LAPLACE INSIGHTS

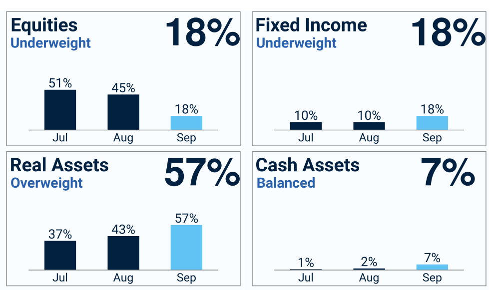
Global Investment Report

September 29, 2021

Key Insights For October

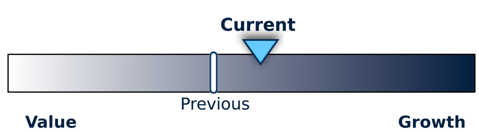
- **Inflation is under control,** but may be stickier than anticipated.
- **Stocks and risk assets continue to be attractive.**
- **Real assets, including commodities and real estate** are an attractive way to play the recovery going forward.
- **International developed markets, especially the cyclical economies are becoming attractive.**
- **Fixed income is only interesting as a risk diversifier.**

Tactical Model Summary



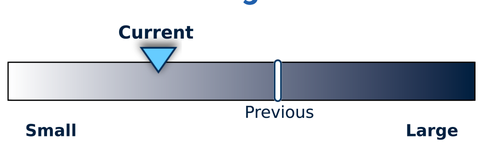
Stay in risk assets. Our tactical model emphasizes real estate, commodities and cyclical markets, with fixed income as a risk diversifier.

Value - Growth Factor



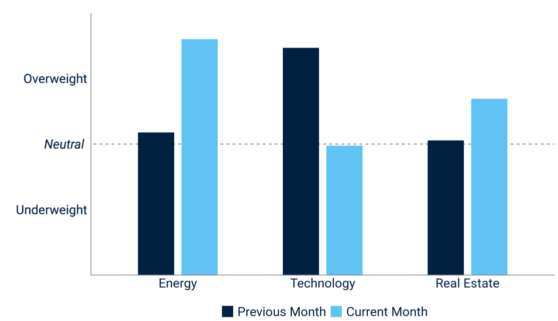
The value / growth factor isn't sending a strong message for the upcoming month.

Small - Large Factor



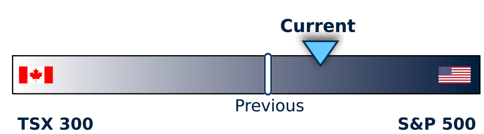
Small caps are gaining a bit more momentum than large caps.

Top Sector Changes



The top sector changes since last month include **Energy (XLE), Technology (XLK) and Real Estate (XLRE).**

US/CAN Relative Attractiveness



For Canadian Advisors:

Our US / Canada indicator finds US stocks more attractive than Canadian stocks at the moment, on an exchange rate risk-adjusted basis.

Insights from PSIMON™

We regularly run PSIMON, our AI platform, to gain insights into market dynamics in addition to get specific forecasts. We summarize the key findings here.

What is PSIMON telling us this month?

1. Like last month, PSIMON is staying in risk assets via an increasing exposure to real assets to protect against stickier-than-expected inflation.
2. PSIMON has consistently increased real asset exposure over the past few months: for example, PSIMON recommended 31% for July, 37% for August, and 43% for last month.
3. For October, PSIMON recommends 57% in real assets, split between real estate (VNQ) and commodities (DBC). This is consistent with stagflation fears perceived by market participants.
4. Unlike last month, PSIMON sold its position in the S&P 500 (SPY). The S&P 500 is very exposed to tech stocks which are sensitive to rising inflation. Although this move could prove temporary, it is prudent in the current context.
5. PSIMON is increasing exposure to commodities (DBC), which have proven resilient to the current market pullback. Commodities are levered to inflation and are good to own in the current context.
6. PSIMON is also increasing exposure to international cyclical stocks, more specifically Japan (EWJ) and, to a lesser extent, ex-US developed markets (EFA). As global growth continues to take hold and inflation stays sticky, cyclical markets are expected to do well. The Japanese bourse is dominated by cyclical sectors.
7. However, PSIMON is NOT taking any position in emerging markets. The Evergrande debacle in China and the Delta variant in emerging markets currently provide a headwind to these markets.
8. PSIMON is taking a small position in long term treasuries (TLT), the US dollar (UUP) and inflation-protected treasuries (TIP) as a diversifying hedge.

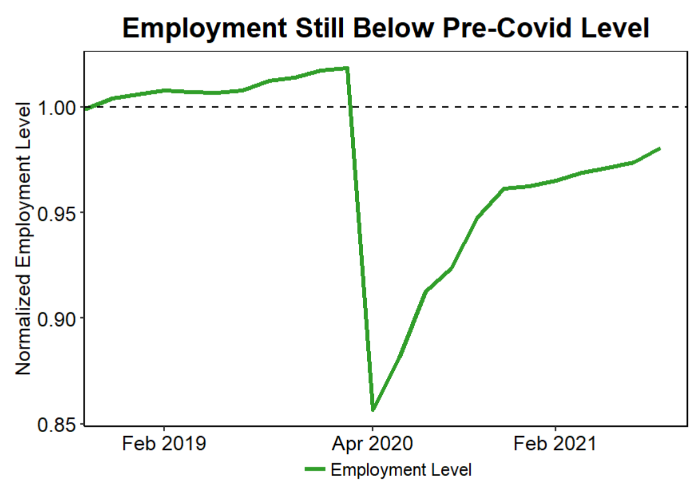
1. Market Insights

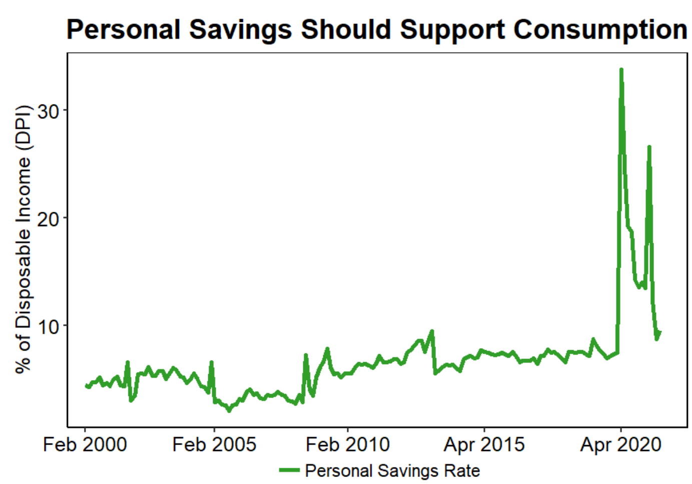
Interpreting PSIMON's Recommendations

Global Growth Still Intact

Despite stagflation fears, the potential collapse of Evergrande, and fears of slowing global growth due to the Delta variant, there are good reasons to view the situation as excessively pessimistic.

The two charts below show the US employment, which is still below pre-Covid levels, and the US personal savings rate, which peaked during Covid.





The top chart shows how there is still room until employment reaches pre-Covid levels. This implies that the Fed will stay accommodative until that level is reached, thereby providing support for risk assets.

The second chart on the previous page shows how personal savings increased dramatically during the Covid shutdowns.

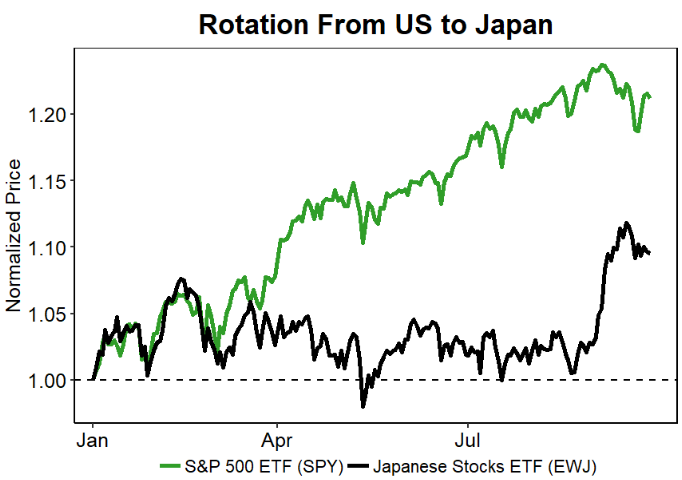
Much of these savings will get spent, driving consumption and future profits. Increasing consumption is a strong driver for risky assets, including cyclical stocks and commodities.

Rotation into Cyclical Markets...

Sticky inflation is not an ideal environment for technology stocks. Since the S&P 500 is heavily weighted into technology stocks, the current environment is starting to weigh on these stocks.

PSIMON has noticed and is reducing its recommendation to neutral in the technology sector (XLK) in our Sector Insights section.

Meanwhile, Japan, a notoriously cyclical market, is showing signs of life. The chart below tells the story.



Since the beginning of the year, EWJ was trading sideways while the S&P 500 (SPY) gained over 20%.

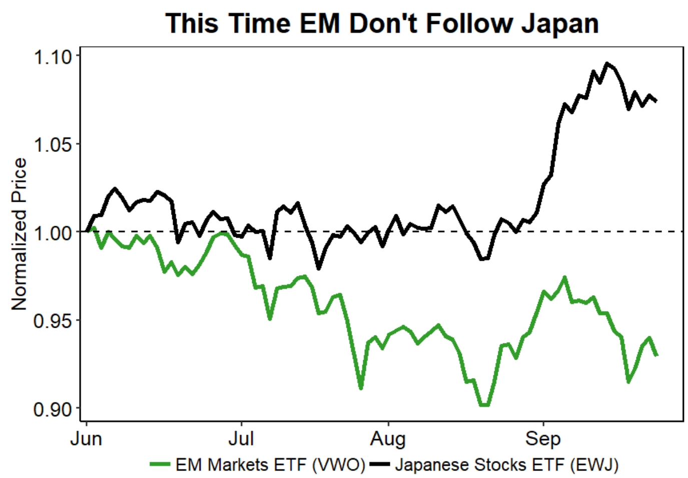
PSIMON is now telling us that the tide is shifting away from the US market and towards cyclical markets, by selling SPY and buying EWJ.

Stickier global inflation, combined with a favorable Japanese political environment, is now making Japan more attractive than the US.

...But Not into Emerging Markets

While PSIMON is recommending developed cyclical markets, including Japan and, to a lesser extent, ex-US developed markets (EFA), this recommendation does not include emerging markets.

Traditionally, emerging markets and Japan tended to be correlated.



As the chart above shows, this is not the case today.

The Evergrande debacle in China, combined with the Delta variant among a low vaccinated population in other emerging markets creates a headwind for a cyclical recovery in emerging markets as a whole.

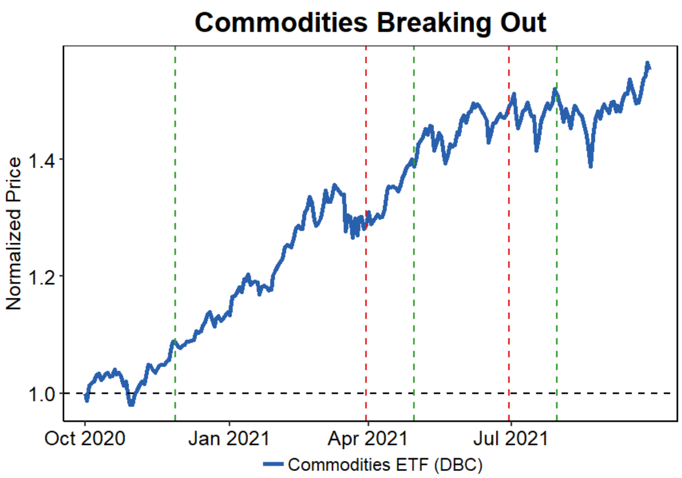
As a result, PSIMON is staying out of emerging markets (VWO), at least for the time being.

Commodities Are Breaking Out

Consistent with the sticky inflation theme, commodities have now ended their recent pause and are breaking out to the upside.

The chart on the next page shows the long term trend of DBC, including the summer pause and the nascent upside breakout in the past few weeks.

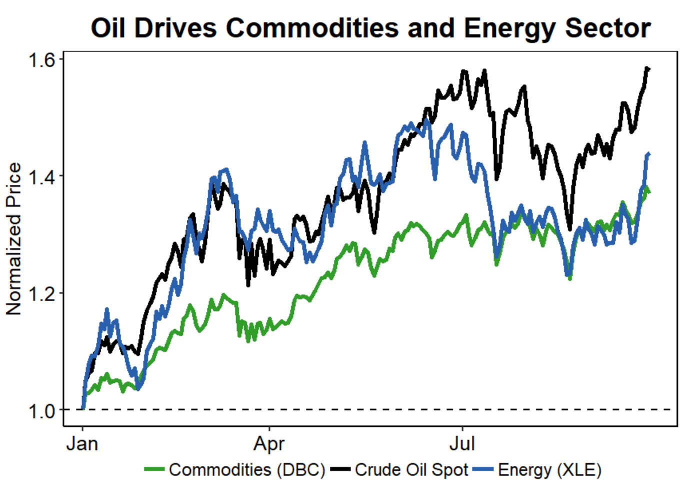
PSIMON traded DBC very efficiently since last year, essentially going in during the major upswings (green vertical dotted lines) while getting out when volatility or a pause in the uptrend kicked in (red vertical lines).



Back at the end of July, PSIMON went back into DBC, and is now increasing its position to take further advantage of the nascent uptrend in commodity prices.

Oil Driving Commodities and Energy Sector

Both DBC and the energy sector (XLE) have been driven by the price of oil recently, as the chart below shows.



Oil prices benefit from surging demand and tight supply.

On the supply side, global oil markets are looking extremely tight in Q4, further supported by tight production plans by the OPEC+ countries.

On the demand side, the easing of travel restrictions (both land and air) combined with the coming of winter argue for increasing demand and continued elevated oil prices.

In addition to DBC, PSIMON is recommending an overweight position in the energy sector (XLE).

Real Estate Still Attractive

Real assets in general, and real estate in particular, continue to be attractive because it is levered to the economic recovery while providing a hedge against inflation.

PSIMON remains substantially invested in the real estate ETF (VNQ) as it continues to provide compelling expected returns while delivering an important inflation hedge to the Columbus portfolio.

Diversifying for Hedging

PSIMON is using fixed income and the US dollar as a diversification hedge for the Columbus tactical portfolio.

The US dollar has been trending upwards since the summer, along with treasuries. PSIMON is maintaining a small position in both assets primarily driven as a hedge against short term global uncertainty.

In other words, these positions in fixed income and the dollar are only attractive as a way to hedge portfolio risks, and should not be thought of as a driver of portfolio returns.

2. Sector Insights and Relative Attractiveness

Sector Attractiveness Dashboard

The figure below shows the attractiveness of each sector **relative to the S&P 500 index**.

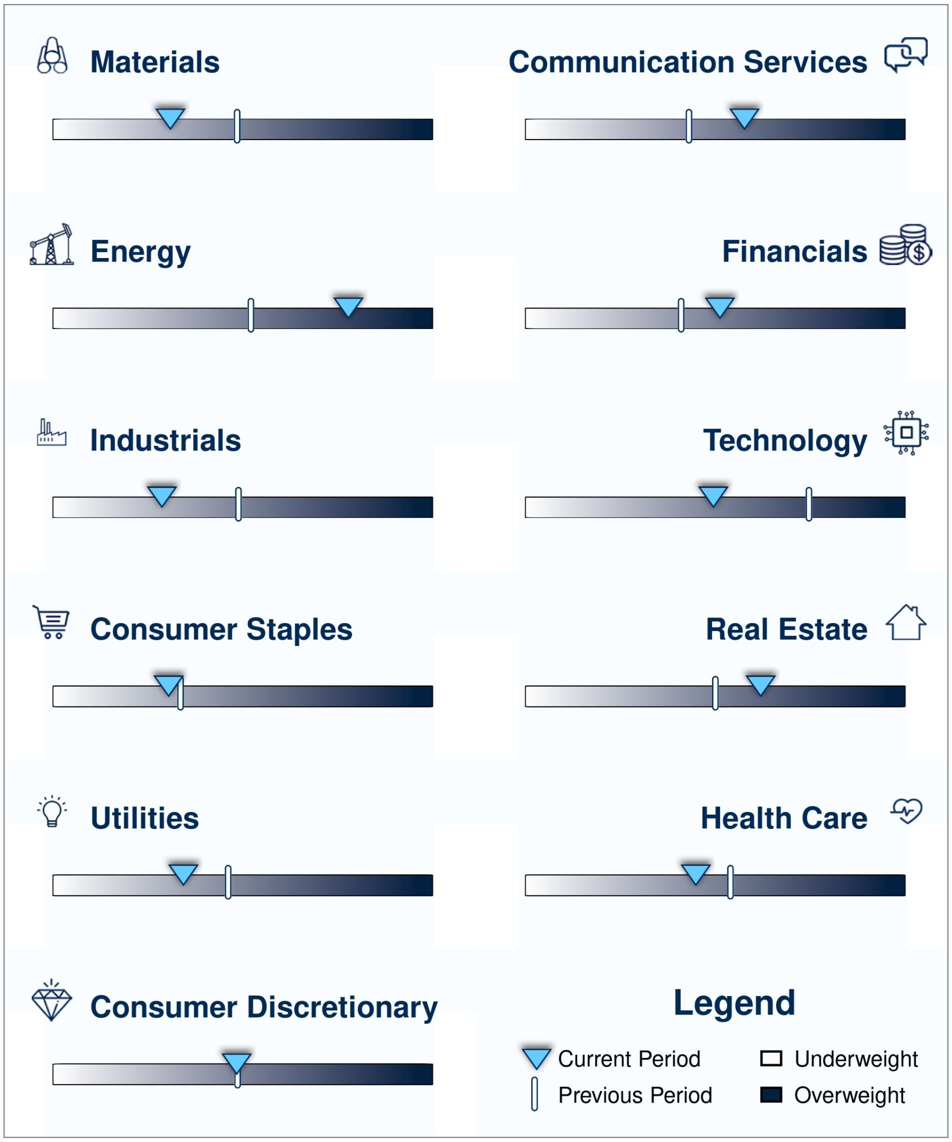


Figure 1

The blue triangle indicates the current attractiveness level, whereas the vertical bar indicates that sector's attractiveness in the previous period (last month).

When the triangle is located on the right, an overweight is recommended relative to the S&P 500. Conversely, an underweight is recommended when it is on the left side.

When the indicator is in the middle of the horizontal bar, an equal weight relative to the S&P 500 is recommended.

For details on the S&P 500 GICS sector weightings, please see **Section 6**.

3. Tactical Model Insights & Allocations

Our tactical model (known as Columbus) can be used to make **tactical adjustments** to a portion of a client portfolio, to complement a relatively static strategic allocation. This concept is illustrated by the pie chart below.

Columbus Model for Tactical Adjustments

Occasionally, the model may allocate fully into cash or equities. During a bear market, it may be fully in cash to protect capital, while it could be fully in equities during a bull market. The model is designed to behave this way so it can easily complement an otherwise stable, low turnover strategic portfolio structure.

Since the model adjusts every month, trading it in a tax-free account may be desirable.

Asset Class Dashboard

The figure below shows the model allocations organized in four quadrants, each representing an asset class.

- The **large number in bold** is the percentage allocation of the portfolio in that asset class.
- The **bar chart** shows the allocation over each of the previous three months.
- The **half moon dial** provides a visual of the allocation percentage of that asset class in the overall portfolio.
- The words **"Balanced", "Underweight" or "Overweight"** represent the asset class allocation compared to the table below.

To show the allocations in context, we provide a simple reference in the table below. Deviations above or below the thresholds would represent an overweight or underweight allocation for that asset class.

Asset Class	Underweight Threshold	Overweight Threshold
Equities	Below 30%	Above 60%
Fixed Income	Below 20%	Above 45%
Real Assets	Below 10%	Above 20%
Cash Assets	Below 5%	Above 15%

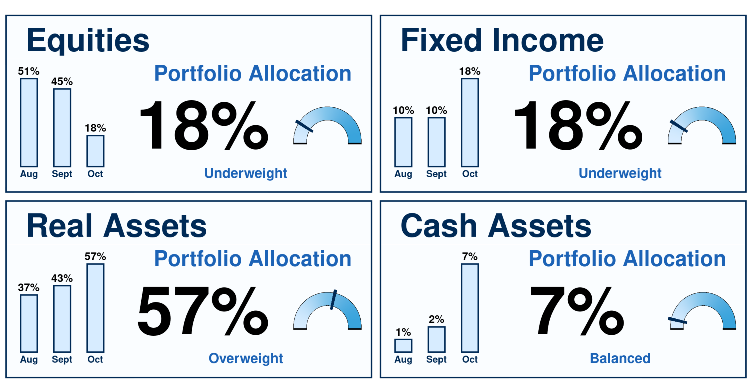


Figure 2

Tactical Model Allocation Table

The table below shows the Columbus tactical model allocations for the previous period, while the current period is shown in **bold characters**. These should be used to rebalance the portfolio.

The Max. Weight column shows the maximum weight limit constraining each ETF. This represents the upper weight limit for that ETF during an ideal market situation, where expected returns are high and volatility is low.

The maximum weight are used to limit the exposure of specific ETFs in the portfolio. The model reaches these limits only occasionally.

To learn more about how to use our Columbus tactical model, please look at Section 5 - "How to Use Our Models".

Asset Class (ETF)	Max. Weight	Weight on 2021-08-30 (%)	Weight on 2021-09-29 (%)	Change (%)
SP500 Index (SPY)	50%	44%	**-**	-44%
Small/Mid Caps (VXF)	40%	1%	**-**	-1%
Int'l Large Caps (EFA)	45%	-	**4%**	4%
Japanese Stocks (EWJ)	40%	-	**14%**	14%
Em. Markets Stocks (VWO)	35%	-	**-**	-
Commodities (DBC)	35%	4%	**19%**	15%
Gold (GLD)	35%	-	**-**	-
Real Estate (VNQ)	40%	39%	**38%**	-1%
20+ Yrs Treasuries (TLT)	45%	4%	**16%**	12%
7-10 Yrs Treasuries (IEF)	60%	-	**-**	-
Corporate Bonds (LQD)	60%	4%	**-**	-4%
Inflation-Protect Bonds (TIP)	60%	2%	**2%**	-
Em. Mkts Sover'n Bonds (PCY)	50%	-	**-**	-
US Dollar Index (UUP)	60%	-	**4%**	4%
Short Term Treasuries (SHY)	100%	2%	**3%**	1%
Total		**100%**	**100%**	

Note: The model portfolio trades on the day after the report is sent to subscribers.

4. Performance Summary

Columbus Tactical Model Performance

Figure 3 below shows the Columbus tactical model performance since April 2007. This is based on the **latest release of our Laplace AI platform (PSIMON).**

The blue curve shows the model performance based on the most recent software release. The grey curve is the S&P 500 ETF (SPY), whereas the red curve is the Vanguard Moderate Growth ETF (VSMGX), which provides a 60/40 allocation between stocks and bonds. The orange curve is the equal weights portfolio created by equally weighting all 15 ETFs forming the Columbus investment universe.

The investment value (alpha) created by the Columbus model is shown by the double arrow located on the right side of the chart (Columbus Alpha Creation). This double arrow compares Columbus (blue) to the no-skill portfolio represented by the Equal Weights benchmark (orange). Comparing these two curves over the time frame shows how the model generates returns above and beyond the Equal Weights no-skill portfolio over time.

As we continue to improve our AI platform by adding more training data, new economic and financial indicators, and improving our machine learning forecasters with the latest technological breakthroughs, **we expect the performance of the Columbus strategy to keep improving over time.**

The table below provides a performance summary of the model compared to the same three benchmarks shown in the Figure.

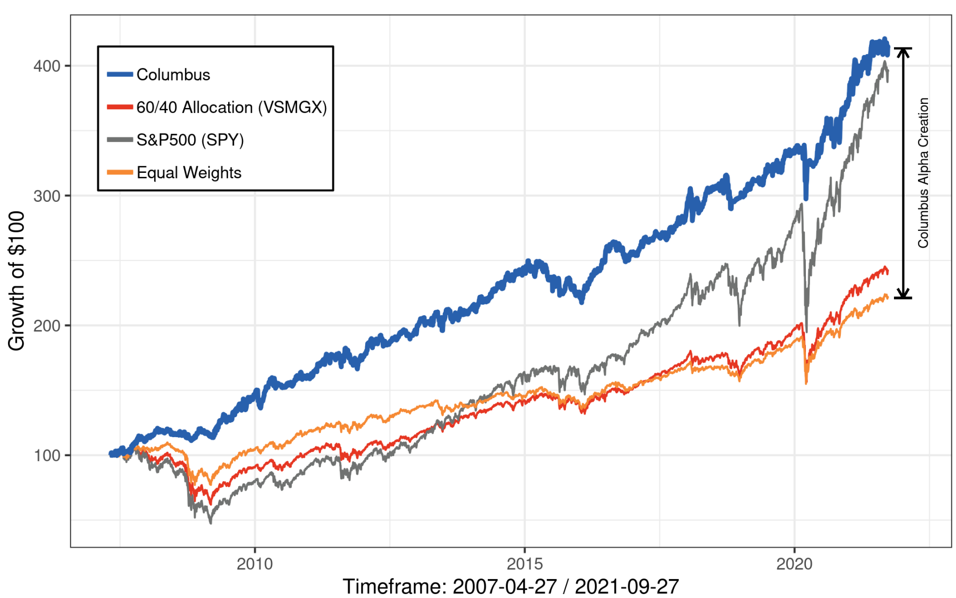


Figure 3

	Columbus	60/40 Allocation	S&P500	Equal Weights
Annualized Return (%)	10.35	6.31	10.02	5.66
YTD Gain / Loss (%)	10.4	8.05	19.56	6.57
YTD Annualized Gain/Loss (%)	14.43	11.13	27.55	9.05
Maximum Drawdown (%)	-12.92	-41.11	-55.2	-29.85
Annualized Standard Dev. (%)	9.65	12.76	20.43	9.59
Positive Rolling Years (%)	92.6	81.11	84.4	83.13
Annualized Sharpe Ratio	1.07	0.49	0.49	0.59
MAR Ratio	0.8	0.15	0.18	0.19

Appendix A: How to Use Our Models & Insights

Our research is 100% automated and generated by PSIMON, our proprietary Laplace AI™ machine learning and artificial intelligence platform. This ensures that you get recommendations and insights based on:

- **Market facts and statistics**, driven by more than 100 000 recent and historical financial market events.
- **Emotion-free and opinion-free information**, helping you understand market dynamics and bring clarity during turbulent and uncertain times.
- **An adaptive platform**, capable of discovering and learning new predictive relationships in financial data as the global economy evolves and new paradigms emerge.

Helping You Interpret Key Market Dynamics

Our AI platform produces a lot of useful information every month, all of which is free of opinions and human biases.

You will find many **data-driven commentaries and discussions** throughout the report. These commentaries are meant to help you understand and bring clarity on the most relevant market dynamics at play.

We generally use charts and tables to illustrate key points. **Feel free to use these illustrations with your clients**, especially if you find them helpful to support your client discussions.

Ultimately, our objective is to equip you to **act with clear conviction** when you consider client portfolio trades. we are here to help, and we are always open to suggestions to improve the content of our report. So don't hesitate to contact us with your suggestions.

Preserve Capital and Deliver Returns

This **Global Investment Report** may be used to help you preserve client capital while also providing a source of additional equity market returns over the long run.

These dual objectives are achieved using two complementary strategies and insights, in combination with broader market indicators:

- The **Columbus Tactical Model** helps preserve capital during turbulent or bear markets by providing tactical asset allocation recommendations. During bull markets, the strategy generally captures global equity market uptrends by allocating into global equity ETFs.
- The **Sector Relative Attractiveness Insights** help create additional equity market returns by providing insights into the S&P 500 equity sectors. These insights propose to overweight the more attractive sectors while also underweighting the least attractive sectors to help achieve higher equity market returns than those offered by the S&P 500.
- **Three Market Indicators** provide information on two equity market factors (small vs. large caps, and value vs. growth), in addition to an indicator of the expected relative performance of the Canadian stock market vs. the US market, adjusted for the exchange rate (for Canadian advisors).

Our models help enhance the performance of your client portfolios by reducing overall risks while also improving long term returns through active tactical allocation.

The sections below provide more details on the Columbus Tactical Model and the Sector Relative Attractiveness Insights, in addition with the indicators mentioned above.

5.1 The Columbus Tactical Model

Columbus Delivers Uncorrelated Returns

Our Columbus tactical model provides a source of uncorrelated returns during those times when it is most important to be **decorrelated from the stock market.** The concept of uncorrelated returns is used extensively by investment professionals such as pension funds and large institutions. Rather than solely trying to maximize returns during bull markets, which often comes with amplified losses during bear markets, pension funds and institutions use different sources of returns to build portfolios that are **resilient to global economic uncertainty.** The Columbus model was developed with this idea in mind by providing a simple way for investment advisors to deliver uncorrelated returns in their client portfolios.

The primary objectives of the strategy are to protect capital during bear markets while also capturing stable growth over the long term.

During bear markets, Columbus invests in assets that are generally not correlated with the stock market. This helps to deliver returns during those times when it really matters to own a source of uncorrelated returns.

Conversely, Columbus becomes correlated to global equities **during stable bull markets in stocks**. This allows it to capture stock market upside and ensure your clients do not miss out on those gains.

How Columbus Works

The Columbus model selects up to 8 assets from a universe of 15 low costs, highly liquid ETFs, each representing one of the world's major asset classes. The strategy selects assets and adjusts their allocation weights to optimize for the best risk/return tradeoff, by emphasizing safety and capital preservation over short term gains.

The Columbus model trades monthly on the last trading day of the calendar month.

Columbus is Not a Market Timer

Although it may appear that Columbus can be used as a stock market timer, it is **NOT designed to be a market timer.** Unlike a market timer, Columbus will stay out of the stock market during times when it perceives a high degree of risks in equities, even though equities may turn out to be rallying strongly during those high risk periods.

Columbus is a Tactical Sleeve

In addition, Columbus can recommend a 100% stock allocation during high quality and stable bull markets in stocks, whereas it can also recommend a 100% allocation in government treasuries during bear markets. To ensure some level of diversification, certain maximum allocations have been imposed on each ETFs as discussed in Section 3 of this report. These maximums are dynamically reduced based on the expected volatility of each ETFs. This provides a way to manage concentration risks into a single ETF, but does not preclude the possibility of allocating 100% of the portfolio into equity ETFs.

For these reasons, Columbus should never be used as a portfolio core but **rather as a tactical sleeve to complement a client's core portfolio.** Columbus adjusts its allocations at the end of each month based on the prevailing market conditions and related returns and risks expected in all 15 ETFs it tracks in its investment universe. The list of ETFs used is shown in a table in Section 6.

5.2 Sector Relative Attractiveness Insights

In addition to the Columbus tactical model, this report also includes insights on the relative attractiveness of the S&P 500 equity sectors. This helps create additional equity market returns by proposing to overweight the more attractive S&P 500 sectors while simultaneously under-weighting the least attractive sectors. This overweight / underweight approach is updated monthly and is meant to provide a sense of **the sectors that are most likely to perform better on a relative basis** over the next several weeks and months.

Each of these 11 sector has an associated ETF, so it is possible to trade sectors directly. Section 6 includes the list of the ETFs along with their weight in the S&P 500 index.

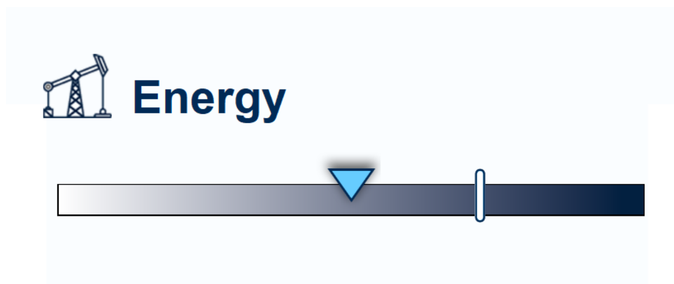
How the Sector Insights Work

The figure below provides an example of the sector relative attractiveness insights indicators.

For each of the 11 GICS sectors, an indicator shows the attractiveness of that sector relative to all other sectors in the S&P 500. The blue upside-down triangle shows the attractiveness level for the current period, whereas the vertical bar shows the attractiveness level during the previous period. This helps visualize the change that occured since last month.

When the triangle is in the middle of the horizontal bar, it indicates to maintain the same GICS weighting as in the S&P 500. When the triangle moves to the left, an underweight is recommended. Conversely, when it moves to the right, an overweight position is recommended.

This same indicator format is used for all 11 sectors.



Sector Indicator Example

Using the Sector Insights in Practice

There are many ways in which these insights can be used in an equity portfolio including:

- One simple approach to achieve a sector overweight is by purchasing the equivalent SPDR sector ETF in an equity portfolio.
- For more complex portfolios that can include individual stocks, a sector overweight insight can be a sign to increase the weighting of stocks that belong to that sector.
- Conversely, also for individual stock portfolios, a sector underweight insight may be an indication to reduce some stock positions that belong to that sector.
- A combination of the above may also be useful in certain types of client portfolios.

The sector insights can be used in a variety of ways and are meant **to provide an emotion-free, fact-based, machine-driven relative outlook on the S&P 500 sectors.** It is not a complete investment strategy and should never be used as such. Rather, it should be used as a way to complement an existing equity investment strategy.

5.3 Market Indicators

We provide three market indicators on the first page of this report. These indicators provide long term signals, as opposed to our Sector Insights and the Columbus tactical model, both of which are tactical and designed to react to short term market expectations.

The market indicators are expected to change relatively slowly from month to month, unless something drastic is happening in the markets. Their primary purpose is to provide guidance over a 3 to 6 month horizon, enabling advisors to manage longer term positions more efficiently.

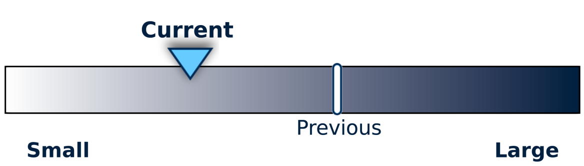
Given the longer term nature of these indicators, they are likely to be occasionally at odds with the signals provided by Columbus and the Sector Insights. This happens when Columbus or the Sector Insights expect a contrary short term move (such as a near term correction), while the market indicators expect the long term trends to remain intact.

Small - Large Factor Indicator

This indicator provides a long term signal on the expected performance of small cap vs. large cap stocks. The Morningstar small cap and large cap indexes are used for its analysis.

The blue upside down triangle represents the current relative attractiveness, emphasizing small caps when located on the left of the bar, and large caps when on the right of the bar. A middle position indicates neither small caps nor large caps are preferred.

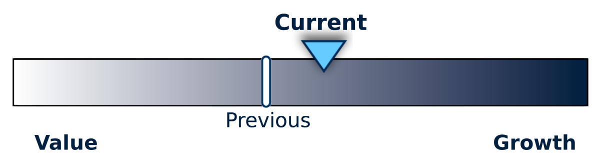
The vertical bar represents the previous period indicator position (i.e. last month).



Value - Growth Factor Indicator

This indicator provides a long term signal on the expected performance of value vs. growth stocks. The Morningstar value index and growth indexes are used for its analysis.

The upside down triangle and vertical bars have a similar meaning as the small - large cap indicator.



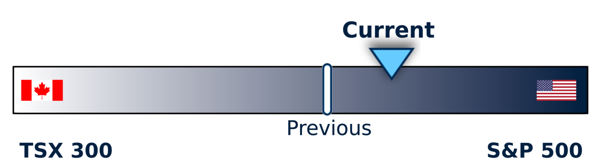
US/CAN Relative Attractiveness

For Canadian advisors:

This indicator provides a long term signal on the expected performance of the Canadian stock market vs. the US stock market, adjusted for the exchange rate, and as experienced by a Canadian investor.

We developed this indicator for our Canadian advisor audience. Canadian clients often wish to invest in the US market, but this comes with the added volatility imposed by the exchange rate. Although it is possible to hedge for the exchange rate, it always comes at a cost.

This indicator is intended to help Canadian advisors manage the un-hedged exposure to the US market from the perspective of a Canadian investor.



Appendix B: ETFs Used by Our Models

Our global tactical allocation model (known as Columbus) uses a universe of 15 ETFs to represent the major asset classes available in global finance. These ETFs all trade on the US markets and are highly liquid.

The US stock asset class is covered by two ETFs: the S&P500 ETF (SPY), representing large cap stocks, and the extended market ETF (VXF), representing small and mid cap stocks. The international stock market is also split among three ETFs: EFA to provide exposure to international developed market stocks, VWO to provide exposure to emerging market stocks, and EWJ to cover the Japanese market which tends to have a relatively low correlation to other stock markets.

The table below provides a short description of all ETFs comprising the Columbus investment universe along with their total assets and annual expense ratios.

Symbol	Assets	Exp. Ratio	ETF Name and Description
SPY	$ 242B	0.09%	SPDR S&P500 Index
EFA	$ 79B	0.33%	iShares MSCI EAFE Index
VWO	$ 82B	0.14%	Vanguard FTSE Emerging Market Equities
VXF	$ 58B	0.08%	Vanguard Extended Market (US small & mid caps, ex-S&P500)
EWJ	$ 17B	0.48%	iShares MSCI Japan Equities
VNQ	$ 65B	0.12%	Vanguard REIT Index
GLD	$ 32B	0.40%	SPDR Gold Trust (Gold Bullion)
DBC	$ 1.9B	0.89%	PowerShares DB Commodity Index Tracking Fund
IEF	$ 7.3B	0.15%	iShares 7-10 Year Treasury Bonds
TLT	$ 7.4B	0.15%	iShares 20+ Year Treasury Bonds
TIP	$ 23B	0.20%	iShares TIPS Bonds
LQD	$ 38B	0.15%	iShares iBoxx $ Investment Grade Corporate Bond Fund
PCY	$ 4.7B	0.50%	PowerShares Emerging Markets Sovereign Debt Portfolio
UUP	$ 515M	0.75%	PowerShares DB US Dollar Bullish Index Fund
SHY	$ 11B	0.15%	iShares 1-3 Year Treasury Bonds (Primary Cash Asset)
AVERAGE	**$44.6B**	**0.31%**	

The S&P 500 is composed of 11 sectors defined by the Global Industry Classification Standard (GICS). The Select Sector SPDR ETFs are used to track these sectors, and are used by our Sector Insights AI engine. As of December 30, 2020, the ETFs, and their related GICS sector weightings were as shown in the table below.

Please consult the ETF sponsor's web site for more information.

Symbol	Assets	Exp. Ratio	GICS Sector Weight	Description
XLB	$ 4.33B	0.13%	2.6 %	Materials Sector SPDR ETF
XLC	$ 7.74B	0.13%	10.8 %	Communication Services Sector SPDR ETF
XLE	$ 9.97B	0.13%	2.3 %	Energy Sector SPDR ETF
XLF	$ 17.57B	0.13%	10.4 %	Financials Sector SPDR ETF
XLI	$ 7.68B	0.13%	8.4 %	Industrials Sector SPDR ETF
XLK	$ 27.23B	0.13%	27.6 %	Technology Sector SPDR ETF
XLP	$ 14.51B	0.13%	6.5 %	Consumer Staples Sector SPDR ETF
XLRE	$ 4.68B	0.13%	2.4 %	Real Estate Sector SPDR ETF
XLU	$ 11.8B	0.13%	2.7 %	Utilities Sector SPDR ETF
XLV	$ 24.65B	0.13%	13.4 %	Health Care Sector SPDR ETF
XLY	$ 11.85B	0.13%	12.7 %	Consumer Discretionary Sector SPDR ETF
AVERAGE	**$12.91B**	**0.13%**		

Appendix C: PSIMON™ AI Platform

PSIMON™ is Laplace Insights' proprietary machine learning platform developed over the past 6 years in partnership with the AI research team and the Business School at the Université de Sherbrooke. PSIMON generates all insights, forecasts and asset allocation recommendations found in this report.

PSIMON uses some of the most advanced time series forecasting technologies available in artificial intelligence research today. **Conceived as a scalable architecture,** it can easily integrate new machine learning algorithms and statistical forecasting methods as these become available in the future.

In addition, it can scale to many hundreds of thousands data time series to improve its ability to learn the important financial lessons of history. This means that **the platform will continue to improve over time,** essentially becoming more intelligent and more robust to future challenging market situations as we keep adding more data and introducing better machine learning and forecasting algorithms to its architecture.

Learning History's Financial Lessons

The World has experienced some very challenging periods during the past century, including two World Wars, a Depression and many recessions, as well as many political and economic crises. A fundamental tenet of finance is to learn from these great lessons of financial market history, and then see how such important learnings can help navigate today's ever more challenging markets.

PSIMON is trained using data from the late 1800's until today, and includes lessons from the panics of 1901 and 1907, the two World Wars, the crash of 1929, the Great Depression, the Cold War, the OPEC crisis in the 1970s, the 1987 market crash, the dotcom crash in 2000, the Great Financial crisis of 2008 and, more recently, the Coronavirus crash. In addition to these major events, PSIMON is also trained on tens of thousands of less dramatic financial events over the past century to bring more granularity to its decision-making process.

History often matters a lot, as Mark Twain is reputed to have said in this quote:

"History doesn't repeat itself but it often rhymes."

By learning the great lessons of financial markets history, PSIMON is well equipped to navigate today's challenging market environment with confidence.

A Platform that Keeps Learning the Market

Financial markets evolve constantly. While many of the market's behavior bear resemblance with the past, some of the market's behavior is also novel. This means that PSIMON must have the ability to keep learning from new financial market and economic data while also taking advantage of the rapidly evolving world of artificial intelligence research.

PSIMON continually learns from new financial market data as the market evolves every day, enabling it to quickly adapt to evolving market situations and paradigm changes. In addition, **our research team is constantly developing and evaluating new market indicators** to discover predictive relationships between assets and these indicators. When shown to have a useful predictive relationship, these indicators are added to the platform to provide additional sources of information and help improve the quality of forecasts.

Furthermore, our research team is at the forefront of artificial intelligence research, so we are continually perfecting our algorithms and forecasting engines to capitalize on the best that technology can offer. We regularly publish scientific articles with the University of Sherbrooke AI team and we are recognized as a trend setter in financial AI research.

Improvements to our Software Platform

Our research team continuously works hard to improve the depth and breadth of the analyses made by PSIMON in order to improve its forecasting accuracy. As a research organization and leading experts in financial machine learning, improving our platform is the most fundamental way in which we continue to enhance the value we provide to our customers.

On a regular basis, we release new and improved versions of our platform on which we run the Columbus tactical mode, our Sector Insights and our Market Indicators. This means that **this report will keep improving over time and the performance of our models and strategies will also progressively get better** with each updated version of the platform.

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