# **ETF Inflation Hedge Model**

#### PROFIT FROM INFLATION...

The iQ ETF Inflation Hedge Model applies quantitative monthly technical indicators to ten asset ETFs anticipated to provide a hedge against the risk of inflation.

## **HOW DOES THE MODEL WORK?**

Each asset ETF represents a 0% - 10% allocation of the total model and is represented by four technical strategies that may dictate a long or cash position in any given month. Each of the four technical strategies per asset ETF represents ¼ of each asset's allocation for a total of 2.50% of the total Model allocation.

The table below summarizes the asset ETF tickers and the potential allocation to each:

		iviinimum	<u>iviaximum</u>	# OT	<u>iviin per</u>	<u>ıvıax per</u>	
Asset/Index	ETF Ticker	Weight	Weight	<b>Strategies</b>	<b>Strategy</b>	<b>Strategy</b>	
Gold Bullion	GLD	0%	10%	4	0%	2.50%	
LBMA Silver	SLV	0%	10%	4	0%	2.50%	
WTI Crude Oil	USO	0%	10%	4	0%	2.50%	
Unleaded Gasoline	UGA	0%	10%	4	0%	2.50%	
Base Metals	DBB	0%	10%	4	0%	2.50%	
Real Estate (via REITs)	IYR	0%	10%	4	0%	2.50%	
Treas. Inflation Protected Secs (TIPS)	TIP	0%	10%	4	0%	2.50%	
Mortgage-Backed Securities (MBS)	MBB	0%	10%	4	0%	2.50%	
Grayscale Bitcoin Trust	GBTC	0%	10%	4	0%	2.50%	

0%

10%

100%

Historical model performance does not guarantee future results. The returns presented represent simulated Model returns which are hypothetical, meaning they do not represent actual trading, and, thus, may not reflect material economic and market factors, such as liquidity constraints, that may have had an impact on actual decision making. The hypothetical performance reflects the retroactive application of the Model which was designed with the full benefit of hindsight, and applied retroactively.

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Actual performance may result in lower or higher returns than the hypothetical Model performance presented. If actual portfolios had been managed, there can be no guarantee such portfolios would have achieved results similar to those portrayed.

Model returns reflect a 0.50% annual trading expense on total portfolio value – which may be higher or lower than actual trading costs. The Model is rebalanced every 3 months (Feb, May, Aug, Nov). Actual performance will vary from that of investing in the Model because it may not be fully invested at all times. Hypothetical returns for the Model in certain years were significantly higher than the returns of the S&P 500 Index. It is important to note the Model may underperform in certain years and may produce negative results. The Standard & Poor's 500 Index ("S&P 500") is a market capitalization-weighted index of 500 stocks seen as an indicator of U.S. equities and is presented as a general market benchmark.

Hypothetical Model returns were the result of certain market factors and events which may not be replicated in the future. An investment in this Model should be made with an understanding of the risks involved with owning common stocks, such as an economic recession and the possible deterioration of either the financial condition of the issuers of the equity securities or the general condition of the stock market. An investment in a portfolio containing equity securities of foreign issuers is subject to additional risks, including currency fluctuations, political risks, withholding, the lack of adequate financial information, and exchange restrictions impacting foreign issuers. The value of the securities held by the Model may be subject to steep declines or increased volatility or perception of the issuers.

Contact iQUANT.pro at info@iquant.pro more information.

## **AVERAGE ANNUAL RETURNS (2007-2/2021)**

Timeframe	MODEL	S&P 500
Inception	13.83	9.49
10 Year	14.70	13.81
5 Year	27.07	16.79
3 Year	20.64	12.72

### STANDARD DEVIATIONS

Timeframe	MODEL	S&P 500
Inception	10.15	25.83
10 Year	16.20	10.22
5 Year	16.67	10.03
3 Year	22.34	15.36

4

0%

2.50%

### **ANNUAL RETURNS**

	Madal	CODEOC
	<u>Model</u>	<u>S&amp;P 500</u>
2007	8.43	5.49
2008	0.25	-37.00
2009	28.11	26.47
2010	13.73	15.06
2011	7.56	2.11
2012	5.73	16.00
2013	1.20	32.39
2014	3.24	13.69
2015	3.11	1.38
2016	18.30	11.96
2017	54.35	21.83
2018	-2.44	-4.38
2019	22.38	31.49
2020	36.48	18.40
2/2021	8.00	1.72

# **AVG. MONTHLY RETURNS**

	<u>Model</u>	<u>S&amp;P 500</u>
JAN	0.60	-0.20
FEB	1.15	0.19
MAR	0.30	1.00
APR	1.93	3.22
MAY	2.59	0.23
JUN	0.77	-0.31
JUL	0.99	2.26
AUG	1.02	0.16
SEP	-0.13	0.11
OCT	0.59	0.10
NOV	1.75	1.66
DEC	1.49	0.84

## **SEASONALITY ANALYSIS**

	<u>Model</u>	S&P 500
MAY thru OCT	5.95	2.56
NOV thru APR	7.43	6.86



U.S. Large Cap Value Stocks

Money Market/Equivalent

# **ETF Inflation Hedge Model**

# WIN RATES (2007 - 2/2021)

### **RISK & VOLATILITY MEASUREMENTS**

	MODEL	<u>S&amp;P 500</u>		MODEL	<u>S&amp;P 500</u>
Winning months	109	114	Sharpe	1.23	0.61
Losing months	61	56	Max drawdown	-8.08	-50.95
Win rate (%)	te (%) 64.12 67.06	Up Capture	0.55		
			Down Capture	0.06	
Winning quarters	41	42	Beta	0.23	
Losing quarters Win rate (%)	15 73.21	14 75.00	Up Beta	0.24	
vviii race (70)	75.21	73.00	Down Beta	0.11	
Winning years	13	12	Correlation	0.36	
Losing years	1	2	Up Correlation	0.19	
Win rate (%)	92.86	85.71	Down Correlation	0.25	

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Sharpe ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. Maximum drawdown (MDD) is the maximum loss from a peak to a trough of a portfolio, before a new peak is attained and is an indicator of downside risk over a specified time period. Upside and downside capture ratios measure whether a given fund has outperformed—gained more or lost less than—a broad market benchmark during periods of market strength and weakness, and if so, by how much. Alpha gauges the performance of an investment against a market index used as a benchmark. Beta measures the volatility of an investment compared to the market as a whole. Correlation, measures the degree to which two securities move in relation to each other.

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# **ETF Inflation Hedge Model**

### ASSET DESCRIPTIONS...

The level of inflation in an economy changes depending on current events. Rising wages and rapid increases in raw materials, such as oil, are two factors that contribute to inflation. Inflation is a natural occurrence in the market economy, and a disciplined investor can plan for inflation by cultivating ideas for asset classes that outperform the market during inflationary climates. Over time, inflation erodes the value of a nation's currency.

The iQ ETF Inflation Hedge Model utilizes the following asset classes in an attempt to provide a hedge against the risk of inflation:

**Precious Metals (Gold & Silver)**: When a currency is having problems—as it does when inflation climbs and decreases its buying power—investors often turn to tangible assets. For centuries, the leading haven has been gold—and, to a lesser extent, other precious metals. Investors tend to go for the gold during inflationary times, causing its price to rise on global markets.

**Energy Commodities (Oil & Gas)**: Like gold, the price of oil moves with inflation. This cost increase flows through to the price of gasoline and then to the price of every consumer good transported by or produced. Since modern society cannot function without fuel to move vehicles, oil and oil-related commodities have a strong appeal to investors when prices are rising.

**Base Metals**: Base Metals are widely used in commercial and industrial applications, such as construction and manufacturing. Base metals include lead, copper, nickel, and zinc. Like other hard assets, the price of Base Metals is highly-correlated to increases to inflation. In addition, the threat of a copper shortage looms as China has increased its purchase of the metal and the United States seeks to pass an infrastructure bill.

**Real Estate**: Real estate is a popular inflation hedge not only because rising prices increase the resale value of the property over time, but because real estate can also be used to generate rental income. Just as the value of the property rises with inflation, the amount tenants pay in rent can increase over time.

**Treasury Inflation Protected Securities (TIPS)**: Treasury inflation-protected securities (TIPS), a type of U.S. Treasury bond, are indexed to inflation in order to protect investors from inflation. Twice a year, TIPS pay out on a fixed rate. TIPS have an inflation rider, which adjusts the value of your principal along with the Consumer Price Index.

Mortgage-Backed Securities (MBS): Mortgage-backed securities (MBS) are groups of home mortgages that are sold by the issuing banks and then packaged together into "pools" and sold as a single security. The majority of MBSs are issued or guaranteed by an agency of the U.S. government such as Ginnie Mae, or by GSEs, including Fannie Mae and Freddie Mac. MBS yields and mortgage rates tend to move with bond yields. Since inflation rates impact bond yields, they also impact mortgage rates.

**Bitcoin:** Many believe that the central bank money printing will lead to inflation or the decrease in the value of money over time. Bitcoin, by contrast, has a fixed limit of 21 million coins that can ever be created. This limited supply allows Bitcoin to resist inflation. As a result of the COVID-19 pandemic many countries across the world began injecting trillions of dollars into their economies. Many countries, including the U.S., printed money to meet stimulus requirements for its citizens.

Large Cap Value Stocks: Stocks are often broken down into subcategories of value and growth. Value stocks have strong current cash flows that will slow over time, while growth stocks have little or no cash flow, but are expected to gradually increase over time. Historically, growth stocks are negatively impacted far more than value stocks in times of rising interest rates. Since interest rates are usually increased to combat high inflation, the corollary is that in times of high inflation, growth stocks will be more negatively impacted. This suggests a positive correlation between inflation and the return on value stocks.

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