

**DYCOTRADE**

2023 CUSTOMER EVENT



# Breakout session Title

Richard Cornielje

KYOS Commodity Risk Solutions

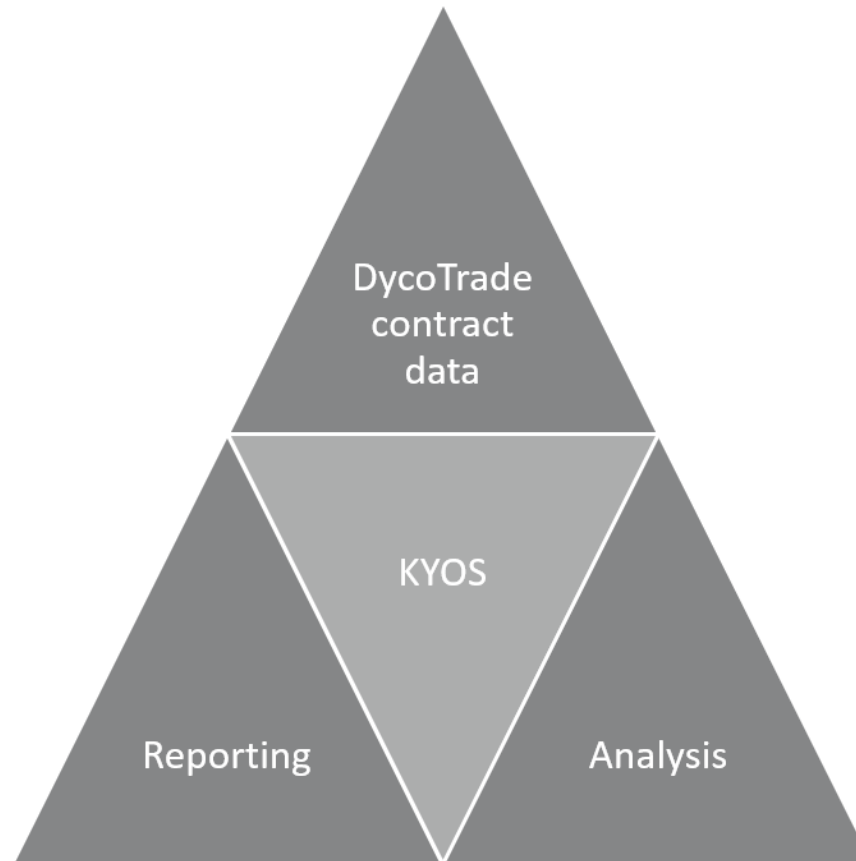


# Adding value to the chain – risk management



Physical flows  
Financial hedges  
Price analytics

Cashflow forecasts  
Insight in risks  
Hedge reports  
Performance



CPO/CFO  
Head of Trading  
Head of Risk  
Treasury

Enable you to look forward as .....  
hindsight is a wonderful thing

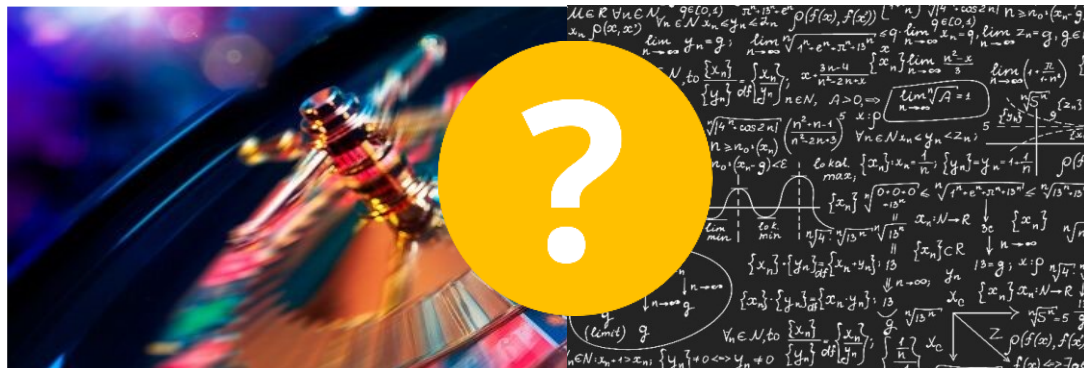


# Price risks for buyers/sellers translated into “cash”



Price risks can be calculated (estimated)

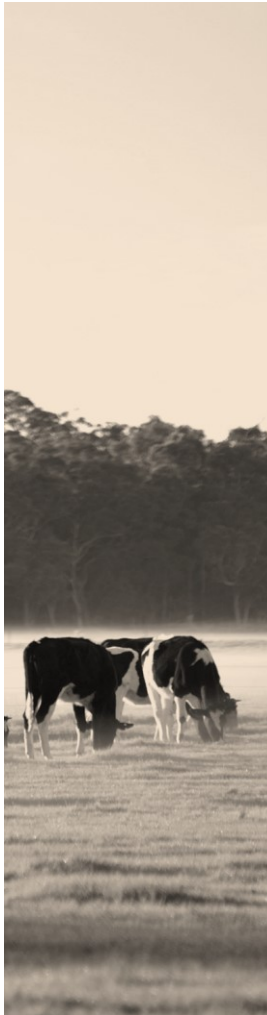
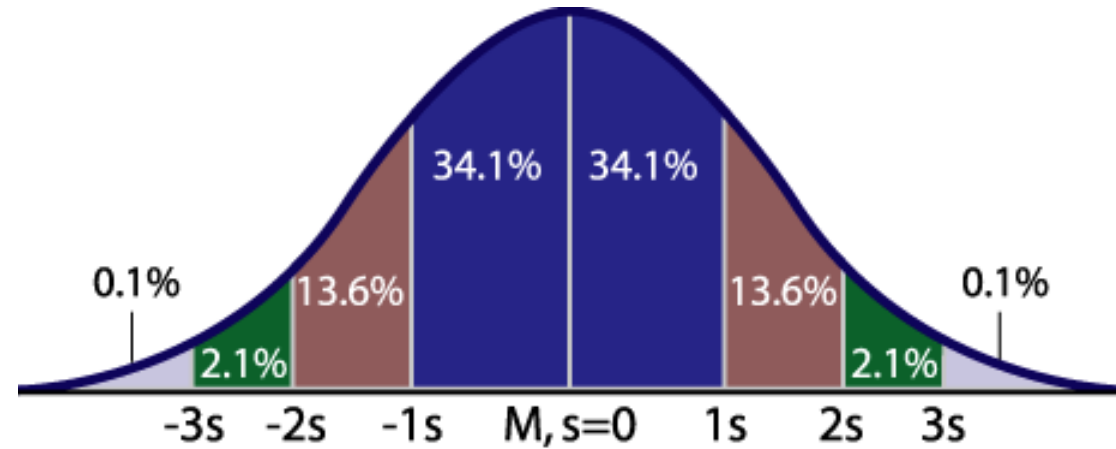
Certainty is the “big” question







# Experience versus theory.....experience with theory



# Timing, volumes, details.....



What-when-how bought/sold

Physical details, like formula's combined with derivatives

“Underlying volume = exposure”

Hedging strategy

Coverage targets



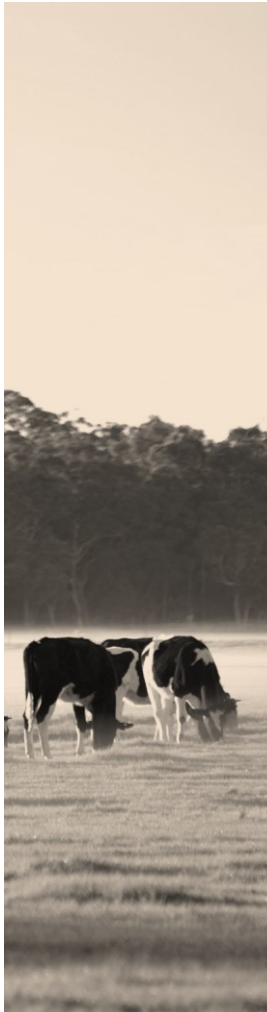
# Estimating potential cashflows



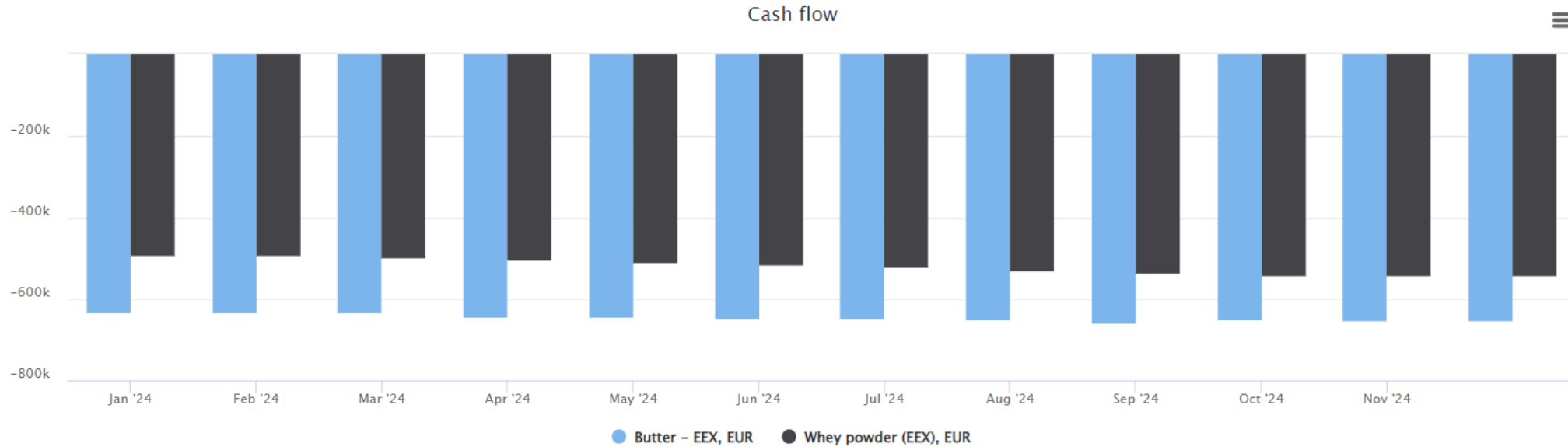
| Date       | Legal entity         | Counterparty | Period          | Commodity         | B/S | Volume   | FX  | Price type     |
|------------|----------------------|--------------|-----------------|-------------------|-----|----------|-----|----------------|
| 2023-01-01 | Food producer global | Market       | Jan'24 - Dec'24 | Whey powder (EEX) | Buy | 7,200 MT | EUR | phys   indexed |
| 2023-01-01 | Food producer global | Market       | Jan'24 - Dec'24 | Butter - EEX      | Buy | 1,500 MT | EUR | phys   indexed |

From straight forward commodities to “products” like:

- Beer, bread, chocolate, metal parts.....



# Starting point - today's values



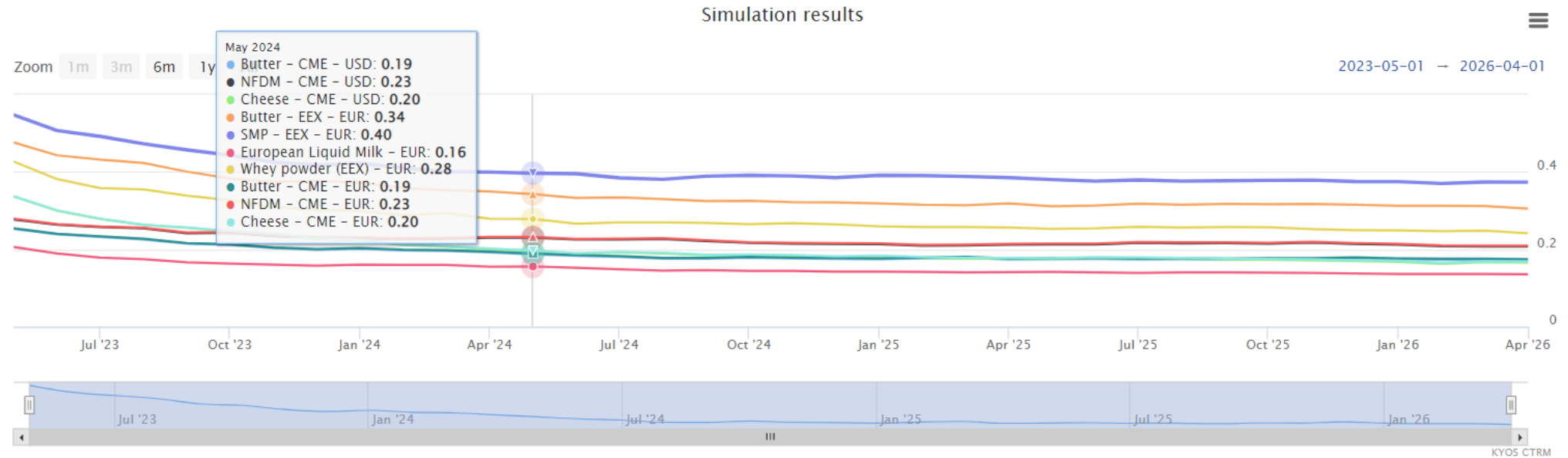
KYOS CTRM

|                   |            |                    | 2024              |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
|-------------------|------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Commodity         | Currency   | Total              | Jan               | Feb               | Mar               | Apr               | May               | Jun               | Jul               | Aug               | Sep               | Oct               | Nov               | Dec               |
| Butter - EEX      | EUR        | -7,734,500         | -631,250          | -631,250          | -631,250          | -643,750          | -643,750          | -646,875          | -646,875          | -650,000          | -656,250          | -650,000          | -651,083          | -652,167          |
| Whey powder (EEX) | EUR        | -6,216,000         | -492,000          | -492,000          | -498,000          | -504,000          | -510,000          | -516,000          | -522,000          | -528,000          | -534,000          | -540,000          | -540,000          | -540,000          |
| <b>Total</b>      | <b>EUR</b> | <b>-13,950,500</b> | <b>-1,123,250</b> | <b>-1,123,250</b> | <b>-1,129,250</b> | <b>-1,147,750</b> | <b>-1,153,750</b> | <b>-1,162,875</b> | <b>-1,168,875</b> | <b>-1,178,000</b> | <b>-1,190,250</b> | <b>-1,190,000</b> | <b>-1,191,083</b> | <b>-1,192,167</b> |





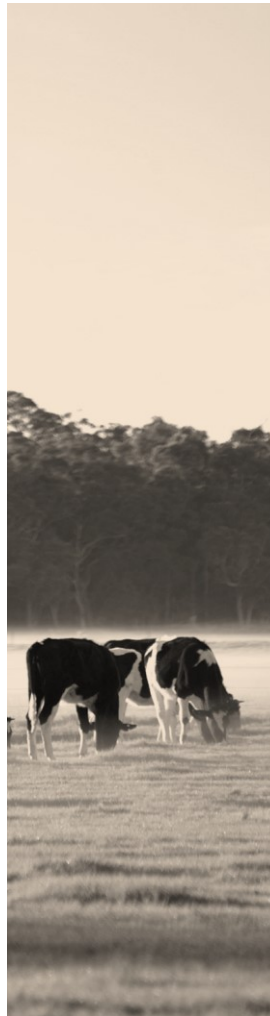
# Calculating volatilities & correlations



Show / hide table

Save volatility overrides

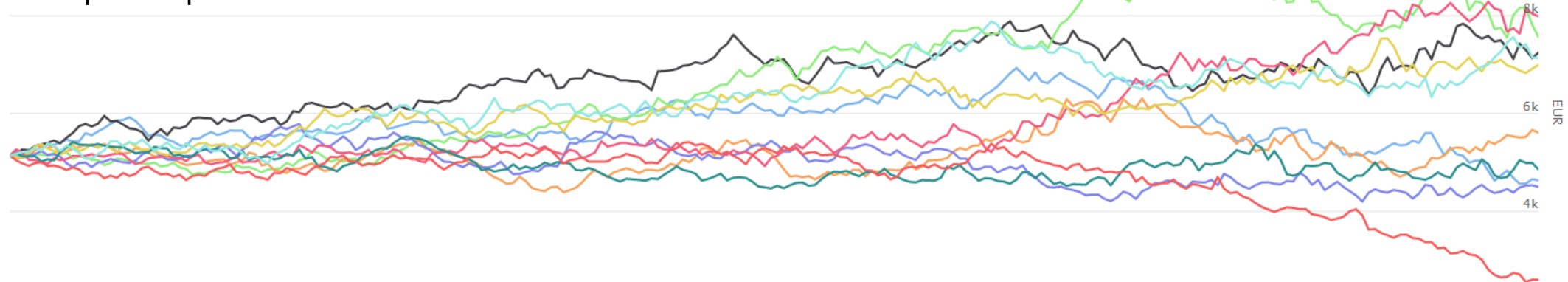
| Maturity | Butter - CME Baseload (USD) | NFD - CME Baseload (USD) | Cheese - CME Baseload (USD) | Butter - EEX Baseload (EUR)       | SMP - EEX Baseload (EUR)          | European Liquid Milk Baseload (EUR) | Whey powder (EEX) Baseload (EUR)  | Butter - CME Baseload (EUR)       | NFD - CME Baseload (EUR)          | Cheese - CME Baseload (EUR)       |
|----------|-----------------------------|--------------------------|-----------------------------|-----------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|          |                             |                          |                             | <input type="checkbox"/> Override | <input type="checkbox"/> Override | <input type="checkbox"/> Override   | <input type="checkbox"/> Override | <input type="checkbox"/> Override | <input type="checkbox"/> Override | <input type="checkbox"/> Override |
| May-23   | 0.25302                     | 0.27723                  | 0.33644                     | 0.47602                           | 0.54712                           | 0.20582                             | 0.42689                           | 0.25409                           | 0.27888                           | 0.33728                           |
| Jun-23   | 0.23884                     | 0.26363                  | 0.29997                     | 0.44288                           | 0.50702                           | 0.18937                             | 0.38139                           | 0.23993                           | 0.26512                           | 0.3008                            |
| Jul-23   | 0.23211                     | 0.25746                  | 0.27844                     | 0.43156                           | 0.49186                           | 0.17859                             | 0.35801                           | 0.23336                           | 0.25894                           | 0.27935                           |



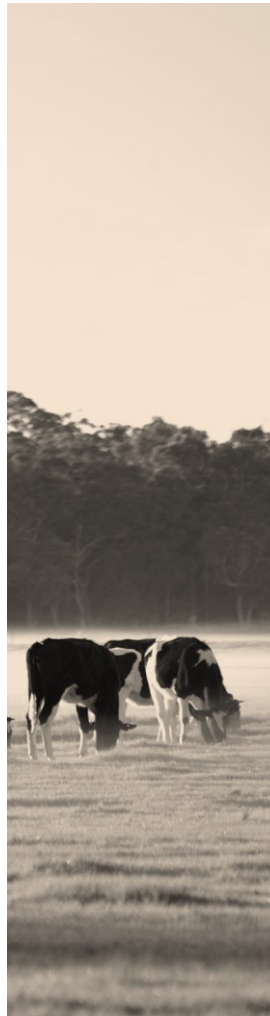
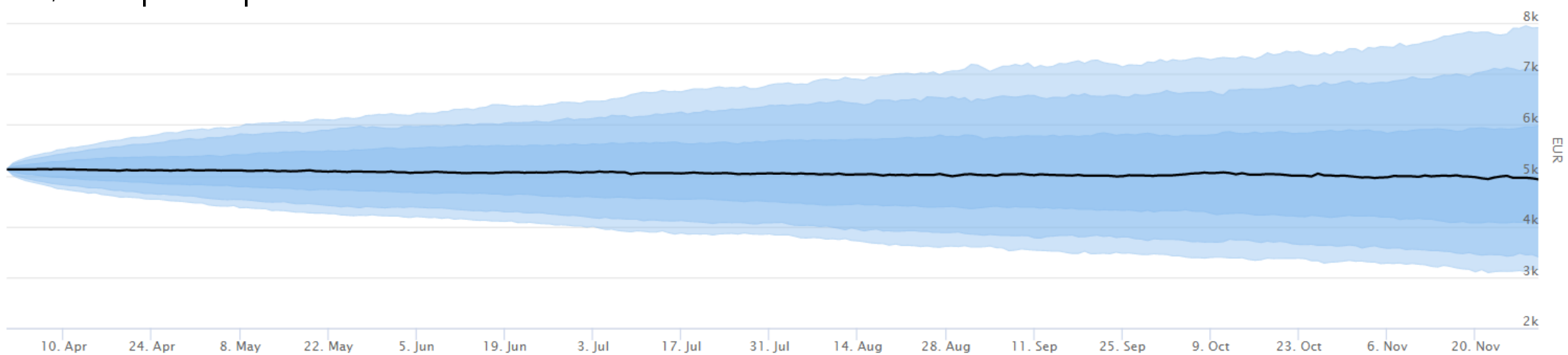
# Use all information to create Monte Carlo Simulations



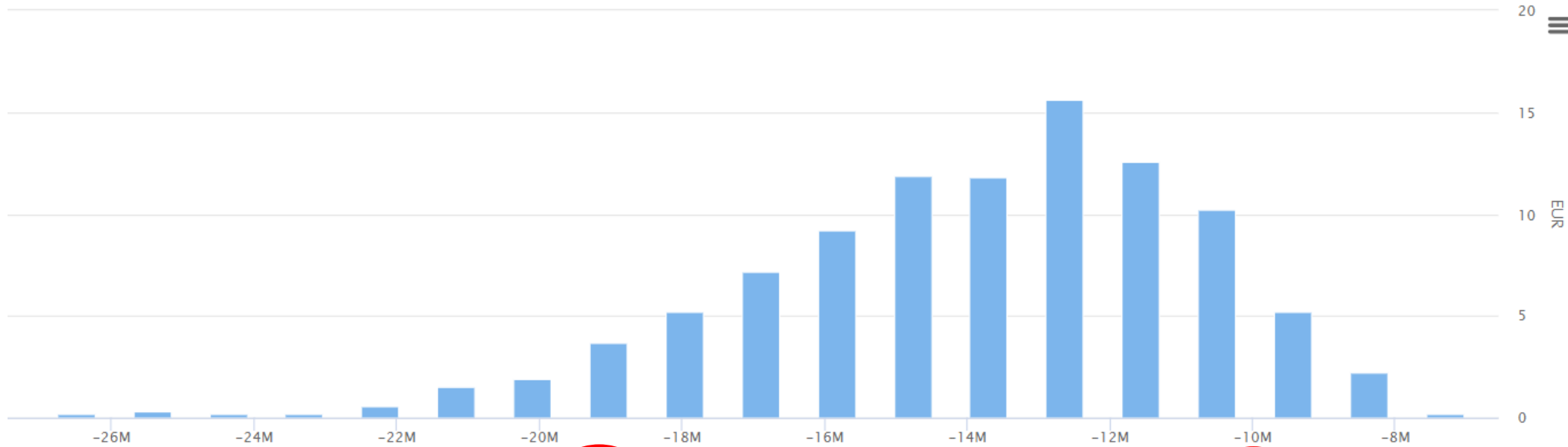
10 price paths



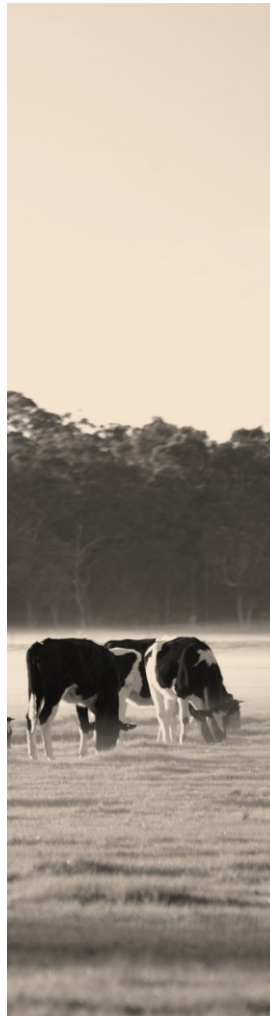
1,000 price paths



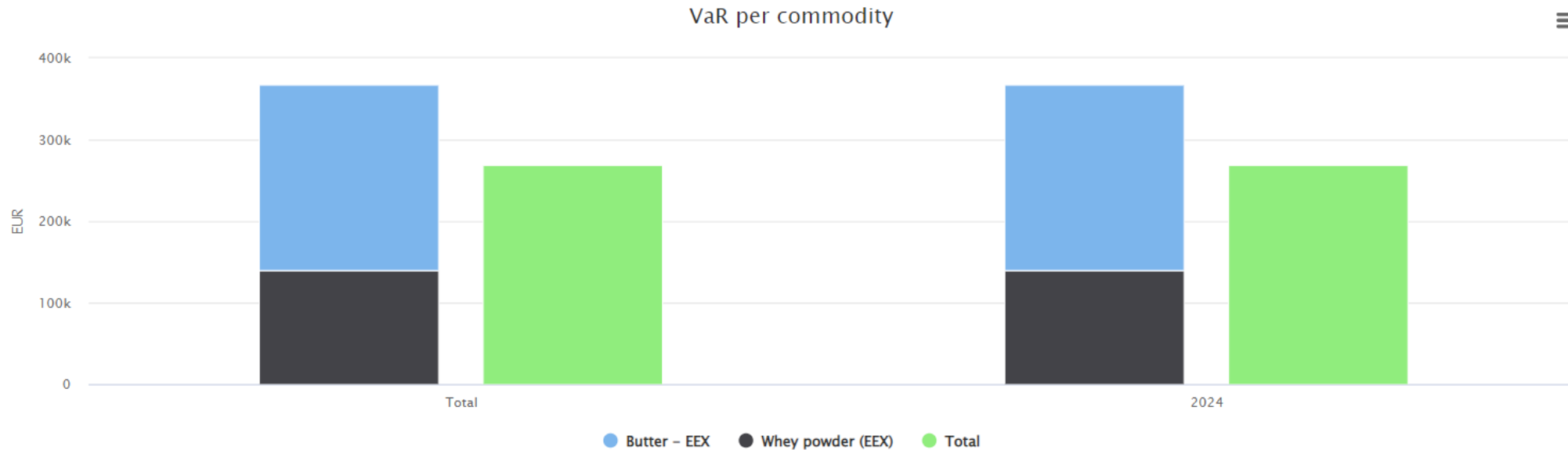
# Long term risk (producers – buyers)



| Commodity         | Currency   | Avg                | 1%          | 5%          | 10%         | 25%         | 75%         | 90%         | 95%        | 99%        |
|-------------------|------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|
| <b>Total</b>      | <b>EUR</b> | <b>-13,950,500</b> | -23,120,164 | -19,624,263 | -18,190,514 | -15,920,101 | -11,642,883 | -10,202,503 | -9,527,808 | -8,569,212 |
| Butter - EEX      | EUR        | -7,734,500         | -15,802,810 | -12,453,151 | -11,118,217 | -9,219,977  | -5,960,652  | -4,863,962  | -4,288,570 | -3,478,705 |
| Whey powder (EEX) | EUR        | -6,216,000         | -10,663,861 | -9,099,613  | -8,472,103  | -7,146,351  | -5,010,586  | -4,352,260  | -3,944,150 | -3,505,953 |

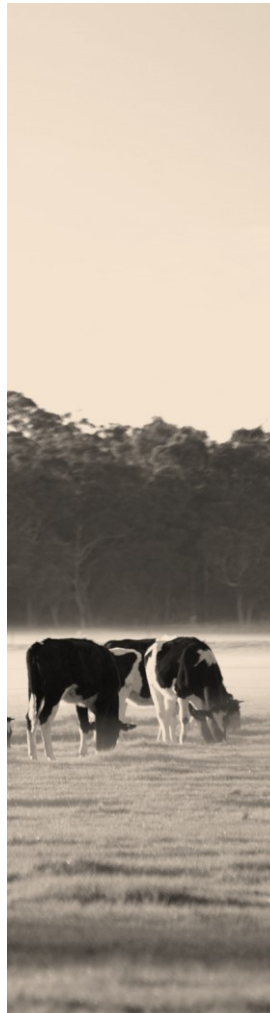


# Short term risks – trading companies – 1 day



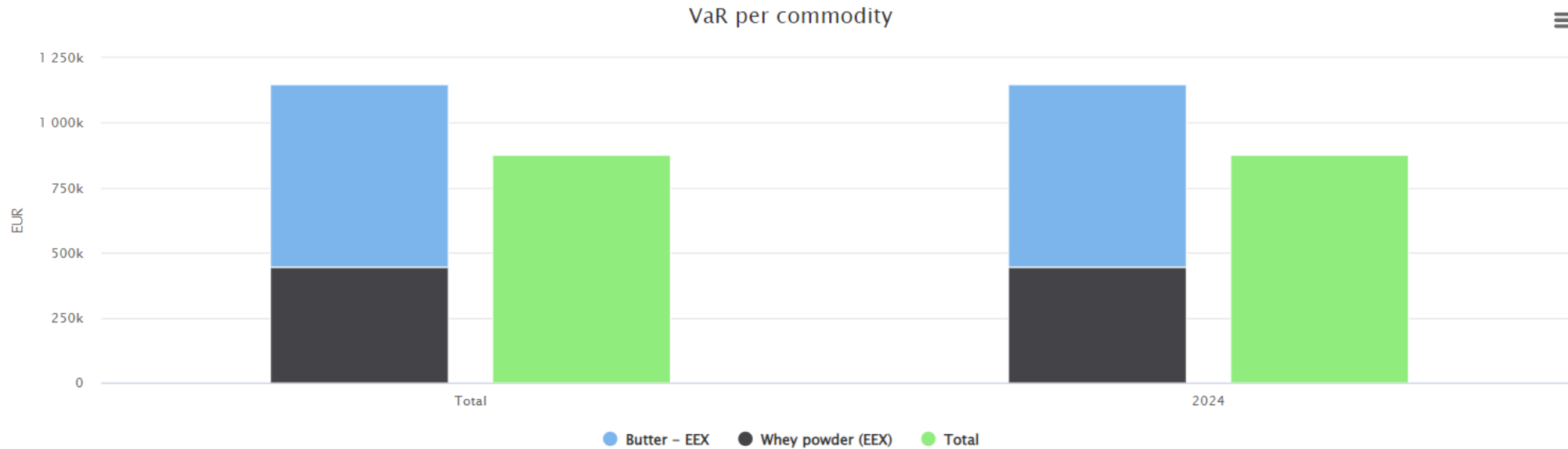
KYOS CTRM

|                          | VaR 2023-03-31 (EUR) |                   | VaR 2023-03-24 (EUR) |                   | Change in VaR (EUR) |                   |          |
|--------------------------|----------------------|-------------------|----------------------|-------------------|---------------------|-------------------|----------|
|                          | Total                | Jan '24 - Dec '24 | Total                | Jan '24 - Dec '24 | Total               | Jan '24 - Dec '24 |          |
| <b>VaR total</b>         | <b>268,810</b>       | 268,810           | 268,560              | 268,560           | 250.00              | 250.00            |          |
| <b>VaR per commodity</b> |                      |                   |                      |                   |                     |                   |          |
|                          | Butter - EEX         | 227,570           | 227,570              | 225,500           | 225,500             | ↑ 2,070           | ↑ 2,070  |
|                          | Whey powder (EEX)    | 139,610           | 139,610              | 139,430           | 139,430             | ↑ 180.00          | ↑ 180.00 |





# Short term risks – trading companies – 10 days



KYOS CTRM

|                          |                   | VaR 2023-03-31 (EUR) |                   | VaR 2023-03-24 (EUR) |                   | Change in VaR (EUR) |                   |
|--------------------------|-------------------|----------------------|-------------------|----------------------|-------------------|---------------------|-------------------|
|                          |                   | Total                | Jan '24 - Dec '24 | Total                | Jan '24 - Dec '24 | Total               | Jan '24 - Dec '24 |
| <b>VaR total</b>         |                   | <b>877,420</b>       | <b>877,420</b>    | <b>898,160</b>       | <b>898,160</b>    | <b>-20,740</b>      | <b>-20,740</b>    |
| <b>VaR per commodity</b> |                   |                      |                   |                      |                   |                     |                   |
|                          | Butter - EEX      | 704,330              | 704,330           | 697,540              | 697,540           | ↑ 6,790             | ↑ 6,790           |
|                          | Whey powder (EEX) | 445,480              | 445,480           | 460,170              | 460,170           | ↓ -14,690           | ↓ -14,690         |

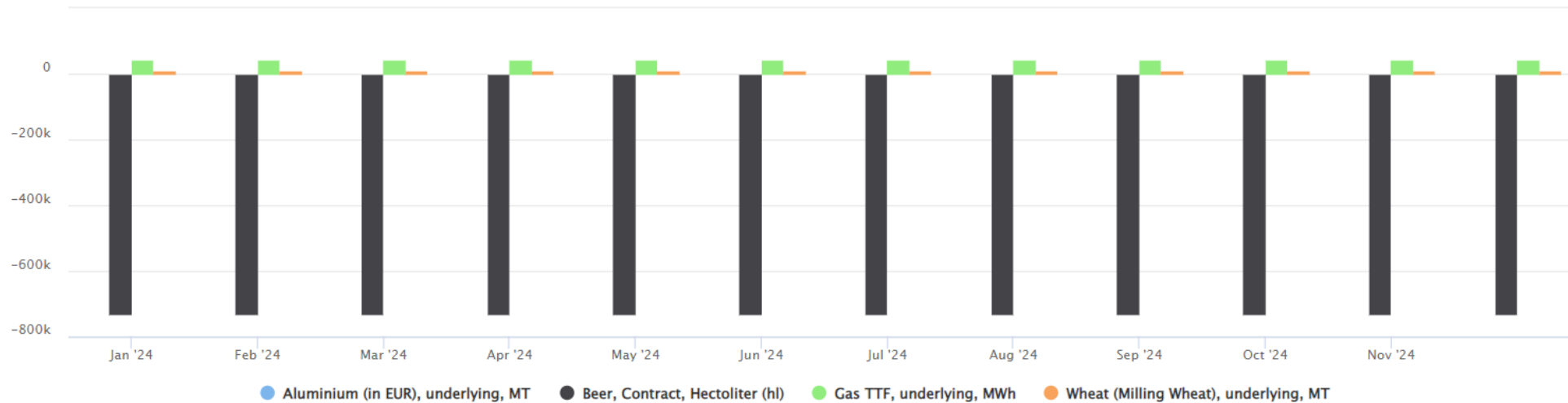


# Estimating potential cashflows

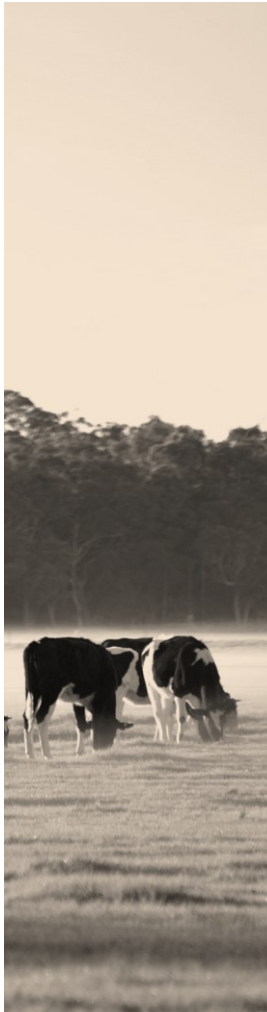


| Date       | Legal entity      | Counterparty     | Period          | Commodity | B/S  | Volume                     | FX  | Price type     |
|------------|-------------------|------------------|-----------------|-----------|------|----------------------------|-----|----------------|
| 2020-12-16 | Beverage Producer | Retailer company | Jan'24 - Dec'24 | Beer      | Sell | -8,760,000 Hectoliter (hl) | EUR | phys   indexed |

Positions with underlying positions



KYOS CTRM



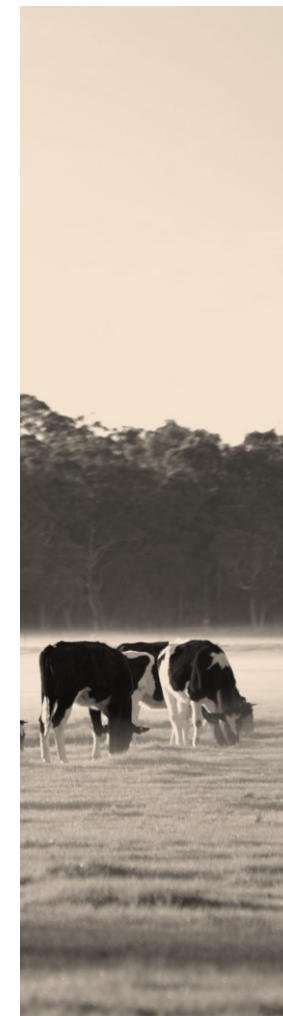
# Brewery 2024



## Cashflow



| Commodity             | Currency | Avg          | 95% at Risk | 1%           | 5%           | 10%          | 25%          | 75%         | 90%         | 95%         | 99%         |
|-----------------------|----------|--------------|-------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|
| <b>Total</b>          | EUR      | -106,604,045 | 46,663,716  | -203,310,857 | -153,267,760 | -138,847,703 | -118,023,458 | -88,819,132 | -79,256,894 | -73,121,183 | -66,350,228 |
| Gas TTF               | EUR      | -30,527,401  | 45,159,742  | -118,564,709 | -75,687,143  | -57,408,298  | -38,792,354  | -14,989,605 | -9,872,633  | -7,639,820  | -4,558,844  |
| Wheat (Milling Wheat) | EUR      | -34,946,560  | 14,267,854  | -56,727,613  | -49,214,414  | -45,022,471  | -39,569,950  | -29,511,635 | -25,957,928 | -23,697,096 | -20,292,607 |
| Aluminium (in EUR)    | EUR      | -41,130,084  | 18,848,768  | -71,431,780  | -59,978,852  | -54,426,947  | -47,279,554  | -33,670,441 | -28,821,697 | -26,373,438 | -22,300,210 |



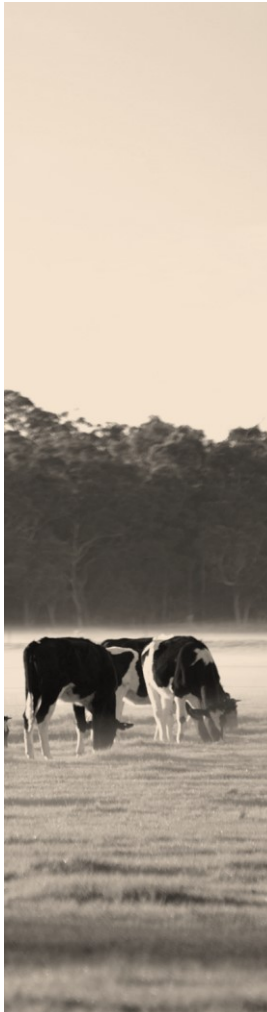
Let's talk and get you in control, where possible....



THE KEY IS NOT TO PREDICT THE FUTURE, BUT TO BE PREPARED FOR THE FUTURE

An illustration of a businessman in a dark suit and white shirt, holding a smartphone in each hand. He is standing on a blue grid background with several colorful, upward-trending arrows (blue, orange, red, green) that represent data or market trends. The arrows are connected by thin lines, suggesting a path or trajectory.

PERICLES, 495 - 429 V. CHR.





## More information



We look forward to supporting you with the right tools and advice!



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<https://www.kyos.com/contact/>



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