Redhawk Quarterly Commentary

December 31, 2022

Each quarter, Redhawk's Investment Committee provides a Quarterly Commentary. We look at what is going on in the investment landscape and provide our perspective on a variety of topics. These are not predictions, and it represents our perspective on important market and economic information designed to help make decisions affecting your long-term financial strategy. Our goal is to help you understand what is going on in the markets so you can more clearly define investment goals, diagnose unintended risks, and utilize portfolios that can achieve a better financial outcome.

Market Commentary

The year 2022 will go down as a year that most may want to forget, given the negative returns. The drawdown in equities was the worst for a calendar year since 2008. U.S. equities, as measured by the Russell 2000 Index, declined 20.44% for the year. 2022 ranked as the third worst year of the last 43 years regarding calendar year performance and the third worst year of the last 20 years (surpassed only by 2008 and 2002).

US Equity Indexes	Q4 Return	2022 Return
S&P 500	7.56%	-18.11%
DJ Industrial Average	16.01%	-6.86%
NASDAQ 100	-0.04%	-32.38%
S&P MidCap 400	10.78%	-13.06%
Russell 2000	6.23%	-20.44%

Source: YCharts

Stocks ended a volatile fourth quarter with a slight gain, which helped repair some of the damage since the beginning of the year. For much of the quarter, sentiment was boosted by stronger-than-expected earnings, a deceleration in inflation, and a growing belief that the Fed may start to scale back on the pace of interest rate hikes. But the upbeat mood soured in December as recession fears were rekindled by ongoing Fed hawkishness. The Dow Jones Industrial Average gained 16.01% for the quarter, while the Standard & Poor's 500 was up 7.56%, and the tech-heavy Nasdaq 100 lagged, slipping -0.04% (see the chart above).

The quarter opened on a volatile note as stocks reacted to both international news and domestic economic updates. A higher-than-expected inflation report sent stocks to levels not seen since 2020. The market stabilized with third quarter earnings announcements. Early earnings reports calmed some fears of deteriorating profits and pushed Fed policy concerns into the background[1].

Stocks added to their gains in November based on growing investor optimism for a slowdown in future rate hikes. After the Federal Open Market Committee (FOMC) announced a 0.75% rate hike at the start of the month, stocks retreated on hawkish comments by Fed Chair Jerome Powell in his post-meeting press conference. Markets staged a quick recovery, following a cooler-than-expected inflation number that ignited a powerful rally that lifted stocks to their biggest one-day gain in two years.

Stocks opened in December by surrendering some of the October and November gains as recession fears and concerns over higher rates once again dragged on investor sentiment. The Fed announced another rate hike of 0.50%, but it was the increase in the terminal rate (i.e., the rate at which the Fed stops further rate hikes) that elevated recession worries and closed the quarter and the year on a muted note.

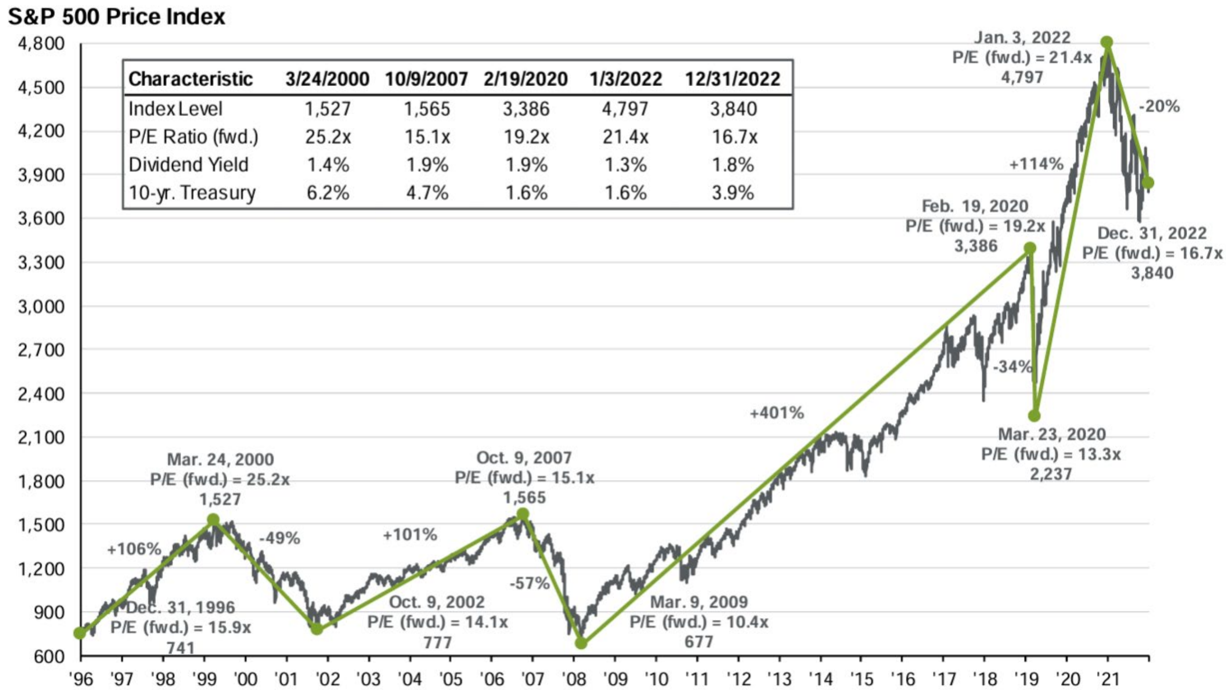
Ten sectors notched solid gains for the quarter (see the chart below). Energy was the top performer (+22.8%), followed by Industrials (+19.2%), Materials (+15.0%), Financials (+13.6%), Health Care (+12.8%), and Consumer Staples (+12.7%). Utilities (+8.6%), Technology (+4.7%), and Real Estate (+3.8%) also posted gains. There were two sectors that had negative performance for the quarter as Consumer Discretionary was the worst performer (-10.2%) and Communications Services (-1.4%).

	Energy	Materials	Financials	Industrials	Cons. Disc.	Tech.	Comm. Services*	Real Estate	Health Care	Cons. Staples	Utilities	S&P 500 Index	
S&P weight	**5.2%**	**2.7%**	**11.7%**	**8.7%**	**9.8%**	**25.7%**	**7.3%**	**2.7%**	**15.8%**	**7.2%**	**3.2%**	**100.0%**	**Weight**
Russell Growth weight	1.7%	1.5%	3.3%	8.1%	14.2%	43.2%	6.8%	1.6%	13.5%	6.1%	0.1%	100.0%	
Russell Value weight	8.4%	4.3%	20.1%	10.5%	6.0%	8.3%	7.3%	4.5%	17.4%	7.4%	5.8%	100.0%	
Russell 2000 weight	6.8%	4.3%	17.2%	15.6%	10.4%	12.7%	2.6%	6.4%	16.9%	3.6%	3.5%	100.0%	
4Q22	22.8	15.0	13.6	19.2	-10.2	4.7	-1.4	3.8	12.8	12.7	8.6	7.6	**Return (%)**
2022	65.7	-12.3	-10.5	-5.5	-37.0	-28.2	-39.9	-26.1	-2.0	-0.6	1.6	-18.1	
Since market peak (February 2020)	86.6	36.9	17.4	23.1	-1.8	24.0	-15.2	-0.9	37.4	27.3	10.6	18.8	
Since market low (March 2020)	323.4	114.1	105.7	111.2	43.8	80.1	18.8	59.1	90.6	67.6	71.8	79.4	
Beta to S&P 500	1.3	1.1	1.1	1.1	1.2	1.1	1.0*	0.8	0.8	0.6	0.5	1.0	**β**
Correl. to Treas. yields	0.1	-0.4	-0.3	-0.4	-0.5	-0.7	-0.6	-0.5	-0.4	-0.3	-0.4	-0.5	**ρ**
Foreign % of sales	37.8	55.2	21.3	32.3	34.4	57.6	42.8	15.5	36.1	43.1	2.0	39.6	**%**
NTM earnings growth	-13.2%	-11.2%	14.1%	14.5%	30.4%	3.9%	7.8%	2.5%	-3.6%	3.5%	7.4%	4.6%	**EPS**
20-yr avg.	**101.0%**	**16.4%**	**20.9%**	**14.0%**	**16.7%**	**13.6%**	**10.2%***	**6.7%**	**8.4%**	**7.7%**	**4.2%**	**11.2%**	
Forward P/E ratio	9.7x	15.8x	12.1x	18.1x	20.8x	20.2x	14.1x	16.6x	17.5x	21.0x	19.0x	16.7x	**P/E**
20-yr avg.	**13.8x**	**14.7x**	**12.4x**	**16.2x**	**19.2x**	**18.0x**	**19.0x***	**16.7x**	**15.1x**	**17.3x**	**15.4x**	**15.5x**	
Buyback yield	2.8%	3.2%	3.1%	2.5%	2.5%	2.7%	5.0%	-1.7%	1.7%	1.4%	-1.1%	2.5%	**Bbk**
20-yr avg.	**1.6%**	**0.9%**	**0.3%**	**2.2%**	**2.4%**	**2.9%**	**1.5%**	**-1.3%**	**1.9%**	**1.8%**	**-1.0%**	**1.7%**	
Dividend yield	3.2%	2.1%	2.3%	1.8%	1.1%	1.2%	1.2%	3.7%	1.7%	2.7%	3.1%	1.8%	**Div**
20-yr avg.	**2.8%**	**2.4%**	**2.3%**	**2.2%**	**1.4%**	**1.1%**	**0.0%**	**3.9%**	**1.9%**	**2.8%**	**3.9%**	**2.1%**	

Source: J.P. Morgan Guide to the Markets, December 31, 2022.

U.S. Market

Unlike the first three quarters of 2022, when all four major indices saw quarterly declines, performance was mixed during the fourth quarter as the Dow Jones Industrial Average rose sharply and the S&P 500 and Russell 2000 were solidly higher. Like most of 2022, however, the Nasdaq lagged and fell slightly in the fourth quarter. The S&P 500 Index ended the year at 3,840 with a forward price to earnings (P/E) ratio of 16.7X (see the chart below).



Characteristic	3/24/2000	10/9/2007	2/19/2020	1/3/2022	12/31/2022
Index Level	1,527	1,565	3,386	4,797	3,840
P/E Ratio (fwd.)	25.2x	15.1x	19.2x	21.4x	16.7x
Dividend Yield	1.4%	1.9%	1.9%	1.3%	1.8%
10-yr. Treasury	6.2%	4.7%	1.6%	1.6%	3.9%

Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.

Expectations for higher rates, slowing economic growth, and lower earnings weighed on the tech sector in the fourth quarter, which was the case for much of 2022. Conversely, less economically sensitive companies that trade at lower valuations than tech stocks outperformed again as investors continued to shift towards defensive sectors amid growing recession fears. On a full-year basis, all four major indices posted negative returns, with the Dow Jones Industrial Average relatively outperforming while the Nasdaq significantly lagged the other major indices.

From an investment style standpoint, value massively outperformed growth all year and that trend continued in the fourth quarter. Value stocks benefited from lower forward price to earnings (P/E) ratios and higher dividend yields as compared to growth stocks (see the chart to the right). Additionally, value stocks, were viewed as more attractive in the market environment of 2022 due to lower valuations and exposure to business sectors that are considered more resilient than high-growth parts of the market.

Value vs. Growth relative valuations
Rel. fwd. P/E ratio of Value vs. Growth, 1997 - present

Source: FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management.

By market capitalization, large-caps slightly outperformed small-caps in the fourth quarter, but modestly outperformed throughout 2022. Concerns about future economic growth and higher interest rates (which can negatively impact small-caps due to funding needs) were the main drivers of large-cap outperformance and small-cap underperformance throughout 2022. Small-cap stocks did show some resilience in the fourth quarter with the Russell 2000 index registering a solid gain as investors hoped for a peak in inflation and ultimately interest rates, led to some dip buying in the segment[2].

Fixed Income Markets

The Fed raised the federal funds rate at the fastest pace in history with seven interest rate hikes, bringing the effective rate to a range of 4.25% - 4.50% from zero in January. The speed of the interest rate hikes led bond yields significantly higher, driving bond prices to historic lows in 2022[3].

U.S. bonds (Bloomberg U.S. Aggregate) fell 13.0%, the worst year since the index's inception in 1976 (see the chart to the right). The 2-year Treasury yield rose to 4.41%, up from 0.8% in January, while the ten-year yield rose to 3.88% from 1.5% at the start of the year (see the chart on the next page). 30-year Treasury bonds, which

Worst years for U.S. Bonds
Since 1926, total return for each period

Year	Return	Next 12 months
2022	-13.0	?
1994	-2.9	18.5
1931	-2.3	8.8
2013	-2.0	6.0
2021	-1.5	-13.0
1958	-1.3	-0.4
1999	-0.8	11.6
1969	-0.7	16.9
1955	-0.7	-0.4
1956	-0.4	7.8
Avg.	-2.6	6.2

Source: Blackrock.

have greater sensitivity to interest rates experienced the worst of the damage and were down -33.29% for the year. Even Treasury Inflation-Protected Securities (TIPS), designed to protect investors in times of high inflation, did not offer a hedge against rising interest rates, ending the year with double-digit losses. Finally, high-yield bonds also finished the year down 11.19%, primarily due to a flight to higher quality amid uncertainty.

The yield curve inverted for most of 2022. At the end of the year, the 10-year U.S. Treasury yield less the 2-year yield stood at levels not seen since the 1980s. This has weighed negatively on market sentiment because it is a highly regarded indicator of recessions.

	Yield		Return			
U.S. Treasuries	12/31/2022	12/31/2021	2022	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
2-Year	4.41%	0.73%	-4.11%	2 years	0.71	-0.23
5-Year	3.99%	1.26%	-9.74%	5	0.93	-0.19
TIPS	1.58%	-1.04%	-11.85%	10	0.60	0.33
10-Year	3.88%	1.52%	-16.33%	10	1.00	-0.17
30-Year	3.97%	1.90%	-33.29%	30	0.93	-0.19
Sector						
U.S. Aggregate	4.68%	1.75%	-13.01%	8.4	0.85	0.19
IG Corps	5.42%	2.33%	-15.76%	10.9	0.51	0.46
Convertibles	7.05%	3.66%	-18.92%	-	-0.17	0.87
U.S. HY	8.96%	4.21%	-11.19%	5.5	-0.12	0.74
Municipals	3.55%	1.11%	-8.53%	13.0	0.48	0.20
MBS	4.71%	1.98%	-11.81%	7.8	0.78	0.11
ABS	5.89%	1.96%	-3.23%	3.6	0.01	0.06
Leveraged Loans	11.41%	4.60%	0.06%	2.4	-0.37	0.60

Source: J.P. Morgan Guide to the Markets. December 31, 2022.

An inverted yield curve often predicts U.S. recessions. The reason being is that if short-term interest rates exceed longer term rates, then it does not make sense to lend for the long term. Instead, banks, and other financial institutions, can achieve better returns making short-term investments. That can cause overall investment to decline because many projects require long-term funding and those may get cut or postponed, which in turn, can reduce growth.

International Markets

Internationally, foreign markets significantly outperformed the S&P 500 in the fourth quarter thanks to a large bounce in Chinese stocks as Beijing ended its "Zero-Covid" policy and commenced an economic reopening, while a falling dollar boosted global economies.

Foreign developed markets outperformed emerging markets in the fourth quarter primarily because of the resignation of Prime Minister Truss and the abandonment of her fiscal spending and tax cut plan. For the full-year 2022, foreign developed markets registered negative returns, but with the fourth-quarter rally, they slightly outperformed the S&P 500 (see the chart to the right)[4].

Returns	2022		2021		15-years	
	Local	USD	Local	USD	Ann.	Beta
Regions						
U.S. (S&P 500)	-	-18.1	-	28.7	8.8	0.90
AC World ex-U.S.	-9.2	-15.6	13.5	8.3	2.0	1.07
EAFE	-6.5	-14.0	19.2	11.8	2.3	1.04
Europe ex-UK	-12.2	-17.3	24.4	16.5	2.4	1.18
Emerging markets	-15.2	-19.7	0.1	-2.2	1.0	1.18
Selected Countries						
United Kingdom	7.2	-4.8	19.6	18.5	1.4	1.02
France	-6.9	-12.7	29.7	20.6	2.8	1.22
Germany	-16.5	-21.6	13.9	5.9	0.9	1.31
Japan	-4.1	-16.3	13.8	2.0	2.5	0.72
China	-20.6	-21.8	-21.6	-21.6	0.6	1.10
India	3.0	-7.5	28.9	26.7	2.4	1.26
Brazil	8.6	14.6	-11.2	-17.2	-2.1	1.50
Korea	-24.4	-28.9	0.8	-7.9	1.6	1.49

Source: FactSet, Federal Reserve, MSCI, Standard & Poor's, J.P. Morgan Asset Management

United Kingdom

U.K. equities rose over the quarter, helped in part by the country emerging from its September crisis. Markets were volatile in September because the former prime minister announced huge fiscal stimulus, with little detail on how it would be funded. This led to the resignation of Prime Minister Truss and the new leadership promised the country that they would tighten spending. Additionally, the decision by the Bank of England to reduce the pace of interest rate hikes also helped the markets recover from their lows.

Japan

After rising for most of October and November, the Japanese stock market declined in December. The total return for the fourth quarter remained positive at 3.3% (in yen terms). Having weakened against the U.S. dollar for most of 2022, the yen strengthened and returned to levels last seen in July and August.

The Bank of Japan decided in the fourth quarter to widen the band for maintaining 10-year bond yields that was a key in strengthening the yen in December. The earlier than expected move by the central bank reflected a belief that Japan's inflation rate is finally moving into a more sustainably positive range after decades of deflation.

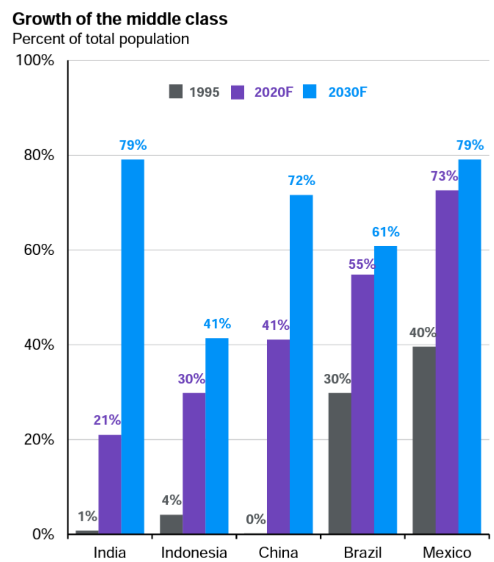
Asia (ex Japan)

Asia ex Japan equities achieved robust gains in the fourth quarter, with almost all markets in the index ending the period in positive territory. China, Hong Kong, and Taiwan all achieved robust growth over the quarter, with share price growth particularly strong in November after U.S. President Joe Biden and Chinese leader Xi Jinping expressed a desire to improve U.S.-China relations.

The recovery in Hong Kong and Chinese share prices continued in December after Beijing loosened its pandemic restrictions that have constrained China's economic growth since early 2020. South Korean shares ended the quarter in positive territory after the country's central bank raised interest rates.

Emerging Markets

Emerging markets (EM) posted strong returns over the fourth quarter, helped by a weaker U.S. dollar and the rise of the middle class in these countries (see the chart to the right). Most of the returns were generated in November on optimism that the Fed would pause rate increases and any recession would be shallow.



Source: The Brookings Institution and J.P. Morgan Asset Management Guide to the Markets, December 31, 2022.

The Middle East markets underperformed the EM index as they were impacted by weaker energy prices. Qatar and Saudi Arabia were major laggards. Returns in Indonesia were also negative. Other underperformers included India (where macroeconomic data releases were mixed), Brazil (where policy uncertainty clouded the outlook), and Taiwan.

China outperformed as investors welcomed the relaxation of Covid regulations, which helped boost optimism regarding an earlier-than-expected re-opening of the economy. Support for the housing sector also added to the positive sentiment. Poland and Hungary continued to rebound following months of underperformance because of the war in neighboring Ukraine. Turkey was the strongest index market as the central bank continued to loosen monetary policy.

Economic Outlook

The impact of the 2022 rate hikes now filtering through the economy should result in slower growth and moderate inflation. The strong labor market has kept recession talks at bay but increased the Fed's outlook to continue to fight inflation. Unemployment continues to remain low and wage growth is slowing.

The outlook for stocks and bonds has brightened somewhat since last quarter largely due to the likelihood that the Fed is closer to the end of its rate hiking cycle than they were at the end of last quarter. However, it takes time for a Fed rate hike to flow through the economy and show up in changes to corporate revenues, profits, margins, and employment trends. With all the hikes of 2022 and a few more on the way during 2023, the economy and markets will not feel the full impact until later this year. Until there is greater clarity on the actual impact on the performance of the economy stocks may well be moving sideways with no clear direction.

The massive repricing of the fixed income markets in 2022 provides for a much more favorable backdrop for investors in the new year. The rise in Treasury yields and wider credit spreads that produced negative returns last year now offer investors additional income. A slowing economy will pressure corporate earnings, but credit fundamentals of the investment grade corporate sector are on solid ground[5].

There continues to be downside risks to the capital markets which should be kept in mind as 2023 gets underway. Those risks include the Fed overshooting their rate increases, a deeper than-expected recession, contagion which could emerge from an increase in credit defaults as rates continue to rise, and of course a possible escalation in the conflict in Ukraine and its potential impact on the prices of oil and commodities. These types of events could well lead to elevated market volatility in comparison to recent years.

A longer-term view of the markets suggests that the tailwinds equities and bonds enjoyed for the past decade primarily because of massive fiscal stimulus and ultra-low interest rates will not resurface any time soon. Equity values are more likely to be driven by operational successes of businesses with an emphasis in earnings and cash flows.

We expect bond market returns to stabilize in 2023. On the equity side, high-quality businesses with durable competitive advantages, excellent balance sheets, and plenty of free cash should continue to do well in the future.

Acknowledgements

1. "Quarterly Market Insights | Q4 2022," Robert Baird, January 2023. https://amckee.rwbaird.com/campaigns/monthly-market-insights
2. "4th. Quarter 2022 Market Review and Commentary," Mike Minter, Financial Synergies Wealth Advisors, January 3, 2023. https://www.finsyn.com/4th-quarter-2022-market-review-and-commentary/
3. "Investment Commentary – Q4 2022," PRW Wealth Management, January 13, 2023. https://prwwealthmanagement.com/investment-commentary-q4-2022/
4. "Quarterly Markets Review – Q4 2022," Schroder Investment Management, January 5, 2023. https://www.schroders.com/en/us/insights/multi-asset/quarterly-markets-review---q4-2022/
5. "Fixed Income Market Commentary, 2022 Review and 2023 Outlook," Baird Advisors, January 2923. https://www.bairdassetmanagement.com/insights/

It is not enough to own a portfolio personalized for your situation, based on your comfort with risk and long-term financial goals. You must be patient and disciplined, too. With Risk-Guard™, our risk management process, our investment committee is reviewing the market conditions and underlying investments on a weekly basis. Please contact your Redhawk financial advisor to learn more.

The views expressed represent the opinion of Redhawk Wealth Advisors, Inc. The views are subject to change and are not intended as a forecast or guarantee of future results. This material is for informational purposes only. It does not constitute investment advice and is not intended as an endorsement of any specific investment. Stated information is derived from proprietary and nonproprietary sources that have not been independently verified for accuracy or completeness. While Redhawk Wealth Advisors, Inc. believes the information to be accurate and reliable, we do not claim or have responsibility for its completeness, accuracy, or reliability. Statements of future expectations, estimates, projections, and other forward-looking statements are based on available information and the Redhawk Wealth Advisors, Inc.'s view as of the time of these statements. Accordingly, such statements are inherently speculative as they are based on assumptions that may involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such statements. Investing in equity securities involves risks, including the potential loss of principal. While equities may offer the potential for greater long-term growth than most debt securities, they generally have higher volatility. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles, or from economic or political instability in other nations. Past performance is not indicative of future results.

Redhawk Wealth Advisors, Inc. is an SEC registered investment advisor ("RIA") that provides comprehensive retirement plan and financial planning tools and critical back-office support for financial advisors nationwide. Redhawk's focus is to enable financial advisors to create, grow, and manage wealth through a broad range of financial products and services that promotes the economic well-being of our select group of clients and financial advisors.

For more information, please contact Redhawk at either research@redhawkwa.com or (952) 835-4295.