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Global Markets Division Commodity Portfolio Long Cocoa

Upside/Downside Potential: 10% / 3.76%

Investment Horizon: 6 Months

Vienna, 13th December 2023

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Team Overview











Global Markets



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- Market drivers
- Trade





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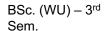


Bulat Gilmullin

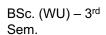
Analyst

Import & Export











BSc. $(WU) - 3^{rd}$ Sem.

Development of Cocoa Future

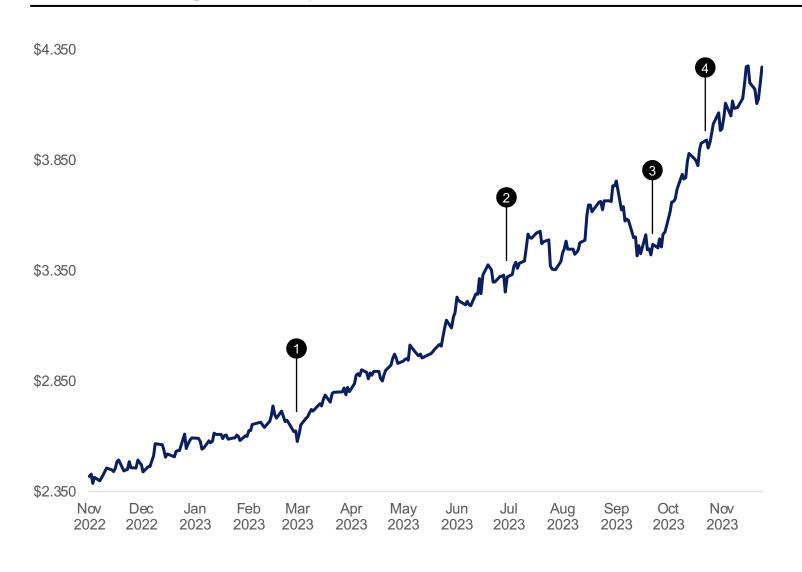






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Events influencing the cocoa price.



Key Events

- 1 March 2023: Expectation of erratic weather conditions
- 2 July 2023: Biggest Cocoa Trade in a Decade
- 3 October 2023: lower volume of beans available
- A Rally October 2023 onwards: concern about El Nino

The global cocoa market, is projected to grow to \$18,843.34 million by 2028, with a CAGR of 4.88%.

Market drivers

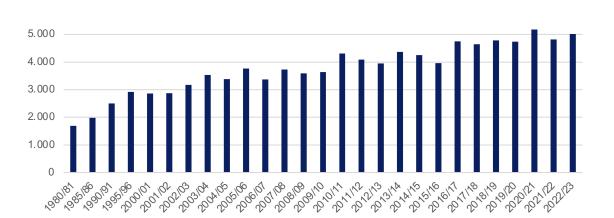
- Weather
- El Nino
- Supply
 - Supply surplus or excess demand
- Market Sentiment
- Speculation

Market drivers – an overview

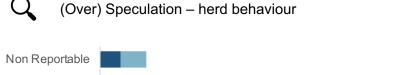


What currently impacts the market.

Key drivers Supply and demand have mayor influence on price moves. We distinguish between three different scenarios: Supply surplus Excess demand

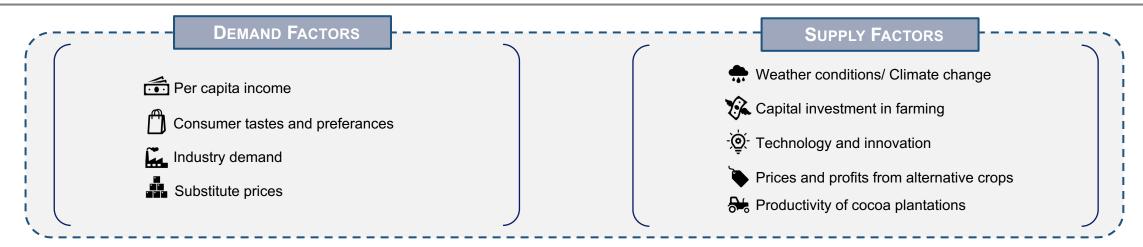


Cocoa production in thousand metric tons



Non Commercial 122246 Commercial 73390

Factors for Supply and Demand



Long

■ Short

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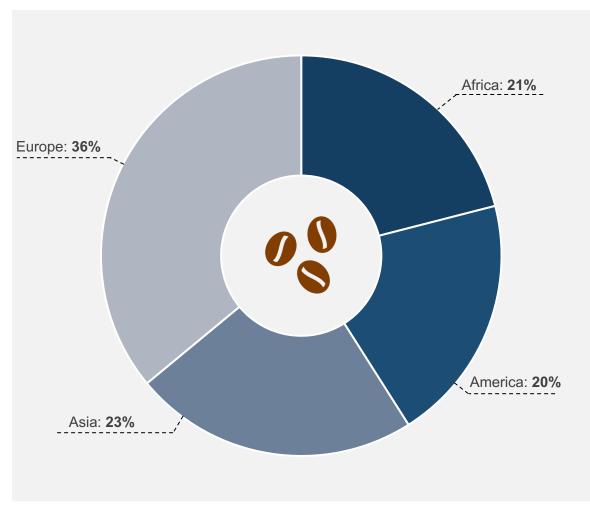




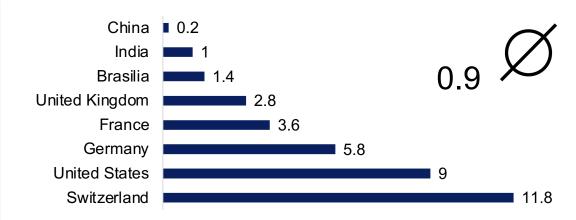
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Where and how Cocoa beans are used.

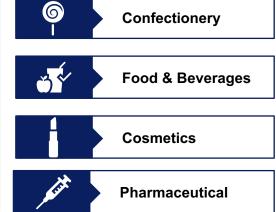
Grinding of Cocoa beans per continent

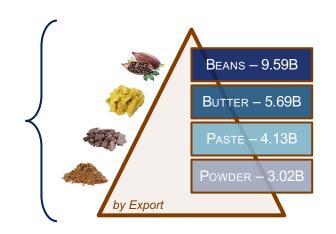


Cocoa Consumption kg/capita



Application of Cocoa





ESG Challenges in the Cocoa Industry

Deforestation, Climate Change and Supply Chain.









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EU Deforestation rules

Implementation of deforestation regulations





Cocoa exporters to the EU must verify their products are sourced from non-deforested areas





Companies will have until the end of 2024 to comply with the measures

Ethical Challenges in the Cocoa Production



Smallholder farmers account for 95% of the production



The average farmer of cocoa earns only 7% of the final revenue



Major suppliers frequently engage in child labor and even slavery

Supply Chain



Growing Cocoa Trees

 Cocoa trees live up to 100 years but are most productive for about 25 to 30 years



Harvesting and Pod Breaking

 Pods are suitable for harvest for 3 to 4 weeks, after the beans begin to germinate



Fermentation and Drying

 Beans are dried, preferably in the sun, for about five to seven days



Packing and Shipment

 Cocoa beans are shipped either in new jute bags or in bulk



Processing: Roasting and Grinding

 These operations are performed almost entirely in importing countries



Manufacturing and Distribution

 To create chocolate, cocoa paste and butter are mixed with inputs

Commodity Comparison





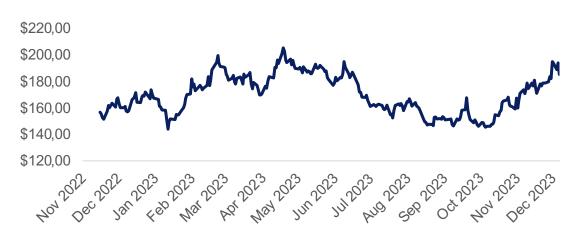




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Stock to use ratios at historical lows.

Arabica Coffee Futures



Macroeconomic Environment / Outlook / Risk



Dry weather in **Brazil** risks damaging coffee crops and is **bullish** for **coffee prices**

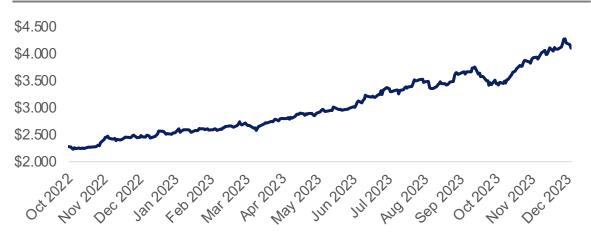


Global coffee **exports** are **shrinking** as the International Coffee Organization (**ICO**) reported in September



The current stock to use ratio sits at 18% which represents an all time low

Cocoa Future - CCH4



Macroeconomic Environment / Outlook / Risk



Global cocoa prices have rallied this year as crop setbacks in top growers Ivory Coast and Ghana tightened supplies



European **chocolate demand** proved **more resilient** than other regions and **stockpiles** started to **fall**

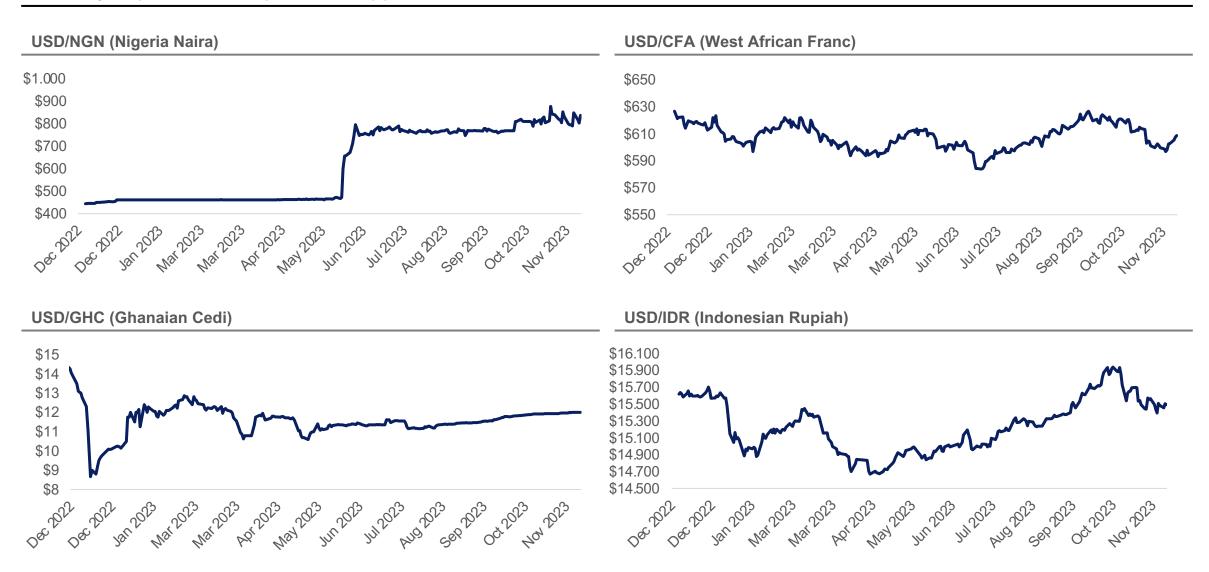


EU deforestation rules may have a knock-on effect of **raising costs**

Foreign Exchange



Currency depreciation as possible support.

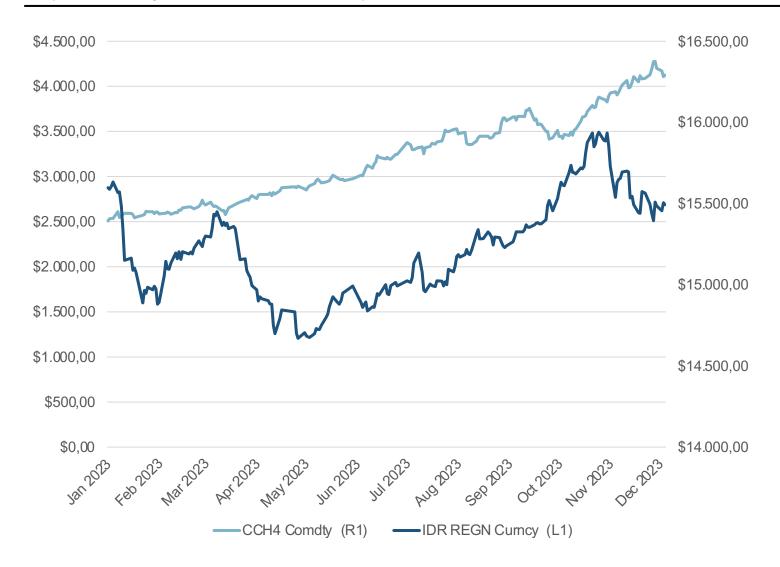


National significance

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Rupiah closely correlated to Cocoa prices.



Cocoa's importance



Essential for rural farmers



Main agricultural good after palm oil



Exposed to global supply chain

Explanation

Cocoa supply is mostly affected by the interplay of export profitability and farmers' incentives. The combined factors of higher international cocoa prices and a depreciating IDR enhances the profitability of Indonesian cocoa exports, benefitting both exporters and farmers while influencing market dynamics in the process.

Import & Export

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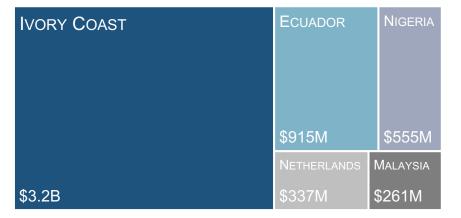
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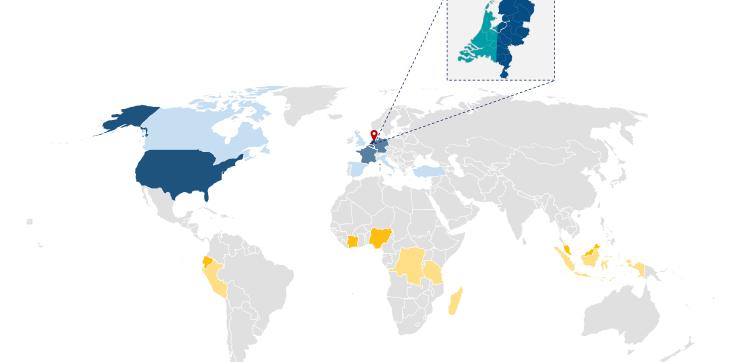
Mapping Cocoa's Global Journey.

In Detail Global Overview

NETHERLANDS UNITED STATES GERMANY \$745M FRANCE BELGIUM \$1.54B \$942M \$456M \$350M

EXPORT





Contracts Overview.

ICE and Regulation

US/New York Volume: 11.367

Price (USD): 4265.00



EU/London

Volume: 3.889

Price (GBP): 3559.00

Intercontinental Exchange® (ICE)



Ticker symbol CC

Deliverable origins from Africa, Asia, and South America.



ICE Futures Europe are subject to the U.K. Financial Conduct Authority, while ICE Futures U.S. are regulated by the CFTC.

EU Regulation



European Market Infrastructure Regulation (EMIR): Increase transparency in the market, mitigate credit risk, reduce operational risk.

Contract Specifics

| Contract | U.S. Exchange | London Exchange | Volume (US/EU) |
|----------|------------------|--------------------|-------------------|
| Mar 24 | 4265 | 3559 | 11367 / 3889 |
| May 24 | 4193 | 3429 | 4675 / 2510 |
| Jul 24 | 4120 | 3291 | 2895 / 1290 |
| Sep 24 | 4036 | 3190 | 1629 / 2367 |
| Dec 24 | 3906 | 3048 | 979 / 724 |

Price Quotation

•\$1.00/Metric Ton £1.00/Metric Ton

Contract Size

•10 Metric Tons

Contract Series

·March, May, July, September, December

Tick Value

•\$1.00/£1.00 Metric ton, equivalent to \$10.00/£10.00 per

Outlook and Summary





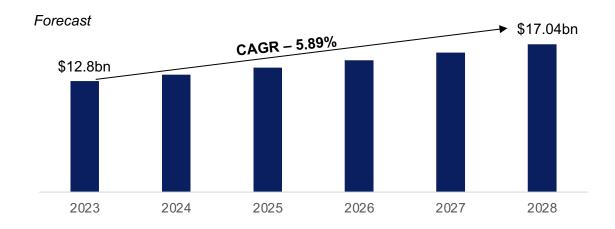




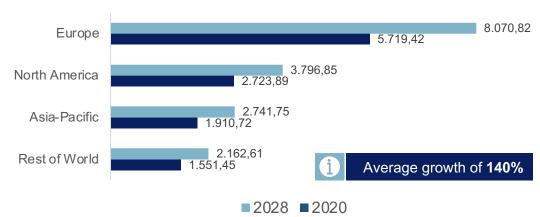
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The next orange juice story?

Revenue in the Cocoa Market



Cocoa market revenue worldwide by region



Summary



EU Regulations requiring cocoa to be sourced from **non-deforested** areas are expected to **drive up** prices



Market Manipulation: Ghana's COCOBOD routinely obtains international loans to finance cocoa purchases



Industry Demand: The industry's growing need for cocoa is driving up demand







The Trade

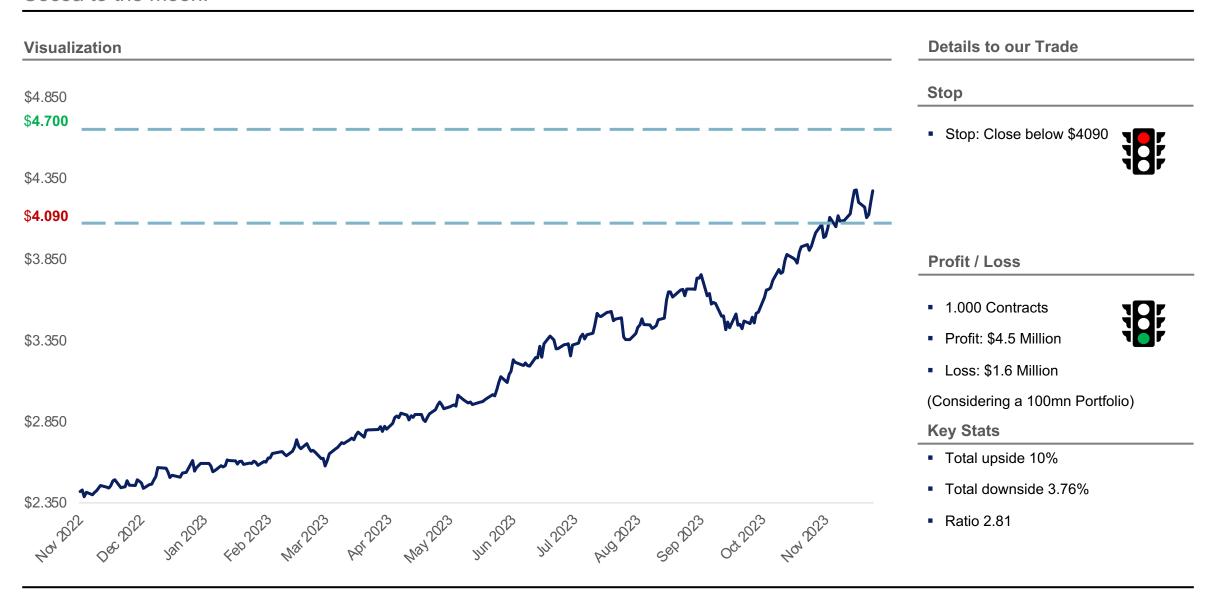








Cocoa to the moon.





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| World Integrated Trade Solutions | https://wits.worldbank.org/trade/comtrade/en/country/ALL/year/ 2022/tradeflow/Exports/partner/WLD/product/180100 | 6.12.2023 | Export Data |
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Appendix

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| Statista | https://www.statista.com/statistics/262620/global-cocoa- production/ | 10.12.2023 | Market drivers |
| Bloomberg Finance L.P. | - | 11/23 -12/23 | Continuous work |

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