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# THE AGRICULTURE CRISIS

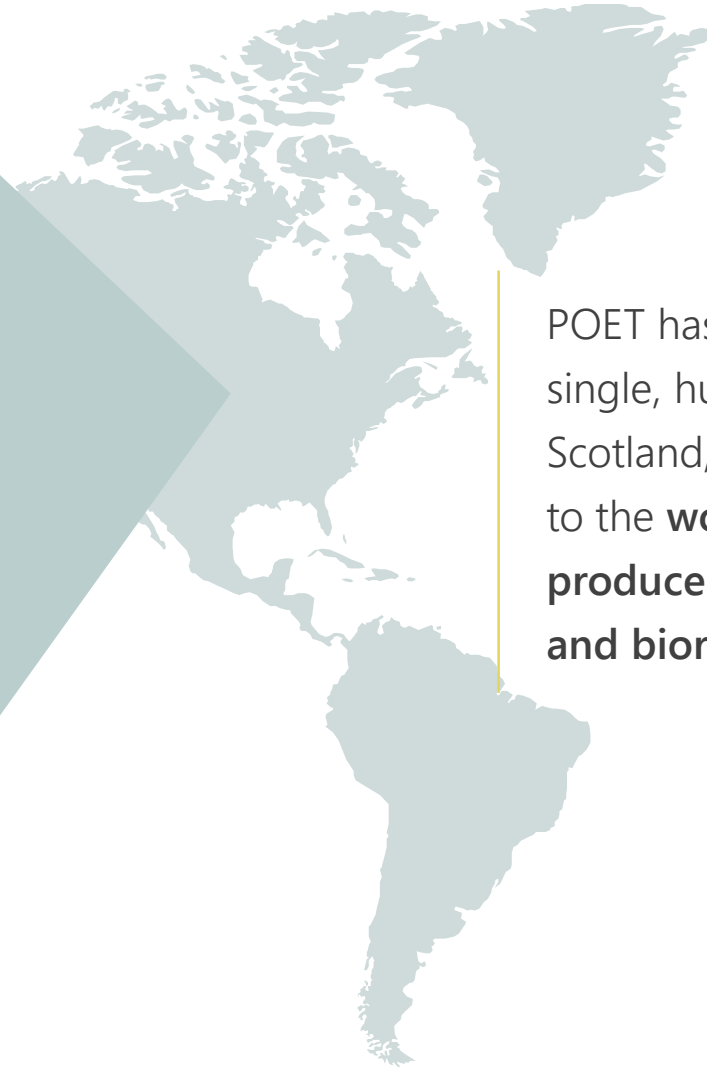
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What it Means for the Midwest  
and Rural America



# CHANGING THE WORLD FOR

**30** YEARS  
**POET**  
1987-2017



POET has grown from a single, humble refinery in Scotland, South Dakota to the **world's largest producer of biofuels and biorefined products.**

AMERICA'S ACCELERATING

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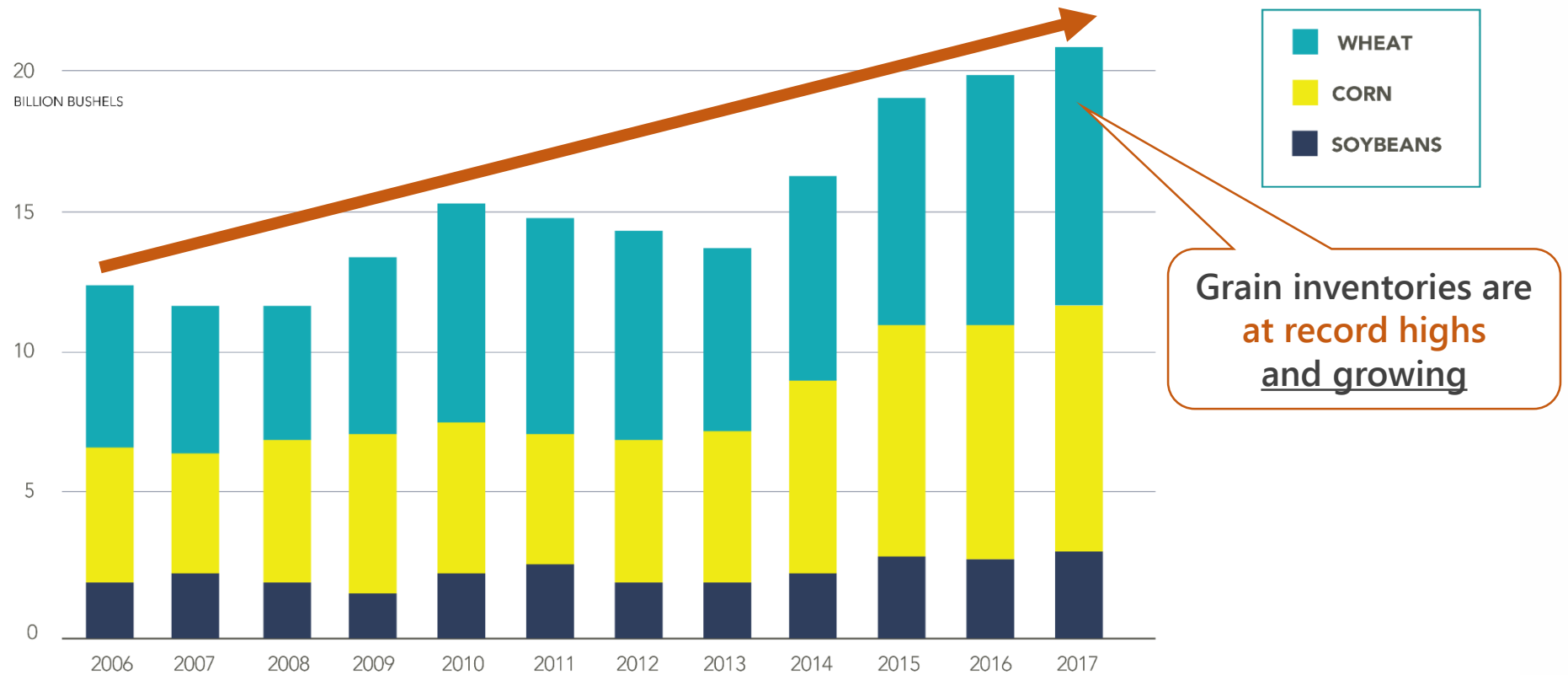
# AGRICULTURE CRISIS

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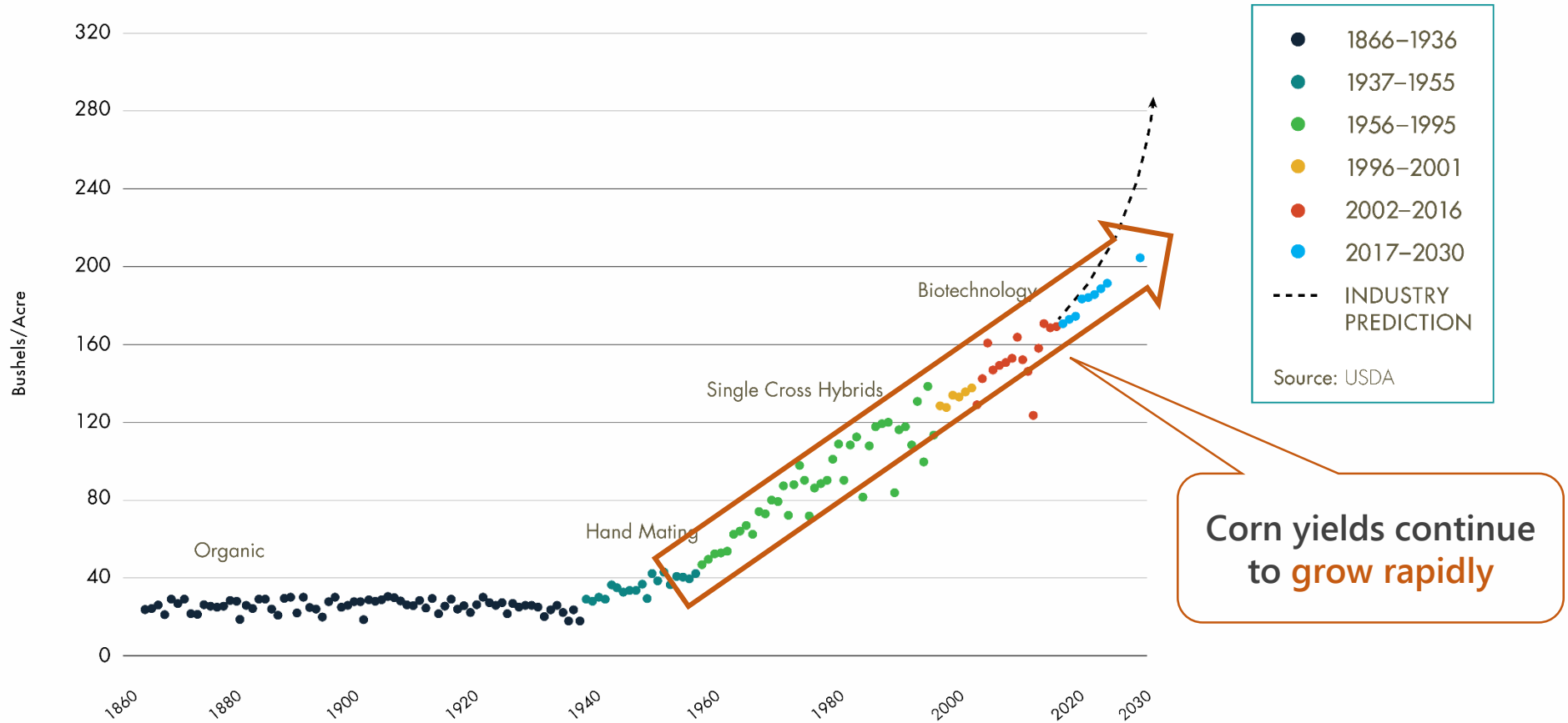
According to the USDA, from 2013 to 2016 American farmers experienced the sharpest drop in net income since the Great Depression. Today, more than 5 billion bushels of surplus corn, wheat and soybeans are dragging down global commodity prices with potentially devastating consequences for farmers and rural communities.

FOET<sup>®</sup>

# GLOBAL CORN, SOYBEANS & WHEAT SURPLUS

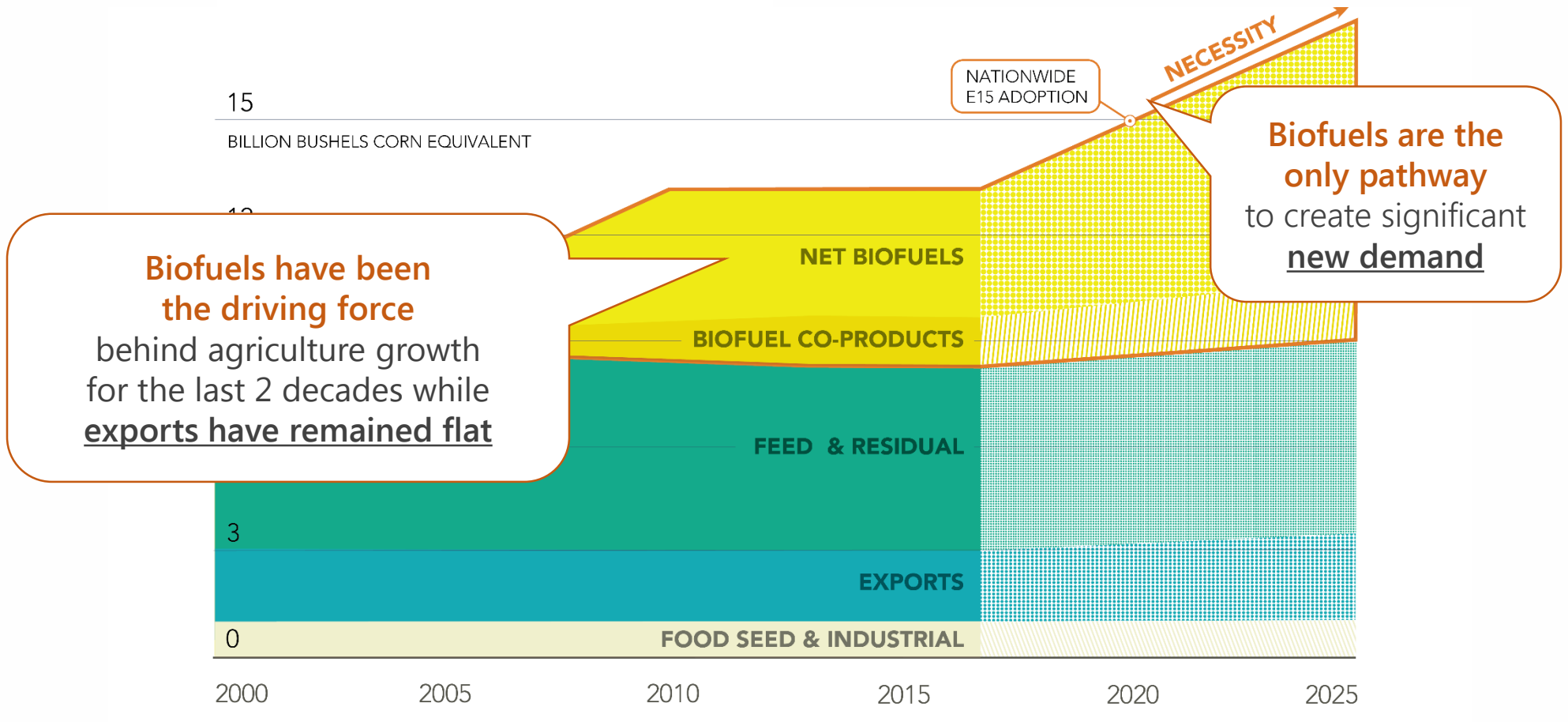


# U.S. CORN YIELDS ARE SKYROCKETING



# WHERE DOES AMERICA'S CORN GO?

WE'VE GOT **PLENTY** TO GO AROUND

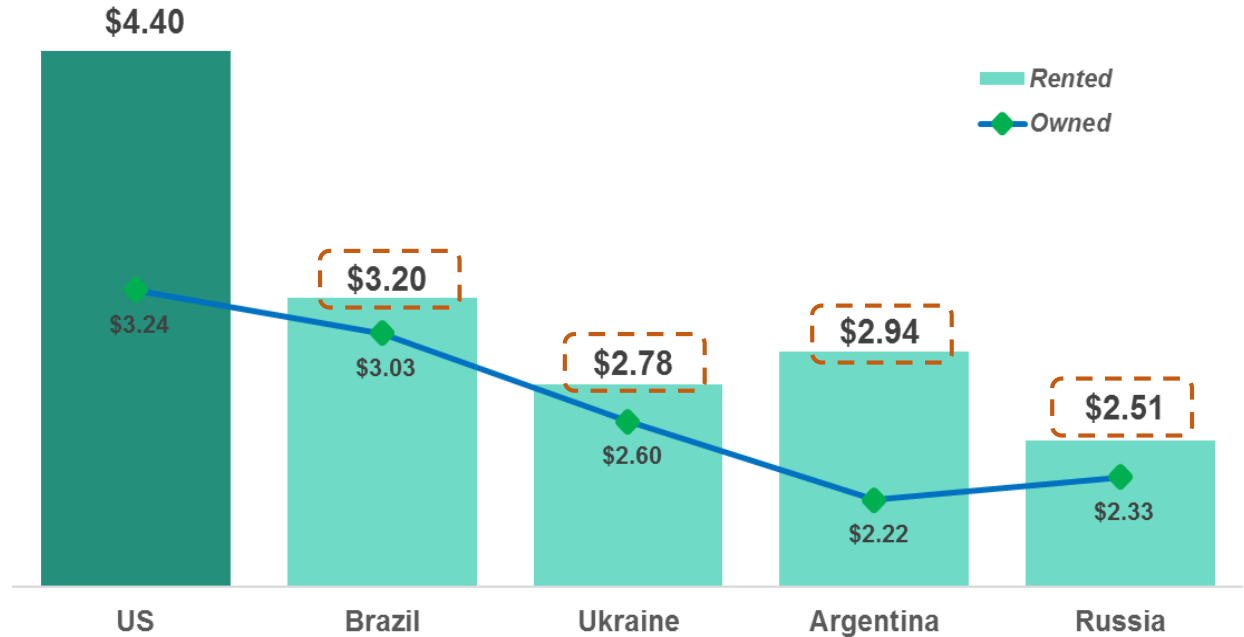


POET

# THE AGRICULTURE LANDSCAPE

A SNAPSHOT OF GLOBAL PRODUCTION COSTS

Corn Production Cost (\$/bushel)

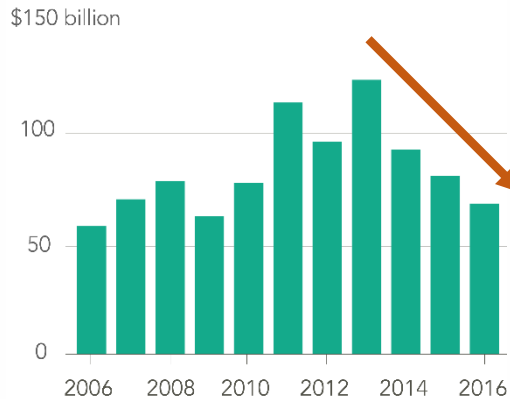


The cost to produce corn in major corn-producing countries is **significantly lower** than the United States

# THE FARM BALANCE SHEET

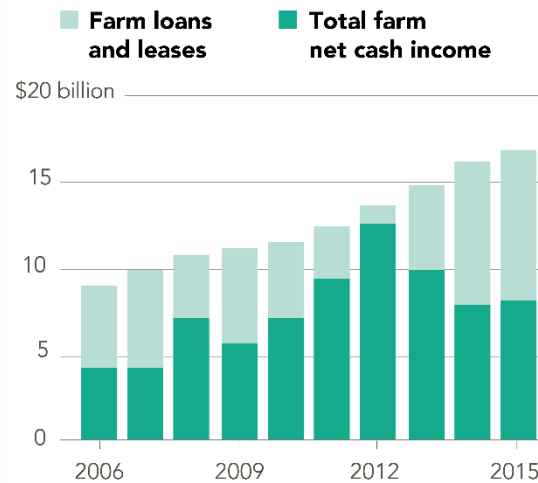
## U.S. FARM INCOME

Farm net income has been cut nearly in half, from a 2013 high of more than \$120 billion, to a projected \$63 billion in 2017.



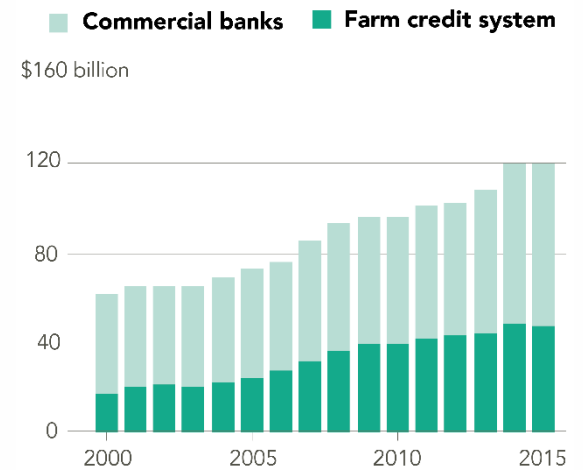
## IOWA FARM LOANS VS. TOTAL NET INCOME

While loans and leases steadily increased, farm income declined and the gap continues to grow.



## NON-REAL ESTATE DEBT

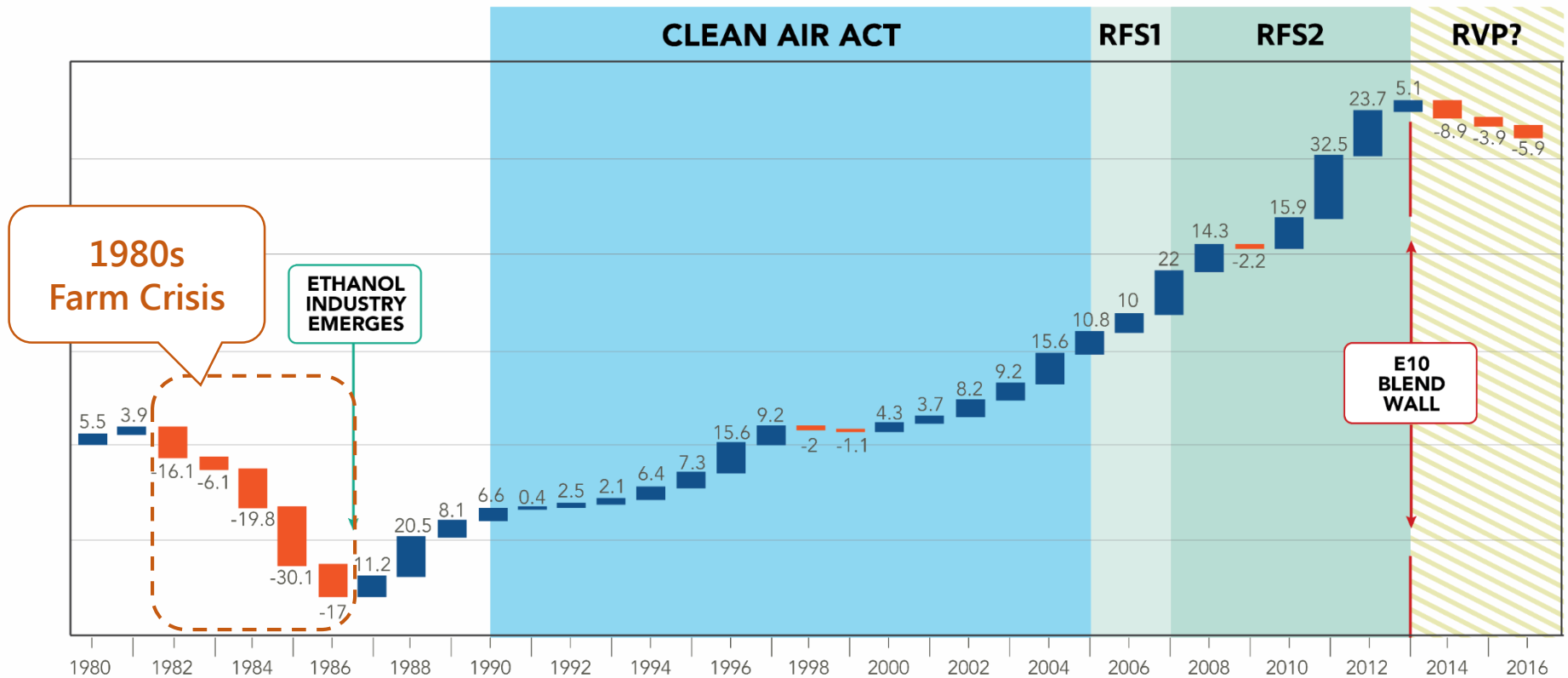
From 2000-2015, farm non-real estate debt held by commercial banks and the farm credit system nearly doubled.





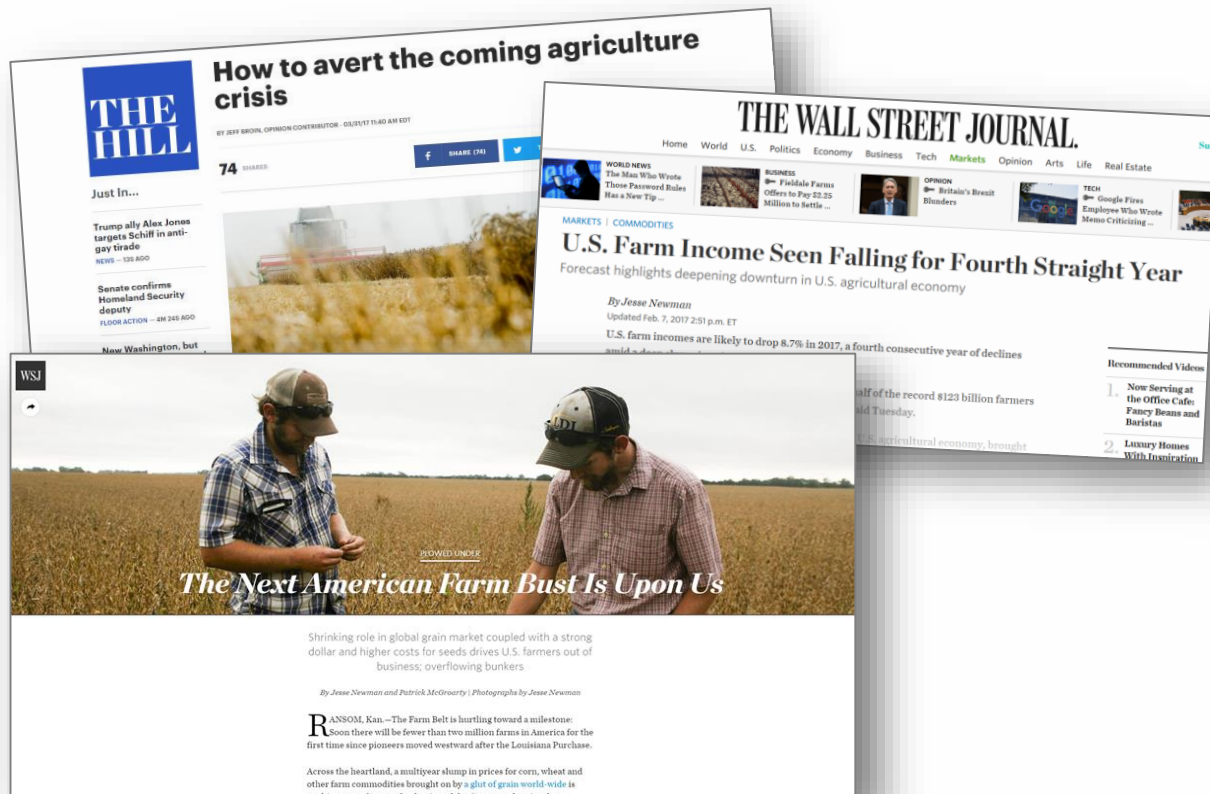
# IOWA LAND VALUE CHANGE

PERCENT INCREASE OR DECREASE FROM PREVIOUS YEAR



# THE AGRICULTURE LANDSCAPE

GROWING CONCERN ACROSS RURAL AMERICA



Growing agriculture production across the globe combined with stalled grain demand are leading to an economic downturn that could be similar to the **Farm Crisis of the 1980s**.

WHAT'S THE SOLUTION?

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## **AMERICAN-MADE BIOFUELS**

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Since the 1980s, biofuels have helped balance commodity surpluses by driving growth for U.S. agriculture.

# LESSONS FROM THE 1980s FARM CRISIS

## 1980s Farm Crisis

- Corn prices 30% below cost of production
- 20% of farmers' land set aside
- Plummeting farm income and land values
- Bankruptcy common

## Biofuels Industry Emerges

- Entrepreneurial opportunities opened
- Ingenuity in construction, marketing, management, research & development
- Quick profitability
- Rapidly advancing technology





THE ANSWER TO THE AG CRISIS  
**BIOFUELS.**

**+**  
**BALANCES**  
Commodity  
Supply &  
Demand

**+**  
**INCREASES**  
Farm Income  
& Land Values

**+**  
**GROWS**  
Rural Jobs  
& Economic  
Opportunities

# HIGHER BIOFUEL BLENDS ARE THE KEY

E15 IS GROWING NEW DEMAND FOR U.S. AGRICULTURE COMMODITIES

**2** BILLION

Bushels of grain required to fully implement E15 nationwide

**150** MILLION

Number of miles driven on E15 without any negative effects

Stations across the U.S. offering E15 by the end of 2017

**1600** LOCATIONS

**9 OUT OF 10**

Cars on the road approved to use E15 and 3 out of 4 cars are explicitly warranted for E15

# E15 IS SAVING \$ AT THE PUMP

IN 29 STATES AND COUNTING

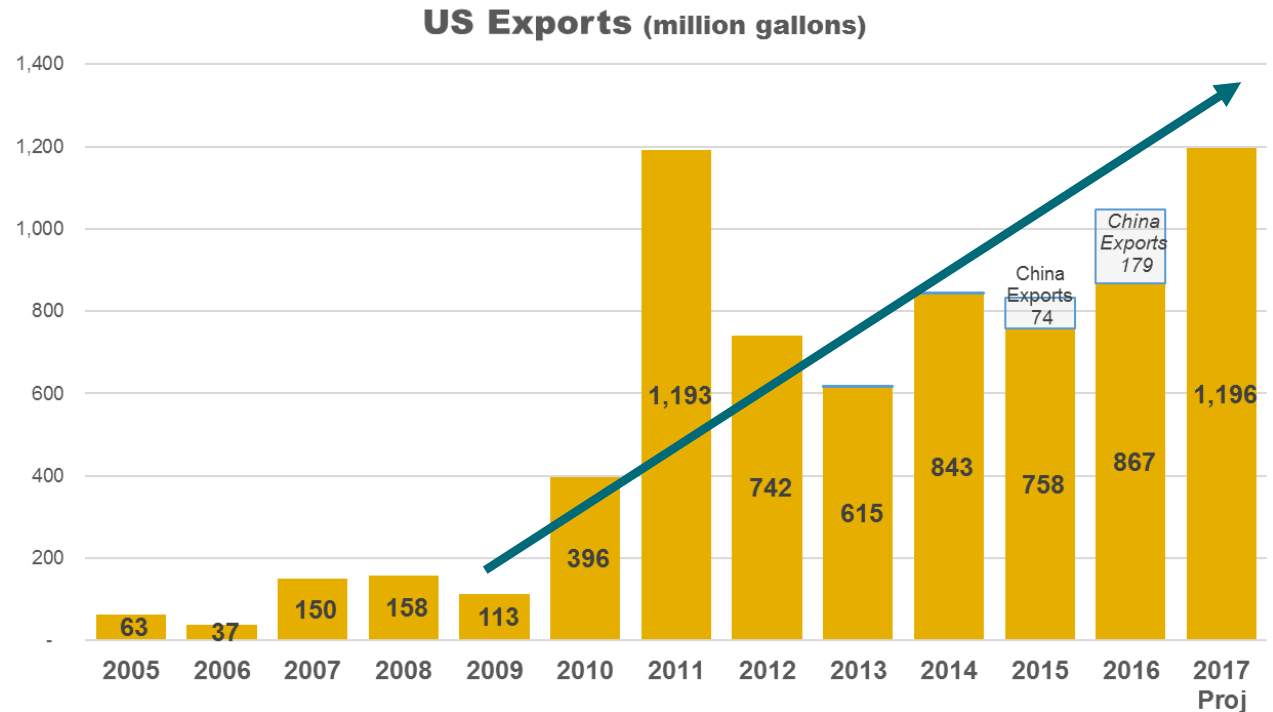


More and more drivers are discovering less expensive, cleaner-burning, American-made E15 at their local gas stations.

# GROWING BIOFUEL EXPORTS

U.S. EXPORTS ARE STEADILY INCREASING

Although corn exports haven't changed in 30 years, biofuel (and DDG) exports have **steadily increased** as more and more countries realize the benefits.







**HIGHER  
BLENDS**



**OPTIMIZED  
ENGINES**



**SUSTAINABLE  
AGRICULTURE**



**AMERICAN-MADE**

# **BIOFUELS**

**DRIVING BETTER OUTCOMES**



**BETTER  
ECONOMY**



**CLEANER  
AIR**



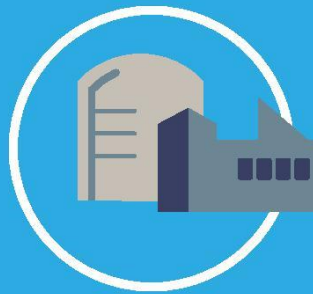
**LESS  
FOREIGN  
OIL**

# FANTASY FUEL

PROJECT LIBERTY & THE FUTURE OF CELLULOSIC BIOFUELS



FARMERS COLLECT  
**280,000 TONS**  
OF CROP RESIDUE  
ANNUALLY



**20-25 MGPY**  
OF CELLULOSIC ETHANOL.  
WASTE STREAM USED FOR  
POWER GENERATION.



**83% LOWER**  
**GHG EMISSIONS**  
THAN GASOLINE

Project LIBERTY  
a POET-DSM Joint venture



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**THANK YOU**

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