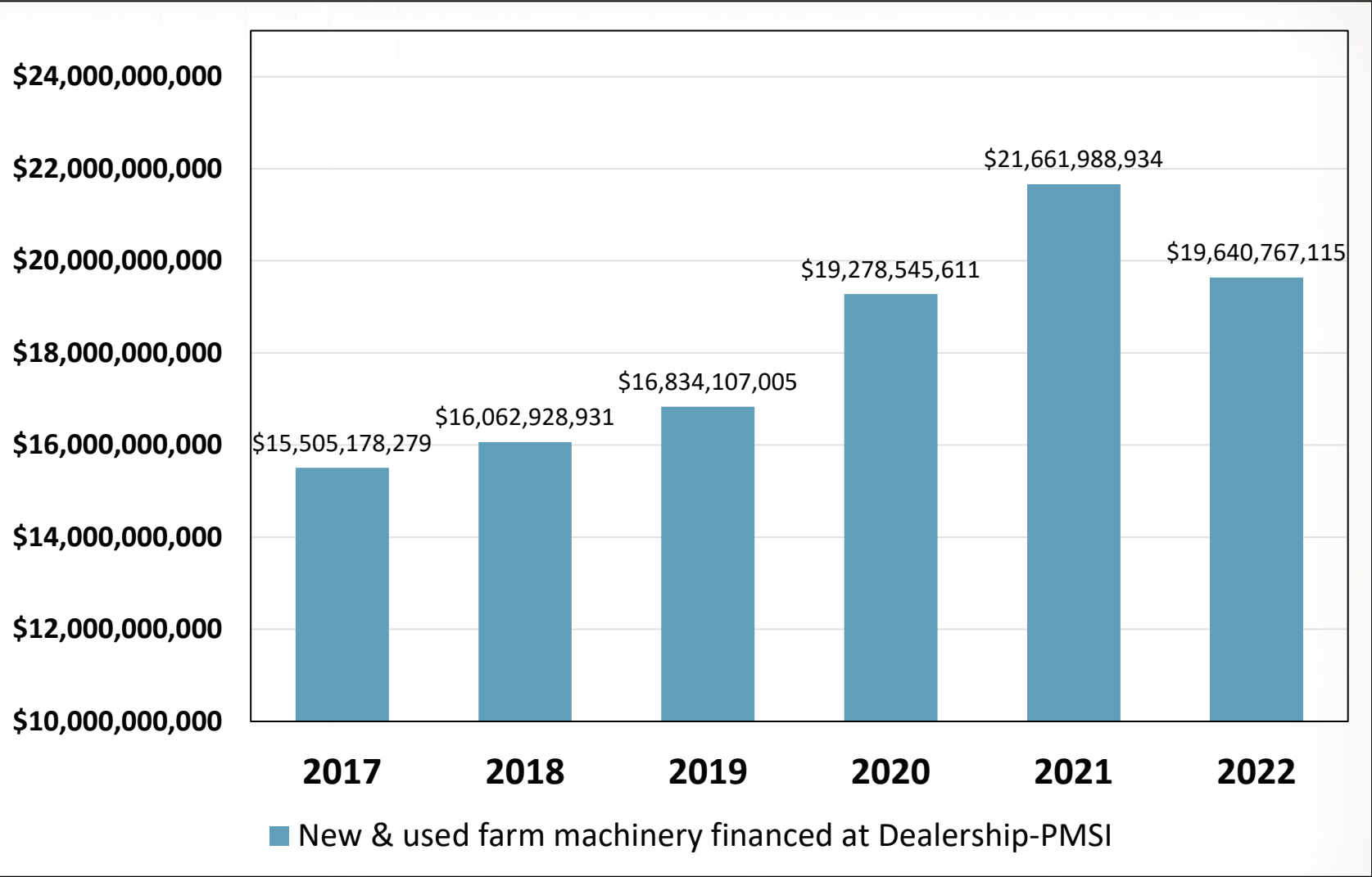


Ag Machinery Market Update

June 2023

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Ag Machinery Market

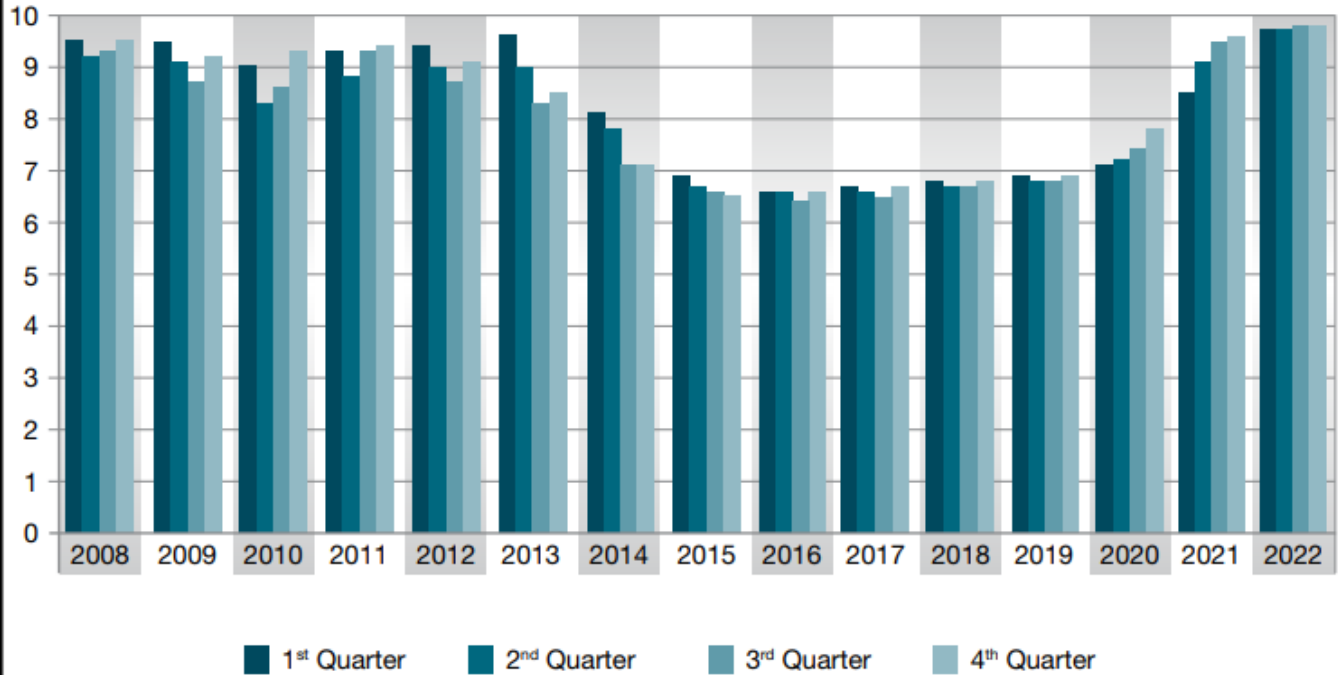




Used Values Index Through 4th Quarter 2022

**MACHINERY
PETE**

(Index rating includes all types of farm equipment)



Quarter	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
First	9.5	9.5	9.0	9.3	9.4	9.5	8.1	6.9	6.6	6.7	6.8	6.9	7.1	8.5	9.7
Second	9.2	9.1	8.3	8.8	9.0	9.0	7.8	6.7	6.6	6.6	6.7	6.8	7.2	9.1	9.7
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Fourth	9.5	9.2	9.3	9.4	9.1	8.5	7.1	6.5	6.6	6.7	6.8	6.9	7.8	9.6	9.8

2019-Present

- Government subsidies increased 107% from 2019-2020
- Strong recovery in commodity prices
 - Food security became priority during/after Covid
- Farmer optimism at an all-time high in fall 2020
- Unprecedented sales of farm machinery sold 2020-2022
- Record sales of farm machinery in 2021

- Demand outgrew supply causing delays & disruptions
- Price increases of 25-40% from inflation & market demand

Ag Economy Barometer

Index

200

175

150

125

100

75

03/16

03/17

03/18

03/19

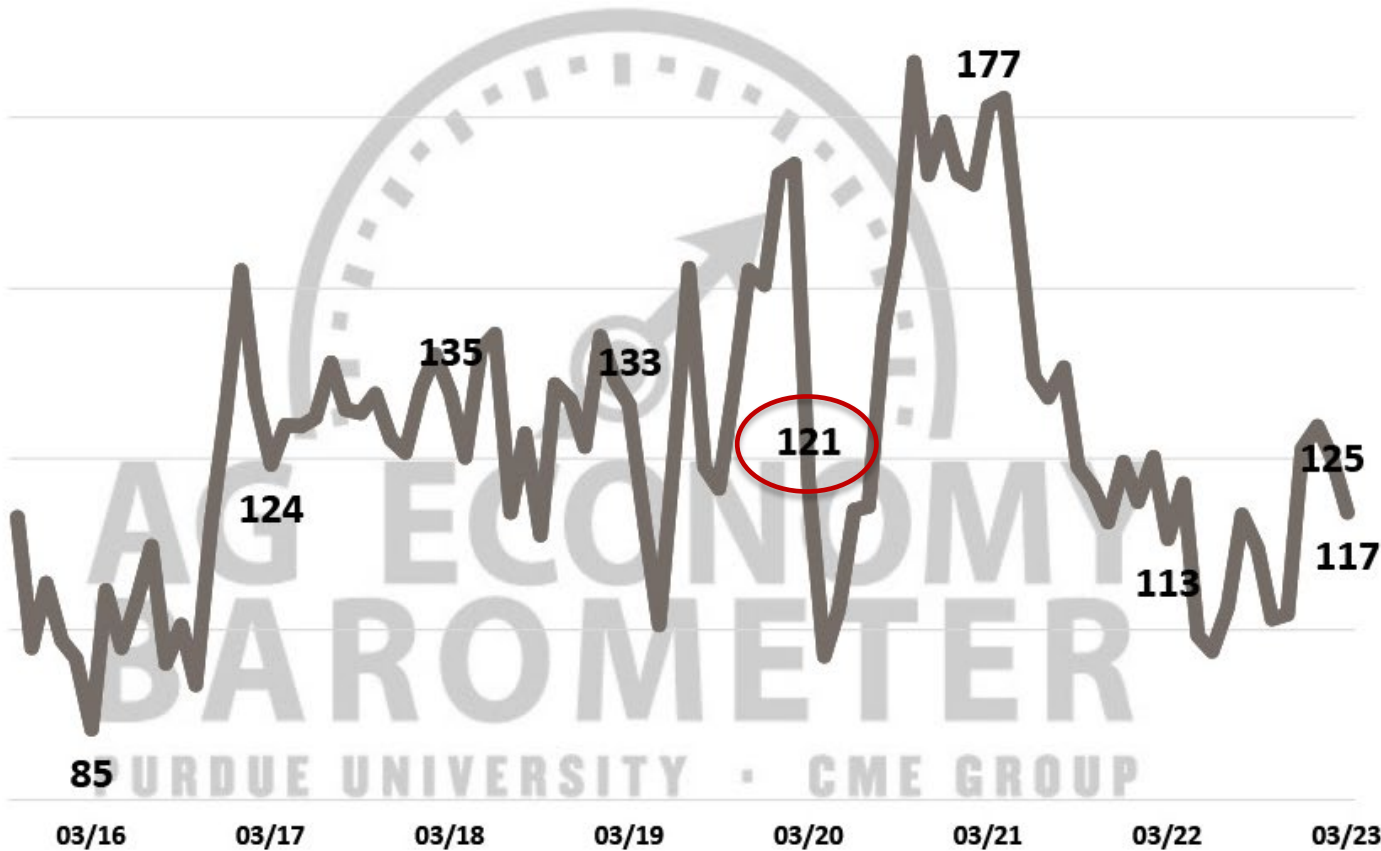
03/20

03/21

03/22

03/23

Month & Year



Source: Purdue University Center for Commercial Agriculture, Producer Survey, March 2023

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Categories > Production & Business Activity > Manufacturing > New Orders

★ **Manufacturers' New Orders: Durable Goods** (DGORDER)

DOWNLOAD

Observation:
Feb 2023: 268,356
(+ more)
Updated: Apr 4, 2023

Units:
Millions of Dollars,
Seasonally Adjusted

Frequency:
Monthly

1Y | 5Y | 10Y | Max

2013-02-01 to 2023-02-01

EDIT GRAPH

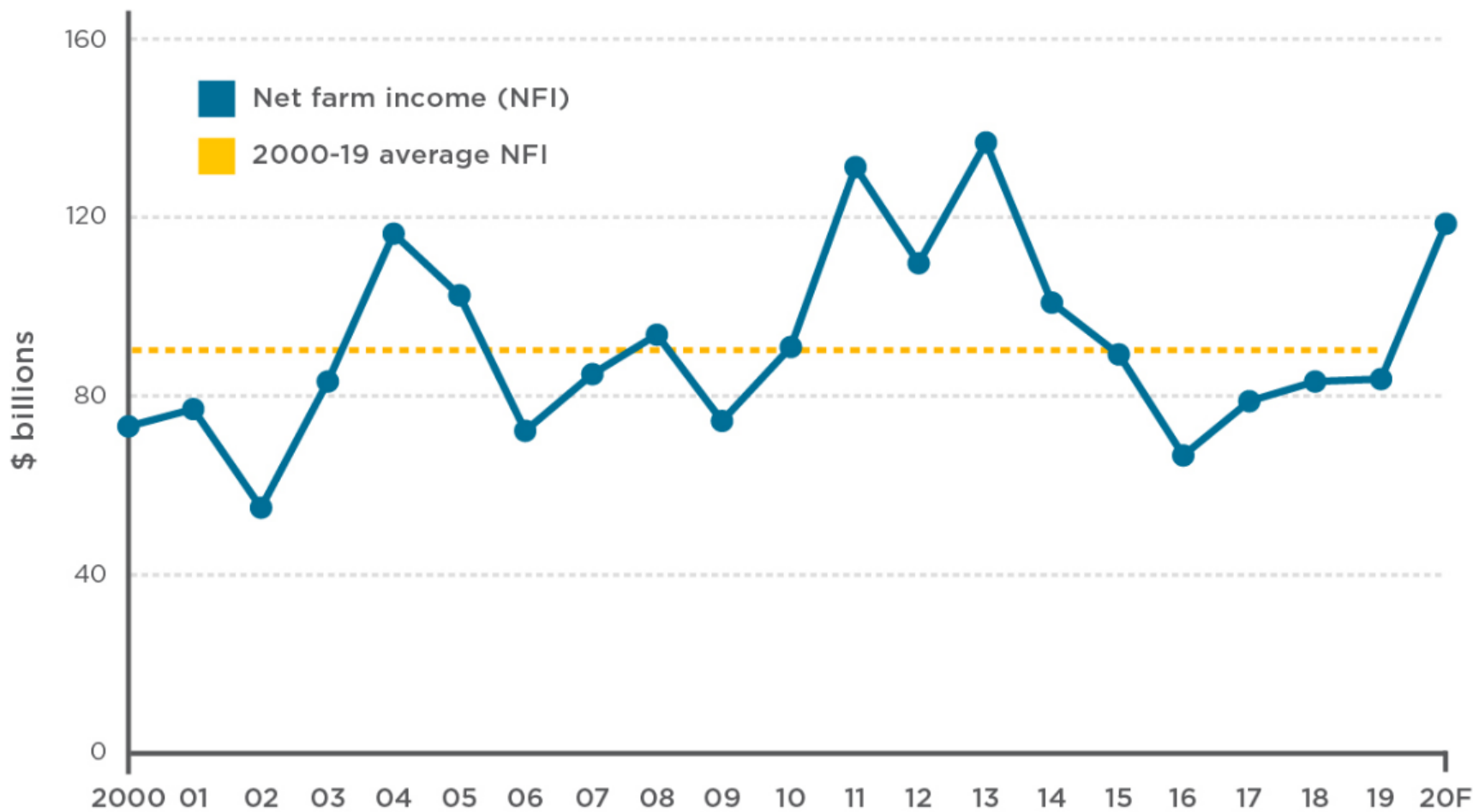
FRED — Manufacturers' New Orders: Durable Goods



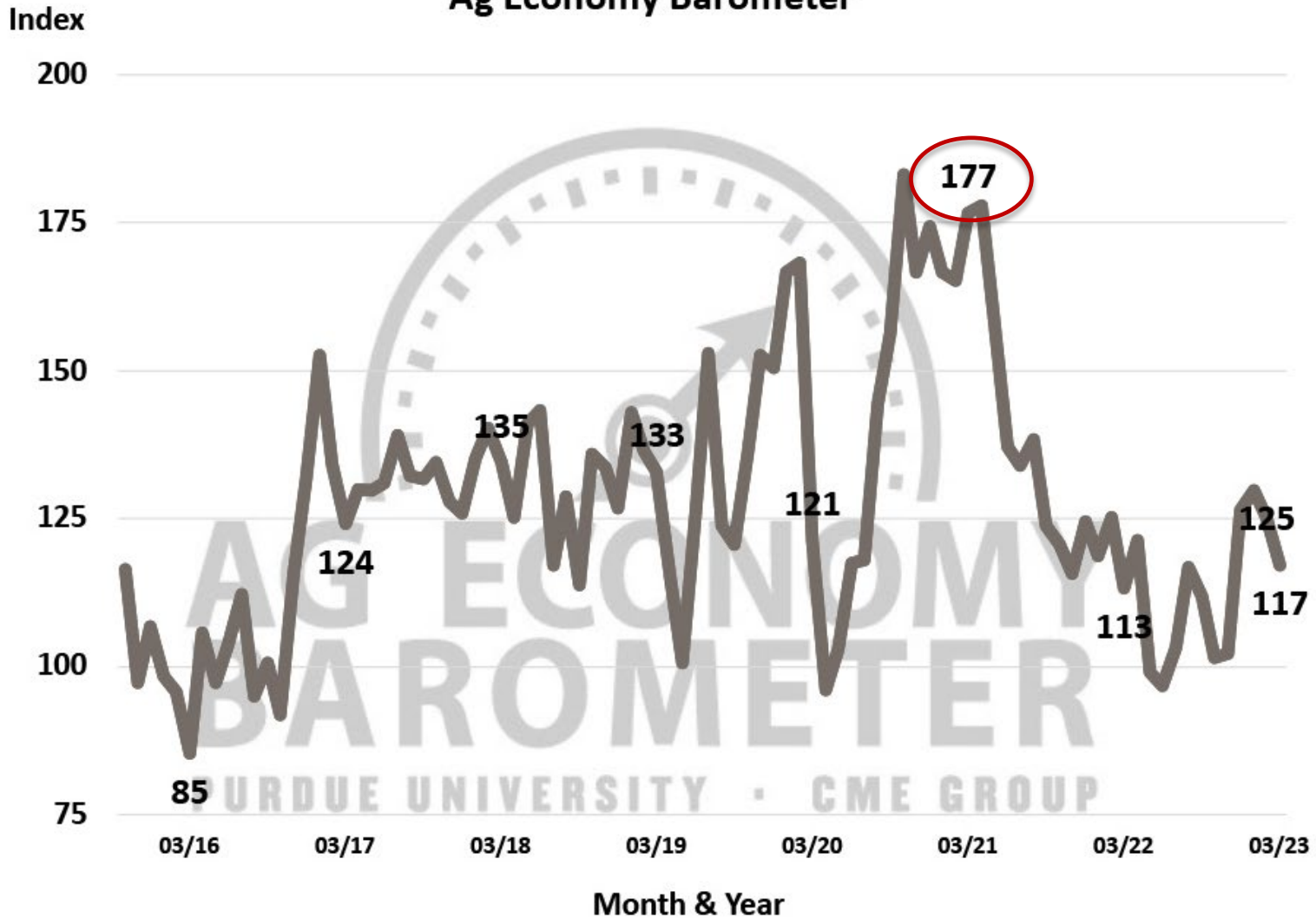
Between 2019 and 2020, total direct government payments to farms increased by over 107 percent, bringing the share of farm income from government payments to almost 40 percent. As the graphic below shows, that pushed 2020 farm income levels significantly above the 20-year average.



Net Farm Income, 2000-2020



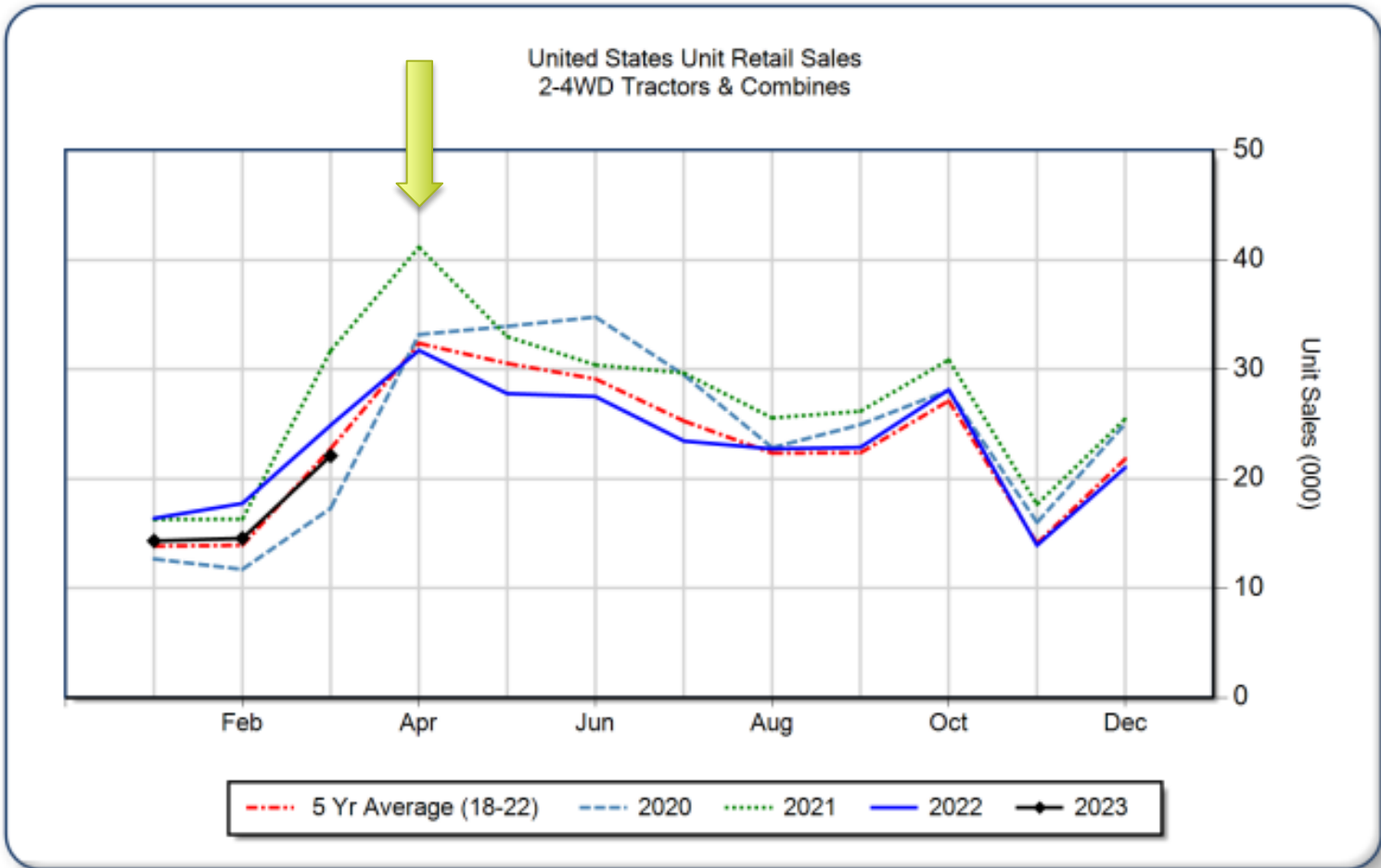
Ag Economy Barometer



Source: Purdue University Center for Commercial Agriculture, Producer Survey, March 2023

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Supply Chain

Nationwide Steel Shortage Leaves Farm Equipment in Short Supply



By Shea Swenson
Jan 19, 2023

“Our members are telling us that this is something they’ve never experienced.”



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Case IH Combine Plant – Grand Island, NE

Pictures taken 4/10/23



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What to expect for 2023-2024?

Ag Economy Barometer

Index

200

175

150

125

100

75

05/16

05/17

05/18

05/19

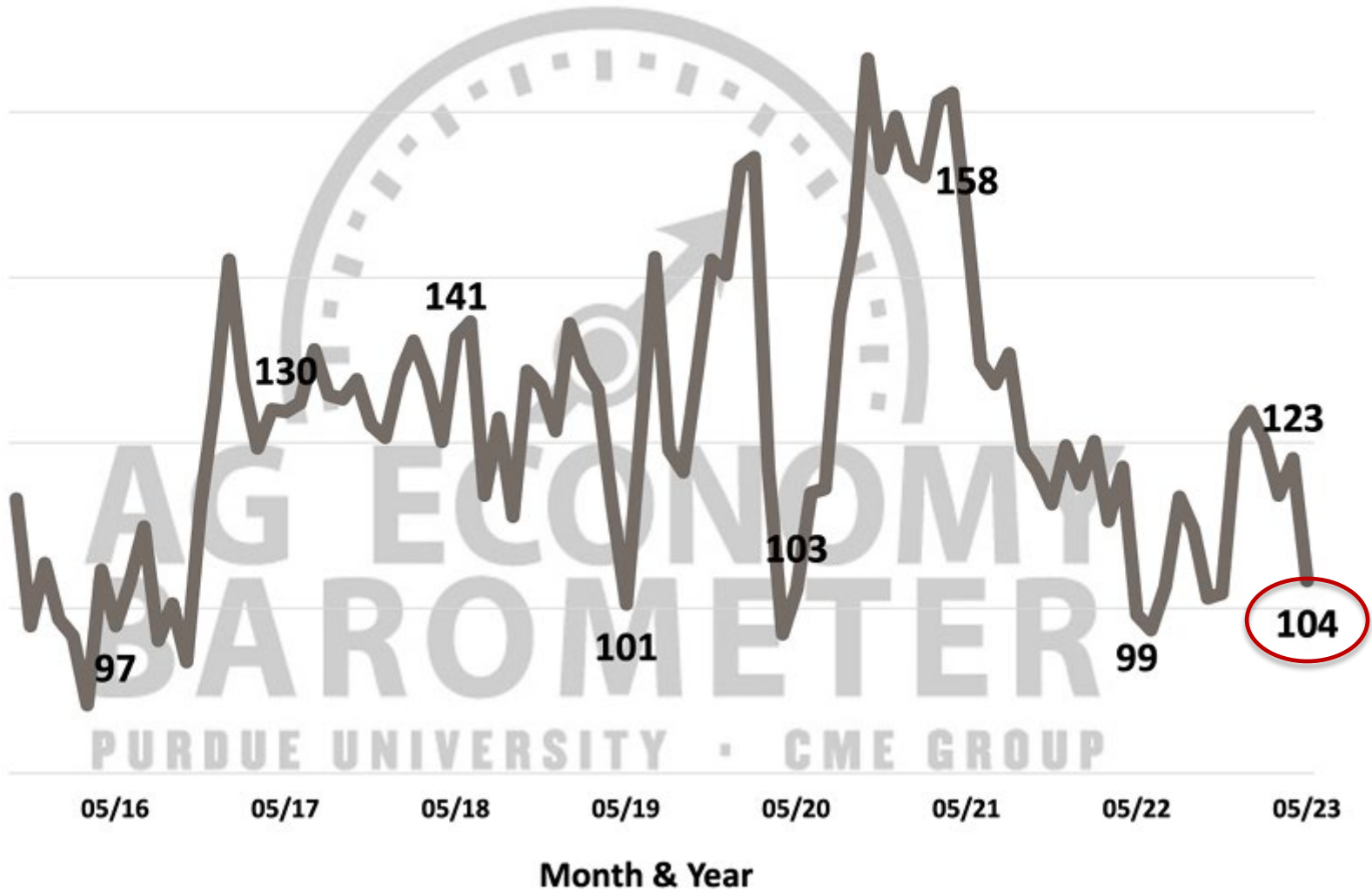
05/20

05/21

05/22

05/23

Month & Year



Source: Purdue University Center for Commercial Agriculture, Producer Survey, May 2023

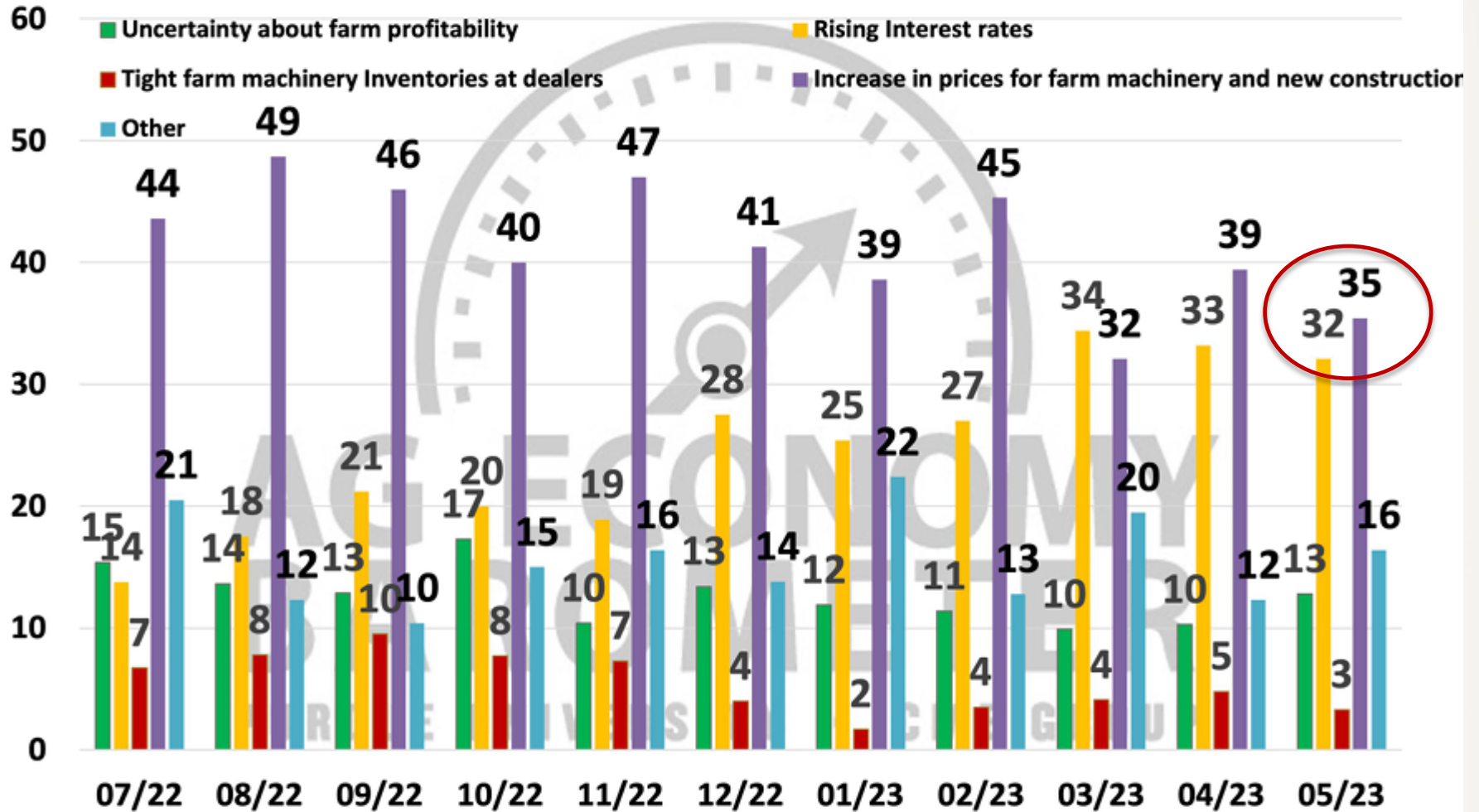
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Primary Reason Now Is a Bad Time to Make Large Investments

Question was only posed to those who said now is a bad time to make large investments

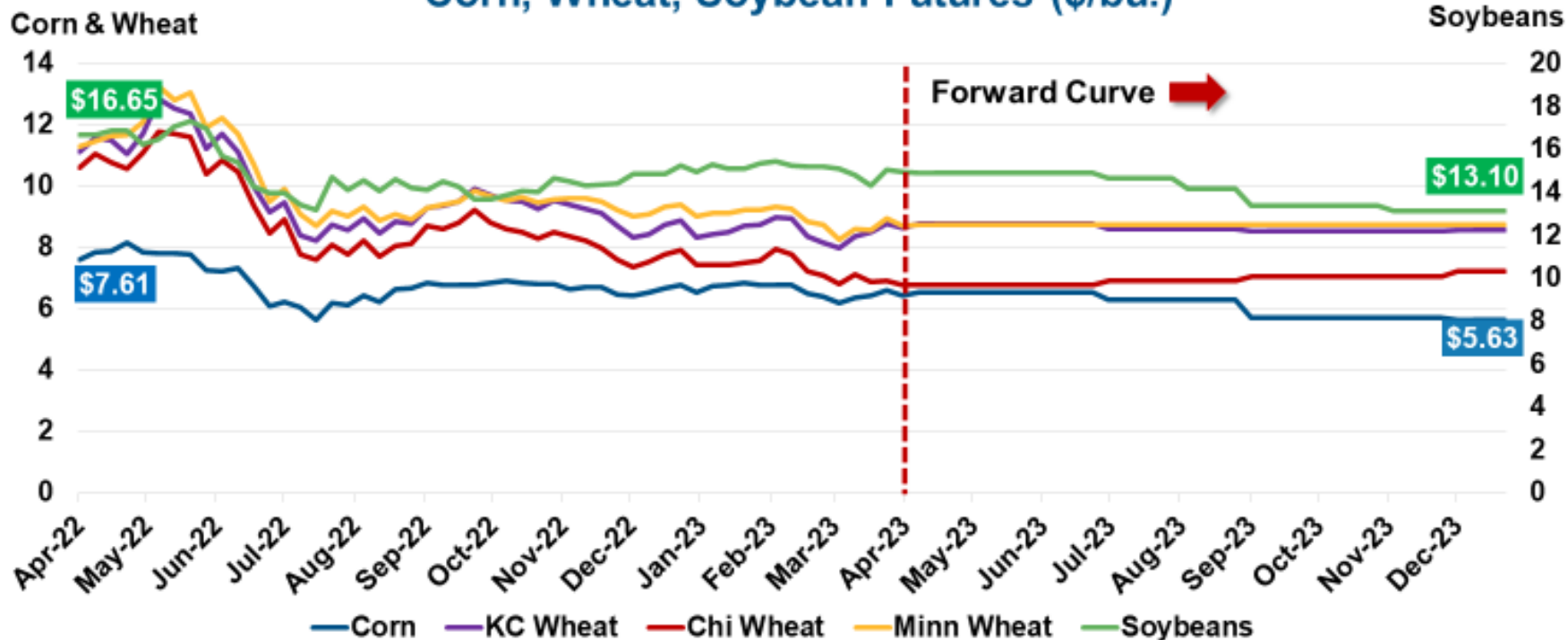
% of respondents



Source: Purdue Center for Commercial Agriculture, Producer Survey, May 2023

Grain/Oilseed Prices Have Moderated But Remain Elevated

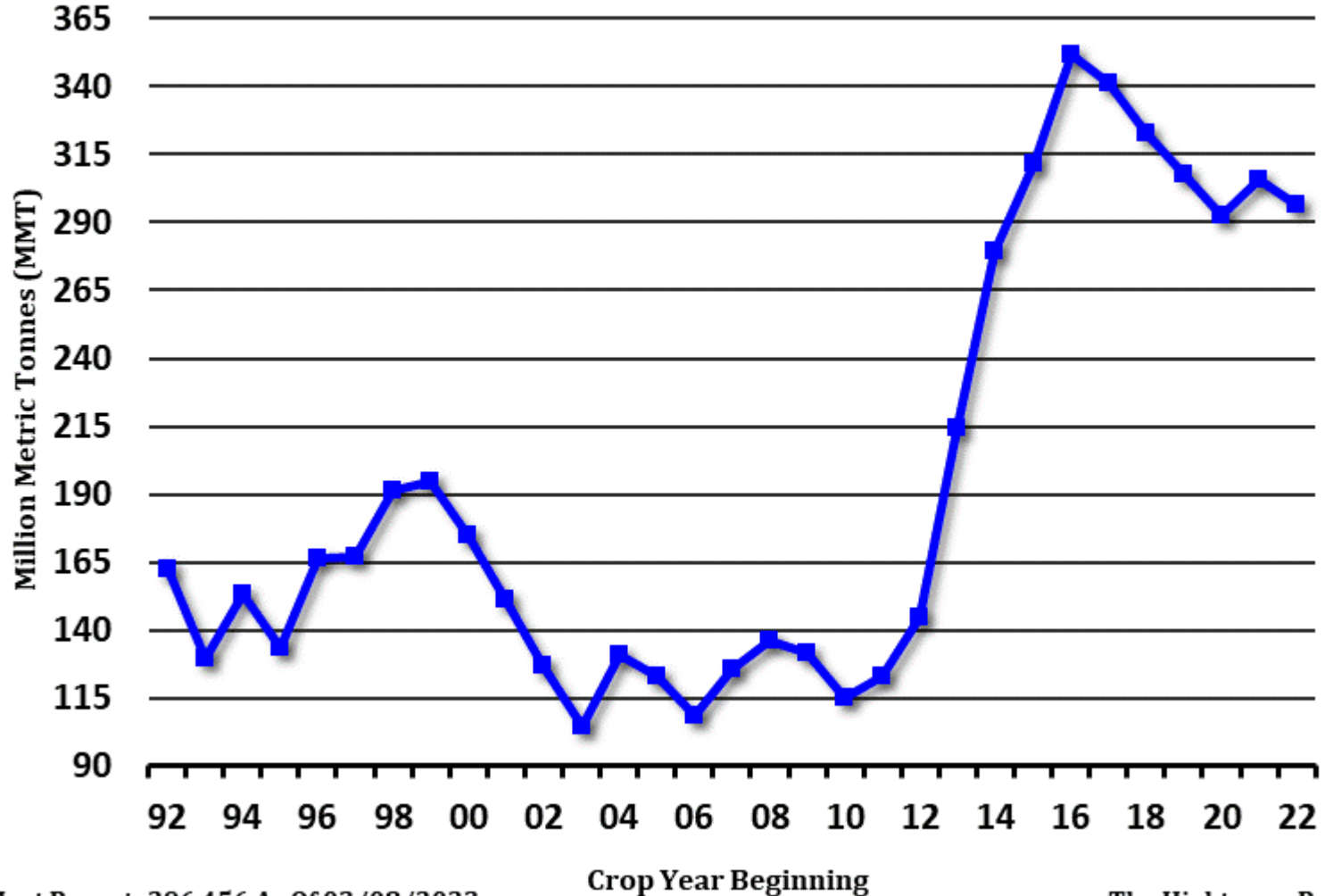
Corn, Wheat, Soybean Futures (\$/bu.)



Source: CME Group

COBANK

World Corn - Ending Stocks



**AEM United States Ag Tractor and Combine Report
 March 2023**

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	March			YTD - March			Beginning Inventory Mar 2023
	2023	2022	%Chg	2023	2022	%Chg	
2WD Farm Tractors							
< 40 HP	14,560	16,978	-14.2	31,288	39,175	-20.1	111,353
40 < 100 HP	4,755	5,389	-11.8	12,047	13,539	-11.0	34,727
100+ HP	1,857	1,978	-6.1	5,210	4,952	5.2	8,975
Total 2WD Farm Tractors	21,172	24,345	-13.0	48,545	57,666	-15.8	155,055
4WD Farm Tractors	414	201	106.0	898	596	50.7	520
Total Farm Tractors	21,586	24,546	-12.1	49,443	58,262	-15.1	155,575
Self-Prop Combines	509	346	47.1	1,514	751	101.6	1,256



Case IH Combine Plant – Grand Island, NE

Pictures taken 4/10/23

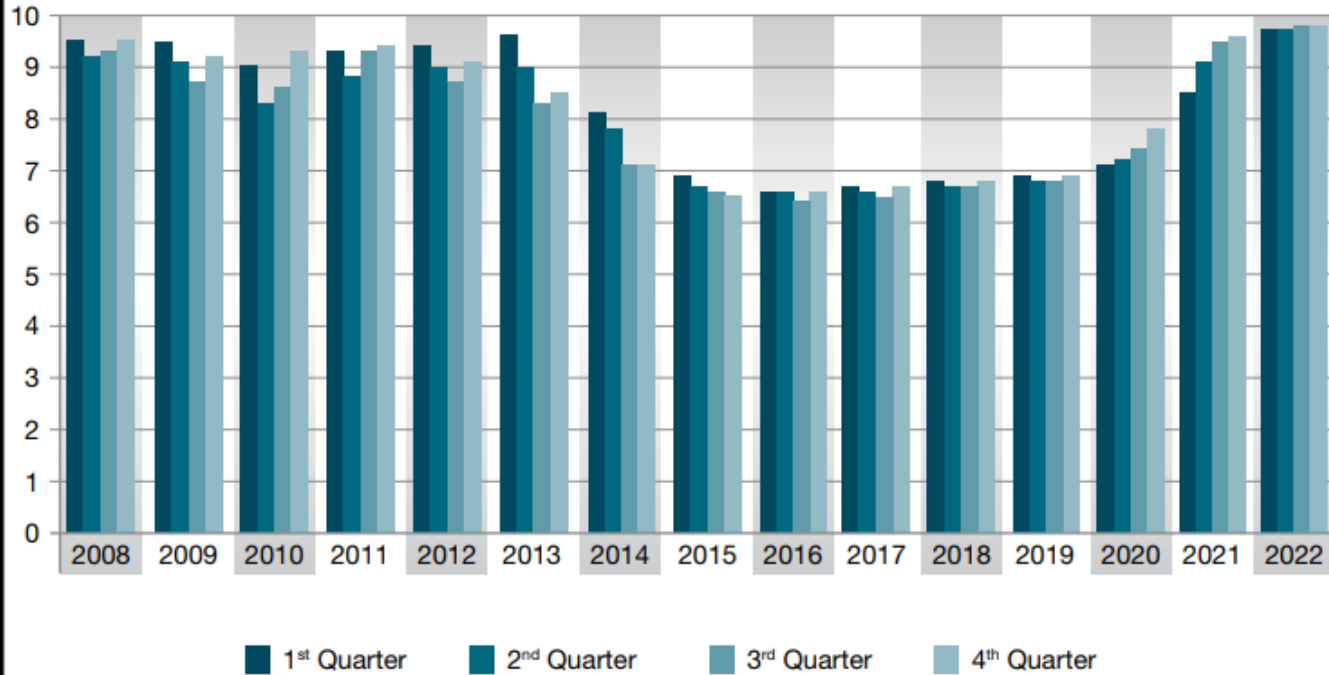
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Used Values Index Through 4th Quarter 2022

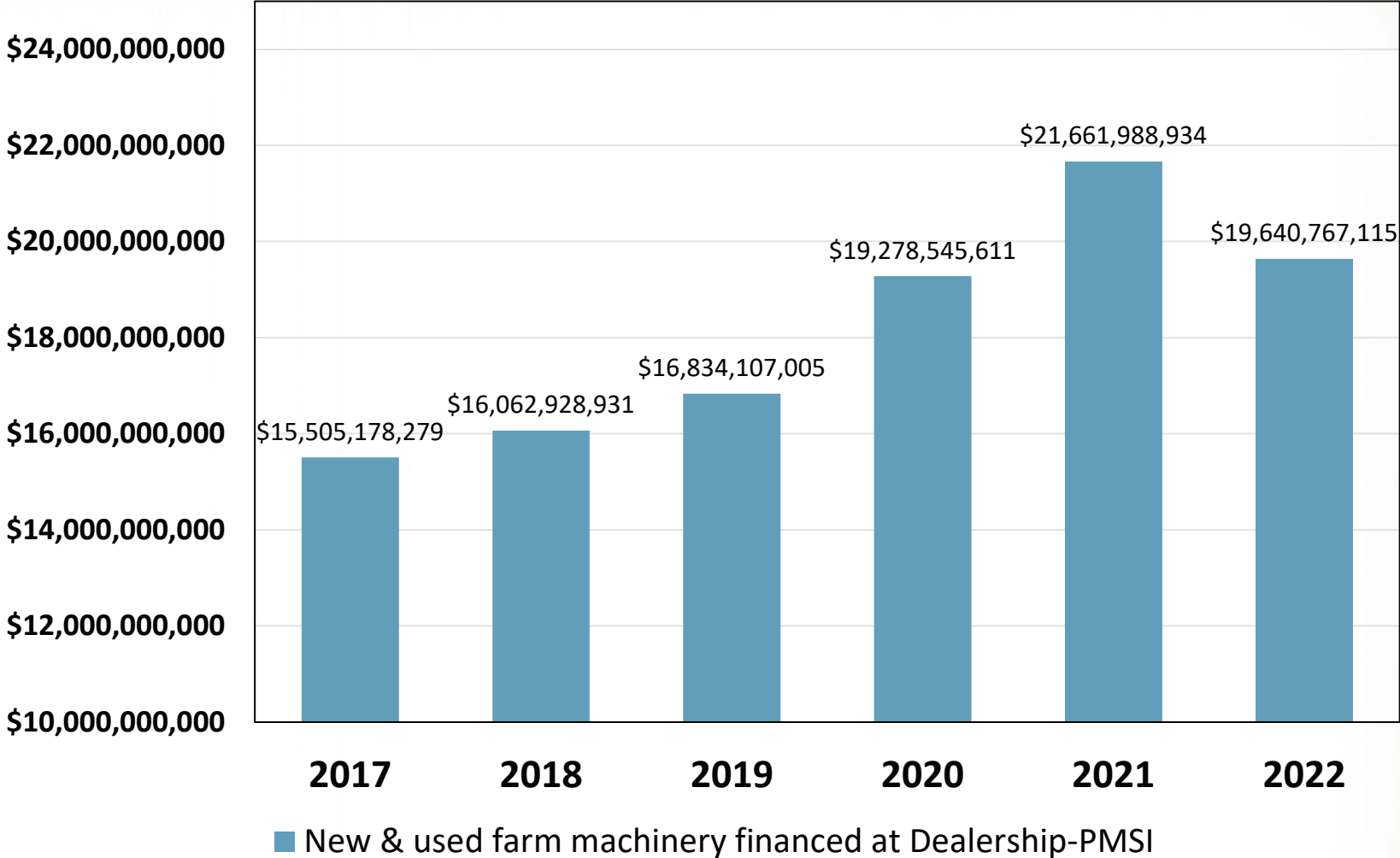
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PETE**

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Ag Machinery Market



Summary

- Experienced record sales in new & used farm machinery 2019-2023 and the market will remain strong for the foreseeable future
- Looking ahead:
 - I expect 2023-2024 to be strong as new inventory is delivered to dealer network for retail
 - I anticipate that leasing will become more popular with cost of machinery coupled with high interest rates
 - Late model equipment will continue to be in high demand and hold its value through 2027-2028 and then could soften depending on commodity prices
 - Before 2030, we will see softening of machinery values from declines in commodity prices, advances in technology and a spike in U.S. producers retiring (average age is 59-60 today)

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Questions?



Greg Roberg
AgDirect



THANK YOU

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