



Food & Agricultural  
Policy Research Institute

University of Missouri

# The outlook for the general economy, the crop sector and U.S. farm income

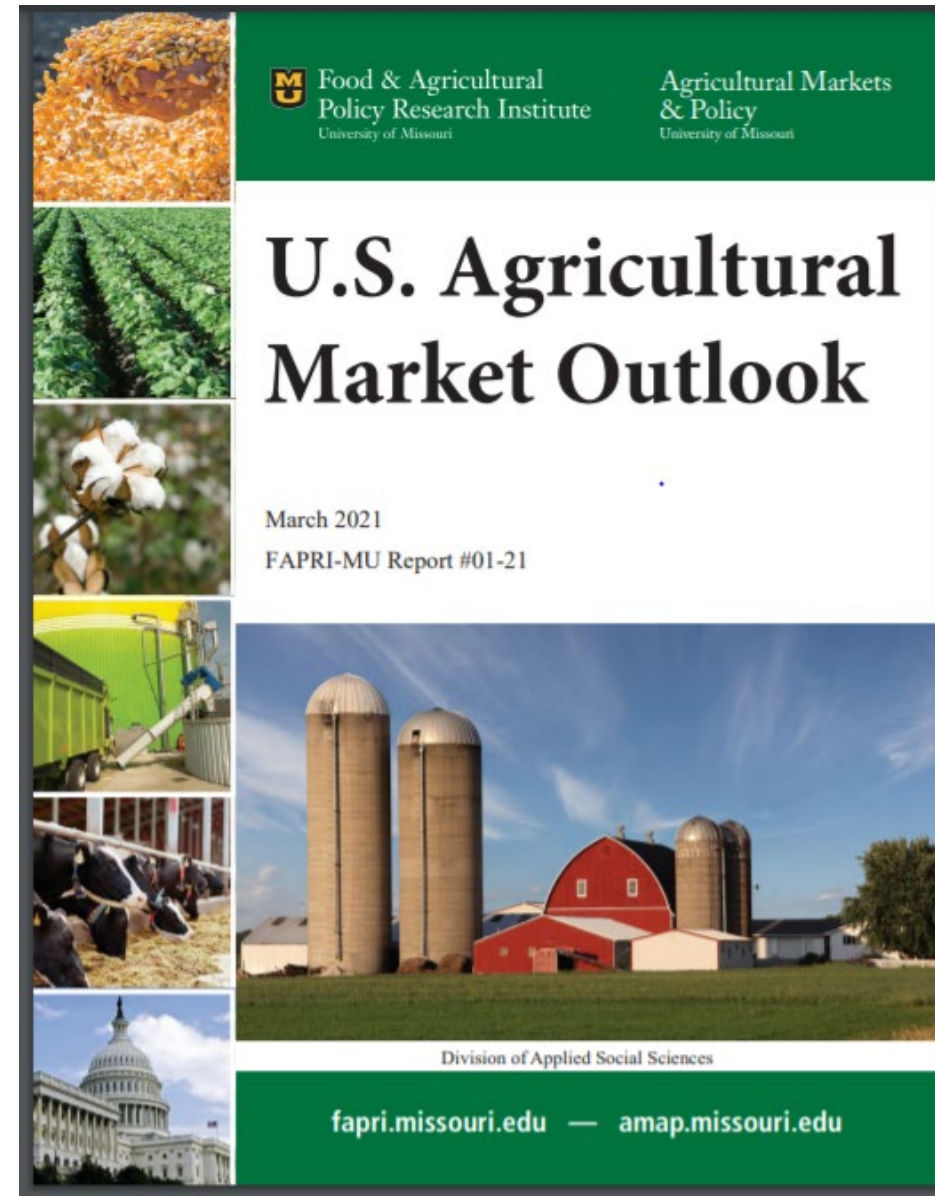
Pat Westhoff ([westhoffp@missouri.edu](mailto:westhoffp@missouri.edu))

2021 Abner Womack Missouri Agriculture  
Outlook Conference

March 26, 2021

# Agenda

- About the FAPRI outlook
- The general economy
- U.S. crop sector outlook
- U.S. farm income outlook
- Over to Scott Brown for livestock & dairy



# About the FAPRI outlook

- Produced every year since the mid-1980s
- This year's timeline
  - Preliminary baseline in Nov. 2020
  - Reviewed in Dec. 2020
  - Revised in Jan. 2021
  - Stochastic work in Feb. 2021
  - Released on March 12, 2021
- Available at [www.fapri.missouri.edu](http://www.fapri.missouri.edu)
- With contributions from
  - FAPRI-MU team (U.S. crops, biofuels, farm income, gov't costs, world livestock, dairy & biofuels)
  - AMAP at MU (livestock & dairy)
  - AFPC at Texas A&M (rep. farms)
  - Nevada (world grains, oilseeds)
  - Arkansas (rice)
  - Texas Tech (cotton)

# What's here and what isn't

- The baseline is based on what was known in Jan. 2021
  - It does include USDA's final estimates for 2020 crop production, etc.
  - But it does not include February or March USDA reports, other recent news
  - For example, China probably will buy more grain this year than expected in January
- Current policies are generally assumed to continue
  - Incorporates the 2018 farm bill, with provisions continued indefinitely
  - Relief programs approved in 2020 are incorporated, including the \$20/acre payments authorized in December 2020 and formally announced by USDA on March 24
  - But does not include the reconciliation bill approved in early March
- Corn and soybean outlook slides will show updated information

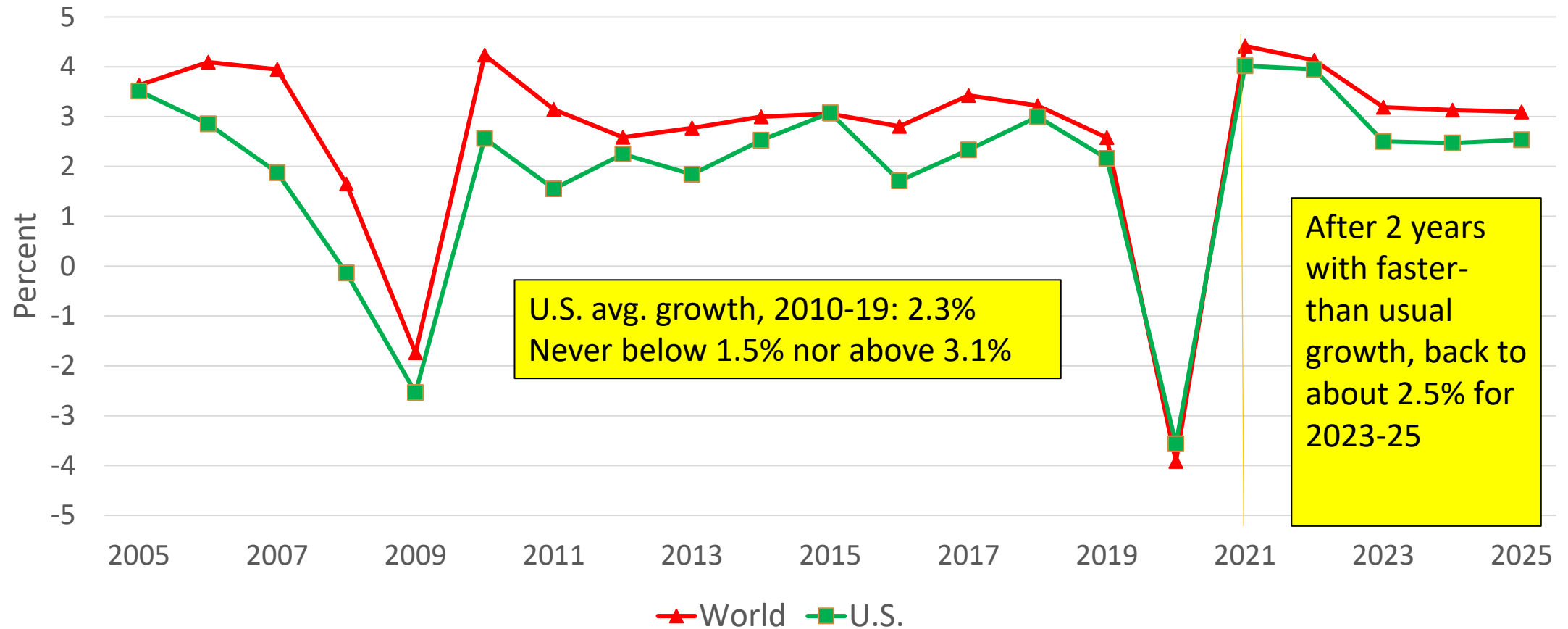
# The general economy

- Sharp reduction in economic activity in 2020
- A recovery is underway
- But employment, GDP remain below pre-pandemic levels
- Large fiscal stimulus
- LOTS of uncertainty



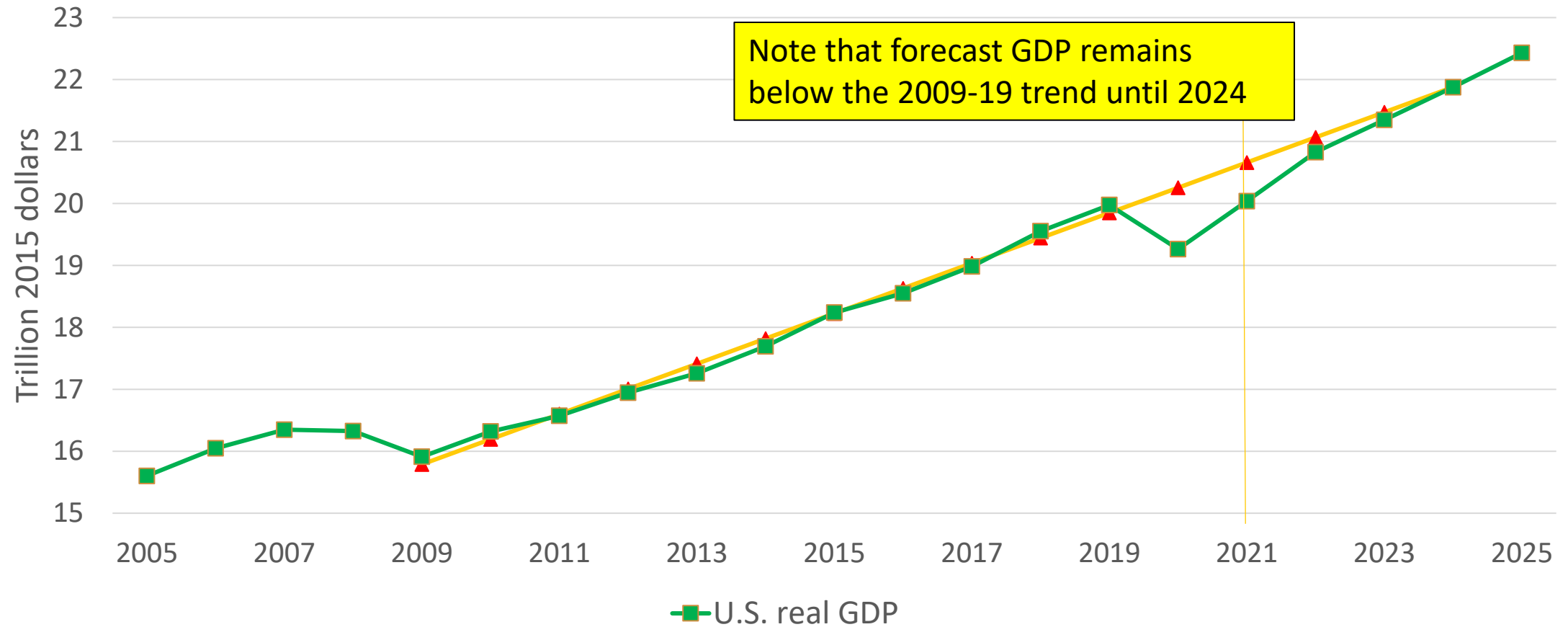
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# Real GDP growth



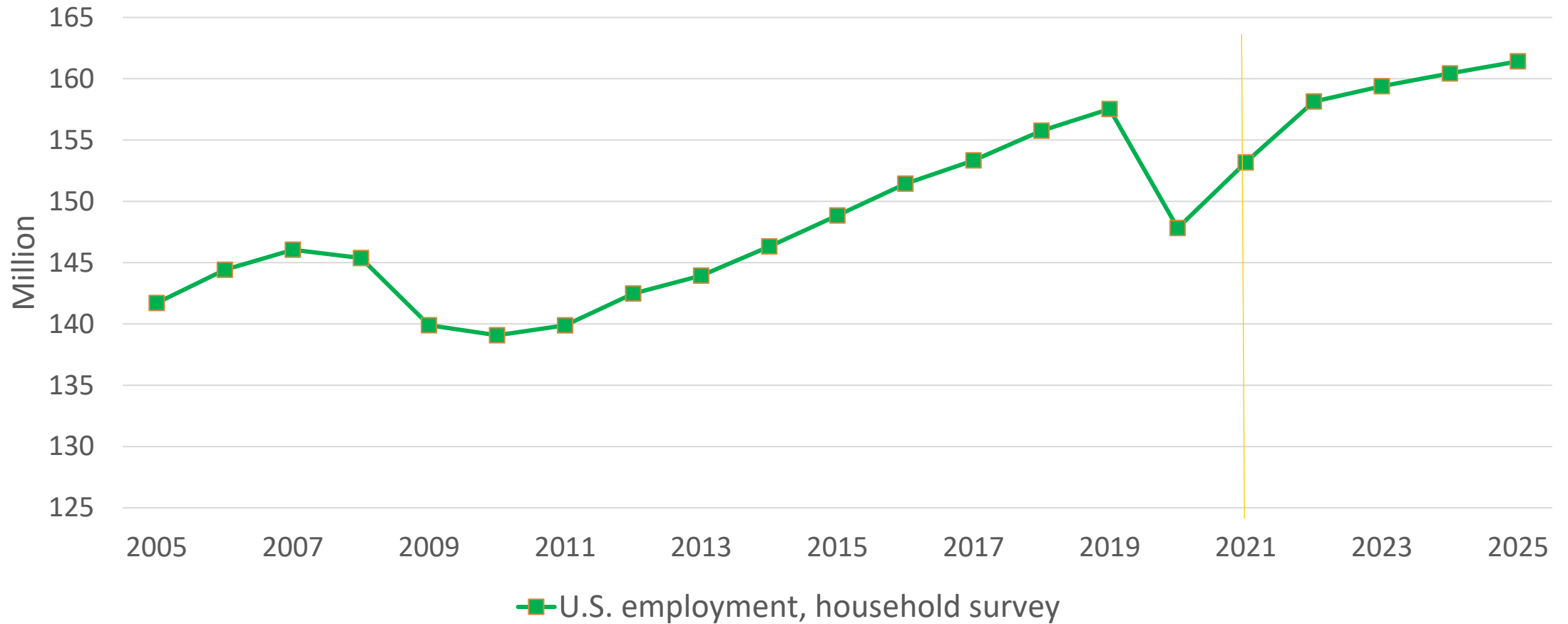
Source: IHS Markit, January 2021

# U.S. real GDP



Source: IHS Markit, January 2021

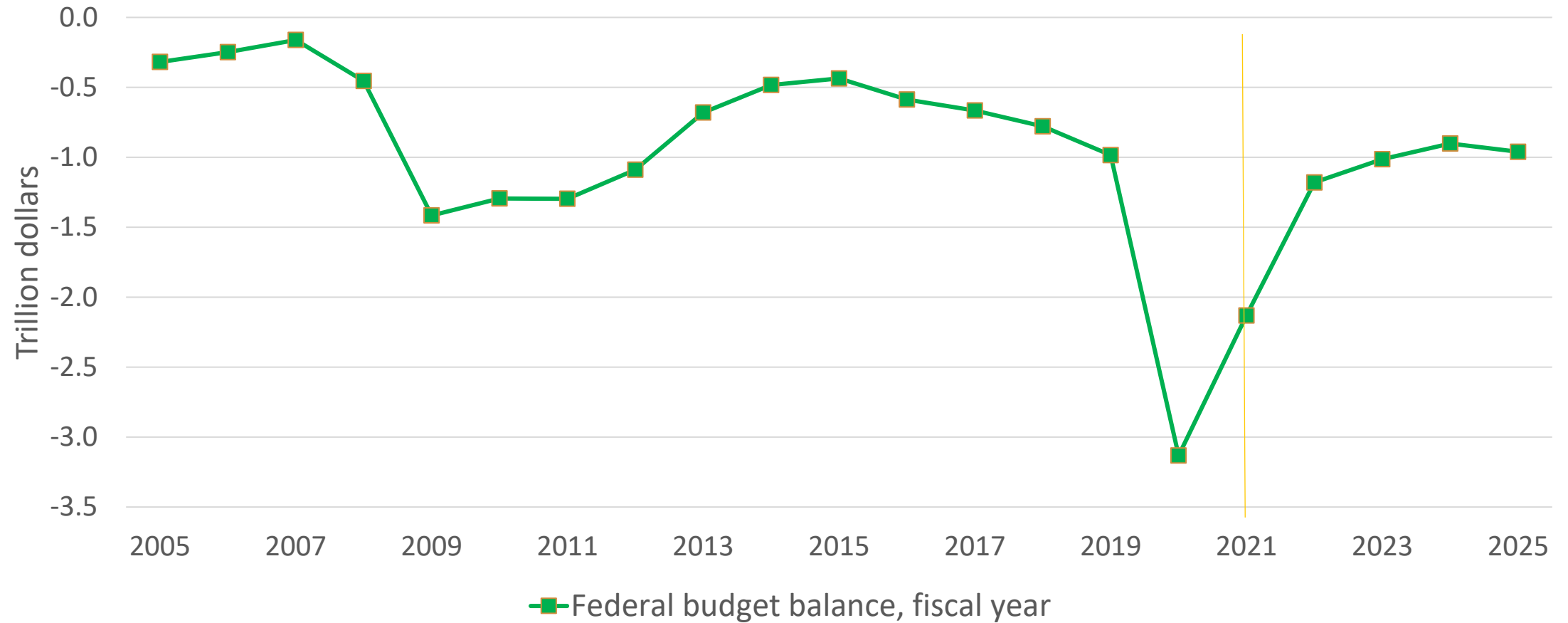
# U.S. employment



Source: IHS Markit, January 2021

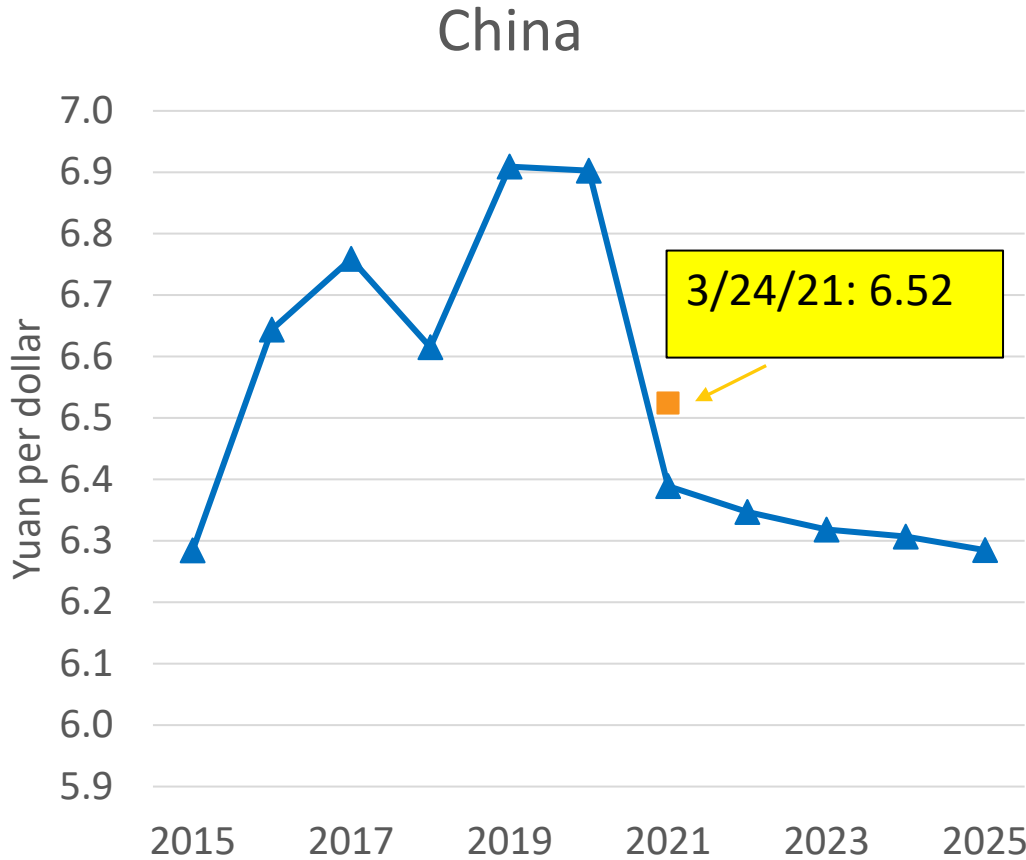
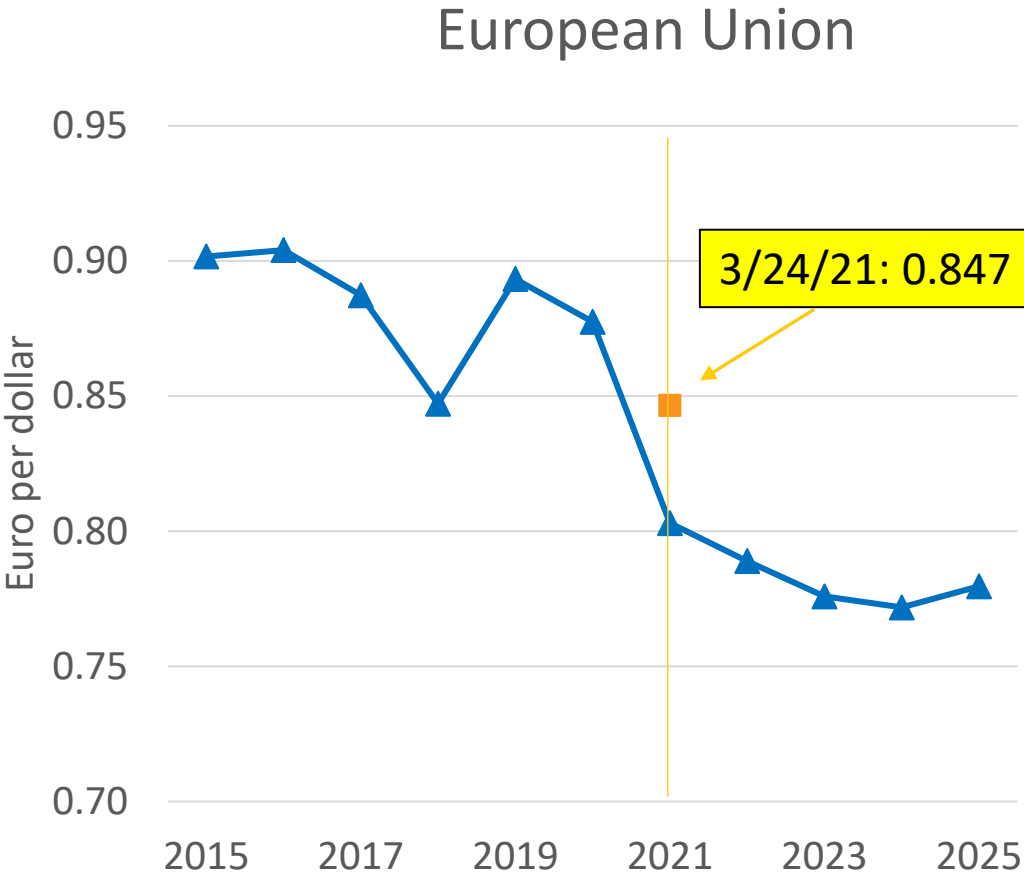


# U.S. federal budget balance



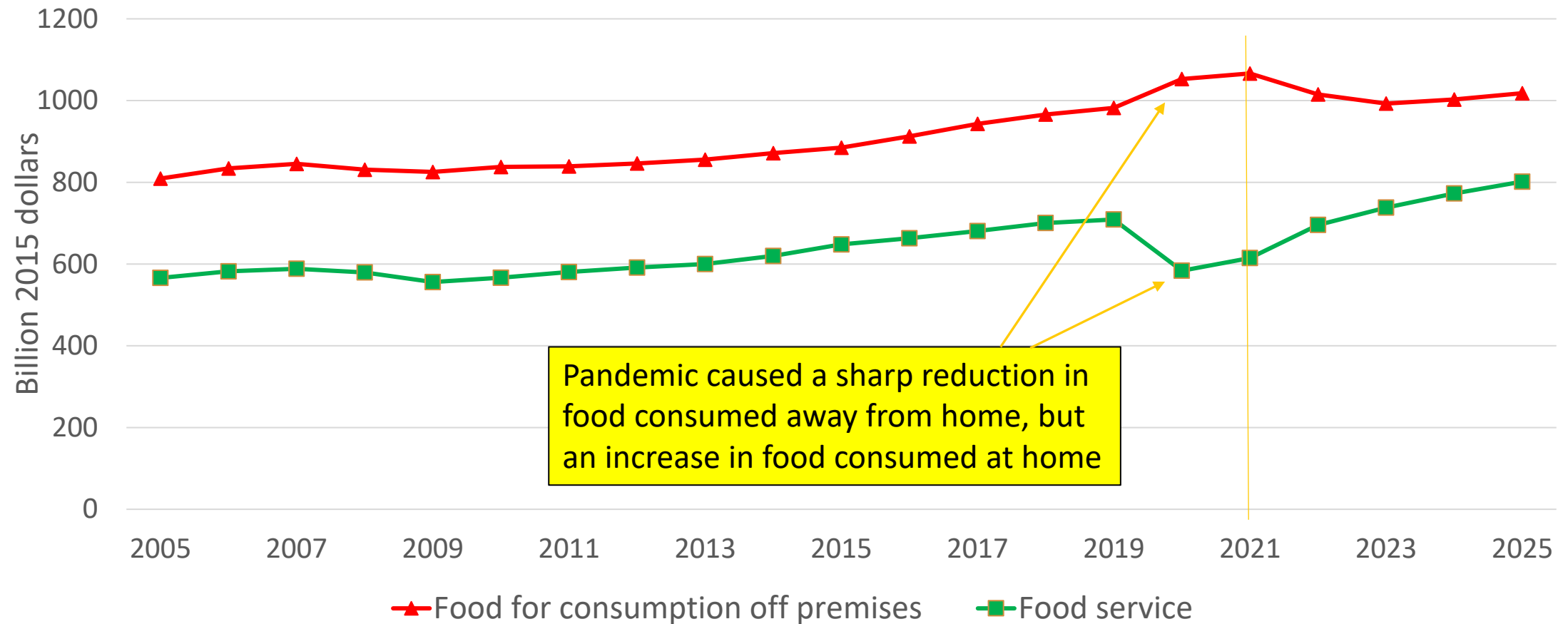
Source: IHS Markit, January 2021

# Exchange rates



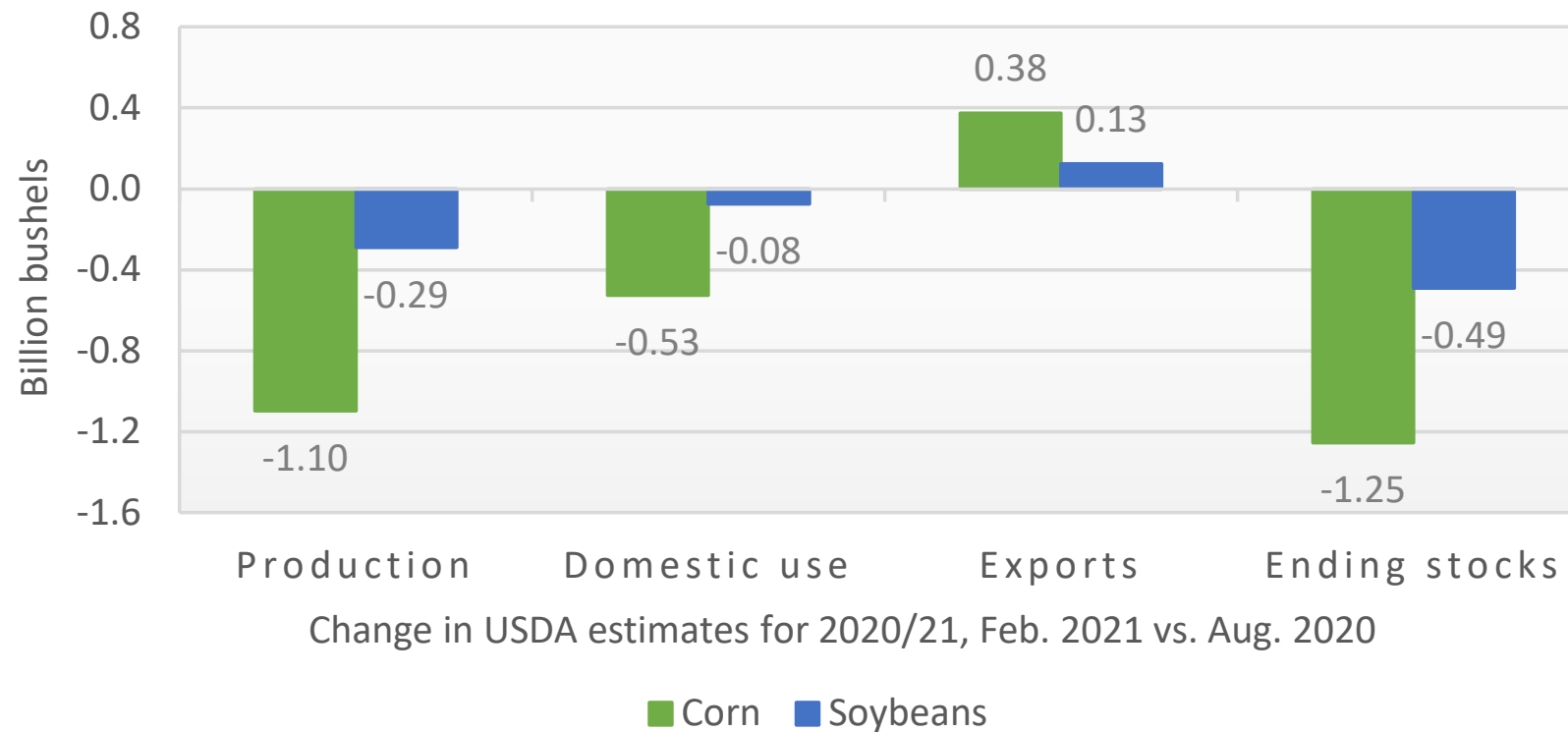
Source: IHS Markit, Jan. 2021 and x-rates.com

# Real consumer spending on food



Source: IHS Markit, January 2021

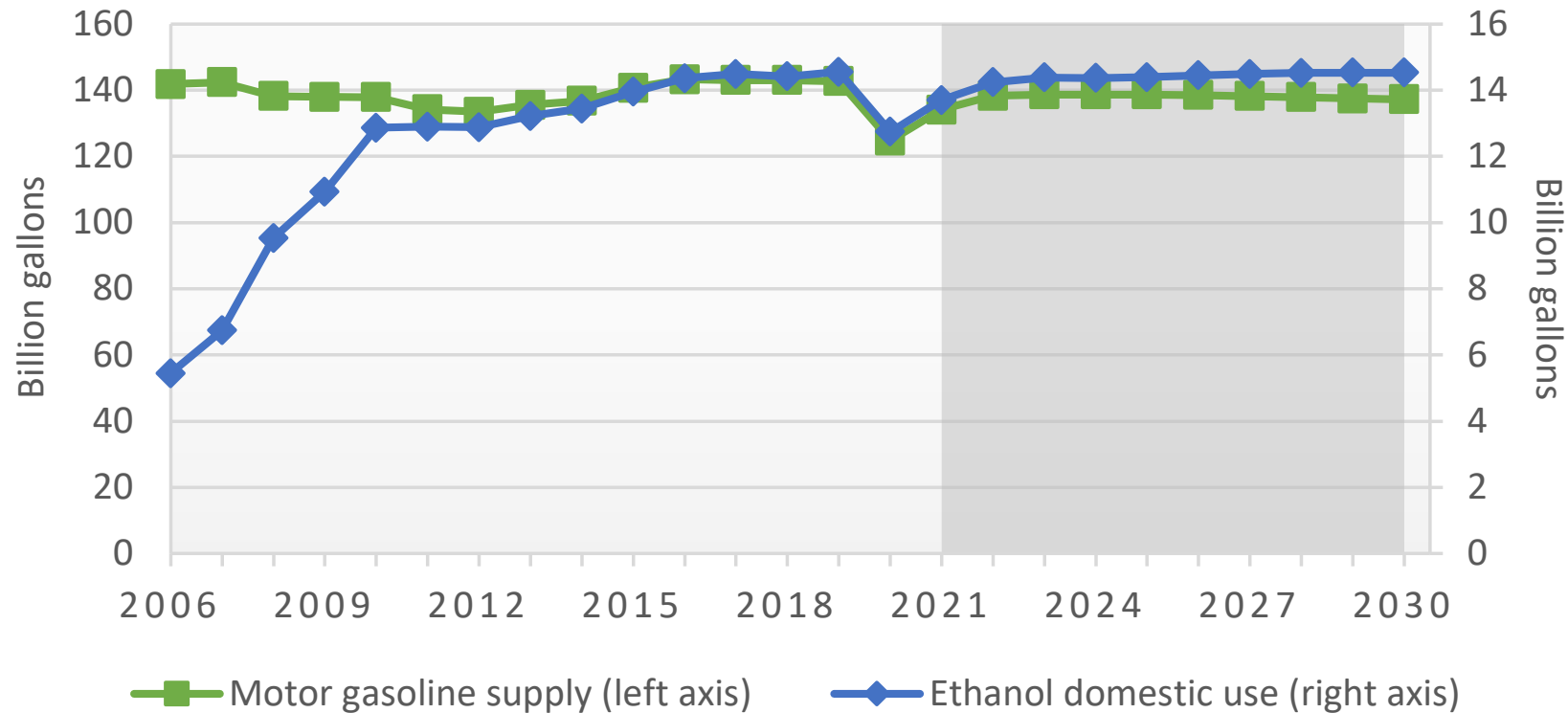
## Crop outlook has changed a lot since August



But the pandemic is not the only factor affecting markets.

Crop prices have risen sharply in recent months, because the 2020 crop was smaller than previously estimated and because of very strong export demand, especially from China.

## COVID reduced driving and ethanol use



The pandemic resulted in less driving and fuel use in 2020. As most ethanol is used in 10% blends with gasoline, this also resulted in less ethanol domestic use.

Looking ahead, more normal driving patterns could result in greater use of ethanol, as could more adoption of E-15 and E-85.

# U.S. soybean supply

Marketing year:	2018/19	2019/20	Projected	
			2020/21	2021/22
		(million acres)		
Planted area	89.2	76.1	83.1	90.3
Harvested area	87.6	74.9	82.3	89.0
		(bushels per acre)		
Yield	50.6	47.4	50.2	50.3
		(million bushels)		
Beginning stocks	438	909	525	123
Production	4,428	3,552	4,135	4,475
Imports	14	15	35	22
Total supply	4,880	4,476	4,695	4,619

The following slides are based on an updated outlook for soybean and corn markets prepared by the author during the week of March 22, 2021. Differences vs. the 2021 FAPRI outlook are generally small.

Notes:

- 2020/21 estimates should match USDA's March WASDE
- The projected increase in acreage and trendline yields results in a 340 mil. bu. increase in projected 2021 production
- However, the sharp reduction in beginning stocks means that projected total supplies actually are smaller in 2021/22 than in 2020/21

# U.S. soybean demand and prices

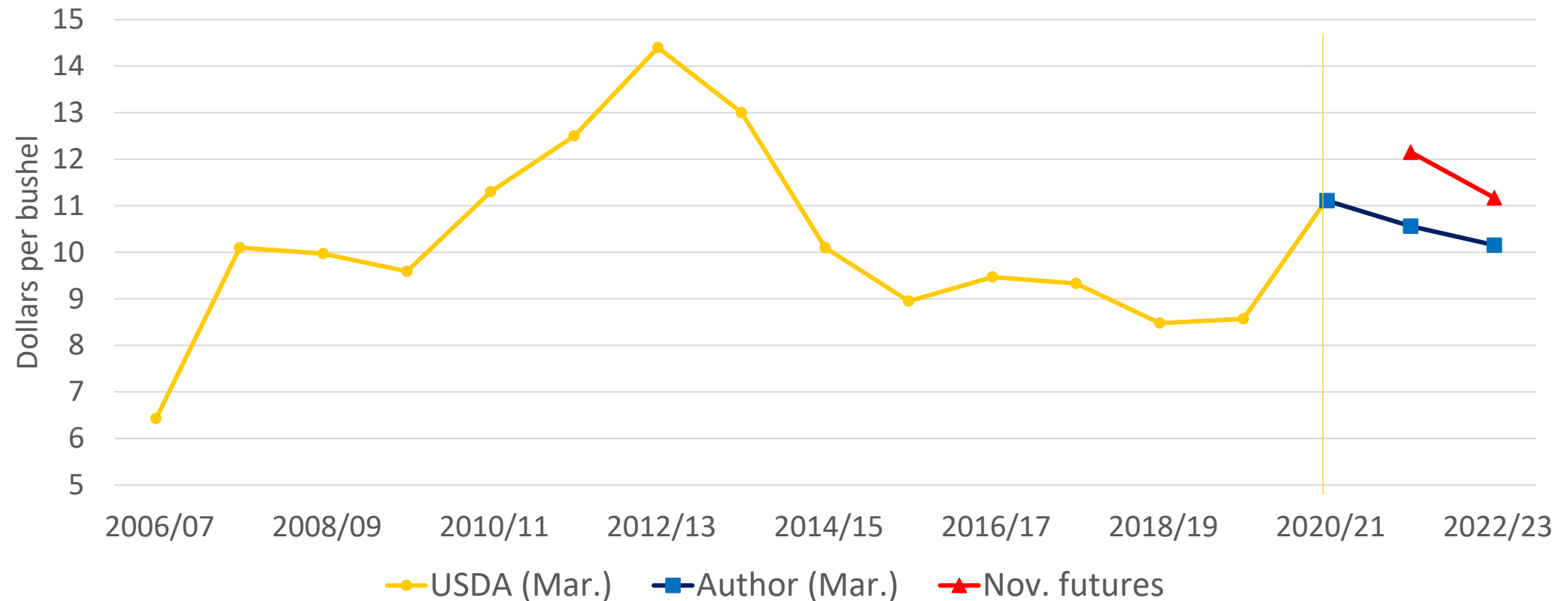
Marketing year:	2018/19	2019/20	Projected	
			2020/21	2021/22
	(million bushels)			
Crush	2,092	2,165	2,199	2,222
Seed and residual	128	105	124	130
Exports	1,752	1,682	2,249	2,092
Total use	3,971	3,952	4,572	4,444
Ending stocks	909	525	123	175
	(dollars per bushel)			
Farm price	8.48	8.57	11.11	10.56
Loan rate	5.00	6.20	6.20	6.20
Reference price	8.40	8.40	8.40	8.40

## Notes:

- Figures for 2020/21 are all very close to the March WASDE from USDA
- Projections show an increase in crush but a reduction in exports in 2021/22, due to an expected increase in exports from S. America
- Futures markets suggest higher 2021/22 prices, and Seth Meyer projected a \$11.25 soybean price at USDA's Ag. Outlook forum

# U.S. soybean prices

## Marketing year average prices and November futures



Sources: USDA WASDE and author projections, March 2021, and CME Nov. futures, March 25, 2021



# U.S. corn supply

Marketing year:	2018/19	2019/20	Projected	
			2020/21	2021/22
		(million acres)		
Planted area	88.9	89.7	90.8	91.4
Harvested area	81.3	81.3	82.5	83.4
		(bushels per acre)		
Yield	176.4	167.5	172.0	178.5
		(million bushels)		
Beginning stocks	2,140	2,221	1,919	1,488
Production	14,340	13,620	14,182	14,877
Imports	28	42	25	33
Total supply	16,509	15,883	16,127	16,397

## Notes:

- 2020/21 estimates should match USDA's March WASDE
- The projected increase in acreage and trendline yields results in a 695 mil. bu. increase in projected 2021 production
- However, the reduction in beginning stocks means that projected total supplies are only 266 million bushels larger in 2021/22 than in 2020/21

# U.S. corn demand and prices

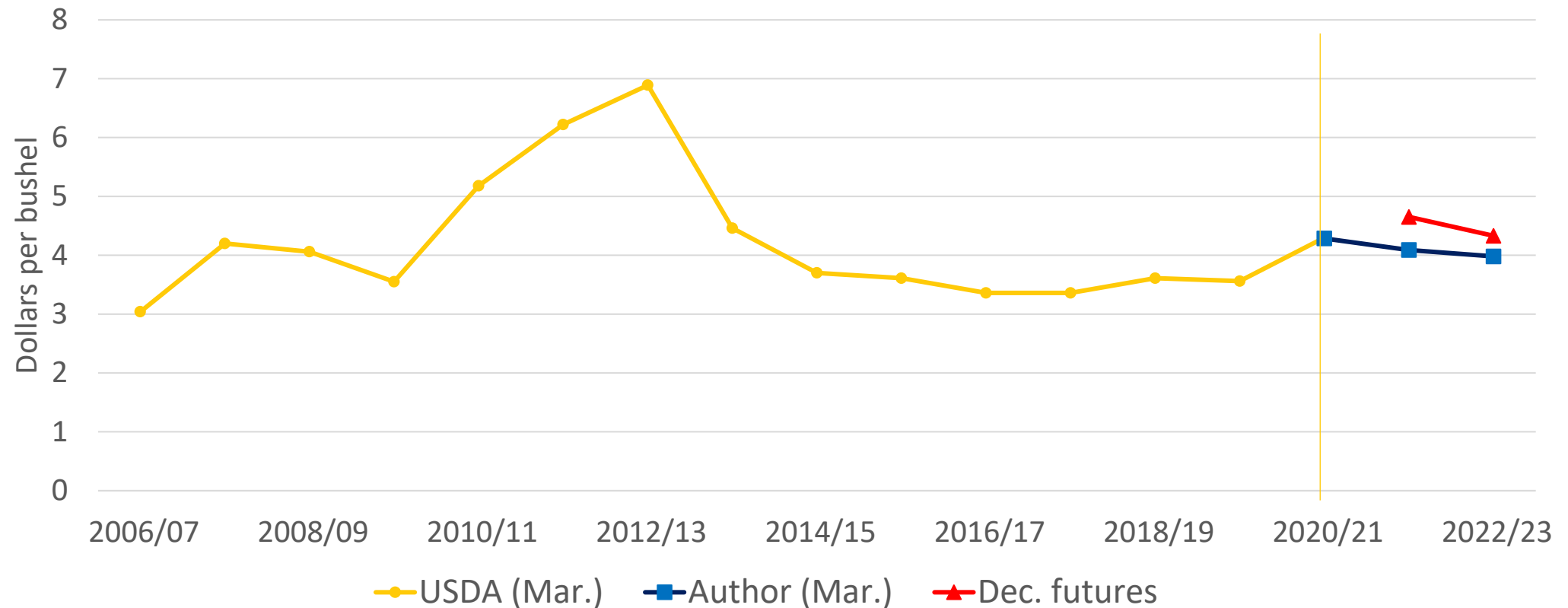
Marketing year:	2018/19	2019/20	Projected	
			2020/21	2021/22
			(million bushels)	
Feed and residual	5,429	5,899	5,661	5,729
Food, seed, industrial	6,793	6,286	6,374	6,667
Exports	2,066	1,778	2,604	2,392
Total use	14,288	13,963	14,639	14,787
Ending stocks	2,221	1,919	1,488	1,610
			(dollars per bushel)	
Farm price	3.61	3.56	4.29	4.09
Loan rate	1.95	2.20	2.20	2.20
Reference price	3.70	3.70	3.70	3.70

## Notes:

- Figures for 2020/21 are all very close to the March WASDE from USDA
- Projections show a recovery in ethanol use, pushing up 2021/22 FSI use. Exports decline a little in 2021/22, and depend on policy choices in China and competitor supplies
- Futures markets suggest slightly higher 2021/22 prices, and Seth Meyer projected a \$4.20 corn price at USDA's Ag. Outlook forum

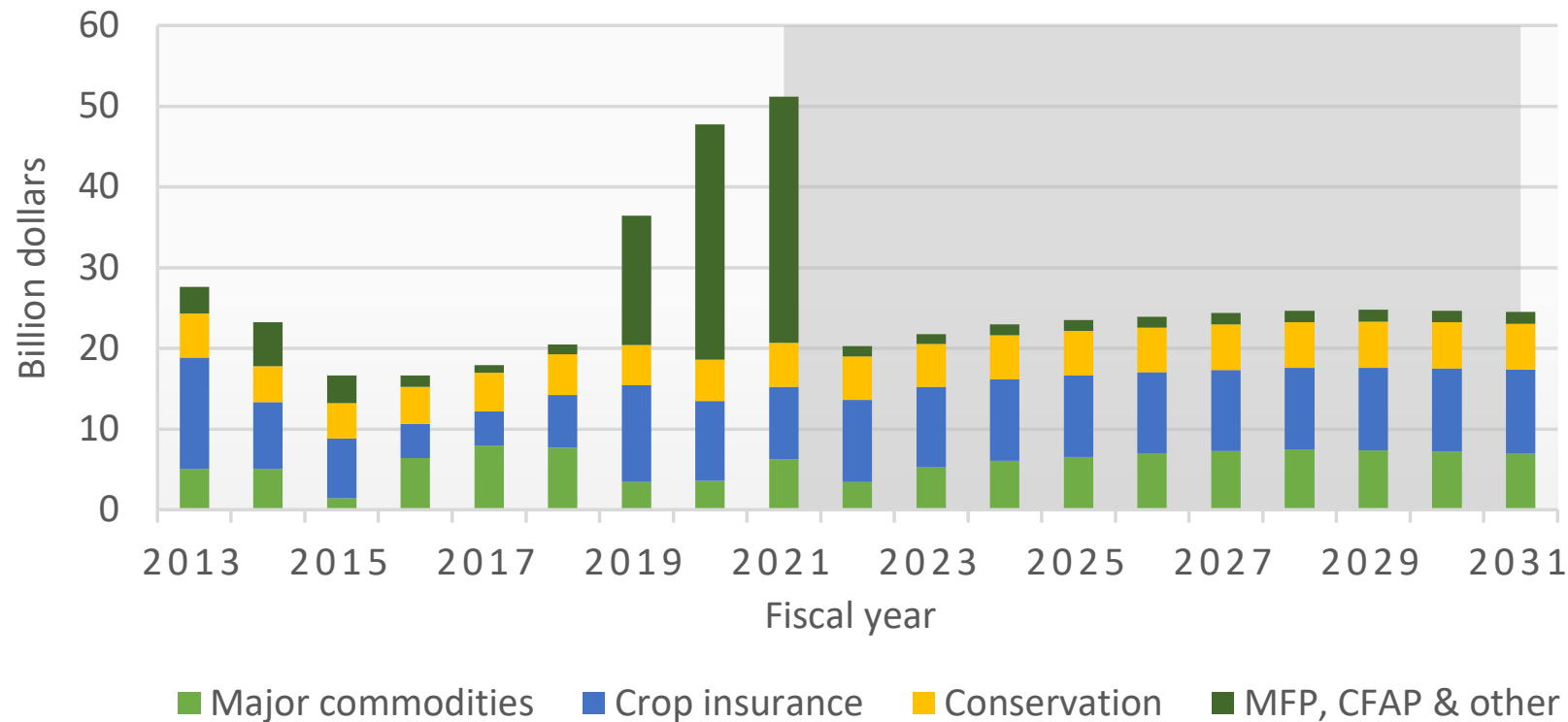
# U.S. corn prices

## Marketing year average prices and December futures



Sources: USDA WASDE and author projections, March 2021, and CME Dec. futures, March 25, 2021

## Outlays drop sharply if no more ad hoc programs

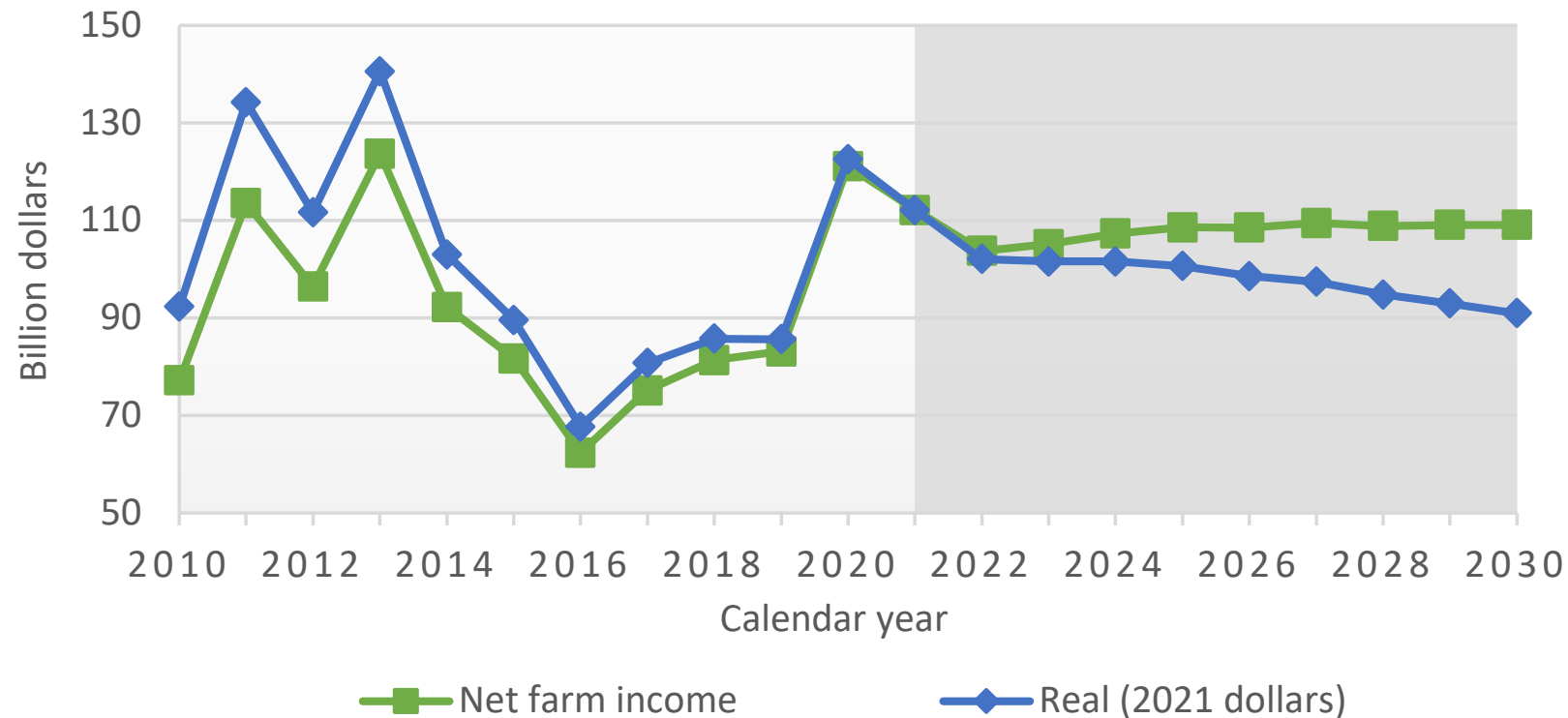


Because of spending on ad-hoc programs, federal outlays on farm-related programs has been very high since FY 2019, and could hit a record \$51 billion in FY 2021 (the year ending Sep. 30, 2021).

If those ad-hoc programs end, spending could fall back to about \$23 billion per year.

These projections do not include the reconciliation bill just approved.

## Net farm income rose with payments in 2020



Estimates of 2020 net farm income increased dramatically after last summer, both because of higher commodity prices and because of record government payments.

Net farm income declines in 2021 to \$112 billion, as \$25 billion in additional crop and livestock receipts are offset by \$22 billion in lower payments and \$13 billion in higher production costs.

# Thanks!

- FAPRI-MU website: [www.fapri.missouri.edu](http://www.fapri.missouri.edu)
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- Youngjune Kim
- Abigail Meffert
- Marc Rosenbohm
- Wyatt Thompson
- Jarrett Whistance
- Peter Zimmer

This is not a brand new picture. Seth Meyer (USDA's Chief Economist) and Scott Gerlt (American Soybean Assn.) have moved on to greener pastures.