

CHS[®]

The logo features the letters 'CHS' in a white, serif font. A thick, white, curved swoosh underline starts under the 'C', goes under the 'H' and 'S', and then curves back up under the 'S'. A small registered trademark symbol (®) is located to the upper right of the 'S'.



Opportunity and Interesting Times for Agriculture

Brian Schouvieller

Senior Vice President

Spiritwood fertilizer project

DTN/Progressive Farmer, Chicago, Ill.

December 2014



**Farmer-owned
with global
connections.**



TODAY'S TOPICS

- **Global competition**
- **U.S. transportation system**
- **Global food demand**
- **U.S. energy boom**
- **Global nitrogen fertilizer production**

WHO WE ARE

- Nation's leading cooperative, owned by farmers, ranchers and co-ops
- Global energy, grains, and foods business
- Cenex® brand
- Focused on helping our owners grow
- More than 10,000 employees in the U.S. and 24 other countries



GLOBAL FOOTPRINT

CHS global operations, assets and partnerships

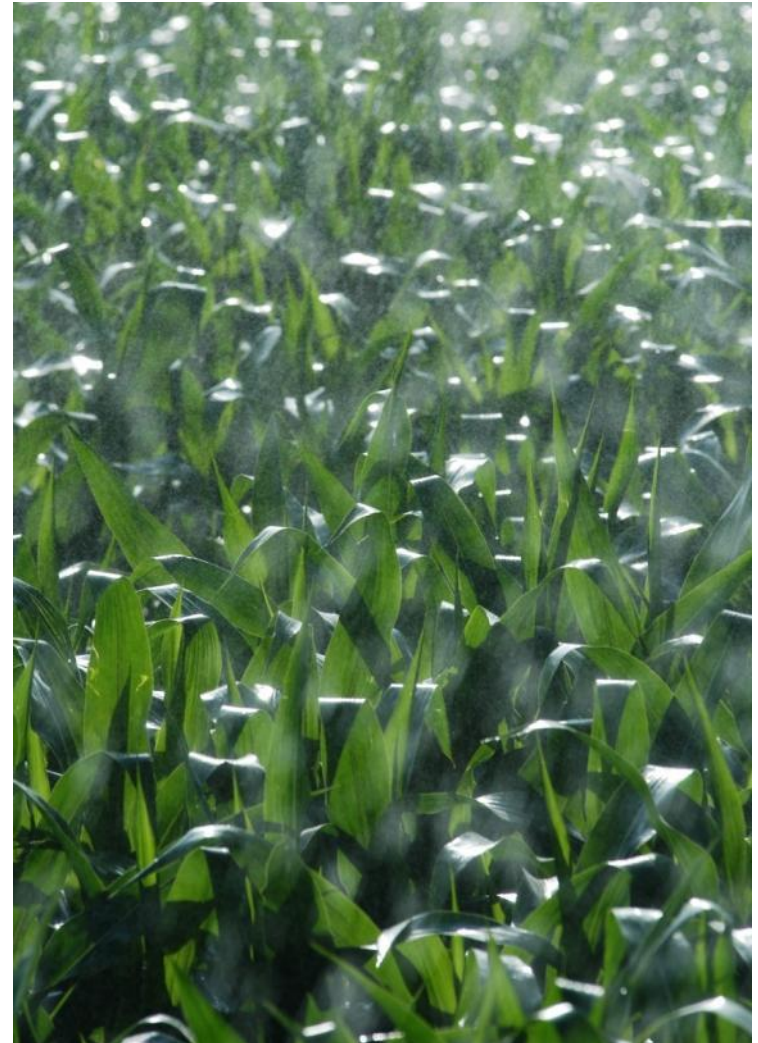
- ▼ Agri Operations
- ◆ Animal Nutrition
- ◆ Ardent Mills (Joint Venture with Cargill and ConAgra Foods)
- Asphalt Plants
- ★ CHS Headquarters
- ▼ Crop Nutrients Terminals, Joint Ventures
Not shown, more than 100 leased locations for dry and liquid storage
- Global Offices
- Grain Marketing Export Terminals, Inland River Terminals, Origination
- ◆ Lubricant Plants
- ✕ Other Ports
- + Processing and Food Ingredients
- ◆ Propane Terminals
- Raw Materials Supply Office
- Refined Fuels Terminals
- Refineries
- Sunflower Processing
- ▲ Transportation Terminals
- ⊕ Transshipment Terminals
- Ventura Foods (Joint Venture with Mitsui & Co., Ltd.)

Oct 2014



RECENT CHS HIGHLIGHTS

- **Fiscal 2014 net income \$1.1 billion**
- **Fiscal 2014 net revenues \$43 billion**
- **2013 record patronage refunds of \$600 million**
- **2014 patronage est. \$518 million**



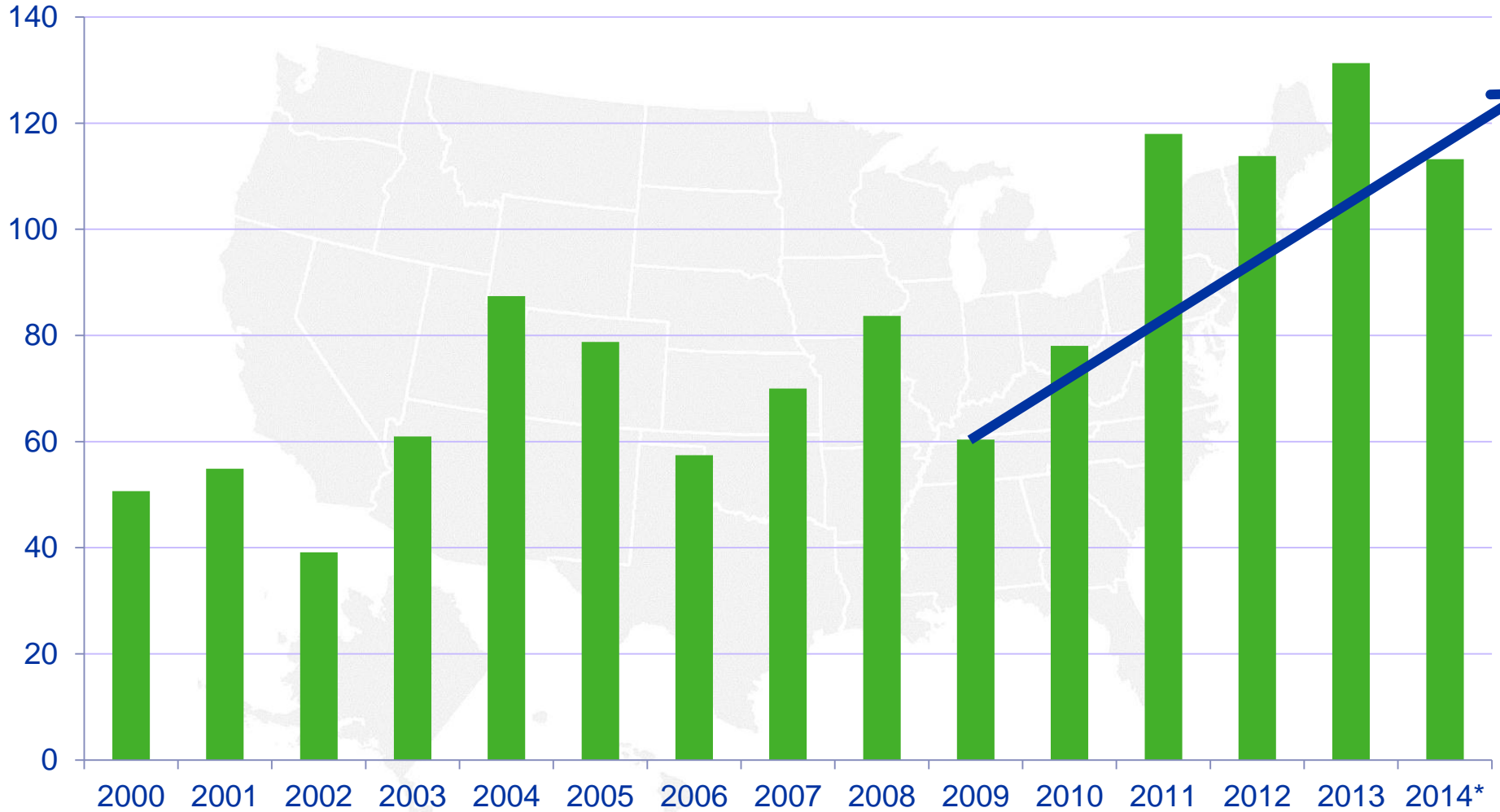


***Let the good
times roll!!***

HISTORIC CORN, SOYBEAN, WHEAT PRICES

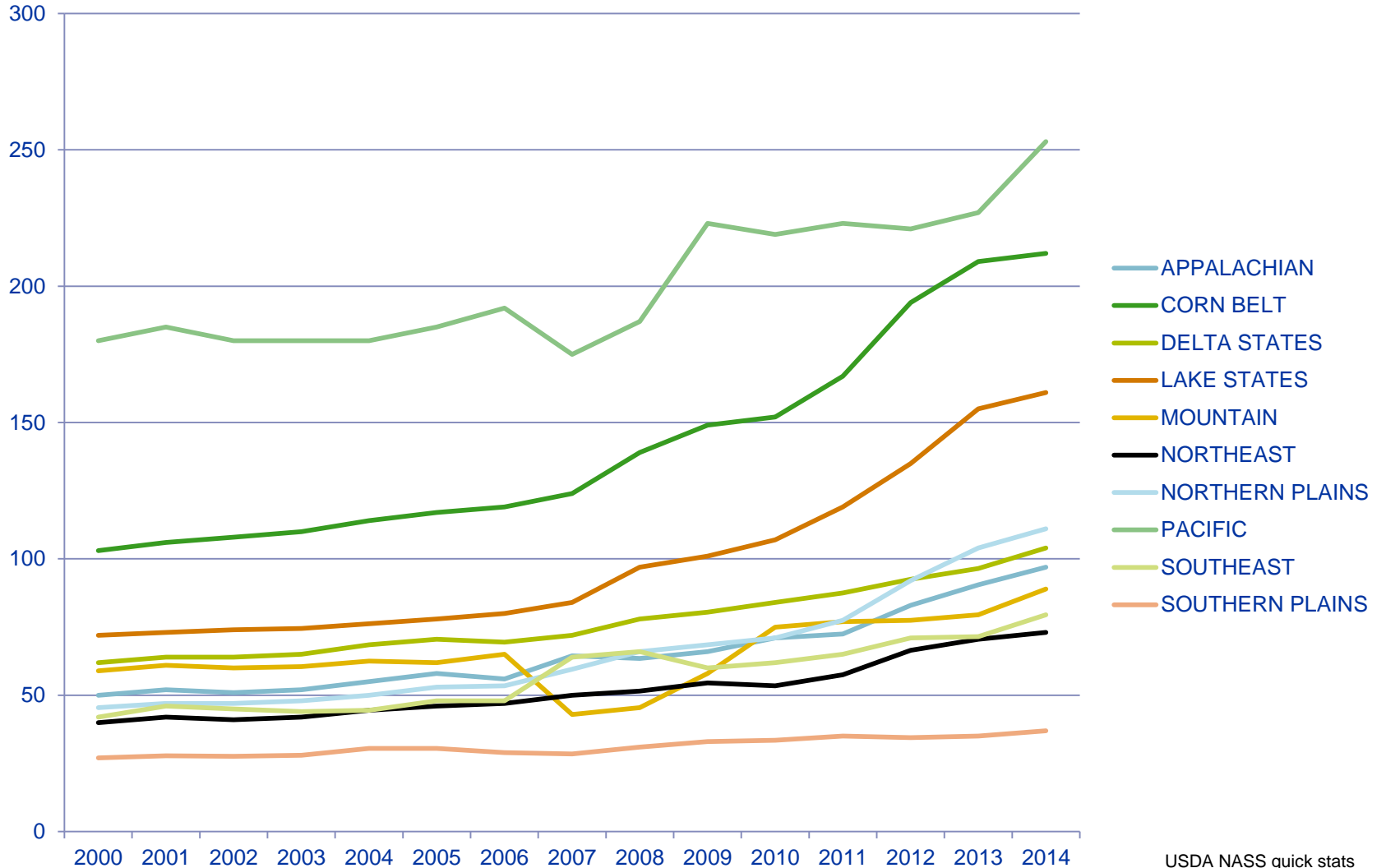


U.S. FARM INCOME IN BILLION DOLLARS



Source: USDA ERS

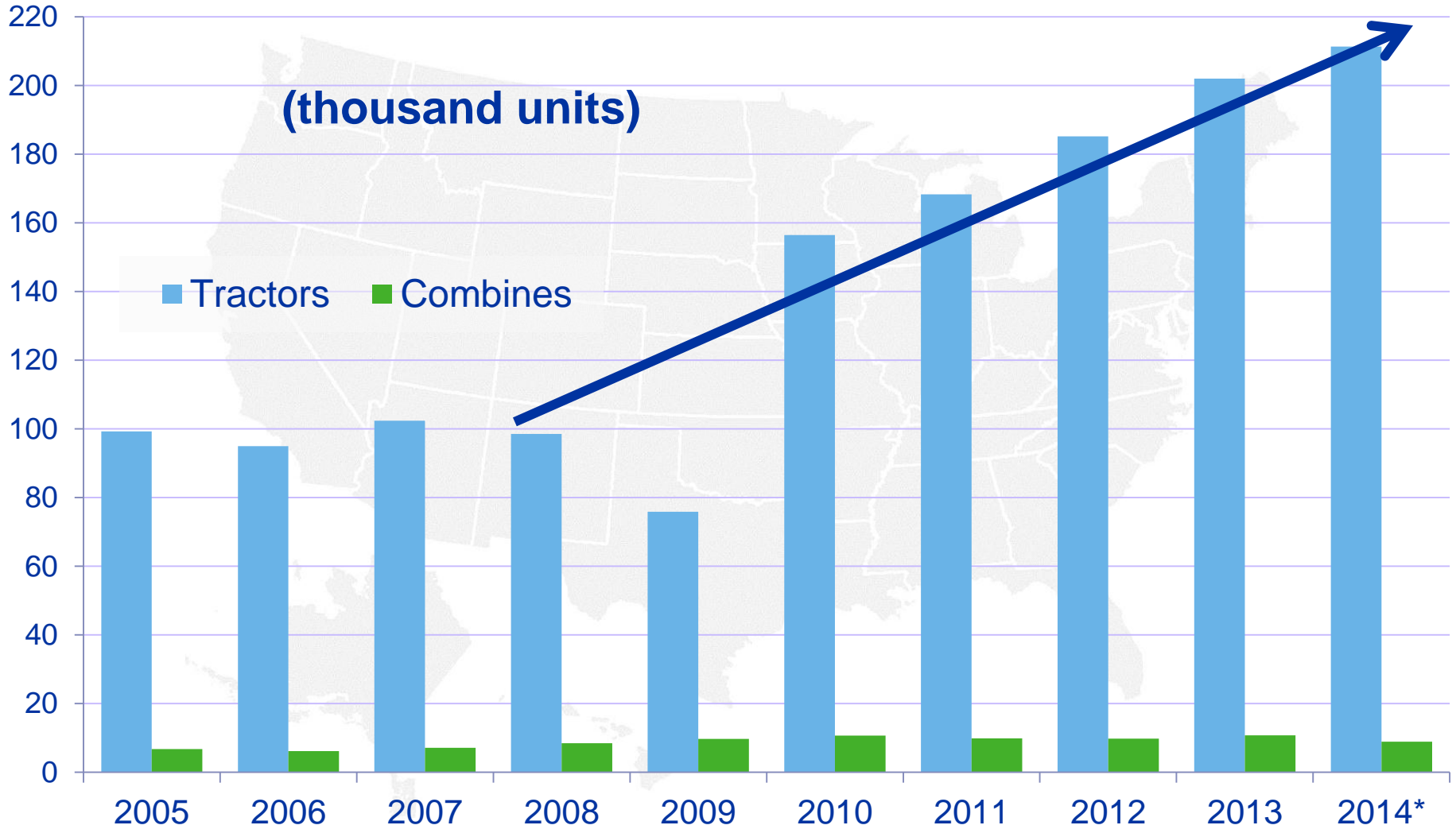
REGIONAL CASH RENTS



USDA NASS quick stats



FARM MACHINERY SALES



Source: AEM



CURRENT MARKETPLACE DRIVERS

Foreign investment

Global competition

Lower commodity prices

Volatility

Global food demand

Counterparty risk

Land prices

Cost of capital

Pricing

Input costs

Weather

regulation

Energy Prices

Technology

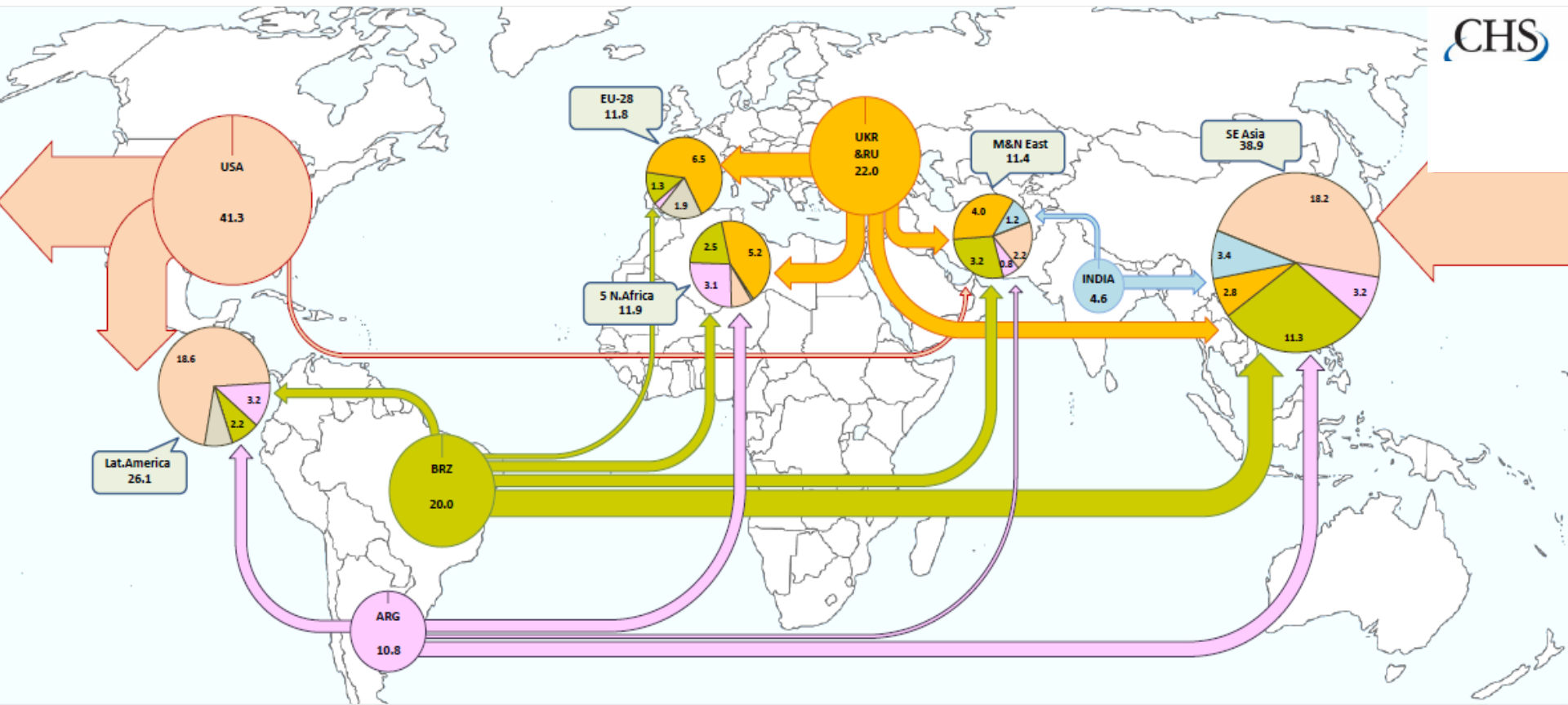
Currency

Transportation

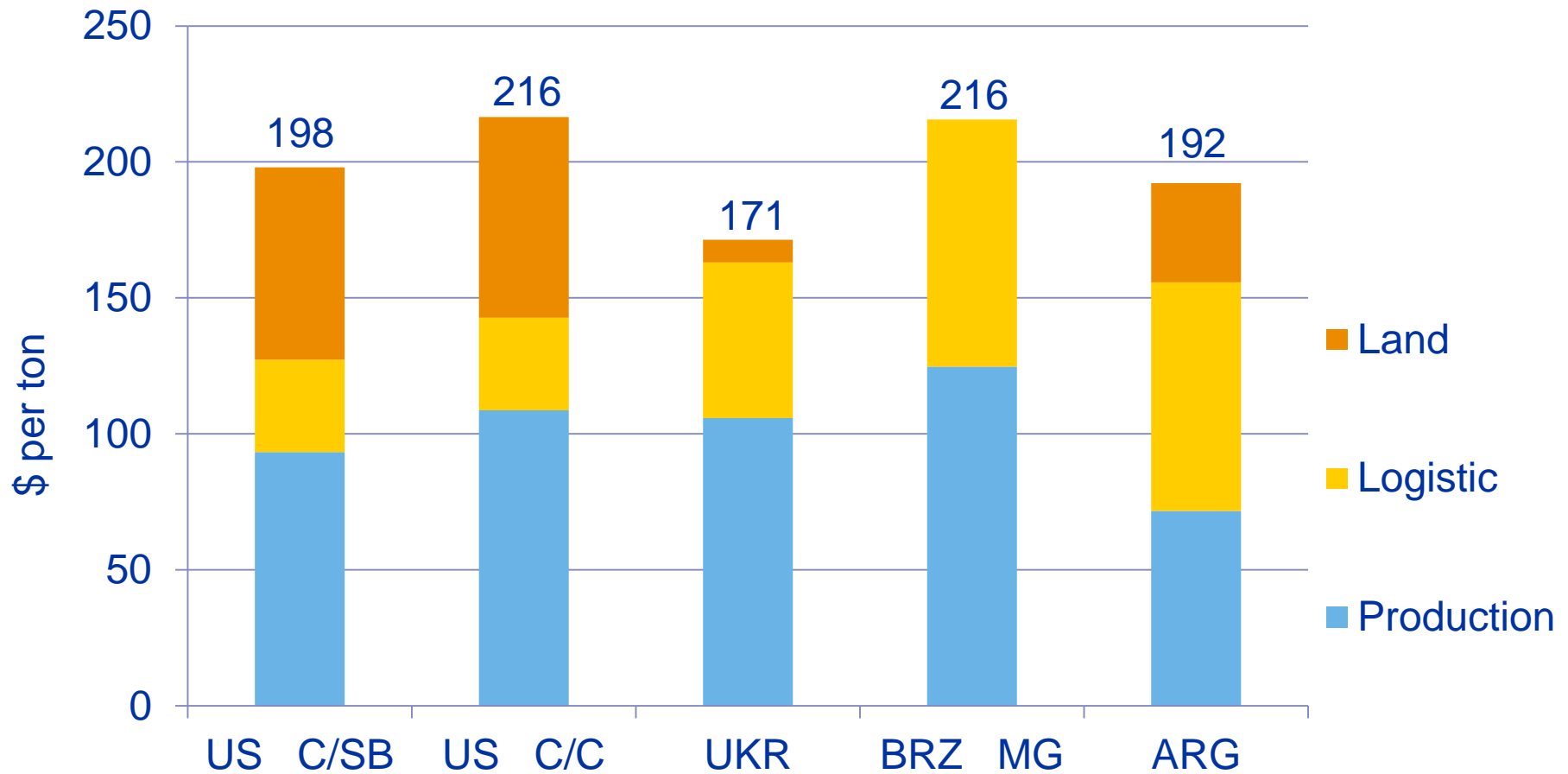
GLOBAL CORN PRODUCTION 10 YEAR CHANGE

	<u>HARVESTED AREA</u>	<u>YIELD</u>	<u>PRODUCTION</u>
UNITED STATES	+21%	+25%	+52%
CHINA	+52%	+24%	+88%
UKRAINE	+310%	+81%	+642%
BRAZIL	+27%	+67%	+111%
ARGENTINA	+34%	+16%	+56%

CORN TRADE FLOWS – 10 YEAR PROGRESS



COST OF CORN PRODUCTION MAJOR EXPORTERS





U.S. transportation system takes center stage

CURRENT RAIL SITUATION

- **Drivers**
 - Resources drawn down
 - Growth in all sectors
 - Extreme weather
- **Outcomes**
 - reduced capacity
 - longer cycle times
 - higher car costs
- **Outlook**
 - significant investments pay off



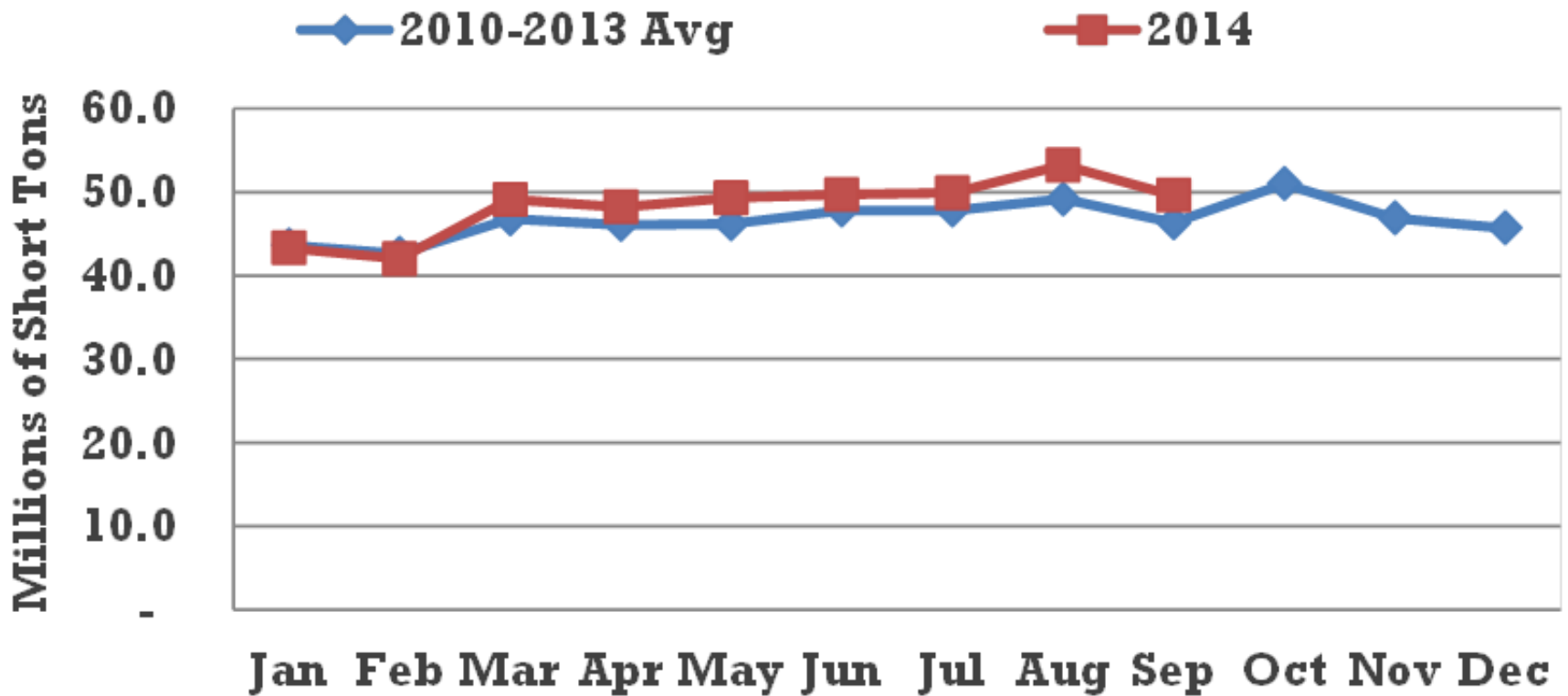
CURRENT RIVER SITUATION

- **The inland waterway system is operating under capacity**
- **Who will invest in necessary improvements**
- **Weather**
- **Growing demand in all sectors**



RIVER TRAFFIC

All Commodities



CURRENT TRUCK SITUATION

- **Underinvestment in infrastructure during recession**
- **More than 10% of drivers left industry (2008 – 2012)**
 - Continued driver shortage
- **Changing regulatory climate**
 - Hours of service rules adding to capacity constraints
 - Impact like reducing labor force by 5%-10%
- **Strong demand for trucking services from all sectors**



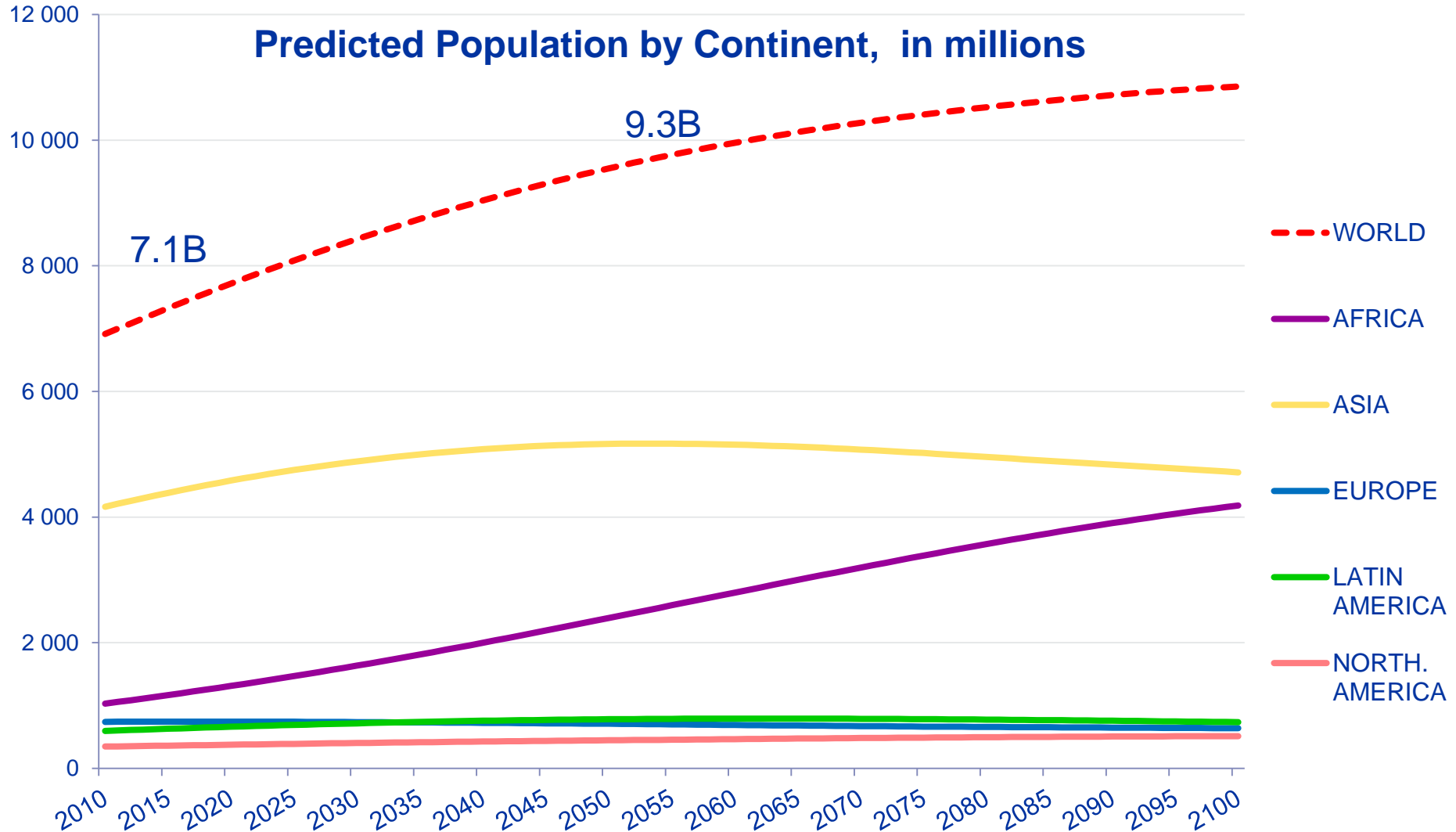


Opportunity ahead:

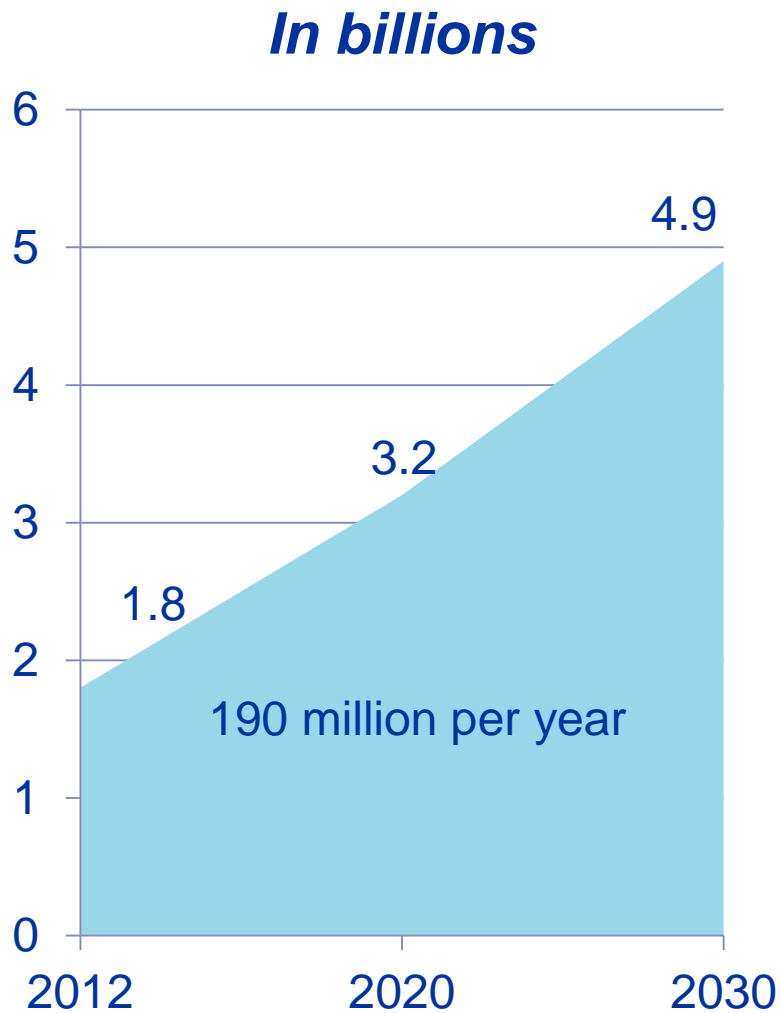
**The world is hungry;
especially China**

POPULATION GROWTH BY CONTINENT

Predicted Population by Continent, in millions



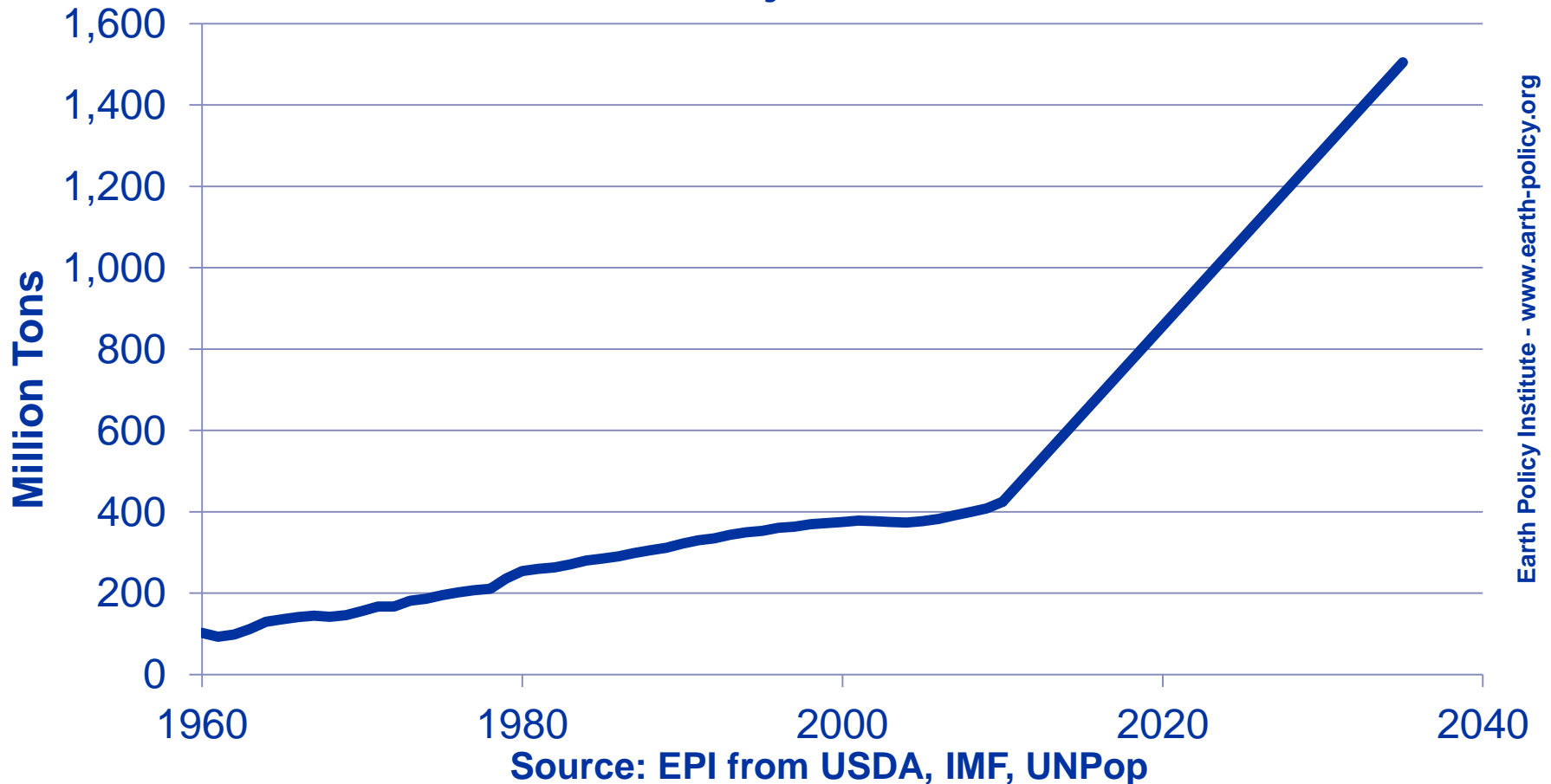
A GROWING MIDDLE CLASS



Asia will account for 85% of growth

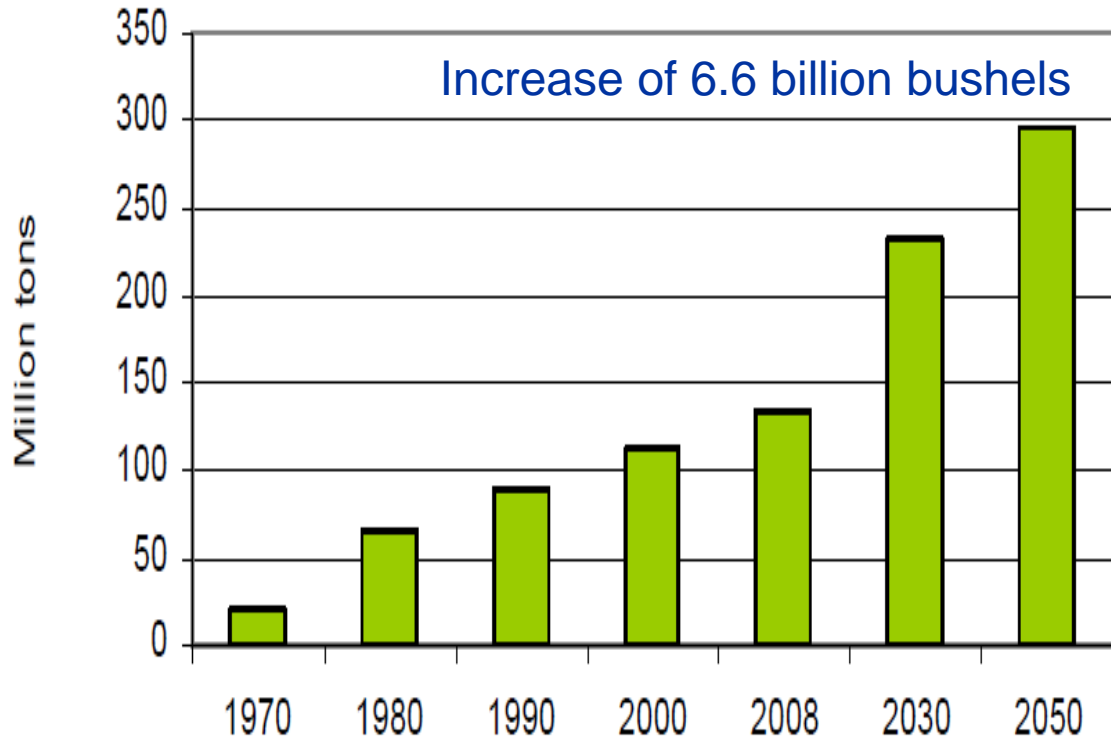
A HUNGRY CHINA


Grain Consumption in China, 1960-2010, with Projection for 2035



Earth Policy Institute - www.earth-policy.org

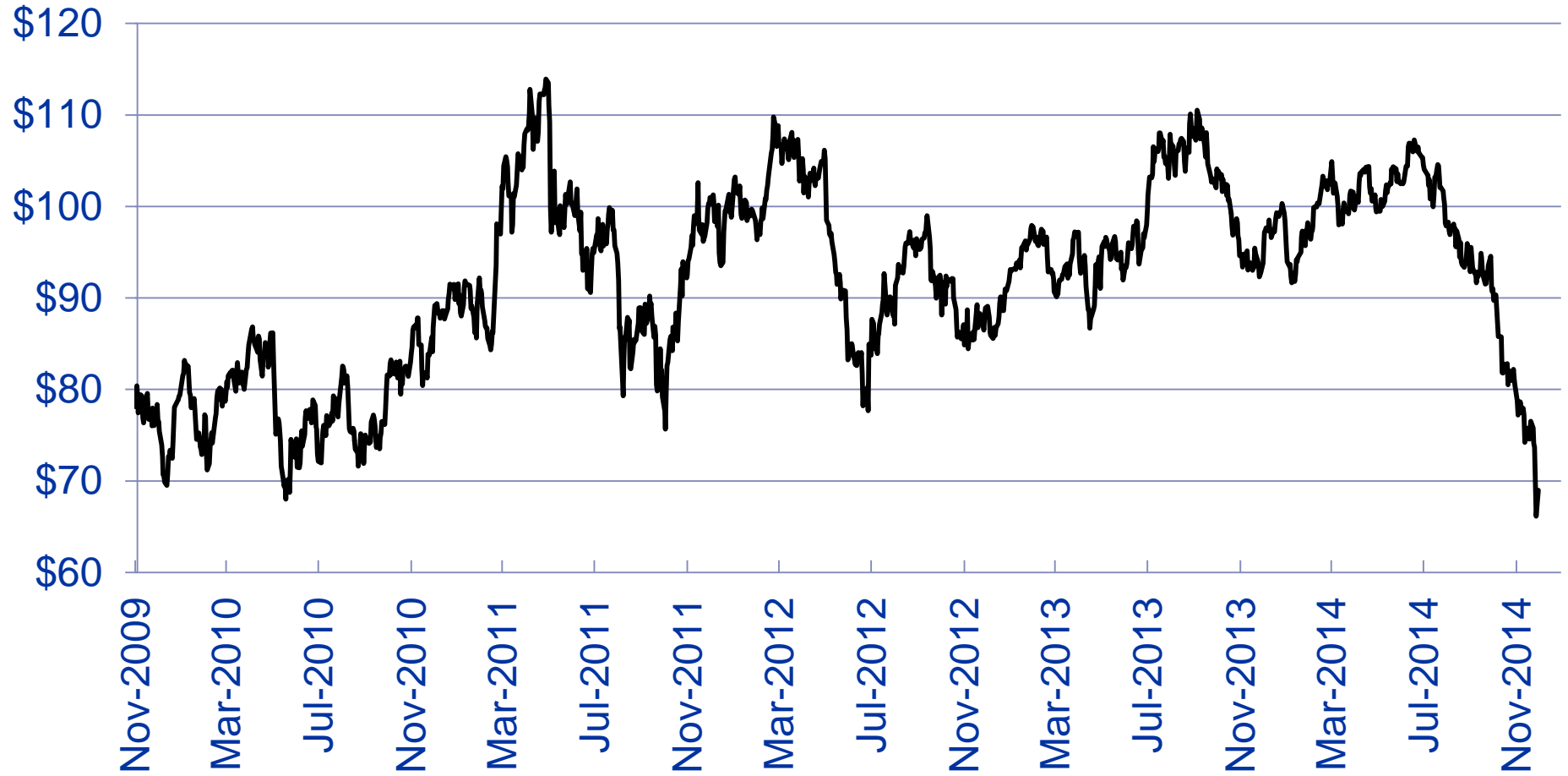
NET GRAIN IMPORTS IN DEVELOPING COUNTRIES



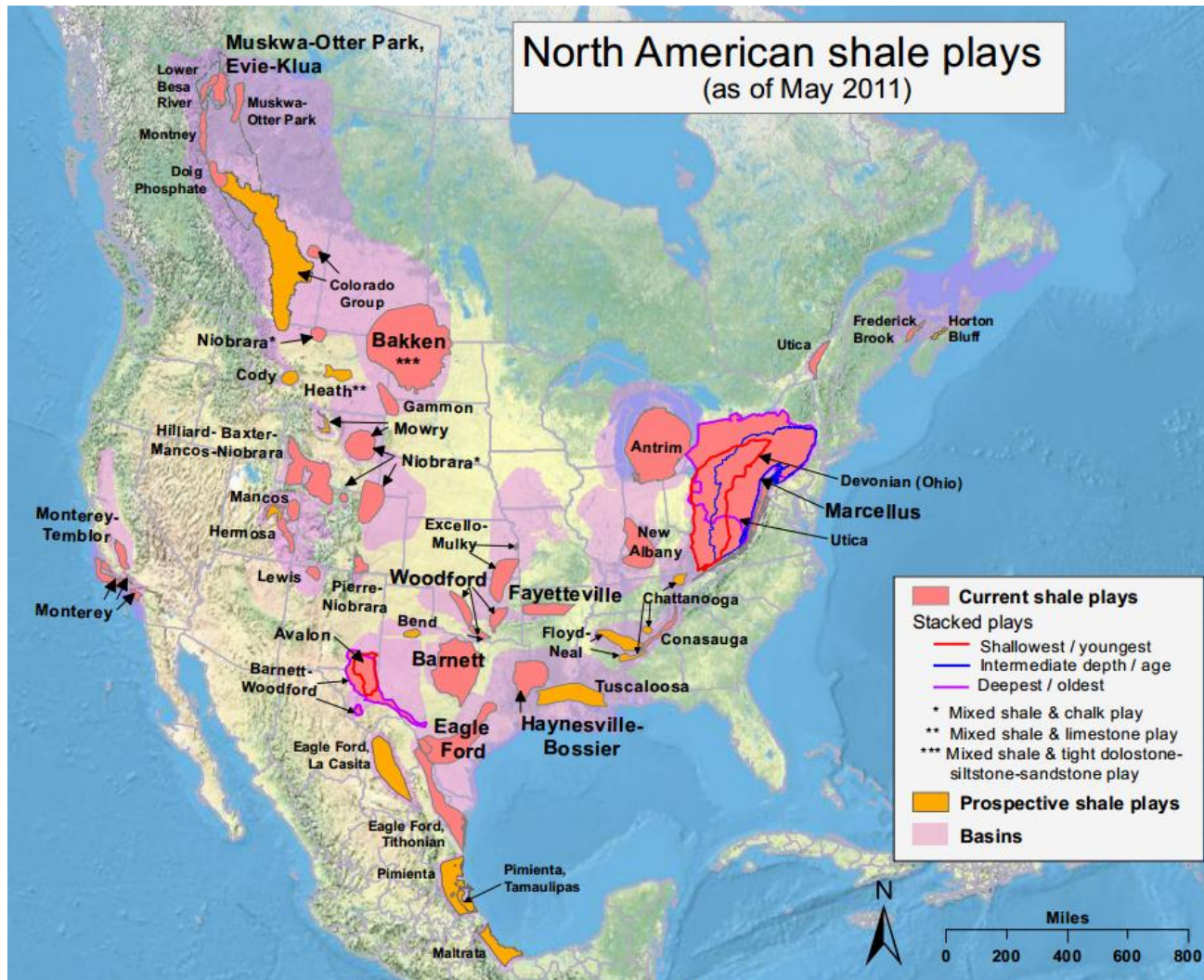


U.S. energy independence, what does it mean?

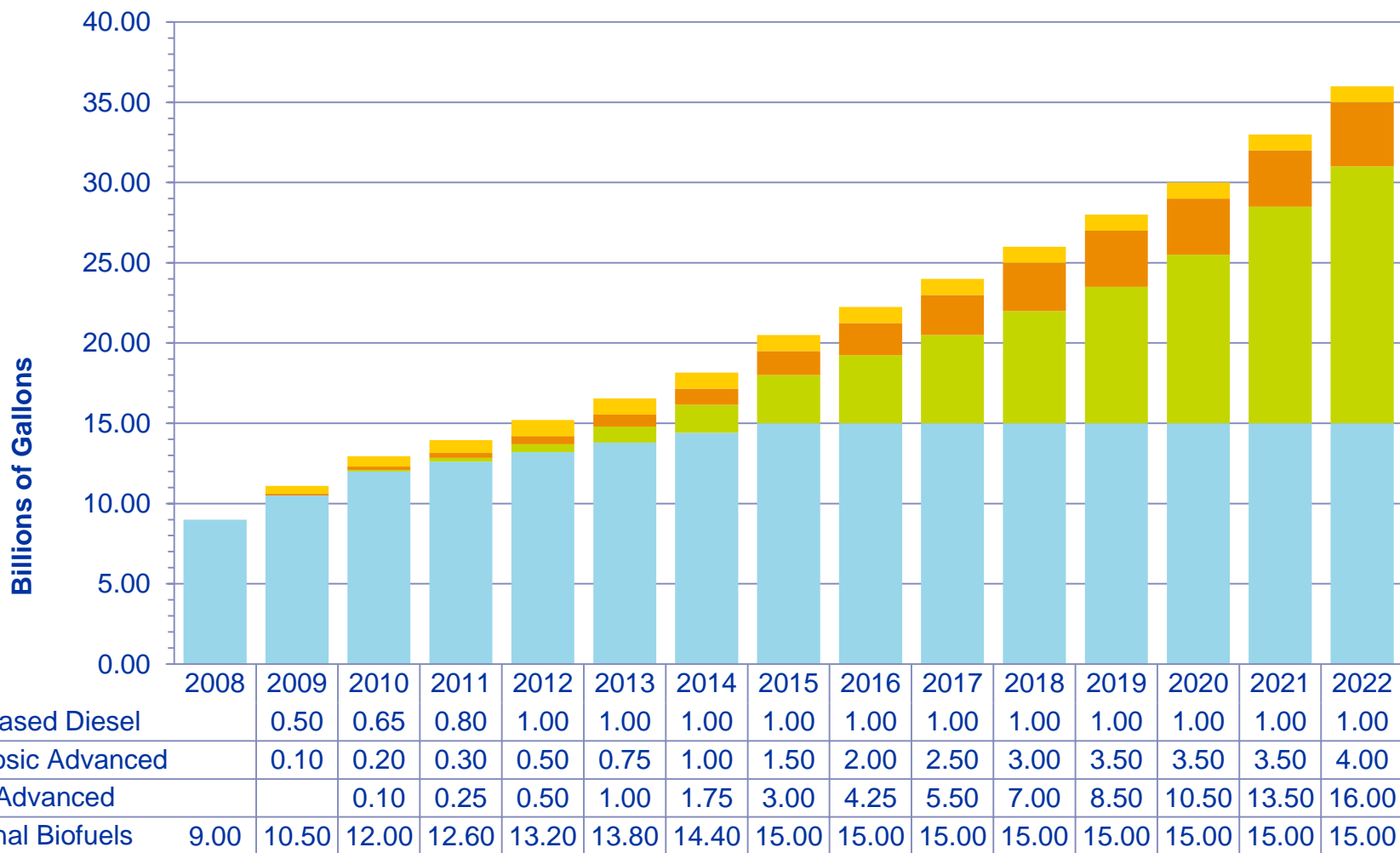
U.S. CRUDE OIL PRICE (WTI)



SHALE DEPOSITS AND HYDRAULIC FRACKING



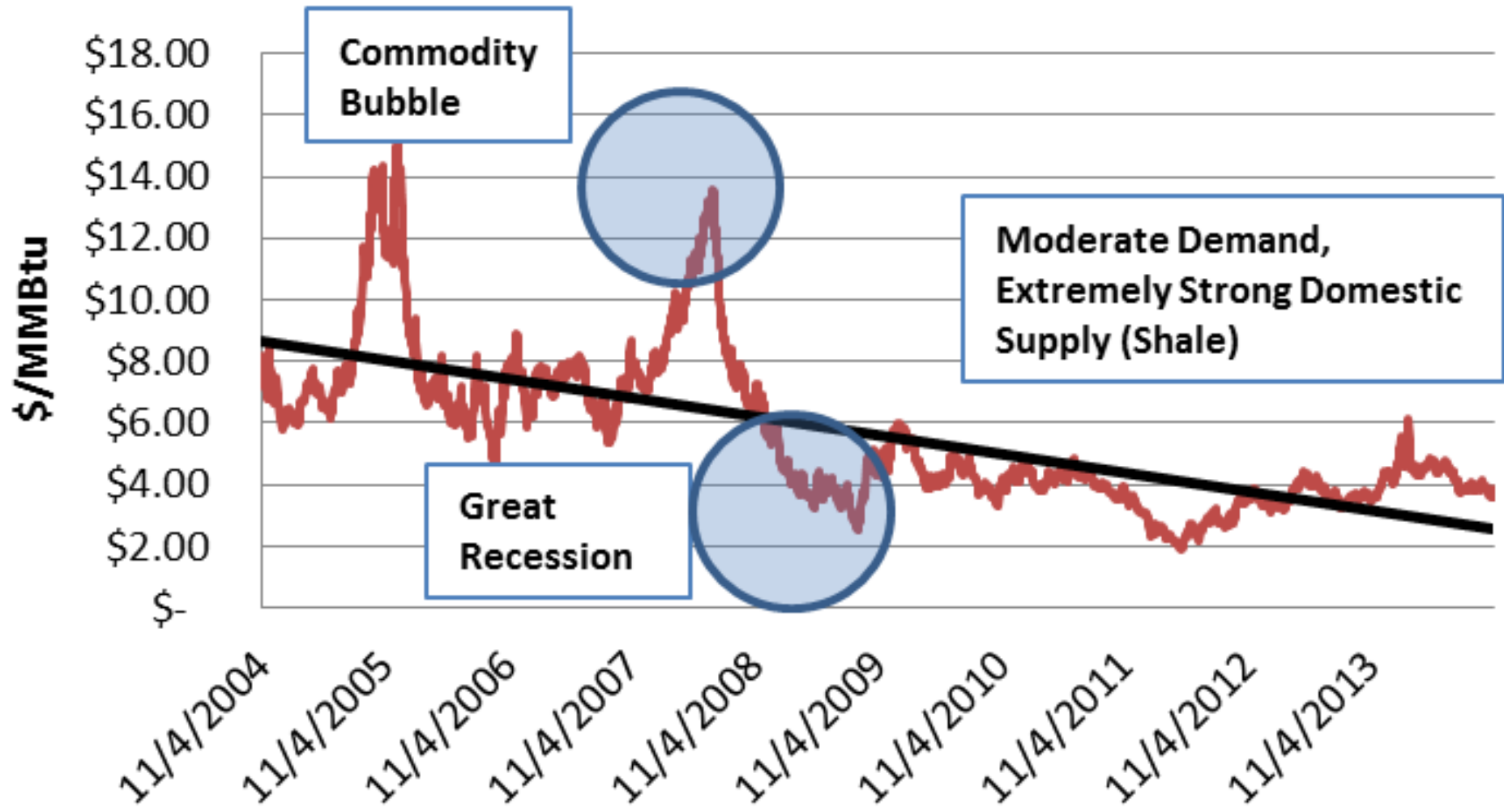
FEDERAL RENEWABLE FUEL STANDARD (2008 - 2022)





Cheap natural gas
fuels U.S. nitrogen
fertilizer expansion

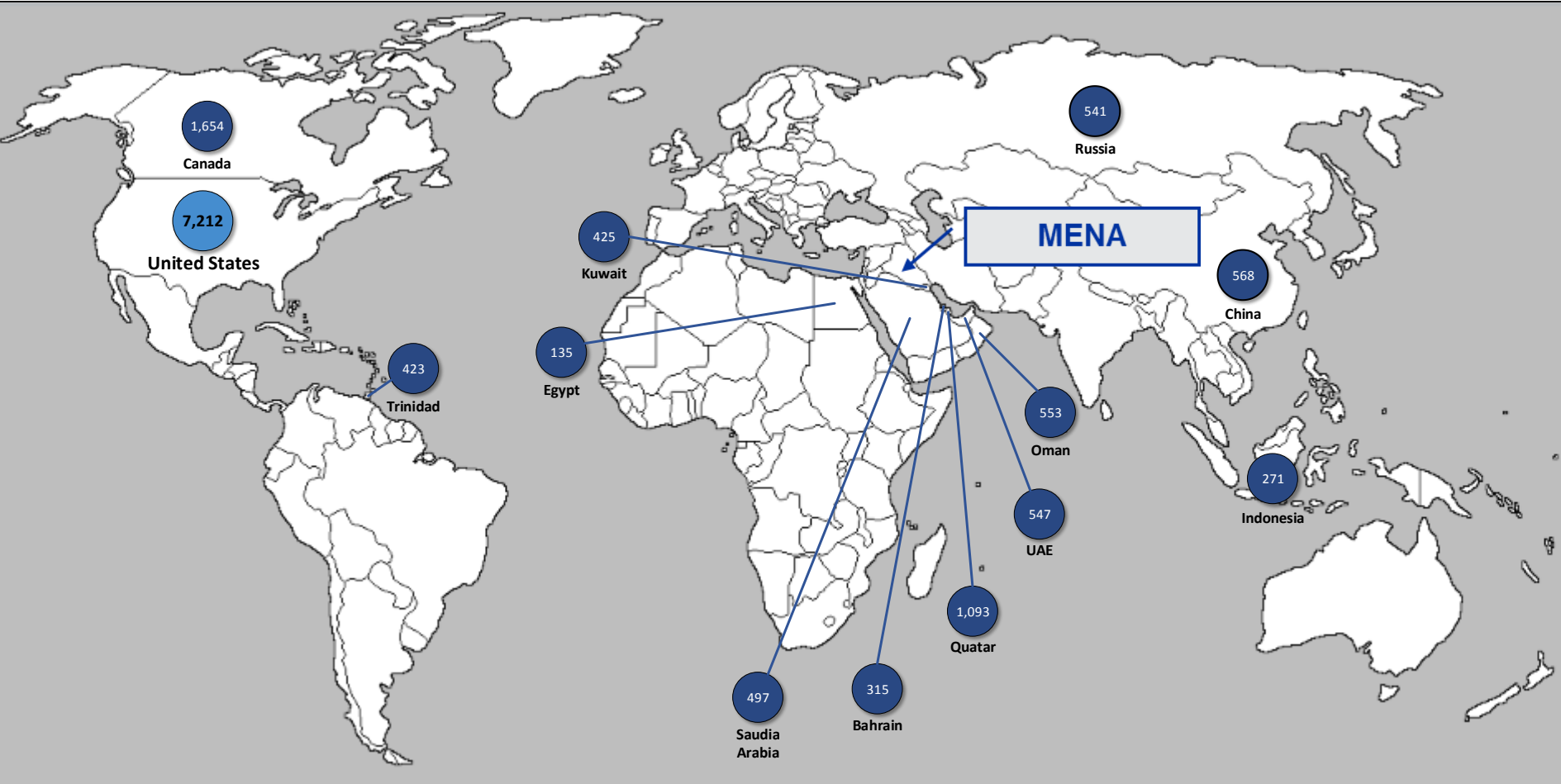
NATURAL GAS TRENDS



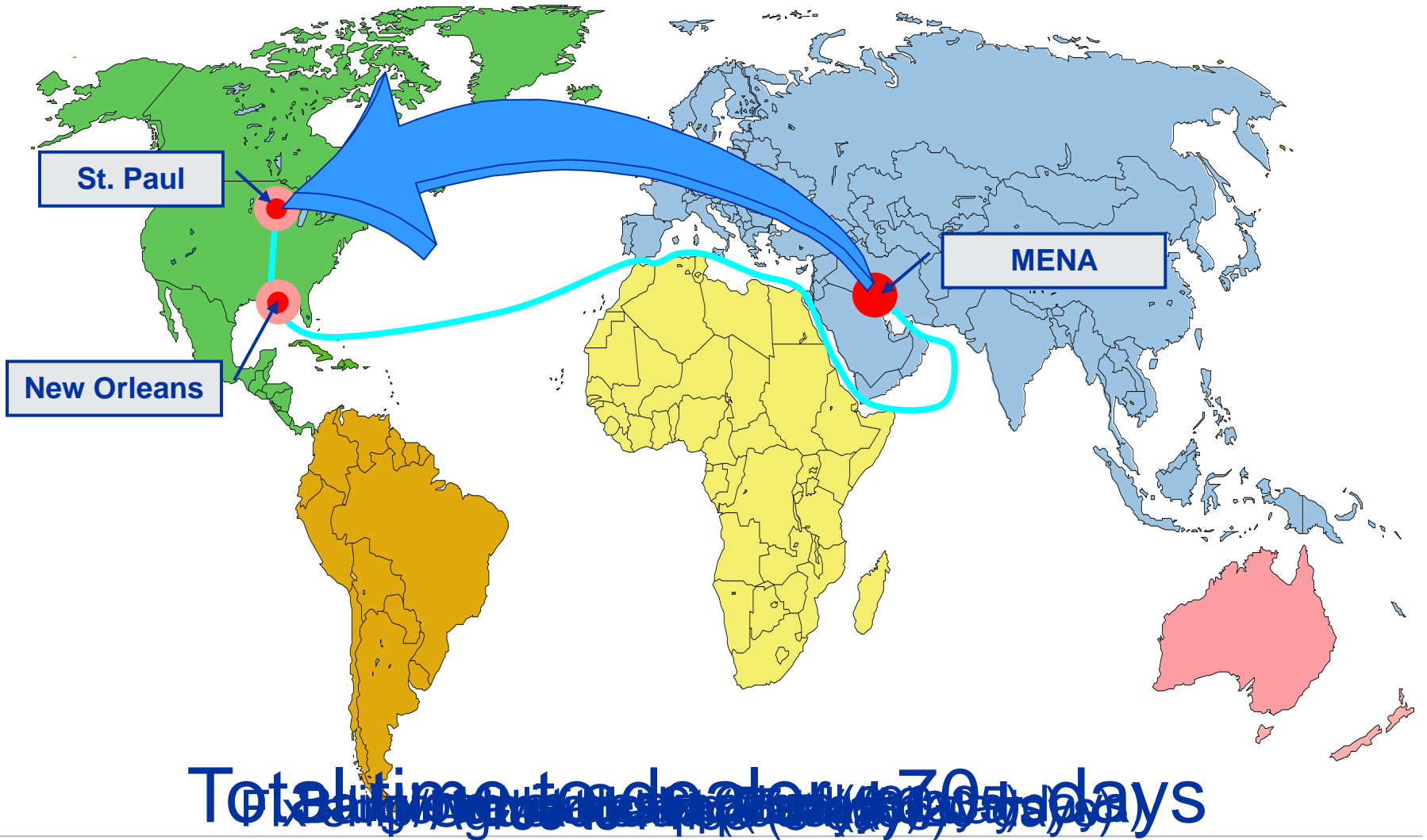
2013 U.S. UREA IMPORTS

United States Urea Imports (2013)

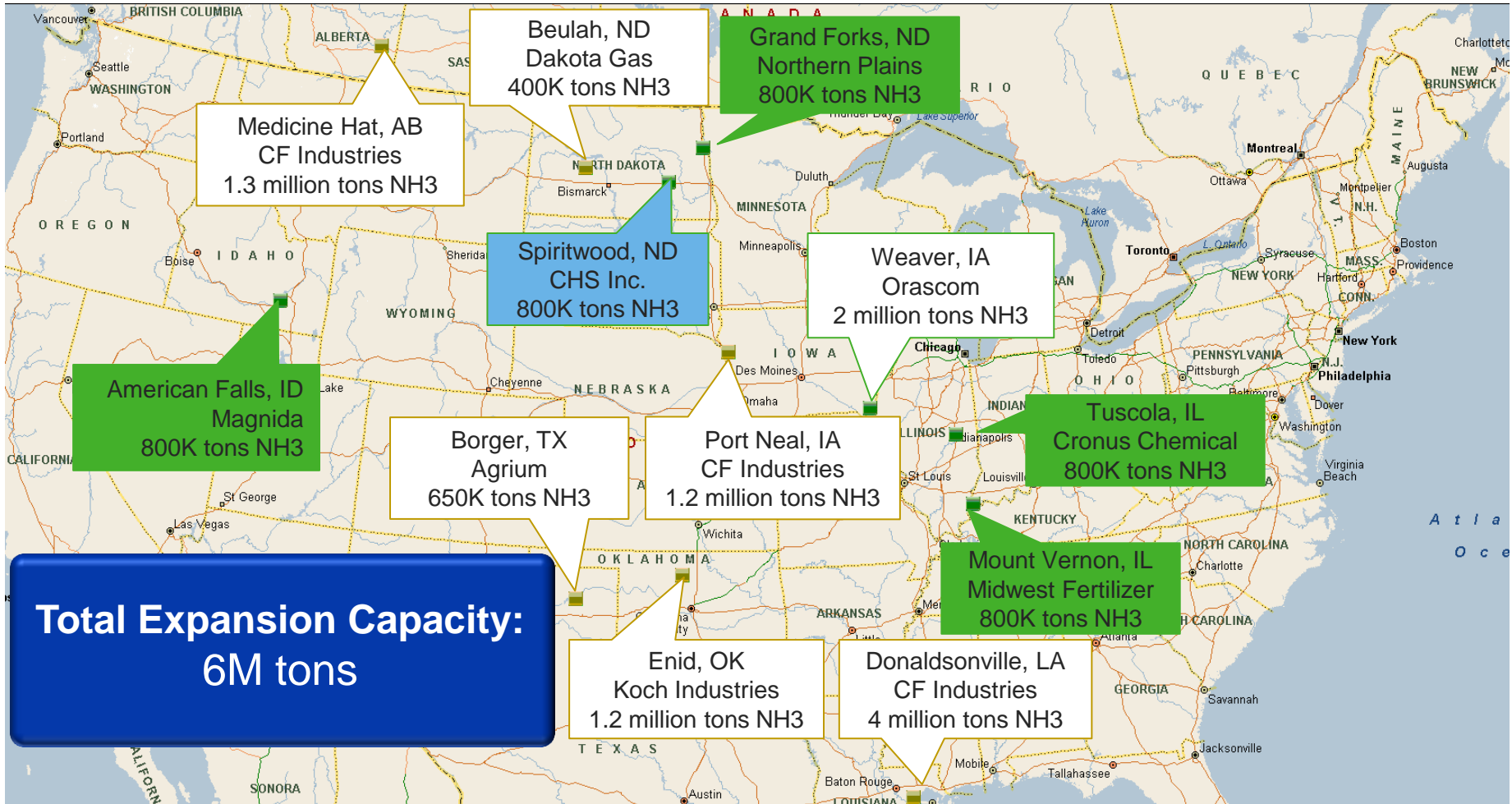
Thousand Tonnes



BUT UREA IMPORTS TAKE TIME



NITROGEN PRODUCTION PROJECTS



**Total Expansion Capacity:
6M tons**

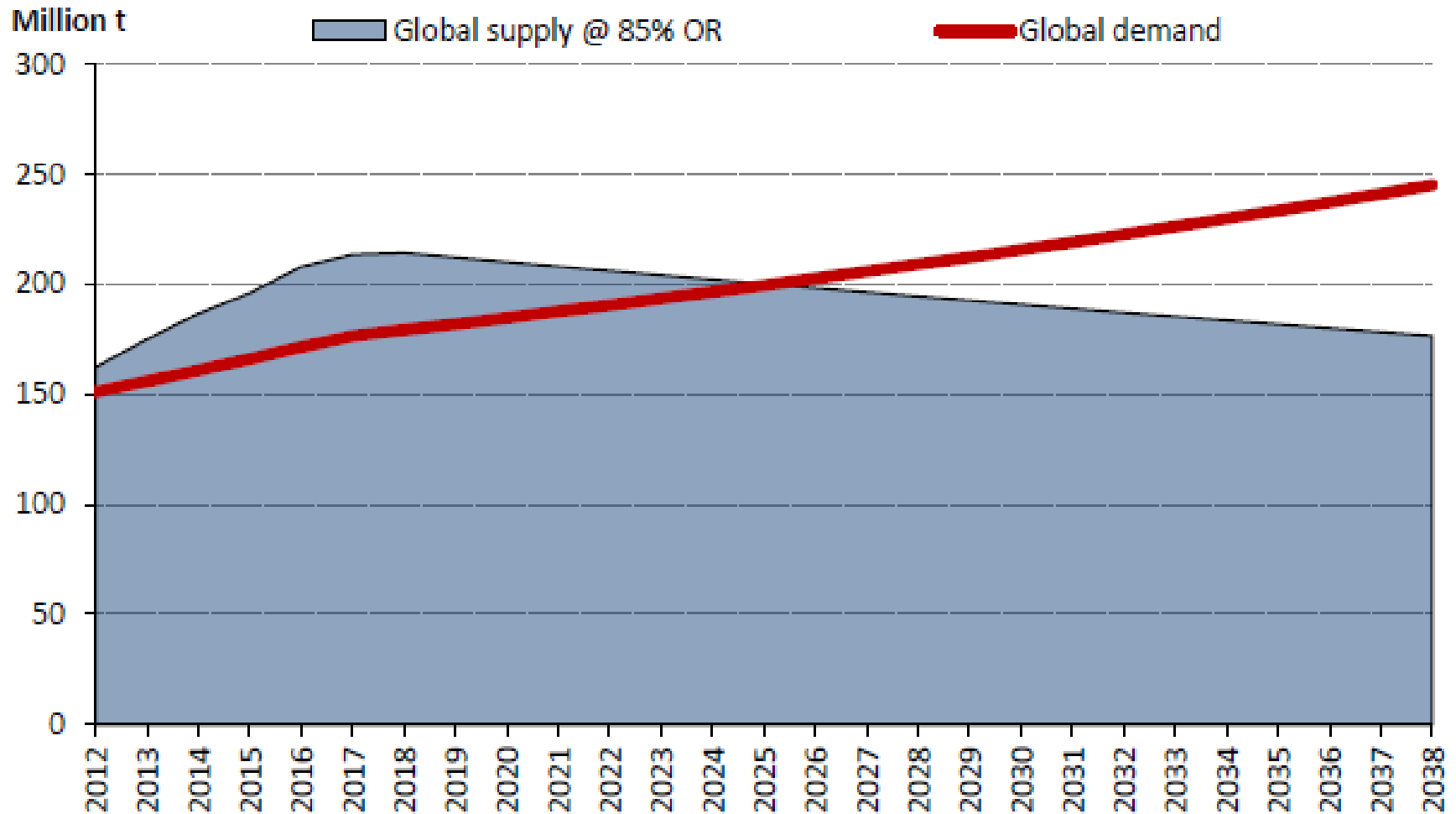


Proposed new facility

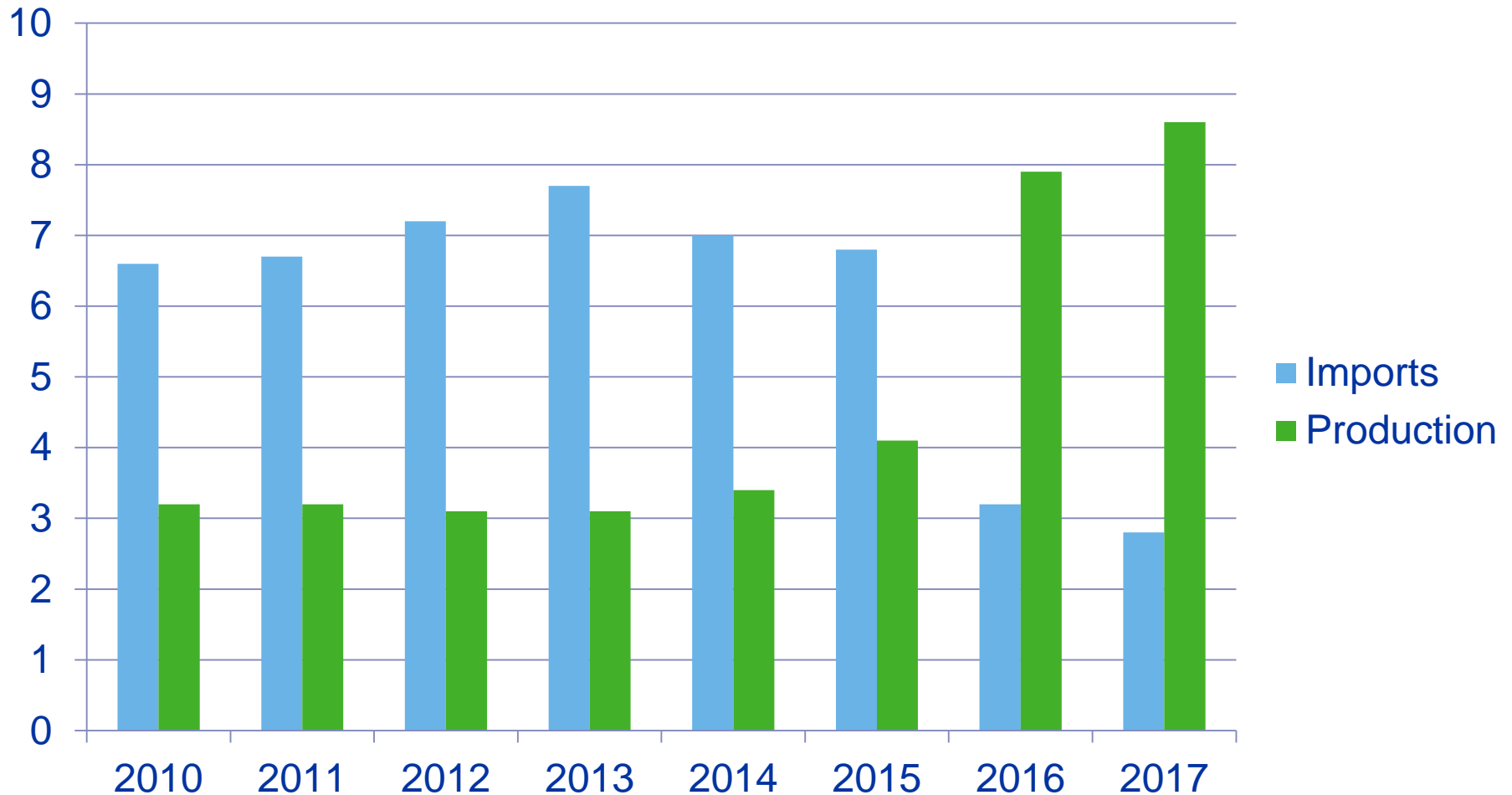


Expansion of existing facility

GLOBAL SUPPLY AND DEMAND FORECAST



U.S. UREA IMPORTS VS. PRODUCTION (MILLION TONS)



AMMONIA

- **Tight international market**
 - Unrest in Ukraine
- **Trinidad gas curtailments**
 - Trinidad is largest origin of ammonia imports to U.S.
 - Government promised improvement by year-end would bode well for 2015
- **Risk aversion throughout the system**
- **International supply picture should improve, but when?**
- **Phosphate curtailments help, but price is still climbing**



UAN

- **Big summer fill!**
 - Suppliers sold forward
 - Still fulfilling those orders
 - Buyers still waiting for purchased tons
- **Some allocation due to lack of inventory**
- **Logistics will play a key role**



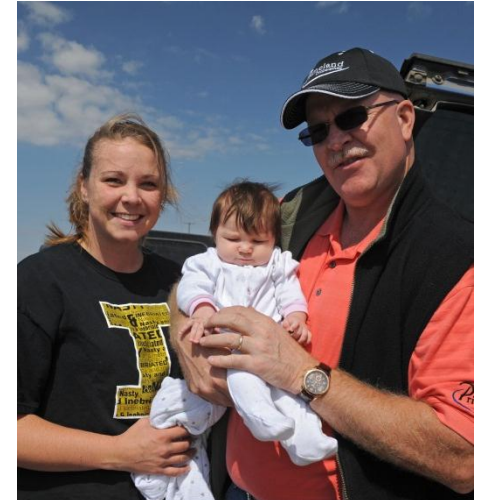
UREA

- Focus on late harvest, yields, grain prices, 2015 acres
- Urea is a relative bargain based on cost per unit of N
 - Lack of buyer commitment suggests length in distribution chain
 - Record-high fleetings and barge rates discourage trader positioning and spot vessels
 - Open-origin more accepted than in the past



FINAL THOUGHTS

- **Transition from a strong agricultural environment to one that is softer**
- **Global demand remains strong creating a need for more food production**
- **Strong United States energy markets provide United States farmers with opportunity**



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