



# VOLATILITY STRATEGY

*SPACE AND TIME FOR PERFORMANCE*



## Financial Engineering & Investment Strategies

Lux Quantum has been involved in building strategies on financial markets for over 10 years.

LQ is an independent company,  
without agreements with any credit or insurance institution,  
with the possibility to operate only for its clients.  
In this way the customer has the possibility  
to choose correctly without conflicts of interest.

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Financial Engineer



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# VOLATILITY STRATEGY

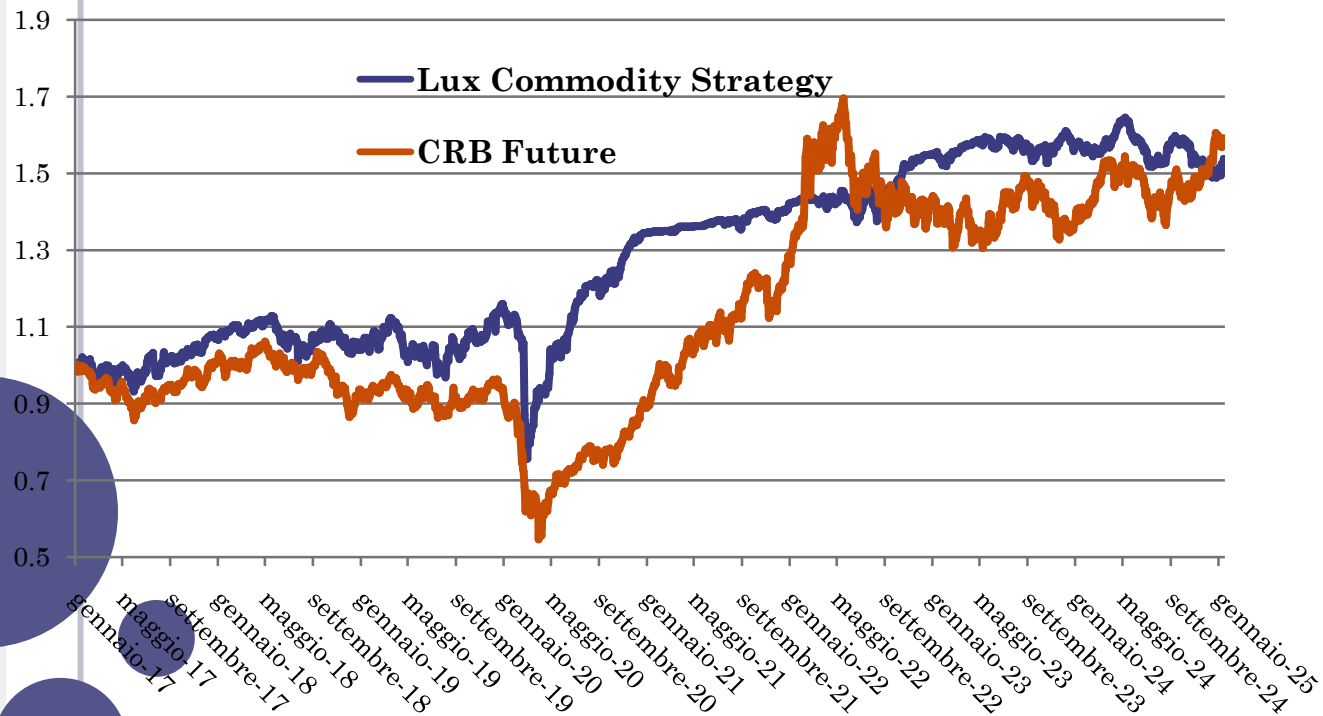
Space-based accumulation plan  
and *not time-based....*

... Commodity exposure  
and balanced basket ...

.... Growth rate 1% monthly  
volatility dependent

# VOLATILITY STRATEGY

..Track record since January 2017..



	Standard Deviation*	Return
Lux Commodity Strategy	12.9%	52.7%
CRB Future	16.5%	58.4%

•Annualized Standard Deviation of the daily returns for the whole period considered,  
•for both track records. Returns always over the same period, until Feb 7th, 2025

# CRB - HISTORY

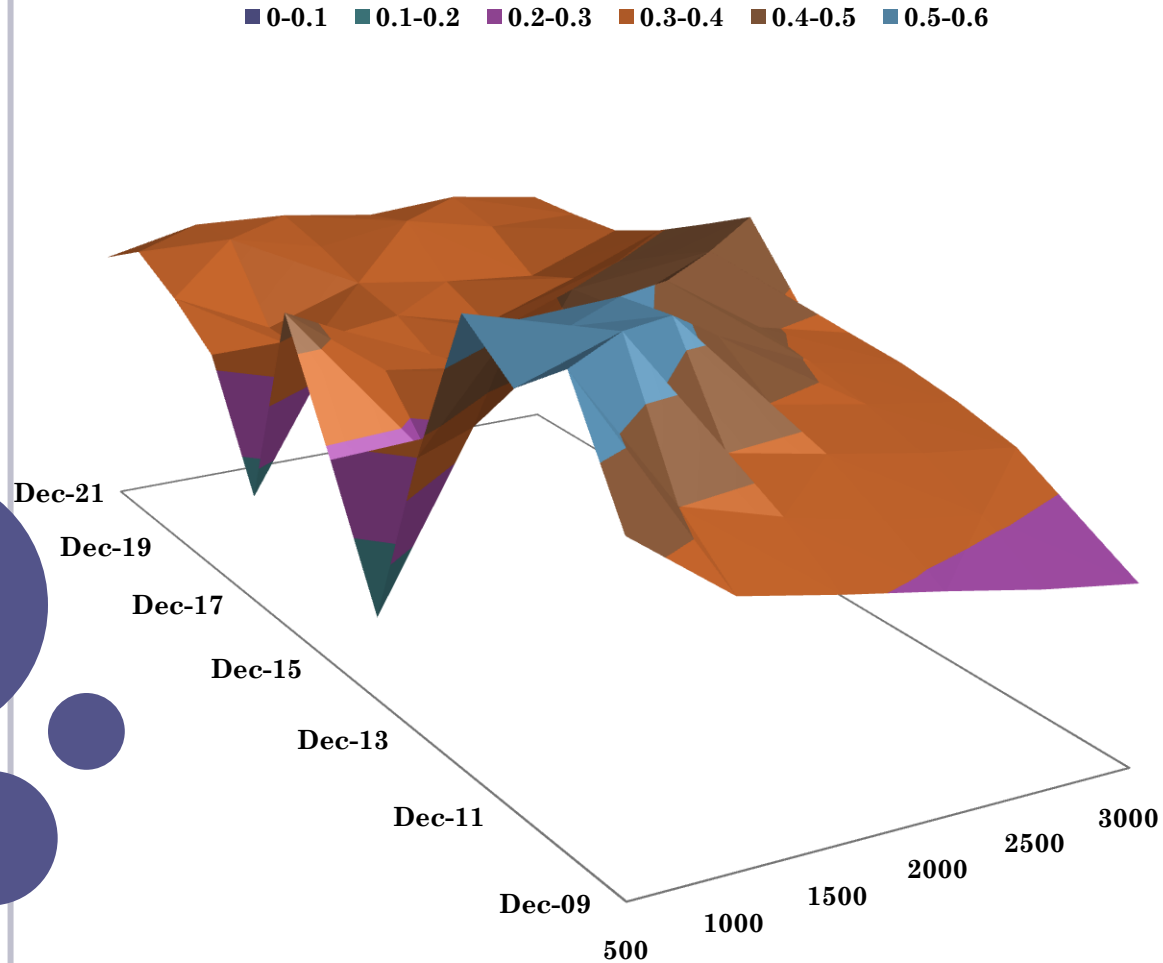
## CRB - Thomson Reuters/CoreCommodity CRB Index



Historically we are on a high level but not so high....

..much more than other indices it has an industrial soul....

# CRB - HISTORY



Graph of the n-period correlation between the S&P 500 and the CRB over several years.  
Usually between 0.4 and 0.3... with even peaks towards 0.1.

# VOLATILITY STRATEGY

## Contrarian Style ...

buy on weakness and sell on strength..

..with creation of value dependent on the movements of the underlying

Performance Drivers.... small gains with intensive use of time

## ... Diversified basket ...

Selection of commodities of different sectors, without overexposure to individual sectors

## ... Risk management

First of all ....

during the construction of the portfolio through the selection of assets with negative correlation between them to optimize the overall result of the portfolio

... and then ....

avoiding purchases on critical levels

## Space-based accumulation plan and not time-based

The annual returns of commodities are very volatile .....

	CRB	Copper	Cotton	CrudeOil	Palladium	Gold	Gold	Corn	Coffee	Sugar	Nickel
2010	22.65%	34.60%	105.40%	7.40%	103.89%	33.87%	35.91%	35.72%	70.99%	35.45%	35.44%
2011	-5.34%	-21.96%	-18.57%	0.22%	-16.40%	12.79%	14.14%	4.38%	-9.04%	-14.47%	-22.86%
2012	-6.44%	0.67%	-12.94%	-16.04%	5.51%	1.67%	3.18%	14.50%	-41.43%	-15.24%	-10.04%
2013	-8.72%	-12.50%	1.07%	3.89%	-3.24%	-31.58%	-30.73%	-32.83%	-32.57%	-24.12%	-24.31%
2014	-7.03%	-4.81%	-8.88%	-35.03%	26.98%	11.87%	12.85%	-0.17%	46.16%	-21.53%	19.19%
2015	-16.99%	-18.24%	11.61%	-39.37%	-23.85%	-3.16%	-2.15%	-13.56%	-26.33%	3.52%	-37.61%
2016	13.62%	18.71%	13.17%	10.28%	26.81%	10.74%	12.26%	-7.67%	5.31%	27.29%	16.72%
2017	-11.69%	11.56%	-3.44%	-8.79%	35.94%	-2.79%	-1.30%	-23.58%	-28.09%	-35.86%	6.95%
2018	-6.79%	-16.56%	-3.87%	-18.23%	24.37%	1.03%	2.45%	-0.50%	-23.77%	-21.74%	-12.07%
2019	14.10%	7.26%	-4.93%	38.80%	54.29%	18.82%	20.53%	-5.03%	15.58%	1.64%	36.85%
2020	-18.91%	11.84%	-1.79%	-56.91%	11.74%	9.39%	13.17%	-1.32%	-20.93%	-1.24%	4.39%
2021	52.24%	33.33%	57.29%	84.37%	-7.69%	2.20%	3.83%	50.62%	80.53%	31.79%	31.84%
2022	27.09%	-9.05%	-5.59%	32.22%	-7.25%	4.13%	5.76%	27.71%	-19.58%	17.97%	55.62%

... and have various characteristics....

Absence of DEFAULT RISK....

.... Different PRICE SENSITIVE factors  
according to the sector...

... commodities are the input  
for all the strategic sectors in  
economies...

.. For this reason, the  
resulting trends are  
different

.... volatility of returns is a fact...

..we can only decide whether to suffer or use it....



## Commodity exposure and balanced basket

Sector		Ticker	Market
Energy	CrudeOil	CL	NYMEX
	MINY Light Sweet Crude Oil	QM	NYMEX
	Brent	BB	NYMEX
	MINY Gasoline RBOB	QU	NYMEX
	Mini Heating Oil	QH	NYMEX
	Ethanol	AC	ECBOT
	Uranium	UX	NYMEX
Precious Metals	Gold	GC	NYMEX
	MiniSilver	YI	NYSELIFFE
	PLATINUM	PL	NYMEX
	MicroGold	MGC	NYMEX
Agriculture & Softs	Soybeans	ZS	ECBOT
	Mini Sized Soybeans	YK	ECBOT
	Wheat Futures	ZW	ECBOT
	MiniWheat	YW	ECBOT
	Cheese	GSC	GLOBEX
	Milk	GDK	GLOBEX
	Orange Juice	OJ	NYBOT
	Coffee	KC	NYBOT
	Lumber	LB	GLOBEX
	Oat	ZO	ECBOT
	Cotton	CT	NYBOT
	Cotton	TT	NYMEX
	Cocoa	CC	NYBOT
	Rough Rice	ZR	ECBOT
	Canola	RS	NYBOT
	Sugar	SB	NYBOT
	Mini Sized Corn	YC	ECBOT
Livestock	Beef		
	Feeder Cattle	GF	GLOBEX
	Live Cattle	LE	GLOBEX
	LeanHogs	HE	GLOBEX
Industrial Metals	Copper	HG	NYMEX
	MiniCopper	QC	NYMEX
	Steel	HRC	NYMEX
	Palladium	PA	NYMEX
	Lead	PB	LMEOTC
	Aluminium	ALI	NYMEX
	Tin	SNLME	LMEOTC
	Nickel	NI	LMEOTC
	Iron Ore	TIO	NYMEX
Index	S&P GSCI	AIGCI	NYMEX
	Dow Jones-UBS Commodity Index	FCCO	DTB

## *Commodity exposure and balanced basket*

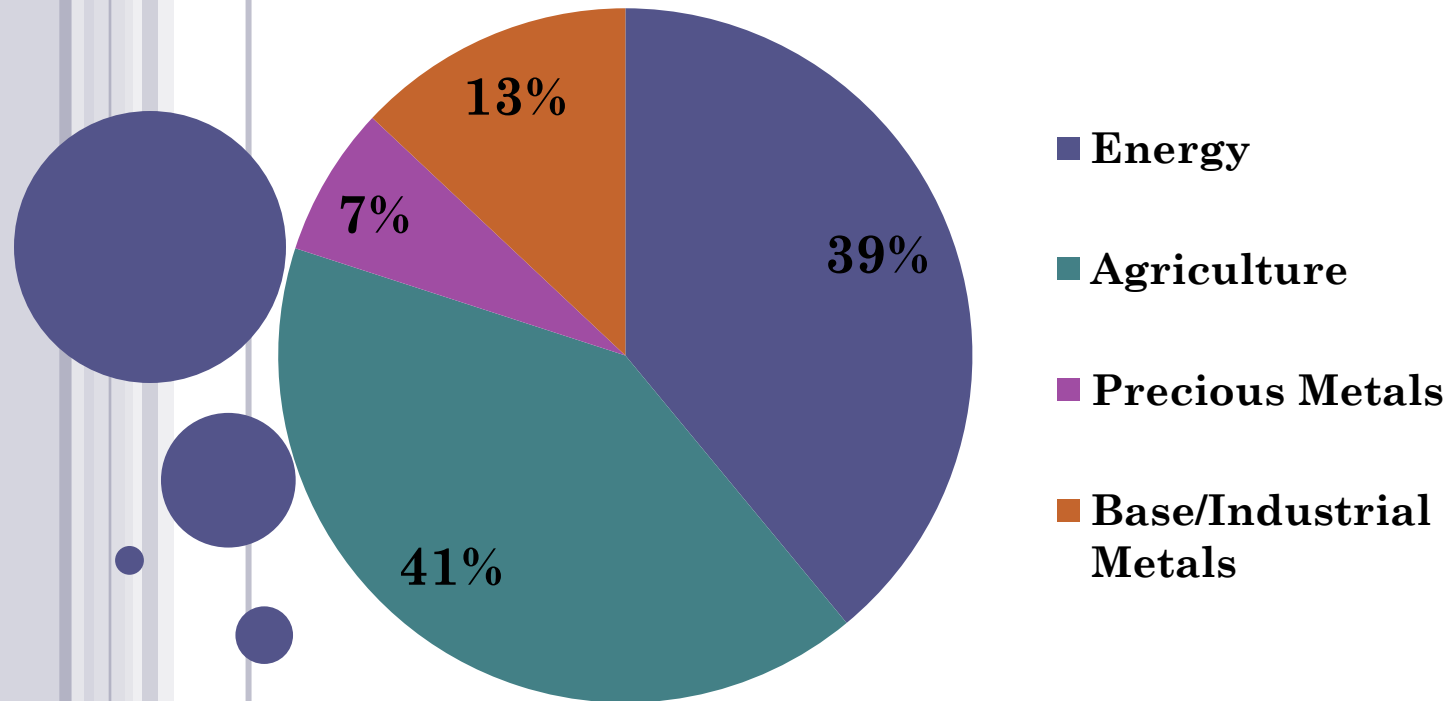
Sector	Name	Instrument
Precious Metals	Platinum	CFD
Precious Metals	Gold	CFD
Precious Metals	Silver	CFD
Industrial Metals	Copper	CFD
Industrial Metals	Palladium	CFD
Agriculture – Grains	Corn	CFD
Agriculture – Grains	Wheat	CFD
Agriculture – Grains	Soybean	CFD
Agriculture – Softs	Cotton	CFD
Agriculture – Softs	Coffee	CFD
Agriculture – Softs	Sugar	CFD
Agriculture – Softs	Cocoa	CFD
Energy	CrudeOil	CFD
Energy	Heating Oil	CFD
Energy	Natural Gas	CFD
Energy	Brent Oil	CFD
Energy	Gasoline	CFD

## *Commodity exposure and balanced basket*

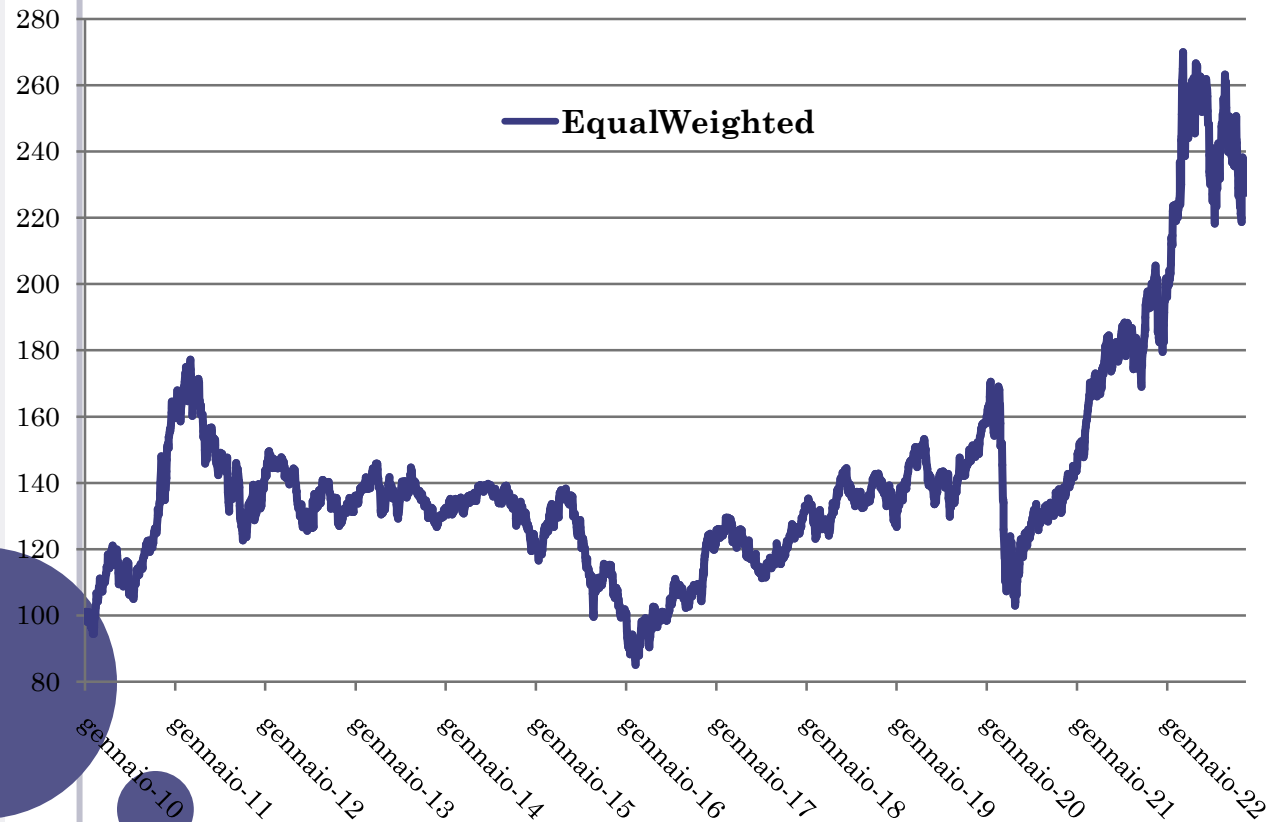
# CRB - COSTITUENTS

Thomson Reuters/CoreCommodity CRB Index is calculated using arithmetic average of commodity futures prices with monthly rebalancing. The index consists of 19 commodities: Aluminum, Cocoa, Coffee, Copper, Corn, Cotton, Crude Oil, Gold, Heating Oil, Lean Hogs, Live Cattle, Natural Gas, Nickel, Orange Juice, RBOB Gasoline, Silver, Soybeans, Sugar and Wheat.

Those commodities are sorted into 4 groups, with different weightings: Energy: 39%, Agriculture: 41%, Precious Metals: 7%, Base/Industrial Metals: 13%.



## *Commodity exposure and balanced basket*

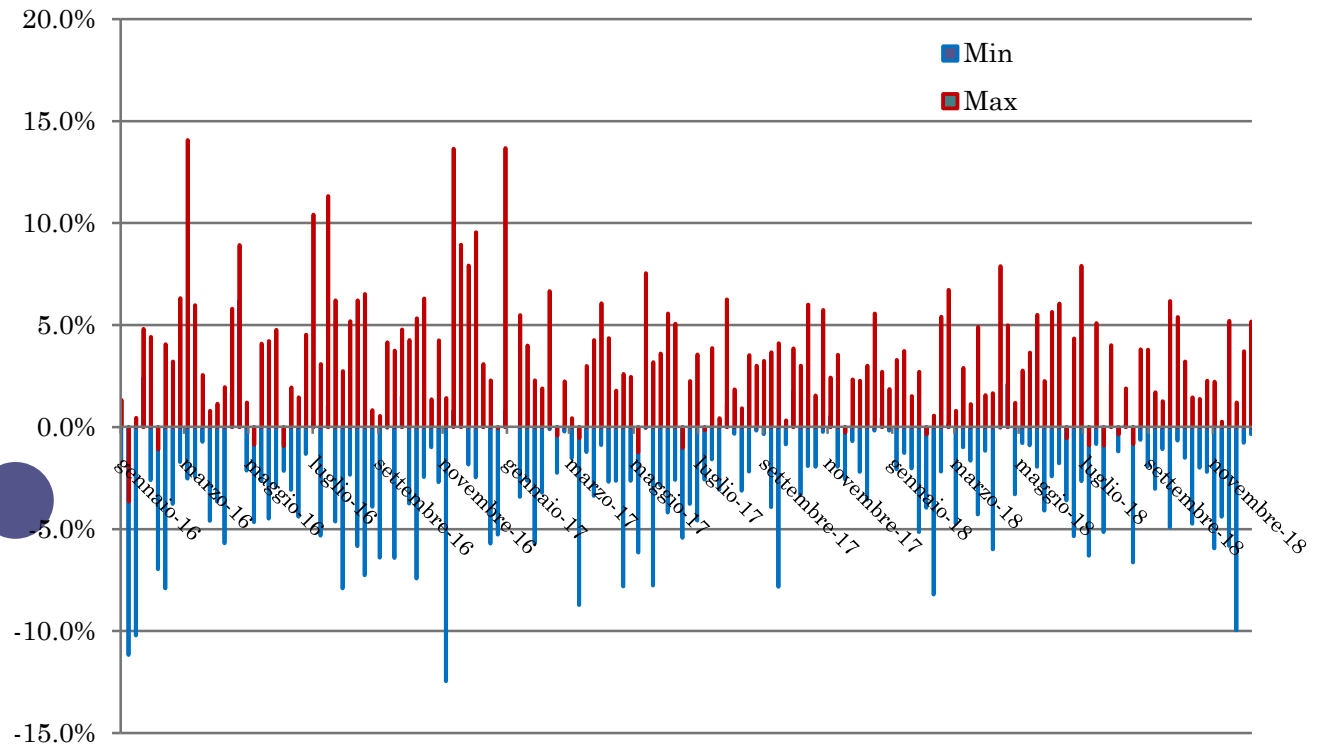


...graph of the basket of commodities used,  
weighted equally over time...

## Commodity exposure and balanced basket

...weekly performance of the best  
and worst commodity among those selected...

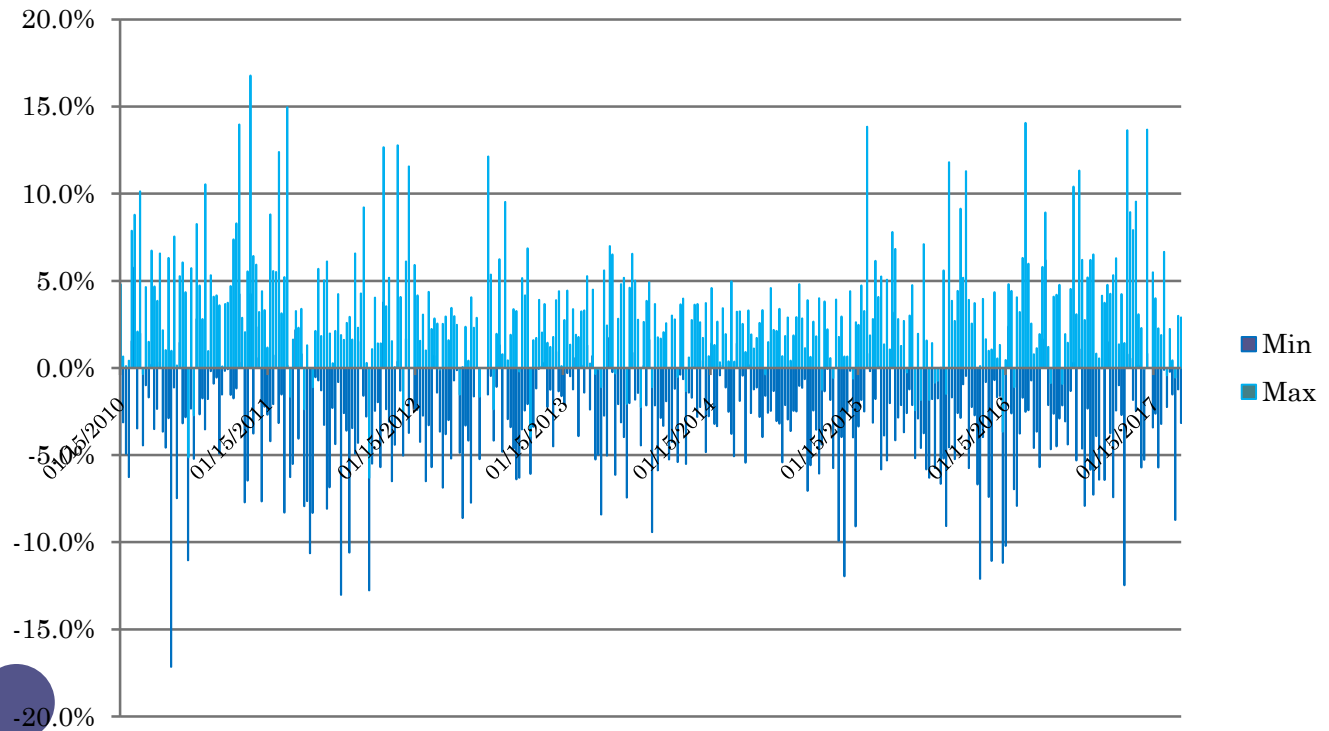
... every week there is a positive asset  
and a negative one within the chosen basket..



.. negative correlation in the basket is substantially confirmed...

## Commodity exposure and balanced basket

### Volatility Intraday Copper...



The analysis of the daily volatility of copper shows that there is enough space every day to manage positions on successive levels of purchases and sales on the strength within a single market day.

## *Growth rate 1% monthly volatility dependent*

Based on volatility  
historical average.....

<i>Mean Intraday Volatility</i>	
<b>Copper</b>	<b>1.29%</b>
<b>Cotton</b>	<b>1.65%</b>
<b>Crude Oil</b>	<b>2.05%</b>
<b>Palladium</b>	<b>1.67%</b>

...in overly conservative terms..

... each level of buying and  
selling is less than the average  
volatility observed...

.. we get an idea of average return

Expected average monthly coupon  
equal to 1.18%!

## *Growth rate 1% monthly volatility dependent*

... real portfolio data

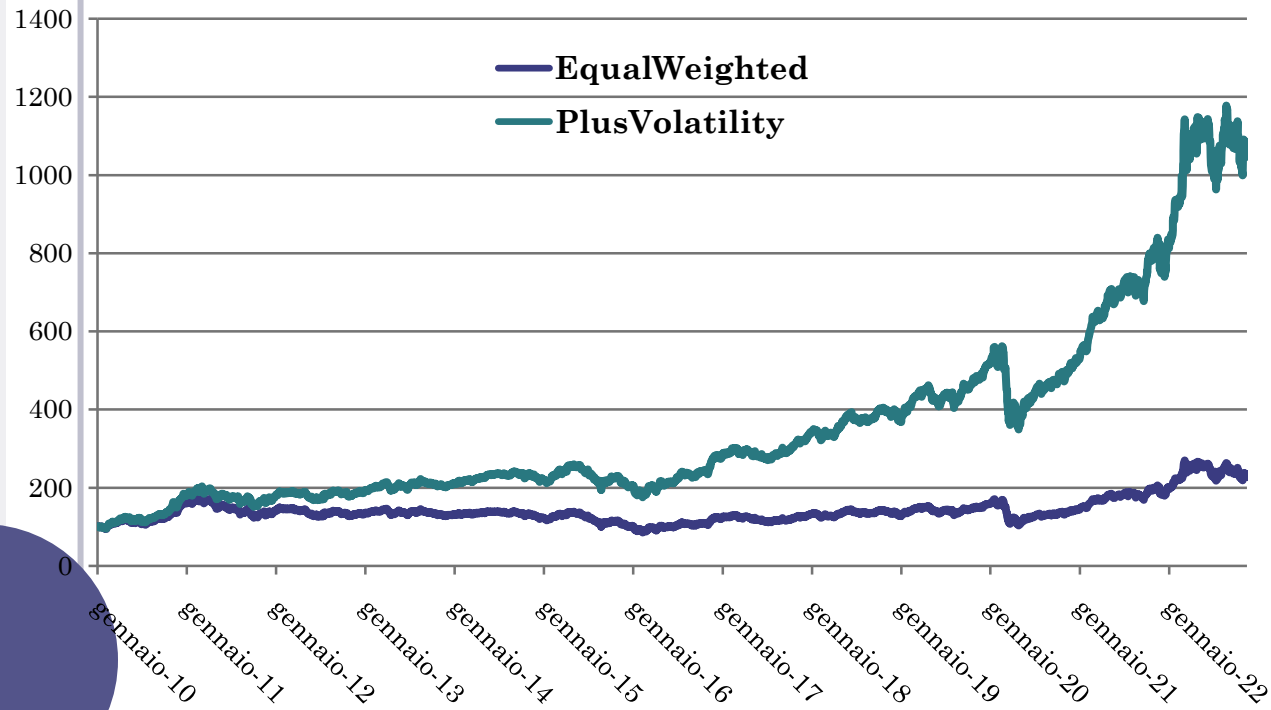
	Vendite	Value	Percentage
COPPER	1281	3202.5	<b>32.03%</b>
COTTON#2	612	4284	<b>42.84%</b>
CrudeOIL	307	1535	<b>15.35%</b>
PALLADIUM	80	560	<b>5.60%</b>
WHEAT	1329	5980.5	<b>59.81%</b>
PLATINUM	1446	13014	<b>130.14%</b>
Total		28576	<b>71.44%</b>

... in line with expectations...

...after 69 months the sales made created  
a contribution to the return of 1.03% per month...



## *Growth rate 1% monthly volatility dependent*



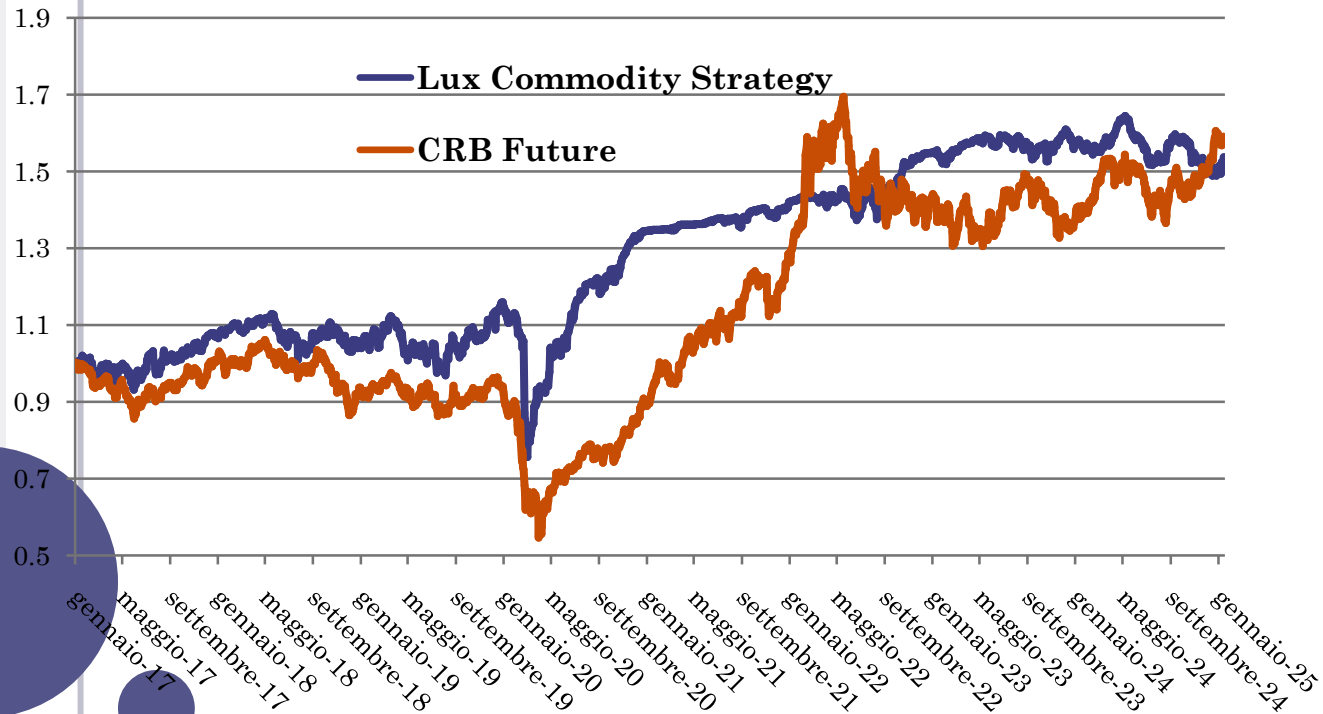
just to give an idea of the long-term impact of the coupon....

.. The graph shows the equal weighted basket over time  
to which we add a 1% monthly coupon.

...This isn't a real track record but only a school exercise.

# Commodity exposure and balanced basket

..Track record since January 2017..

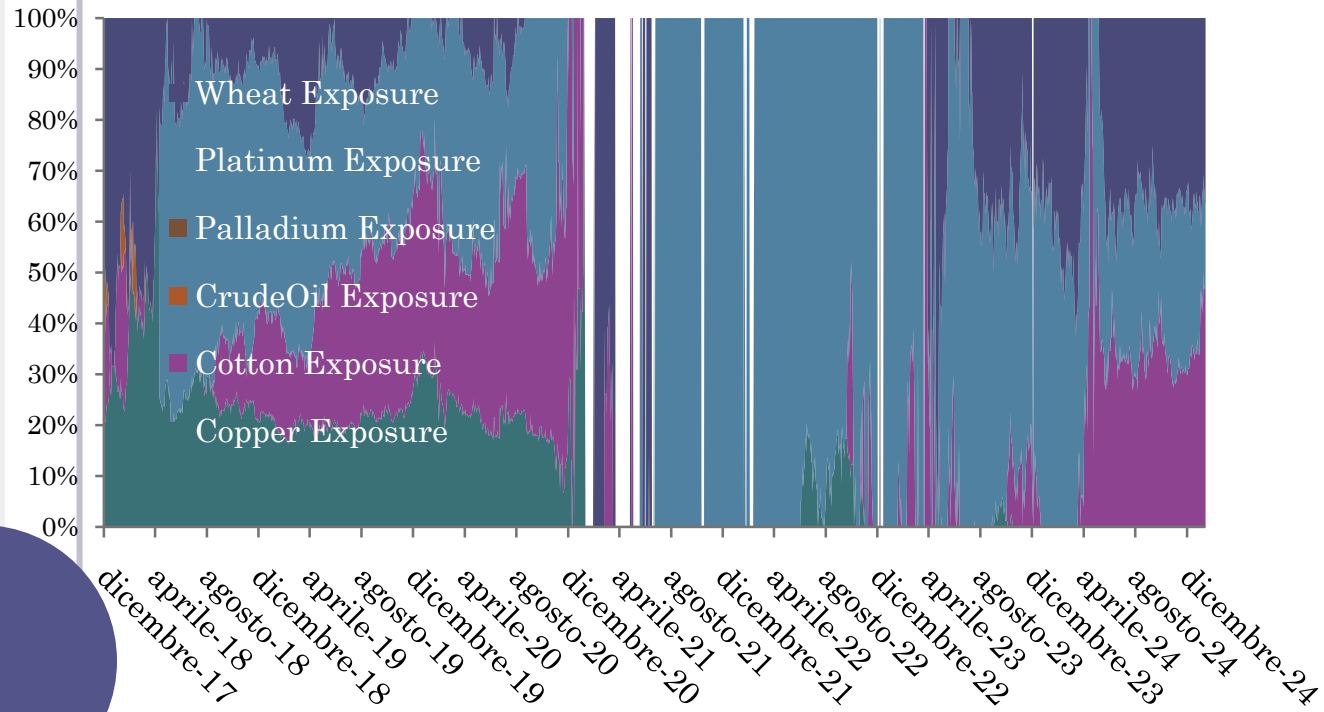


	Standard Deviation*	Return
Lux Commodity Strategy	12.9%	52.7%
CRB Future	16.5%	58.4%

... The Strategy has led over time to create value even higher than the CRB index and with much lower volatility...

•Annualized Standard Deviation of the daily returns for the whole period considered,  
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## *Commodity exposure and balanced basket*

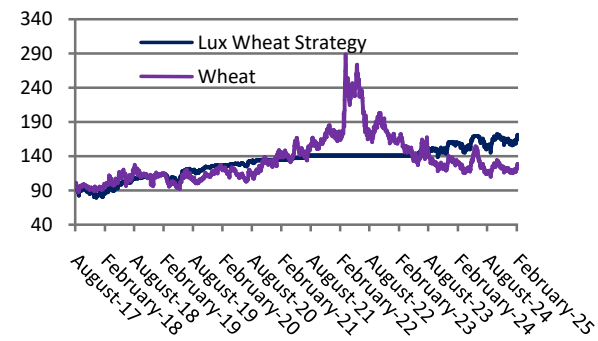
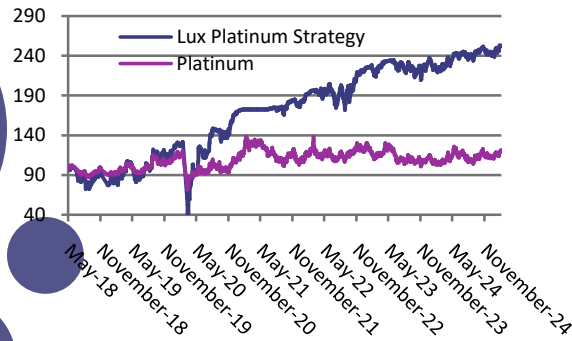
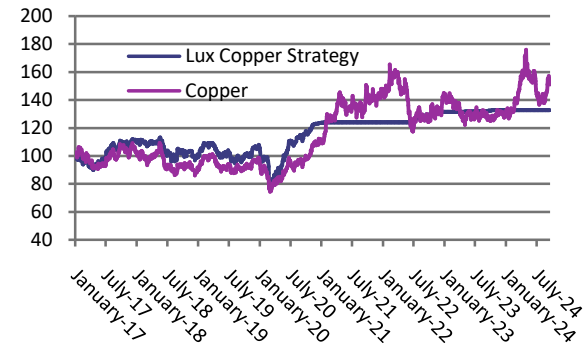
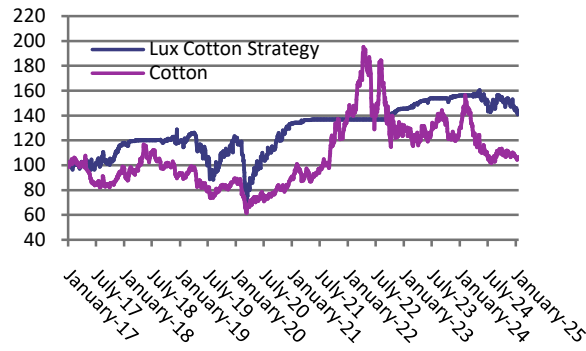


...graph of the portfolio's exposure on a 100 basis over time...

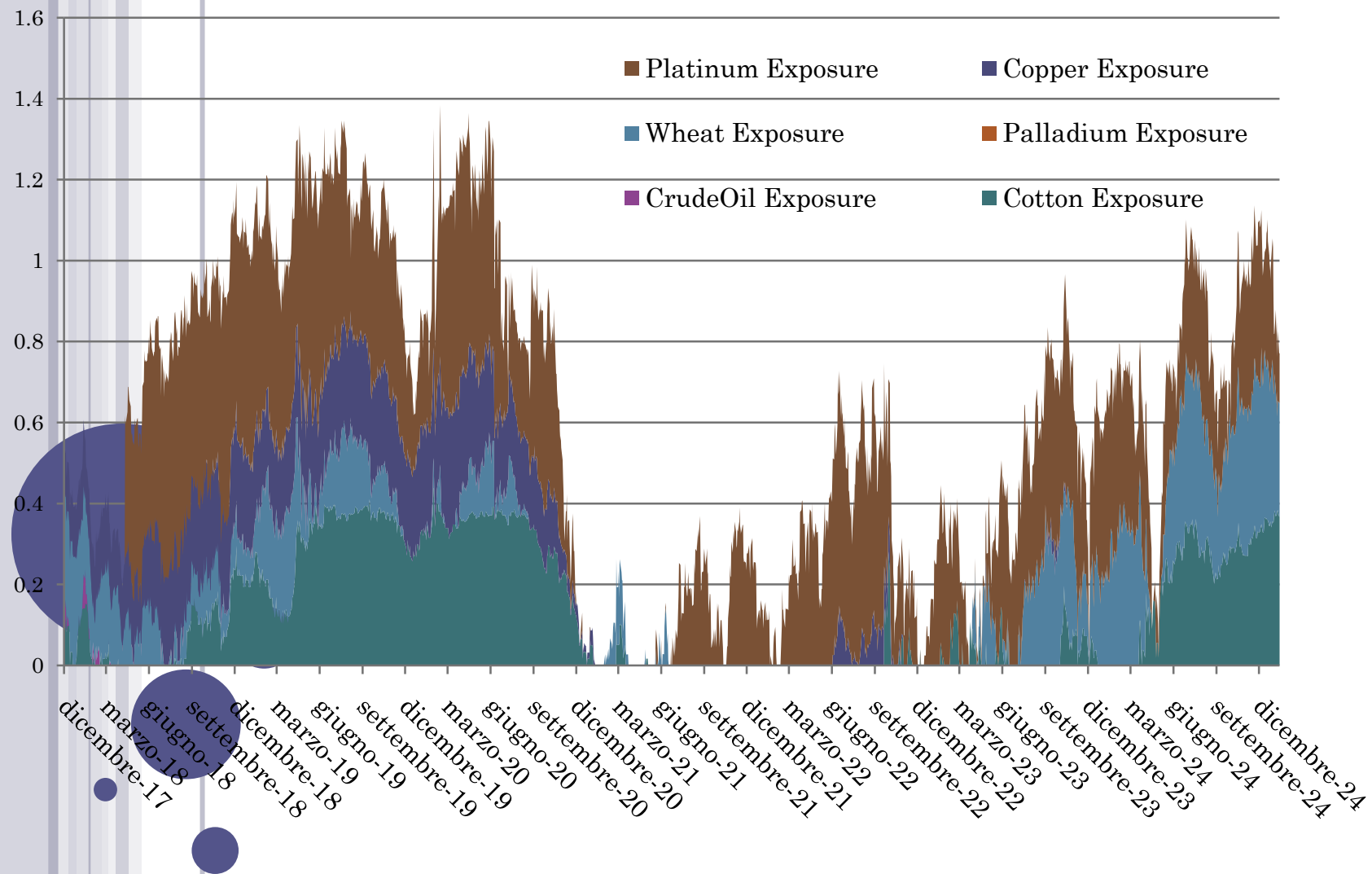
.... diversification and weight management depend on the movements of the underlying...

# Commodity exposure and balanced basket

.. Management of positions within the portfolio  
over time against its index..

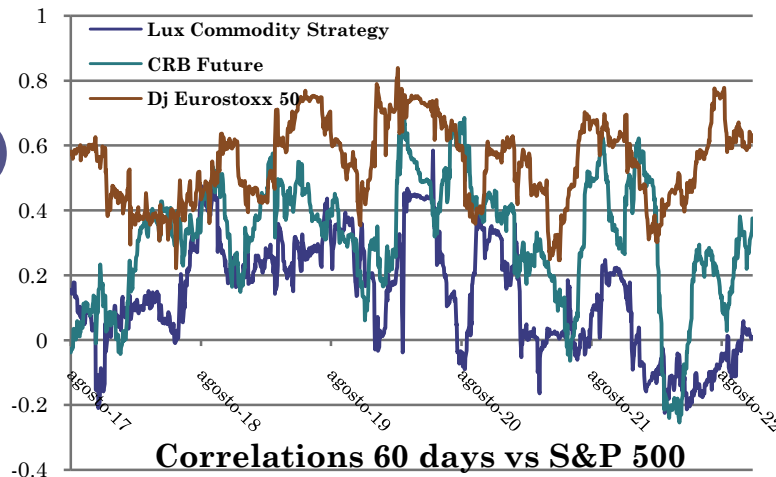
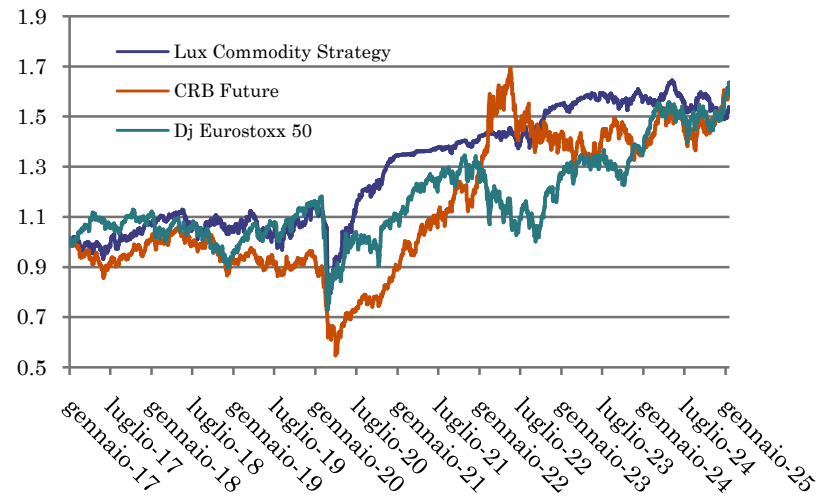


## Commodity exposure and balanced basket



# VOLATILITY STRATEGY

.. Drawdown even lower than that of the Eurostoxx 50 and different trend...



... as the correlations of yields to 60g with the stock market (S&P 500) show....

.. **correlation** that can be defined absent if one considers that in history it has fluctuated between -0.2 and +0.4 in comparisons of stock indexes

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# HOW TO SUBSCRIBE

The Certificate with the underlying **Lux Commodity Volatility** strategy,  
will be listed on Frankfurt stock exchange since Feb 2025.....

Documents and info will be soon available! ....

..... currently also available as a segregated account!

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