

Impact of Geopolitical Conflicts In 2023-2024

- **A.** <u>Ukraine-Russia War?</u> What are the prospects for the War's <u>de-escalation</u> & continuing <u>grain trade agreements?</u> <u>Ukraine reconstruction</u> is likely to cost \$trillions over 10 -15 years, even once fighting stops
- **B.** <u>China-Taiwan?</u> For PR China (GDP PC \$19k, under 5%) it is well known that the property bubble has burst, <u>state-owned banks</u> are holding <u>worthless debt</u>, & <u>local</u> governments have inadequate revenue to bear the costs of managing the pandemic. At some point such issues will need to be resolved & it will be economically painful.
 - Underlying this with <u>continued worry about China's intentions towards Taiwan</u>. IF the situation escalates, it would impact the <u>global economy</u>, along with <u>U.S. grain trade</u>
 - o Impacting U.S. soybeans, grain sorghum, wheat, corn & all U.S. agricultural markets

Current Market Outlook & Issues U.S. Dollar – Federal Funds Interest Rate



20 Year Chart Monthly - September

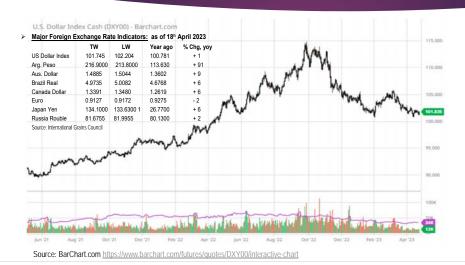
Federal Funds Rate - 5.50%

Interbank Rate in the United States is expected to be 5.50 percent by the end of this quarter.

Interbank Rate in the United States averaged 3.53 percent from 1986 until 2023, reaching an all time high of 10.63 percent in March of 1989 and a record low of 0.11 percent in September of 2021. This page provides - United States Interbank Rate- actual values, historical data, forecast, chart, statistics, economic calendar and news. US Dollar LIBOR Three Month Rate - values, historical data and charts - was last updated on April of 2023

Source: Federal Reserve.

Current Market Outlook & Issues U.S. Dollar Index - Cash



Monthly - Nearby

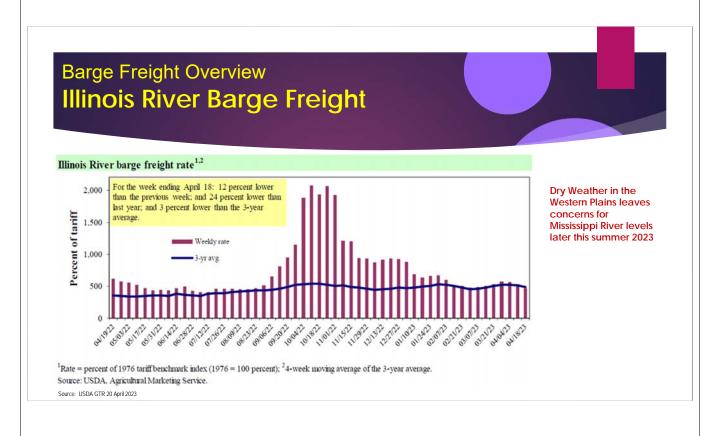
3rd Week of April 2022 101.831 High = 114.778

The US Dollar Index The dollar strengthened sharply against a basket of major currencies on Tuesday, pushing the DXY towards the 102 mark on the back of a flight to safety as concerns about the banking system resurfaced following disappointing earnings from First Republic Bank and UBS.

from First Republic Bank and UBS.
On top of that, the Federal Reserve will likely deliver another 25bps rate hike next week as signs of persistent inflation suggest the tightening cycle is not over yet. Still, money markets are now pricing in the peak for US interest rates in June and then a decline to end the year below 4.5%. Investors now look ahead to first-quarter GDP data and April consumer sentiment data for more clues on the state of the economy and more earnings reports from major US firms.

This dollar's strength was seen across the board, with some of the most pronounced buying activity against risk-sensitive currencies such as the Australian dollar.

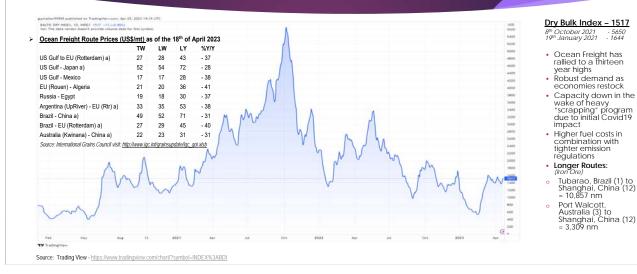


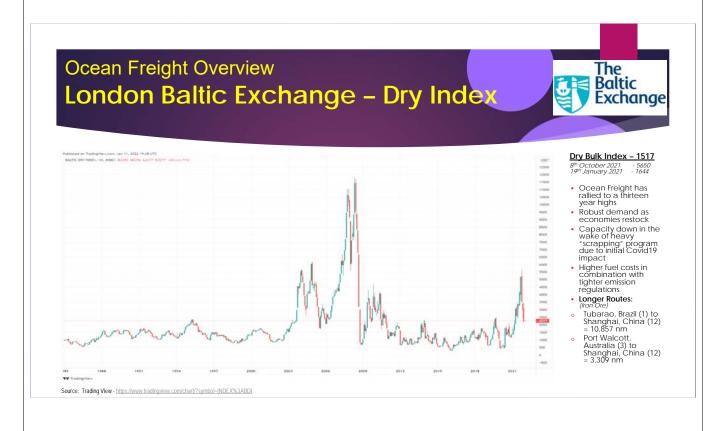


Ocean Freight Overview London Baltic Exchange - Dry Index



(Iron ore)
Tubarao, Brazil (1) to
Shanghai, China (12)
= 10,857 nm
Port Walcott,
Australia (3) to
Shanghai, China (12)
= 3,309 nm







International Grain Market Trends 2023/2024

- 1) Historically tight 2023 Global Corn, Wheat & Oilseed Stocks
 - Following 3 years of disruptive La Nina weather patterns
 - Occurring &/or Anticipated in 2023-2024:
 - o Drought in Argentina &
 - o Smaller Crops & Exports from **Ukraine**
 - o Expected emergence of El Nino weather pattern in May-June 2023

April 13 ENSO Diagnostic Discussion

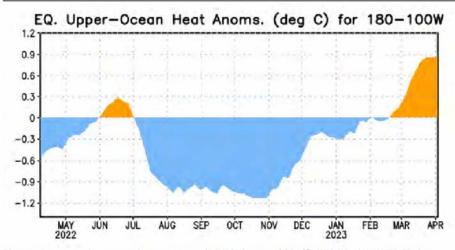


Figure 1: Area-averaged upper-ocean heat content anomaly (°C) in the equatorial Pacific (5°N-5°S, 180°-100°W). The heat content anomaly is computed as the departure from the 1991-2020 base period pentad means.

ENSO Alert System Status: El Niño Watch

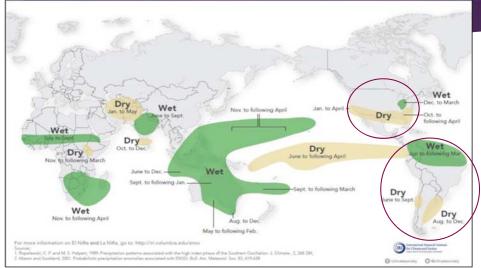
Synopsis: ENSO-neutral conditions are expected to continue through the Northern Hemisphere spring, followed by a 62% chance of El Niño developing during May-July 2023.



Current and Forecast Status of El Nino

• El Nino conditions are present. Positive equatorial sea surface temperature (SST) anomalies continue across much of the Pacific Ocean. There is a greater than 90% chance that El Nino will continue through the upcoming winter.

Weather Impacts Southern Oscillation Index – La Nine



 $\textbf{Source:} \underline{\text{https://www.civilaffairsassoc.org/post/impacts-of-la-ni\%C3\%B1a-on-global-agriculture-what-can-the-u-s-army-do-about-iterations} \\$

<u>Dry</u>

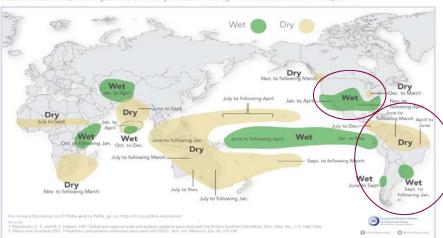
- Southern U.S.
- Argentina
- S. Brazil
- Middle East
- S. India
- East Central Africa

Wet

- N. South America
- Australia
- Indonesia
- Philippines
- Central & Northern India
- Sud-Sahara Africa
- Southern Africa

Weather Impacts Southern Oscillation Index – El Nino

El Niño conditions in the tropical Pacific are known to shift rainfall patterns in many different parts of the world. Although they vary somewhat from one El Niño to the next, the strongest shifts remain fairly consistent in the regions and seasons shown on the map below.



Wet

N. South America

East Central Africa

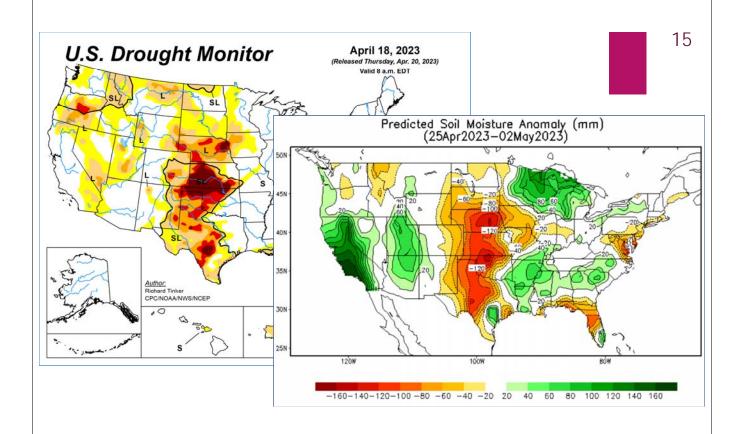
Southern U.S. Argentina

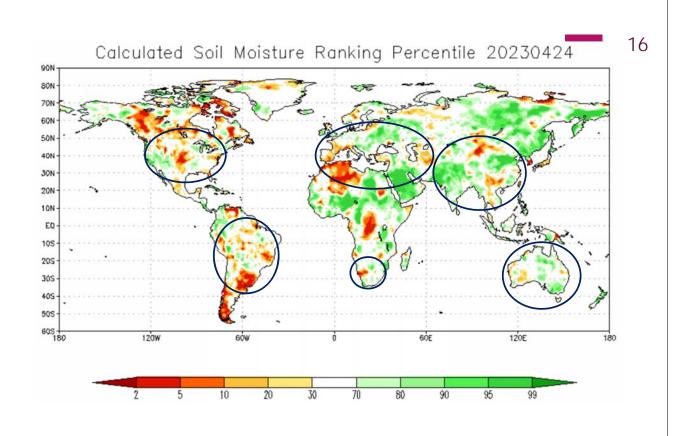
Middle East S. India

S. Brazil

- Australia
- AustraliaIndonesia
- Philippines
- Central & Northern India
- Sud-Sahara Africa
- Southern Africa

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What to anticipate in Year 2023

- 2023 Spring Planting of U.S. Feedgrains & Oilseeds
 - With <u>tight stocks</u> across crops any threats to planting 2023 U.S.
 <u>corn</u> or <u>soybeans</u> could cause *STRONG* price volatility
 - o NOV²⁰²³ Soybean futures @ \$12.66 /bu 4/25/2023
 - o DEC²⁰²³ Corn futures @ \$5.48 ½ /bu 4/25/2023 Neutral: Soybeans vs Corn
 - > 2023 "New" Soy/Corn \$ Ratio = \$12.66 ÷ \$5.48 1/4 = 2.31 (vs 2.30 Neutral)
 - Strong "new crop" price competition likely for 2023 planted acres
 between Feedgrains & Oilseeds ⇒ Likely in May 2023

Grain Market Outlook 2023......

- ☐ Overall Prospects for 2023 Crop Markets???
 - <u>U.S. Crop Prices supported @ Moderate-to-High Levels</u> <u>until</u> the time when grain markets are confident of <u>larger crops</u> & <u>rebuilding of stocks</u>
 - <u>THEN</u> the *risk* to grain sellers is that crop markets will mostly discount the possibility of "short crops" in 2023
 - ⇒ <u>IF</u> in Summer ²⁰²³ <u>U.S. & Foreign crop prospects</u> are "OK-to-Good", <u>THEN</u> grain markets are likely "slide" lower into Fall 2023

What to anticipate: Year 2023

- □ USDA Reports ⇒ Often a "driver" of grain market volatility
 - WASDE: 1/12, 2/8, 3/8, 4/8, upcoming 5/12**, 6/9, 7/12, 8/11, 9/12.....
 - Planted Area: USDA Acreage Report June 30th
- "Strong" Feedgrain Basis likely in the U.S. Western Corn Belt

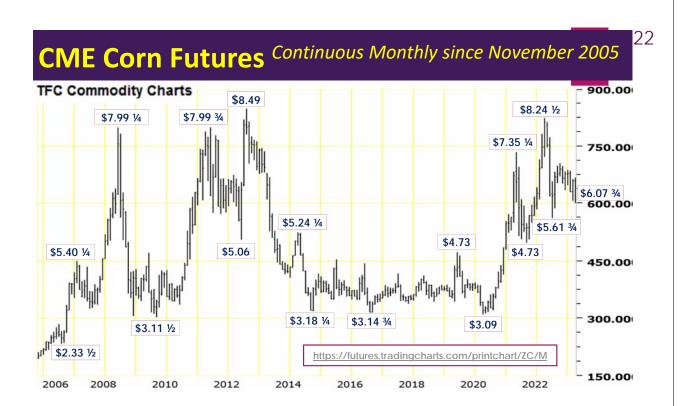
 - Summer demand for "New Crop" supplies (i.e. "users scrambling!")

Corn & Coarse Grain Markets



Key Trends in Global Coarse Grains

- 1) "Tight" World Corn Ending Stocks & % Stocks-to-Use in "Current" MY 2022/23
 - o Low beginning stocks + uncertain crop prospects for "New Crop" 2023/24
- 2) An "at-risk" **2023 Brazilian Corn 2**nd **crop** planted late & vulnerable to late-season hot weather impacting crop development
- 3) Market anticipates a "Normal" 2023 U.S. Corn Crop, with moisture coming from an emerging "El Nino" weather pattern (BUT are still at risk!!!)

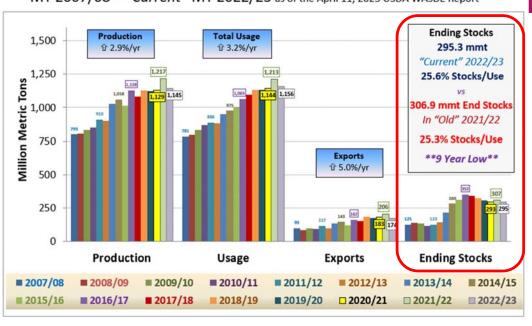


CME Corn Futures Continuous Weekly to 4/25/2023



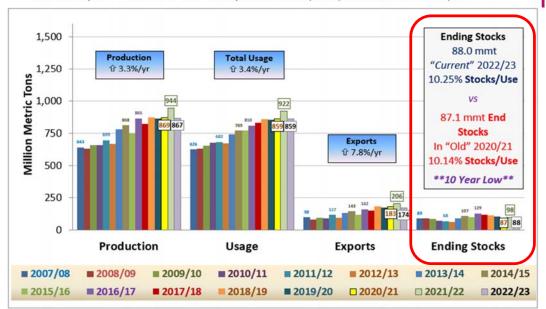
World Corn Supply-Demand

MY 2007/08 - "Current" MY 2022/23 as of the April 11, 2023 USDA WASDE Report



"World Less-China" Corn Supply-Demand

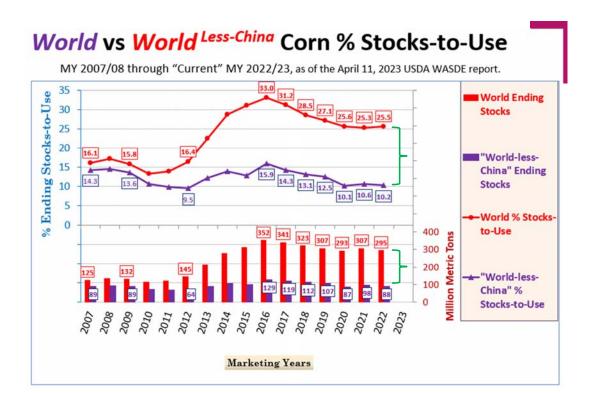
MY 2007/08 - "Current" MY 2022/23 as of the April 11, 2023 USDA WASDE Report



"World Less-China" Corn Supply-Demand

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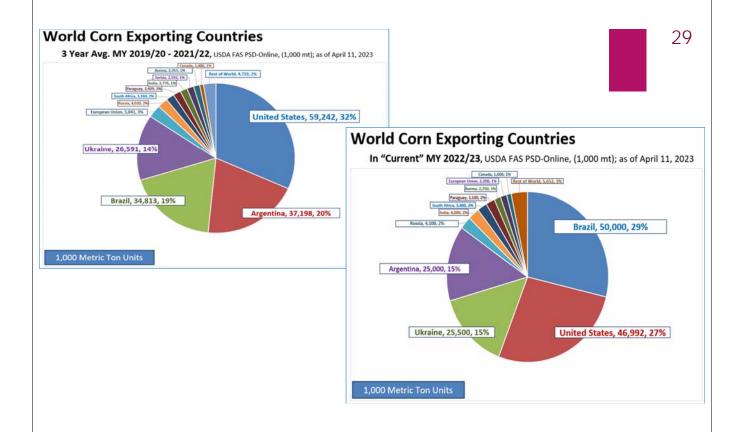


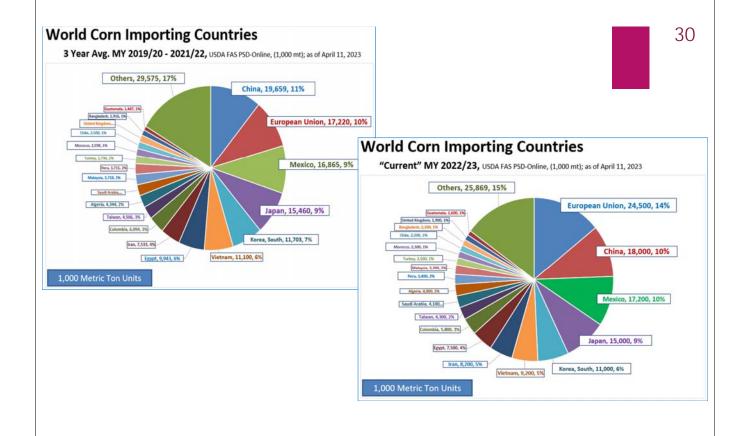


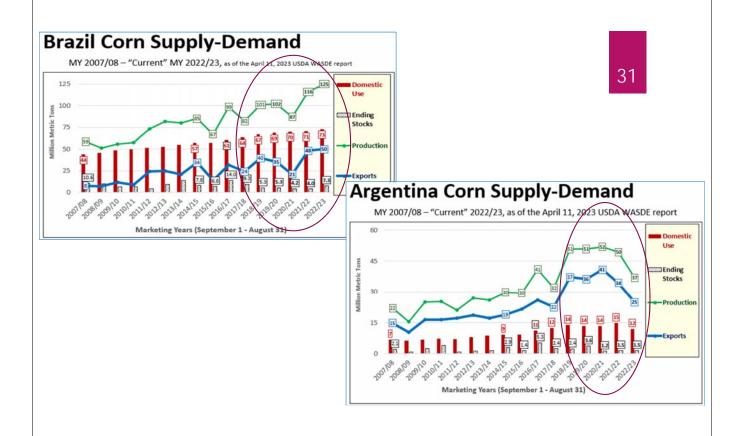
U.S. Corn \$USD\$ Adj. vs World Less-China % S/U

MY 2007/08 - "Current" MY 2022/23 as of the April 11, 2023 USDA WASDE Report









South America Corn-Soybean Calendar

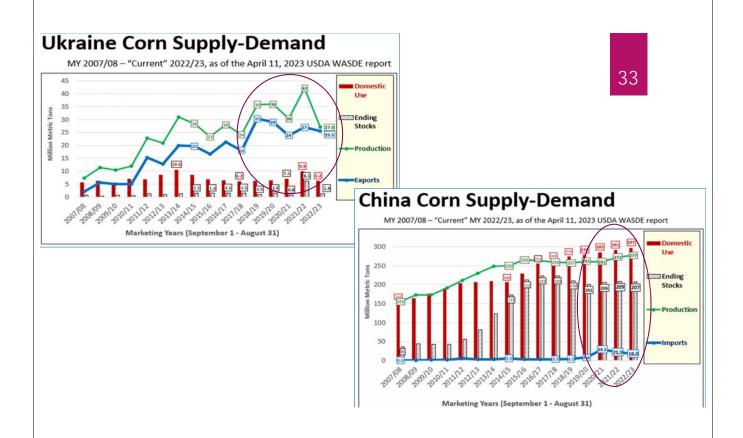
- □ South America Planting Influences ⇒ "Bid for Acres"
 - Brazil & Argentina Corn & Soybean Crop Calendar

o Brazil

- Corn: 1st crop Planting October-December
- Soybeans: Planting October-December
- Corn: 2nd crop *Planting* January-February
- ⇒ Harvest: March-June
- ⇒ <u>Harvest</u>: March-June

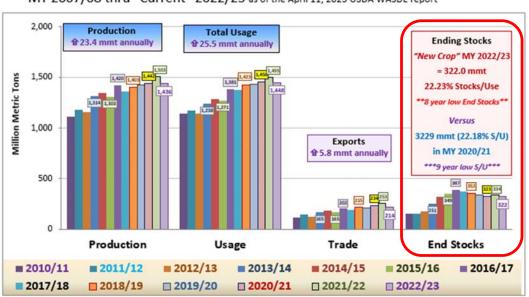
Argentina

- Corn: Planting mid September-December
- Soybeans: 1st crop Planting November-December ⇒
- <u>Harvest</u>: Late March-early May
- Soybeans: 2nd crop Planting December-early Jan. ⇒
- *Harvest*: mid April mid June



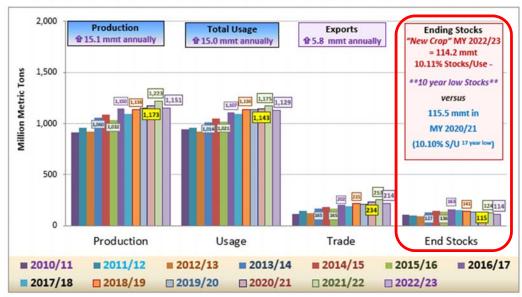
World Coarse Grain Supply-Demand

MY 2007/08 thru "Current" 2022/23 as of the April 11, 2023 USDA WASDE report



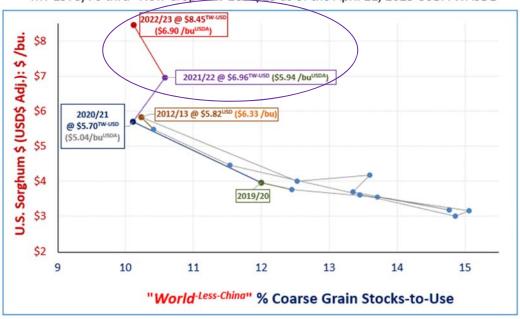
"World Less-China" Coarse Grain S-D

MY 2007/08 thru "New Crop" 2022/23 as of the April 11, 2023 USDA WASDE report



U.S. Sorghum \$'s USD\$ Adj. vs World Coarse Grain Less-China % S/U

MY 1975/76 thru "New Crop" MY 2022/23 as of the April 11, 2023 USDA WASDE











KANSAS STATE

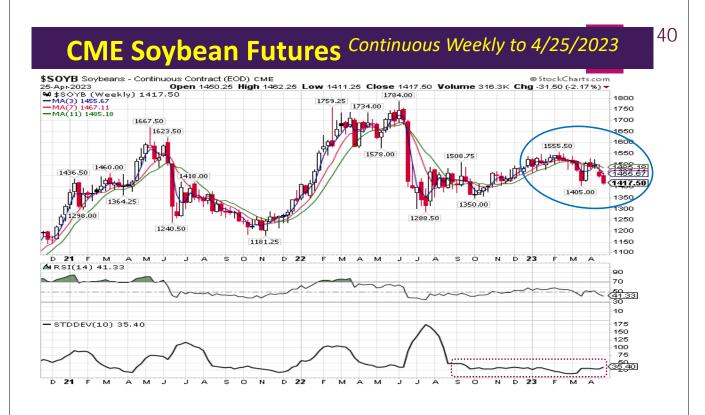
Department of Agricultural Economics

Key Trends in Global Soybean Markets

- 1) Market anticipates a <u>record large</u> 2023 Brazil Soybean crop
 o Offsetting "most" of the historic "short" soybean crop in Argentina
- 2) China's preference to import <u>non-U.S.</u> soybeans & other oilseeds

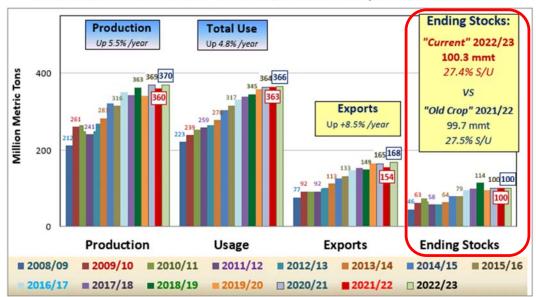
 ⇒ Negative impact on U.S. soybean exports
- 3) 2023-2024 Oilseed Market questions...
 - a) U.S. & South American soybean planted area & production ²⁰²³⁺
 - b) Next 3-5 year <u>U.S. & Global renewable diesel production</u> trends





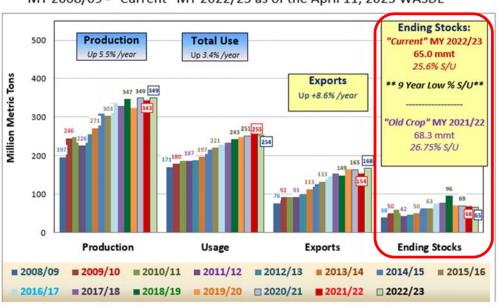
World Soybean Usage & End Stocks

MY 2008/09 thru "Current" MY 2022/23 as of the April 11, 2023 WASDE



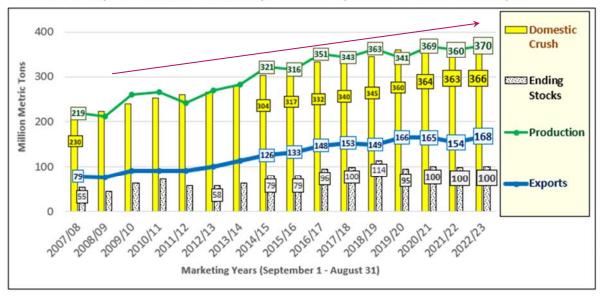
World Less-China Soybean Use & End Stocks

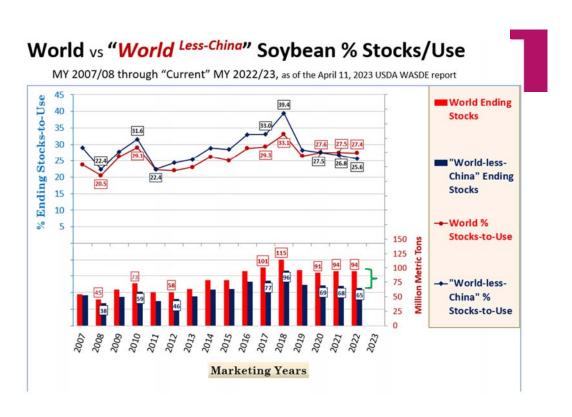
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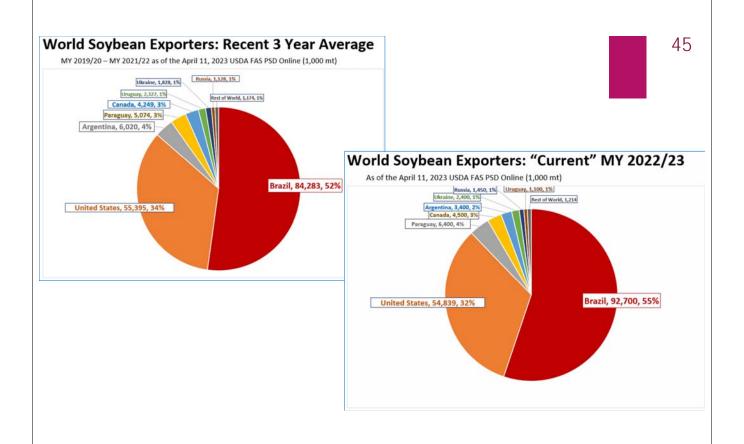


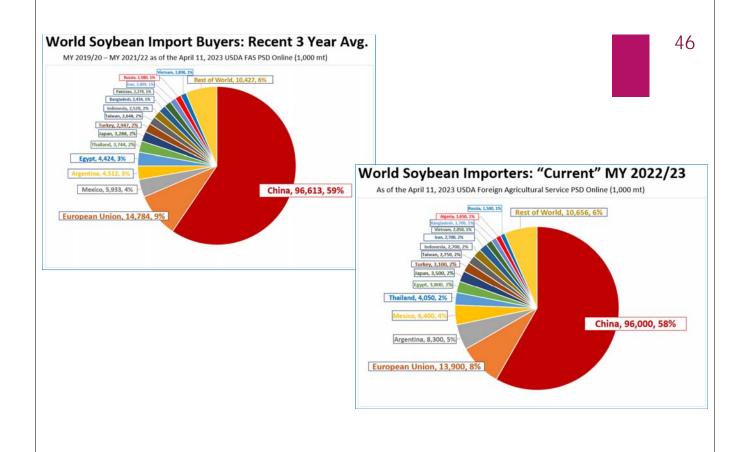
World Soybean Supply-Demand

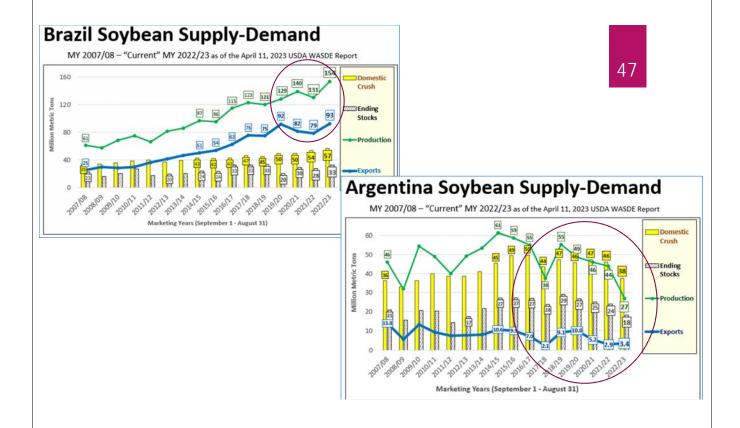
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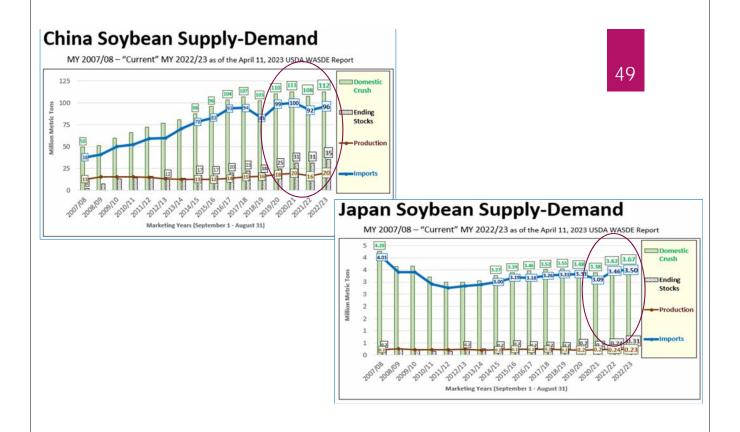
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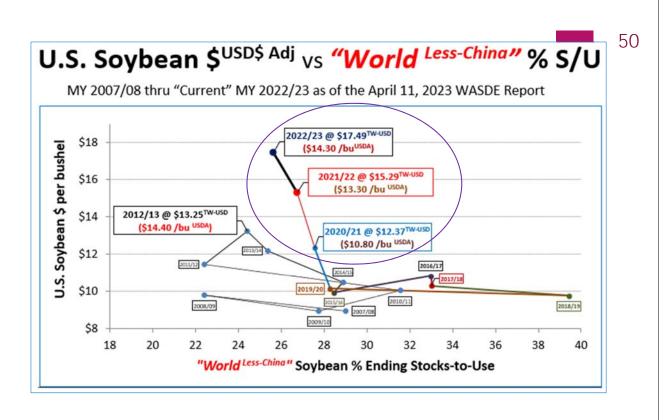
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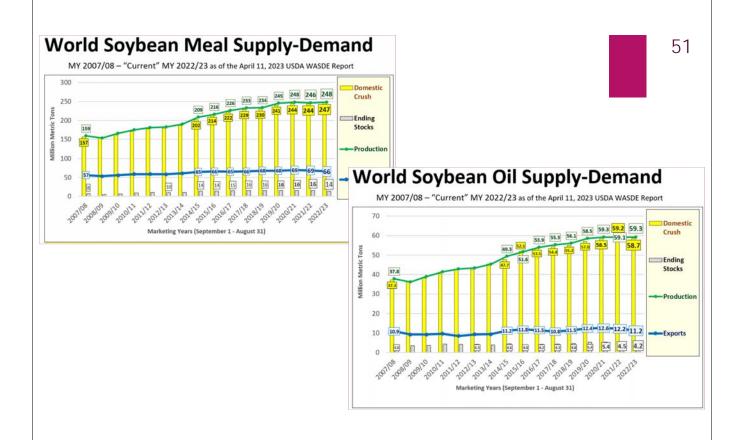
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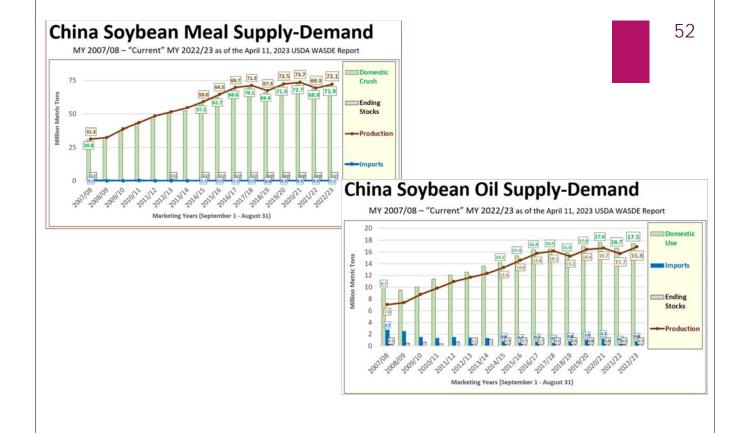
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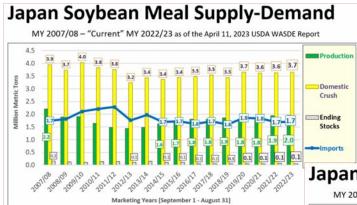
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 - *Harvest*: mid April mid June













Japan Soybean Oil Supply-Demand MY 2007/08 – "Current" MY 2022/23 as of the April 11, 2023 USDA WASDE Report





Key Trends in Global Wheat Markets

- 1) Historically "tight" World Ending Stocks & % Stocks-to-Use in "Current" MY 2022/24
 - o Will supply-demand balances *rebuild* in "New Crop" MY 2023/24?
- 2) Ukraine|Russia trade arrangements are "On-again / Off-again" adding "geo-political swing factors" into global wheat markets
- 3) Anticipating **2023/2024 "El Nino" weather impacts** on wheat crops in Australia^(‡), North America ^(+/-), Europe, Black Sea, & elsewhere



CME HRW Wheat Futures Continuous Weekly to 4/25/2023



World Wheat Usage & Ending Stocks

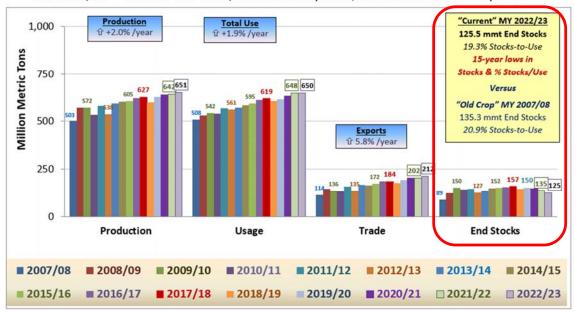
MY 2007/08 - "Current" 2022/23 as of the April 11, 2023 USDA WASDE Report



58

"World Less-China" Wheat Usage & Ending Stocks

MY 2007/08 - "Current" MY 2022/23 as of the April 11, 2023 USDA WASDE Report



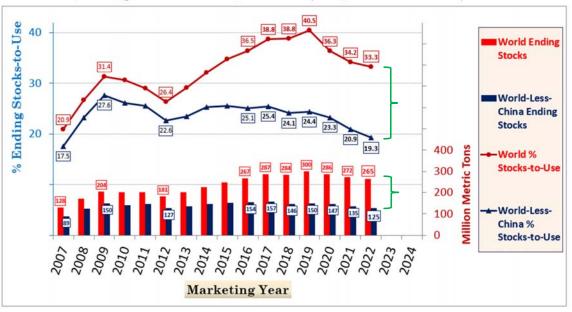
World Less-China Wheat Supply-Demand

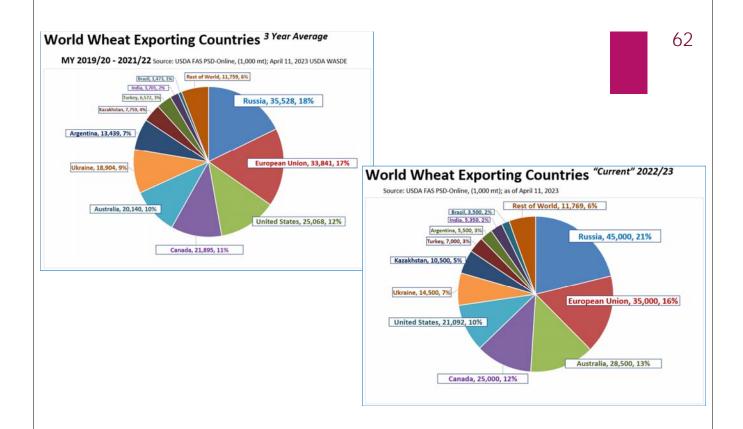
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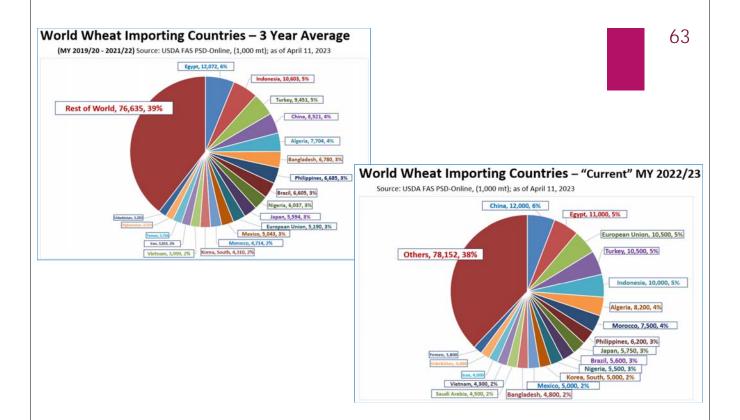


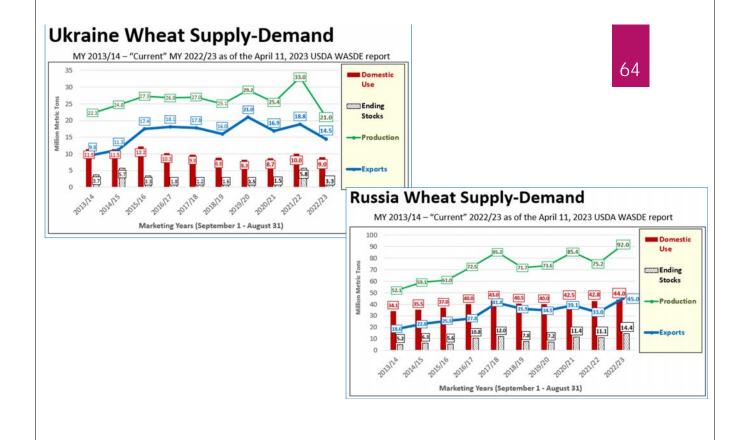
World vs "World Less-China" Wheat Stocks & % S/U

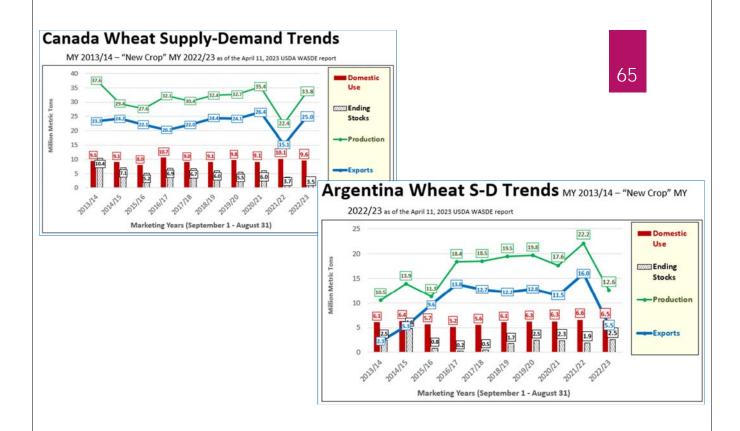
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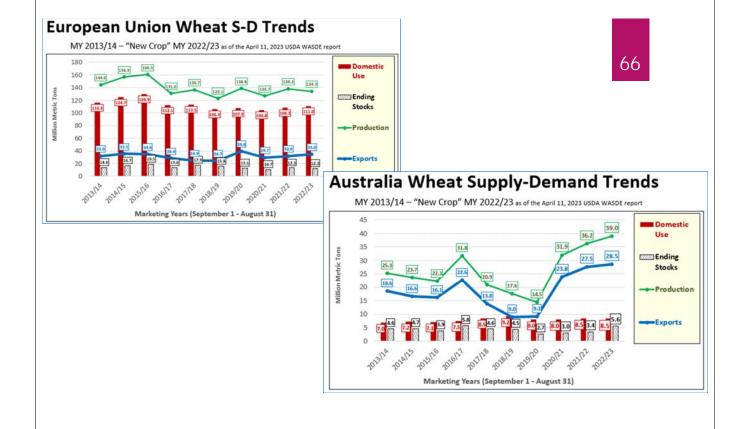


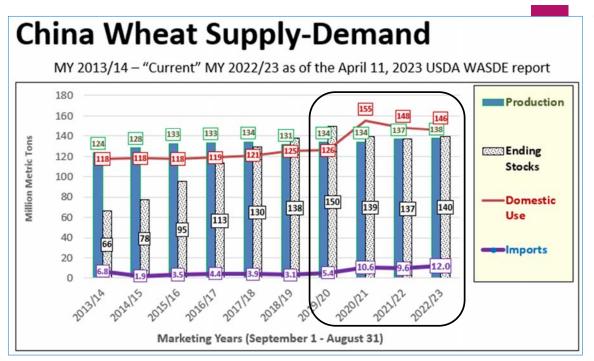


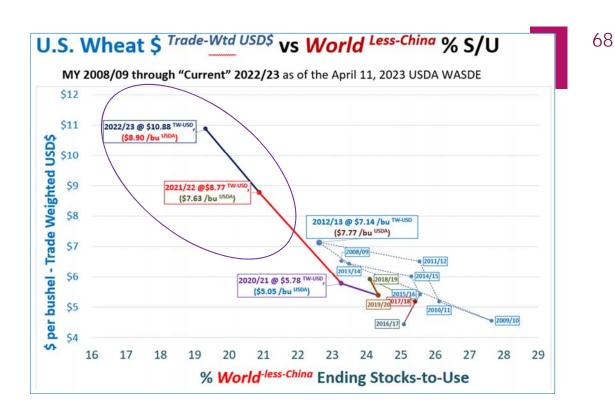












in Kansas, the U.S. & Globally

Record world production of Wheat and Oilseeds

- Record Wheat Production—789 mmts
- Record Soybeans Production—370 mmts
- Record Canola / Rapeseed Production—87.2 mmts
- Record Palm Oil Production—78 mmts
- 2nd Highest Corn Production—1,145 mmts

Countries at Risk IN 2023/24



A risk to the global economy is the rising number of states that have already failed, or are economically ready to collapse. We are facing more than a couple of "hot spots", a world in which there are a number of states that have already failed, along with many others that are facing immediate economic crises.

Rising food and energy prices may simultaneously escalate these situations, destabilizing these countries to levels which could result in an unmanageable challenge for the international community to successfully address.

On the following slides, GDP per Capita is used as a reasonable measure of the economic situation for a median household, and a recently reported inflation rate. As a baseline the US those figures are roughly GDP PC \$70,000 and 6% respectively.

Countries at Risk 2023/24......

Other Countries at Risk...

Europe

- Ukraine will cost trillions over 10 to 15 years, even once the fighting can be stopped.
- o **Germany** faces an unhappy future, as a mild winter allowed them to get through 2022-23; but will continue with stressed energy supplies.
- United Kingdom clearly falls into the category of countries that are "just doing terribly" post-Brexit failing to form new trading.

Countries at Risk 2023/24......

72

Other Countries at Risk...

Middle East

- Syria statistics from the war-torn are country are unavailable, but it's another country from which millions of people have fled.
- Yemen (GDP PC \$3,500, 17 percent) is locked in a civil war.
- o Lebanon (GDP PC \$14k) governments are perpetually undermined by sectarian militias.
- Turkey (GDSP PC \$30, 50 percent or more), a middle-income country, has a currency crisis due to its need to import energy and food.

Countries at Risk 2023/24......

Other Countries at Risk...

Africa

- o Sudan as one more failed state in the world as it slips back into civil war.
- o **Zimbabwe** continues to be the poster child of poor government and may have lost half its 15m population due to emigration and excess rates of death.
- o **South Africa** has a middle-income economy, but government corruption is pervasive. That saps legitimate entrepreneurial activity, misallocates capital, and discourages investment.

Countries at Risk ^{2023/24}......

74

Other Countries at Risk...

Asia

- Pakistan (GDP PC \$5,800, 50%+) is in desperate need of an IMF bailout to buy food and fuel, but the government repeatedly fails to offer the fiscal reforms needed.
- o Sri Lanka (GDP PC \$15k, at least 50%, similar to Pakistan.
- o North Korea (no reliable figures) appears stable, one of the poorest countries in the world.

Countries at Risk 2023/24......

Other Countries at Risk...

Americas

- Haiti (GPC PC \$3k, 44%) has no functioning government and roaming armed gangs terrorize the populace.
- Cuba there are no meaningful statistics for Cuba, but without the support of either Russia or Venezuela, the country faces dire economic circumstances.
- **Venezuela** has a decent (GDP PC \$17k) but is so mismanaged that the inflation rate exceeds 400% & at least 7 million citizens have fled the country.
- o **Argentina** should be an economic powerhouse with (GDP PC \$24k), but its economy is in tatters with a 100% inflation rate due to a century-long habit.

