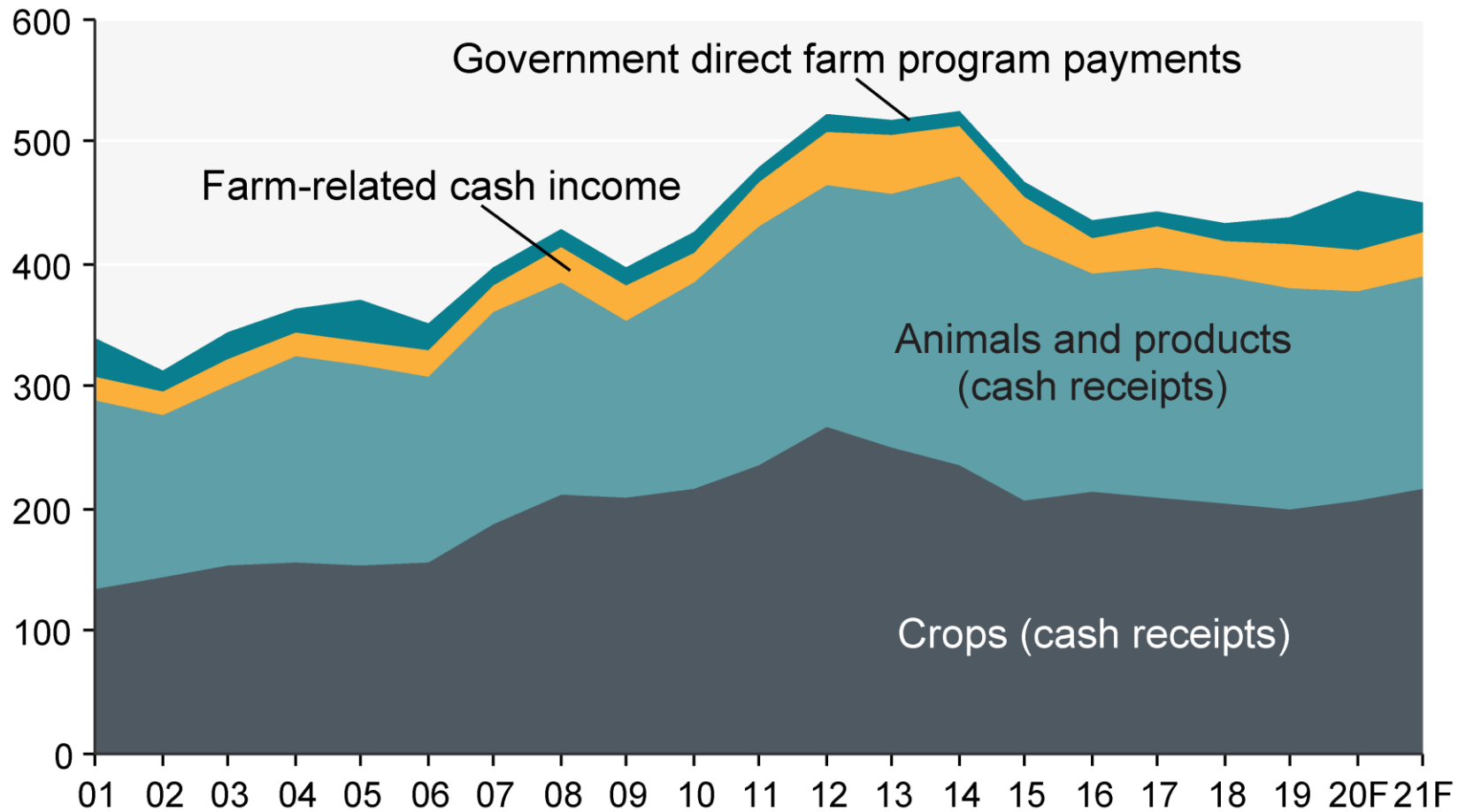


U.S. Agriculture Situation and Outlook

Blake Brown, PhD
Hugh C. Kiger Professor
Agriculture & Resource Economics
College of Agriculture & Life Sciences

U.S. gross cash farm income components, 2001–21F

\$ billion (2021)

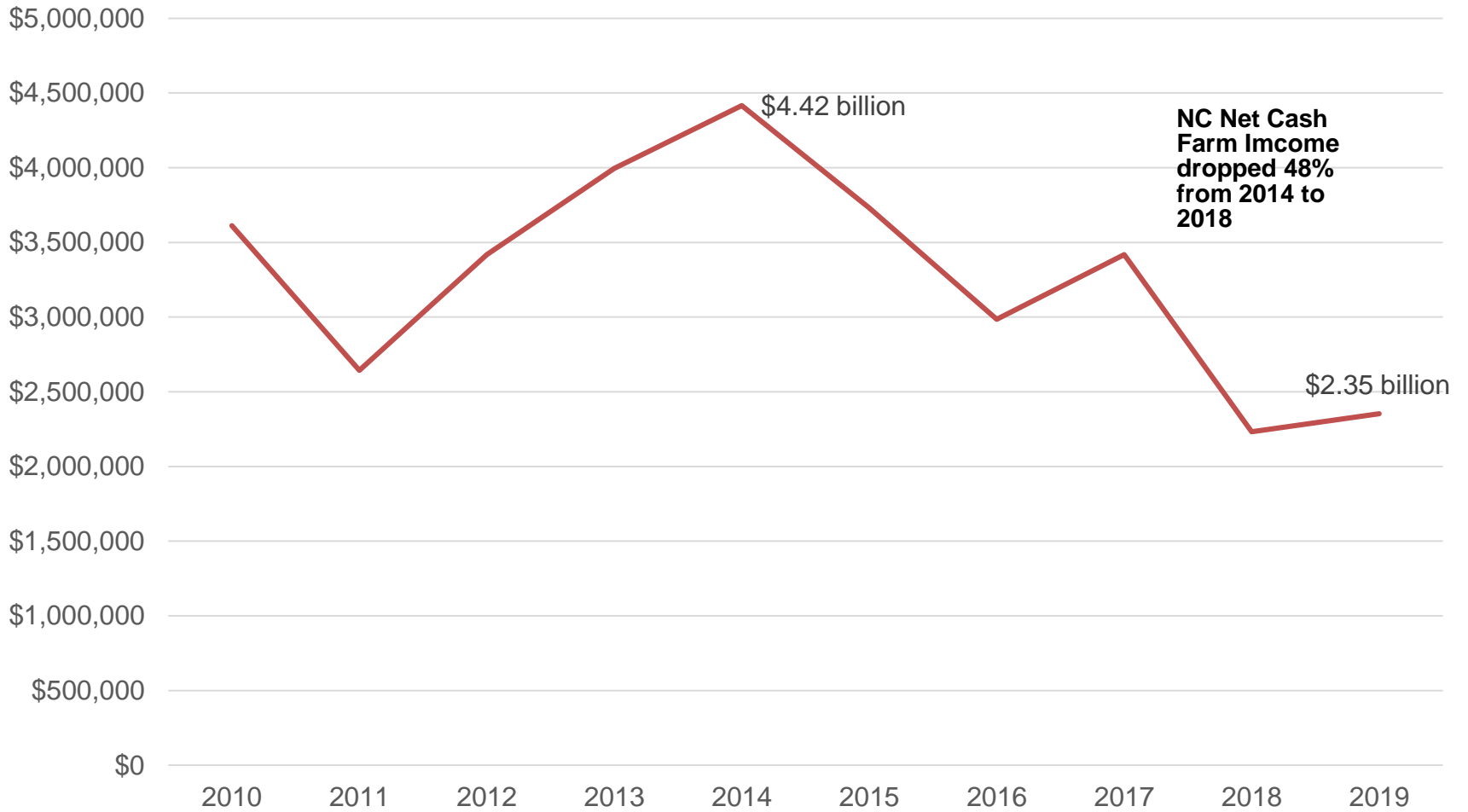


Note: F = forecast. Values are adjusted for inflation using the Gross Domestic Product chain-type price index, 2021=100.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of February 5, 2021.

Net Cash Farm Income: North Carolina

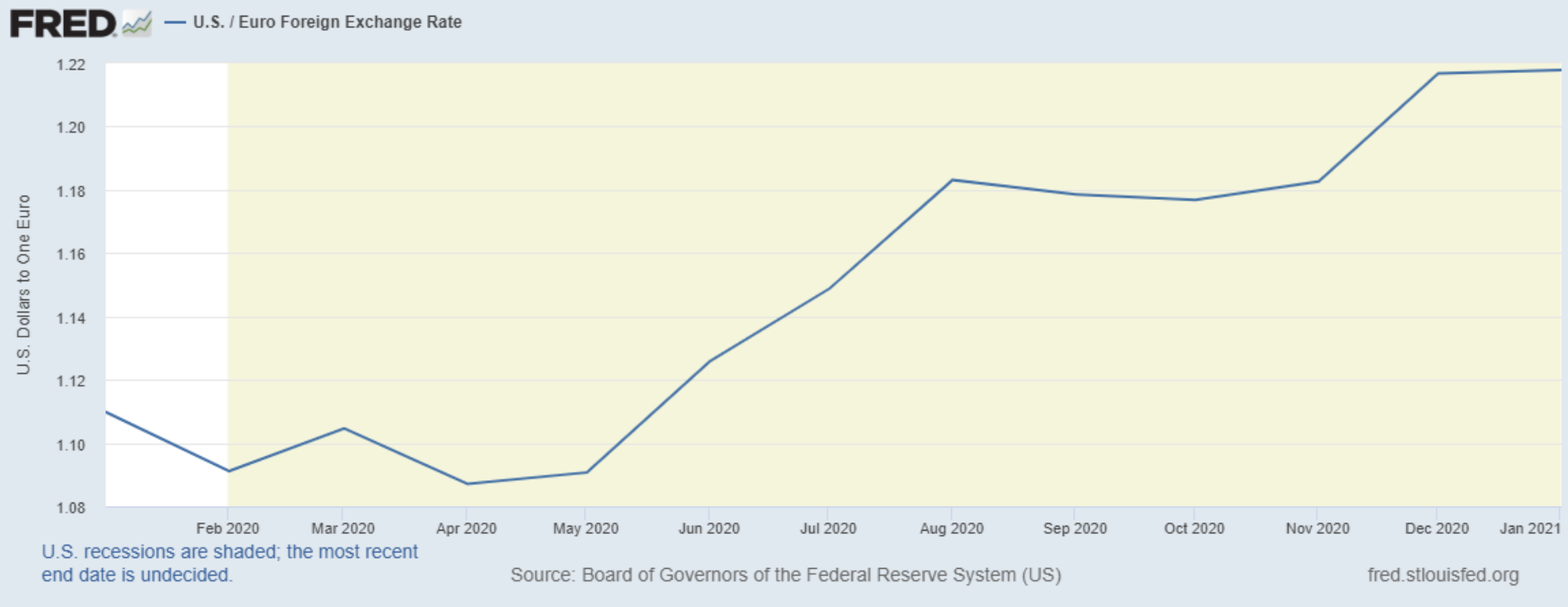


Trade

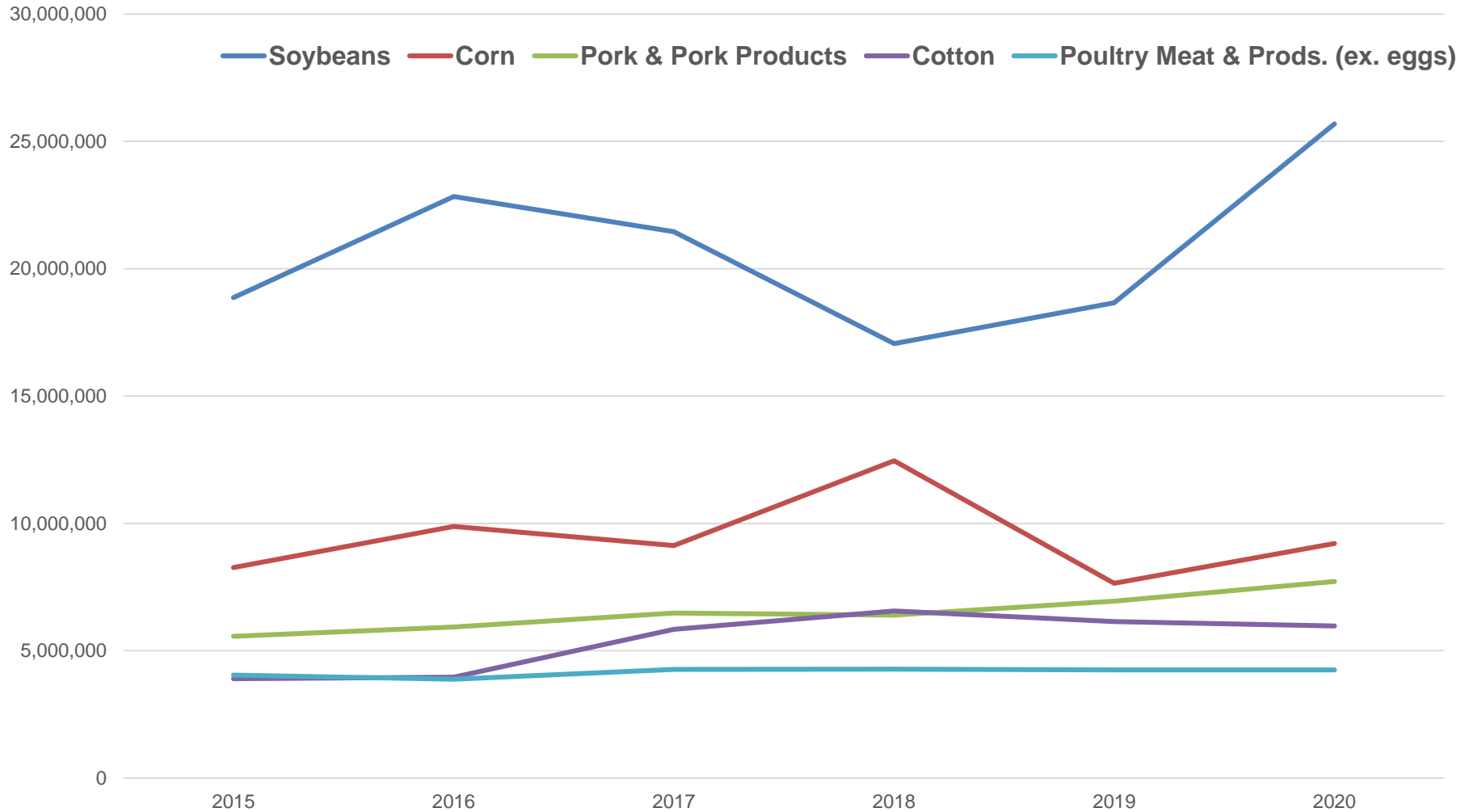
Top 15 U.S. Trade Partners



Dollar/Euro Exchange Rate

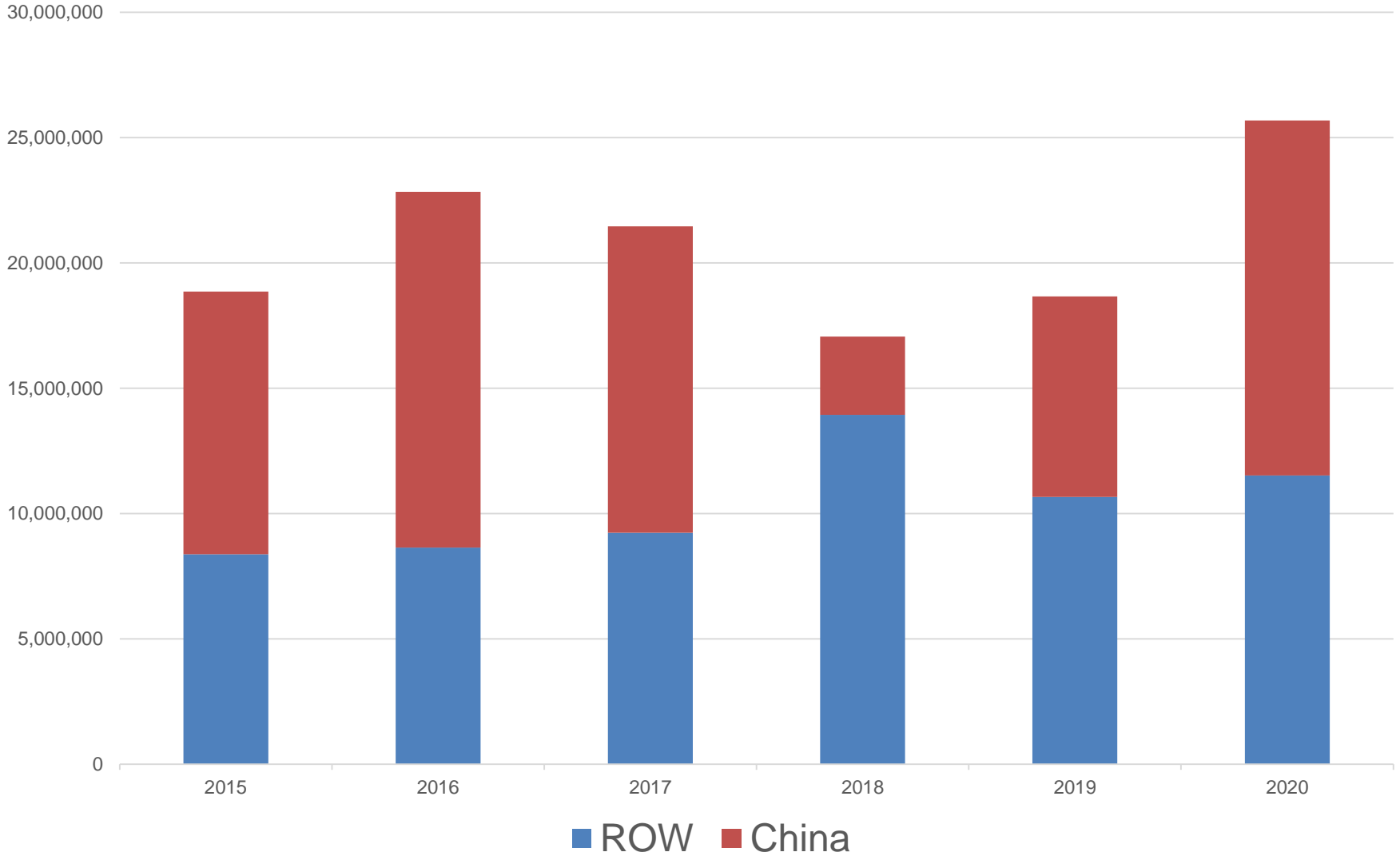


U.S. Total Exports of Selected Products

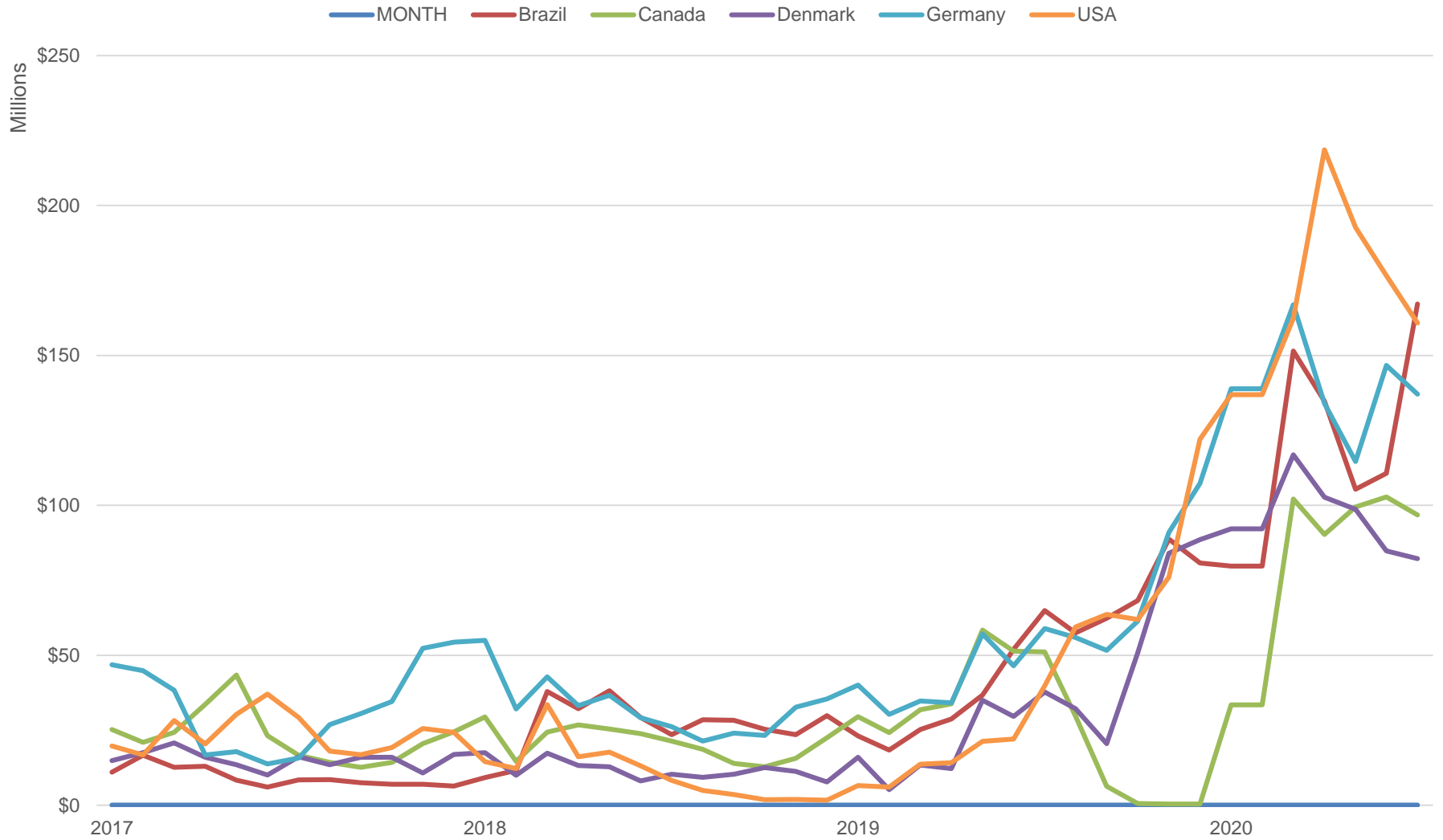


Value of U.S. Soybean Exports

Thousand \$



China Monthly Value of Imports of Pork: Top Source Countries



China Policy

- **US-China relations will remain strained**
 - ***“China Is National Security Threat No. 1***
Resisting Beijing’s attempt to reshape and dominate the world is the challenge of our generation. “ *Opinion WSJ* 12-3-20 John Ratcliffe, Former Director of National Intelligence
 - ***“Biden’s National Security Council Sharpens Focus on China”*** *Foreign Policy* 2-18-21

- **China's domestic policy on pork production will shape imports of pork, poultry, soybeans and corn**

“China's wonder: A rapid recovery of the pig sector

China's pork industry is like a phoenix rising from the ashes. To boost pork production in China after the devastating African Swine Fever epidemic, the Chinese government has announced extra stimulus measures.” *PIG PROGRESS* 12-2-20

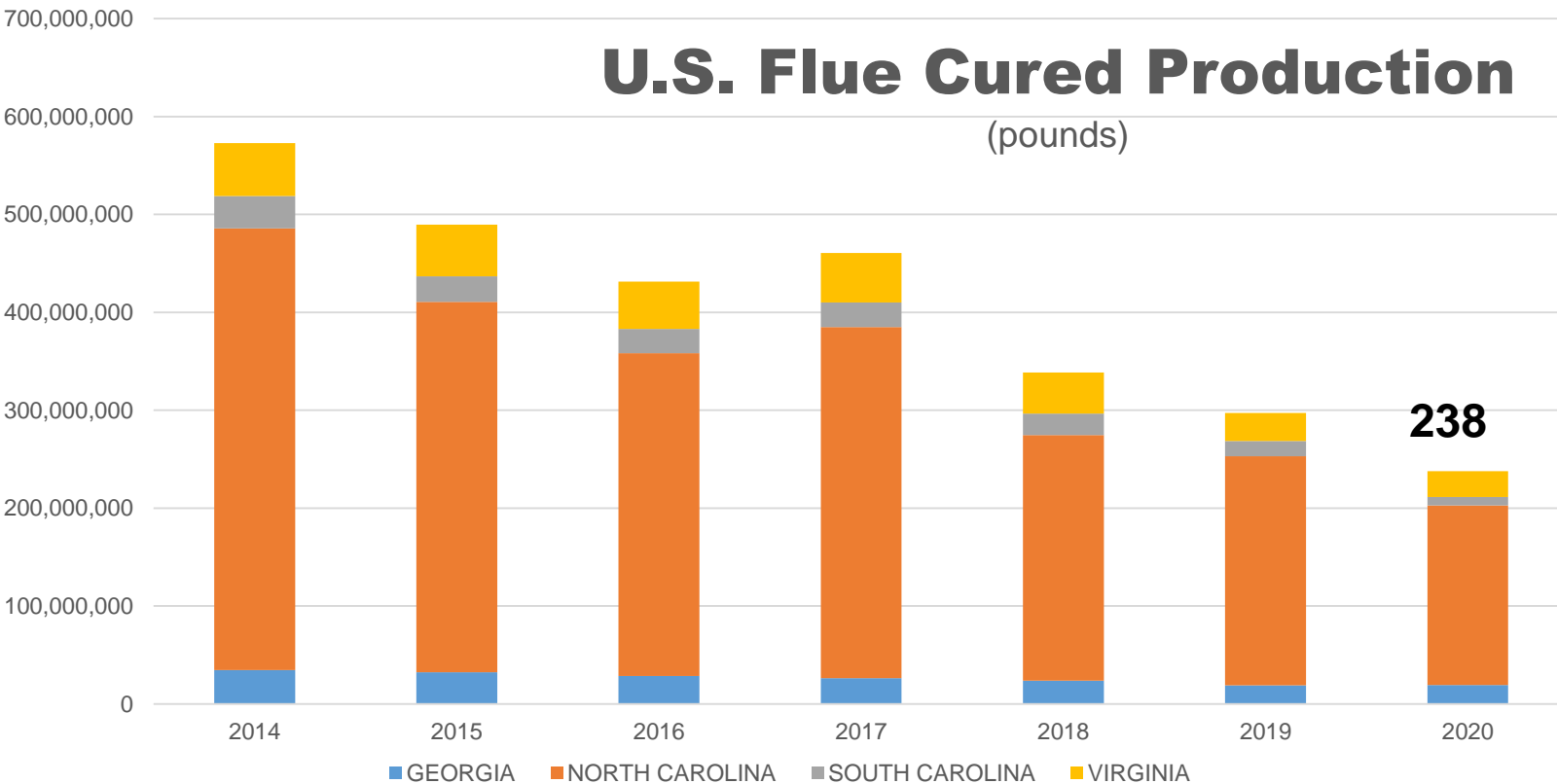


“12-storey pig farm: has China found the way to tackle animal disease? “
The Guardian Dec 2020

- **ASF destroyed much small-holder pig production in the rest of southeast Asia**
 - “Philippines may triple pork imports to cool soaring prices” *Bloomberg 1-18-21*
 - As incomes rise so will export opportunities for U.S. Pork and Poultry

China buys U.S. flue-cured tobacco again...

- 85 million pounds in purchases
- Contracted pounds return to **over 300 million pounds**



Despite increased exports to China, phase-one targets were not met...

- “Biden administration officials have said they are conducting a review of former President Donald Trump’s trade policies. The administration hasn’t said whether it plans to enforce and look to expand a bilateral trade agreement signed with Beijing a year ago.” *US Trade Balance with China Improves, but Sources of Tension Linger WSJ 2-5-2021*

“Four Reasons Why Biden Isn’t Rushing Into Trade Negotiations” *WSJ 2-19-21*

- Biden and trade policy with EU
 - “President Trump disrupted U.S. trade policy in the name of better deals. President-Elect Biden proposes a combination of stronger domestic investment and better coordination with allies.”
James McBride Council on Foreign Relations 1-13-21
 - **Resolution of the EU Airline Dispute and removal of 25% EU tariffs on tobacco, sweet potatoes and peanuts**
- Trade policy will be impacted by other Biden Administration priorities... ***“foreign policy for the middle class”***
 - *Labor*
 - *Environmental concerns*

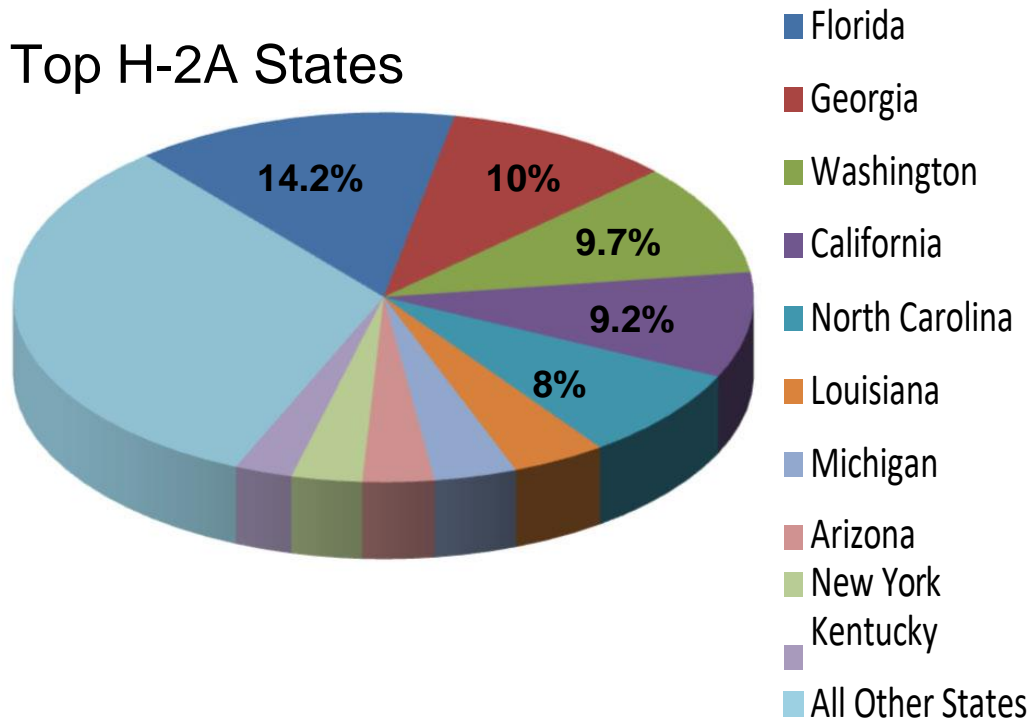
Labor

Federal minimum wage increase?

H-2A program rules do not change & AEWR increases

2021 AEWR for NC: \$13.15

Top H-2A States



275,430 positions certified in 2020

Source: Office of Foreign Labor Certification, U.S. DOL

Immigration Policy

- 8 year path to citizenship for undocumented immigrants
- Shorter path to citizenship for DREAMERS and agricultural workers
- A more porous border?
 - influx of foreign workers
 - A return to use of undocumented workers in agriculture?

The Environment & Farm Policy

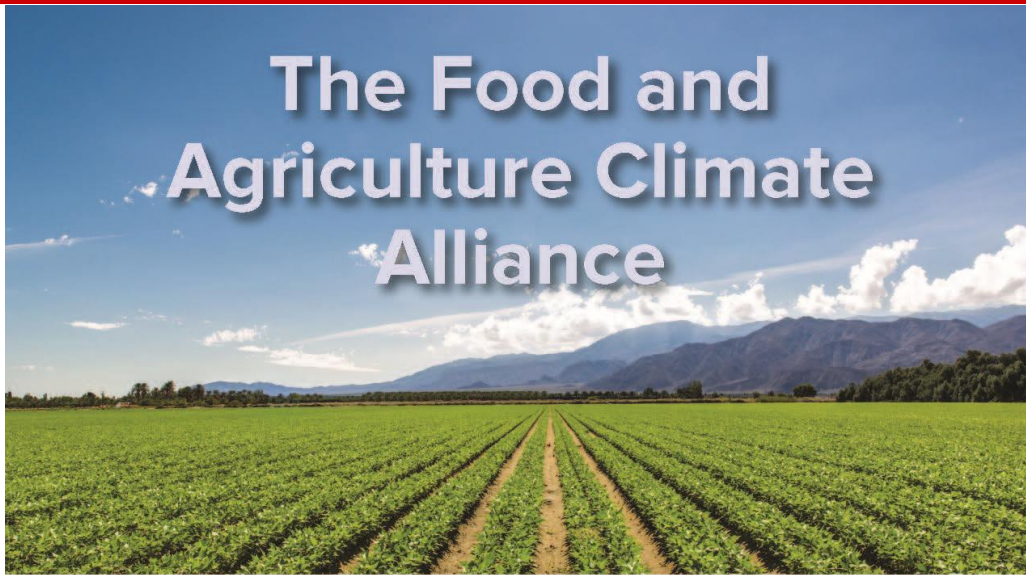
Climate Change

“Biden’s climate change strategy looks to pay farmers to curb carbon footprint”

CNBC 2-12-21

Be engaged or be regulated





The Food and Agriculture Climate Alliance

Rising to the Climate Challenge

U.S. farms, ranches and forests are on the frontlines of climate change — from more frequent droughts to heavier and more variable rainfall. The increase in extreme weather events and shift in growing seasons impedes crop and livestock production, threatening food and agricultural livelihoods and undermining global food security.

Farmers, ranchers and forest owners are innovating and rising to the challenge. As stewards of the land, they have enormous opportunities to drive solutions that reduce greenhouse gas emissions and build resilience throughout the food and forestry value chains. Federal policy can and should provide incentives and support to ensure that farmers, ranchers and forest owners benefit from their role in developing and driving climate solutions.

Policy Recommendations from an Unprecedented Alliance

The Food and Agriculture Climate Alliance (FACA) consists of organizations representing farmers, ranchers, forest owners, the food sector, state governments and environmental advocates that are working together to define and promote shared climate policy priorities.

Together, we developed a set of policy recommendations for federal lawmakers in six areas: soil health, livestock and dairy, forests and wood products, energy, research, and food loss and waste. These recommendations share an overarching goal to do no harm.

Founders:

American Farm Bureau Federation

Environmental Defense Fund

FMI-The Food Industry Association

National Alliance of Forest Owners

National Association of State Departments of Agriculture

National Council of Farmer Cooperatives

National Farmers Union

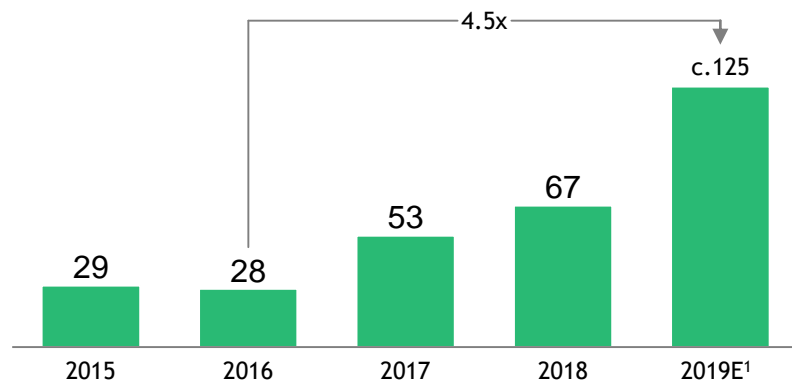
The Nature Conservancy

agclimatealliance.com

Carbon credit markets are experiencing explosive growth in quantity

PAST Issuance from independent crediting programs has increased more than 4-fold since 2016...

Carbon credit issuances under the 2 largest voluntary standards (VCS and Gold Standard), MtCO₂e



FUTURE ...and experts expect breakneck growth to continue into the medium- and long-term

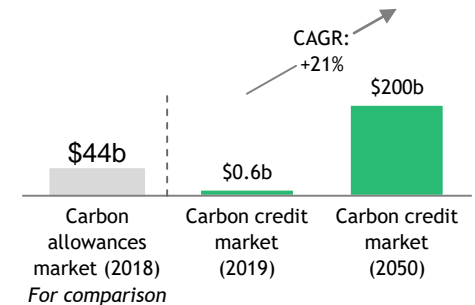
Boom times are back for carbon offsetting industry

Edward Hanrahan, chairman of Climate Care, a consultancy that sells offsets, estimated that prices of carbon credits would rise by 20 per cent annually during the next five years. “We’ve really seen things start to move again,” he said. “The inquiry rate for us is eight- to ten-fold what it would have been two years ago.”

FT FINANCIAL TIMES

Global carbon offsets market could be worth \$200 billion by 2050: Berenberg

S&P Global Platts



1. 2019 data is based on 11 months of actuals and an indicative estimate for December 2019
Source: Forest Trends Ecosystem Marketplace carbon credit reports; Verra; Gold Standard; S&P Global Platts; Financial Times; BCG analysis

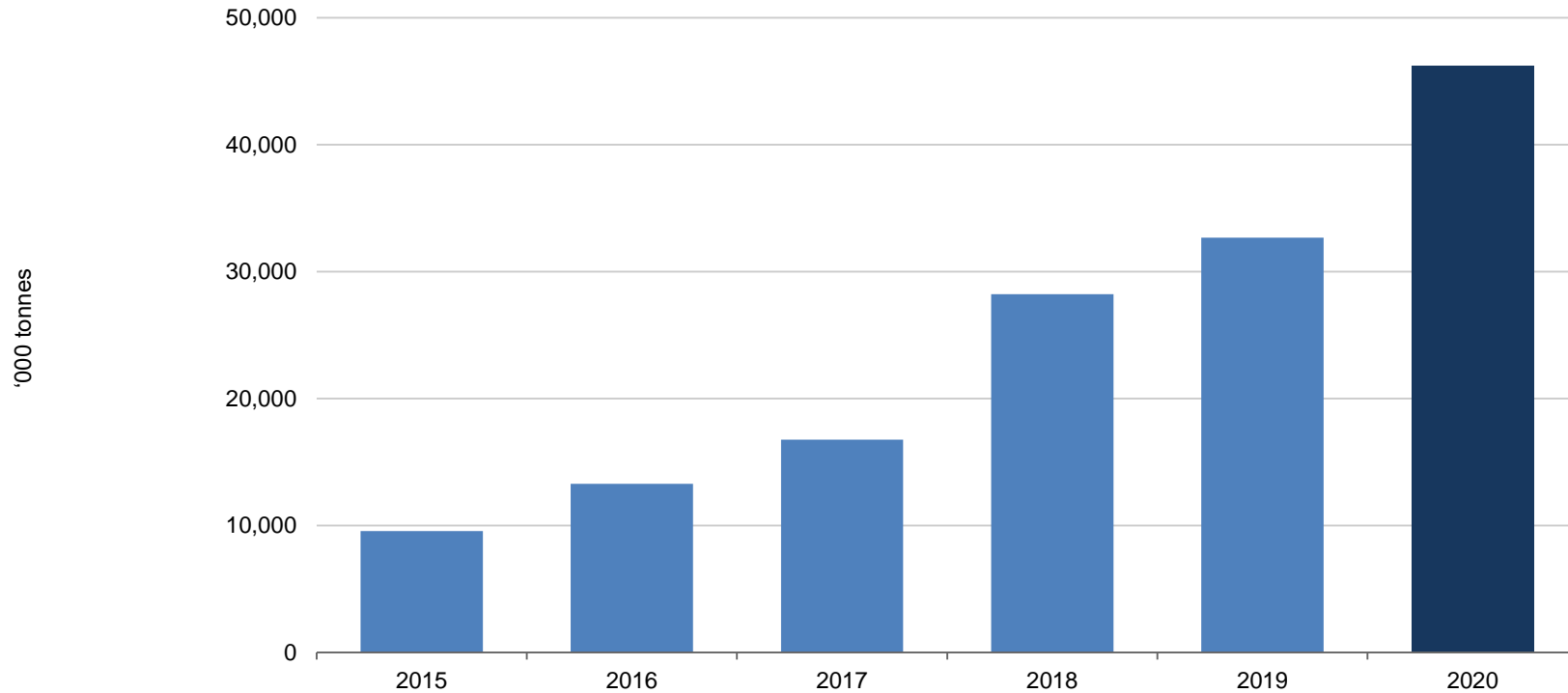
Voluntary carbon market governance post-2020. Brad Schallert Director, Carbon Market Governance and Aviation WWF-US
IETA LIVE Carbon Market Virtual Series. July 9, 2020

The Pandemic

The pandemic changed the way we buy food

What will the transition back look like?

Fresh Food E-Commerce Retail Sales Volume, Key Markets 2015-2020

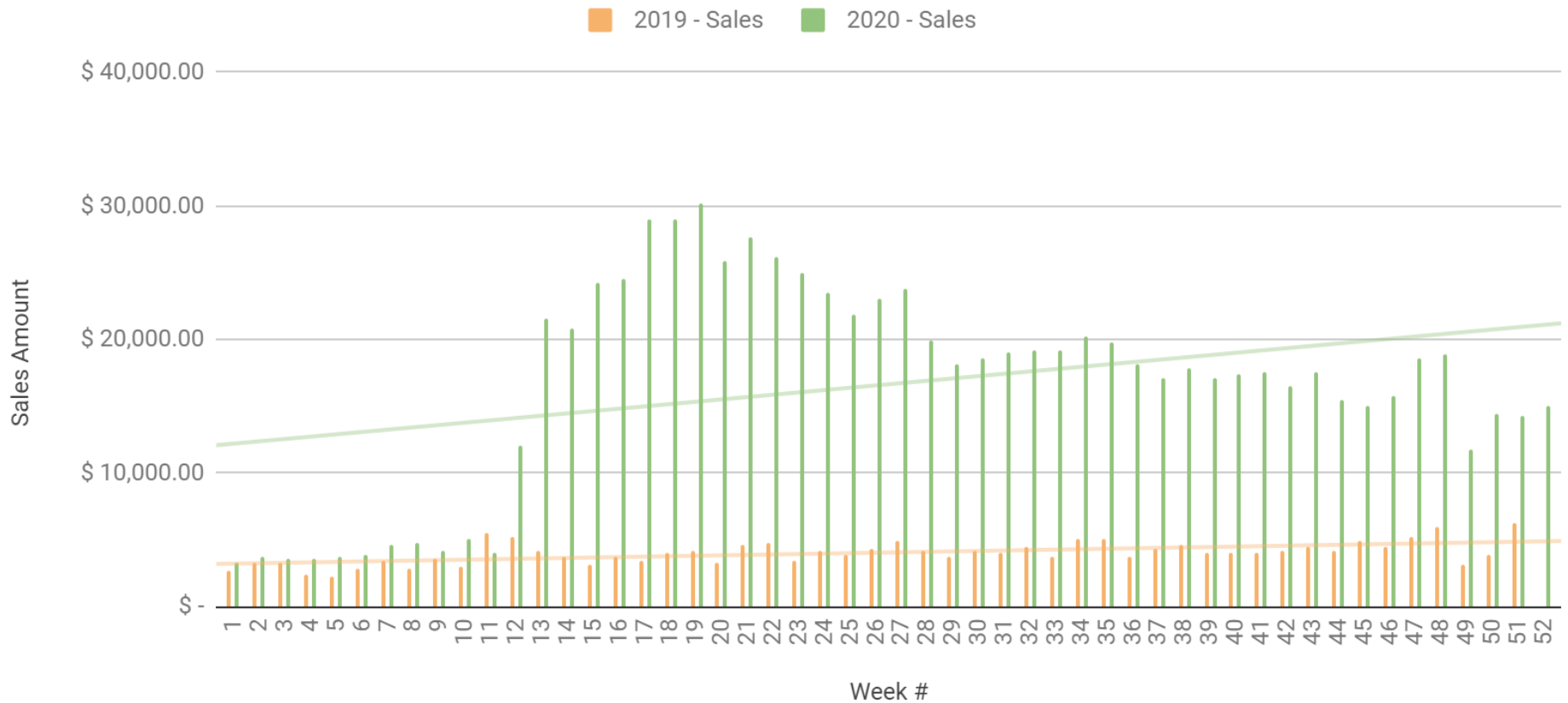


Note: Key market data include Australia, Brazil, China, France, Germany, India, Italy, Japan, Mexico, Morocco, Russia, South Africa, Spain, UK, UAE, US, Thailand, Vietnam

Source: The World Market for Fresh Food. Euromonitor International *Passport* February 2021

Local Food: High Country Food Hub

Weekly Sales - 2019 & 2020 Comparison



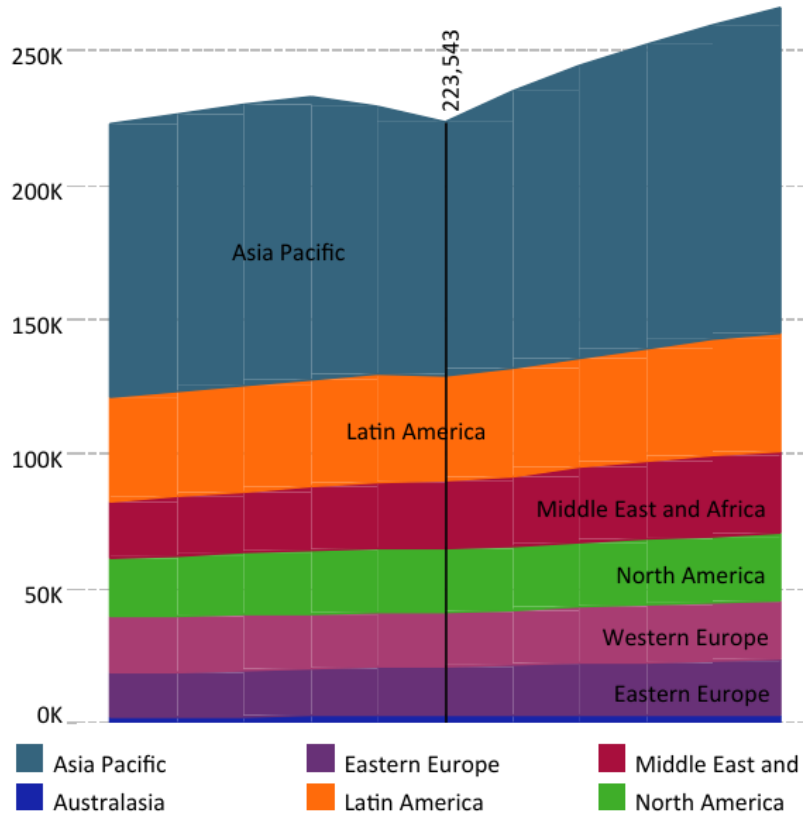
U.S. Peanut Use

| Million pounds | Candy | Snacks | Peaut Butter | Other Products | Total Shelled Edible Grades | Total Shelled All Grades | In Shell |
|------------------|-------|--------|--------------|----------------|-----------------------------|--------------------------|----------|
| Aug-July 2018/19 | 381 | 468 | 1,342 | 113 | 2,304 | 2,790 | 138 |
| Aug-July 2019/20 | 396 | 481 | 1,410 | 92 | 2,379 | 2,959 | 141 |

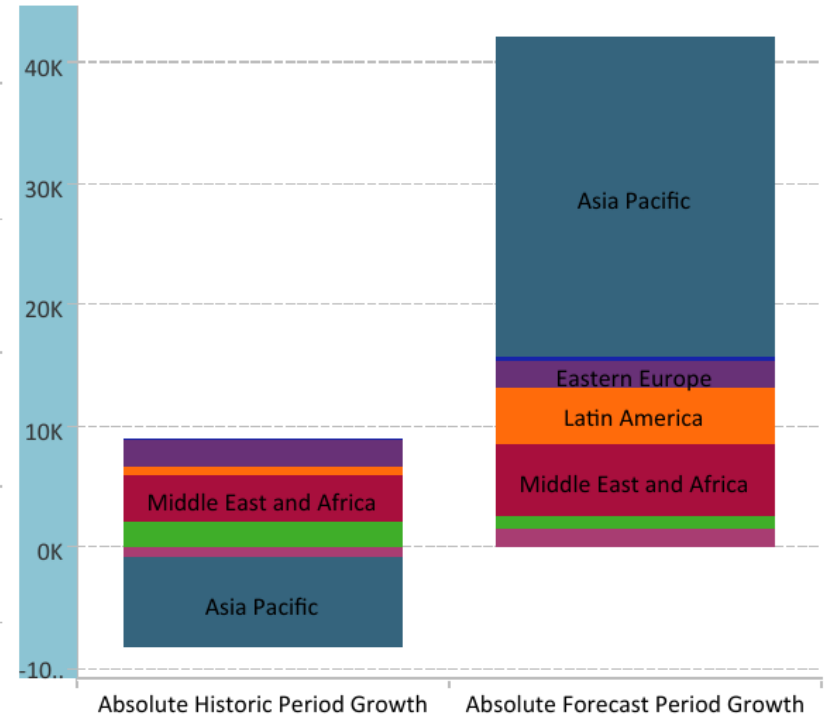
Source: USDA-AMS

Global snapshot of meat

Meat: Evolution of Global Market 2015-2025
Total Volume '000 tonnes



Meat: Absolute Growth by Region
Total Volume '000 tonnes

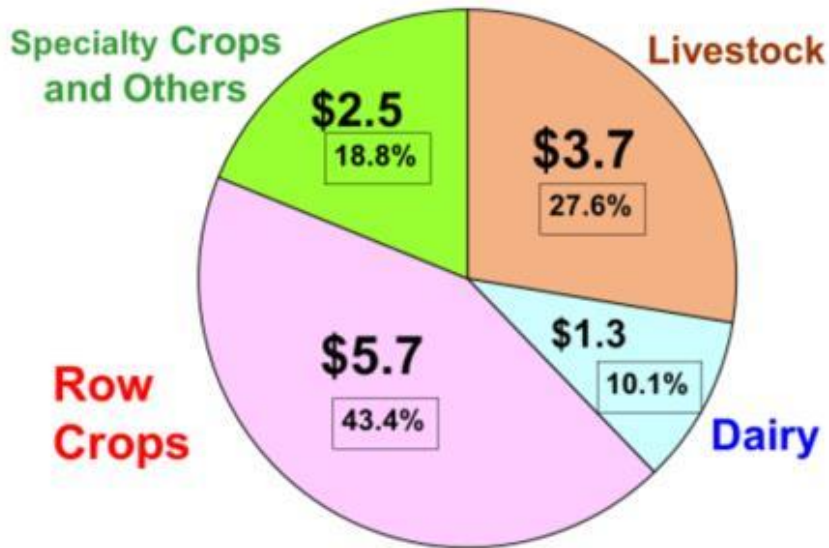


Source: The World Market for Fresh Food. Euromonitor International *Passport* February 2021

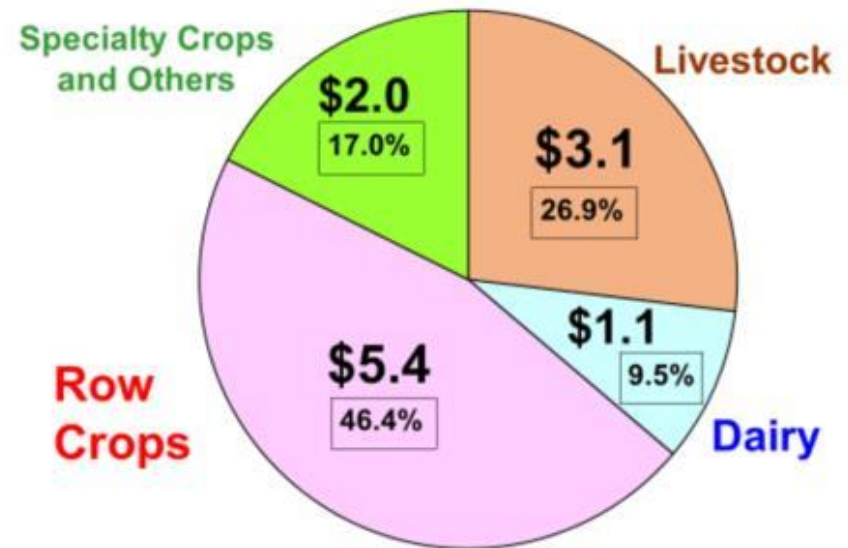
USDA CFAP

CFAP-2 Payments

(USDA Projected Outlays: \$13.2 billion)



(Actual Outlays as of Dec. 5, 2020: \$11.6 billion)



Source: "USDA's Coronavirus Food Assistance Program: Round Two (CFAP-2)" CRS Report 12-21-2020

CFAP-2.1

- Would use \$2.3 billion remaining from CFAP-2
- Expanded farmer eligibility
 - Expanded eligibility
 - **Contract producers of hogs and poultry**
 - Turfgrass sod
 - Updated payment calculations
- On hold pending review under new administration

TAKE AWAYS...

Farm Income in 2021

- Stronger commodity markets
- Lower government payments
- USDA forecasts a decrease in farm income

Trade

- Continued strong export opportunities in 2021 for pork, poultry, soybeans and corn
- Flue-cured tobacco production rebounds to over 300 million pounds
- Strong opportunities with China but the future with China is clouded by strained relations
- Strong opportunities with other SE Asia countries
- Resolution of EU-US airline dispute and removal of retaliatory tariffs between the EU and US

Labor

- Potential increases in the federal minimum wage would escalate AEWR
- But how will immigration policy changes affect the availability of labor in agriculture?

Climate Change

- Climate change is the new theme for farm programs
- Incentive payments for carbon sequestration?

Recovery from the Pandemic

- What food purchase practices do we return to?
 - eating out returns
- What practices do we retain from the pandemic?
 - online grocery purchases are here to stay
 - Can local food hold on to gains?
- Growth in global meat consumption resumes; especially in southeast Asia