How competitive is the US in global Corn and Soybean Trade?

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agri benchmark Cash Crop Conference
August 21st 2014

Agenda

- Overview
- Typical Farm Gate Prices
- Domestic Transport Costs
- Ocean Freight Rates
- Total Cost at Destinations

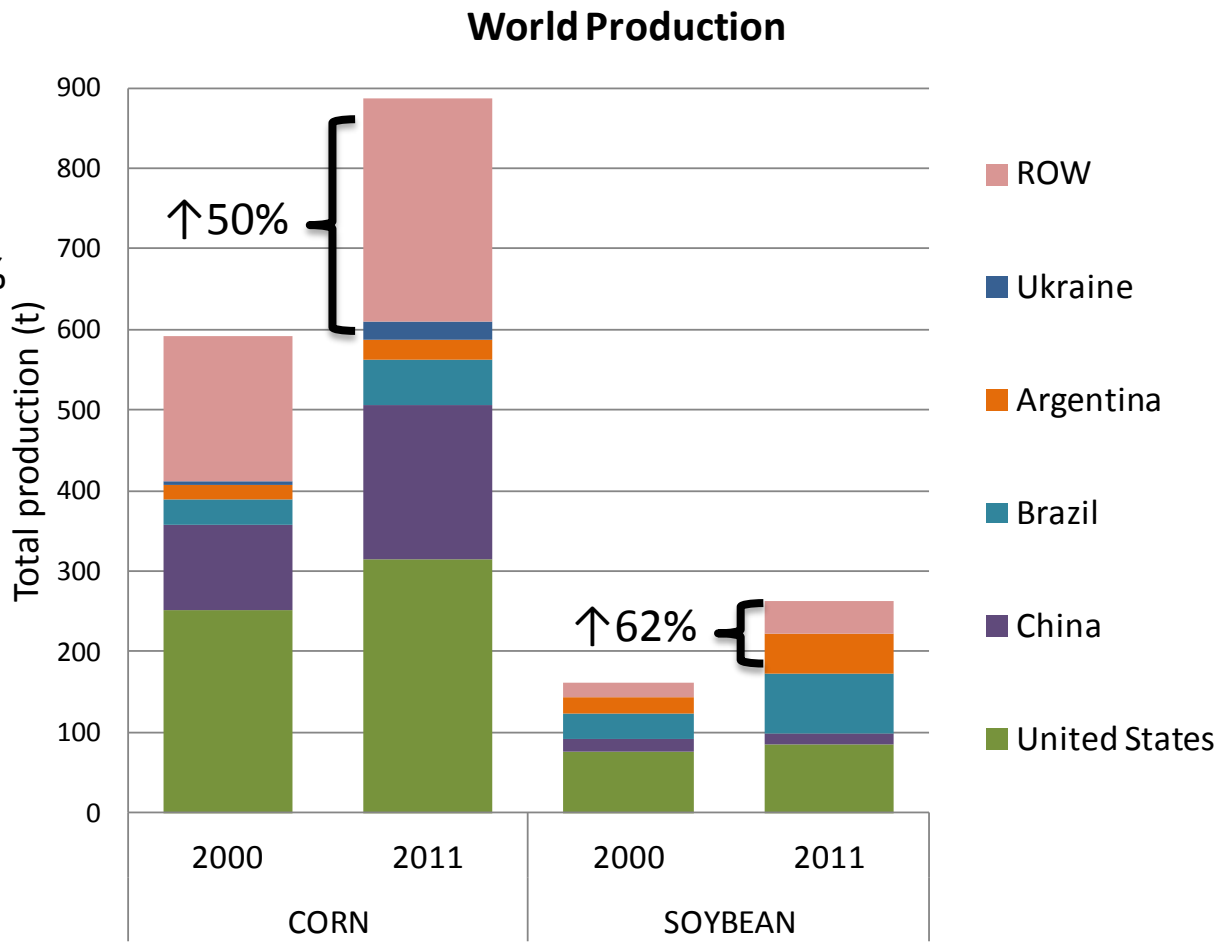
Corn & Soybean Overview

Corn

- US production ↑ 25%
- China's production ↑ 82%
- 4th largest exporter , Ukraine, produced 3% of the worlds corn

Soybean

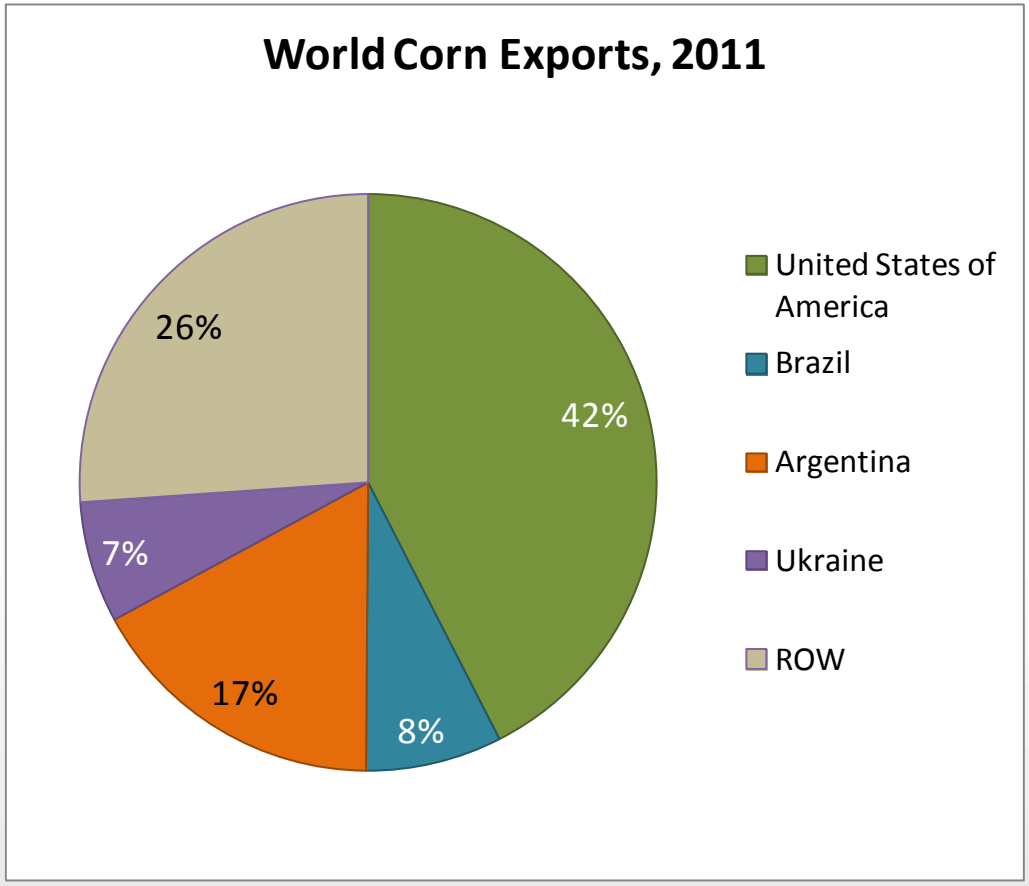
- Brazil ↑ 129%
- Argentina ↑ 143%



Source: FAO STAT, 2014

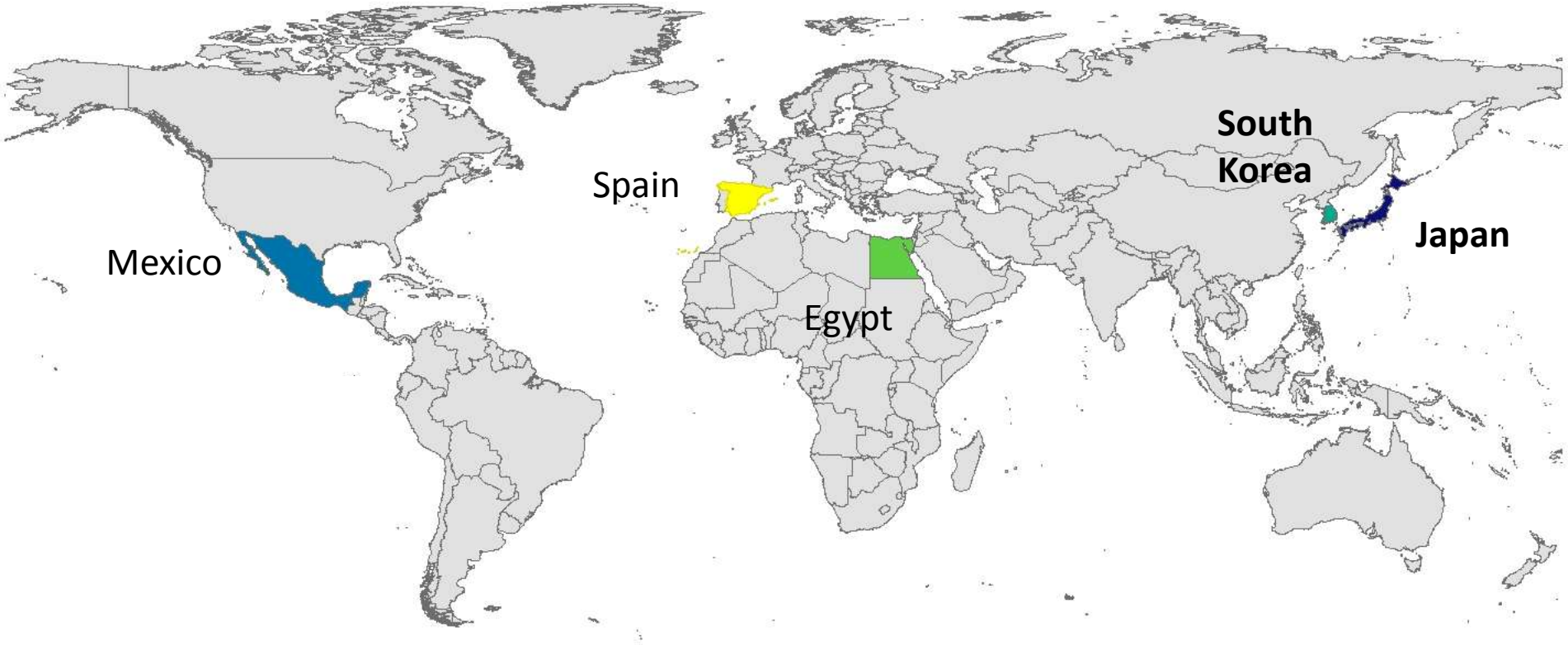
Corn Exports (2011)

12% of corn production was exported – approx. 118 million t



Source: FAO STAT, 2014

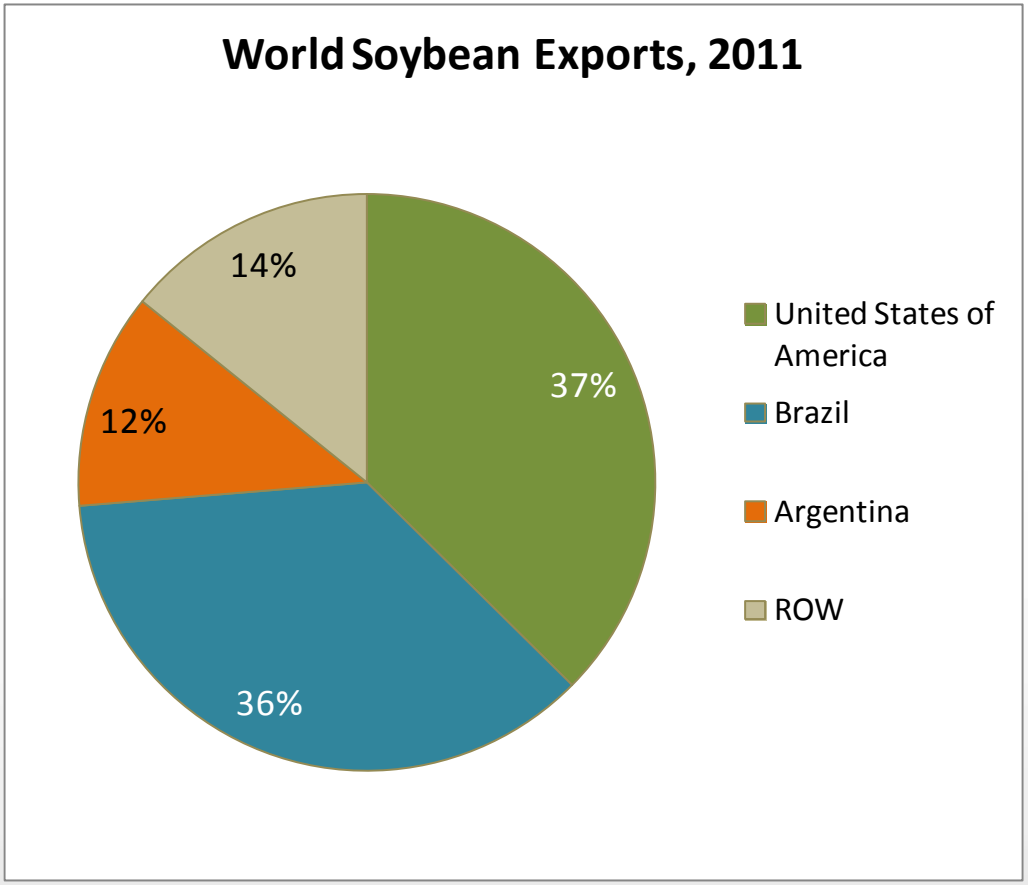
Major Corn Importer



Source: FAO STAT, 2014

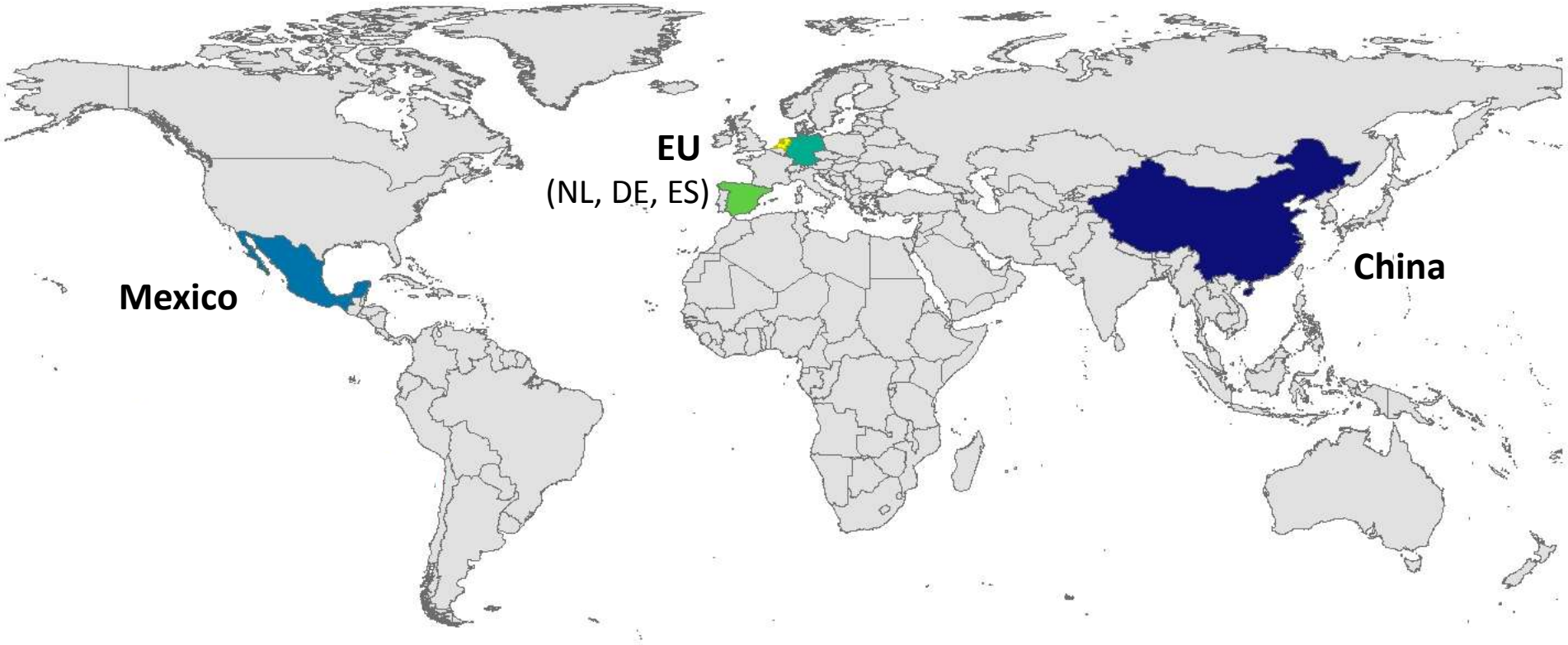
Soybean Exports (2011)

35% of soybean production was exported – approx 91 million t



Source: FAO STAT, 2014

Major Soybean Importers



Source: FAO STAT, 2014

Typical Farm Domestic Transport Cost

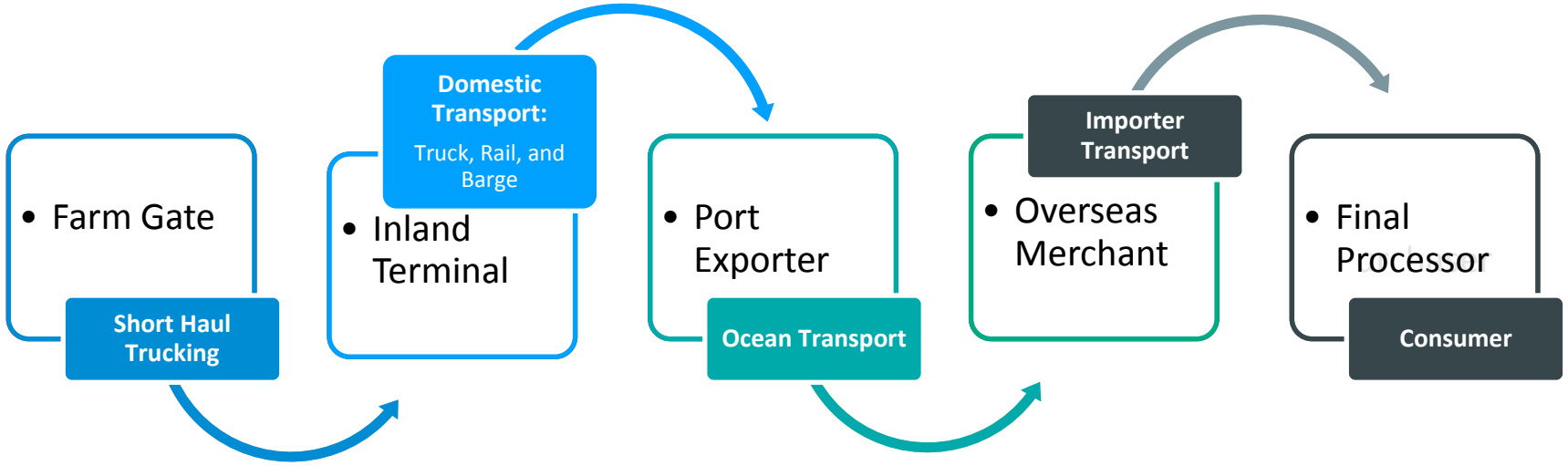
Proximity to port reduces costs

Trucking much more expensive than rail:

- **Argentina: $0.11 (USD/tkm) or Brazil $0.06 (USD/tkm)**
- **US & Ukraine: $0.02 (USD/tkm)**

US & Ukraine have a strong domestic transport competitive advantage over Argentina and Brazil.

Global Competitiveness: Grain Supply Chain matters



agri benchmark

agri benchmark 'typical' farms used for comparison

- US700IA
- AR900WBA
- BR1300MT
- UA6700PO

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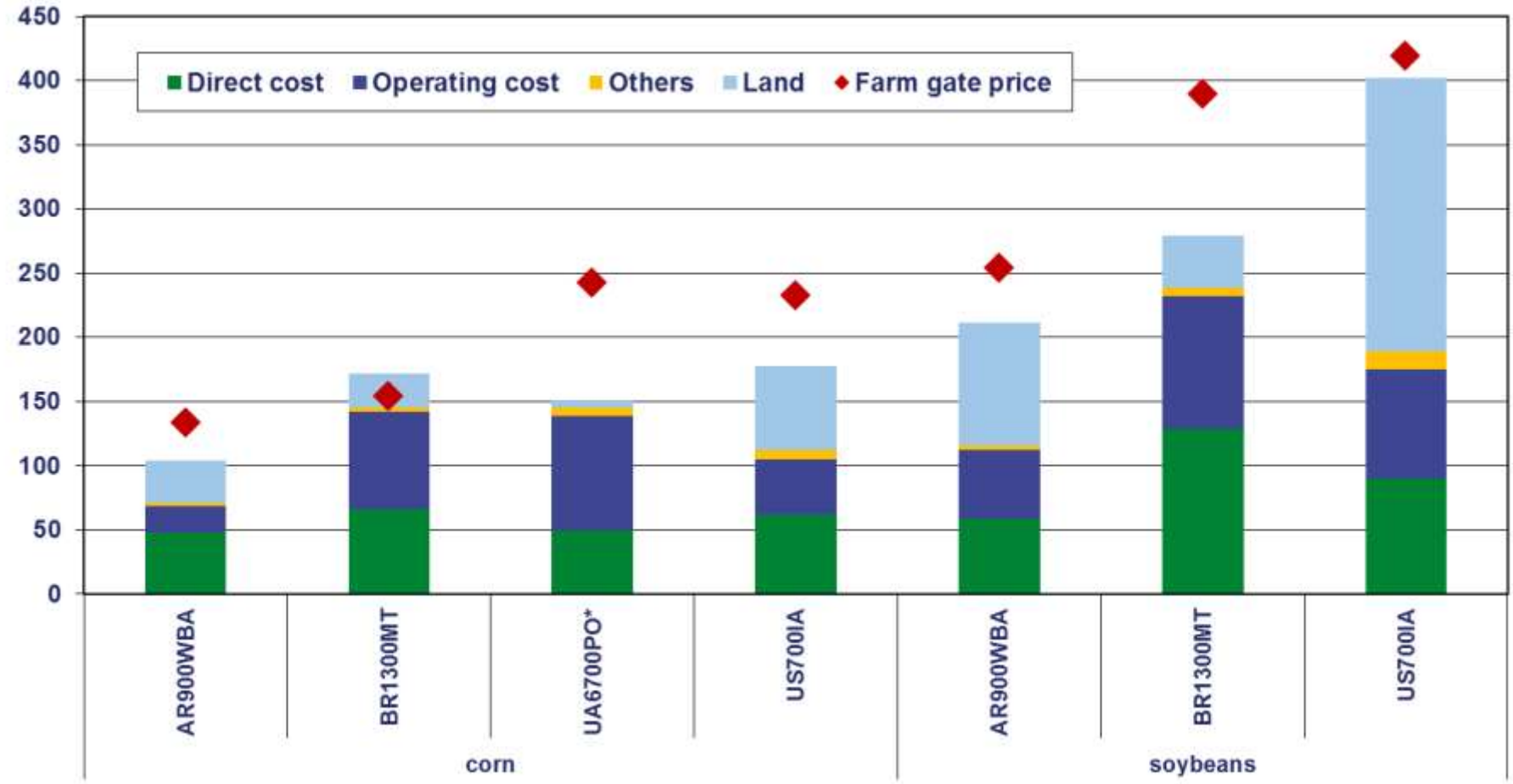
Farm gate prices, 2011

'Typical' Farm Prices (USD/t)	Corn	Soybeans
AR900WBA (Argentina, Buenos Aires Region)	$133	$254
BR1300MT (Brazil, Mato Grosso)	$154	$390
US700IA (USA, Iowa)	$232	$437
UA6700PO (Ukraine, Poltava)	$243	

Source: agri benchmark

Add 20 % export tax on corn and 35% on soybeans

Key cost elements and farm gate prices (2011; USD/t)



Source: agri benchmark

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United States of America: Domestic Transportation

Intermodal network grain movement

- 47 % barg
- 44 % rail
- 8 % truck

Source: USDA

USA Typical Farm: US700IA

Typical Farm: North Central Iowa

Port of New Orleans, LA

Transport Costs from N.C. Iowa to New Orleans (2011)

Trucking
- $11.38 (USD/t)

Barge
- $26.67 (USD/t)

Domestic Transport
- $38.05 (USD/t)
- or $ 0.02/tkm

Source: USDA, NOAA

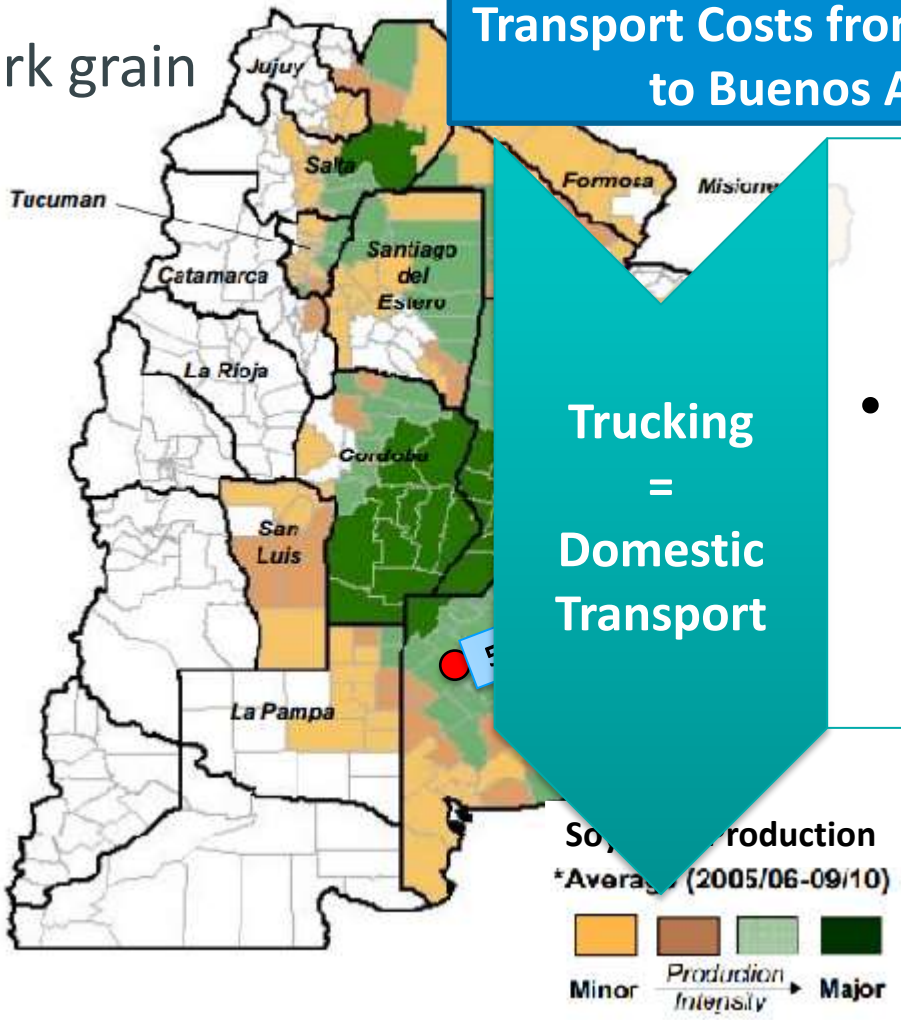
Argentina Typical Farm: AR900WBA

Typical Farm: Trenque Lauquen, Beunos Aires

Port of Beunos Aires

Intermodal network grain movement

- 84 % truck
- 15 % rail



Transport Costs from Trenque Languen to Buenos Aires (2011)

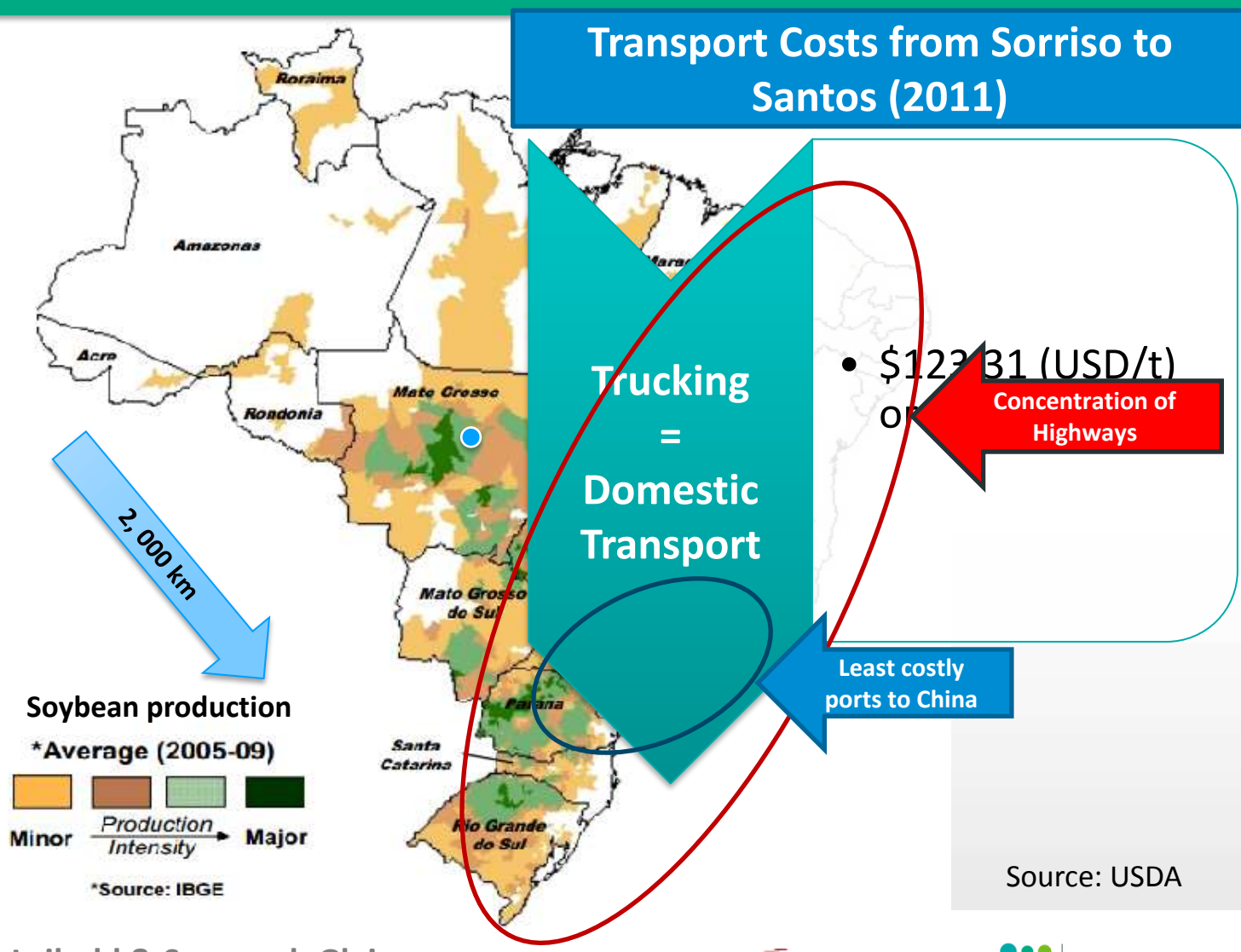
Trucking = Domestic Transport

- $60.28 (USD/t) or $ 0.11/tkm

Source: USDA, CATAC

Brazil Typical Farm: BR1300MT

- 60% truck
- 33% rail

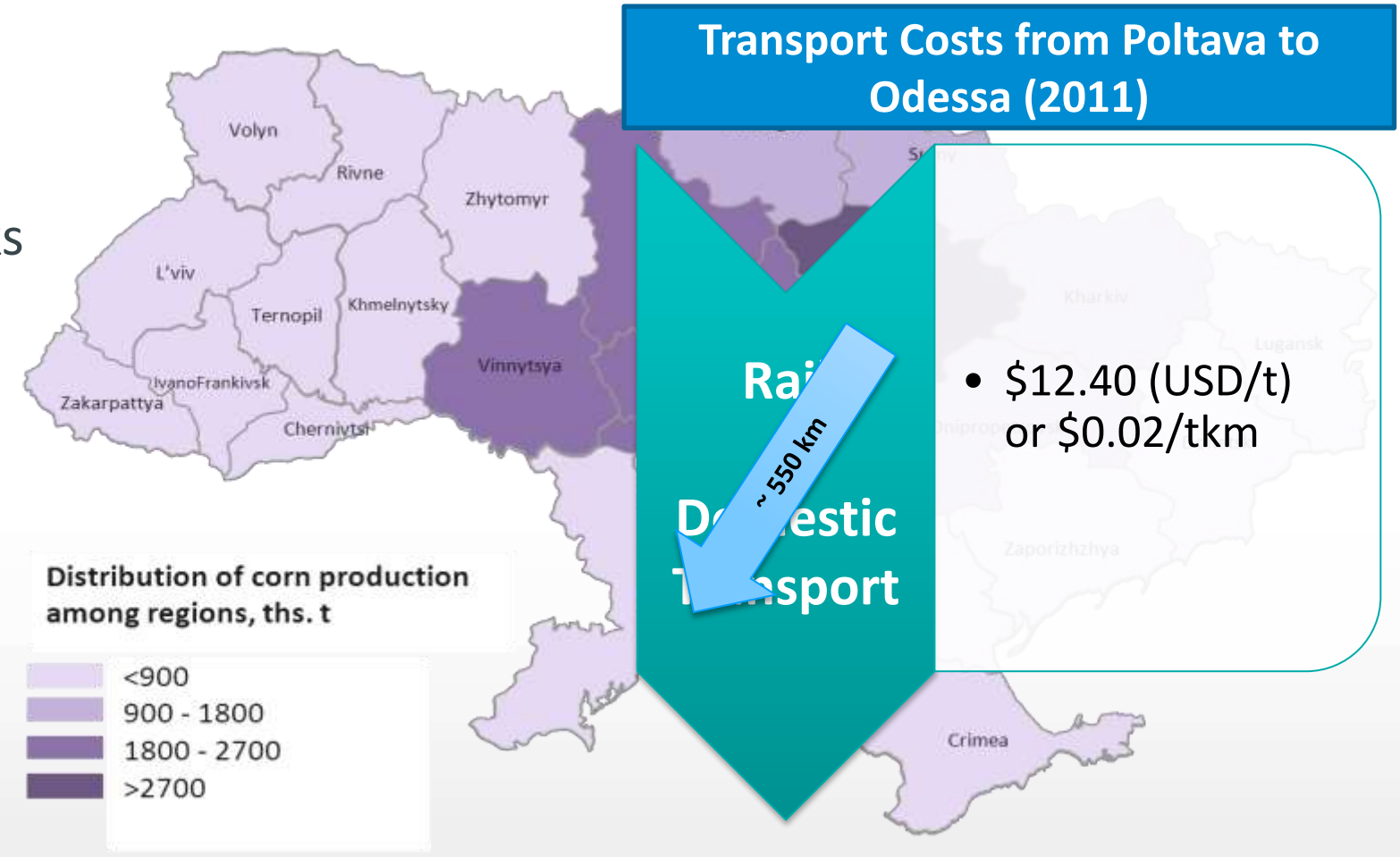


Source: USDA

Ukraine Typical Farm: UA6700PO

- Typical Farm: Poltava region
- Port of Odessa,

- 70 % rail
- 27 % trucks



Source: Centre for Transport Strategies

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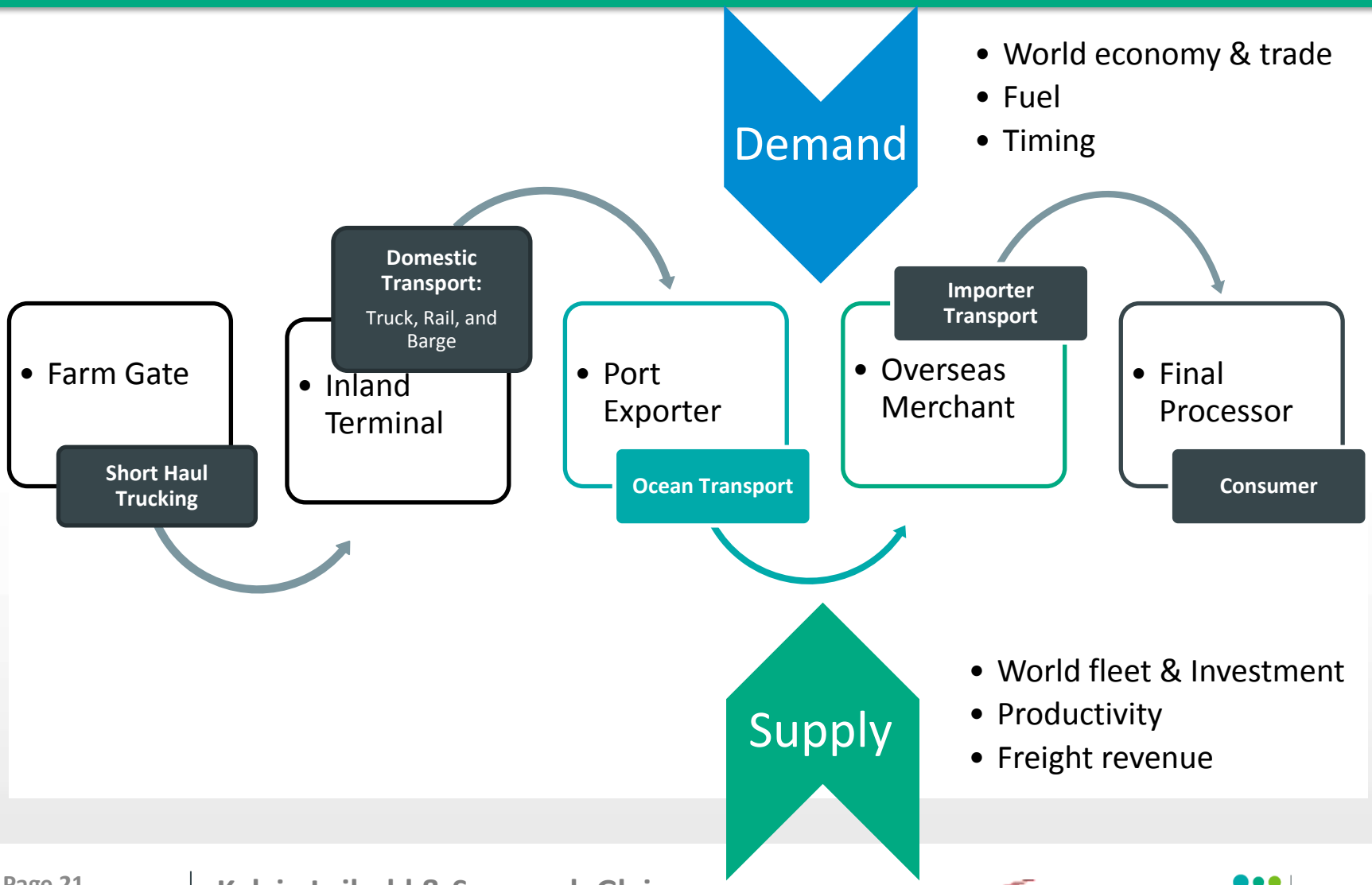
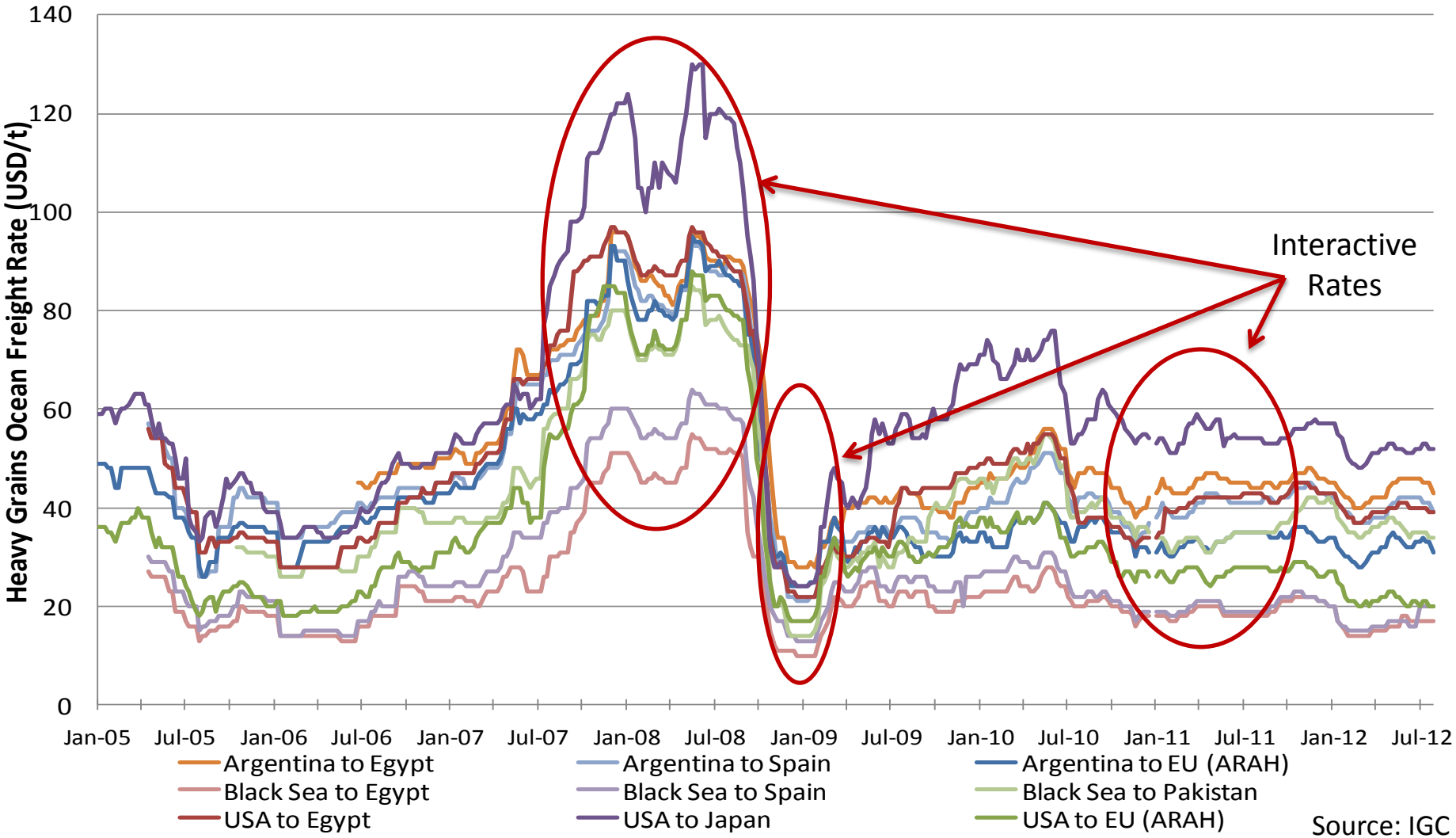
Ocean Freight Rates



Ocean Freight Rates



Source: IGC

Ocean Freight Rates– Port of New Orleans, US 2011

Destination	Distance (nautical miles)	Freight (USD/t)
China, Shanghai	10,000	54
Egypt, Alexandria	6,400	42
Germany, Hamburg	5,100	27
Spain, Tarragona	5,000	33

Source: IGC

Ocean Freight Rates– Port Buenos Aires, AR 2011

Destination	Distance (nautical miles)	Freight (USD/t)
China, Shanghai	11,200	
Egypt, Alexandria	7,000	45
Spain, Tarragona	5,800	41
Germany, Hamburg	6,600	34

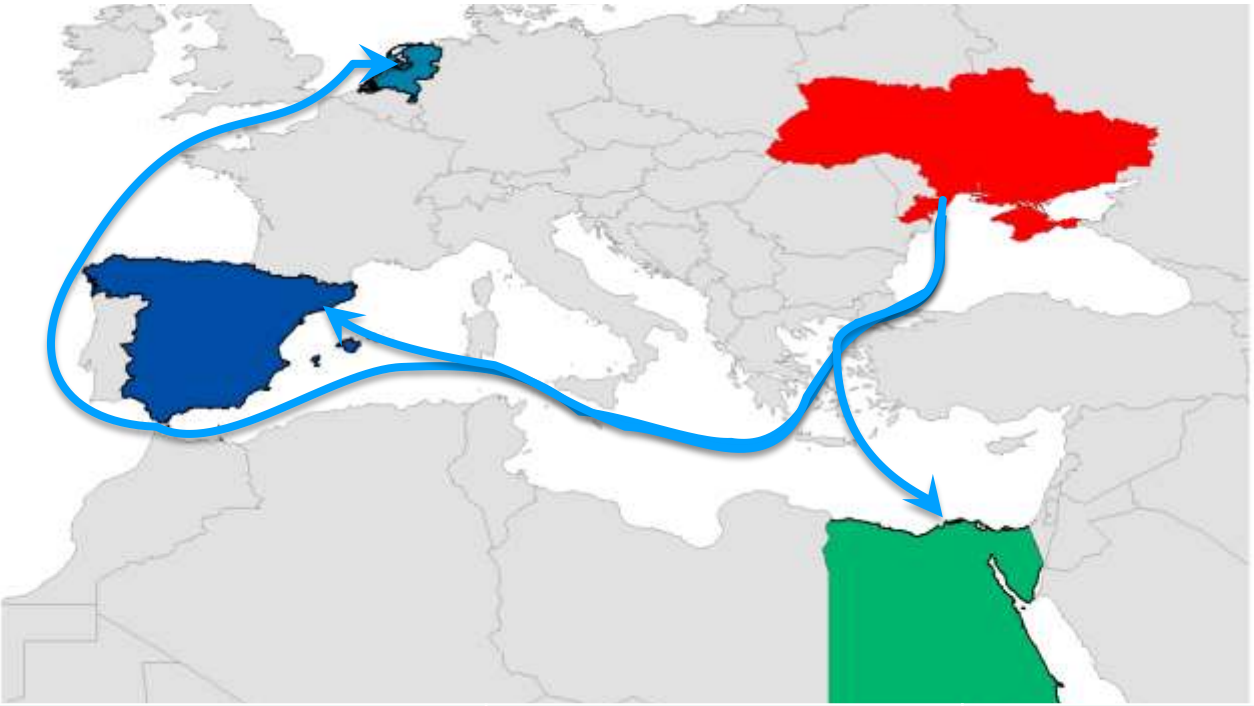
Source: IGC

Ocean Freight Rates– Port Santos, BR 2011

Destination	Distance (nautical miles)	Freight (USD/t)
China, Shanghai	11,000	51
Germany, Hamburg	5,700	35

Source: USDA

Ocean Freight Rates– Port of Odessa, UA 2011(Black Sea)



Destination	Distance (nautical miles)	Freight (USD/t)
Spain, Tarragona	1,900	20
Netherlands, Rotterdam	3,500	*20 (est)*
Egypt, Alexandria	1,100	19

Source: IGC

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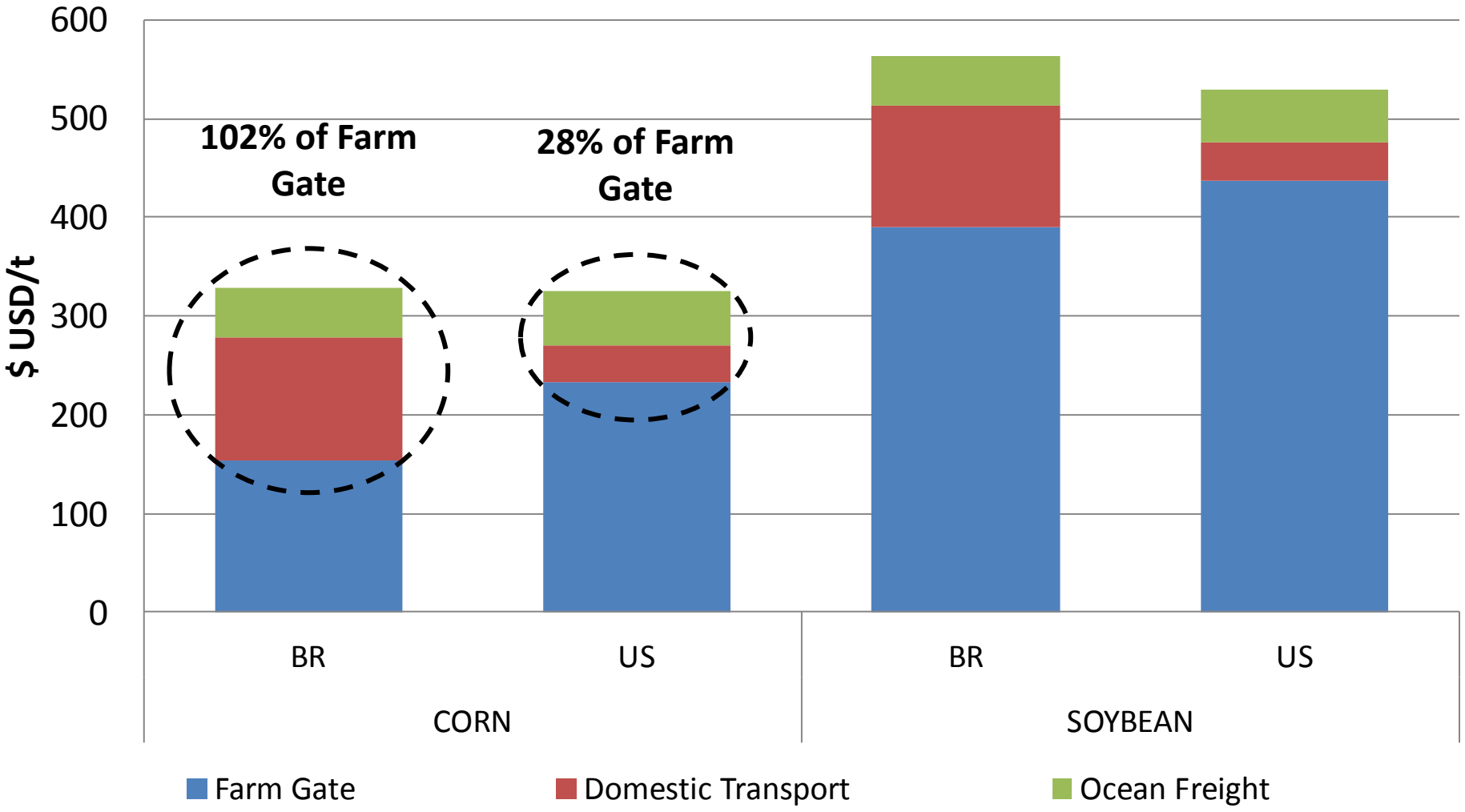
Typical Farm Quotes – Destination China



Source: agri benchmark, USDA, & IGC

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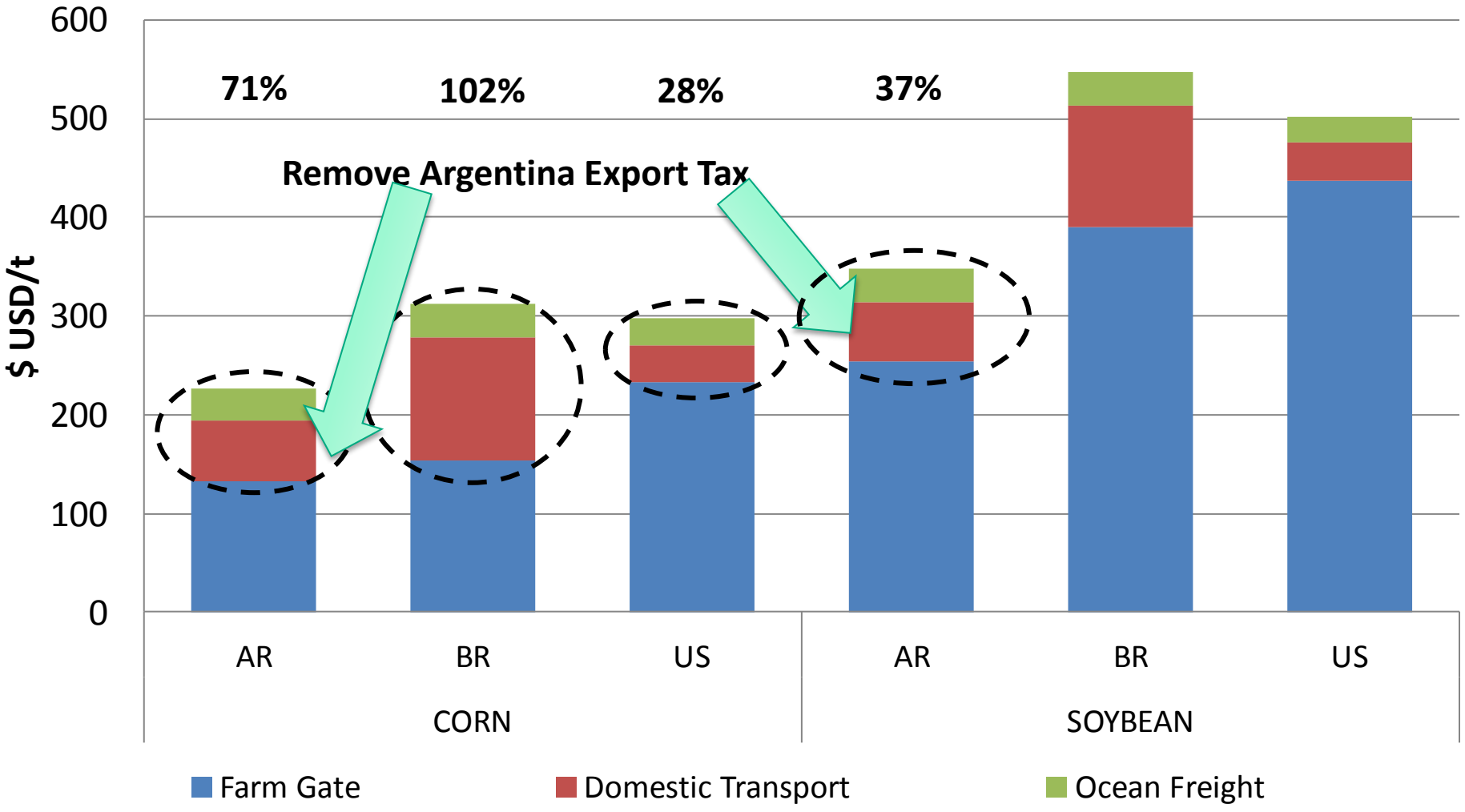
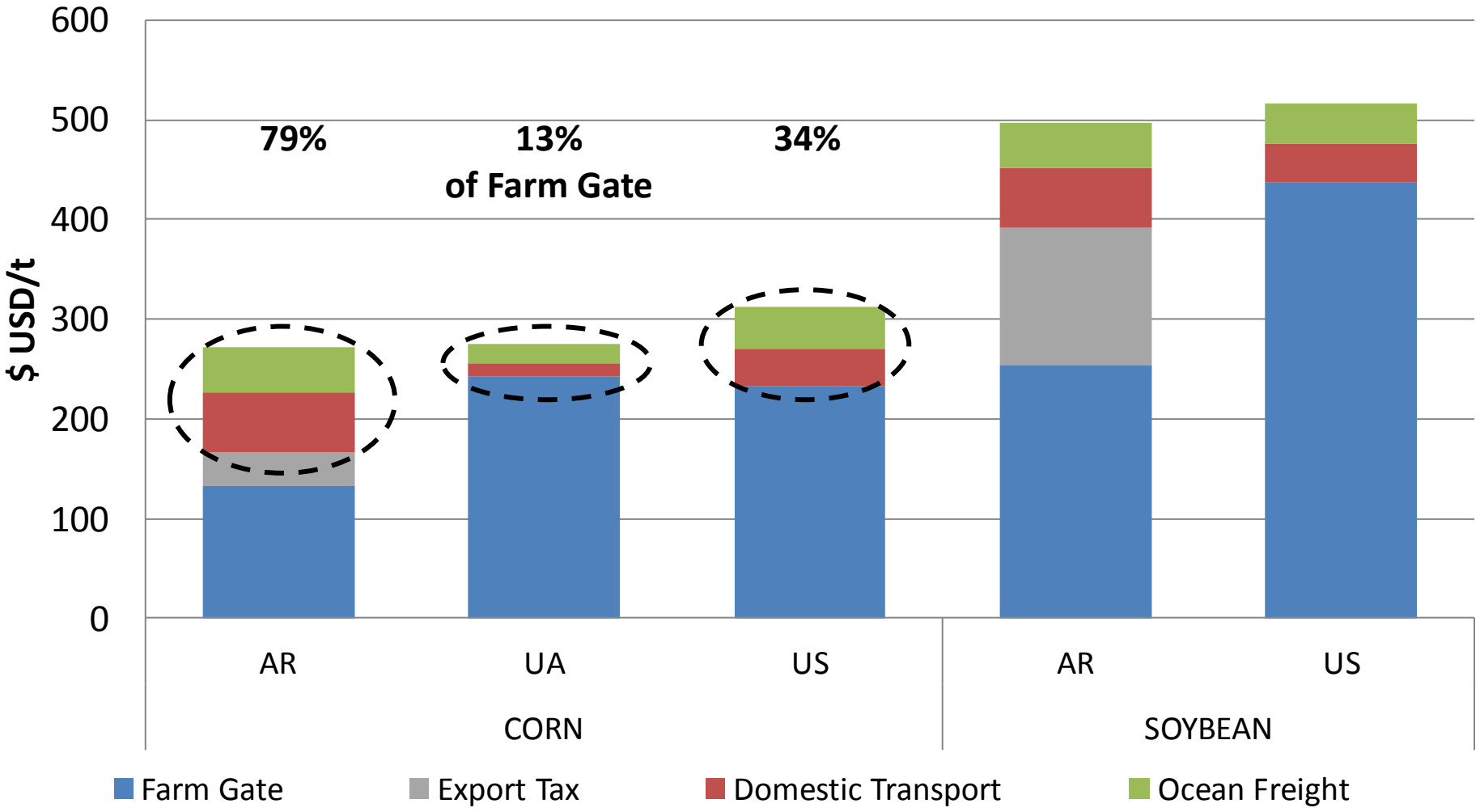
Typical Farm Quotes – Destination Hamburg



Source: agri benchmark, USDA, & IGC

Typical Farm Quotes – Destination Egypt



Source: agri benchmark, USDA, & IGC

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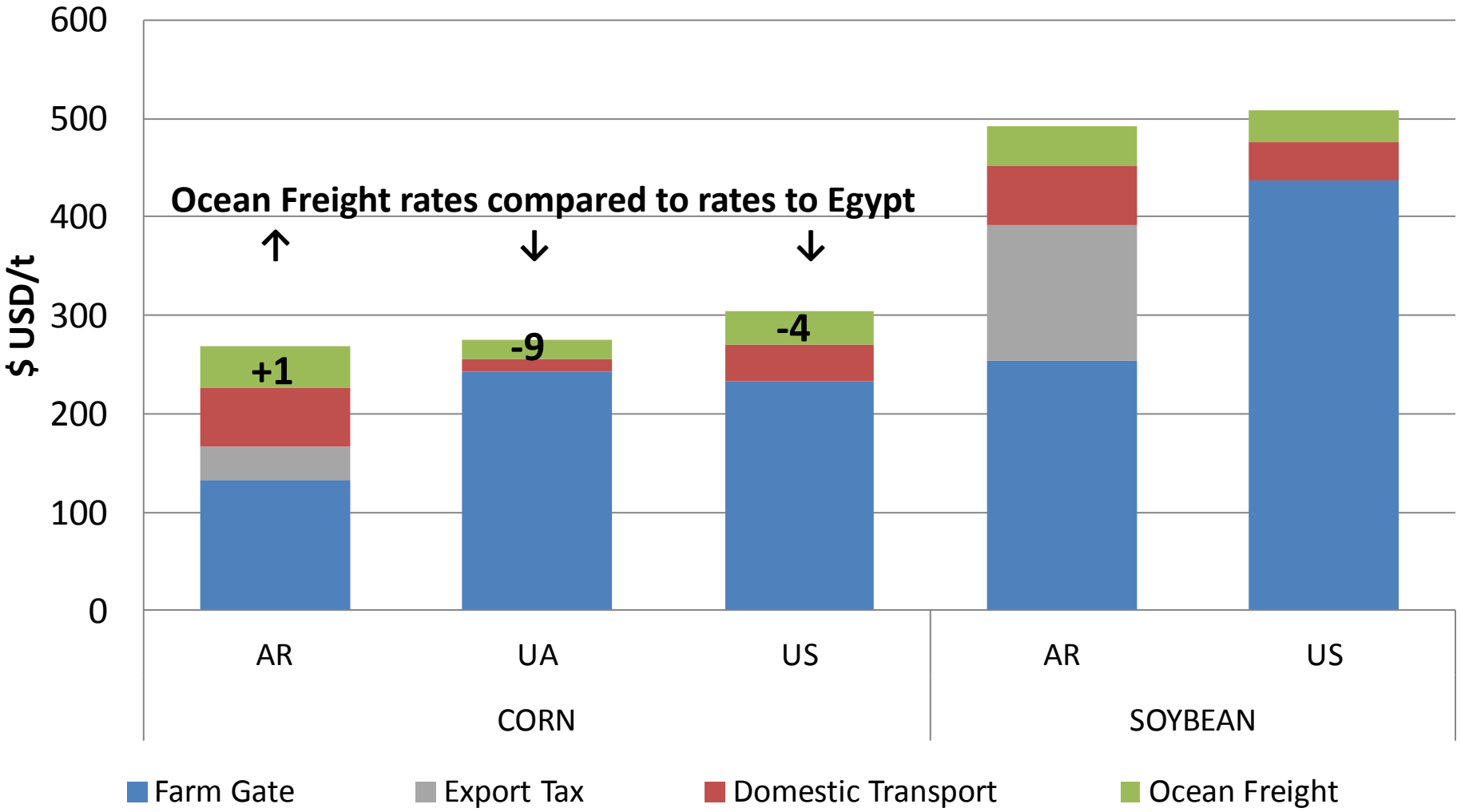
Typical Farm Quotes – Destination Spain



Source: agri benchmark, USDA, & IGC

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Summary & Conclusion - Focus on the US

(1) It‘s efficient domestic transport system put‘s the US in a very competitive position – esp. relative to AR and BR.

(2) For destinantions such as Hamburg, Spain or Egypt the Ukraine has a strong competitive edge over the US, BR and AR.

(3) Producers in BR and the US have to “hope” for the current Argentine government policies to remain.

⇨Export taxes are a potential game changer

Summary & Conclusion - General and Strategic

(1) What really matters is infrastructure – not pure distance (see US).

(2) Ocean freight rates move in tandem – competitive position of producers does not change because of overseas freight rates.

(3) Provided Russian corn and soybean production will speed up, a similar picture as for the Ukraine can be assumed.

(4) Further research on Black Sea shipping to China needed.

Thank you for your interest in *agri benchmark*.

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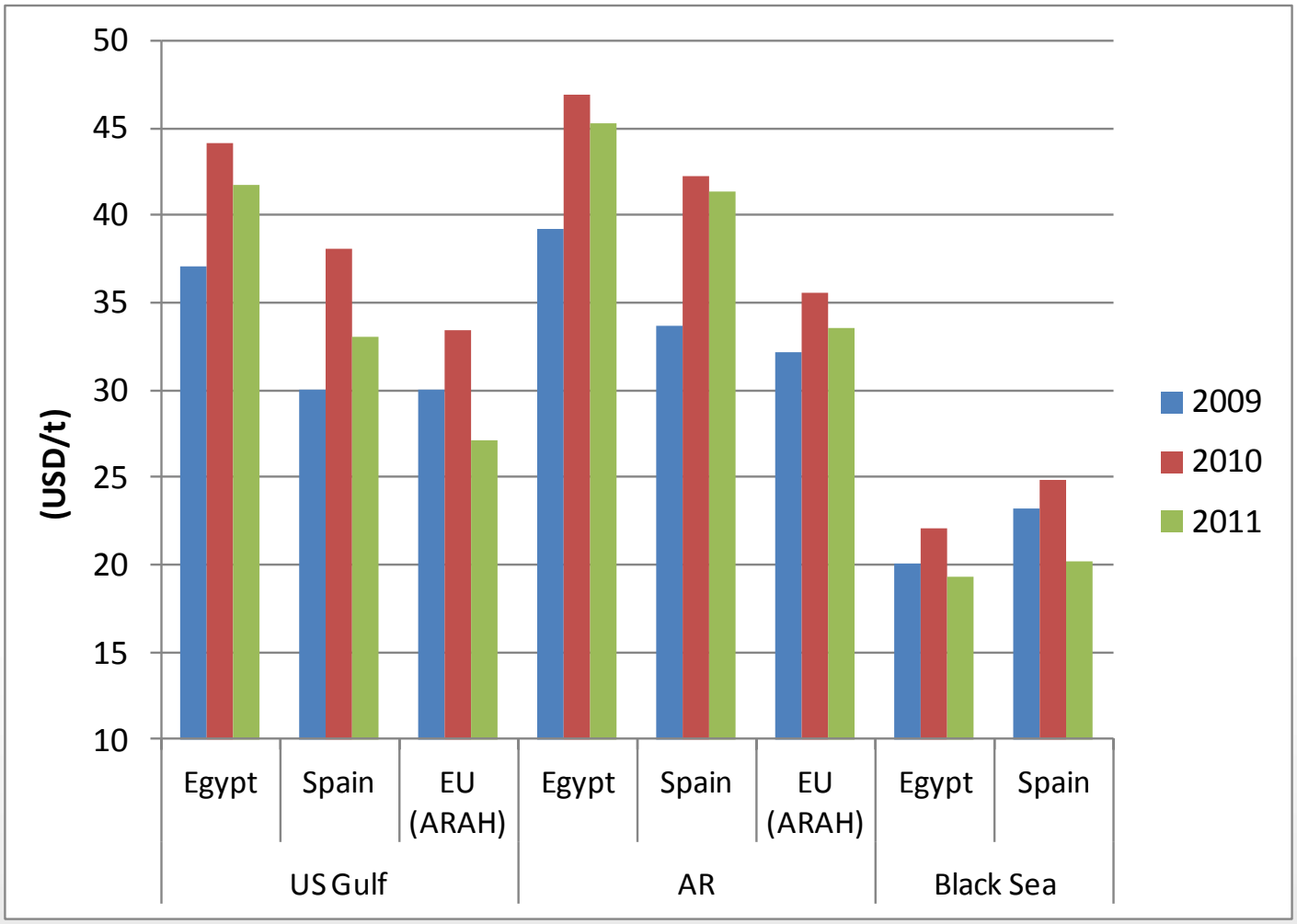
Average Ocean Freight Rate



Source: IGC