

# UBS CMCI Precious Metals Index

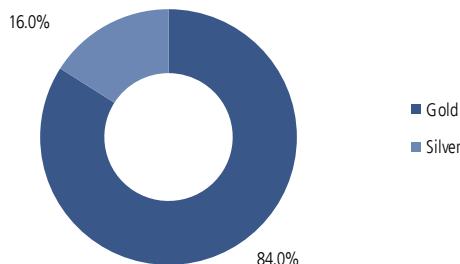
Factsheet, **October 2023**

## Index Characteristics

- Objective:** The UBS CMCI Precious Metals Index is designed to provide enhanced beta exposure to the commodity precious metals sector by applying the daily rolling mechanism and tenor diversification principle from the CMCI Methodology to its underlying components.
- Methodology:** The CMCI was developed and launched by UBS in 2007 as a state-of-the-art broad commodity index. It features a weighting engine that allocates across a variety of commodities. For each underlying, exposure is distributed across the liquid tenors. Its methodology can be applied to any number of individual commodities and commodity sectors.
  - Daily rolling: Small proportions of the underlying futures are rolled daily to avoid the potential problems associated with the punctual roll of traditional indices.
  - Tenor diversification: The index takes positions across the liquid part of the commodity futures curve to avoid concentration at the front of the curve.
- Rebalancing:** In accordance with the CMCI Methodology, the UBS CMCI Precious Metals Index rebalances on a monthly basis back to target weights which are updated once per year. Monthly rebalancing helps to lower concentration risk, but does not eliminate it as weights are not capped intra-month.
- Enhanced benchmark:** These innovative features aim to reduce the effects of negative roll yield and maximize the tracking of spot commodity prices. The methodology does not guarantee complete mitigation of negative roll yield.

Source: UBS AG.

## Index composition



Source: UBS AG, Weights valid from first business day of August 2023 till first business day of August 2024.

## Higher risk – adjusted returns

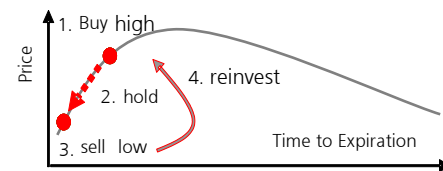
	UBS CMCI Precious Metals index	S&P GSCI Precious Metals Index	Bloomberg Precious Metals Index
Bloomberg code	CMPMTR Index	SPGSPMTR Index	BCOMPTR Index
Performance p.a. (%)	5.18	5.25	4.96
Volatility p.a.	18.96%	18.45%	19.95%
Sharpe Ratio	0.21	0.22	0.19

Based on daily closing prices from 01.01.2007 to 29.09.2023. Performance and volatility is based on Total Return indices, Sharpe Ratio is based on Excess Return Indices. Past performance does not indicate future results.

Source: Bloomberg, UBS AG

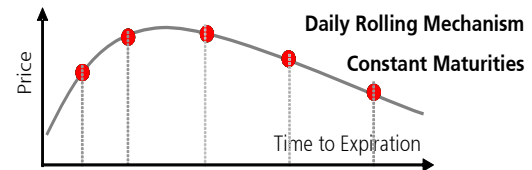
## Traditional Commodity Indices

- Limit exposure to short-dated futures contracts
- An upward sloping forward curve ("contango") such as below puts investors in the costly position of "buying high, selling low" each time a future is rolled. This effect is known as negative roll yield.



## UBS CMCI

- Expands commodity investment beyond short-dated futures contracts
- Gives access to various constant maturities. In doing so, it can reduce the financial impact of rolling futures and may diminish volatility found in traditional indices



Source: UBS AG, For illustrative purposes only.

## Precious Metals sector – Supply & Demand drivers

- Precious metals behave more like financial assets rather than commodities.
- For commodities such as gold and silver storage and trade are the dominant functions affecting global supply and demand as the consumption process does not necessarily result in "physical destruction" of the commodity.
- For such commodities consumption occurs principally through a transaction process without considerably reducing at any point in time the quantity of commodity available in circulation.

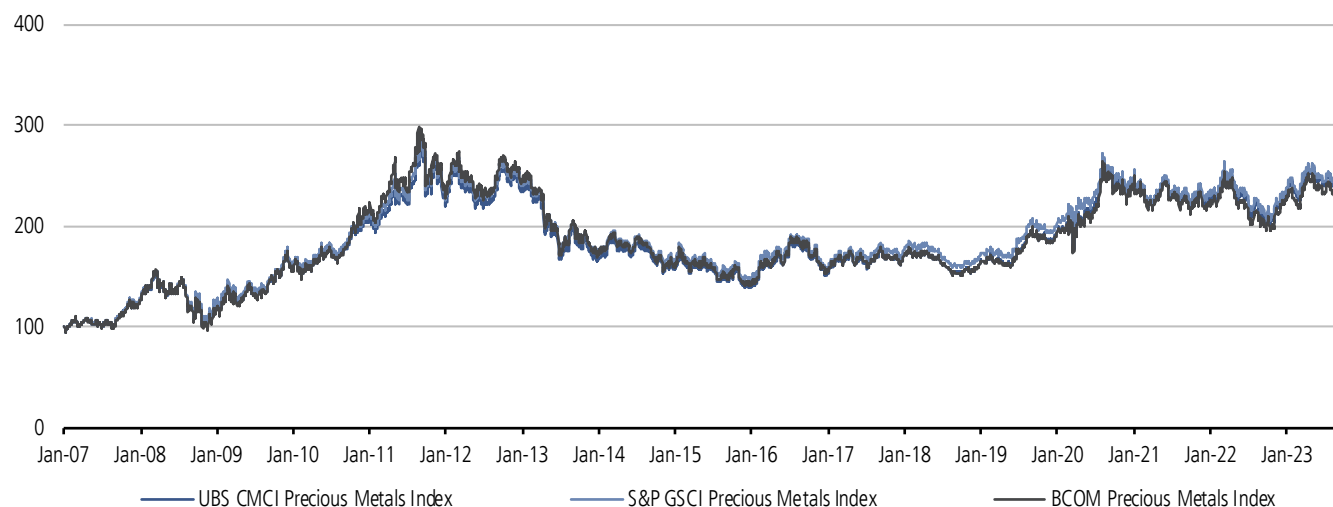
Source: Desk commentary.

## Precious Metals sector – Observations

- Gold: US dollar weakness contributes to gold price strength.
- Silver: A higher beta version of gold, outperforming the yellow metal moderately during periods of gold and silver strength, but falling much more rapidly than gold in the times of weakness.

Source: Desk commentary.

## Performance since CMCI went live in 2007



Based on daily closing prices from 01.01.2007 to 29.09.2023. Total Return indices.

Source: Bloomberg, UBS AG

## UBS CMCI universe – Precious Metals sector

Sector	Weight	Avg Tenor	Commodity	Exchange	Overall Weight	Weight in Sector	Average Tenor (M)	Weights of Constant Maturities per Commodity				
								3M	6M	1Y	2Y	3Y
Precious Metals	6.3%	4.34	Gold	GC	5.3%	84.0%	4.36	74.2%	16.1%	9.7%	-	-
			Silver	SI	1.0%	16.0%	4.28	76.2%	14.5%	9.4%	-	-

Source: UBS AG, Weights valid from first business day of August 2023 till first business day of August 2024.

## Monthly performance - UBS CMCI Precious Metals Index

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2007	3.1%	2.8%	-1.4%	2.1%	-2.3%	-3.0%	3.1%	-0.8%	11.0%	5.9%	-1.8%	6.3%	27.0%
2008	10.4%	7.2%	-7.1%	-5.5%	2.6%	4.2%	-0.9%	-12.0%	2.7%	-19.3%	11.8%	8.1%	-2.8%
2009	6.2%	2.0%	-2.0%	-3.9%	12.7%	-6.7%	2.7%	1.3%	6.5%	2.1%	13.4%	-7.4%	27.5%
2010	-1.8%	3.0%	0.6%	6.0%	2.2%	2.3%	-5.2%	5.8%	5.7%	4.7%	3.6%	3.5%	34.2%
2011	-6.7%	7.2%	3.2%	8.4%	-1.9%	-3.0%	9.1%	11.0%	-14.0%	7.6%	0.5%	-11.2%	6.4%
2012	12.1%	-0.5%	-3.2%	-1.3%	-7.0%	1.9%	0.5%	6.2%	6.1%	-3.8%	0.2%	-3.6%	6.3%
2013	0.0%	-6.0%	0.8%	-9.2%	-6.0%	-12.2%	5.8%	8.9%	-5.5%	-0.1%	-6.1%	-3.7%	-30.2%
2014	2.2%	7.4%	-3.7%	0.1%	-3.6%	7.4%	-3.0%	-0.7%	-7.2%	-3.7%	-0.6%	0.7%	-5.6%
2015	8.4%	-4.9%	-2.0%	-0.6%	1.1%	-2.6%	-6.5%	2.4%	-1.4%	3.4%	-7.3%	-0.8%	-11.1%
2016	4.7%	9.4%	0.9%	6.8%	-6.6%	10.1%	3.9%	-4.4%	1.0%	-4.1%	-8.0%	-2.1%	9.8%
2017	6.0%	3.8%	-0.5%	0.0%	0.5%	-3.0%	1.8%	4.0%	-3.1%	-0.8%	-0.1%	3.0%	11.7%
2018	2.1%	-2.3%	0.2%	-0.3%	-1.0%	-3.4%	-2.7%	-2.9%	-0.3%	1.0%	0.3%	5.6%	-4.1%
2019	3.2%	-1.0%	-1.9%	-0.9%	0.9%	7.4%	2.2%	7.3%	-4.1%	3.6%	-3.6%	3.8%	17.5%
2020	3.4%	-2.6%	-1.1%	6.5%	6.6%	2.6%	12.8%	1.4%	-5.8%	-0.6%	-5.6%	8.0%	26.6%
2021	-2.0%	-5.8%	-1.9%	3.4%	7.7%	-6.9%	1.6%	-1.0%	-4.2%	2.7%	-1.2%	2.9%	-5.5%
2022	-2.2%	6.3%	2.9%	-3.0%	-3.9%	-2.7%	-2.1%	-4.5%	-1.3%	-1.1%	7.8%	5.3%	0.6%
2023	4.9%	-6.3%	8.8%	1.6%	-2.1%	-2.3%	3.6%	-1.7%	-5.4%				0.3%

Based on monthly closing prices from 01.01.2007 to 29.09.2023. Total Return indices.

Source: Bloomberg, UBS AG

## Key advantages

- CMCI indices are based on an intelligent rolling process that could reduce the negative roll effects of rolling commodity futures.
- Given CMCI indices invest across the liquid part of the futures curve, it could reduce the volatility of investment as compared to front month rolling indices.

## Principal risks

- CMCI indices may not fully reflect any sharp rallies or drawdowns in commodities as they tend to affect the near dated futures contracts more than the farther dated.
- While CMCI aims to reduce negative roll yield, in certain market scenarios it may underperform the traditional front month rolling indices.

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