

## Overview

Palladiem LLC, is a Registered Investment Adviser and was founded in October 2011.

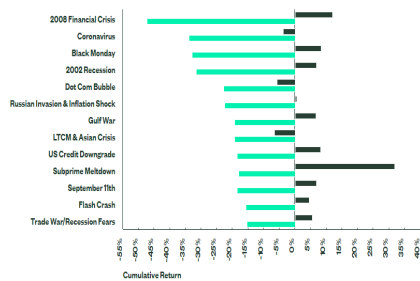
As of December 2021, \$752 Million Assets Under Management.

Independent, employee-owned firm.

Palladiem acts as a fiduciary investment advisor and investment manager.

### Gold as an Uncertainty Hedge

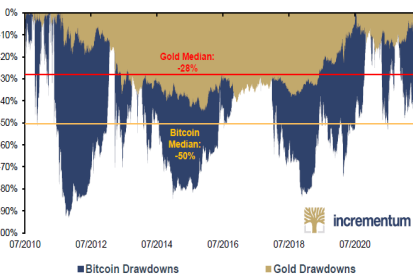
Gold's Performance vs. S&P 500 TR During Market Turmoil Events



Source: SSGA

### Gold – Drawdown Risk

Bitcoin and Gold Drawdowns from ATH, 07/2010-05/2022



Source: Glassnode, Reuters Eikon, Incrementum AG

### Key Attributes

- Low Equity Correlation
- Liquidity & Transparency
- Managed Volatility
- Proprietary Trading Strategy

Source: IDX Insights and Portfolio Visualizer

## Strategy Description

- The Risk Managed Gold Index (GRIN) seeks to provide tactical upside participation to the SPDR Gold Shares ETF (GLD) while limiting drawdowns and downside volatility.
- The objective of the iGRIN strategy is to opportunistically deploy risk capital to GLD when the risk–return profile of gold is favorable. The strategy also seeks to preserve capital when the risk/reward profile is unfavorable through an allocation to a risk-free asset represented by the iShares Short Treasury Bond (SHV) ETF.

### Risk Managed Gold Index vs GLD ETF

As of 09-30-2022

#### Growth Chart

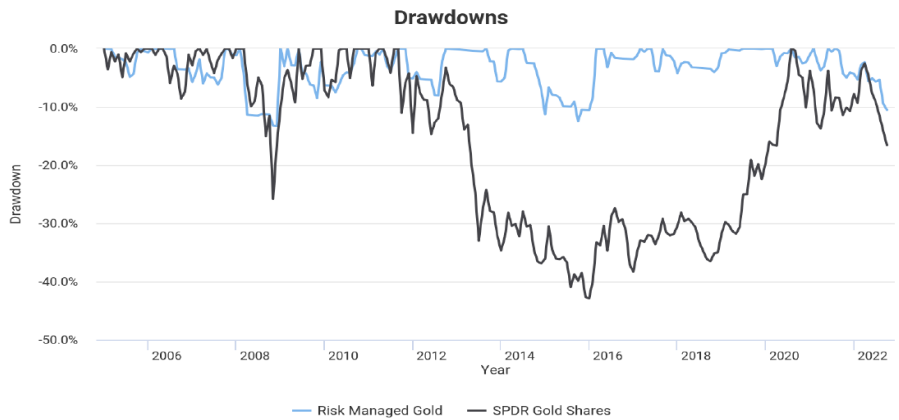


Source: IDX Insights and Portfolio Visualizer

“Please see important disclosures at the end of this report”

### Risk Managed Gold Index vs GLD ETF

Drawdown Risk (as of 09-30-2022)



Drawdowns for Historical Market Stress Periods

Stress Period	Start	End	Risk Managed Gold	SPDR Gold Shares
Subprime Crisis	Nov 2007	Mar 2009	-13.28%	-25.83%
COVID-19 Start	Jan 2020	Mar 2020	-3.03%	-8.86%

Source: IDX Insights and Portfolio Visualizer

## Performance Statistics vs. Benchmark

Returns for greater than 1 year are annualized.

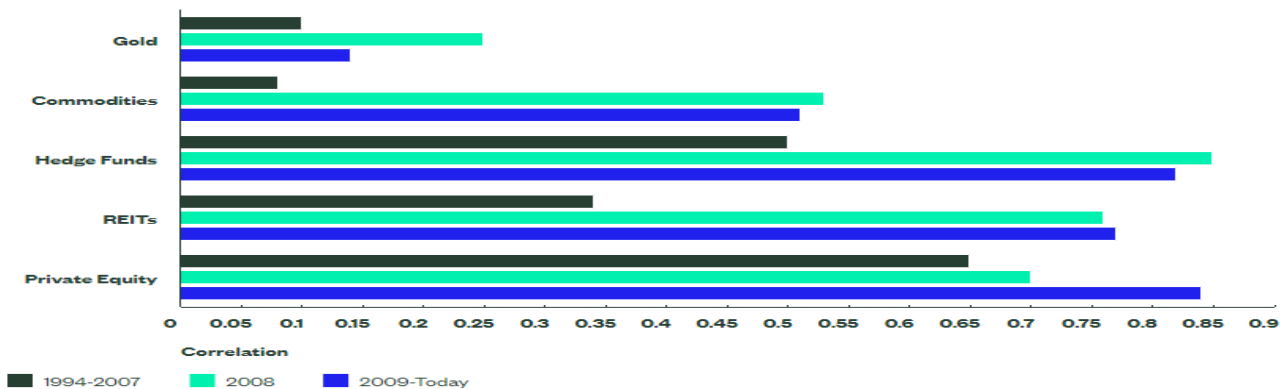
### Rolling Returns (Jan 2005 - Sep 2022)

Roll Period	Risk Managed Gold			SPDR Gold Shares		
	Average	High	Low	Average	High	Low
1 year	5.60%	23.63%	-10.19%	9.67%	54.21%	-28.33%
3 years	5.31%	12.83%	-1.73%	8.11%	32.87%	-15.02%
5 years	5.15%	8.82%	1.56%	6.57%	23.37%	-8.06%
7 years	5.14%	7.09%	2.22%	5.06%	21.95%	-6.20%
10 years	5.02%	6.55%	3.42%	4.33%	11.33%	-1.05%
15 years	5.29%	6.22%	4.38%	7.63%	10.26%	5.08%

Source: IDX Insights and Portfolio Visualizer

## Long Term Portfolio Diversification Benefits of Gold

### Correlation to MSCI World TR Index



Source: Bloomberg Finance, L.P., State Street Global Advisors. Data from 12/31/1993 to 6/30/2022. Gold = gold spot price. Commodities = S&P GSCI Total Return Index. Hedge Funds = Hedge Fund Research HFRI FOF Diversified Index. REITs = FTSE NAREIT All Equity REITS Total Return Index. Private Equity = LPX50 Listed Private Equity Index Total Return. **Past performance is not a reliable indicator of future performance.**

## Risk Metrics

As of September 30, 2022

### Risk and Return Metrics (Jan 2005 - Sep 2022)

Metric	Risk Managed Gold	SPDR Gold Shares
Arithmetic Mean (monthly)	0.42%	0.71%
Arithmetic Mean (annualized)	5.18%	8.91%
Geometric Mean (monthly)	0.38%	0.59%
Geometric Mean (annualized)	4.66%	7.37%
Standard Deviation (monthly)	2.94%	4.92%
Standard Deviation (annualized)	10.19%	17.04%
Downside Deviation (monthly)	1.39%	2.99%
Maximum Drawdown	-13.28%	-42.91%
Stock Market Correlation	0.07	0.08
Beta (*)	0.35	1.00
Alpha (annualized)	2.06%	0.00%
R Squared	34.35%	100.00%
Upside Capture Ratio (%)	32.98	100.00
Downside Capture Ratio (%)	27.69	100.00

(\*) SPDR Gold Shares is used as the benchmark for calculations.

Source: IDX Insights & Portfolio Visualizer

## Performance Statistics

As of 09-30-2022

### Risk Managed Gold Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2005	-0.05%	-0.05%	-1.37%	-0.05%	-0.33%	-0.55%	-2.54%	0.48%	3.82%	1.36%	-0.50%	-0.17%	-0.08%
2006	4.83%	-0.05%	-0.05%	11.27%	0.70%	-0.05%	0.36%	-3.56%	-0.05%	-0.05%	0.27%	-2.47%	10.90%
2007	1.61%	2.50%	-4.22%	1.86%	-0.69%	-0.05%	-1.30%	1.32%	5.54%	-0.20%	-0.94%	-0.05%	5.19%
2008	7.66%	-4.12%	-7.59%	-0.05%	-0.05%	-0.02%	0.27%	-0.05%	-0.05%	-2.12%	-0.05%	16.05%	8.35%
2009	-3.06%	4.22%	-2.85%	-0.05%	5.03%	-4.24%	-0.05%	-1.98%	-0.15%	-2.36%	6.82%	-4.11%	-3.47%
2010	-0.05%	-0.05%	-1.21%	1.46%	1.68%	0.53%	-0.05%	1.71%	4.73%	1.37%	-1.16%	-0.09%	9.09%
2011	-0.05%	0.81%	-0.55%	6.77%	-2.98%	-0.95%	1.94%	12.22%	0.03%	-0.05%	-5.06%	-0.05%	11.59%
2012	1.17%	-1.21%	-0.05%	-0.05%	-0.05%	-2.81%	-0.05%	6.50%	4.62%	-0.05%	-0.05%	-0.05%	7.85%
2013	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	6.49%	-2.19%	-0.05%	-3.47%	-0.05%	0.09%
2014	0.71%	4.93%	1.71%	-0.05%	-0.05%	1.04%	-2.45%	-0.05%	-0.05%	-2.25%	-2.52%	-4.48%	-3.77%
2015	5.23%	-1.39%	-0.05%	-0.47%	-1.59%	-0.05%	-0.05%	0.96%	-3.70%	2.23%	-0.05%	-0.05%	0.77%
2016	2.58%	10.88%	-0.02%	4.53%	-3.24%	2.60%	-0.90%	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	16.65%
2017	0.63%	2.88%	-0.56%	1.68%	-0.05%	-3.84%	-0.05%	4.29%	-1.21%	-0.05%	-0.82%	-2.21%	0.43%
2018	1.70%	0.28%	-0.05%	-0.87%	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	-0.61%	0.71%	2.63%	3.54%
2019	0.11%	0.55%	-0.05%	-0.05%	-0.05%	6.11%	0.42%	1.71%	1.34%	-0.05%	-0.05%	0.35%	10.67%
2020	2.76%	-0.05%	-2.98%	1.68%	0.63%	-0.06%	10.70%	-1.55%	0.12%	-1.12%	0.19%	1.28%	11.56%
2021	2.56%	-1.96%	-1.85%	0.77%	7.61%	-0.55%	1.31%	-0.36%	-3.91%	-0.78%	0.95%	-0.27%	3.12%
2022	-0.98%	2.64%	0.48%	-3.35%	0.55%	-0.64%	0.36%	-4.29%	-1.24%				-6.48%

Annual return for 2022 is from 01/01/2022 to 09/30/2022

### SPDR Gold Shares Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2005	-3.61%	3.10%	-1.63%	1.24%	-3.92%	4.30%	-1.43%	1.35%	7.60%	-0.64%	5.82%	5.05%	17.76%
2006	9.93%	-1.11%	3.62%	12.03%	-1.32%	-4.67%	3.15%	-1.38%	-4.53%	1.29%	6.89%	-1.83%	22.55%
2007	2.56%	2.55%	-1.11%	2.05%	-2.31%	-1.94%	2.37%	1.11%	10.51%	6.95%	-1.65%	6.65%	30.45%
2008	10.84%	5.23%	-6.00%	-4.16%	0.92%	4.52%	-1.44%	-9.29%	4.11%	-16.14%	12.57%	7.73%	4.92%
2009	5.54%	1.45%	-2.54%	-3.33%	10.23%	-5.22%	2.38%	0.05%	5.84%	3.72%	12.79%	-7.20%	24.03%
2010	-1.26%	3.27%	-0.44%	5.88%	3.05%	2.36%	-5.09%	5.71%	4.78%	3.68%	2.11%	2.44%	29.27%
2011	-6.38%	6.00%	1.60%	8.94%	-1.79%	-2.43%	8.42%	12.27%	-11.06%	5.87%	1.67%	-10.66%	9.57%
2012	11.40%	-2.96%	-1.32%	-0.15%	-6.34%	2.35%	0.84%	4.94%	4.67%	-2.94%	-0.47%	-2.43%	6.60%
2013	-0.51%	-5.09%	0.95%	-7.56%	-6.20%	-11.06%	7.43%	5.20%	-4.78%	-0.34%	-5.51%	-3.79%	-28.33%
2014	3.42%	6.27%	-3.14%	0.49%	-3.05%	6.32%	-3.63%	0.38%	-6.18%	-3.05%	-0.49%	1.31%	-2.19%
2015	8.69%	-5.91%	-2.15%	-0.17%	0.56%	-1.52%	-6.62%	3.71%	-1.80%	2.28%	-6.75%	-0.45%	-10.67%
2016	5.41%	10.93%	-0.84%	5.11%	-6.14%	8.97%	1.98%	-3.26%	0.69%	-2.94%	-8.36%	-1.91%	8.03%
2017	5.42%	3.18%	-0.43%	1.73%	-0.12%	-2.16%	2.31%	4.20%	-3.37%	-0.75%	0.36%	2.11%	12.81%
2018	3.23%	-2.08%	0.63%	-0.95%	-1.20%	-3.61%	-2.24%	-2.14%	-0.66%	2.12%	0.34%	4.94%	-1.94%
2019	2.89%	-0.61%	-1.60%	-0.66%	1.76%	8.00%	0.01%	7.91%	-3.39%	2.56%	-3.21%	3.66%	17.86%
2020	4.50%	-0.64%	-0.22%	7.26%	2.59%	2.74%	10.79%	-0.32%	-4.17%	-0.52%	-5.41%	7.01%	24.81%
2021	-3.22%	-6.26%	-1.14%	3.56%	7.68%	-7.15%	2.53%	-0.08%	-3.22%	1.48%	-0.69%	3.30%	-4.15%
2022	-1.68%	6.12%	1.27%	-2.07%	-3.26%	-1.57%	-2.59%	-2.94%	-2.89%				-9.53%

Annual return for 2022 is from 01/01/2022 to 09/30/2022

Source: [IDX Insights & Portfolio Visualizer](#)

Disclosures: Unless otherwise noted, performance information is hypothetical and NET of all associated fees and sales and trading expenses that an investor might incur (0.60%). It is not possible to invest directly in an index. Hypothetical or model performance results have certain limitations including, but not limited to: hypothetical results do not take into account actual trading and market factors (such as liquidity disruptions, etc.). Simulated performance assumes frictionless transaction costs and no lag between signal generation and implementation. Simulated performance is designed with the benefit of hindsight and there can be no assurance that the strategy presented would have been able to achieve the results shown. There are frequently large differences between hypothetical performance results and actual results from any investment strategy. While data was obtained from sources believed to be reliable, IDX Insights, LLC and its affiliates provide no assurances as to its accuracy or completeness.

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