

BCOM



Top 16 Most Frequently Asked Questions

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# Primer

Commodities have several appealing features as investments. As a separate asset class, they offer genuine diversification, with low correlations to major Australian asset classes like residential property, shares, and bonds. They also offer a natural way to hedge inflation, given they feature prominently in the consumer price index baskets that governments use to measure price growth.

Yet commodities can confuse investors. Most commodities are only investible via futures markets. And futures are traded very differently to shares. What is more, for many funds managers the best way to access these futures is via swap agreements, inked in with investment banks. This FAQ document aims to provide clarity on commodities investing. And aims to provide a starting point for those looking to understand this asset class.





## Which Commodities are Included in the Index & Why?

The Bloomberg Commodity Index 3 Month Forward Excess Return is comprised of the 25 commodities listed below. These represent the energy, industrial metals and precious metals sectors, grains and softs.

The index uses five-year average liquidity and production data to determine both the commodities selected and their relative weights. Futures positions are weighted two-thirds by trading volume and one-third by worldwide production.

Weight caps are applied at both the commodity and sector level to ensure diversification. A cap and floor are applied to every commodity, limiting their weights to a maximum of 25% and a minimum of 2% at each rebalance. Sectors are capped at 33%.

#### **BLOOMBERG COMMODITY INDEX**

Source: Bloomberg. As of April 2023



# 2 Why are Commodities Weighted and Selected based on Production and Secondary Market Liquidity?

Most famous share market indexes, like the S&P/ASX 200, aim to capture market averages, as measured by market capitalisation. Their ultimate goal is to measure performance. But as they reliably capture averages, they also provide a way to replace active fund managers.

Commodity indexes try to do the same thing. They try to measure the average performance of commodities and provide an alternative to active fund managers. But they hit an immediate snag in that there is no analogue to market capitalisation—it is by no means obvious how to measure the performance of the "average" commodity.

Commodity indexes must therefore find a way to measure average performance of commodities—given there is no clear way of doing so. While there is no "correct" way of doing this, the most popular approach is commodity production. This involves selecting and weighting index constituents based on supply—which is thought to provide a reasonable barometer of commodities' price performance, of the kind market capitalisation provides for stocks.

However, building an index of commodities based on production is immediately constrained by investibility. Many of the most-heavily produced commodities in the world – like rice and iron ore – have limited secondary markets. This makes them harder to access for public funds like ETFs. As such, commodities' indexes look at secondary market liquidity to ensure investibility for fund managers.





# **3** How does BCOM invest in commodities?

With the exception of precious metals like gold and silver, it is unrealistic for ETFs to invest directly in commodities.

This is because they hit four problems:

**Perishability** – agricultural and livestock commodities like wheat, soybeans, bacon have use by dates.

**Storage and transport** – investors buying 1,000 barrels of oil need to put them somewhere and arrange shipping.

**Standardisation** – commodities can be vastly different based on quality, seasonality, and region. The screenshot below shows how many different prices for Gulf/Texas natural gas there are.

**Secondary market liquidity** – where do you find someone to sell your barrels of oil or boxcar of soybeans to?

To get around this, commodities ETFs like BCOM invest in commodities futures instead.

Futures are contracts to buy or sell an asset in the future. They are often used by farmers, miners, and commodity producers as a way to produce working capital and hedge the risk of falling commodity prices. Futures allow, for example, wheat farmers to sell their harvest a year in advance. They can then use the proceeds to finance the actual harvest later in the year, or finance next year's crop.

Unlike buying bushels of wheat or barrels of oil directly, futures have the advantage of being liquid and easy for fund managers to custody. They have other advantages too, like providing standardised pricing as they are exchange traded.

#### **BLOOMBERG VARIATION OF PRICE OF NATURAL GAS BY AREA**

Source: Bloomberg. As of April 2023

Gulf / Texas	Time	VWAP	Chg	Spr to HH	Src		Time	VWAP	Chg	Spr to HH	Src
Regional Hubs						NGPL					
Henry Hub	05/09	2.22	+0.10	+0.00	BBG Nat	Gulf Coast Mainline	07/11	2.25	+0.07	+0.03	BBG Nat
Houston Ship Chnl	05/09	2.10	+0.07	-0.12	BBG Nat	Louisiana Pool	03/02	3.07	-0.07	+1.48	BBG Nat
Katy, TX	05/09	2.04	+0.11	-0.18	BBG Nat	South Texas	05/09	2.00	+0.09	-0.22	BBG Nat
Carthage, TX	05/09	1.927	+0.268	-0.293	BBG Nat	Southern Natural					
Perryville, LA	05/09	1.84	-0.059	-0.38	BBG Nat	Tier 1 (LA)	05/09	2.24	+0.08	+0.02	BBG Nat
Moss Bluff	01/24	3.09	-2.56	+0.87	BBG Nat	Tennessee Gas Pipeline					
Agua Dulce Hub	08/26	8.55	+2.29	+6.33	BBG Nat	Zone 0: 100 Leg	05/09	1.92	+0.06	-0.30	BBG Nat
Tres Palacios	05/09	1.98	+0.00	-0.24	BBG Nat	Zone L: 500 Leg	05/09	2.16	+0.06	-0.06	BBG Nat
Pine Prairie (LA)	05/09	2.09	-0.03	-0.13	BBG Nat	Zone L: 800 Leg	05/09	1.94	-0.13	-0.28	BBG Nat
ANR Pipeline						Zone 1: 100 Leg	04/28	1.98	+0.03	-0.24	BBG Nat
Southeast	05/09	2.12	+0.01	-0.10	BBG Nat	Texas Gas Transmiss	ion				
Columbia Gulf Trans	(					Zone 1	05/09	1.84	+0.03	-0.38	BBG Nat
Onshore Pool	05/08	2.059	+0.269	-0.161	BBG Nat	Zone 1 Interruptible	05/06	4.64	+0.056	+2.42	BBG Nat
Florida Gas Transmission						Zone SL (South LA)	12/08	4.64	-0.96	+2.42	BBG Nat
Zone 2	10/17	6.00	-0.10	+3.78	BBG Nat	TETCO					
Zone 3	05/09	2.35	+0.00	+0.13	BBG Nat	Zone ELA (East LA)	05/09	1.96	+0.09	-0.26	BBG Nat
Market Hub Partner						Zone ETX (East TX)	04/24	1.95	+0.15	-0.27	Bbg Ass
Egan, LA	05/09	2.22	+0.07	+0.00	BBG Nat	Zone M-1 (24in)	04/04	1.93	-0.14	-0.29	Bbg Ass
Moss Bluff Storage	05/09	2.20	+0.10	-0.02	BBG Nat	Zone M-1 (30in)	05/09	1.95	+0.08	-0.27	BBG Nat
Transco						Zone STX (South TX)	05/08	2.057	+0.263	-0.163	BBG Nat
Zone 1: Station 30	05/09	2.01	+0.07	-0.21	BBG Nat	Zone WLA (West LA)	05/09	2.15	+0.10	-0.07	BBG Nat
Zone 2: Station 45	05/09	2.09	+0.018	-0.13	BBG Nat	Trunkline					
Zone 3: Station 65	05/09	2.19	+0.06	-0.03	BBG Nat	East Louisiana	05/08	1.981	+0.232	-0.239	BBG Nat
Zone 4: Station 85	05/09	2.19	+0.00	-0.03	BBG Nat	West Louisiana	04/01	2.46	+0.76	+0.24	BBG Nat
						Zone 1A	05/09	1.87	+0.00	-0.35	BBG Nat



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## What are the advantages of investing in broad commodities rather than just gold?

Gold is the most popular investment commodity, with over US\$200 billion invest in gold ETFs alone around the world as of May 2023 according to the World Gold Council. It has the advantage of being trusted by the market as a store of value, having been used to this effect for thousands of years. It has also provided some of the best returns of any commodity in recent decades. (Bloomberg. Data as of 20 April 2023).

Nevertheless, by investing in a basket of commodities

investors may be better diversified if the gold price moves unfavourably. Furthermore, most non-gold commodities are driven by global economic conditions and the consumption cycle. When factories are humming, more houses are built, etc. there is more demand for commodities. Gold by contrast is treated more as a monetary asset, and impacted less by economic growth and more by changes in prevailing interest rates and the strength of the US dollar.



#### **GOLD PRICE VERSUS AUSTRALIAN SHARES**

Source: Bloomberg. As of 10 May 2023

# 5 What does "rolling" a futures contract mean and why must it occur?

Futures contracts have expiry dates, known as "delivery dates", at which point they are cash settled (or delivered, should investors purchase deliverable futures and exercise that option). Investors wanting long-term commodity exposure are therefore required to sell expiring futures contracts and buy new ones with expiry dates further into the future. This process is called "rolling", as in rolling over. BCOM tracks an index of commodity futures with at least three months until expiry. This provides some insulation from the possibility that futures settle, and removes some of the volatility that can occur in active (i.e. front month, or nearest-to-delivery) futures contract, such as the subzero pricing that occurred during covid-19 in oil futures.





# How are commodity futures prices different to "spot" commodity prices quoted in the media?

When the media quotes "commodity prices", they are sometimes quoting near-term futures pricing and at other times spot pricing, depending on the commodity. For most commodities, it is the near-term futures pricing they are referring to as that is more readily available on futures exchanges.

A spot price is the current market price to buy or sell a commodity immediately, or "on the spot". This is the price that reflects what a commodity is worth right now.

On the other hand, a futures price is the price to buy or sell a commodity at an agreed future date-called the "delivery date". Futures contracts have delivery dates going out monthly or quarterly, depending on the commodity. The contract with the closest delivery date is called the near-term contract as its price is closest to the spot price, which is why the media quotes either of those prices.

Depending on how far out into the future the delivery date is, futures prices can vary quite considerably (often based on forecast supply and demand). How futures price are affected by delivery dates is reflected in a commodity's futures curve—an example of which for crude oil and gold is provided below.

#### **GOLD FUTURES CURVE ON 10 MAY 2023**

Source: Bloomberg. As of 10 May 2023





Contango, to simplify, is where futures trade above the spot price of a commodity, and fall in value (relative to the spot price) as they come closer to maturity. It is the normal state of affairs for commodity futures.

To give a worked example, gold futures with distant expiry dates are almost always more expensive than the spot

price of gold—in other words the market is almost always in contango. This can be seen in the graph below, which shows no matter what the price of gold has been the past 12 months, the future price has always been higher. (The lines do not overlap because expired futures are replaced with new ones).



#### **GOLD HISTORICAL FUTURES CURVE**

Source: Bloomberg. As of 10 May 2023



The reason contango exists is logistics costs and the opportunity cost of capital – sometimes called the "costs of carry", in finance jargon. To continue with gold as our example, the main market makers for gold futures are often precious metals traders in London and New York – often those working at the trading desks of investment banks specialising in precious metals, especially JP Morgan and HSBC.

The way these traders make a market for gold futures is by sitting on gold bars held in their bank vaults and selling futures contracts against them. (As selling futures against gold already owned creates a natural hedge). However, selling futures against vaulted gold comes at a cost. In particular, traders have to pay for vaulting and security. The further into the future the contracts expire, the longer these traders have to carry these costs. (A one-year futures contract means traders need to pay for one year worth of security. But a futures contract expiring in three years needs three years of security.) These costs are reflected as a steadily increasing gold price (i.e. contango).

In this way, contango on gold futures is somewhat analogous to the management fee on a physical gold ETF. The management fee of a physical gold ETF includes costs for storage and security. And, like contango, it causes the price of the instrument to fall over time vis-àvis the spot price of gold.

It is also worth noting that futures markets are competitive. Traders compete to fill orders, with those offering best prices winning the trades. And contango is competitively priced.

# **8** What is backwardation?

Backwardation is the opposite of contango. It is where futures prices rise vis-à-vis spot prices as delivery comes nearer. Backwardation is rarer than contango. It tends to be caused by sharp and often temporary shortages (i.e. the desperate need for a commodity right now, and the sooner the better, rather than in the future).

In theory at least, persistent backwardation creates trading opportunities. Investors can buy a commodity with delivery in the future at a low price, then sell it higher closer to expiry. However there are no free lunches in markets. And backwardation often reflects markets' best estimates that a commodity's spot price will fall. For this reason, central bankers often use backwardation in commodities markets as a signal that inflation will prove short-lived. And use backwardation as an argument against hiking interest rates.



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#### **SOYBEANS FUTURES CURVE ON 10 MAY 2023**

Source: Bloomberg. As of 10 May 2023



# **9** How can contango and backwardation impact BCOM's performance?

When contango is sustained for long periods of time it can lock in something like a "buy high, sell low" effect, which negatively impacts fund performance. Backwardation has the opposite effect. Where long-lived it locks in a "buy low sell high" effect, improving fund performance.

Neither backwardation nor contango show up explicitly in fund accounting. Rather, they are realised gradually over time and reflected in a fund's net asset value, or NAV, which declines or rises while feeling their effects.

How much backwardation or contango a commodity is likely to experience is usually reflected in the "steepness" of its futures curve, as illustrated in the graph below. Where the curve is steep – i.e. where there are pronounced differences between spot and futures prices – investors may forecast a gain or loss on the roll.

It should be noted that most of the "steepness" of a commodity futures curve is at the front end. That is, most of the big differences in price are, in most market conditions, felt in the first few months out from expiry. Futures contract with longer-term expiry dates tend to be more similarly priced. As BCOM tracks an index of futures more than three months away from expiry, it may dilute the impacts backwardation and contango.

# **10** Can commodity futures prices go negative?

In April 2020 during the worst of the covid-19 panic, some front-month oil futures traded briefly at negative prices. This reflected the near-total stoppage of the global economy, and reflected the fact that near-term demand for oil disappeared while transporting and storing oil still incurred costs. The negative prices were very short-lived.

Exchanges that offer commodity futures usually incorporate "circuit breakers", which mean that trading

commodities stops once futures prices fall a certain amount (such as 10% in a single trading session). Making sub-zero pricing extremely rare.

We should also note that our product, BCOM does not invest in front month futures. Instead it invests in futures with at least 3 months to maturity.





## 11) What are the sources of return for a commodity ETF like BCOM?

The sources of potential returns for a commodity ETF are generally put into three categories:

- 1. Price return
- 2. Roll yield
- 3. Collateral yield

**Price return:** is simply how much commodity prices move up and down. Historically, price return has been the primary driver of performance for the Bloomberg Commodity Index 3 Month Forward.

**Roll yield:** when futures contracts are rolled, the expiring contract being sold, and the active contract being bought, are often trading at different prices. Every roll, therefore,

has the potential to make a trading profit or loss on this difference (a profit if the active futures contract is cheaper than the expiring futures contract, and vice versa). These profits and losses resulting from rolling are discussed in greater detail in the section on backwardation and contango.

**Collateral yield:** is the interest paid on cash and fixed interest instruments held by the fund. BCOM holds cash in a bank account with our custodian and swap counterparties, which receives interest. It invests excess cash into a US treasury bill ETF. Both the treasury bill ETF and the interest paid on cash provide a source of return for the fund. We believe collateral yield will likely be determined by prevailing interest rates.

## What is an unfunded swap?

Swaps are a service provided by banks, and usually the major global investment banks like JP Morgan, UBS, Goldman Sachs. Fund managers use them to follow indexes or access markets that they may find operationally burdensome or expensive to invest in directly.

For BCOM, we use an unfunded swap to access commodity futures markets and track our index. Under the swap agreement, JP Morgan – our swap counterparty – provides something like an outsourced portfolio management service and provides BCOM with its index return. The swap is called "unfunded" because cash and assets held by BCOM largely remain within the fund (To be specific, 90% of the fund's assets are held within the fund, while JP Morgan holds 10% of the fund's assets as a risk margin). The swap is called "unfunded" because, from the perspective of the bank providing the swap, funds from BCOM are not received by the bank.

Investors should note that in Australia, only unfunded swap models are permitted. This makes Australian swapbacked commodity ETFs different to those found in other jurisdictions, such as Europe, which occasionally use funded swaps.

# 3 What are the fees and costs of using a swap?

JP Morgan, our swap counterparty, charges an annual swap fee of 0.18% per year. This fee is included in the 0.60% management fee that investors see published on our website and in our product literature. There is no unbundling of expenses on Global X's part.

The fee is taken each day (0.18% divided by 365, for each calendar day of the year, which comes to a daily fee of 0.00049%) from the index return of the fund. As with all our other ETFs, the management fee is reflected in the net asset value, or NAV, of BCOM.

	Ongoing Annual Fees and Costs
Global X Fee	0.42%
Swap Fee	0.18%
Management Fee	0.60%





## 4 What are the mechanics of our swap (in simple English)?

To simplify and colloquialise, the swap works something like a daily bar bet. When the index tracked by BCOM rises, JP Morgan slides cash into our bank account equal to the daily change in the index, less its fee. The value of assets held within the fund therefore increases as the index price rises.

When the index falls, this works the other way: Global X slides cash across the table to JP Morgan equal to the daily change plus JP Morgan's daily fee. The net asset value of the fund therefore falls as cash leaves the fund.

On a day-to-day basis, BCOM holds both cash and a lowcost US treasury bill ETF as its portfolio. (The treasury bill ETF is held to enhance returns for investors). The swap does not appear as a line item within the fund's published portfolio.

In order to uphold our obligations under the swap agreement, BCOM must hold enough cash to cover all reasonably foreseeable daily moves in the index. In addition, the swap counterparty holds 10% of the fund's assets as a deposit, providing them with a risk buffer. (This 10% corresponds to most circuit breakers on underlying futures markets).

The swap is marked to market daily and settled on T + 1.

#### **HOW SWAPS WORK**

#### BCOM index



#### 5 Why does BCOM use a swap rather than buy commodity futures directly?

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The Bloomberg Commodity Index, tracked by BCOM, is made of a basket of 25 eligible commodity futures that are rolled every three months. Trading these commodity futures directly requires additional account setups and building specialised trading infrastructure. For investors in BCOM, the swap route helps lower fund management fees, as it allows Global X to save the expense of building commodity futures trading infrastructure. It also allows BCOM investors potentially reduced tracking error as index performance is provided by JP Morgan.

Globally, broad commodities ETFs often use swaps of various kinds. This is not a structure unique to BCOM.





# 16 What are the risks of using a swap?

There are several risks with using a swap. A key one of which is credit risk via the swap counterparty. As BCOM relies on a swap counterparty to achieve its index return, should our swap counterparty suffer credit stress or default, BCOM could suffer losses. These potential losses could include the 10% risk margin held by the counterparty. As the swap is unfunded, 90% of its assets remain within the fund. This ultimately limits counterparty exposure. Furthermore, the swap is marked to market daily, with the swap counterparty moving cash into BCOM's bank account on a T+1 basis. This ensures that the swap counterparty does not develop a large liability towards the fund, which could increase credit risk.

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