

# The Tactical Model Report

a Retirement Collaborative LLC Report

Dauphin County PA Deferred Compensation Plan  
 Quarterly Investment Report  
 2022 Q4



Asset Class	2022 Q3	2022 Q4	Action
Money Market / Short-Term Bond			No Changes
Bonds			No Changes
U.S. Stocks			No Changes
International Stocks			No Changes
Real Estate			No Changes
Materials & Natural Resources			No Changes

This report contains the 2022 Q4 quarterly allocations for your retirement plan’s tactical models. **As of this quarterly review, the U.S. equity trend indicator was negative, the international trend indicator was negative, and the Balance of Strength Signal was negative. The Bond Bull-Bear Indicator remains negative.**

**In late January, the stock indicators we use in these models turned negative and the models moved to more conservative allocations just above each model’s minimum High Risk Category Exposure. At the beginning of last quarter, the models reduced their High Risk Category exposure all the way to their minimum allocations. Money not invested in High Risk Category investments was allocated to the money market fund. With short-term rates rising, money markets are starting to provide a decent yield especially when compared to the uncertainties in the bond markets. We will monitor the market action and will consider intra-quarter changes should the indicators change. There are no changes to the model allocations at this time.**

Most stock indexes entered a bear market in the second quarter with losses of 20% or more. Stocks rallied in June and July but gave up all their gains in August and September. At the end of the third quarter, most stock indexes were at or around their 2022 lows. The top performing stock sectors of the last couple of years have continued to be hit the hardest year-to-date. What has been most unusual this year has been the negative returns of bonds. With both stocks and bonds declining, it has been one of the worst periods for a typical stock and bond portfolio. It has been since the 1970’s that we have seen comparable periods of stocks and bonds both dropping this precipitously. This was the last time our country was facing high inflation.

Inflation continues to be one of the pressing concerns for the global economy. Both asset classes have been negatively affected by inflation that has primarily been caused by the Federal governments COVID pandemic response of shutting down the economy and massive fiscal stimulus. Shutting down the economy caused supply constraints. Fiscal stimulus funneled massive amounts of money into the U.S. economy. For example, some citizens were receiving more income from stimulus checks while unemployed than they were making when

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employed. With more money to spend (higher demand) and less goods to buy due to damaged supply chains, prices rose.

In an effort to fight inflation, the Federal Reserve has continued to raise short-term rates and they are implementing a plan to reduce their balance sheet, which typically has a contractionary effect on financial markets and the economy. With some of the economic data coming in, it appears as though their plan of reducing demand by slowing down the economy may be working. This is a delicate situation. Their goal is to weaken demand enough to reduce the growth of inflation and slowly bring it down. The problem is that once the economy begins to slow, it can be hard to control the rate of decline. Here is a quote from Fed Chairman Powell: (full article can be found here - <https://abcnews.go.com/Politics/wireStory/powells-stark-message-inflation-fight-recession-90305414>)

*"We have got to get inflation behind us," Powell said. "I wish there were a painless way to do that. There isn't."*

By "Pain", I think he means decreasing demand because the Federal Reserve Bank cannot easily affect supply. Demand decreases because people do not have money to spend on the things they want or need. This could result from people losing their jobs in a slowing economy. I think it is clear where his priorities currently are.

Federal government policies have also led to higher inflation. By trying to force a sudden move from fossil fuels to electric-based energy, some policies have created supply constraints that are now rippling through the US economy. Additionally, in the run up to the midterm elections, President Biden has been depleting the strategic oil reserve to lower gas prices. In the short-term, this has been working. Unfortunately, the reserve is at levels not seen since 1984. At some point in the near future, the distributions from the strategic oil reserve will have to stop and then the oil reserves will need to be replenished. This in itself could lead to higher oil prices in the US. Lastly, one policy that I had not thought about until I read an article this week is illegal immigration. It is estimated that roughly 5 million illegal immigrants have crossed the border since President Biden took office. Whether you agree with his policies or not, the fact is that the country now has 5 million more people to feed, house and provide energy to. This increases demand for those items. If supply does not increase with demand, then prices rise.

And we cannot forget about the war between Russia and the Ukraine and the sanctions that the western nations have imposed. Inflation was already well entrenched before the war started, but the sanctions that the West imposed upon Russia have made things worse. Unfortunately, the sanctions have done little to negatively affect Russia while they have had incredibly detrimental consequences for citizens of western Europe and the UK. Russia continues to sell its fossil fuel, food, and fertilizer to eastern countries, some of whom sell it back to European countries at much higher prices. So not only have these policies not had the desired outcome of crippling Russia financially, but they have also had the opposite result of crippling the European economy. Unless things change, this will only get worse as we move through the winter season.

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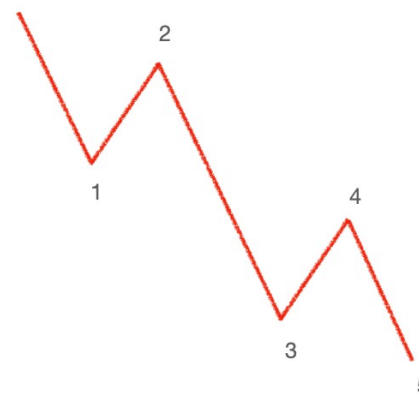
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Above is a chart on the S&P 500 Index ETF (SPY) showing monthly movements. At the beginning of the year, we had set potential downside targets at the two arrows on the right. Our initial downward target is around a 34% decline from the December 2021 highs, which is a somewhat typical decline for a recessionary bear market. To reach that target, the S&P 500 index would need to fall around another 11% from the quarter's close. We also had a secondary target of a 55% decline. This would be similar to the declines experienced during the tech bubble and the financial crisis. From current levels, it would take around a 40% decline on SPY to reach the secondary target. We would put the odds of hitting the first downside target at around 70% or more and the secondary target in the 30-50% range.

Regarding where we are at in the decline, it is not uncommon for major declines to happen in five waves. If this decline follows this pattern, then we have had the first wave down and second wave up and we are in the midst of the third wave down. Wave three declines are usually the worse out of the five.

If inflation remains high, then the Federal Reserve Bank may be more aggressive in tightening monetary conditions, which could lead to a deeper recession. If a coordinated approach between fiscal and monetary policy is able to dampen inflation, and if peace talks were pursued in the Ukraine war; then we could see markets quickly turn back positive. Unfortunately, most of the news we see coming out of the war is leading to an escalation rather than peace. Fiscal policy is still leaning towards inflation. This leaves the Federal Reserve Bank who is set to use its dull hammer of monetary policy to try to inflict "Pain" on the economy to reduce demand. If the Federal



Reserve Bank is the only actor attempting to tamp down inflation, then there are likely further declines in the stock and bond markets.

## On the Positive Side

The greater the market losses while the models are preserving capital with minimal losses, the greater the potential returns when the markets bottom and start to rise. It takes patience to weather the downside. Things are cyclical. At some point in the next year or so, we will exit this harsh winter to the new growth of spring. We feel that the model's risk-manage strategy is preparing our gardens nicely for the coming spring and summer.

Also, interest-bearing cash accounts and ultra-short-term treasuries are looking more and more attractive as short-term rates rise. This means the plan's money market yield is paying a much higher rate and it is FDIC insured.

If you are uncomfortable with your selected model maintaining its currently low High Risk Category exposure, we recommend that you look at other plan investment options or a more aggressive tactical model. You can also contact your investment advisor representative, Stephen Hetrick at [Hetrick@retirementc.com](mailto:Hetrick@retirementc.com) or 717-545-1447 to discuss your concerns and alternative options. Feel free to jump right to the model pages or first read our model and market commentary. As always, if you have questions regarding these models, your deferred compensation account, or retirement planning; do not hesitate to contact us.

## Market Environment

**U.S. Markets:** For the month of September the NASDAQ fared the worst, falling -10.5%, while the Dow closed down -8.8%. The S&P 500 gave up -9.3%, the mid cap S&P 400 shed -9.4%, and small caps finished down -9.7%. Stocks closed down for a third consecutive quarter. In the third quarter, the Dow gave up -6.7%, the NASDAQ fell -4.1%, and the benchmark S&P 500 ended down -5.3%. The mid cap S&P 400 and small cap Russell 2000 finished the quarter down -2.9% and -2.5% respectively.

**International Markets:** In September, Canada declined -4.6%, the UK lost -5.4%, and France and Germany ended down -5.9% and -5.4%, respectively. China retreated -5.6%, while Japan plunged -7.7%. Developed markets ended the month down -9.2% and emerging markets plummeted -11.5%. For the third quarter, Canada and the UK pulled back -2.2% and -3.8%, while France and Germany closed down -2.7% and -5.2%. China ended the quarter down -11%, while Japan ticked down a relatively modest -1.7%. Emerging markets as a group dropped -13% and developed markets ended down -10.4%.

**Commodities:** Precious metals were mixed in September. Silver gained 6.5%, while Gold shed -3.1%. Oil plunged -11.2% in September and Copper finished down -3.1%. In the third quarter, Gold and Silver declined -7.5% and -6.5%, respectively. Oil plummeted -24.8%. Copper finished the quarter down -8.1%.

**U.S. Economic News:** The number of Americans filing for first-time unemployment benefits fell to its lowest level in five months last week, a sign the labor market remains robust. The Labor Department reported initial jobless claims fell by 16,000 to 193,000 in the week ended September 24<sup>th</sup>. That's the lowest level of claims since late April. Economists had expected claims to rise by 2,000. Analysts note recent rate hikes by the Federal Reserve are not yet cooling the economy. In fact, the media continues to report more stories about shortages of skilled workers than layoffs. Ian Shepherdson, chief economist at Pantheon Macroeconomics, wrote in a note to clients, "With labor still very hard to find, firms probably are holding on to people who under

normal conditions would have been laid off. At this point, then, the softening of the labor market which the Fed wants appears unlikely to come via rising layoffs.”

Home prices across the country pulled back in July as mortgage rates approach levels not seen since 2007. S&P CoreLogic reported its 20-city home price index fell a seasonally adjusted -0.4% in July, down from a 0.4% rise in June. The decline slowed the annual rate of increase to 16.1%, down from 18.7% in the previous month. The rate of rise has slowed sharply since reaching a peak of 21.2% in April. All 20 cities comprising the 20-city index reported lower home year-over-year prices. Tampa, Miami, and Dallas reported the highest year-over-year gains among the 20 cities in July. Price growth was strongest in the South and Southeast—up over 26% over the past year. San Francisco, Seattle, and San Diego reported the steepest fall in home prices. Craig J. Lazzara, managing director at S&P DJI, summed up the report succinctly, “July’s report reflects a forceful deceleration.” Stephen Stanley, chief economist at Amherst Pierpont, wrote in a note “The cooling has come fast and hard. Cities in the West posted the steepest increases during the pandemic, and they are reversing hard now.”

Economic growth slowed in August, according to data from the Federal Reserve Bank of Chicago, adding to signs of an impending recession. The Chicago Fed’s National Activity index (CFNAI) monthly decline in August was driven by weakness in production-related indicators, whose losses offset gains by the index’s other components. The CFNAI, designed to gauge overall economic activity and inflationary pressures on a nationwide level, is composed of 85 economic indicators from four broad categories of data: production and income; employment, unemployment, and hours; personal consumption and housing; and sales, orders, and inventories.

Inflation in August was stronger than expected despite the Federal Reserve’s efforts to bring down prices. The Personal Consumption Expenditures (PCE) index, rumored to be the Federal Reserve’s preferred measure of inflation over the CPI, rose 0.3% in August, up from a -0.1% decline in July. Excluding food and energy, so-called “core” PCE rose 0.6% for the month. On an annual basis, core PCE increased 4.9%—more than the 4.7% consensus forecast and up 0.2% from the previous month. The Fed generally favors core PCE as the broadest indicator of where prices are heading as it adjusts for consumer behavior. Regardless of which metric is chosen, CPI or PCE, the data shows inflation running well above the central bank’s 2% long-run target.

Orders for goods expected to last at least three years, so-called ‘durable goods’, pulled back slightly in August because of lower demand for large aircraft, but investment rose in a sign the economy is still plowing ahead. The Census Bureau reported orders for durable goods fell -0.2% in August, less than the -0.5% decline economists had expected. More importantly, analysts note, ‘core orders’ jumped 1.3% last month showing surprising strength. Core orders exclude big-ticket items like military spending, auto manufacturing, and airplane manufacturing that can skew the report wildly one way or the other. Analysts look to core orders for a more reliable sign of demand in the broader economy. Senior U.S. economist Andrew Hunter of Capital Economics stated the drop in orders “wasn’t as bad as we expected and suggests that business equipment investment is, for now at least, still holding up in the face of surging interest rates.”

Confidence among the nation’s consumers hit a five-month high this month, predominantly due to the fall in gas prices. The Conference Board reported its index of U.S. Consumer Confidence rose 4.4 points to 108 in September. Economists had expected a reading of 104.5. Falling gas prices eased the anxieties of Americans feeling the pain of high inflation, but now rising interest rates are increasing the borrowing costs for houses, cars, and just about everything else. In the details, a measure of how consumers feel about the economy right now rose 4.3 points to 149.6 in September, while a similar gauge that looks ahead six months climbed to 80.3 from 75.8—the highest level in seven months.

**International Economic News:** Canada’s economy grew in July, bucking expectations of an imminent decline. Statistics Canada reported Canada’s gross domestic product expanded by 0.1% in July, as growth in

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mining, agriculture and the oil and gas sector offset weakness in manufacturing. While the economy eked out slight growth in July, the data agency's early look at August's numbers shows no growth. Economist Royce Mendes with Desjardins wrote in a note, "The economy fared better than anticipated this summer, but the showing still wasn't much to write home about." Still, the performance of Canada's economy throughout the fiscal year — 3.6 per cent growth in Q1 and 4.2 per cent thus far in Q2 — remains one of the best in the world.

Across the Atlantic, the Bank of England took emergency action this week to stabilize its financial markets and head off a crisis in its broader economy. The central bank warned that crumbling confidence in the economy posed a "material risk to U.K. financial stability" and announced it would buy long-term government bonds over the next two weeks to combat a recent slide in British financial assets. "Were dysfunction in this market to continue or worsen, there would be a material risk to U.K. financial stability," the bank said in a statement. "This would lead to an unwarranted tightening of financing conditions and a reduction of the flow of credit to the real economy." The British pound plunged to a record low against the U.S. dollar following the government's announcement and yields on U.K. government debt soared.

On Europe's mainland, France's finance minister said the fight against inflation is his biggest priority as he delivered the 2023 budget. "The most important and most urgent challenge for France and other European nations is to bring down the inflation pressure," Finance Minister Bruno Le Maire said. The ministry said it had budgeted 45 billion euros (\$43.6 billion) next year to cap increases in gas and power prices at 15%. Le Maire said that "uncertainty has never been greater" about the economic outlook for next year as the war in Ukraine continues to rage and Russia's moves remained unpredictable. The Finance Ministry forecast earlier this month that the economy would grow 2.7% this year before slowing to 1% next year, while the central bank expects 0.8% next year at most.

Europe's main economic powerhouse, Germany, just reported its highest inflation in 70 years as economists warn of the risk of a deep recession. German inflation soared to 10.9% in September, accelerating from 8.8% in August. It was the first time German inflation has reached double-digits since 1951. The increase is expected to lift overall Eurozone inflation to a new record of 9.7%. Chancellor Olaf Scholz responded to soaring energy costs this week by announcing a 200 billion euro cap on gas prices, which he described as a "defensive shield" to be financed by extending an off-balance sheet fund set up to provide aid during the coronavirus pandemic. "Inflation is running red hot in Germany," said Carsten Brzeski, an economist at Dutch bank ING, adding that it was "hard to see" how the European Central Bank could not raise interest rates by 0.75 percentage points for a third consecutive time at next month's meeting.

In Asia, for the first time in more than 30 years, China's economic growth has been put behind the rest of the Asia-Pacific region in World Bank forecasts. In its biannual report, the World Bank said the annual growth outlook for East Asia and the Pacific region had been downgraded from 5% to 3.2%. However, much of that decline was due to economic problems in China, which constitutes 86% of the region's economic output. The World Bank forecast GDP growth in China — the world's second largest economy — of just 2.8% for 2022, while the rest of the 23-country region is expected to grow an average of 5.3%, more than double 2021's 2.6% rise. The forecast for China puts its GDP growth behind its neighbors for the first time since 1990.

Japanese Finance Minister Shunichi Suzuki said authorities stood ready to respond to speculative currency moves, a warning that comes days after Tokyo intervened in the foreign exchange market for the first time in more than two decades to stem a fall in the yen. Suzuki also stated Japan's government and the Bank of Japan were on the same page sharing concerns about the currency's sharp declines. "We are deeply concerned about recent rapid and one-sided market moves driven in part by speculative trading," Suzuki said. "There's no change to our stance of being ready to respond as needed" to such moves, he added. Analysts state Japan likely spent

a record around 3.6 trillion yen (\$25 billion) last week in its first dollar-selling, yen-buying intervention in 24 years to stem the currency's sharp weakening.

(Sources: All index- and returns-data from Yahoo Finance; news from Reuters, Barron's, Wall St. Journal, Bloomberg.com, ft.com, guggenheimpartners.com, zeroedge.com, ritholtz.com, markit.com, financialpost.com, Eurostat, 0020Statistics Canada, Yahoo! Finance, stocksandnews.com, marketwatch.com, wantchinatimes.com, BBC, 361capital.com, pensionpartners.com, cnbc.com, FactSet.)

## Equity and Bond Indicator Status

U.S. Equity Trend Indicator:	<b>Downtrend</b>
INTL Equity Trend Indicator:	<b>Downtrend</b>
Balance of Strength Signal	<b>Negative</b>
U.S. Bond Bull-Bear Indicator:	<b>Cyclical Bear Market</b>

### U.S. Stocks



Long-Term Cycle: **Secular Bear Market**  
Intermediate Cycle: **Cyclical Bear Market**  
Market Trend: **Downtrend**

### International Stocks



Long-Term Cycle: **Secular Bear Market**  
Intermediate Cycle:  
Market Trend:

### Bonds



Intermediate Cycle: **Cyclical Bear Market**

## Tactical Asset Allocation Overview

Below is a recap of the investment process that the models use.

### Quarterly Review

#### *High Risk Category Investments*

For these models, we utilize three stock indicators, our U.S. Equity Trend Indicator, our International Trend Indicator, and our Balance of Strength Signal (BOSS).

To determine whether a model has its minimum or maximum exposure to High Risk Category investments, at the beginning of each quarter, we review our indicators. When either or both of the equity trend indicators are in an uptrend during the quarterly review process, the models will target their maximum equity allocations for the quarter unless the BOSS is negative. When the BOSS is negative at the beginning of a quarter, we will normally delay making changes until either the BOSS turns positive or the trend indicators are both negative.

When both the U.S. and International Equity Trend Indicators are in downtrends, the models will target their minimum High Risk Category allocations unless the BOSS is positive. When the BOSS is positive at the beginning of a quarter, we will usually delay making changes until the trend indicators turn positive or the BOSS turns negative.

When there is nonuniformity of the indicators, the models could hold a High Risk Category allocation between the minimum and maximum constraints.

#### *Medium and Low Risk Category Investments*

The amount not invested in High Risk Category investments will be invested in the Plan's low risk or medium risk category investments. When our Bond Indicator is positive, the models can have exposure to bonds and the money market fund. When it is negative, this amount will be invested in the low-risk category investments, or when stock indicators are positive, it may include high yield bonds, which typically do well when stocks are doing well.

### Intra-Quarter Review

#### *When Models Have Maximum High Risk Category Exposure*

If the indicators turn negative during the quarter, the models can reduce their exposure to High Risk Category investments down to the model's minimum exposure. All three indicators do not have to be negative for the models to start to reduce their High Risk Category exposure. If this occurs towards the end of a quarter and there is no change to the indicators at the quarterly review, there will most likely be no changes to the model's allocations during that quarter's review.

#### *When Models Have Minimum High Risk Category Exposure*

If the indicators turn positive during the quarter, the models can move up to their maximum High Risk Category exposure. All three indicators do not have to be positive for the models to start to increase their High Risk Category exposure. If this occurs towards the end of a quarter and there is no change to the



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indicators at the quarterly review, there will most likely be no changes to the model's allocations during that quarter's review.

## Model Constraints

Model	Minimum High Risk Category Allocation	Maximum High Risk Category Allocation
Tactical Conservative Model	0%	30%
Tactical Moderate Model	10%	60%
Tactical Growth Model	20%	90%

Listed above are the minimum and maximum exposures the models may have to the High Risk Category investments. The models' allocations may fall anywhere in between these ranges but will usually have the maximum High Risk Category exposure when indicators are positive, and when the indicators are negative, they will usually have the minimum High Risk Category exposure or this exposure plus 10%.

There may be times in between model rebalancing that the actual holdings in High Risk Category investments exceeds the minimum and maximum allocations. This would occur when either High Risk Category investments are significantly underperforming the medium and/or low risk category investments, or when they are significantly outperforming the lower risk categories

## Fund Selection

We feel that the primary driver for a model to potentially outperform its benchmark over a full market cycle (from one market peak to the next) is the tactical asset allocation process. We believe the secondary driver could be fund selection. This is defined as the selection of the funds within an asset class, such as stocks. If a higher percentage is invested in the funds/sectors that are outperforming the others, then the strategy should have a slightly higher return. The remaining amount will be allocated to the highest ranked category options in your plan. The portion not invested in High Risk Category investments will be invested in bonds and/or stable value as long as bonds are in a Cyclical Bull Market. If bonds are in a Cyclical Bear Market, then this portion will be invested in the Low Risk Category Investments and possibly high yield bonds.

## Investment Risk

Diversification is the first line of defense. Selecting the appropriate model to meet your investment goals and risk tolerance is of primary importance. **Retirement Collaborative LLC offers a Free Portfolio Risk Analysis that can be used to help you select an appropriate portfolio. We encourage you to take it by using the link on the**

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Plan's Web Portal ([www.dauphincountydcplan.com](http://www.dauphincountydcplan.com)) or by requesting one via email – [Hetrick@retirementc.com](mailto:Hetrick@retirementc.com). It is also important to update this risk profile as your investment objectives change. If you have questions regarding this process or if your financial situation has changed, please contact us. The tactical investment process is the second line of defense, but it is important to understand that no indicator is perfect. If it was, then everyone would want to use it and it would not work. We are looking for indicators that have worked well the majority of the time and have provided value in the past. There will be times when using a tactical approach will detract from returns and then there will be other times when it looks brilliant. The goal is to accumulate money over a long period of time so that you achieve your retirement objectives. This process attempts to do so by focusing on reducing downside risk while still seeking to achieve long-term returns in line with or better than the model's benchmark index. Lastly, there will be times when the sectors we overweight underperform a broad-based index's return. We feel that over time overweighting certain sectors will add value. If we find that the fund selection process is not adding value, we will examine using a constant sector holding.

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Risk	Asset Class	Sub-Asset Class	Plan Investment Option
Low Risk	Fixed Income	Stable Value	Alerus Money Market
		Short-Term Bond	Vanguard Short-Term Bond Index Adm
Medium Risk	Fixed Income	Intermediate Bond	Fidelity U.S. Bond Index Fund
		Inflation Protected Securities	Fidelity Inflation Protected Bond Index Fund
		High Yield Bond	BrandywineGLOBAL High Yield I
		Foreign Bond	Vanguard Total INTL Bond Index Fund Adm
		Foreign Bond	Dodge & Cox Global Bond Fund Class I
High Risk	U.S. Equities	Large Cap Growth	Fidelity Large Cap Growth Enhanced Index Fund
		Large Cap Blend	Pear Tree Quality Ordinary Shares
		Large Cap Blend	Vanguard Total Stock Market Index Fund
		Large Cap Value	Neuberger Berman Large Cap Value R6
		Mid Cap Growth	BlackRock Mid-Cap Growth Equity Port Svc Shares
		Mid Cap Value	Vanguard Mid-Cap Value Index Fund
		Small Cap Growth	AB Small Cap Growth Portfolio Advisor Class
		Small Cap Growth	Morgan Stanley Inception Portfolio IS
		Small Cap Value	MFS New Discovery Value R4
	Moderate Allocation	Moderate Allocation	T. Rowe Price Capital Appreciation
	International Equities	Developed Markets	American Funds EuroPacific Growth R6
		Developed Markets	Vanguard Total International Stock Index Adm
		Emerging Markets	Artisan Developing World Ins
	Real Estate	U.S. Real Estate	Fidelity Real Estate Income Fund
		Global Real Estate	Janus Henderson Global Real Estate
	Natural Resources	Diversified Natural Resources	Vanguard Materials Index Fund Adm

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Tactical Conservative Model			
Investment Objective:	<ol style="list-style-type: none"> <li>1. Produce positive annualized returns</li> <li>2. Produce returns 1% above the U.S. Consumer Price Index</li> <li>3. Outperform the model's buy-and-hold benchmark over a full market cycle</li> </ol>		
Model Benchmark:	100% iShares Barclays Short Treasury Bond Fund (SHV)		
Description:	<p>The Tactical Conservative Model is designed for participants looking to preserve capital and make a slightly better long-term return than one could expect from investing in a bank savings account, short-term U.S. Treasuries, a money market account or a stable value account. It differs from a buy-and-hold model in that it can be as conservative as a 100% stable value investment or can be as aggressive as having 30% of the portfolio allocated to investments that Retirement Collaborative LLC has categorized as high-risk and 70% categorized as moderate-risk.</p>		
Constraints:	<p>Low Risk 0-100%</p>	<p>Medium Risk 0-100%</p>	<p>High Risk 0-30%</p>
Holdings			
Investment	Ticker	Risk Category	2022 Q3
Alerus Money Market Fund		Low Risk	100.0%

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Tactical Moderate Model			
Investment Objective:	<ol style="list-style-type: none"> <li>1. Produce positive annualized returns</li> <li>2. Produce returns 2.5% above the U.S. Consumer Price Index</li> <li>3. Outperform the model's buy-and-hold benchmark over a full market cycle</li> </ol>		
Model Benchmark:	10%	iShares Barclays Short Treasury Bond Fund (SHV)	
	40%	iShares Barclays Aggregate Bond Fund (AGG)	
	30%	iShares Barclays S&P 500 Index (IVV)	
	20%	iShares Barclays EAFE Index Fund (EFA)	
Description:	The Tactical Moderate Model is designed for a moderate risk participant who is trying to reduce the volatility of a typical buy-and-hold balanced strategy while achieving long-term returns similar to or greater than the model's benchmark.		
Constraints:	Low Risk: 0-90%	Medium Risk: 0-90%	High Risk: 10-60%
Holdings			
Investment	Ticker	Risk Category	2022 Q3
Alerus Money Market Fund		Low Risk	90.0%
Neuberger Berman Large Cap Value R6	NRLCX	High Risk	8.0%
Vanguard Mid-Cap Value Index Fund	VMVAX	High Risk	2.0%

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Tactical Growth Model			
Investment Objective:	<ol style="list-style-type: none"> <li>1. Produce positive annualized returns</li> <li>2. Produce returns 5% above the U.S. Consumer Price Index</li> <li>3. Outperform the model's buy-and-hold benchmark over a full market cycle</li> </ol>		
Model Benchmark:	10%	iShares Barclays Aggregate Bond Fund (AGG)	
	54%	iShares S&P 500 Index (IVV)	
	36%	iShares Barclays EAFE Index (EFA)	
Description:	The Tactical Growth Model is designed for a high-risk participant who would typically have all of their money invested in stocks, but who would also like to use a process designed to reduce potential losses that could occur in a sustained stock market decline.		
Constraints:	Low Risk: 0-80%	Medium Risk: 0-80%	High Risk: 20-90%
Holdings			
Investment	Ticker	Risk Category	2022 Q3
Alerus Money Market Fund		Low Risk	80.0%
Neuberger Berman Large Cap Value R6	NRLCX	High Risk	12.0%
Vanguard Mid-Cap Value Index Fund	VMVAX	High Risk	7.0%
Vanguard Materials Index Fund Adm	VMIAX	High Risk	1.0%

## Disclaimers

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The Tactical Model Report is written and distributed quarterly by Retirement Collaborative LLC, 2040 Linglestown Road, Suite 107, Harrisburg, PA 17110. Retirement Collaborative LLC is an investment advisory firm that specializes in risk-managed investment management, retirement plan consulting, and wealth management. If you are interested in learning more about our firm or have questions, please contact us.

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