptured its ground and had vastly outperformed the investor who was allocated 100% to BIL.

Less risk, more return

Noting that I am able to select my data with hindsight, let's look at some ways that owning less than 100% VTI would result in more money to an investor using BIL. Less risk, more return... The Holy Grail of investing. In the following examples, we can use BIL at 0% yield so it offers no value other than price. Other things that make this harder (but still possible) are selecting an initial investment date of 01/07/2020 (IE, before COVID hit the market).

Scenario: 'Rebalancing the Low of 03/23/2020'

		PRIOR TO REBALANCE			REBALANCE to PAR		
		03/23/2020			03/23/2020		
		VTI	BIL	Total	VTI	BIL	Total
100% VTI	Investor A	$681,962		$681,962	$681,962		$681,962
100% BIL	Investor B		$1,002,078	$1,002,078		$1,002,078	$1,002,078
70/30	Investor C	$477,374	$300,623	$777,997	$544,598	$233,399	$777,997
	Price Per Share	$111.91	$91.64		$111.91	$91.64	

Here we introduce Investor D, who also starts with 70/30, but where Investor C does nothing, Investor D executes a rebalance to par on 03/23/2020. Investor D has sold $67,224 of BIL to buy VTI. This rebalance would result in their portfolio of $777,997 being allocated at 70/30 again, vs the drift that had occurred to 61/39 for Investor C.

If Investor D had rebalanced on 03/23/2020, their total portfolio value on 03/23/2020 would be unchanged, but they would have sold $67,224 of BIL to buy VTI. This rebalance would result in their portfolio of $777,997 being allocated at 70/30 again, vs the drift that had occurred to 61/39.

When we look at 12/31/2020 values of Investor C vs Investor D, the performance is greatly enhanced by the rebalancing, but fails to meet the goal of beating Investor A (100% VTI).

		12/31/2020		
		VTI	BIL	Total
100% VTI	Investor A	$1,186,106		$1,186,106
100% BIL	Investor B		$1,000,765	$1,002,078
70/30	Investor C	$477,374	$300,623	$777,997
70/30 Rebalance	Investor D	$830,274	$300,230	$1,130,504
	Price Per Share	194.64	91.52	

However, if we adjust the stock to bond ratio to 90/10, we find an edge.

		01/07/2020			12/31/2020		
		VTI	BIL	Total	VTI	BIL	Total
100% VTI	Investor A	$1,000,000		$1,000,000	$1,186,106		$1,186,106
100% BIL	Investor B		$1,000,000	$1,000,000		$1,000,765	$1,000,765
90/10	Investor C	$900,000	$100,000	$1,000,000	$1,067,495	$100,077	$1,167,572
90/10 Rebalance	Investor D	$900,000	$100,000	$1,000,000	$1,117,604	$71,304	$1,188,908
	Price Per Share	$164.10	$91.45		$194.64	$91.52	

(note that the illustrations exclude dividend reinvestment for simplicity)

Therefore, using actual prices from 2020, it is theoretically possible to enhance the return of VTI (one of the best performing assets) with the inclusion of BIL (the worst performing asset). This forces us to re-evaluate the question on whether BIL has a role in the portfolio.

BIL wasn't part of our portfolio because of its return, even at a high near 2%.The purpose of BIL was stability and dry powder for rebalancing. If we focus only on the fact that the yield of BIL has dropped to around 0.05% (essentially zero) and chase that yield in other places, we would be replacing yield, rather than stability. And while we would all like to see a higher yield than what we currently have from BIL, it remains a fundamental part of the total allocation and offers value beyond its yield.

Conclusion

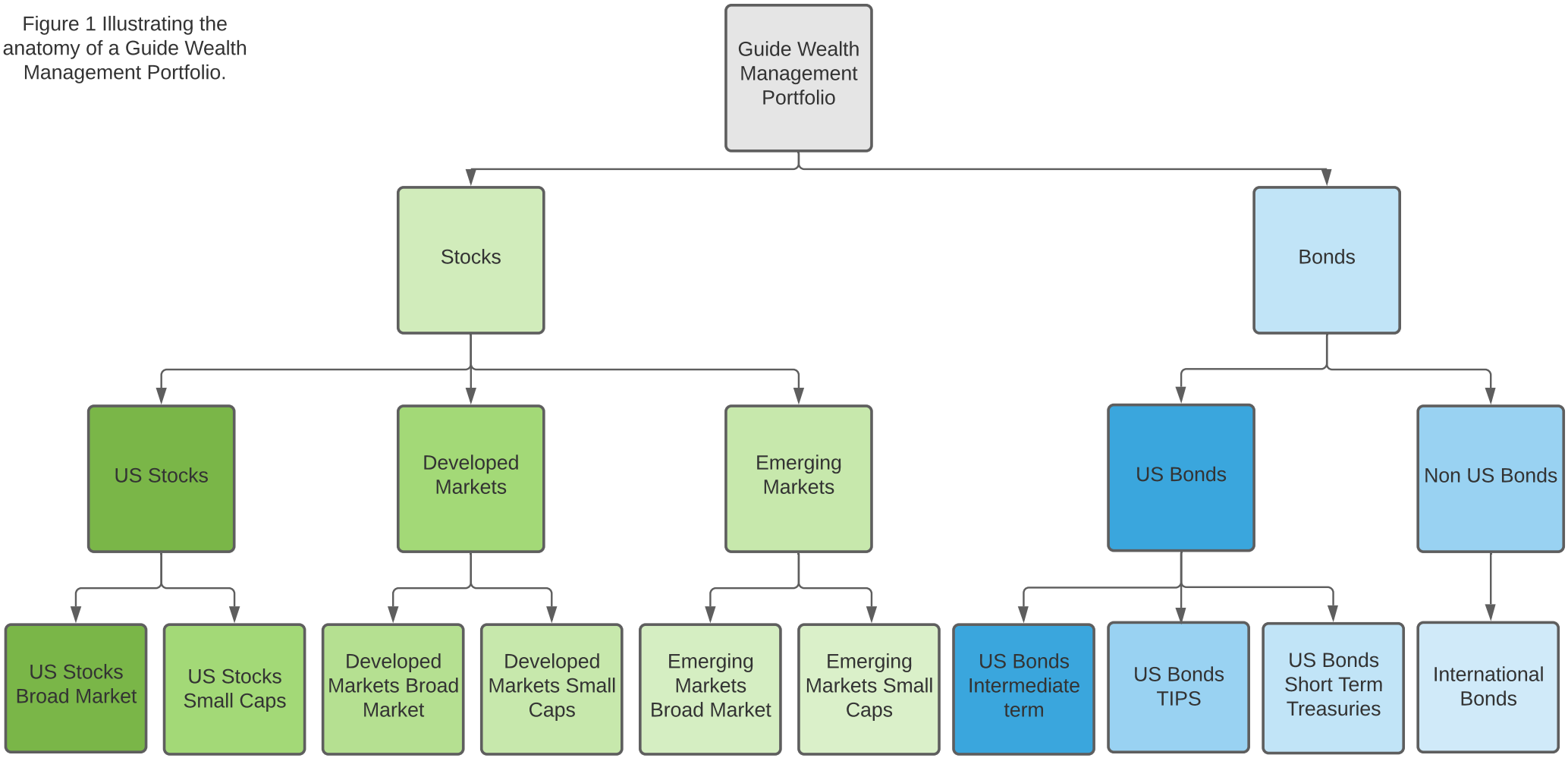
The purpose of this letter was to introduce you to EEMS ETF, which is a small but critical part of your portfolio which happened to be the top performing asset in 2020. That alone is possibly a surprise to you, in addition to finding BIL ETF an attractive component of your portfolio, albeit less attractive than when yields were higher. Separately, these examples highlight how evidence-based research drives initial allocation, and how our client-centric rebalancing and tax loss harvesting offers significant upside to your portfolio.
If this sparked any ideas or questions, please feel free to reach out to discuss them. Separately, if you feel that your circumstances or views on risk may have changed, let's discuss so we can ensure that your portfolio aligns with your goals.

From the perspective of managing our portfolios, 2020 was a great year to learn how we felt about risk. Results reinforce the principle that if we stick with a well thought out plan, it will emerge successfully through troubled times.

Here's hoping that 2021 will return us to a sense of normality. Rest assured that we're constantly researching and monitoring the investment strategy and underlying portfolios to ensure that you are best positioned for success.

Best,
Matt

Figure 1 Illustrating the anatomy of a Guide Wealth Management Portfolio.



Tier	ETF	ETF
Tier 1	VTI	IJR
Tier 2	ITOT	VB
Tier 3	SCHB	SCHB
Tier 4	SPTM	SPSM
Tier 5	VOO	IWO
Tier 6	RSP	SLY

Tier based approach continues across each asset class