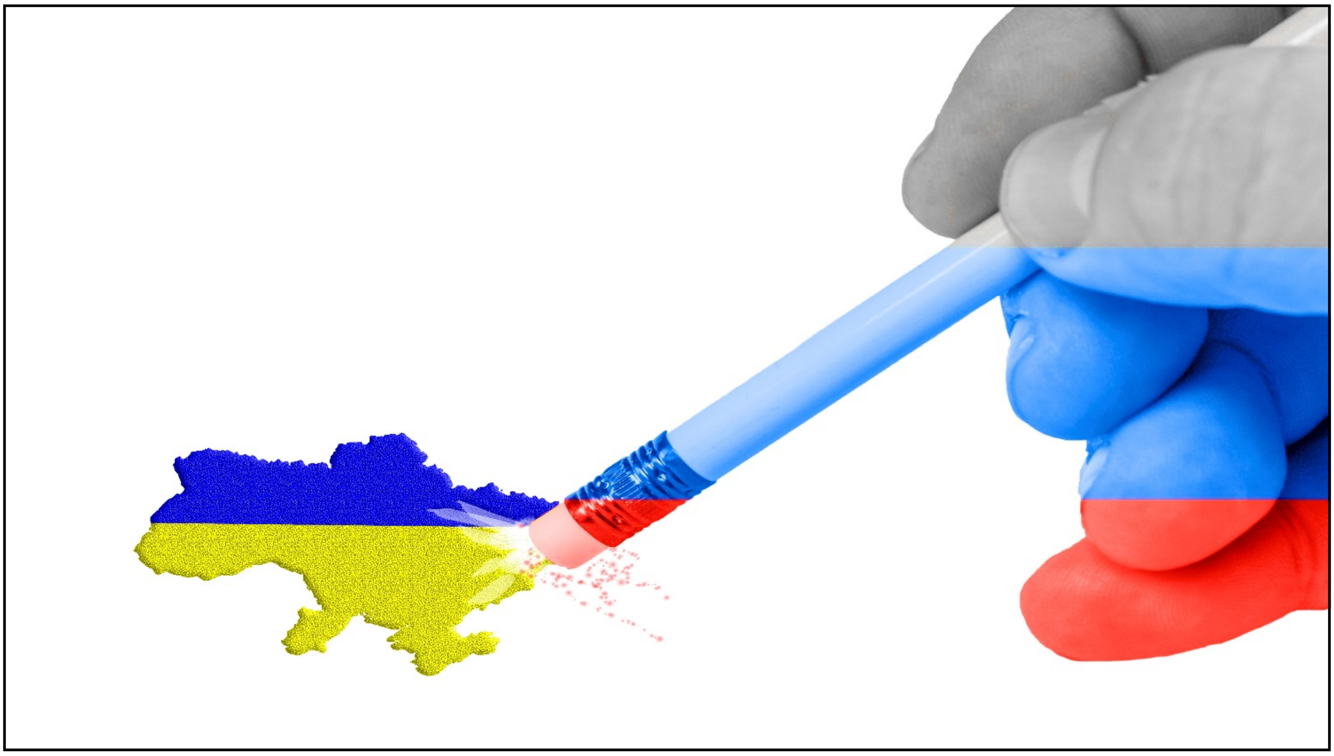

Economic & Agri Outlook
The outlook in a new…
ERASURE
OF GLOBALISATION
Stefan Vogel – General Manager
RaboResearch Australia & New Zealand
AAAC, Perth, November 2022

1



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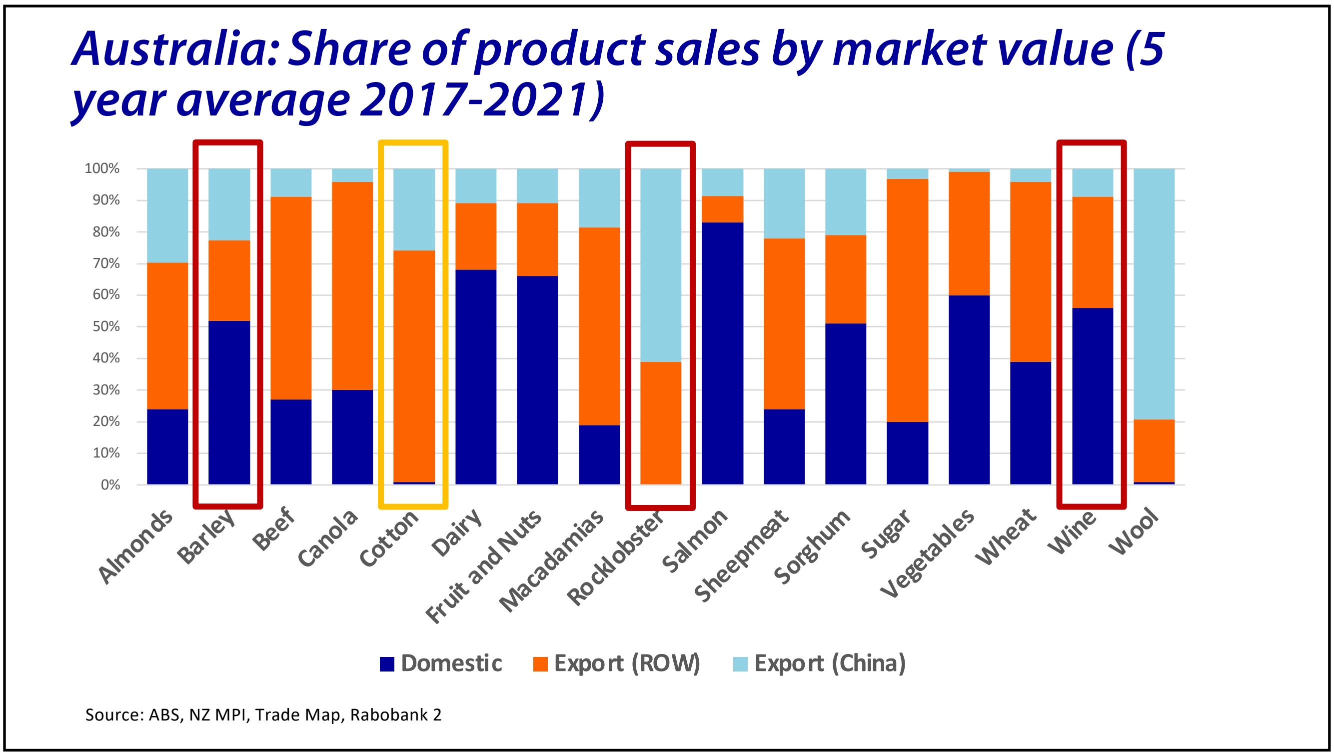
Australia: Share of product sales by market value (5 year average 2017-2021)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Almonds
Barley
Beef
Canola
Cotton
Dairy
Fruit and Nuts
Macadamias
Rocklobster
Salmon
Sheepmeat
Sorghum
Sugar
Vegetables
Wheat
Wine
Wool
Domestic
Export (ROW)
Export (China)
Source: ABS, NZ MPI, Trade Map, Rabobank 2

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Rabobank: Financing Food & Agri Globally
100 professional analysts around the world, >70 focused on food & agri
Rabobank
U.K.
5
Netherlands
35
U.S.
18
Hong Kong and China
8
Mexico
1
India
3
Singapore
4
Indonesia
1
Brazil
6
Australia
9
New Zealand
2
Global Economics
FX, Interest Rates, Bonds
Food & Agri Research covering the whole supply chain
Agri Commodity Markets
Animal Protein
Beverage
Consumer Foods
Dairy
Supply Chains
Farm Inputs
Fresh Produce
Grains & Oilseeds
Sugar
RaboResearch Food & Agribusiness
Source: Rabobank 2022

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1.a
Inflation & Global Economic Outlook

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Rabobank

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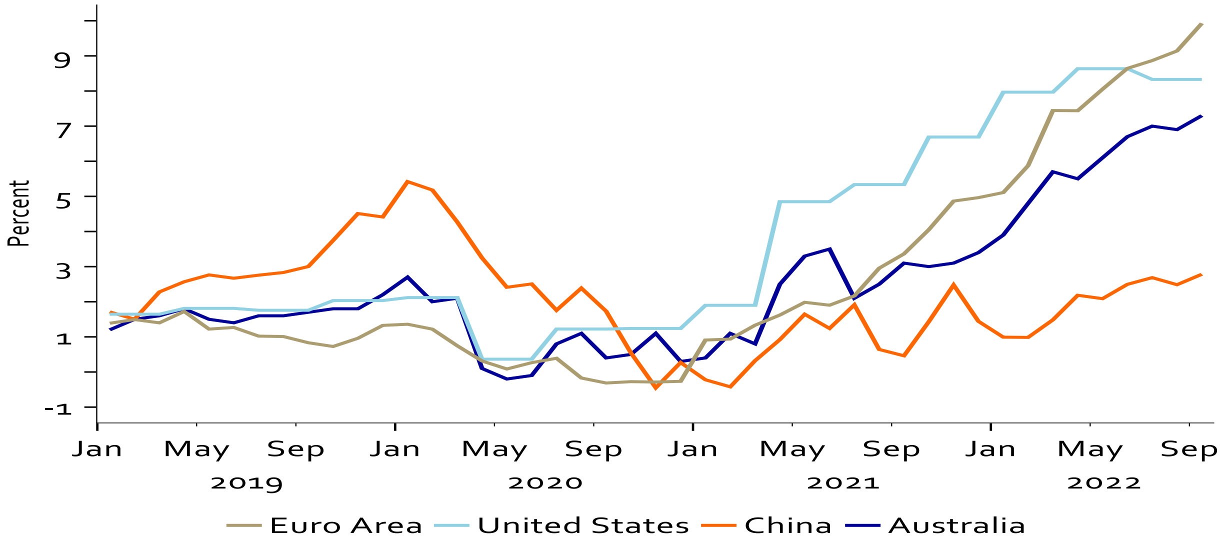
Inflation is high across many countries

Change Y/Y



Source: Macrobond, Rabobank 2022

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Food, energy & housing often the key inflation drivers

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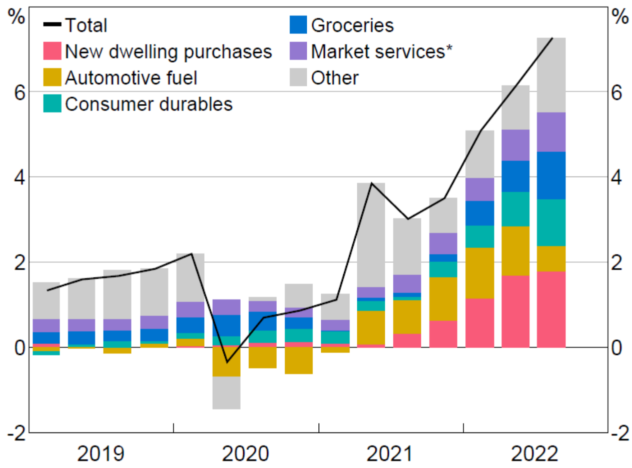
Australian CPI Inflation

Year-ended with contributions

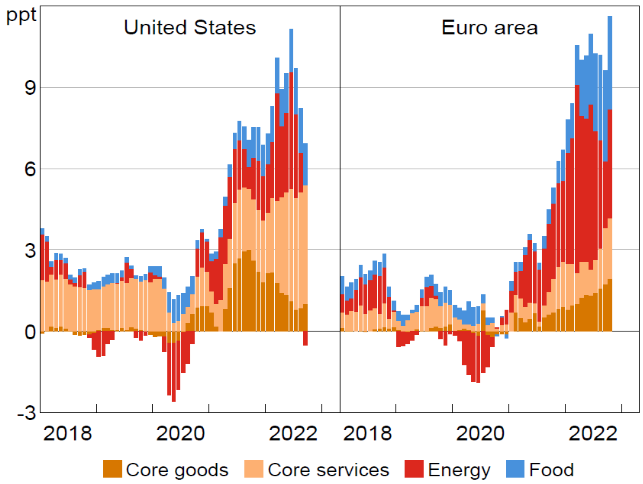


* Excludes domestic travel and telecommunications.

Sources: ABS; RBA

Contributions to Headline Inflation

Six-month annualised



Sources: BLS; Eurostat; RBA; Refinitiv

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Quickest rate hike series on record across economies! Goal = get inflation back to 2-3%

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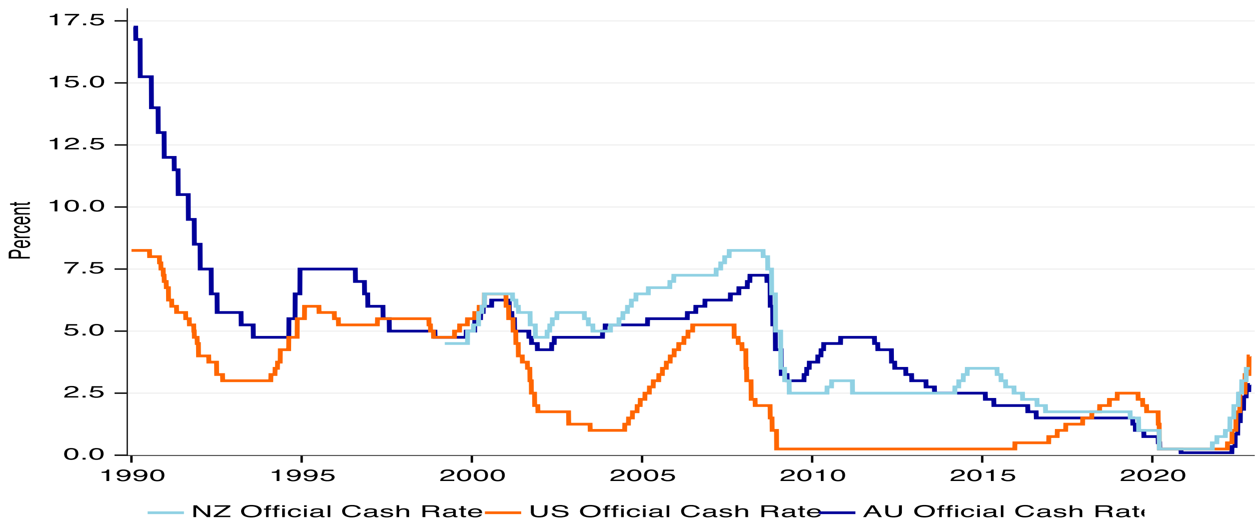

Source: Macrobond, Rabobank 2022

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Central Banks say 'Don't worry, all will be good soon' …. Really???

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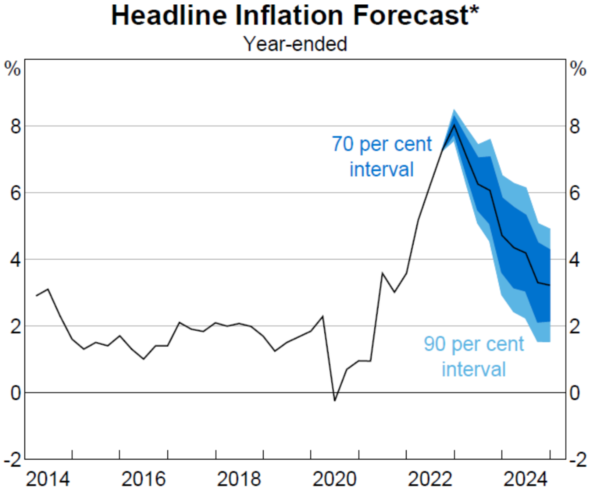
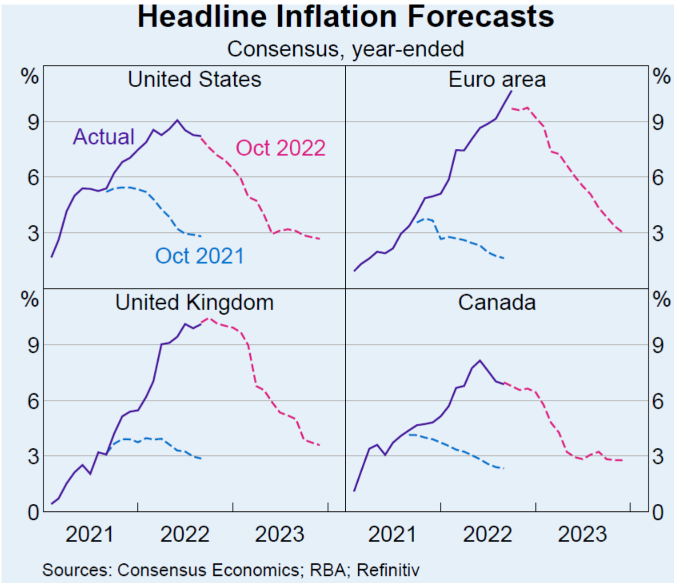
Australian Inflation



* Confidence intervals reflect RBA forecast errors since 1993.

Sources: ABS; RBA



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Headwinds for global growth extend into 2023

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Table 1: Economic Forecasts

	2021	2022	2023		2021	2022	2023
United States				**Eurozone**			
GDP growth	5.7	1.6	0.4	GDP growth	5.3	2.9	-0.7
Inflation rate	4.7	8.1	4.4	Inflation rate	2.6	8.4	5.9
Unemployment rate	5.4	3.7	4.5	Unemployment rate	7.7	6.8	7.1
China				**United Kingdom**			
GDP growth	8.1	2.8	5.0	GDP growth	7.4	3.5	-0.4
Inflation rate	0.9	2.3	2.3	Inflation rate	2.6	10.3	7.0
Unemployment rate	n/a	n/a	n/a	Unemployment rate	4.5	3.9	4.3
Brazil				**The Netherlands**			
GDP growth	4.6	1.8	0.3	GDP growth	4.9	4.7	0.2
Inflation rate	10.1	6.7	4.9	Inflation rate	2.8	10.0	4.8
Unemployment rate	13.5	9.9	10.3	Unemployment rate	4.2	3.6	4.1

Australia:	2021	2022	2023
GDP	4.7	4.3	1.7

Source: Rabobank 2022

US double recession

Slow growth in China

Energy related recession in the Eurozone

Widespread reduction in purchasing power

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GFC Impact: Meat, Fruit & Vegetables suffers during recession

- ***Meat** consumption dropped while eggs & legumes saw increases. Fish and Poultry shares within total meat consumption rose above red meat and nuts.*
- ***Fruit & Vegetables** intake felt the largest hits through increased purchasing of processed foods.*
- ***Decreased consumer confidence: Daily energy intake fell by 39.9 cal per adult.***

Food Source	Consumption Trend
Meat	
Dairy	
Fish	
Fruit & Vegetables	
Sugar (soft drinks)	
Grains	
Vegetable Oils	
Eggs	
Legumes	

Key:

Increase

Unchanged

Decrease

Source: Jenkins et al (2021), Rabobank 2022

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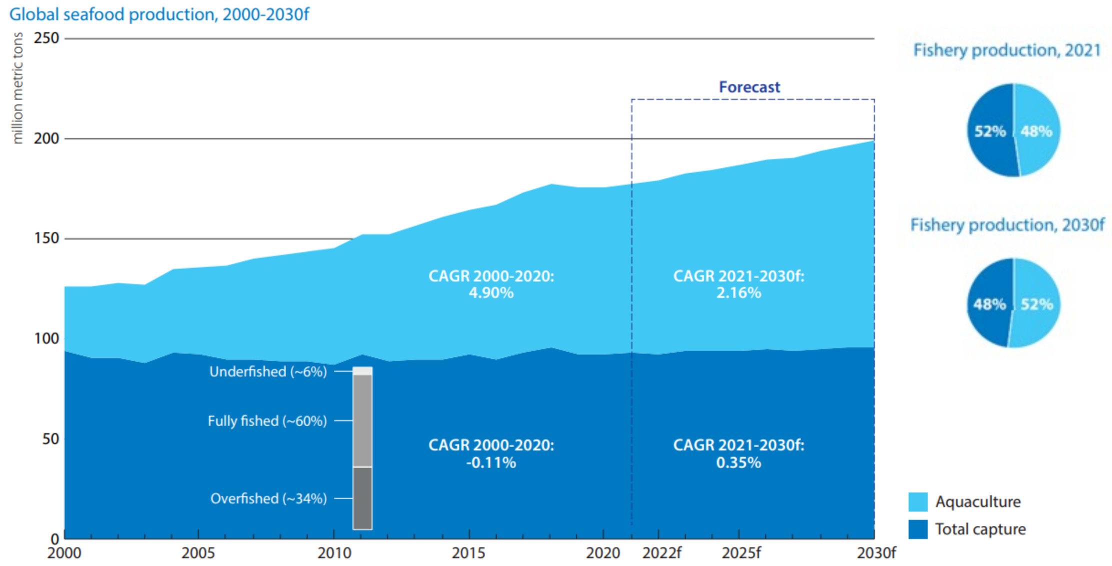
Global consumption of animal protein



Source: USDA, Rabobank 2022

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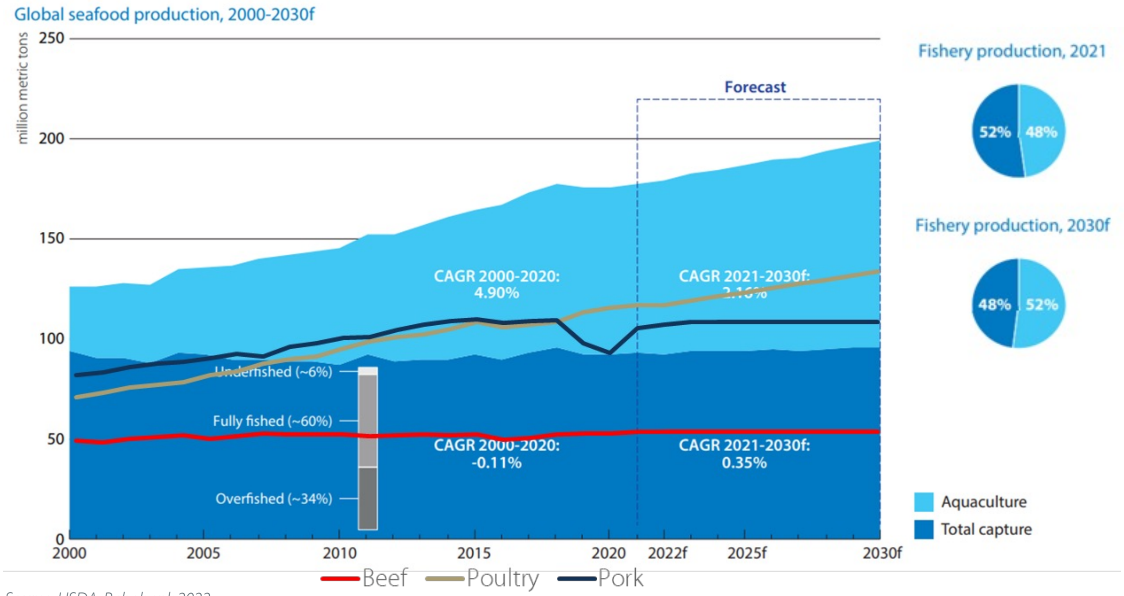
Global consumption of animal protein



Source: USDA, Rabobank 2022

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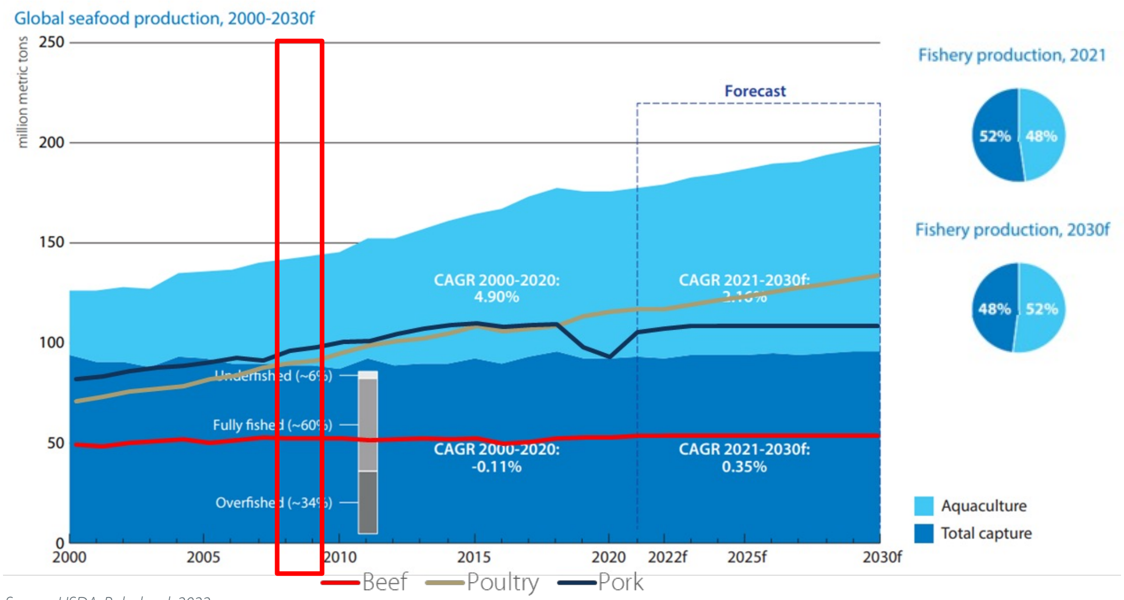
Global consumption of animal protein during GFC



Source: USDA, Rabobank 2022

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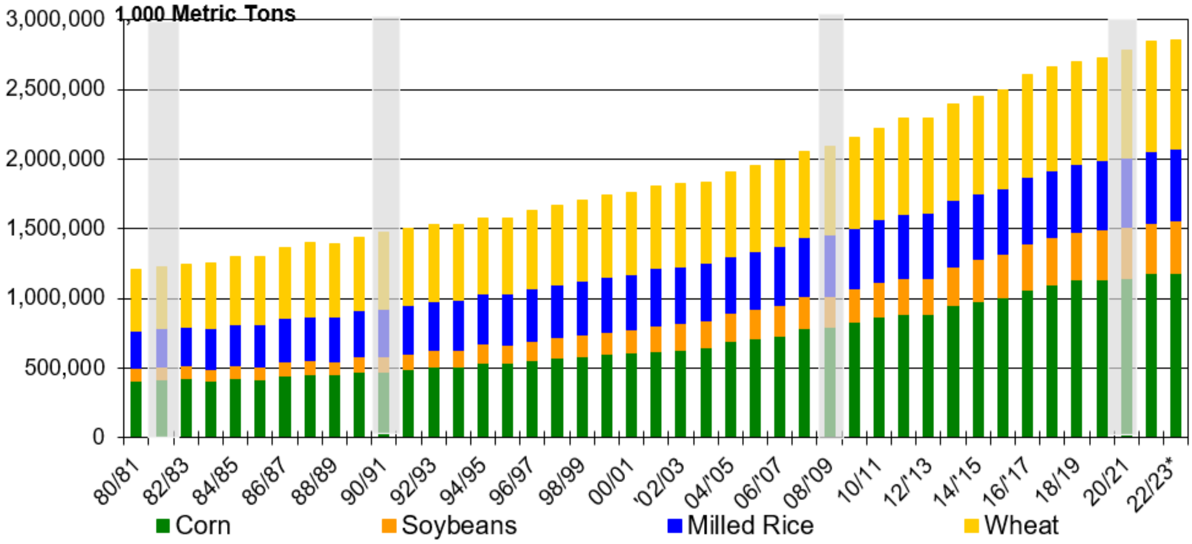
Global Recessions Laid Over Global Grain & Oilseed Use = no consumption/price impact



Source: USDA, Rabobank 2022

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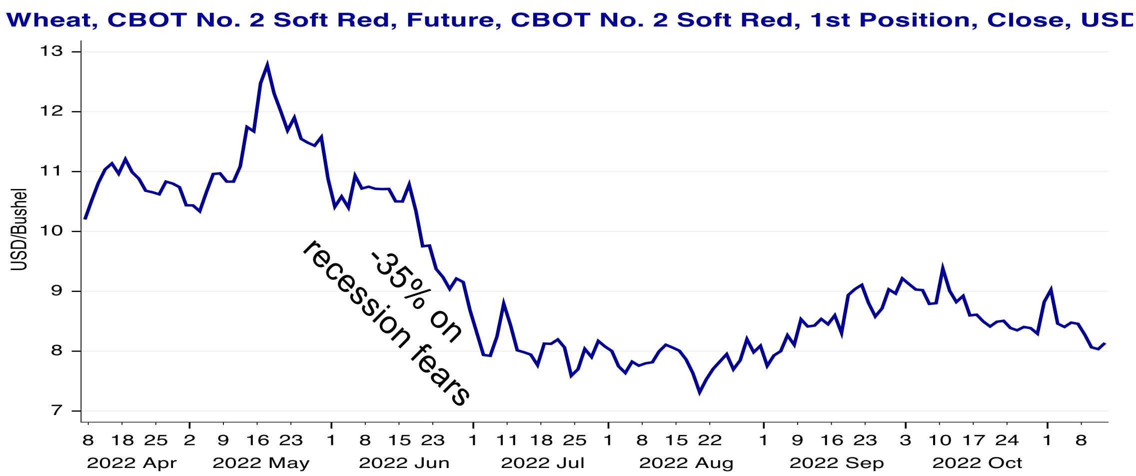
Agri commodities sell off in May…



Source: Macrobond, Rabobank 2022

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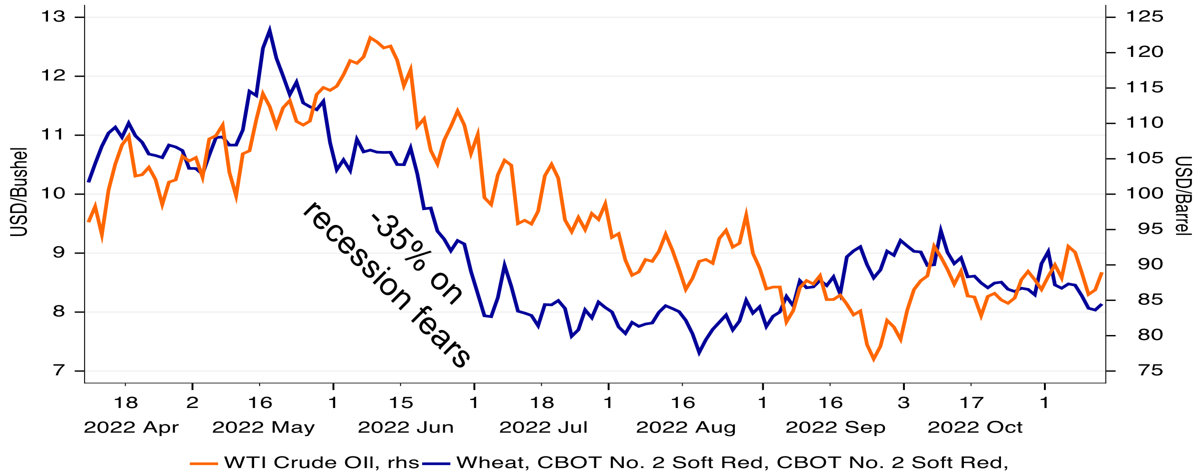
Agri commodities sell off in May… due to 'recession price pressure' from other asset classes

Future, 1st Position, Close, USD



Source: Macrobond, Rabobank 2022

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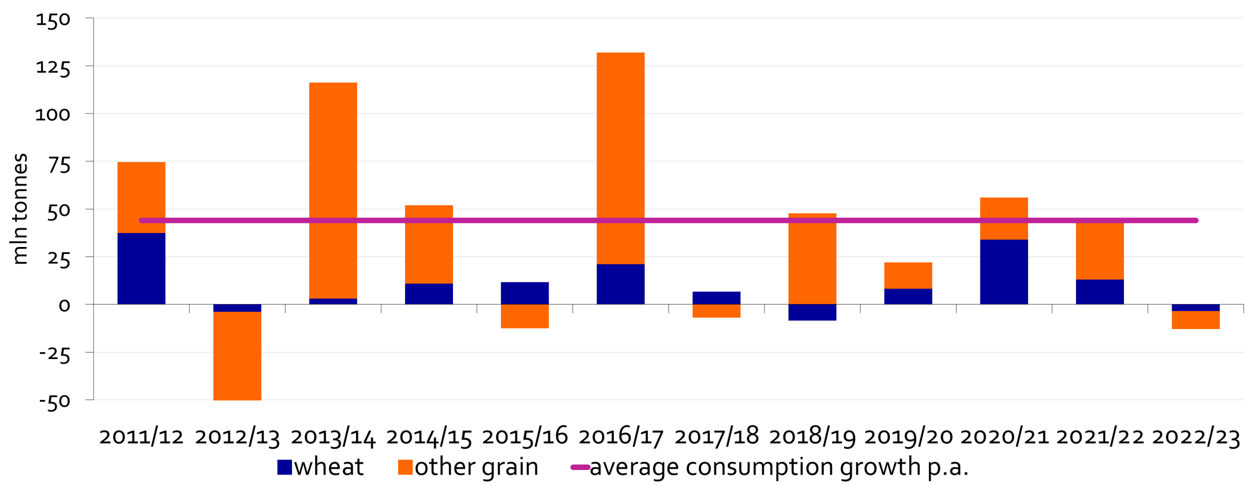
First massive Global Grain Consumption cutback in a decade is needed in 2022/23

Global grain: Year on year consumption changes



Source: Bloomberg, Rabobank 2022

20

20

Chicago wheat price – Russia drove once again record prices and keeps prices elevated & volatile

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Source: Bloomberg, Rabobank 2022

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Ukraine a massive grain exporter which typically exports twice as much as AU in record a season

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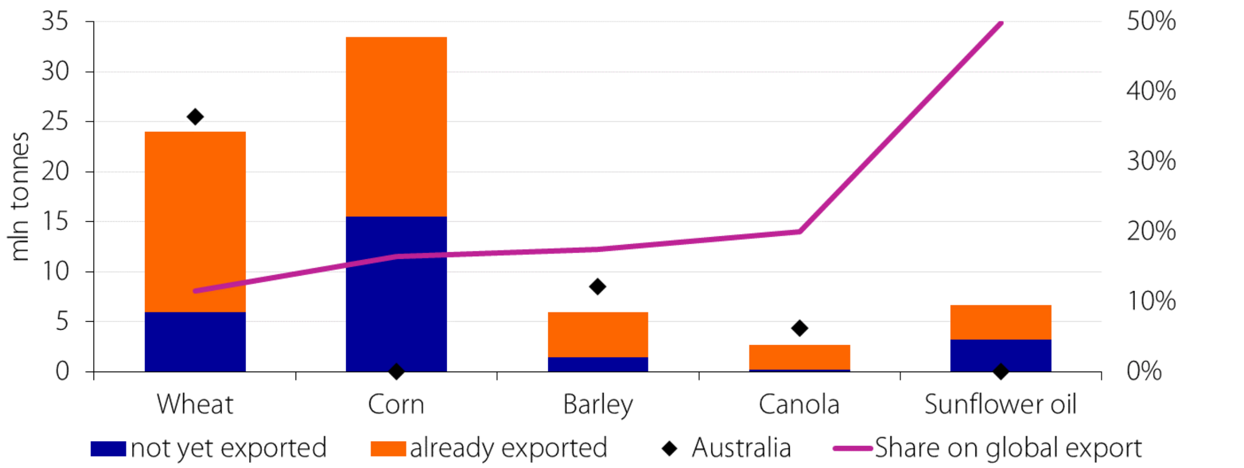
Grain corridor started to work, but volumes very disappointing and export costs are massive



Source: USDA, Rabobank 2022

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Ukraine is happy if ‘only’ Odessa (=500km) and not Constanta (=1000km)

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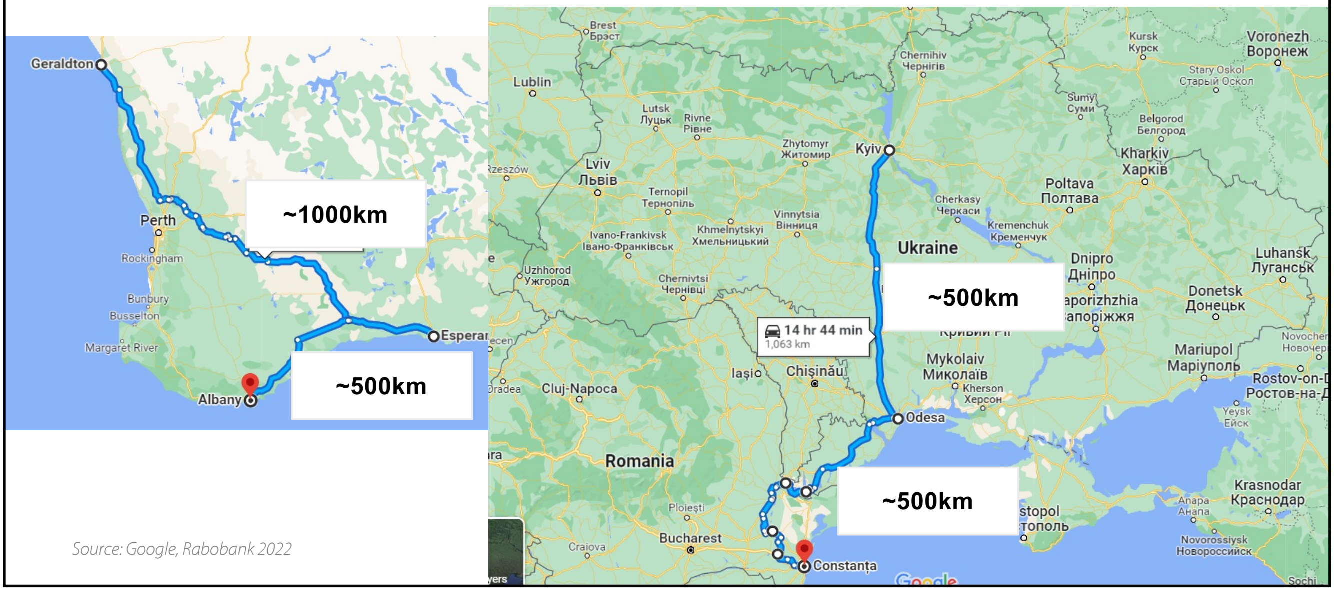

Source: Google, Rabobank 2022

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Ukrainian 2022 crop & exports better than expected, BUT agreement needs renewal by 20 November

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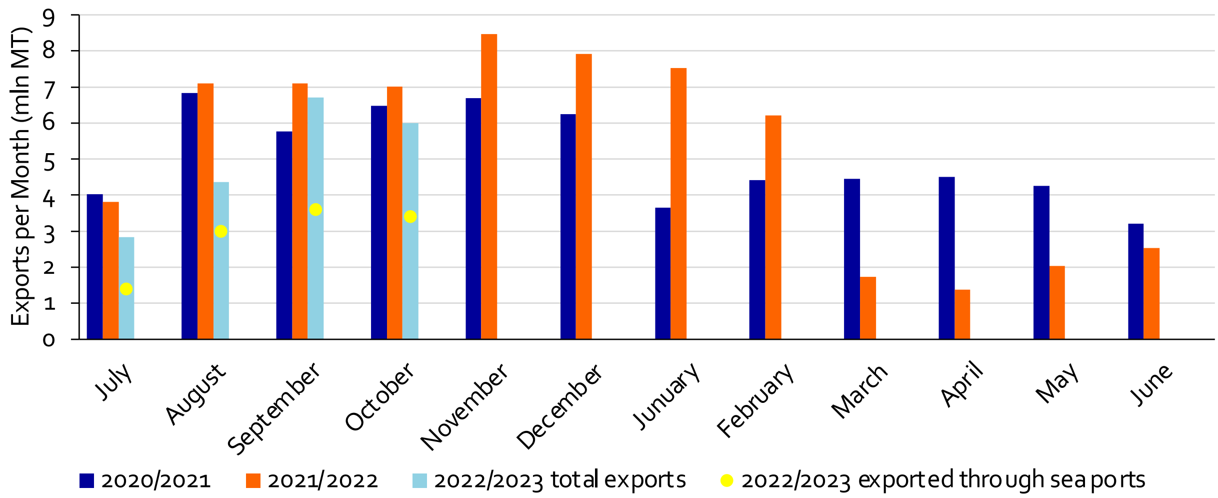
Impressively, the Ukraine grain corridor works rather well, but it expires 19 Nov!



Source: UkrAgro, Ukr Ag Ministry, Reuters, Rabobank 2022

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Grain prices drive Fertilizer prices: R Square 0.72!

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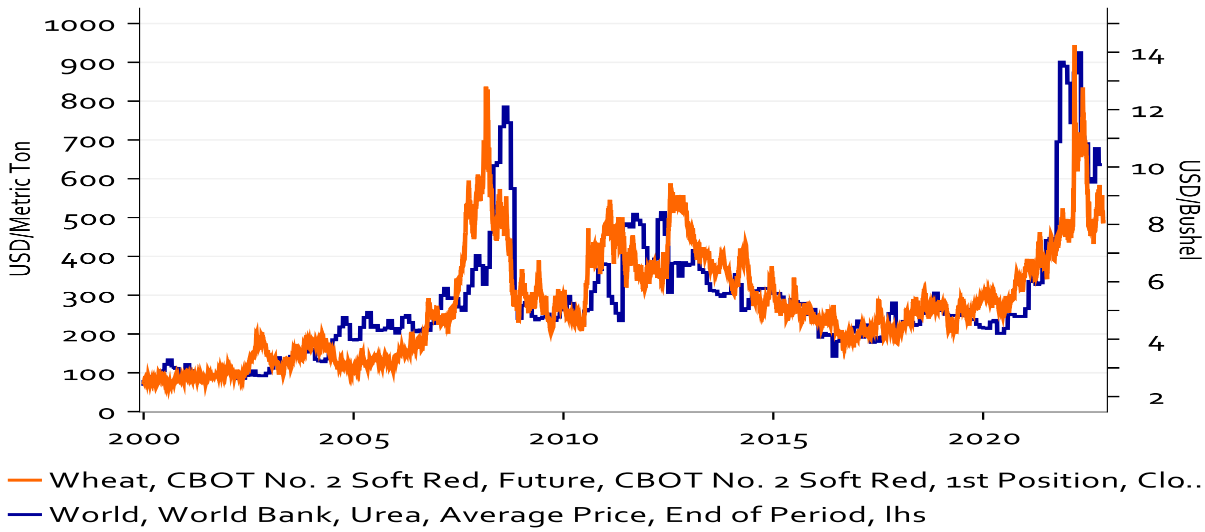
USD



Source: Macrobond, Rabobank 2022

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1.d

Global fertilizer outlook: Disruptions & energy prices

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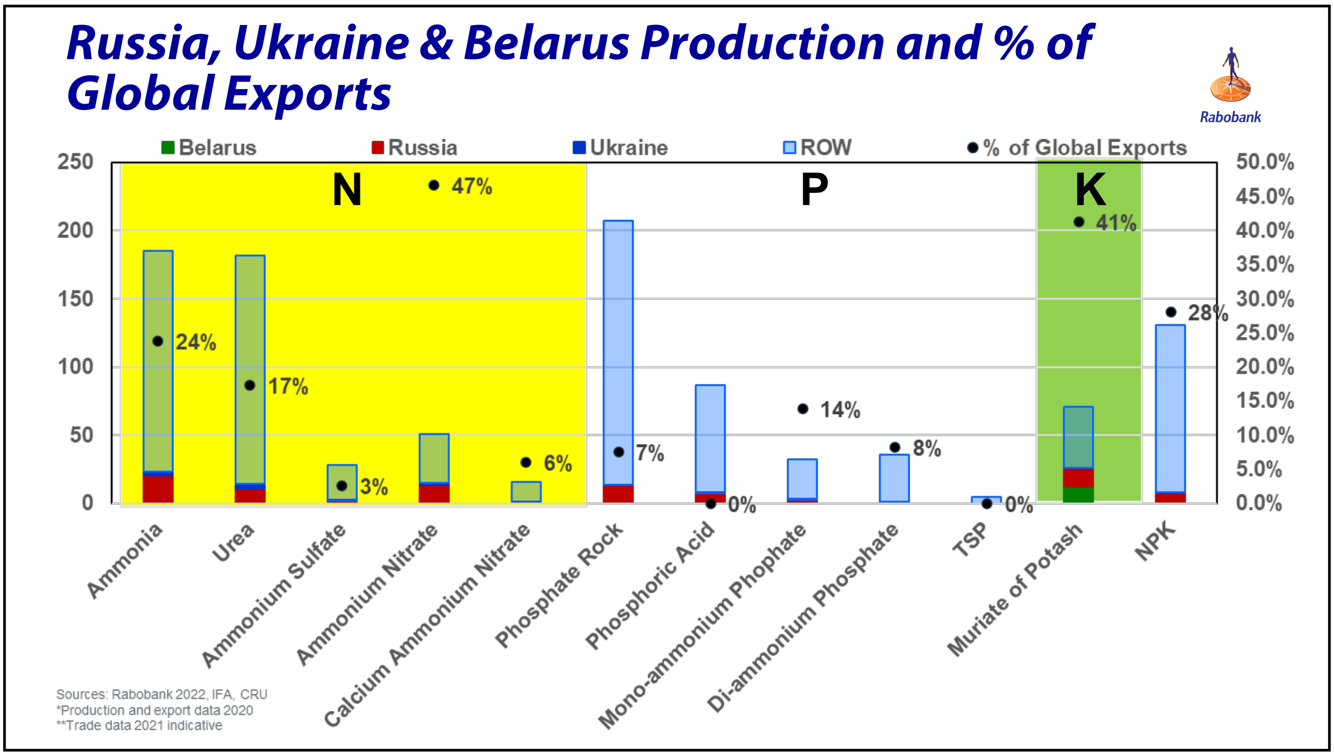
Russia, Ukraine & Belarus Production and % of Global Exports
Rabobank
Belarus
Russia
Ukraine
ROW
% of Global Exports
N
P
K
250
200
150
100
50
0
50.0%
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
47%
24%
17%
3%
6%
7%
0%
14%
8%
0%
41%
28%
Ammonia
Urea
Ammonium Sulfate
Ammonium Nitrate
Calcium Ammonium Nitrate
Phosphate Rock
Phosphoric Acid
Mono-ammonium Phosphate
Di-ammonium Phosphate
TSP
Muriate of Potash
NPK
Sources: Rabobank 2022, IFA, CRU
*Production and export data 2020
**Trade data 2021 indicative

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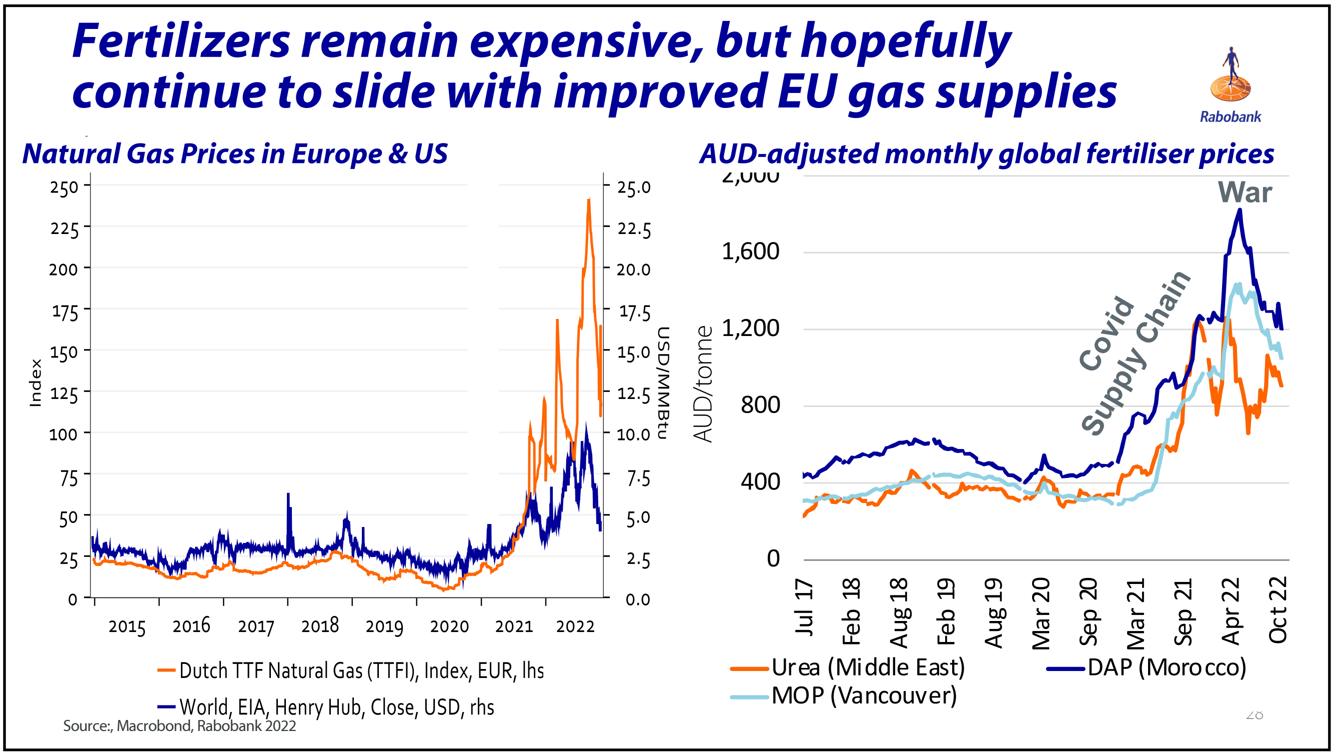
Fertilizers remain expensive, but hopefully continue to slide with improved EU gas supplies
Rabobank
Natural Gas Prices in Europe & US
Index
USD/MMBtu
250
225
200
175
150
125
100
75
50
25
0
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
2015
2016
2017
2018
2019
2020
2021
2022
Dutch TTF Natural Gas (TTFI), Index, EUR, lhs
World, EIA, Henry Hub, Close, USD, rhs
Source:, Macrobond, Rabobank 2022
AUD-adjusted monthly global fertiliser prices
AUD/tonne
1,600
1,200
800
400
0
War
Covid
Supply Chain
Jul 17
Feb 18
Aug 18
Feb 19
Aug 19
Mar 20
Sep 20
Mar 21
Sep 21
Apr 22
Oct 22
Urea (Middle East)
DAP (Morocco)
MOP (Vancouver)

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Ocean Container Rates decreased from historic highs due to 'recession', but reliability still low

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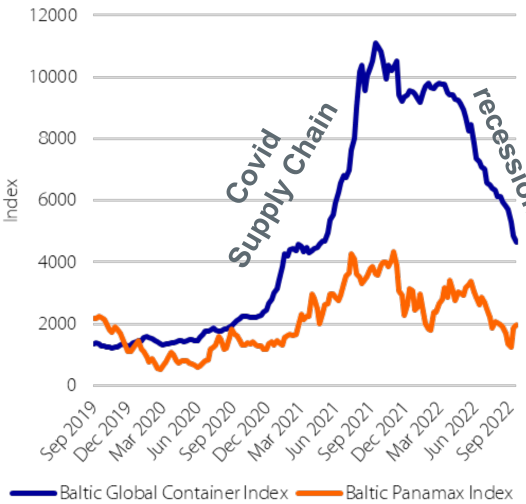
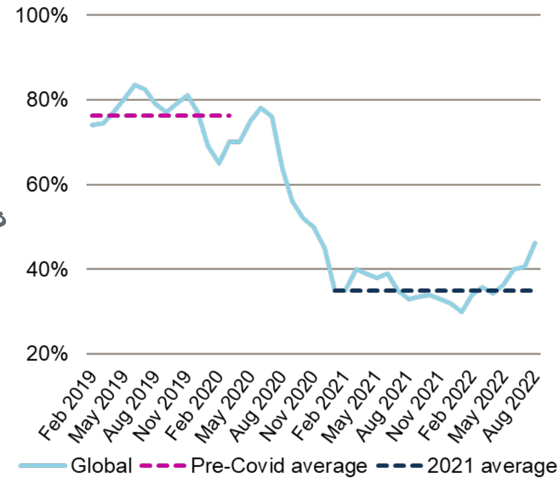
Schedule reliability recovering. Port congestion to remain at key ports until 1H 2023.

Container rates finally trend lower. Covid price shock almost taken out



Percentage of on-time arrivals of container ships, April 2019 - June 2022



Source: *Freightos, Drewry, Sea-Intelligence, JOC, Rabobank 2022*

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Shipping Company Profits Are Reinvested Into Container Fleet driving strong growth

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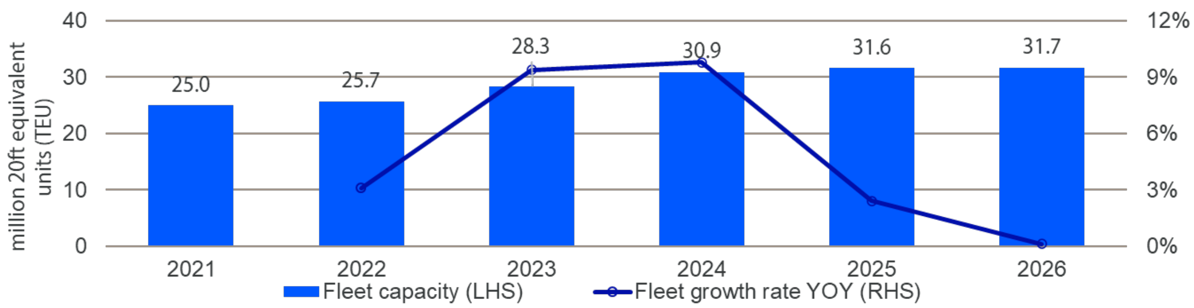
Delivery schedule of ordered ships, 2021-2026



Ship size (TEUs)	*Q1 2022 (million TEUs)*	*2026 (million TEUs)*	*Q1 2022-2026 growth*
< 3,000	4.5	5.2	15.6%
3,000–6,999	6.2	6.8	9.7%
7,000–9,999	4.6	5.3	15.2%
10,000+	9.7	14.4	48.5%

Source: *Drewry, Rabobank 2022*

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2.a
Sustainability: Supply & demand impact?

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Two key drivers:

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Governments

- EU's Fit For 55 policy & Green Deal
  - Cut fertilizer and chemical use
  - 20% of EU Grain supply at risk!
  - Abolishment of diesel/gasoline car sales and loss of fuel & biofuel use
- Canada policy to reduce fertilizer use
  - Impact on cropping?
- North American Renewable Diesel
  - drives massive vegetable oil demand!

Industry

- Supply Chain is cutting emissions
  - Scope 1 & 2 the 'easy wins'
  - BUT Scope 3 the real needle mover
- Regenerative Agriculture:
  - Yield losses??

=> Increases cost at farm. If carbon market does not pay, consumers and farmers will have to pay

Source: Bloomberg, Rabobank 2022

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Rapeseed: Record crop & record +15% growth

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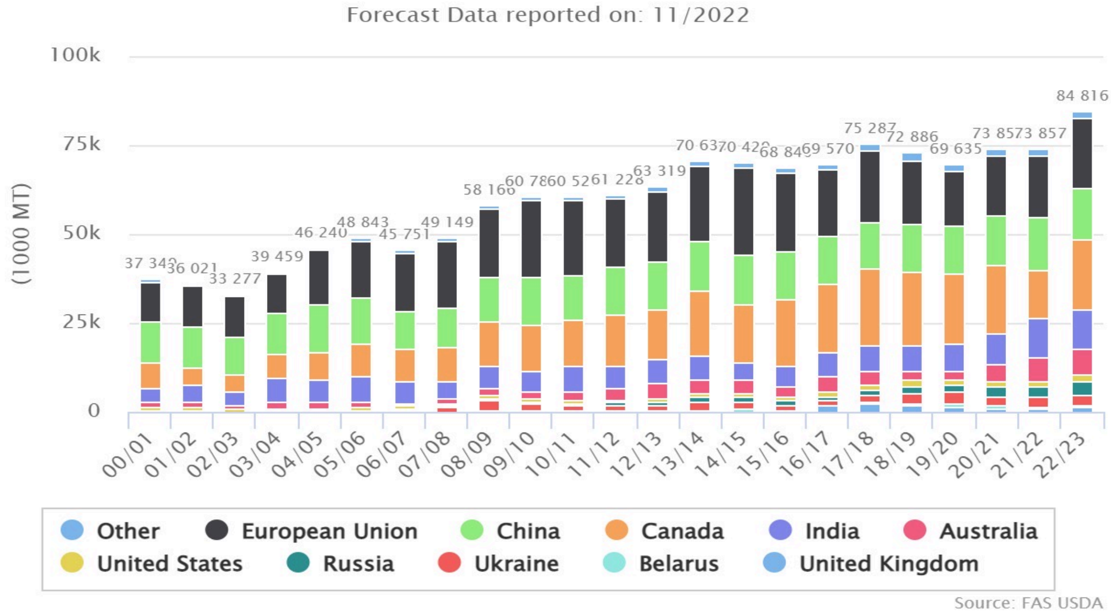

2022 Canola production

EU: best in 5 years

Cd: recovery

AU record

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Source: FAS USDA

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Global bio-/renewable diesel:

SEA/SAM = volume; EU/US = carbon cuts = HVO/renewable diesel

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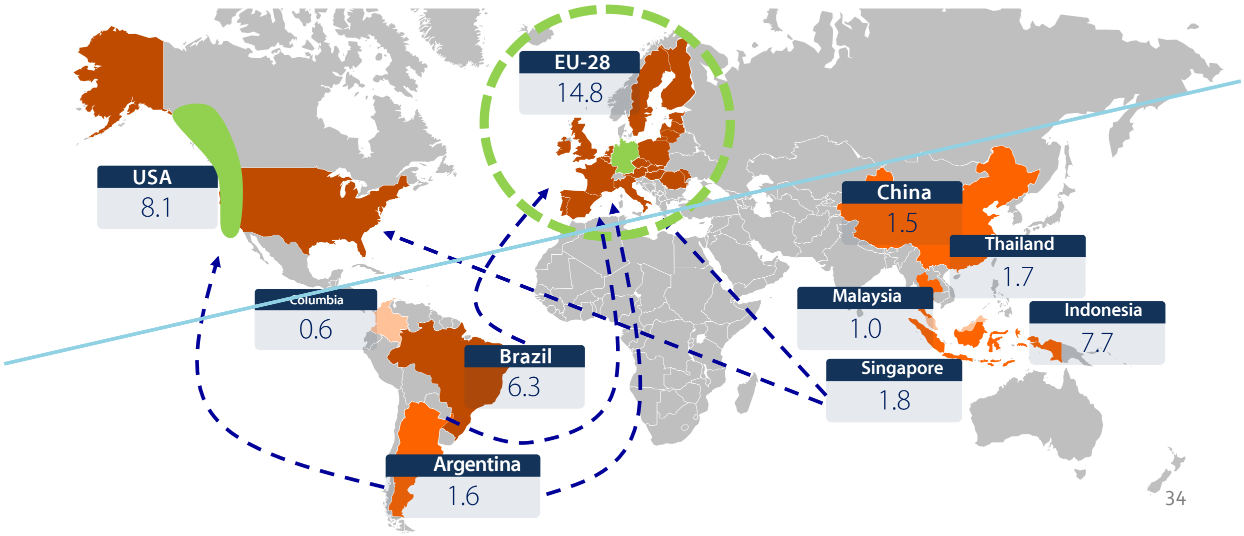

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Source: Rabobank 2021

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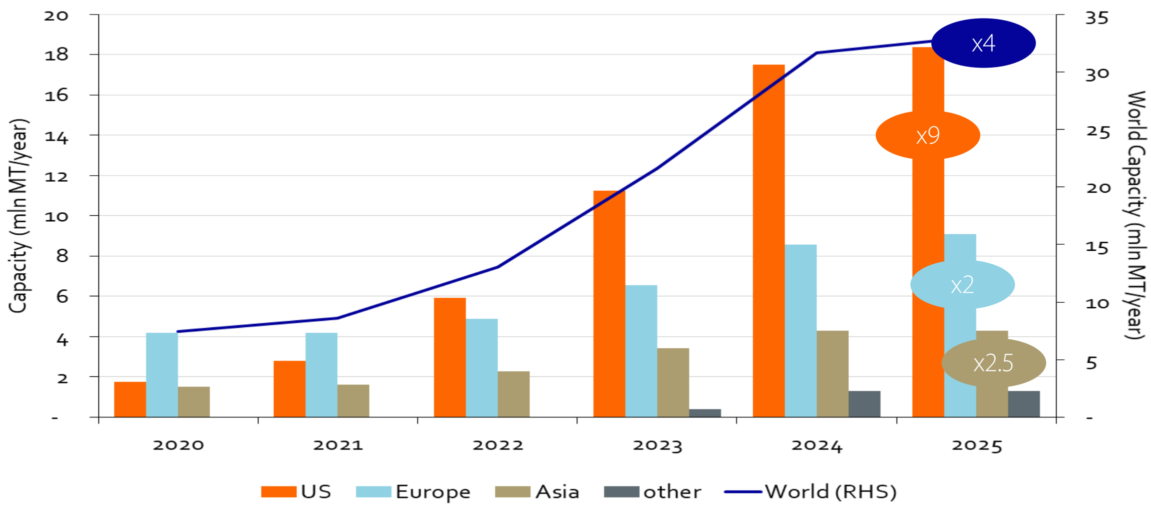
Global Hydrogenated Vegetable Oil capacity (Renewable Diesel) will require lots of veg. oil



Source: Company Websites, Rabobank 2022

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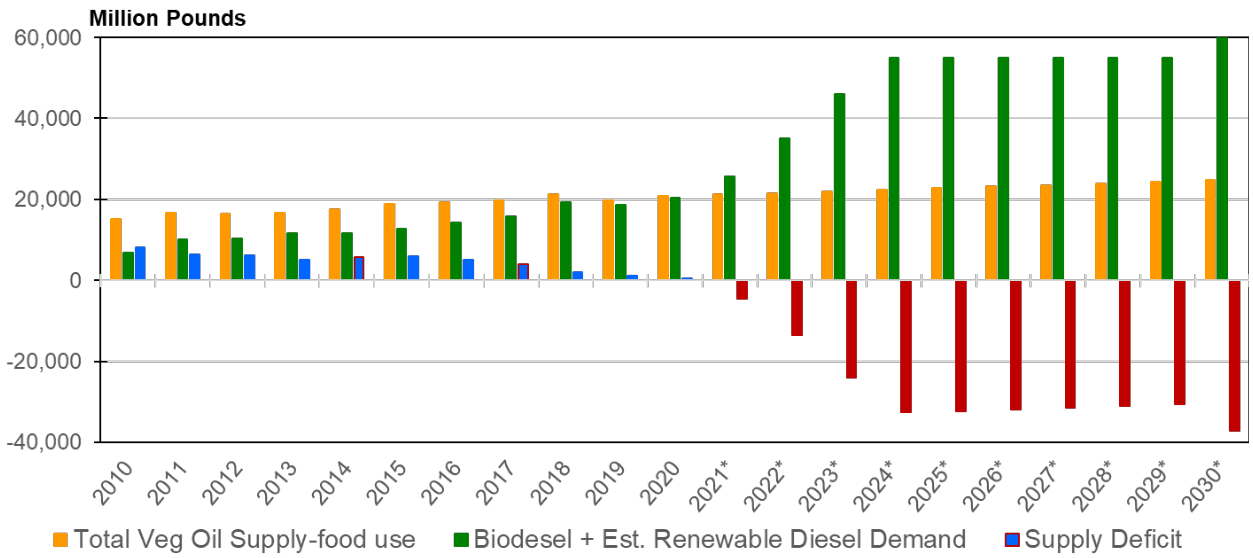
US Renewable Diesel to drive a massive Vegetable Oil Supply Deficit & high US veg. oil imports



Source: USDA-ERS, EIA, Rabobank 2021

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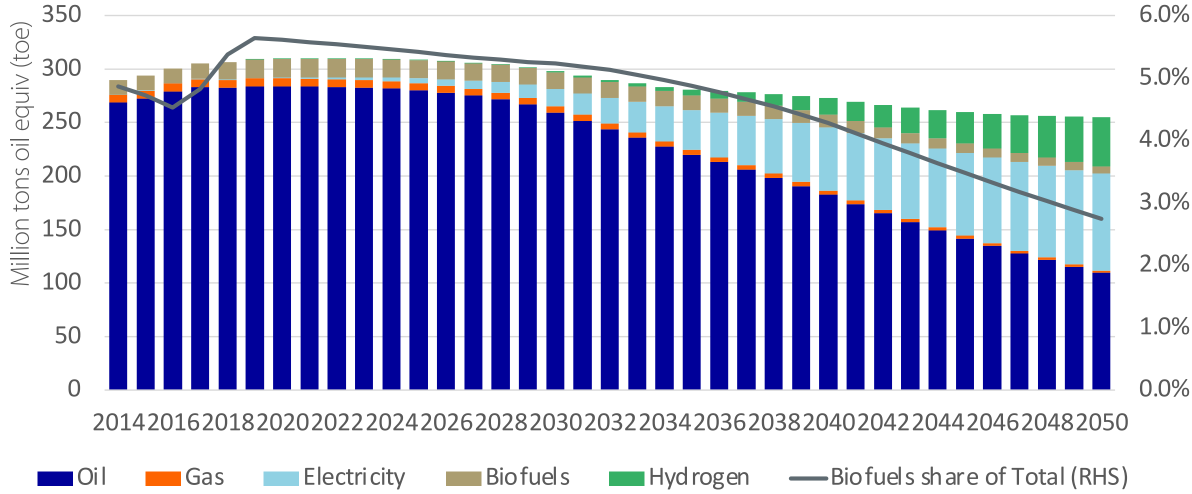
European Road Transport Fuel Demand to fall towards 2050 also lowering biofuel needs

Electrification and hydrogen to have a negative impact on fuel demand (fossil and biofuels)



Source: Eurostat, EEA, Rabobank 2021

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EU: What will happen to the vegetable oils used in biofuel production

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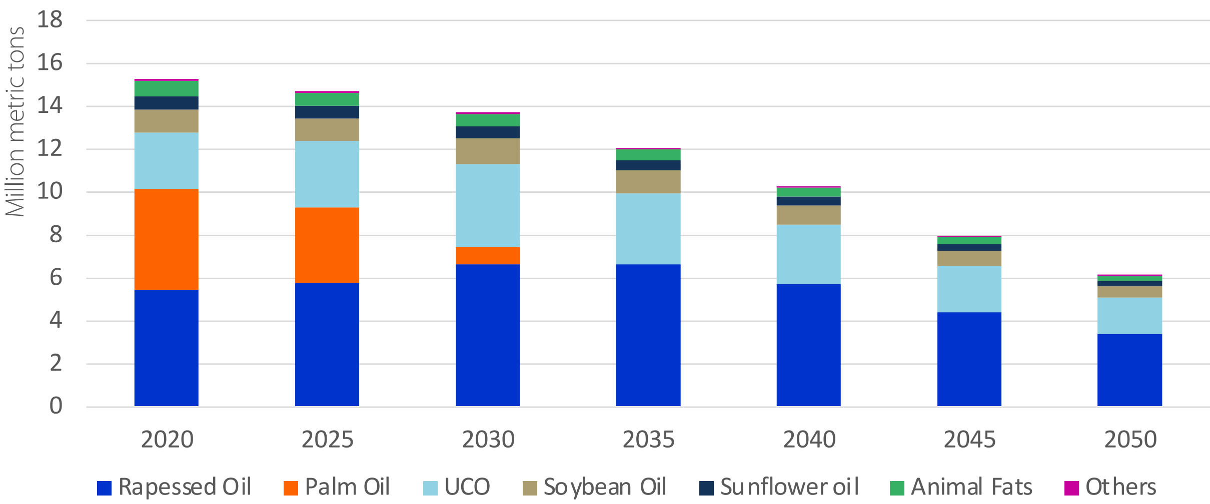
EU Biodiesel feedstocks: ban of palm & soy oil in biofuel will benefit rapeseed, but when?



Source: European Commission; Oil World, Renewable Energy Progress Report (EC)

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2.b

Supply Chain Initiatives - Scope 1/2/3 & farmers the key to change

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The 90% Scope 3 Club: 90% of Emissions in F&A chain are Scope 3

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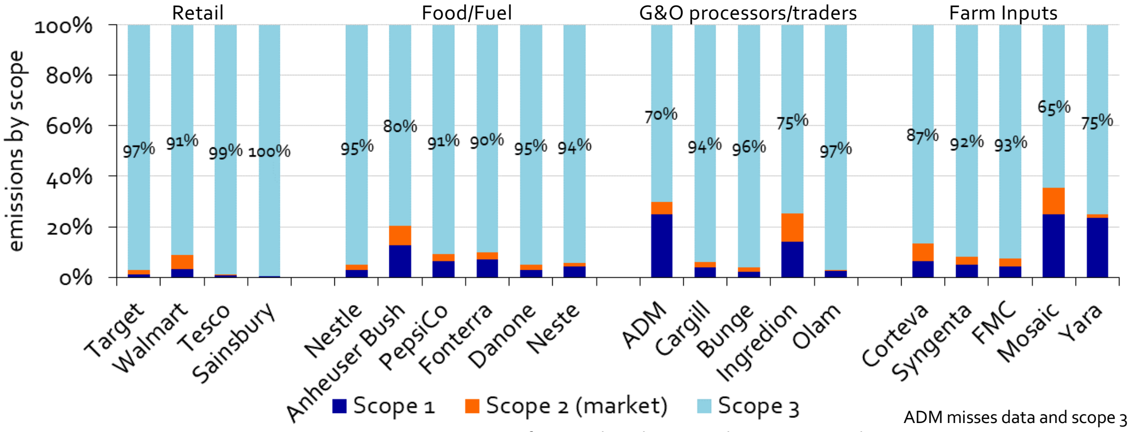
G&O chain largely shows ~90% Scope 3 emissions i.e. those up & down the chain



ADM misses data and scope 3 likely larger

Direct emissions I Emissions from purchased power I other emissions (indirect)

RaboResearch Food & Agribusiness Source: Company Information, Rabobank 2021 40

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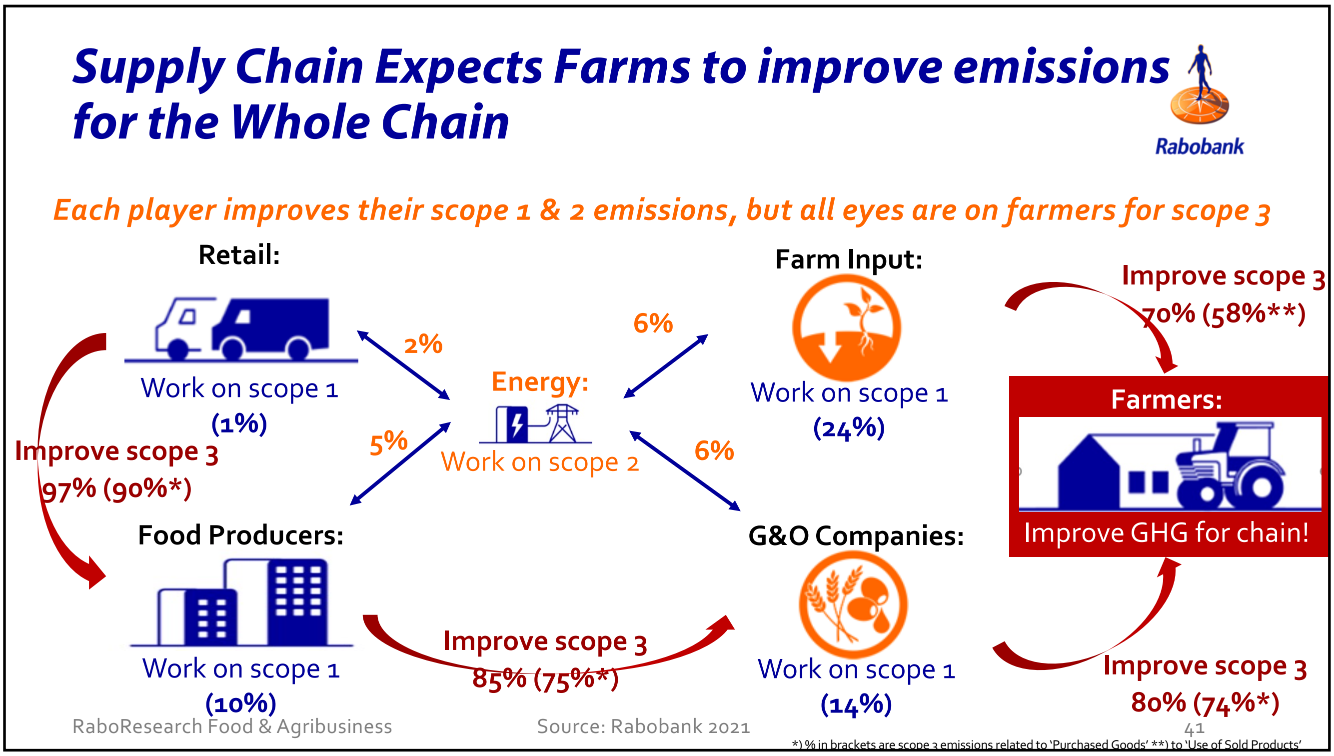
Supply Chain Expects Farms to improve emissions for the Whole Chain
Rabobank
Each player improves their scope 1 & 2 emissions, but all eyes are on farmers for scope 3
Retail:
Work on scope 1
(1%)
Improve scope 3
97% (90%*)
Food Producers:
Work on scope 1
(10%)
2%
5%
Energy:
Work on scope 2
6%
6%
Improve scope 3
85% (75%*)
Farm Input:
Work on scope 1
(24%)
G&O Companies:
Work on scope 1
(14%)
Improve scope 3
70% (58%**)
Farmers:
Improve GHG for chain!
Improve scope 3
80% (74%*)
RaboResearch Food & Agribusiness
Source: Rabobank 2021
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*) % in brackets are scope 3 emissions related to 'Purchased Goods' **) to 'Use of Sold Products'

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