January 2021

Global Diversified Portfolio: 2020 Year-End Review

Executive Summary

We provide a year-end update to our August 2020 paper that explored how a globally diversified portfolio can be a useful tool for investors in balancing the competing objectives of portfolio risk and return. Now that 2020 has (finally!) concluded, we report that the globally diversified portfolio once again provided meaningful downside protection while providing comparable return for the risk taken. Although the hypothetical global diversified portfolio studied here has not completely eliminated the risk of portfolio declines in the past, we are cautiously optimistic that it will continue to position investors to earn a sufficient return for the risk taken.

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Global Diversified Portfolio: 2020 Year-End Review

In our paper published mid-year 2020, I showed that a globally diversified portfolio can be both effective and efficient in offering returns for the risk taken. Now that the year has drawn to a close, I now briefly review how our global diversified portfolio faired in this challenging year.

The year 2020 arrived with unprecedented uncertainty and reminded us all that investing is of course not easy as investors sought to avoid portfolio risk while simultaneously seeking portfolio return. Duirng 2020, we experienced our 13th recession since the end of WWII in September 1945.[1] My earlier paper showed that although steep losses have been an integral part of the story, markets over the past 75 years have shown remarkable resiliency and a globally diversified portfolio even more so.

The Globally Diversified Portfolio Revisited

During 2020, the benefits of diversification once again came under fire with commentators suggesting that diversification failed investors when it's needed most, at least when employing a long-only approach. We showed however in our earlier paper that diversified portfolios —both a commonly referenced 60/40 portfolio and an even more diversified global portfolio (described in more detail below) —historically provided downside protection for investors versus an equity-only portfolio.

As a reminder, our hypothetical globally diversified portfolio expands on the simple US-centric two-asset class portfolio to include a wider array of asset classes consisting of global stocks (including developed and emerging markets), global bonds (including developed, emerging markets, and global high yield), publicly traded US real estate, and gold.[2] Our global diversified portfolio maintains an overall allocation profile similar to that of a 60/40 portfolio, employing the asset weightings as shown in Exhibit 1 and rebalanced monthly. That is, our globally diversified hypothetical portfolio will consist of 60 percent of the more risky assets comprising global stocks (S&P500, EAFE, MSCI EM), global bonds (EM Bonds, Global High Yield), US REITs, and Gold; again, all together totaling 60% of the portfolio. The less risky assets consist of all bonds (US bond aggregate and global developed market bond aggregate) totaling 40% of the overall portfolio.[3] Our 60/40 portfolio allocates 60 percent to US large cap stocks and EAFE stocks (each having a 50 percent weighting) and 40 percent to intermediate term US government bonds, rebalanced monthly.

Let's take a look now at the results for 2020 to see how the globally diversified portfolio fared during this turbulent year. Exhibit 1 reports the average nominal compound annual returns for the nine asset classes making up the portfolio as well as the 60/40 and global diversified portfolios for 2020 as well as the 26-year period 1994-2020. Interestingly, even with the daunting challenges brought on by the global

[1] Economic cycle data come from NBER, and recessions (contractions) run from the start at the peak of a business cycle and end at the trough.

[2] The data source for this analysis is Bloomberg. I use total returns. Tickers are as follows: S&P500(SPXT), MSCI Emerging Markets(NDUEEGF), EAFE(NDDUEAFE), Bloomberg Barclays US Aggregate(LBUSTRUU), Bloomberg Barclays Global Aggregate(LEGATRUU), Bloomberg Barclays Emerging Market Aggregate(EMUSTRUU), Bloomberg Barclays Global High Yield Aggregate(LG30TRUU), Wilshire US REITS(WILREITT), Gold(GOLDS). Note that due to data limitations, I use US REITS instead of global REITS.

[3] I choose this allocation among the available assets simply for demonstration purposes only. It is but one way among many to accomplish the desired mix of assets.

pandemic and the resulting shut-down of the global economy, 2020 saw above average performance for most all asset classes with only a few exceptions (emerging market bonds, global high yield, and REITS all returned less than their long-term averages). The resulting global and 60/40 portfolios also outperformed their long-term averages each posting roughly 11.5% cumulative total returns over the past year. Exhibit 2 reports the cumulative total returns since 1994.

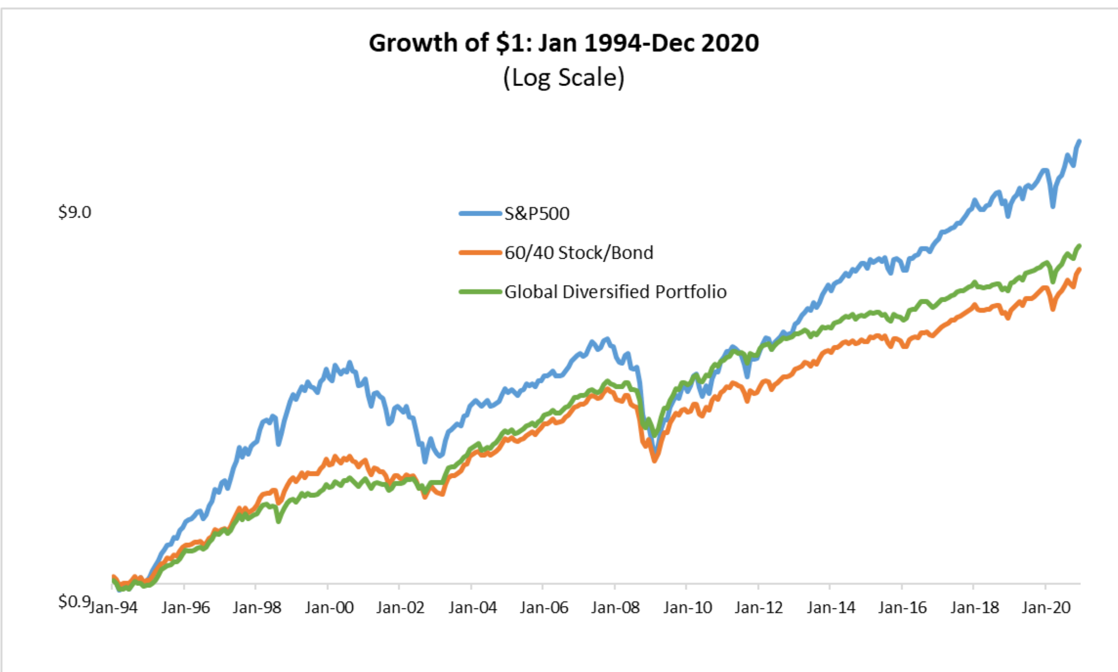
Exhibit 1

Portfolio Return Comparison (2020 vs Long-Term Avg)

	S&P500	MSCI EM	EAFE	BarCap US Agg	BarCap Glb Agg	BarCap EM Bond	BarCap Global HY	US REIT	Gold	60/40 Stock/Bond	Global Diversified Portfolio
2020 Tot Rtn	18.4%	18.3%	7.8%	7.5%	9.2%	6.5%	7.0%	-7.9%	25.1%	11.6%	11.5%
1994-2020 Avg Tot Rtn	10.0%	5.6%	5.0%	5.3%	4.9%	8.6%	7.8%	9.5%	6.1%	7.0%	7.6%
2020 Max Drawdown	-19.6%	-28.7%	-22.8%	-0.6%	-2.2%	-10.9%	-15.1%	-27.2%	-13.6%	-12.1%	-10.6%
60/40 Portfolio Weights	30%	0%	30%	40%	0%	0%	0%	0%	0%	100%	N/A
Global Divers. Port. Wts.	25%	5%	5%	25%	15%	6%	6%	7%	6%	N/A	100%

Source: Bloomberg, author analysis. The portfolios shown are hypothetical portfolios and do not necessarily represent any actual Vesteer portfolio or strategy. The results are hypothetical and are not an indicator of future results and do not represent returns that any investor might actually achieve. Indexes are unmanaged, do not reflect management or trading fees, and one cannot invest directly in an index. Purchases are subject to suitability. This requires a review of an investor's objective, risk tolerance, and time horizons. Investing always involves risk, whenever you invest you are at risk of loss of principal as the market fluctuates. Past performance is not indicative of future results.

Exhibit 2



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To gauge how far portfolios fell during the course of the year, I also report the maximum cumulative drawdowns for each portfolio during 2020. Cumulative portfolio drawdowns are shown in Exhibit 3a for all three portfolios since 1994. To clarify the drawdown results for last year, we zero in on just the year 2020 in Exhibit 3b.

The maximum cumulative declines for 2020 occurred during the single month of March as markets began to recover the following month of April. Emerging markets and REITS experienced the largest declines, each dropping over -27% in March. As expected, diversified portfolios provided a degree of portfolio protection during 2020 as consistent with prior turbulent periods. Of the two, the global diversified portfolio provided more downside protection declining -10.6% versus -12.1% for the 60/40 portfolio. The smaller decline for the global portfolio seems particularly interesting in light of the near equal performance between the diversified and 60/40 portfolios over the past year. But this does not come as a surprise. As shown in my prior paper, the global diversified portfolio provides improved downside protection versus the 60/40 portfolio during market declines experienced over the past 25 years. I compare again the results for these past maximum cumulative drawdowns in Exhibit 3c.

Exhibit 3a

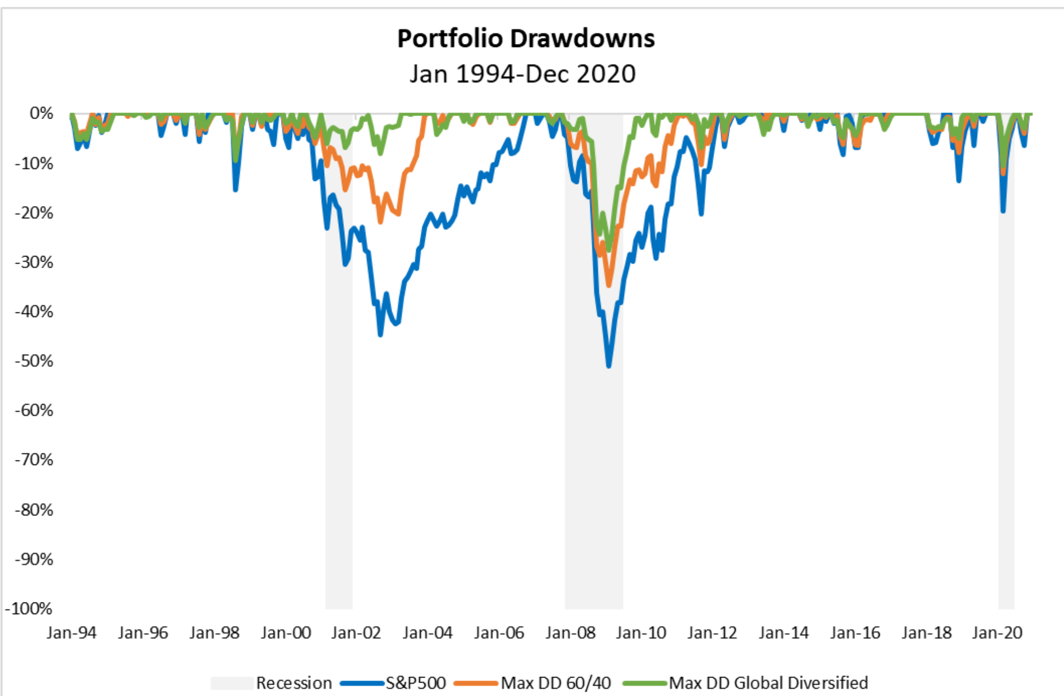
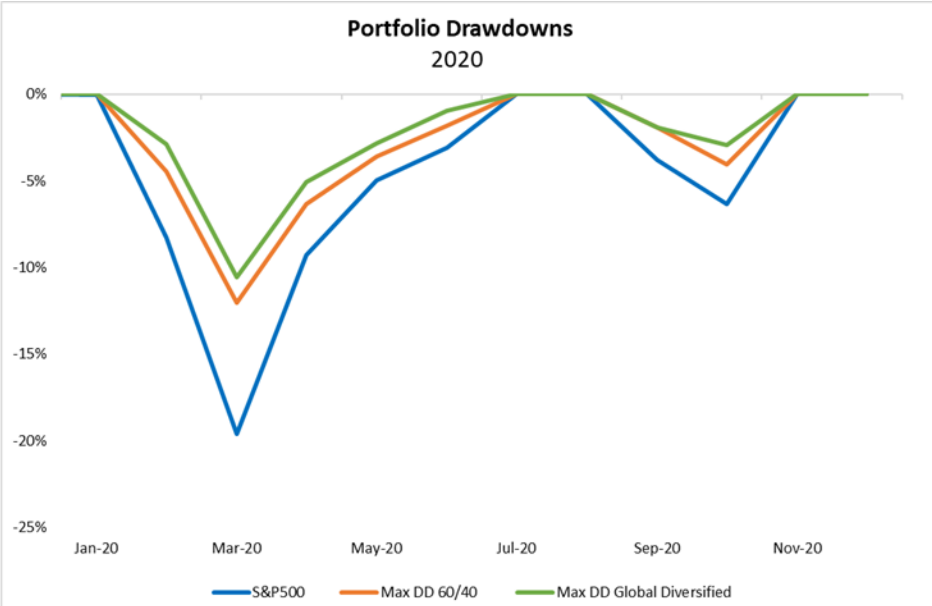


Exhibit 3b



Source: Bloomberg, author analysis. The portfolios shown are hypothetical portfolios and do not necessarily represent any actual Vesteer portfolio or strategy. The results are hypothetical and are not an indicator of future results and do not represent returns that any investor might actually achieve. Indexes are unmanaged, do not reflect management or trading fees, and one cannot invest directly in an index. Purchases are subject to suitability. This requires a review of an investor's objective, risk tolerance, and time horizons. Investing always involves risk, whenever you invest you are at risk of loss of principal as the market fluctuates. Past performance is not indicative of future results.

Exhibit 3c

Cumulative Drawdowns around US Recessions, 1994-2020

Trough month	Max DD S&P500	Max DD 60/40	Max DD Global Div
11/30/2001	-30.49%	-15.41%	-6.90%
9/30/2002*	-44.73%	-21.92%	-8.01%
6/30/2009	-50.95%	-34.82%	-27.70%
3/31/2020	-19.60%	-12.05%	-10.56%

*I include 2002 for reference only, the maximum drawdown occurred after the recession of 2001-2002 had officially ended.
Source: Bloomberg, author analysis. The portfolios shown are hypothetical portfolios and do not necessarily represent any actual Vesteer portfolio or strategy. The results are hypothetical and are not an indicator of future results and do not represent returns that any investor might actually achieve. Indexes are unmanaged, do not reflect management or trading fees, and one cannot invest directly in an index. Purchases are subject to suitability. This requires a review of an investor's objective, risk tolerance, and time horizons. Investing always involves risk, whenever you invest you are at risk of loss of principal as the market fluctuates. Past performance is not indicative of future results.

Also, we can see from the above graphs that the global diversified portfolio, while not eliminating declines altogether, nonetheless has historically mitigated drawdowns during turbulent markets versus the comparison portfolios.

Interestingly, you can observe from Exhibits 3a and 3b that the global diversified portfolio recovers to its pre-decline levels quickly following recessions. In other words, it tends to take less time (or the same time as the case in 2020) for the global portfolio to return to its pre-crisis levels versus both the 60/40 and the all-stock portfolio as shown by the return of the portfolio cumulative return to zero (the x-axis). This is important as the combination of lesser drawdowns and quicker recoveries may give investors more confidence in sticking with their investment strategy over the long haul.

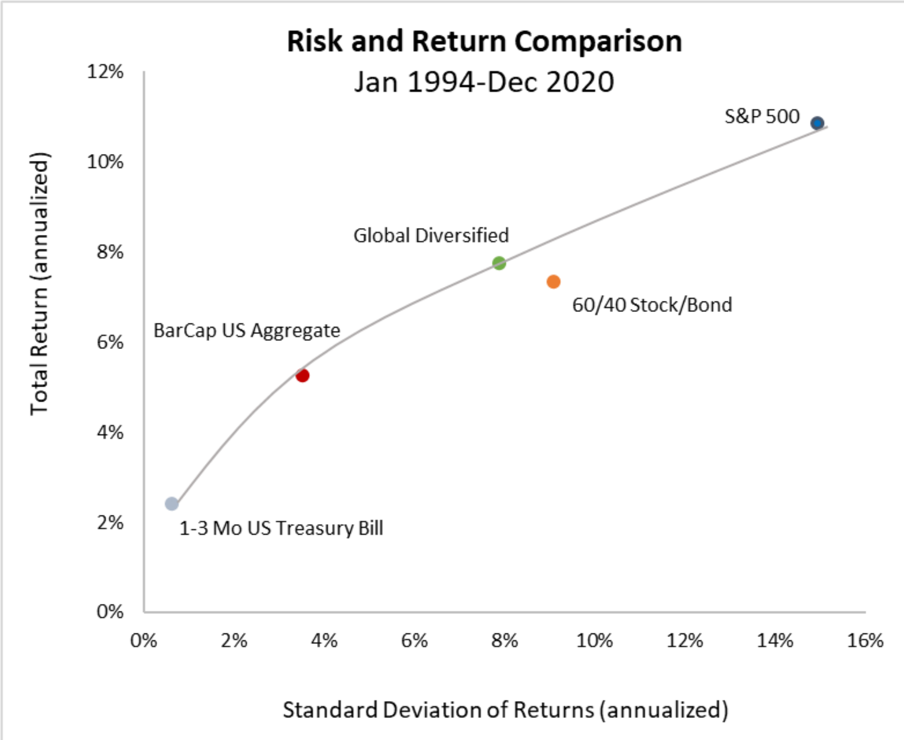
Putting it all Together

Finally, it's important once again to note that in order to be truly useful to a portfolio, an asset should not only provide diversification benefits (in industry parlance, not be perfectly correlated to other assets in the portfolio), but should also have a positive expected return (an expected positive risk premium). You can see from Exhibit 1 above that all the asset classes included in the global diversified portfolio meet these criteria.

An easy way to put all of this together is to review where the three portfolios that we've been reviewing fall vis-à-vis the efficient frontier. I show this in Exhibit 4. The grey line in the graph represents the efficient frontier that connects the set of portfolios that, over the period January 1994 to December 2020, efficiently balanced risk and return. Over the most recent 26-year period, the graph shows a well-behaved "textbook-like" efficient frontier with stocks lying on the right end of the frontier, bonds on the left end, and our two blended portfolios in the middle.

The global diversified portfolio lies on the efficient frontier, suggesting an efficient portfolio meaning it provided sufficient return for the risk taken over the period. We can also see that the 60/40 portfolio lies below the efficient frontier, suggesting a sub-optimal combination of assets as it provided insufficient return for the level of risk relative to the efficient frontier presented here. In short, the global diversified portfolio appears, at least in the past, to better balance asset classes with the greatest potential returns for the degree of risk taken. The key to effective diversification is, no surprise, using more assets (again, that are lowly correlated and have positive expected risk premiums).

Exhibit 4



Source: Bloomberg, author analysis. The portfolios shown are hypothetical portfolios and do not necessarily represent any actual Vesteer portfolio or strategy. The results are hypothetical and are not an indicator of future results and do not represent returns that any investor might actually achieve. Indexes are unmanaged, do not reflect management or trading fees, and one cannot invest directly in an index. Purchases are subject to suitability. This requires a review of an investor's objective, risk tolerance, and time horizons. Investing always involves risk, whenever you invest you are at risk of loss of principal as the market fluctuates. Past performance is not indicative of future results.

Summary and Conclusions

We are all, of course, looking forward to the arrival of the new year, 2021. However, as we look ahead, we caution that significant challenges remain ahead for markets — uncertainty remains over the rollout of vaccinations and, perhaps more concerning, current stock market valuations for US equities are at rather lofty levels. The ability of a diversified long-only portfolio to provide downside support during market turbulence has come under scrutiny in recent years with many suggesting diversification lacks effectiveness especially during downturns; that is it tends to disappear when investors need it most. Although the hypothetical global diversified portfolio studied in this article has not completely eliminated the risk of portfolio declines in the past, consistent with its historical results, it did provide both meaningful downside protection in 2020 while also providing a sufficient return for the risk taken. We remain cautiously optimistic that it will continue to position investors to earn a sufficient return for the risk taken in the coming years.

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