ZPR Investment Report

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A NEWSLETTER FOR ZPR CLIENTS

December Contents:

US Commentary

By Mark Zavanelli

US stocks surged to all-time highs after the election result, led by small caps. This was despite an even bigger reaction in the bond market, where interest rates have jumped both in the US and abroad. Clearly a Trump win coupled with Republican control of both houses of Congress was not something the market assigned much probability to. The surprise broke the typical correlation, where stocks would react negatively to the rise in rates. This whole episode shows the danger of widely held expectations in investment thinking. What happens is that a state of affairs that exists at a point in time becomes widely understood and talked about and our normal psychology treats it as unchanging fact. Then the world changes and those expectations are proved false. Not because the analysis was bad, but because our brains are evolved to see certainty instead of probability (we couldn't cross the street otherwise). This is the essence of value investing, that forecasts are imperfect.

Although the new environment promises lots of economic changes, the key issue driving the market higher in the face of rising rates is the prospect of a cut in the US corporate tax rate. This would have an immediate impact to make stock valuations cheaper, because after tax income and cash flow would rise due to a smaller tax bite. Also, there is a powerful

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Asian Results

By Vaidas Petrauskas

The U.S. presidential election caused major moves in all asset classes and markets globally. The Dollar rose sharply against all currencies, except the British Pound, as money flowed to the U.S. International investments suffered as a result, with the EAFE Index down about 2%. Gold dropped by around 7%. Bonds sold off sharply and U.S. stocks have gone on a tear; especially U.S. small cap stocks, which far outpaced the large cap stocks. Trump's policies are more favorable to small companies which do most of their business in the U.S. than multi-nationals which depend on international trade. Also, unlike mega caps, small companies tend to pay their taxes fully, so they will benefit more from corporate tax cuts. I think Trump will be great for the U.S. economy. Corporate tax cuts alone will greatly accelerate GDP growth as companies start investing again and should be a boon for stocks as there will be more money in shareholders' pockets.

It is amazing how everyone was wrong about the impact of Trump's win on the markets. All the "smart money" predicted that it would cause a massive selloff in stocks. The largest hedge fund in the world – Bridgewater Associates sent out a note to its clients predicting that the Dow could plunge nearly 2,000 points in one day if Trump is elected president. That translates to a 10% dive. The hedge fund predicted that both Chinese and European stock markets will drop by roughly 11%

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ZPR INVESTMENT MANAGEMENT
1642 N.Volusia Avenue
Orange City, Florida 32763

Phone: (386) 775-1177
Fax: (386) 775-7749

E-mail: info@zprim.com
Web: www.zprim.com

Review of Quant Strategies

By Vaidas Petrauskas

Our quant strategies had strong gains in November. Volume Value continues to be our star performer. It was up 13.86% in November and is up 30.64% year to date. All returns are presented in the Just the Numbers section. Bank stocks usually make up a large chunk of Volume strategies' portfolios and bank stocks were the biggest winners after the U.S. Presidential election; and for a good reason. First, the Donald Trump win means less regulation and controls for banks. Elizabeth Warren will be in the opposition, not in the majority. Also, the election outcome triggered a massive bond selloff, which caused the yields on long-term bonds to spike in expectation of higher inflation down the road. A steeper yield curve is very good for banks' profits.

I thought this would be a good time to review our quant strategies to see how they performed recently and what we can expect from them in different market environments. I will only cover our three volume based strategies in this review. Besides the Volume strategies we also have a successful GRAPES Quant value strategy and a Low Volatility strategy under development which we are still testing.

We have three volume based quant strategies – Volume Winners, Volume Value, and Volume Momentum. Each has a different objective. As is typical with our quantitative approach, we typically make minor adjustments over time to refine and improve the strategies. Our research of the volume anomaly goes back to 2001. An early study (June 23, 1998) by Professors Lee and Swaminathan called "Price Momentum and Trading Volume" showed that a stock when it had its lowest volume outperformed and when it had its highest or peak volume subsequently under performed. ZPR studies further showed that illiquid stocks outperformed and very liquid stocks underperformed. The theory is simply that popular stocks will underperform on a relative basis while neglected stocks will outperform. ZPR's three volume strategies add different components in conjunction with the volume effect. Independently and much later, Roger Ibbotson found the same and that when combined with a value factor also did better (hence our Volume Value strategy).

Volume Winners

Volume Winners was started in August of 2010. This strategy has the lowest risk profile of the three strategies and is designed to minimize risk while still delivering market beating returns over the long term. In order to achieve this we combine three components: low volume, price to 52 week high (a price momentum measure), and a proprietary short interest ratio. All of these three components produce excess returns in their own right, and they all do so partly by avoiding potential losers. These stocks generally have improving fundamentals (as they are near their 52 week high) while avoiding investor overexcitement (volume) and are less subject to negative catalysts (lack of short sellers). We also add a valuation control to filter out overpriced stocks.

What is remarkable about the Volume Winners strategy is that is has a very low standard deviation and beta (two measures of volatility) in sharply falling markets. I will demonstrate that later in this review. First let's see how this strategy has performed since inception. Below I present the actual net-of-fees return statistics for the Volume Winners strategy from August '10.

Aug '10 – Nov '16	Volume Winners	Russell 2000
Compounded return	159.27%	121.38%
Annualized return	16.23%	13.37%
Annual standard deviation	9.96%	16.96%

(The data for this and all the following tables is taken from our composite historical returns, and supplements the information presented in our Just the Numbers section. Please refer to the disclosures there for important information on these composite returns)

The Volume Winners strategy has beaten the Russell 2000 index by 2.86% per year net of fees while being only about half as volatile as the index. The remarkable thing to note is that this was achieved during a rising stock market! A rising stock market is not a strong suit of this strategy. It is designed to protect on the downside. So the above results are very good. It more than kept up with a rising stock market. The strategy shows its true worth when the market is falling, however.

Volume Value

Volume Value was started in October of 2010. It is not as defensive as Volume Winners, but is still designed for lower volatility than the Russell 2000 index. The process screens for stocks with low volume and cheap valuation. This is the "neglect" portion of the cycle, where the low volume tells us that investor interest is low and the valuation component tells us that the stock price is also depressed. This combination is designed to

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Review of Quant Strategies (Continued)

add return and reduce volatility even in comparison with traditional value strategies. A traditional value stock universe will include both distressed companies and deep cyclicals, both of which will normally have high volume due to investor interest in the wide dispersion of potential outcomes. Volume Value will steer clear of these higher volume stocks, and volatility is lower as a result.

The valuation component is a proprietary ZPR measure we call Perfect PE, which uses a mix of reported earnings and analyst forecasts. We have found this measure to work particularly well in the small and micro cap universes.

Actual net-of-fess performance numbers since inception are presented below.

Oct '10 – Nov '16	Volume Value	Russell 2000
Compounded return	241.07%	112.59%
Annualized return	22.01%	13.01%
Annual standard deviation	12.77%	16.22%

The Volume Value strategy has been highly successful. More than 20% annual returns are a great result any way you look at it. The strategy has beaten the Russell 2000 index by 9% per year net of fees while experiencing much lower volatility. Higher returns with lower risk? The academics say that's not possible. We think otherwise. Of course, risk attributes can change from one period to the next as well as returns. So our disclosure about past performance not guaranteeing future results applies to risk as well.

So far this strategy has greatly exceeded our expectations. When we developed it, we hoped to beat the Russell 2000 by 5-6% per year after fees with this strategy. It has done much better than that. It is very rare when the actual live returns exceed the backtest returns, at the very least due to the costs involved in running an actual account. Usually live results are worse or sometimes alpha disappears completely. This period has been a particularly favorable one for the strategy, which has boosted returns above what our historical research would suggest. Still, it's safe to say that Volume Value has proven itself in the real world. The Volume Value portfolio is very well diversified. We currently hold more than 60 stocks, which makes this track record even more impressive and validates the low volume anomaly.

Volume Momentum

Volume Momentum was started in January of 2011. Investors have always been fascinated with momentum, both price momentum and earnings momentum. Technical analysis and chart reading are the oldest form of momentum analysis, even with a lot of voodoo mixed in. This was eclipsed by earnings surprise in the 1970's and then estimate revisions by analysts in the 1980's after computer processing made quantitative analysis of these effects possible. After many ZPR research studies, we developed SuperMocon. This combines several concepts into a momentum confirmation so that we have significant earnings momentum, earnings surprise, and estimate revisions supported by analyst upgrades and price momentum. In the micro cap arena we found these concepts still alive and well enough to support a market inefficiency. As with all momentum strategies, it requires turnover and have a short holding period.

While SuperMocon has attractive returns according to our measurement, it also has huge volatility and a high beta. These stocks seem to be very sensitive to market plunges and in today's macro bet world where there is even higher systematic risk, even professional investors lose their nerve in this strategy. We came up with the idea of combining it with a low volatility strategy and called it Volume Momentum. The combination with Volume Winners succeeds in dampening the volatility of SuperMocon while adding an uncorrelated source of returns.

Actual net-of-fess performance numbers for Volume Momentum since inception are presented below.

Jan '11 – Nov '16	Volume Momentum	Russell 2000
Compounded return	103.08%	82.86%
Annualized return	12.72%	10.74%
Annual standard deviation	13.34%	16.23%

Although the Volume Momentum strategy has beaten the benchmark by close to 2% per year since inception with less volatility, the performance is still disappointing to us. It was supposed to be the best of our volume strategies in a rising market, but that wasn't the case. The SuperMocon part of the strategy is to blame for the shortfall. SuperMocon had a rough 2014 and 2015. Momentum is a double-edged sword. These stocks keep rising while a company delivers double digit growth, but once they fall short, the stock is sold off hard. This year is much better for SuperMocon. The third quarter was especially strong.

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Review of Quant Strategies (Continued)

While the above tables are very useful, they do not allow us to compare the three strategies directly because all three cover different time periods. To compare the three strategies directly, I measured their performance for the time period where all three are available. That's January 2011 through November 2016. The actual results are presented below.

Jan '11 – Nov '16	Volume Winners	Volume Value	Volume Momentum	Russell 2000
Compounded return	108.61%	190.45%	103.08%	82.86%
Annualized return	13.23%	19.75%	12.72%	10.74%
Annual std. deviation	9.00%	12.71%	13.34%	16.23%

It is interesting to note that the returns for Volume Winners and Volume Momentum were similar, but volatility was much higher for the Volume Momentum strategy. Volume Momentum failed to beat Volume Winners in a rising market which it was designed to do. So Volume Winners was clearly a superior strategy between the two during this period.

However the best strategy overall was Volume Value. It has the best Sharpe ratio. Volume Winners was a close second when we calculate return per unit of risk (volatility). Again, it is remarkable that these two strategies performed so well in a rising market because they have much lower beta than the market. Based on our research and the live history I am confident that the best relative returns for these two strategies comes when the market does poorly (by losing less). Let's look at that now.

The big table below shows all months in which the Russell 2000 index was down and the corresponding actual net-of-fees returns for the Volume Winners and Volume Value strategies. I exclude Volume Momentum because Volume Winners is half of that strategy. One important thing to keep in mind – we book quarterly management fees in the first month of each quarter. So January, April, July, and October months are where the impact of management fees shows up in a monthly analysis.

	Russell 2000	Volume Winners	Difference		Volume Value	Difference
Aug-10	-7.40%	-2.58%	4.82%			
Jan-11	-0.26%	6.12%	6.38%		5.27%	5.53%
May-11	-1.87%	1.27%	3.14%		-2.61%	-0.74%
Jun-11	-2.31%	-1.81%	0.50%		0.54%	2.85%
Jul-11	-3.61%	-0.85%	2.76%		-1.40%	2.21%
Aug-11	-8.70%	-4.10%	4.60%		-5.85%	2.85%
Sep-11	-11.21%	-6.49%	4.72%		-4.91%	6.30%
Nov-11	-0.36%	2.08%	2.44%		1.04%	1.40%
Apr-12	-1.54%	0.52%	2.06%		1.13%	2.67%
May-12	-6.62%	-3.76%	2.86%		-0.99%	5.63%
Jul-12	-1.38%	-3.81%	-2.43%		-1.08%	0.30%
Oct-12	-2.17%	0.97%	3.14%		0.32%	2.49%
Apr-13	-0.37%	0.59%	0.96%		0.35%	0.72%
Jun-13	-0.51%	0.23%	0.74%		1.65%	2.16%
Aug-13	-3.18%	0.17%	3.35%		-2.36%	0.82%
Jan-14	-2.77%	1.21%	3.98%		-2.00%	0.77%
Mar-14	-0.68%	1.06%	1.74%		-0.75%	-0.07%
Apr-14	-3.88%	0.62%	4.50%		-2.55%	1.33%
Jul-14	-6.05%	-1.62%	4.43%		-2.10%	3.95%
Sep-14	-6.05%	-1.60%	4.45%		-3.08%	2.97%
Jan-15	-3.22%	-3.11%	0.11%		-4.80%	-1.58%
Apr-15	-2.55%	1.35%	3.90%		0.10%	2.65%
Jul-15	-1.16%	0.28%	1.44%		-1.03%	0.13%
Aug-15	-6.28%	0.36%	6.64%		-2.96%	3.32%
Sep-15	-4.91%	0.64%	5.55%		-1.37%	3.54%
Dec-15	-5.02%	2.93%	7.95%		-0.16%	4.86%
Jan-16	-8.79%	-2.49%	6.30%		-7.58%	1.21%
Jun-16	-0.06%	0.22%	0.28%		0.38%	0.44%
Oct-16	-4.75%	-0.62%	4.13%		-0.54%	4.21%
Average	**-3.71%**	**-0.42%**			**-1.33%**	
Maximum Monthly Loss	**-11.21%**	**-6.49%**			**-7.58%**	
Maximum Drawdown (Peak to Trough)	**-25.09%**	**-13.99%**			**-13.57%**	

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Review of Quant Strategies (Continued)

During the 29 down months for the benchmark (out of 76 total months between August 2010 and November 2016) Volume Winners has outperformed in 28 of them, averaging a loss of -0.42% per month vs. an average loss of -3.71% for the Russell 2000 index. Actually in a majority of months where the Russell 2000 was down, Volume Winners had a positive return.

During the benchmark's worst month, in September 2011, Volume Winners lost -6.49% vs. a loss of -11.21% for the Russell 2000. In terms of total peak to trough drawdown, the worst period for Volume Winners showed a loss of -13.99% vs. a loss of -25.09% for the Russell 2000. That was in May – September 2011. Other periods that experienced panic selling were July – September 2015 and of course this January. In July – September 2015 while the market was selling off hard, Volume Winners was up in every month. That is quite remarkable. This January the Russell 2000 lost -8.8% and Volume Winners only lost -2.5%.

Based on the consistency of this result, I think this is what you can reasonably expect from Volume Winners in a down market – roughly half the market's drawdown in a really bad sell-off.

As for Volume Value, it lost an average of -1.33% in these negative months. The Russell 2000 lost -3.58% in the period where Volume Value is available (it was not available in the first month of August 2010). It underperformed in 3 out of 28 negative months for Russell. This does not mean that Volume Value will always fall more than Volume Winners in down markets. If we take some bad periods like September 2011, we see that Volume Value outperformed Volume Winners. Also, the worst drawdown for Volume Value is slightly smaller.

During this period both Volume Winners and Volume Value strategies provided good downside protection in a falling market while also delivering market beating returns over the period as a whole. Volume Winners is more defensive than Volume Value. Volume Value will likely give you better participation in a rising market. If we expect markets to be highly volatile with poor returns, Volume Winners is a preferred choice. For an objective where defensiveness is not as important, we would probably prefer Volume Value. Volume Momentum is really a different animal due to the SuperMocon component. We still believe in that strategy although it has been disappointing lately.

US Commentary (Continued)

long term impact because lower taxes will incentivize corporations of all nationalities to invest more in the US because the after tax rate of return would be higher. It's the single policy change that can have the greatest impact on economic growth.

In the US (and the same is true across the developed world) we've been locked into a dismal long term forecast for growth as a demographic tsunami comes on the radar. The combination of an aging population with increasing incentives not to work (unfortunately that's what transfer payments from workers to non-workers really are) were set to cut our real growth to something close to zero for an extended period. It won't be easy to escape, but with a pro-growth agenda maybe we have a shot.

So that brings us back to the present outlook for the market. In the very near term a hangover seems likely as we wake up from the party. We do have higher rates and a stronger dollar, and these are near term negatives for stocks. We sold some positions this month in our Small Cap Value strategy in anticipation of better opportunities ahead. Within the market there is a lot of room to continue a rotation from the stocks that had benefited from the low rate, low growth environment into those that benefit from faster growth. Overall US stocks are not cheap (at least pre tax cut) but as this year's performance shows there are areas where returns can be good. Plenty of money can flow out of large cap growth darlings (like the FANG stocks) and expensive yield plays (Staples and Utilities) and into cheaper areas of the market. We will be looking for stocks where we can get rising earnings and multiple expansion. The market had been pretty sure that economic cyclicals were out of gas and had been discounting peak earnings for them. I don't think that will be the case now, so there's a lot of adjusting to do as this plays out. As an investment style small cap value is well situated to benefit from the changes in the economy, since these companies tend to be more domestically focused with greater economic sensitivity.

Asian Results (Continued)

as well. Citigroup predicted a 3-5% fall if Trump is elected. Research firm Macroeconomic Advisors put the damage at 8%. Economists at Brookings Institute estimated a Trump victory could cause the S&P 500 to fall as much as 12%. They were all completely wrong. This proves once again than no one can predict future events or how the markets will react to those events.

JAPAN

The Yen was one of many currencies which depreciated sharply against the U.S. dollar in November. It fell by 7.2% from 104.96 to 113.13 Yen to one U.S. Dollar. When the Yen falls Japanese stocks rise. The Nikkei 225 index rose 5.07% and small cap indexes rose around 4%. We easily beat the benchmarks. Our Japanese holdings rose over 8%. The most heavily weighted Japanese stock in our portfolio rose more than 45% and was the biggest contributor to a good result. We estimate that we were slightly positive for the month in Japan in US dollar terms, no mean feat when the currency was down this much.

Japanese stocks had a very difficult first half of 2016. At the end of June the Nikkei 225 index was down -18.17% from the start of the year and we estimate our Japanese stocks were down more than 21% at that time. The Yen however was up 17% against the U.S. Dollar in the first 6 months. Everything changed in July. Japanese stocks have gone on a tear which is still continuing and many companies are now trading near 52-week highs. The Nikkei 225 has climbed back to now be down -3.81% for the year. Our Japanese stocks have outperformed by a wide margin and are up around 6% in local currency so far this year. Add to that the fact that the Yen appreciated by 6.44% against the Dollar in 2016 and our year to date dollar return in Japan is around 12%.

We performed our quarterly research cycle in November looking for new Japanese stocks and for the first time that I remember it did not produce any new stocks that we want to buy right away. Only a list of companies to watch. All the good ones are not very cheap and all the cheap ones did not pass our strict criteria. We still are fully invested in Japan, however.

Our Japanese portfolio is a basket of nicely growing and cheap stocks. This month we looked at the characteristics of our average Japanese holding and they are the following:

Price/Earnings	6.8
Price/Book Value	0.8
Return on Equity	12.4%
Actual Income Growth	14.8%
Dividend Yield	2.5%

I believe a portfolio with such characteristics should produce excess returns in the future. As long as these companies continue to increase their intrinsic value, the stock prices will have to follow.

THAILAND

Our Thai stocks rose over 2%, handily beating the Thai SET index which rose 1.05%. The Thai Baht lost 1.7% against the U.S. dollar. So we came out slightly positive in US dollar terms here also.

In November Thai companies announced earnings for the third quarter. They were pretty good in general. Due to the king's passing and the announced mourning period, the economic activity in Thailand is subdued. But the government has recently announced tax breaks for shopping and travelling to motivate people to spend money in December and the government is projecting that the economy will grow 3-4% in 2017. The good news that came out on the last day of the month was that the military-installed parliament confirmed that Crown Price will be invited to succeed his father as the new king. This removes an element of uncertainty because in the last 6 weeks since the king passed away there was no confirmation from the parliament that the Crown Prince will be the next king.

Thai stocks had a very good 2016. Of course the year isn't over yet. It was the best stock market for us and one of the best stock markets in the world. So far in 2016 the Thai SET index rose 21.13%.. The currency also helped as the Thai Baht appreciated by 1.3% against the U.S. Dollar. Our All Thai composite rose 17.93% in 2016 through November. In such a strong market we have been selling some stocks which rose above fair value and as a result have built up a cash cushion to take advantage of opportunities. The Thai stock market is very peculiar and we actually like it quite a bit. Some stocks tend to jump around within some bounds and we have been able to take advantage of this by trading them. We also have core positions in stocks of great companies that are growing earnings every year. We have historically been able to generate

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Asian Results (Continued)

alpha in Thailand and I believe this will continue. This is because of our very long experience with Thai stocks, knowing the companies, knowing the stock market, and having access to local information.

SINGAPORE

The results in Singapore were disappointing. We lost over 10% in Singapore versus a gain of 2.05% for the FTSE ST All Share index. The Singapore Dollar lost 2.32% against the U.S. dollar. Our poor performance in Singapore this month is entirely due to our gold stock. Post the U.S. presidential election the price of gold plunged and took all gold stocks with it. We added to the position on the sell off because the business is actually performing very well. They are a low cost producer with expanding gold reserves.

Singapore stocks make up a small portion of our All Asian and Global strategies. Our portfolio there has been very concentrated around certain industries, like energy previously, and gold now. Even with a small weight, this is the market which really hurt our results in 2016. We just have to do a better job with these stocks going forward than we have recently. Singapore stocks are also very volatile and can quickly recover. One interesting aspect of the Singapore stock market is that almost all companies there would be considered penny stocks in the U.S due to how they are priced. The price of most stocks is below S$1. The reason for this is that stocks used to trade on the exchange in 1,000 share lots (recently this has been changed to 100 share lots). Because people wouldn't be able to buy 1,000 shares of a high-priced stock, companies there have billions of shares outstanding and tiny stock prices. This means that even the smallest change in price is at least a 2% move for a stock.

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Just the Numbers

	Period Ending 11/30/16			Period Ending 9/30/16				
ZPR Composites Names in Bold *Benchmarks in italics*	Month	Quarter To Date	YTD	1 Year	3 Year Annualized	5 Year Annualized	Inception (if < 5 yrs)	Incep. Date
ZPR Fundamental Small Cap Value	8.45%	-1.48%	24.87%	36.73%	14.94%	20.67%		
Volume Winners	10.75%	10.06%	24.81%	21.98%	13.56%	15.12%		
Volume Value	13.86%	13.28%	30.64%	24.61%	14.98%	21.87%		
Volume Momentum	8.87%	6.98%	18.92%	14.38%	4.55%	17.29%		
Russell 2000	11.00%	5.73%	17.85%	15.46%	6.71%	15.82%		
S&P 500	3.42%	1.54%	9.50%	15.45%	11.17%	16.38%		
ZPR Global Equity	2.64%	0.32%	12.27%	17.38%	6.20%	14.70%		
MSCI ACWI	0.81%	-0.87%	6.15%	12.62%	5.75%	11.24%		
ZPR All Asian	-0.73%	2.44%	4.84%	4.65%	1.14%	11.32%		
MSCI EAFE	-1.98%	-3.98%	-1.86%	7.04%	0.92%	7.91%		
ZPR All Thai Equity	0.86%	0.99%	17.93%	7.29%	7.46%		16.47%	1/1/12
Thai Set Index	1.05%	1.95%	21.13%	13.68%	5.79%		11.98%	1/1/12

Composite returns are presented net of management fees and trading expenses, and include the reinvestment of dividends and other income. All returns are in US dollars except for the Thai Set Index, which is presented in Thai Baht.

Past performance does not guarantee future results. The table above reflects (1) performance of the ZPR Investment Management, Inc. ("ZPR"), composites named in bold in the first column, (2) performance of the benchmark which reflects the composite's investment mandate, objective, or strategy, and (3) performance of the S&P 500 Index, which is provided for overall comparison and informational purposes. Please see the reverse for important information about composite and benchmark descriptions, how to receive more complete information about the composites, and disclosures regarding the calculation of performance, among other matters. Subsequent markets may perform better or worse than for the periods shown, which will cause the actual results of a portfolio to be better or worse than shown. ZPR does not guarantee or offer any assurance that any portfolio or account will be profitable, meet a client's stated objectives, or prevent or reduce losses. **A client may lose money by investing in a portfolio.**

ZPR Investment Management, Inc. ("ZPR") is an SEC registered investment adviser managing separate accounts that are fully discretionary. SEC registration does not constitute an endorsement of the firm by the Commission nor does it indicate that the adviser has attained a particular level of skill or ability. ZPR claims compliance with the Global Investment Performance Standards (GIPS™). To receive a complete description of the policies and procedures for any composite, a list and description of all ZPR composites, and a presentation that complies with the GIPS standards, please contact us at 386-775-1177 or zprim@mpinet.net.

All composites include fully discretionary, management fee-paying and, beginning on January 1, 2011, non-management fee-paying accounts, including those accounts no longer with the firm. The U.S. Dollar is the currency used to express performance, except for the ZPR All Thai Equity Strategy, for which performance is expressed in the Thai Baht. Returns are presented net of management fees and include all trading expenses and the reinvestment of all income. Net of fee performance was calculated using actual management fees, except in the case of non-fee paying accounts where model fees have been imputed. Actual advisory fees and transaction fees will vary depending on, among other things, the portfolio, account size, and activity. Fees are described in ZPR's ADV Part 2A.

The benchmark and other data provided was obtained from publicly available reports, including internally derived databases and other resources available to ZPR. ZPR believes such data to be reliable but does not audit, verify, or guarantee its accuracy or completeness. When comparing the performance results to a benchmark, clients should keep in mind that: 1) Indexes are unmanaged and unavailable for direct investment. 2) Benchmark returns include reinvestment of income, but do not reflect taxes, or investment advisory or other fees that would reduce performance. 3) Performance information of benchmark indexes is included for comparison purposes only.

Composite and Benchmark Descriptions:

The S&P 500 and Russell 2000 are market cap weighted indices of large company and small company US stocks, respectively.

The Fundamental Small Cap Value Composite consists of accounts that hold U.S. small cap stocks selected by using ZPR Fundamental Analysis. This analysis identifies undervalued companies using ZPR's GRAPES valuation model and also applies other selection criteria relating to a company's business prospects, management quality, and capital structure. The benchmark for the composite is the Russell 2000 Index, presented in U.S. Dollars. In the past the composite has displayed higher volatility than its benchmark.

The Volume Winners Composite consists of accounts that hold U.S. micro cap stocks selected by using ZPR Volume Winners Analysis. This analysis is a quantitative evaluation system incorporating volume, momentum and valuation measures. The benchmark for the composite is the Russell 2000 Index, presented in U.S. Dollars. In the past the composite has displayed lower sensitivity to market returns than its benchmark, which would cause it to underperform in a strongly rising market.

The Volume Value Composite consists of accounts that hold U.S. micro cap stocks selected by using ZPR Volume Value Analysis. This analysis is a quantitative evaluation system incorporating volume and valuation measures. The benchmark for the composite is the Russell 2000 Index, presented in U.S. Dollars.

The Volume Momentum Composite consists of accounts that hold U.S. micro cap stocks selected by using ZPR Volume Momentum Analysis. This analysis combines two quantitative evaluation techniques; ZPR's price and earnings momentum measure SuperMo, and ZPR's volume, momentum and value system Volume Winners. The benchmark for the composite is the Russell 2000 Index presented in U.S. Dollars.

The Global Equity Composite consists of accounts that hold both U.S. and International stocks selected by using ZPR Fundamental Analysis. This analysis identifies undervalued companies using ZPR's GRAPES valuation model and also applies other selection criteria relating to a company's business prospects, management quality, and capital structure. The benchmark for the composite is the MSCI All Country World (Gross) Index, presented in US Dollars. MSCI ACWI is a market capitalization weighted index comprised of equities from developed and emerging markets, including the US. The composite has historically held small cap stocks from a limited set of countries while the benchmark weighting is primarily composed of larger companies spread across many countries. This is likely to cause the composite to have greater volatility than its benchmark. The composite includes the performance of accounts that may occasionally use margin; however, the use of margin is not part of the overall strategy of the composite.

ZPR All Asian Composite consists of accounts that hold Asian stocks selected by using ZPR Fundamental Analysis. This analysis identifies undervalued companies using ZPR's GRAPES valuation model and also applies other selection criteria relating to a company's business prospects, management quality, and capital structure. The benchmark for the composite is the MSCI EAFE Index, which is comprised of equities from developed markets around the world, excluding the US and Canada. MSCI EAFE is presented in U.S. Dollars. The composite has historically held small cap stocks from a limited set of countries, including emerging markets, while the benchmark weighting is primarily composed of larger companies from developed countries. This is likely to cause the composite to have greater sensitivity to the returns of countries where it invests, and overall greater volatility than its benchmark.

The ZPR All Thai Equity Strategy consists of accounts that hold Thai stocks selected using ZPR's Fundamental Analysis. This analysis identifies undervalued companies using ZPR's GRAPES valuation model and also applies other selection criteria relating to a company's business prospects, management quality, and capital structure. The benchmark for the composite is the Thai Set (TRI) Index, a market capitalization weighted index of securities listed on the Stock Exchange of Thailand and presented in Thai Baht. The composite has historically held small cap stocks while the benchmark weighting is primarily composed of large companies. This is likely to cause the composite to have greater volatility than its benchmark.