WESTWIN THORNBROOK INC

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Summary Prospectus

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Fund Summary

Class/Ticker
Westwin Thornbrook® Risk-Allocated Fund®/WTRAF

Investment Objective

This fund seeks to provide exposure to the US equities market while protecting against isolated shocks and volatility within specific industries, ultimately translating to a higher return at a given level of risk. This is achieved by decreasing weightings of relatively riskier assets and increasing weightings of lower risk holdings. This fund provides individual investors with truly diversified exposure to US equities and offers a leverageable smart beta strategy to complement existing alpha strategies of institutional investors.

Smart beta strategies such as this seek to deliver a greater risk and return trade-off with alternative weighting schemes. Our fund β value from October 2004 to the end of 2017 is 0.946. The key benefit to institutional investors is the ability to lever an investment in this fund to any desired β level, which translates into the ability to produce any desired return profile. This fund provides diversification to institutional investors on two fronts. First, this fund is a truly diversified portfolio due to its risk-based weighting as opposed to capital weighting. Second, this fund offers diversity to an investor's strategic framework as it differs in its fundamental strategy from much of what currently exists on the market.

Portfolio Turnover

The fund pays transaction fees of approximately 0.5 cents per dollar of assets bought or sold. Overall transaction costs also include bid ask spread and market impact risks, which we take steps to minimize but cannot completely control. Holdings of securities by the fund will, when necessary, be sold in groups of significant size throughout rebalancing periods. This allows for efficient rebalancing. We take precautions to avoid moving the market price as we conduct our adjustments to ensure we receive appropriate and accurate returns. An example of this is extending the sale and purchase of a large quantity of any given asset throughout the trading day. The fund will be rebalanced every month according to a nine-month trailing window of risk to determine capital weighting. This allows us maintain an accurate market tracking portfolio with minimal turnover.

Principal Investment Strategies

- Invests in industry-specific ETFs as a proxy for the industries that make up the S&P 500. The ETFs are as follows:
  - Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, Information Technology, Materials, Real Estate, Telecommunication Services, and Utilities
- Weights each ETF so that its risk contribution to the portfolio matches its respective industry's capital contribution to the S&P 500 Index
- Determines risk by calculating covariances of daily returns among each of the industry ETFs
- Seeks capital appreciation in terms of risk-adjusted returns as measured by the Sharpe Ratio when compared to its benchmark, the S&P 500
  - Allows investors to lever this fund to a desired risk level in order to gain higher returns than alternate investments of a comparable risk profile

Principal Investment Risks

- **Stock Market Volatility.** While we attempt to protect against large downturns within any of the sectors within the US equities market, stock markets are inherently volatile and can decline significantly in response to adverse political or economic developments. We cannot insulate this portfolio from these risks due to the fund's high correlation with the market.
- **Multi-Industry Volatility.** While we attempt to protect against the impact of specific industry shocks on overall portfolio performance, we cannot protect against market-wide shocks where many, if not all, industries are affected.
- **Limited Geographic Exposure.** The fund is constructed of ETFs composed entirely of US stocks. Thus, we are sensitive to changes to US political and economic policies and US-specific geopolitical shocks.
- **Delay in Rebalancing**. In the chance of an industry shock, changed risk profiles of industries are only taken into account during rebalancing periods. Investors should be aware of this delay in incorporating new information.

Management Compensation

We take 0.4% of invested capital annually to cover all management and other miscellaneous costs. This is accomplished by taking 0.0016% daily in order to maintain a smooth return profile.

Implementation

Our portfolio consists of 11 Vanguard industry ETFs with varying capital allocations. Each ETF represents a different industry, and these industries are chosen to be exclusive and exhaustive in the market. Included industries are Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, Information Technology, Materials, Real Estate, Telecommunication Services, and Utilities. Each ETF is allocated a risk contribution to the portfolio equal to its corresponding industry's capital allocation in the S&P 500. We allocate risk contribution to industries as follows:

VCR	VDC	VDE	VFH	VHT	VIS	VGT	VAW	VNQ	VOX	VPU
12.70%	7.50%	5.50%	15.00%	13.80%	10.20%	25.20%	2.90%	2.60%	1.90%	2.70%

These allocations are equivalent to the May 2018 capital allocations of the S&P 500. The tickers shown represent the specific Vanguard ETFs used in our implementation of this portfolio. We determine industry risk from the covariance of daily returns among industry ETFs. The portfolio is rebalanced each month based on the risk calculated from a nine-month trailing window of returns. We choose a nine-month window as we find it to approximately maximize Sharpe Ratio and thus conclude that it is an optimal predictor for future risk levels. See Appendix I for a more detailed explanation of our rebalancing process.

Performance

Figure I shows the hypothetical performance of the fund from October 4, 2004 to December 29, 2017 assuming equivalent initial investments of $1000 in the fund and in the S&P 500. Over the 13-year test period, the value of the fund remains consistently above the benchmark, the S&P 500. Even though we outperform our benchmark even during the 2008 financial crisis, we do not implement protection against losses observed by shocks to the entire US equities market. At conclusion of this period, we observe a $3,351.90 final fund value and a $2,364.86 final benchmark value.

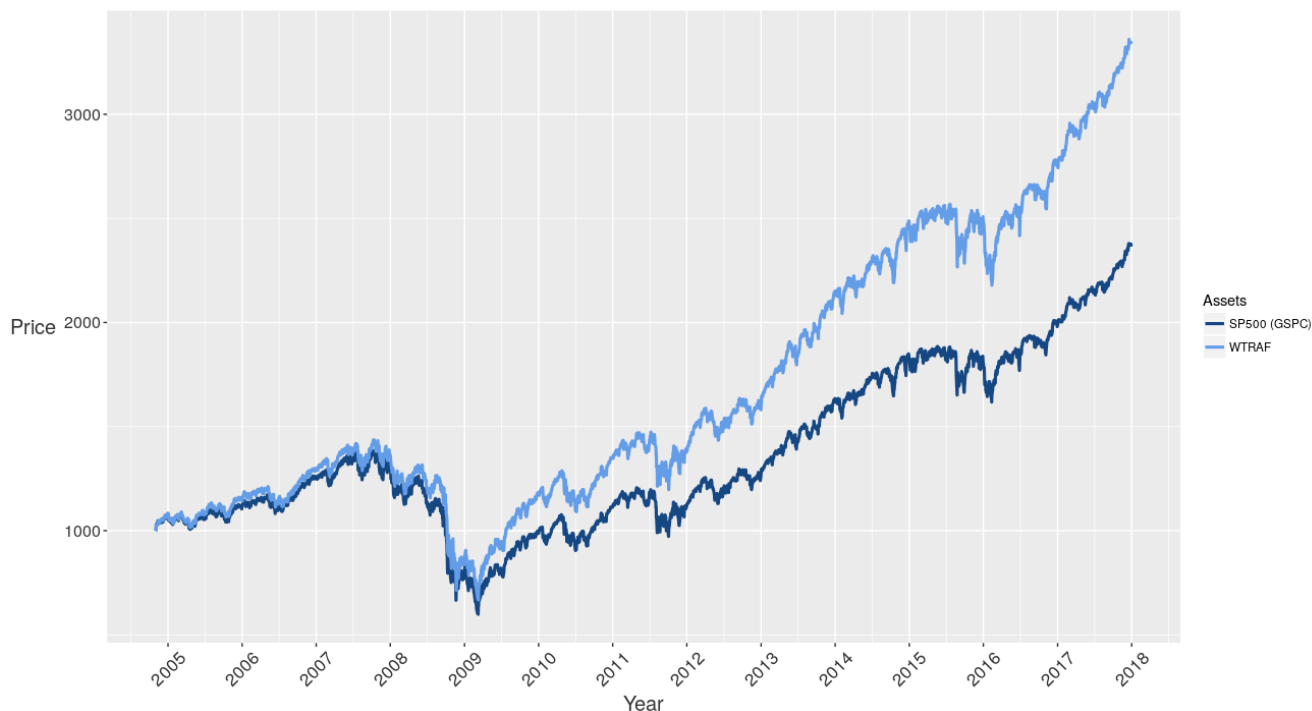Figure I. S&P 500 vs WTRAF

Figure II below shows year-on-year performance for the fund versus the S&P 500. Our fund accurately traces the market in terms of returns, and, on average, yields greater returns than the benchmark.

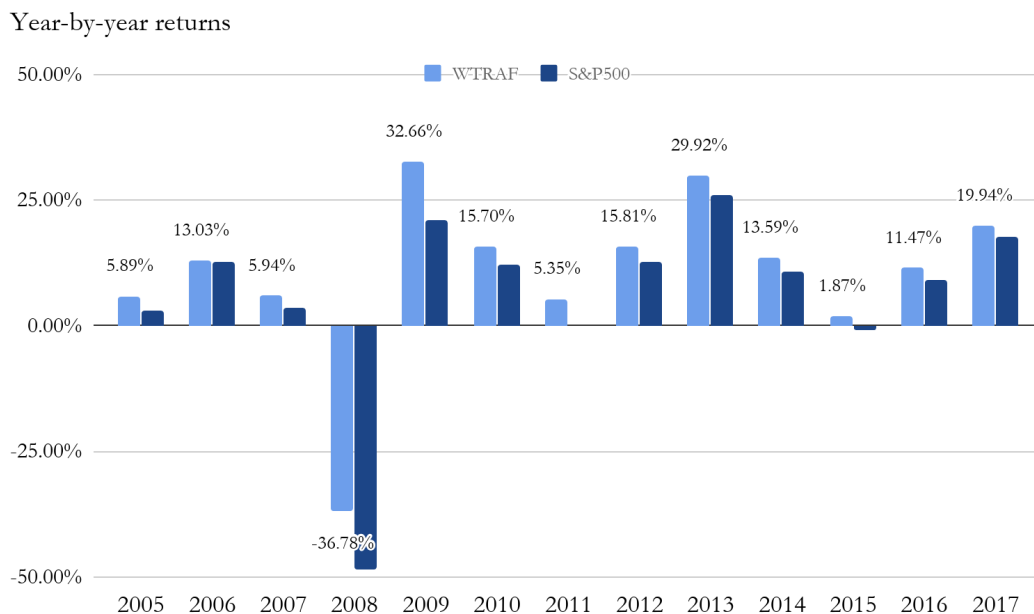Figure II. Year-by-year returns on S&P 500 vs WTRAF

Figure III below includes key financial information for this period for both our fund and our benchmark, the S&P 500. We see a higher annualized average return and a lower annualized standard deviation of returns, or volatility, for our fund over this period. This results in a significantly higher Sharpe Ratio over the 13-year period. This means our fund produces greater returns per level of risk than the benchmark.

Figure III. Key Financials from 2004 to 2017

Key Financials	(11/2004 - 12/2017)
WTRAF	
Annualized Average Return	10.79%
Annualized Standard Deviation of Returns	17.99%
Sharpe Ratio	0.60
S&P 500	
Annualized Average Return	6.54%
Annualized Standard Deviation of Returns	18.81%
Sharpe Ratio	0.35

Risk Performance

Investors should expect reduced portfolio risk in response to industry-specific shocks or increases in volatility. We test our portfolio against simulated scenarios in which one industry with high capital exposure in the S&P 500, Information Technology, experiences combinations of a small/large crash and various increases in volatility.

We provide our simulations daily returns for VGT, the Vanguard Information Technology ETF, over the period from February 2013 to February 2014. We choose this period because the industry and overall market are relatively normal (low standard deviation of returns). In our simulations, we begin our crash six months into this period. The crash will last either seven or nine days and is followed by a two or three month recovery period in which returns slowly move back to normal. Changes in volatility affect this entire period, combining the crash and the recovery. Based on our observations from the 2008 financial crisis, we believe these to be plausible simulations.

We define a small crash as a seven-day period in which there exists a -3%, -3%, -1%, and -1% drop every other day. This yields a cumulative drop of -7.78% in value. The week of the crash is followed by two months of normal daily returns with an additional 0.19309% per day to correct the market to its pre-crash state.

We define a large crash as a nine-day period in which there exists a -4%, -2%, -2%, -2%, and -2% drop every other day, yielding a cumulative drop of -11.45%. Following this crash, we add 0.19325% to returns over the next three months to return the market to normal.

For volatility, we choose between multiplying returns over this period by 1.15 or 1.30 to represent an additional 15% and 30% volatility for the specific industry. Following this model, we incorporate these new returns into the market and calculate our portfolio performance and benchmark performance under these new conditions.

Figure IV displays these changes. All three scenarios have the same returns for the first six months, as the crash does not happen until halfway through this period. At the point of the crash, the large crash/+30% volatility scenario drops significantly. After this drop, the +30% volatility in both scenarios is evident compared to normal conditions. Eventually, returns in all scenarios revert to normal.

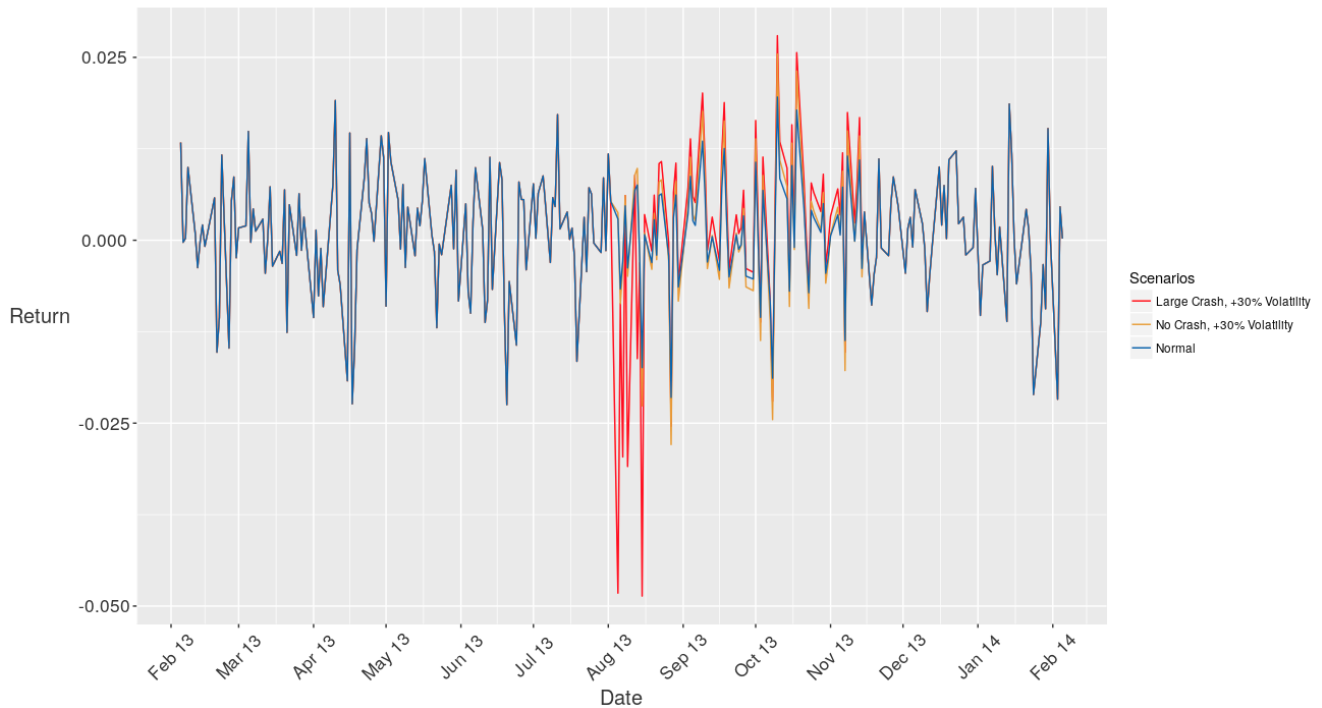Figure IV. Information Technology Industry Crash Simulation

Figure V displays fund performance versus the benchmark in all tested scenarios. Numbers shown represent the Sharpe Ratio of the fund over this year-long period less the Sharpe Ratio of the benchmark over this period. The fund maintains a Sharpe Ratio above the benchmark for all scenarios. Although the extent to which the portfolio outperforms the benchmark in heightened volatility and large crashes does not match the extent in more normal conditions, the results are nonetheless positive. We see that while our portfolio performs best against the S&P 500 without a crash, there remains a significant improvement even with a large crash and high volatility.

Figure V. Scenario Performance

	Large Crash	Small Crash	No Crash
+30% volatility	0.187	0.222	0.236
+15% volatility	0.199	0.225	0.233
Normal	0.208	0.225	0.229

In scenarios such as this, investors should expect to experience reduced losses compared to comparable investments. However, depending on the context and cause of the industry instability, incorporating changes in industry risk post-crash may lead to decreased returns on the recovery of industries. We underweight industries with higher relative risk, so this may inevitably lead to a reduced ability to capture increased returns once the industry recovers.

Appendix I: Rebalancing Implementation

Figure VI below demonstrates the process of rebalancing on the tenth month in a hypothetical scenario. From the previous nine months, we calculate the covariance of daily returns across industries. After standardizing, we arrive at the industry risk levels. Given the industry risk levels and the desired allocations, which are constant and given above in our case, we can divide and standardize to calculate the corresponding capital allocations which will be our portfolio composition after rebalancing in the tenth month.

Figure VI. Rebalancing

$$\text{Corresponding capital allocation} = \frac{\text{Desired risk allocation}}{\text{Industry risk levels}}$$
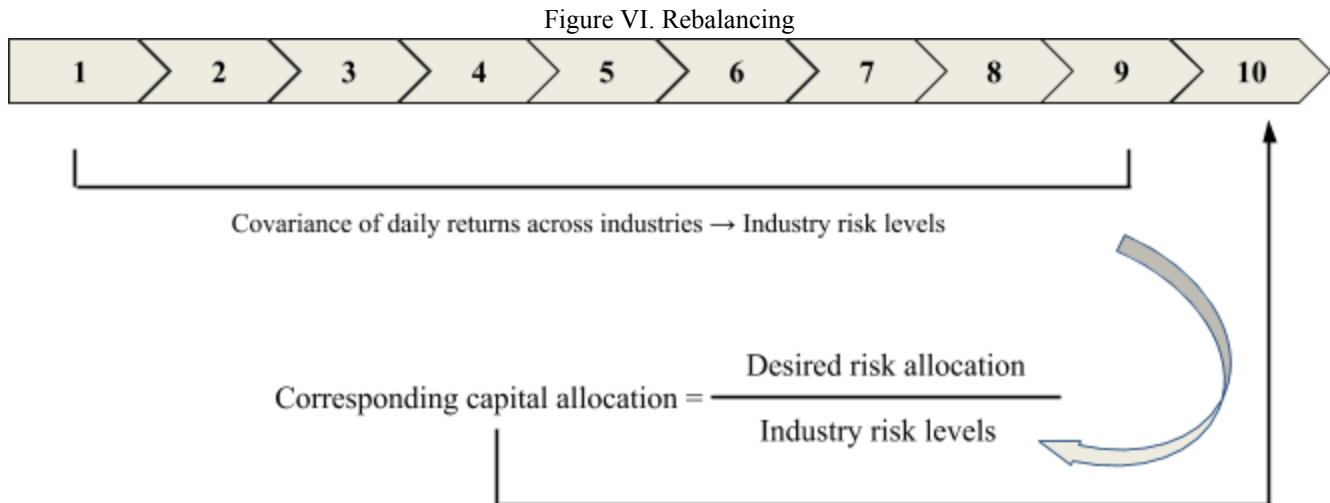
Figure VII below illustrates an example with mock industries and values to further understand our rebalancing process. In this example, we wish to allocate half of the risk of the portfolio to Industry C, but this industry has the least risk out of the three. Thus, our calculations lead us to overweight this industry significantly in order to meet our desired risk allocation. The opposite is true for Industry A. It is an inherently risky industry, but we wish to allocate it the least risk, so we underweight it in our portfolio.

Figure VII. Rebalancing Example

Example	Industry A	Industry B	Industry C
Desired risk allocation	20%	30%	50%
Industry risk levels	60	30	10
Corresponding capital allocation	0.333	1	5
Standardized capital allocation	5.26%	15.79%	78.95%