



Food and Agriculture Organization  
of the United Nations

# Threats to Food Security: Pandemic, Climate, War, and ...

Maximo Torero Cullen

Chief Economist

Food and Agriculture Organization of the United Nations

FAO

# **The Situation before and after COVID-19**

# We are not on track to ending hunger, food insecurity and malnutrition – major drivers and underlying factors Are challenging us

COVID-19  
pandemic



Economic  
slowdowns and  
downturns



Climate variability  
and extremes



Conflict/ War



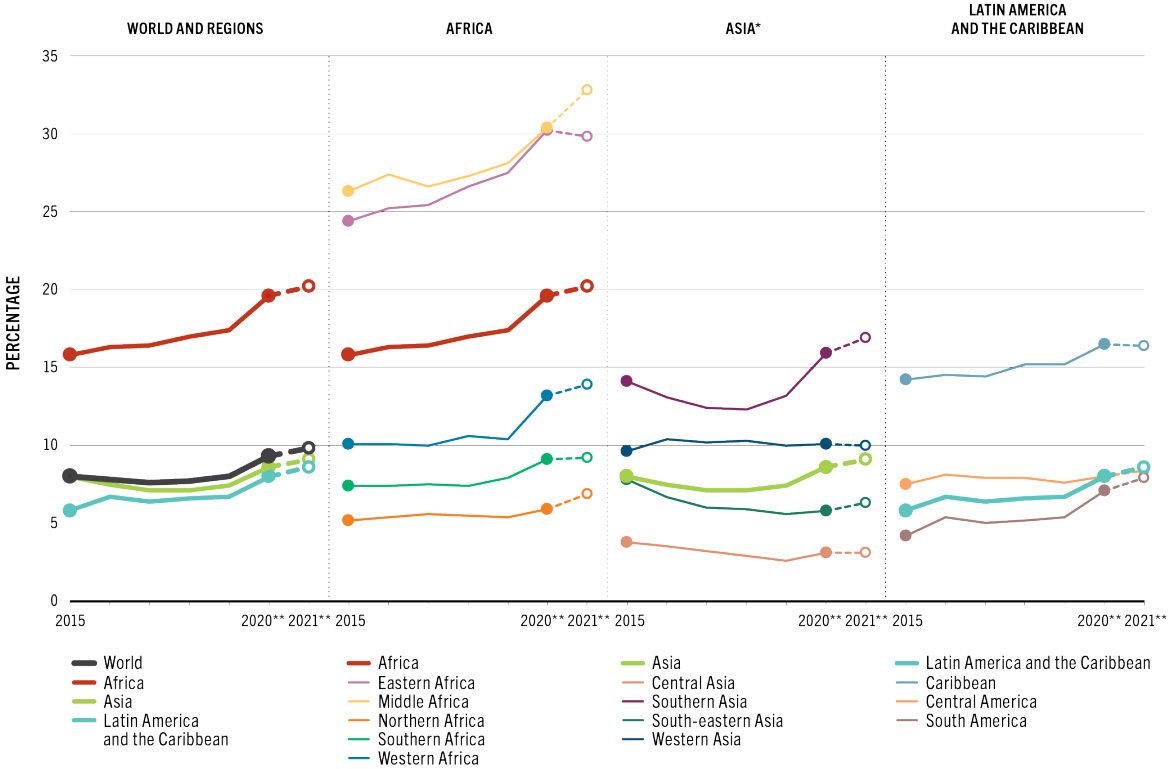
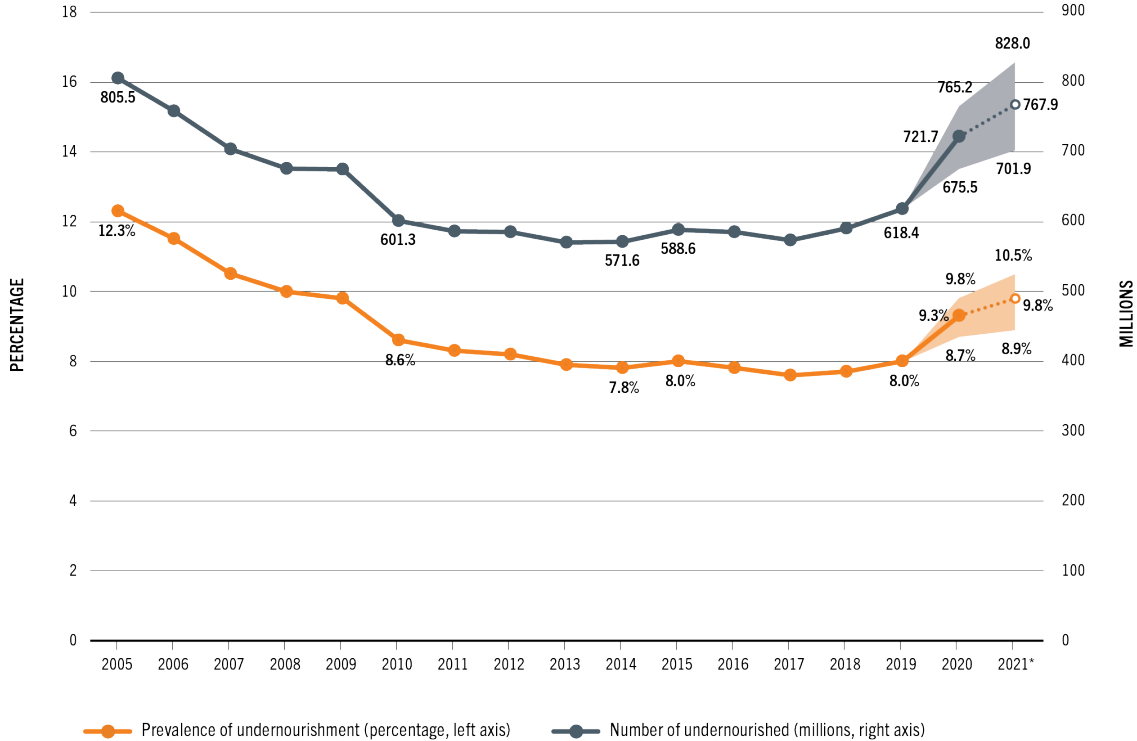
Cost and  
affordability  
of healthy diets



← **UNDERLYING CAUSES OF POVERTY & INEQUALITY** →

# Global Hunger is on the Rise

In 2021, up to 828 million people suffered chronic hunger. Severe food insecurity increased in every region of the world.



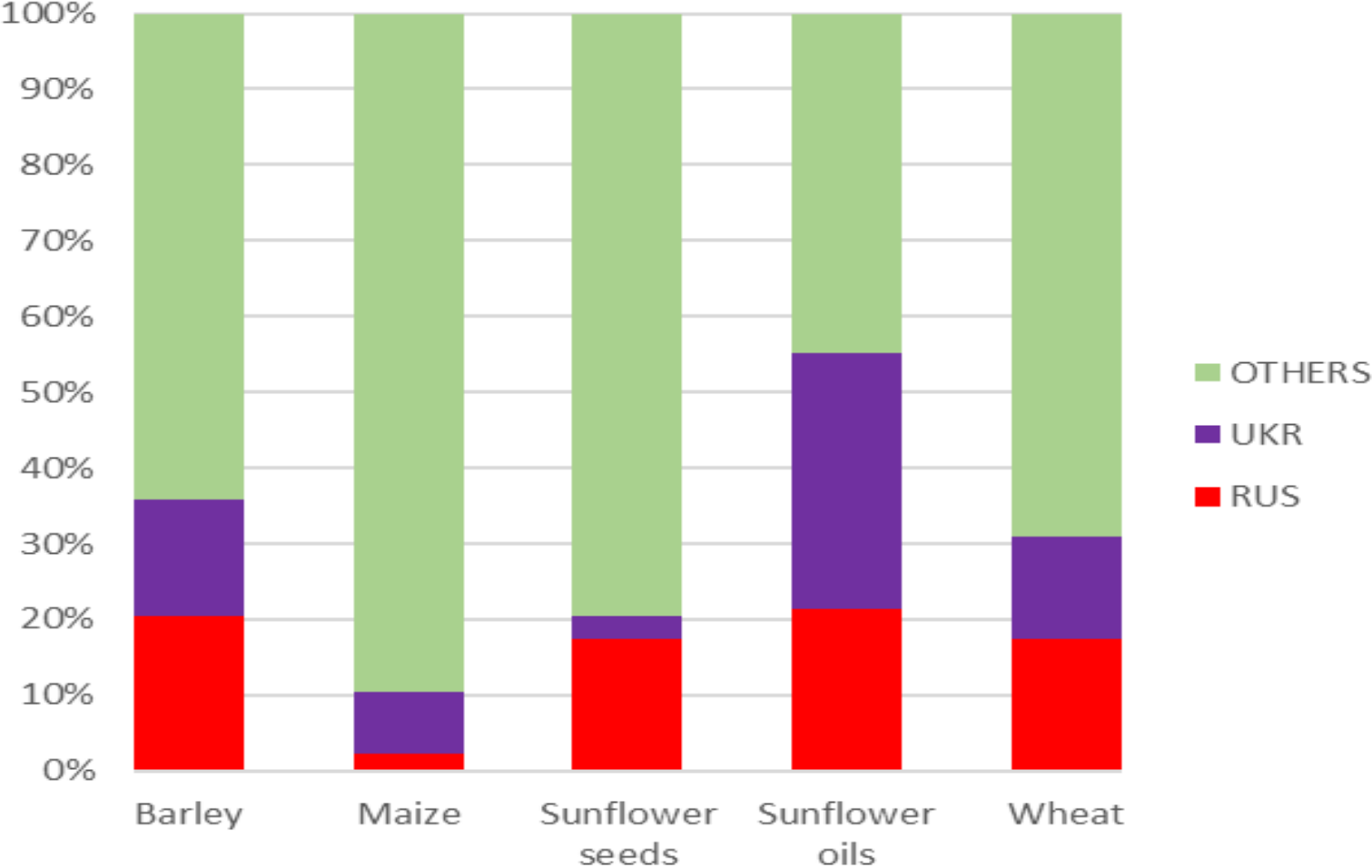
NOTES: \* Projected values for 2021 are illustrated by dotted lines. Shaded areas show lower and upper bounds of the estimated range. SOURCE: FAO.

NOTES: \* Eastern Asia is not shown because the PoU has been consistently below 2.5 percent since 2010. \*\* Projected values based on the middle of the projected range. The full ranges of the 2020 and 2021 values can be found in Annex 2. SOURCE: FAO.

# **Exacerbation of situation because of War in Ukraine**

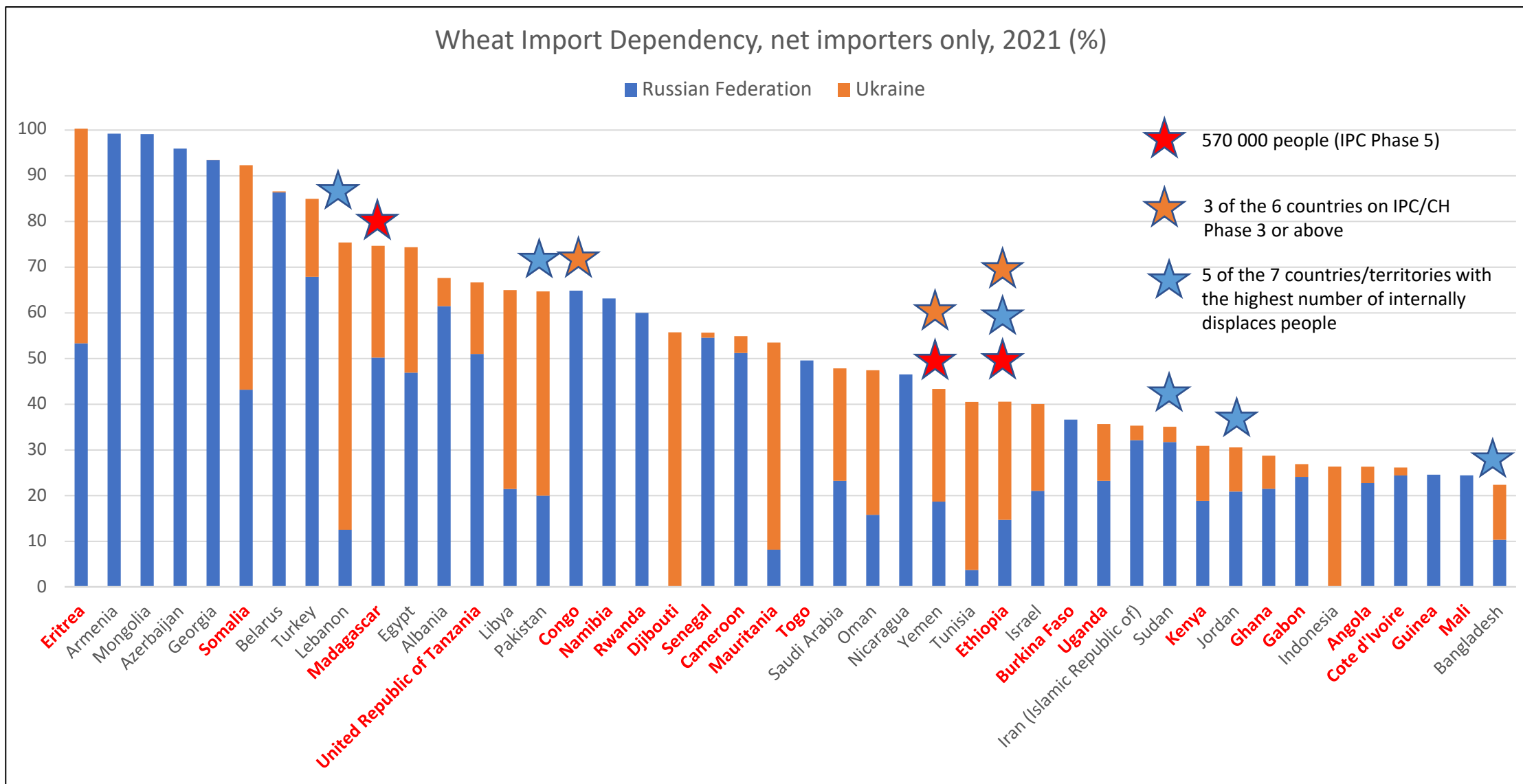
# Concentrated Market Structure on Commodity Exports

Global market shares (quantities) of key agricultural commodities (percent, 2021)



# Some countries are heavily reliant on wheat imports from Ukraine and the Russian Federation

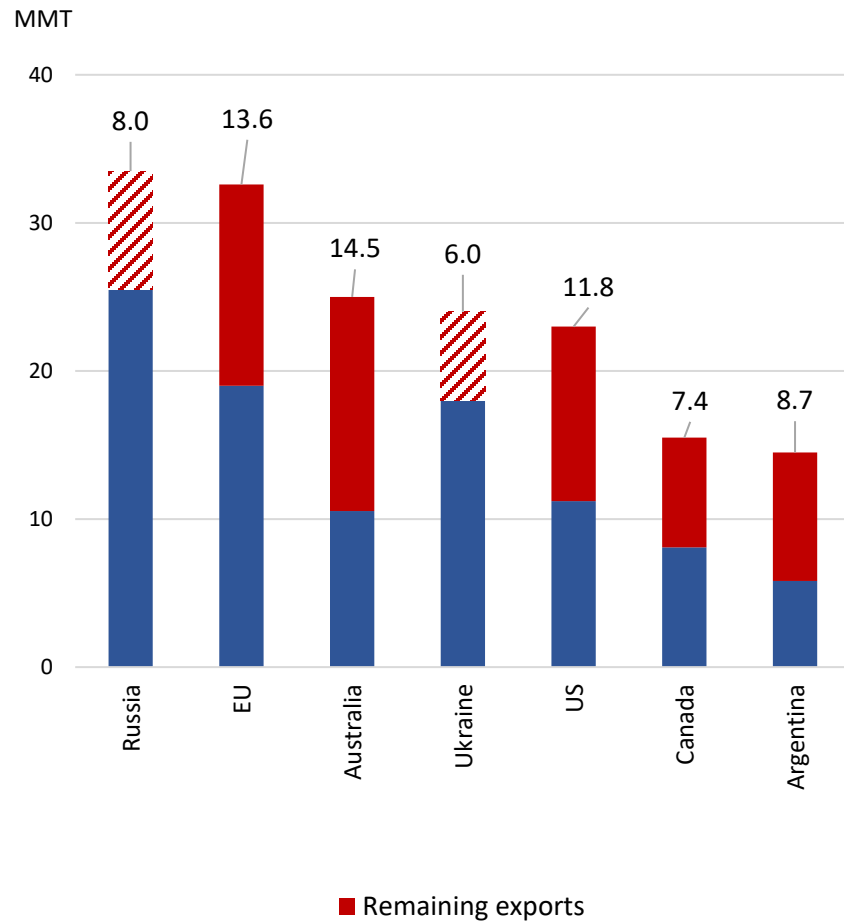
Countries in SSA are marked in red



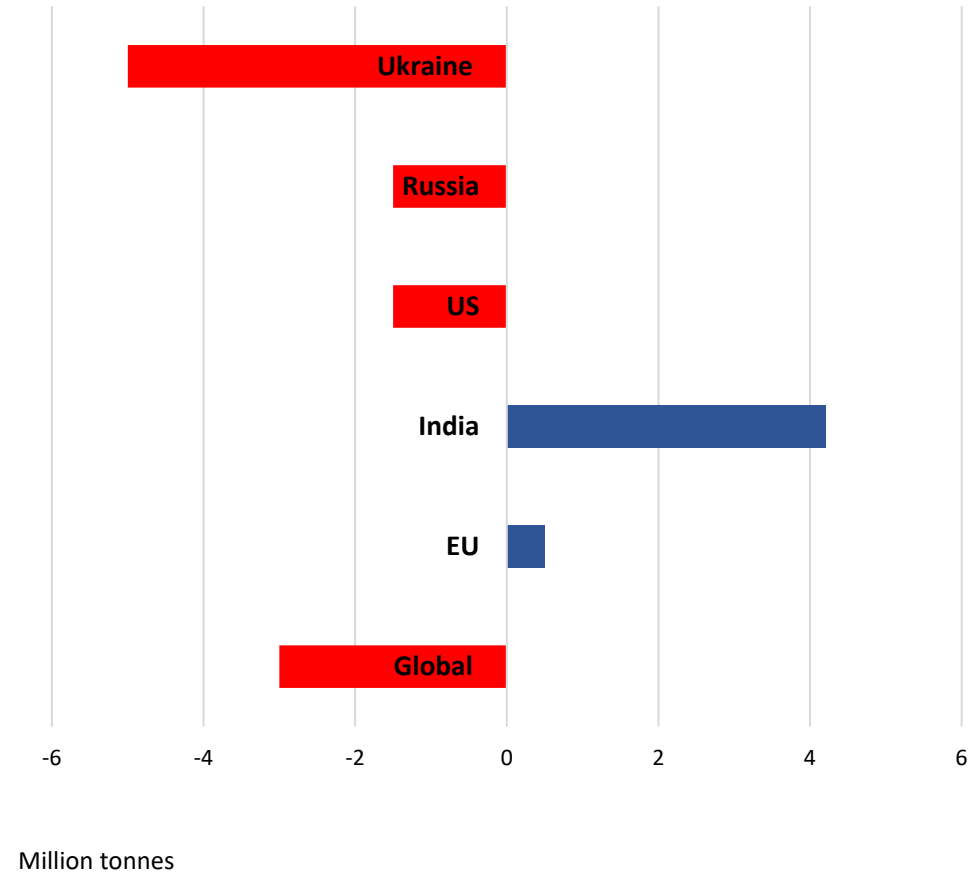
# There is enough food (wheat) to go around!

Outstanding **wheat** exports and available export quantities: manageable, but a tight situation overall.

### 2021/22 Export forecasts of major exporters



### Change in 21/22 wheat export forecasts since Ukraine conflict

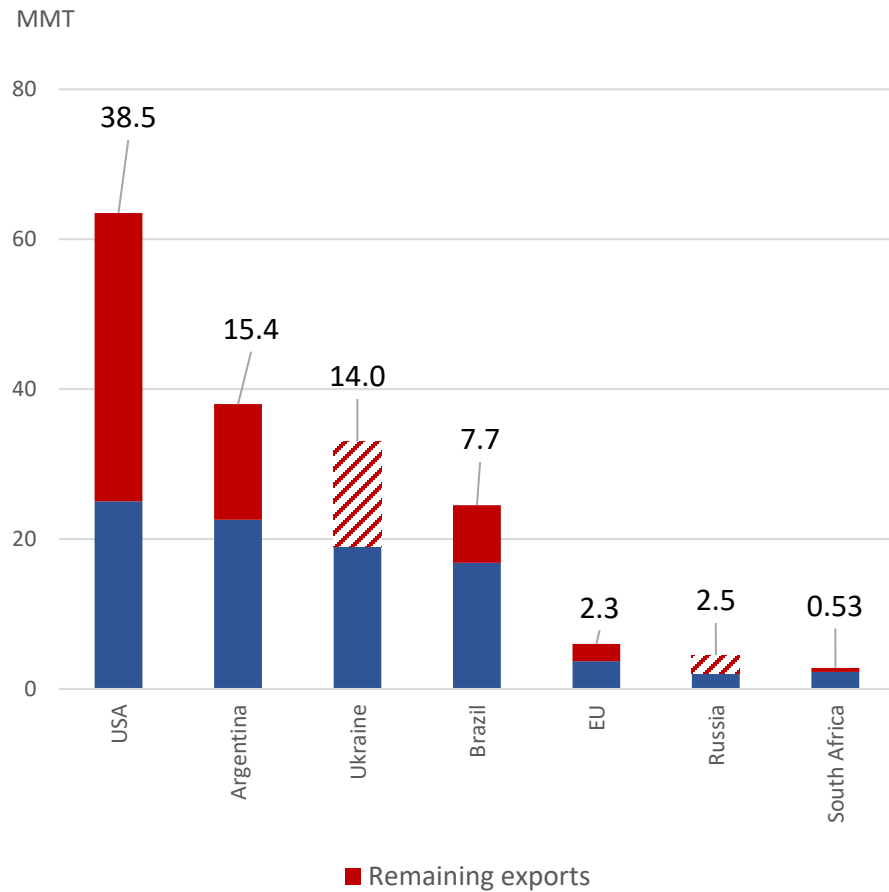




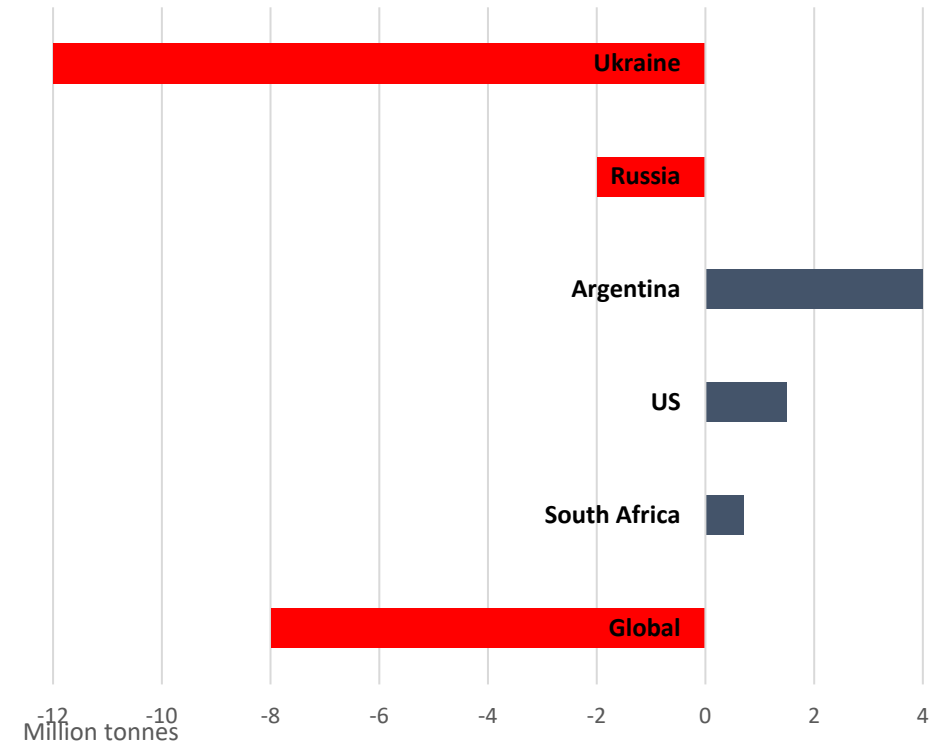
# There is enough food (maize) to go around!

Outstanding **maize** available export quantities: overall, sufficient supplies globally.

2021/22 Export forecasts of major exporters



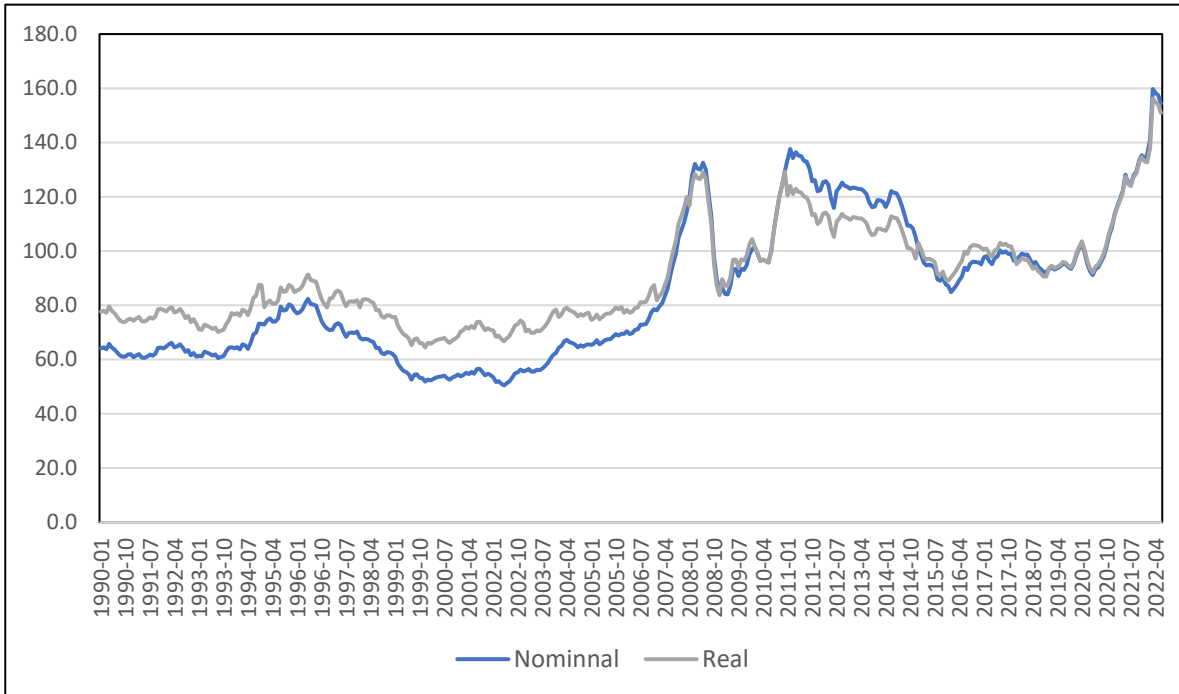
Change in 21/22 maize export forecasts since Ukraine conflict



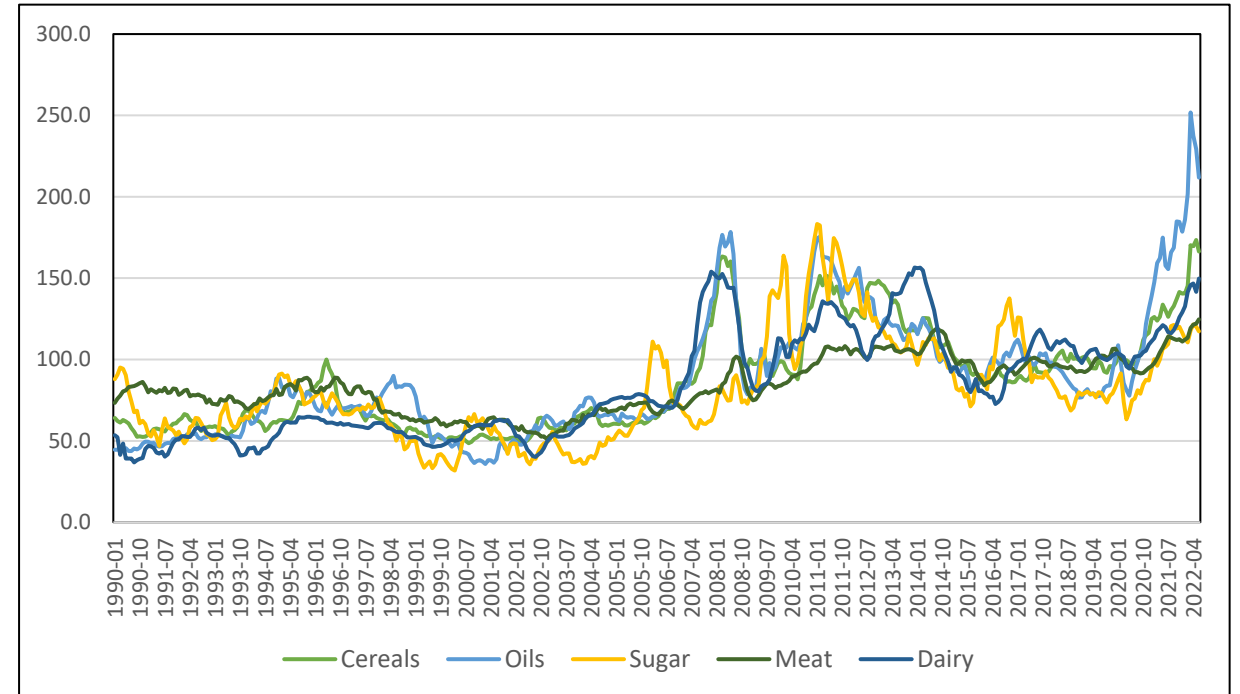
# Evolution of Food Commodity Prices

The FAO Food Price Index (FFPI) reached an all-time high in March 2022. It dropped slightly in April, May and June 2022, but food prices remained very high relative to historical levels, affecting almost all food categories.

FAO Food Price Index, January 1990 to June 2022 (2014-16=100)



FAO food commodity price indices in nominal terms (2014-16=100)



# Record costs for food imports globally, but vulnerable countries are no longer able to pay the higher prices

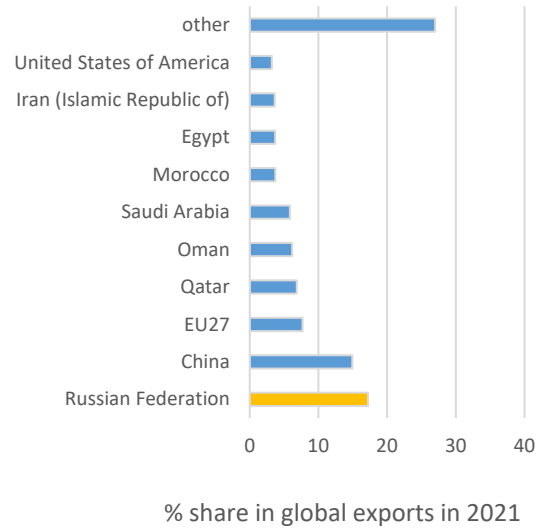
Food import bills, USD billion				
	2019	2020	2021	2022*
World	1 448.0	1 491.5	1 756.0	1 807.0
Developed	917.1	921.3	1 044.2	1 091.4
Developing	530.9	570.2	711.7	715.6
LDCs	35.7	37.9	48.2	45.8
NFIDCs	100.9	106.0	127.0	128.3
SSA	46.6	46.0	54.9	56.4

Decomposition of changes in FIBs, 2022 over 2021				
	Price effect	Volume Effect	Mixed effect	Observed change
USD billions				
World	49.3	1.8	-0.1	51.0
Developed	30.7	15.5	1.0	47.2
Developing	18.7	-13.6	-1.3	3.8
USD millions				
LDCs	135	-2 786	229	-2 422
NFIDCs	4 087	-2 241	-548	1 298
SSA	2 255	-916	192	1 531

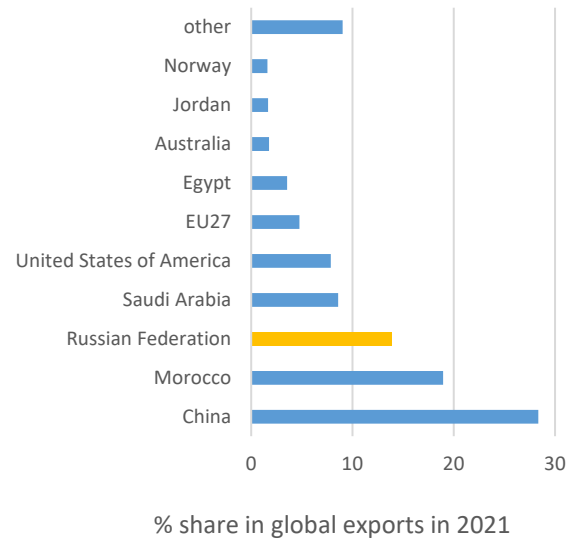
**One big difference with previous crises:  
Fertilizers**

# High Concentration on the source of global fertilizer supplies

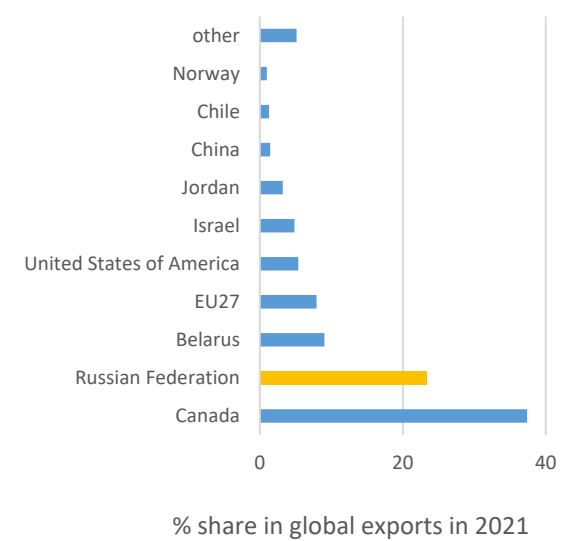
Top 10 exporters of **N-Fertilizer**



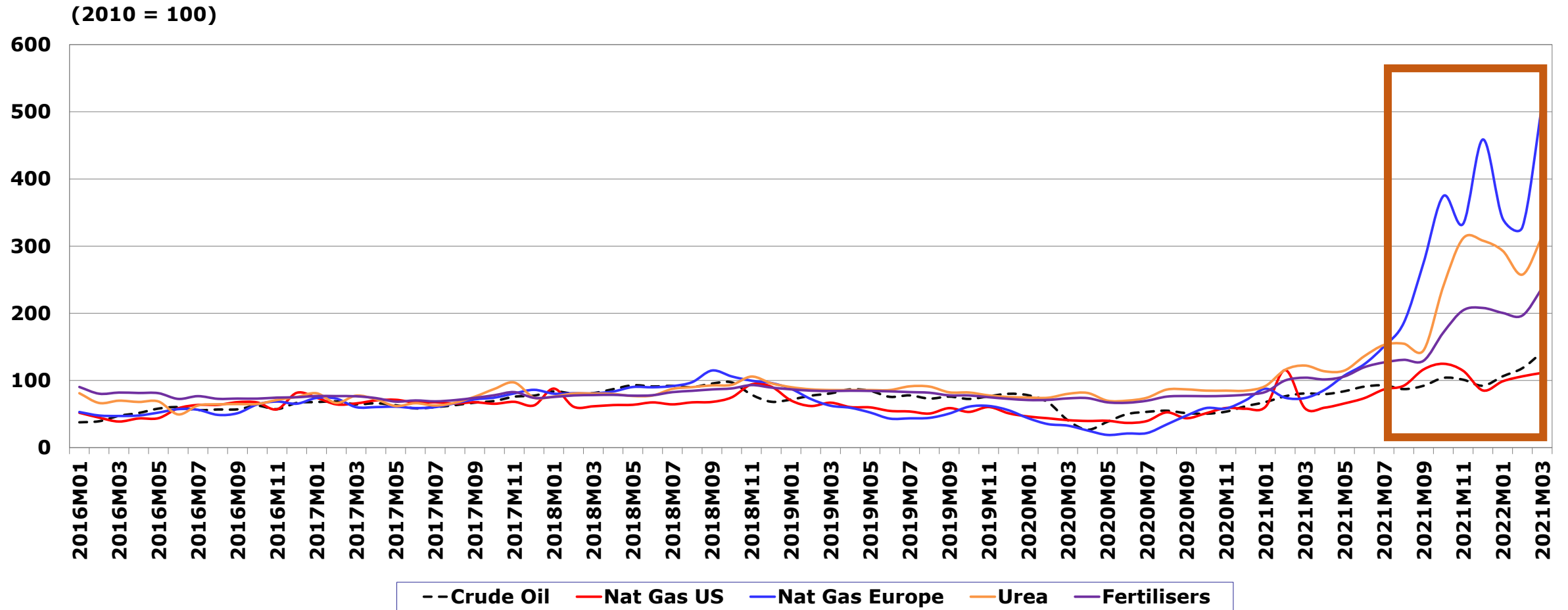
Top 10 exporters of **P-Fertilizer**



Top 10 exporters of **K-Fertilizer**



# Energy and Fertilizer Prices (monthly nominal indices)

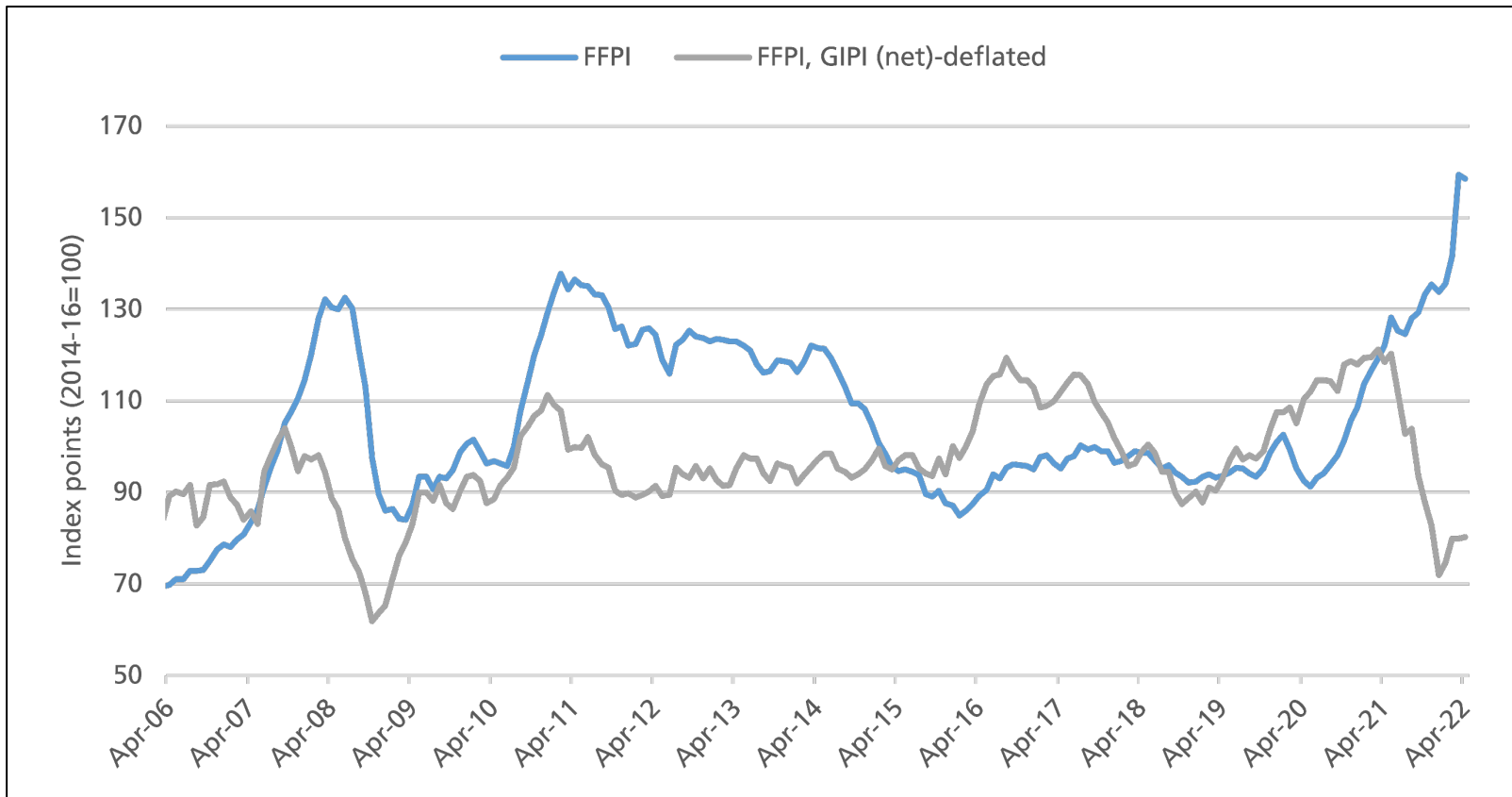


Source: World Bank.

Note: Monthly indices (average 2010=100).

# 'Real' Output Prices of Food

As a consequence of the rising input prices, real farmers incomes have declined significantly. It can be seen that the real output prices of food fell by more than 20 percent from the index base by April 2022 (2014–2016=100).



Real prices accrued by farmers are low and falling.

Faced with lower incomes, farmers have no economic incentives to step up production, which could lead to a prolonged phase of high food prices.

# Keep trade Open

## Evolution of the share of global trade, in calories, impacted by export restrictions

Daily update. Includes food, feed and other uses of food products.



X-axis shows the week of the year. 1= first week of the year.

Chart: David Laborde • Source: IFPRI



**From an access crisis in 2022 to an availability crisis in 2023?**

**→ 2022 is an access crisis**

**→ 2023 could be come an availability crisis**

## Expect lower harvests in, and exports from the Ukraine in 2022/23

	2020/21	2021/22	2022/23	Change between 2021/22 and 2022/23
	Million metric tonnes			
<b>Cereals</b>				
Production	64.6	85.3	48.1	-37.2
Exports	44.4	46.0	???	>-37.2
<b>Oilseeds</b>				
Production	22.6	23.1	16.3	-6.8
Exports	5.2	5.1	???	>-6.8

**Thank you!**