

## Commodities are now accepted as one the building blocks of a balanaced portfolio.

However, until the introduction of BetaShares Commodity ETFs, it has been difficult for Australian investors to easily obtain commodities exposure. The introduction of these products allows investors to access the performance of selected commodities as simply as buying any share on the ASX, without needing to trade futures or other complicated instruments. In addition, investors don't have to take delivery of commodities or incur significant credit risk through the use of structured products.

#### BetaShares offers Commodity ETFs across all the primary commodity sectors:

COMMODITY SECTOR	ETF NAME	ASX TICKER	INDEX/ EX	POSURE	MGT FEE'	<sup>*</sup> (%)	COMMODITIES C	OVERED		
PRECIOUS METALS	Gold Bullion ETF - Currency Hedged	QAU	Gold Bullior	ו (US\$)	0.49%			G	old Bullion	100%
ENERGY	Crude Oil Index ETF – Currency Hedged (Synthetic)	000	S&P GSCI ( Index Exces	Crude Oil ss Return	0.69%			C	Crude Oil	100%
AGRICULTURE	Agriculture ETF – Currency Hedged (Synthetic)	QAG	S&P GSCI A Enhanced S Excess Retu	Agriculture Select Inde: urn	0.69%				Corn Wheat Soybeans Sugar	32.4% 22.0% 23.3% 22.3%
DIVERSIFIED	Commodities Basket ETF – Currency Hedged (Synthetic)	QCB	S&P GSCI L Index Exces	y 0.69%			Aq Er In Li Pr	griculture nergy idustrial Metals vestock recious Metals	33.8% 27.5% 17.5% 12.1% 9.1%	
		С	orn	8.2%	Brent Oil	8.6%	Live Cattle	8.9%	Copper	7.0%
		W	/heat	6.0%	Crude Oil	10.3%	Lean Hogs	4.1%	Aluminium	5.0%
		S	oybeans	6.3%	Gas Oil	2.4%	Feeder Cattle	2.3%	Zinc	1.6%
		S	ugar	6.1%	RBOB Gas	2.2%	Liverteck	15 30/	Nickel	1.1%
		C	otton	2.8%	Heating Oil	2.3%	LIVESLOCK	10.0%	Lead	1.0%
		K	ansas Wheat	1.5%	Natural Gas	1.7%	Gold	6.0%	Industrial	
		C	ottee	2.1%	Energy	27.5%	Silver	0.7%	Metals	15.6%
		C	ocoa	0.9%	2.0099	27.070	Precious Metals	6.7%		

### Commodities as a Diversifier

Commodities can play an important role in portfolios by providing uncorrelated performance against other major asset classes. The historical performance of major asset classes, shown in the chart below, indicates commodities have tended to out perform in markets when other asset classes have not.

#### PERFORMANCE OF ASSET CLASSES YOY AS AT 30 OCTOBER 2016

	2007	2008	2009	2010	2011	2012	2014	2015	2016 (YTD)
Commodities <sup>(1)</sup>	-2.9%	51.0%	-51.3%	-1.6%	30.4%	-9.2%	-4.2%	6.6%	-26.6%
Global Bonds* <sup>(2)</sup>	2.2%	5.1%	7.9%	5.6%	0.7%	7.1%	1.6%	5.0%	3.6%
US Equities <sup>(3)</sup>	20.6%	-13.2%	-26.1%	14.4%	30.7%	5.4%	20.6%	24.6%	7.4%
Domestic Equities <sup>(4)</sup>	28.7%	-13.0%	-20.5%	13.1%	11.7%	-6.7%	22.8%	17.4%	5.7%
Global Equities <sup>(5)</sup>	21.5%	-15.9%	-26.1%	11.5%	21.8%	-2.2%	21.4%	21.7%	8.4%

(1) S&P GSCI Light Energy Index (2) Morningstar Global Government Bond Index (2002 not available) (3) S&P 500 Index (4) S&P./ASX 200 Index (5) MSCI World (Local Currency) Index. Source: Bloomberg. Does not take into account currency fluctuations. Past performance is not an indicator of future performance of any Index or BetaShares ETFs.

One of the primary reasons why investors are including commodities in their portfolios is due to the role that commodities can play as a portfolio diversifier. Commodities have historically had limited correlation with global and domestic equities, fixed income and cash.

Perhaps as importantly from an investor's perspective, commodities have historically shown negative correlation to equities and fixed income when these other asset classes show negative returns. The "real asset" exposure provided by commodities has historically helped to mitigate the risk of substantial downturns, as well as inflation. As such, adding commodities to a balanced portfolio can potentially provide significant diversification benefits.

The exhibit below shows the returns of commodities, US equities and global bonds from August 2001-2011 over periods where either one of, or both of, US equities and global bonds suffered negative returns. As you can see, in those periods where both bonds and equities posted negative returns, commodities posted a positive return of approximately 6% on average. During periods when one of either bonds or equities posted negative returns, commodities performed relatively strongly – with average returns of 0.9% vs -2.2% for equities and 0.9% for bonds. Such statistics illustrate the potential of commodities to provide strong protection and diversification for investors.

#### COMMODITY RETURNS WHEN EQUITIES AND BOND RETURNS ARE NEGATIVE: QUARTER BY QUARTER DECEMBER 2001-OCTOBER 2016



EQUITIES & BOND RETURNS NEGATIVE (3 QUARTERS)

# SIMPLE, COST EFFECTIVE COMMODITY EXPOSURE

**BetaShares Commodity ETFs** 

## **Investing in Commodities – understanding Futures**

Most commodities involve significant storage and handling costs. As storage and handling can be impractical and costly for many commodities, investing in these commodities typically occurs via an investment in **commodities futures**. Commodities futures contracts are liquid and standardised and utilised by commodities investors throughout the world.

BetaShares Commodity ETFs (other than the BetaShares Gold Bullion ETF), like most commodity ETFs globally, track the performance of indices which are based on commodities futures, **meaning that the performance of the ETF may differ from the performance of the underlying commodity itself**. An investment in commodities futures or in an ETF that tracks commodity futures is not the same as investing in the "spot" price of the commodity.

The "spot" price of a commodity refers to the price that is quoted for immediate payment and delivery of a particular commodity. This price reflects physical ownership of the commodity and a number of associated costs such as delivery, storage and insurance. The spot price is widely quoted in the financial press but, with respect to almost all commodities, an index based on commodity spot prices is not 'investable' (i.e. the commodities are not suitable to be purchased and held by financial investors in physical form). Apart from BetaShares Gold Bullion ETF, BetaShares Commodity ETFs do not invest in the spot market.

A commodity futures contract is a standardised financial contract traded on a regulated exchange such as the Chicago Mercantile Exchange (CME). Under a futures contract, the parties agree to buy or sell a commodity at a pre-determined future date and at a pre-determined price. Futures prices are based on the future expected spot prices of the commodities and will differ from current spot prices at any time based on a number of different factors including expected future demand and supply, interest rates, storage and insurance costs.

#### Rolling, Contango & Backwardation

A commodity futures contract entitles an investor to take delivery of the commodity at an agreed point of time in the future. Typically, however, investors in commodities futures do not wish to actually take physical delivery of the commodity. As such, investors usually trade their futures contracts before the expiry date and replace it with a contract with a later expiry date instead. This process is known as "**rolling**". Understanding rolling is important for commodities investors as it impacts investment returns.

For example, the new futures contract that they 'roll' onto may refer to a higher future price for the same commodity, which would mean that the investor receives less new contracts for the same investment amount. In this example, assuming the commodity price does not rise, the rolling will result in a loss. This phenomenon is known as "**contango**". The opposite scenario can also occur, where the new futures contract an investor 'rolls' onto may refer to a *lower* price. Assuming then that the commodity price does not change at the time of the expiry, the investor will profit. This is known as "**backwardation**".

The below figure depicts these two scenarios, using the example of a crude oil and a copper futures contract. As the figure shows, the crude oil contract which expired on September 2010 was sold, and, in place a more expensive contract was purchased – i.e. the crude oil futures were in *contango*. The line depicting the copper futures contracts indicates that the September 2010 contract was sold and was replaced by a cheaper contract expiring the next month. As the slope of the line indicates the contracts that expire beyond September 2010 imply a further decrease in the price of copper – that is, the copper futures are in *backwardation*.



2027 PER FUTURES AND CRUDE OIL (WTI) FUTURES: SEPTEMBER 2009 CURVE FOR AUGUST 2010-AUGUST 2011 DELIVERY

Source: Bloomberg. Past performance is not an indicator of future performance.



The "shape" of the futures curve is determined by numerous factors, including, but not limited to: market supply and demand, seasonality, interest rates and storage costs. Storage costs are one of the most important determinants of the futures curve. Commodities with minimal storage costs, like copper, normally have very flat and stable futures curves. Other commodities with higher storage costs, such as crude oil, will typically have steeper futures curves.

The commodity futures indices which are tracked by BetaShares Commodity ETFs (other than the BetaShares Gold Bullion ETF, which is backed by physical gold bullion) specify that as each futures contract nears expiration, it is sold and replaced ("rolled") by later-dated contracts. This process of rolling is continual and ensures that the ETF remains fully invested.

This process of rolling, and whether the futures contracts are affected by contango or backwardation will be the primary source of performance differential between the indices tracked by BetaShares Commodities ETFs and the spot commodities prices.

#### **Investment Returns**

BetaShares Commodity ETFs (other than BetaShares Gold Bullion ETF) are "total return" commodity ETFs. Total return commodities ETFs have three sources of performance:

- 1. The performance of the commodity price ("spot return")
- 2. Roll return
- 3. Collateral returns

The spot return is simply the return of the commodity price(s) being tracked by the underlying index.

The **roll return** is the return that derives from selling the soon-to-expire futures contract and re-investing the proceeds in the later-dated futures contract. As discussed above, if the profile of the futures contracts are in backwardation, this roll return will be positive; if the futures contracts are in contango, this roll return will be negative.

The **collateral return** is the return from investing the assets held by the ETF. As BetaShares Commodity ETFs (other than BetaShares Gold Bullion ETF) are backed by cash and money market instruments, the collateral return of BetaShares Commodity ETFs will be similar to the RBA Cash rate.

It is important to note that while investment returns of commodities futures will vary from the spot return, the correlation will typically be very high. The graph below, for example, shows the daily correlation between the S&P GSCI Crude Oil Index (the futures-based index tracked by BetaShares Crude Oil Index ETF) and the spot price of oil (WTI spot price). As indicated below, the average daily correlation between the futures based index and the spot price of oil assuming a 1 year hold period has been 0.96 over the last 10 years. By contrast, the average daily correlation between the largest oil equity listed on ASX, Woodside Petroleum, and the spot price of oil has been approximately 0.35 over the last 10 years.

DAILY ROLLING 1 YEAR CORRELATION GSCI CRUDE OIL VS. SPOT OIL WPL/STO/OSH VS. SPOT OIL – 1 YEAR HOLD PERIOD: AUGUST 2003 – SEPTEMBER 2016



Source: Bloomberg. Past performance is not an indicator of future performance.

# SIMPLE, COST EFFECTIVE COMMODITY EXPOSURE

BetaShares Commodity ETFs



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## The Structure of BetaShares Commodity ETFs

In order to track the spot price of an underlying commodity, an ETF needs to access and store the physical commodity itself. With some commodities, such as gold, this is relatively simple. For many other commodities, however, physically accessing and storing the underlying asset can be costly and impractical. For example, it is generally not possible for financial investors to gain exposure to the "spot" oil price that is broadcast in the media. Instead, investors seeking access to such commodities use futures contracts, which are based on standard commodities specifications and delivery locations.

As a result, BetaShares Commodity ETFs employ different structures depending on the exposure that is being sought by the particular ETF.

Where it is possible to physically hold the underlying asset (for example, gold bullion), the ETF will invest its assets into the purchase of the physical commodity itself (e.g. bars of gold bullion in the case of the BetaShares Gold Bullion ETF).

Where physical delivery and storage of one or more commodities is not possible or practical (for example, oil, natural gas, certain agricultural commodities, etc), the ETF will gain exposure to the relevant commodity or commodity basket by investing its assets into cash and using a swap agreement with the aim of closely tracking the price of a commodity index that reflects the price of futures contracts over the relevant commodities. Because these commodity indices track futures prices, and because such ETFs rely on a swap agreement to obtain their exposure, these ETFs are referred to as "synthetic" ETFs. (It is important to note, however, that these ETFs are backed by cash, which is held in a segregated account by BetaShares' custodian, RBC Investor Services).

All BetaShares Commodity ETFs are currency hedged in order to substantially remove the effect of currency fluctuations for Australian investors.

## **BetaShares Commodity ETFs**

BetaShares Commodity ETFs can be bought or sold throughout the trading day on the ASX, and trade like shares.

EXCHANGE	ASX
CURRENCY	AUD
TRADING HOURS	10:00-16:00 (AEST)

## **BetaShares Commodity ETFs Series**

GOLD BULLION ETF -	
CURRENCY HEDGED	ASX: QAU
AGRICULTURE ETF-	
CURRENCY HEDGED (SYNTHETIC)	ASX: QAG
COMMODITIES BASKET ETF -	
CURRENCY HEDGED (SYNTHETIC)	ASX: QCB
CRUDE OIL INDEX ETF -	
CURRENCY HEDGED (SYNTHETIC)	ASX: 000

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