

Cotton Logistics Overview

Ports-to-Plains Alliance Energy/Agriculture Summit, Lubbock, TX
March 30-31, 2016
Merchant Perspective



Agenda

- Cotton Business Flows
- USDA Crop Overview
- Cotton Logistics Fundamentals
- Cotton Logistics Stakeholders
- Stakeholder Considerations
- Factors Affecting Cotton Flow
- Future Opportunities / Challenges
 - Panama Canal Expansion
 - Truck Driver Capacity
 - Safety of Life at Sea (SOLAS) Considerations / Impacts
- Questions



Cotton Business Flows

US Cotton has three principal lines of business that drive the design and mode of logistics flows:

1. Physical delivery of futures contract
 - Dallas / Ft. Worth
 - Memphis / West Memphis
 - Greenville / Spartanburg
2. Domestic mills
3. Export customers
 - Cross-border
 - International ocean container
 - As a high cost producer, the US has developed efficient physical supply chains to execute volumes where and when international customers need them.



USDA Crop Perspective

The U.S. cotton crop for 2015/16 remains estimated at 12.9 million bales (upland at 12.5 million bales and extra-long staple at 435,000 bales), compared with last season's 16.3 million bales.

Total demand for U.S. cotton is the lowest **in three decades**.

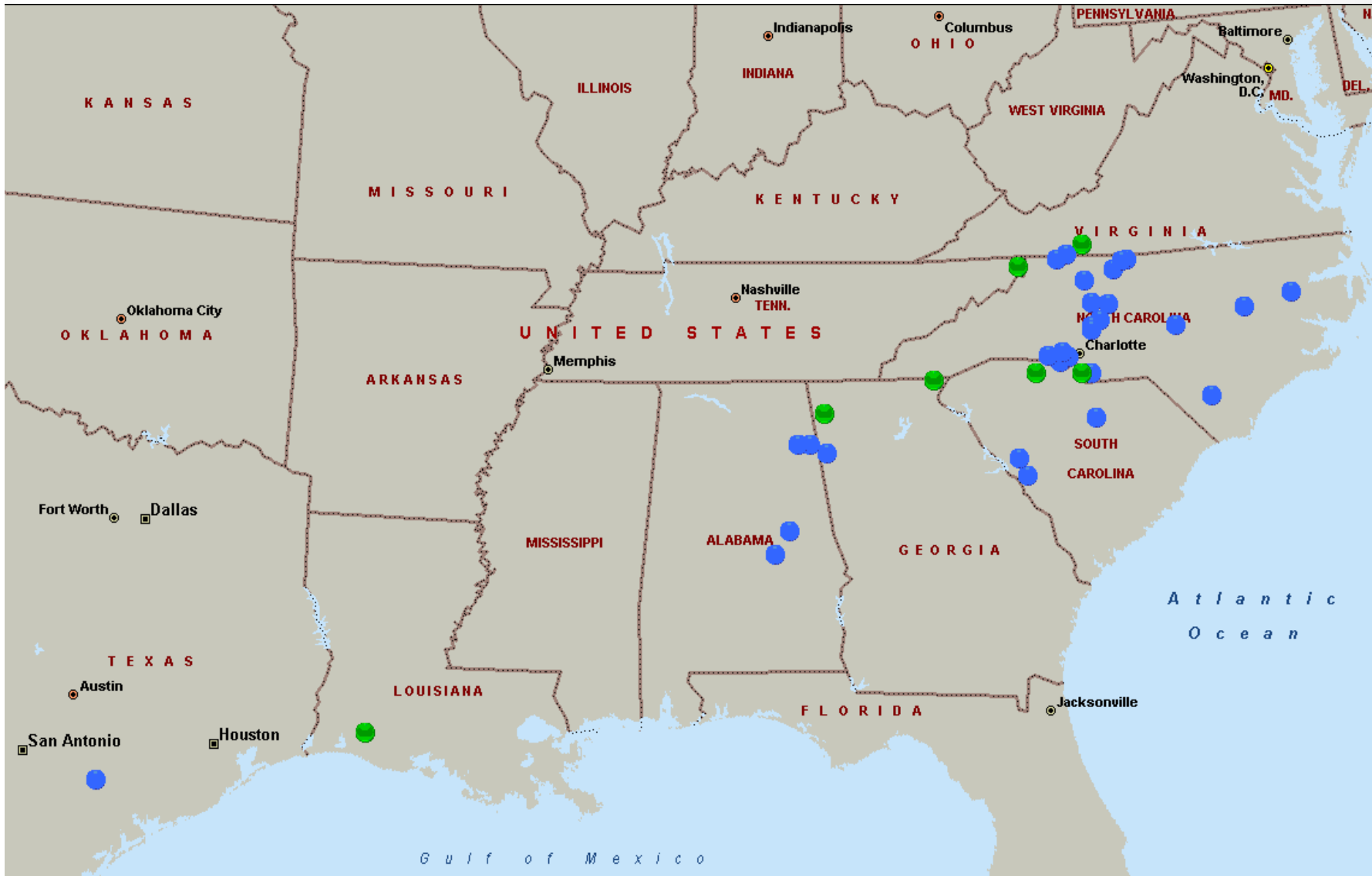
- Domestic: U.S. cotton demand is estimated at 13.1 million bales, the **lowest** since 1985/86 season.
- Export: U.S. cotton exports are forecast to **decline** more than 15 percent;
 - Decreased supplies in the United States—along with the lowest foreign import demand in 7 years—are expected to keep U.S. exports **2 million bales below the 3-year average**.
 - The U.S. share of world trade is forecast to decrease from 32 percent in 2014/15 to 27 percent this season.
 - At the end of 2015/16, global cotton stocks will be **nearly a year's worth** of global mill demand.



COTTON LOGISTICS FUNDAMENTALS



US Domestic Mills



Principal Parties in Ocean Container Shipping

Shipper

- any person or organization paying for its cargo to be shipped from one place to another.
- person or organization placing goods on board a vessel or remitting goods to a carrier and being placed in relevant box of B/L as “shipper” and first endorser of B/L when B/L issued “to order “

Vessel-Operating Common Carriers (VOCCs) or ocean common carrier:

- holds itself out to the general public to provide transportation by water of passengers or cargo
- assumes responsibility for the transportation from the port or point of receipt to the port or point of destination
- uses, for all or part of that transportation, a vessel operating between an origin port and a port in a foreign country

Ocean Freight Forwarder (OFF) is an individual or company which:

- arranges cargo movement to an international destination
- dispatches shipments from country of origin via common carriers and books or otherwise arranges space for those shipments on behalf of shippers
- prepares and processes the documentation and performs related activities pertaining to those shipments

Non-Vessel-Operating Common Carrier (NVOCC):

- a common carrier that holds itself out to the public to provide ocean transportation, issues its own house bill of lading or equivalent document, and **does not operate the vessels** by which ocean transportation is provided



Ocean Carrier Service Design

Direct Call – where a container vessel loads cargo at the port of export and sails to the final port of destination where the cargo is unloaded and imported.

Main Line – vessel sailing deep-sea leg of container service

Feeder – vessel sailing short-sea or coastal leg linking to a main line service.

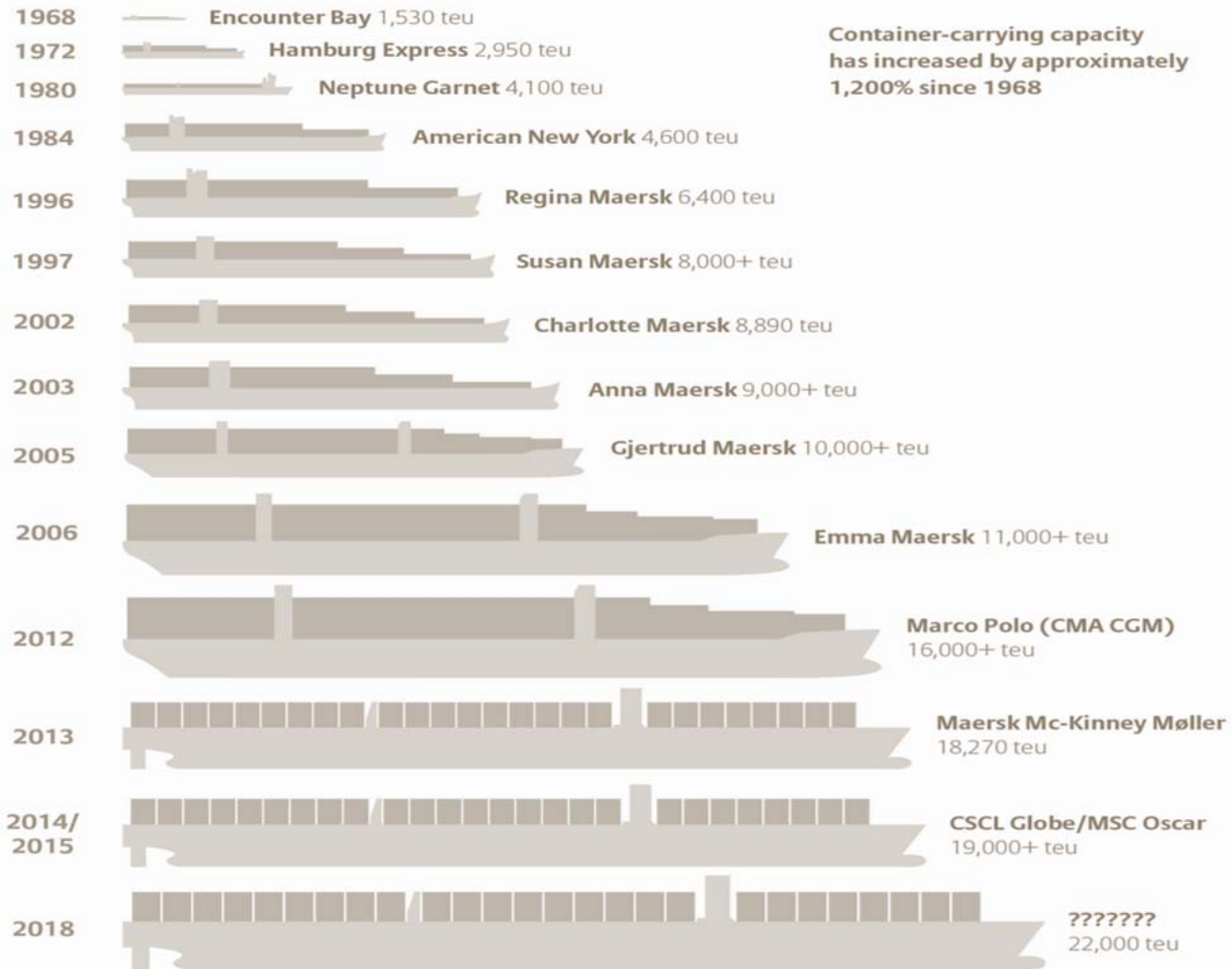
Transshipment – container transfer between main line and feeder vessels at a port.

Interlining – container transfer between main line vessels.



Ocean Container Vessels

50 years of Container Ship Growth



Graphic: Allianz Global Corporate & Specialty.
Approximate ship capacity data: Container-transportation.com



Ocean Containers

Type, Size and Industry Measurements



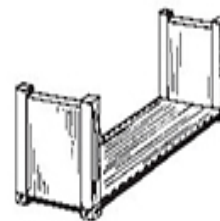
45' High Cube Dry



40' Dry Freight



40' Open Top



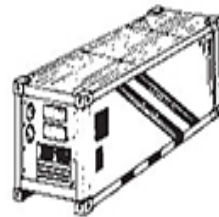
40' Flat Rack



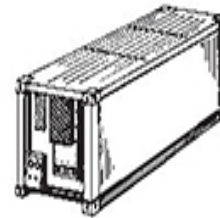
40' Collapsible Flat Rack



40' Platform



40' Reefer



40' High Cube Reefer



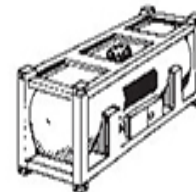
20' Dry Freight



20' Open Top



20' Flat Rack



20' Tank

Container Types

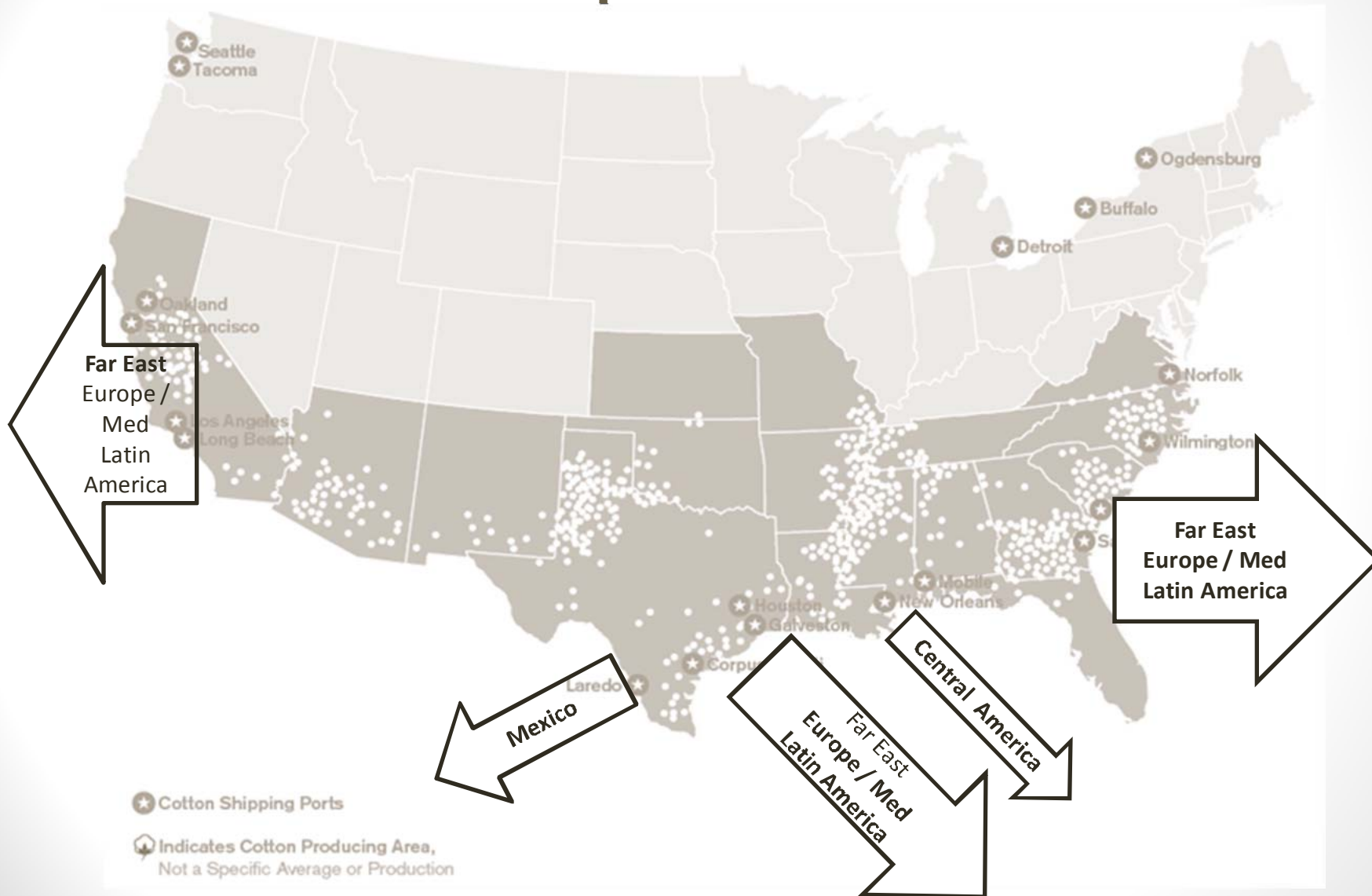
- Dry
- Refrigerated
- Specialized
 - Flat Rack
 - Open Top
 - Tank

Container sizes

- Standard width = 8 feet
- Heights
 - Standard = 8 feet
 - High Cube = 9 feet 6 inches
- Lengths
 - Standard = 20, 40 & 45 feet
 - Others = 10, 30, 48 and 50 feet

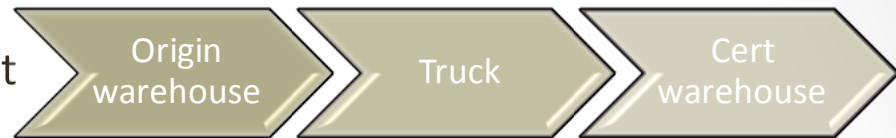


US Cotton Export Flows

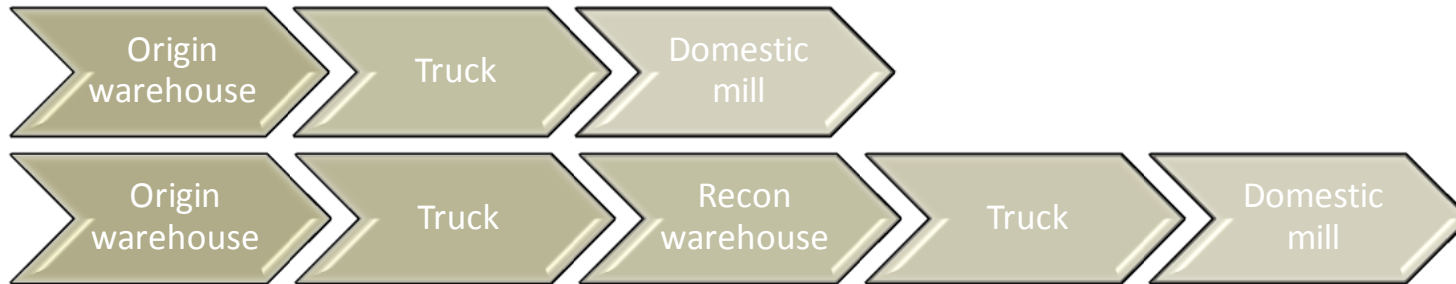


US Cotton Flow Summary

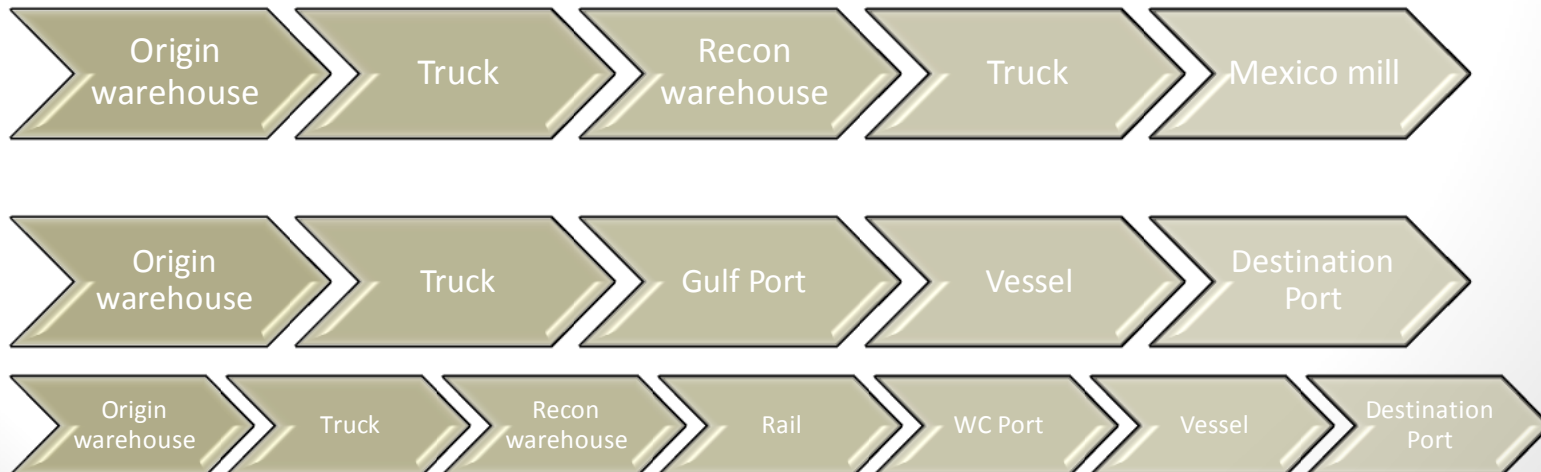
1. Physical delivery of futures contract



2. Domestic mill delivery



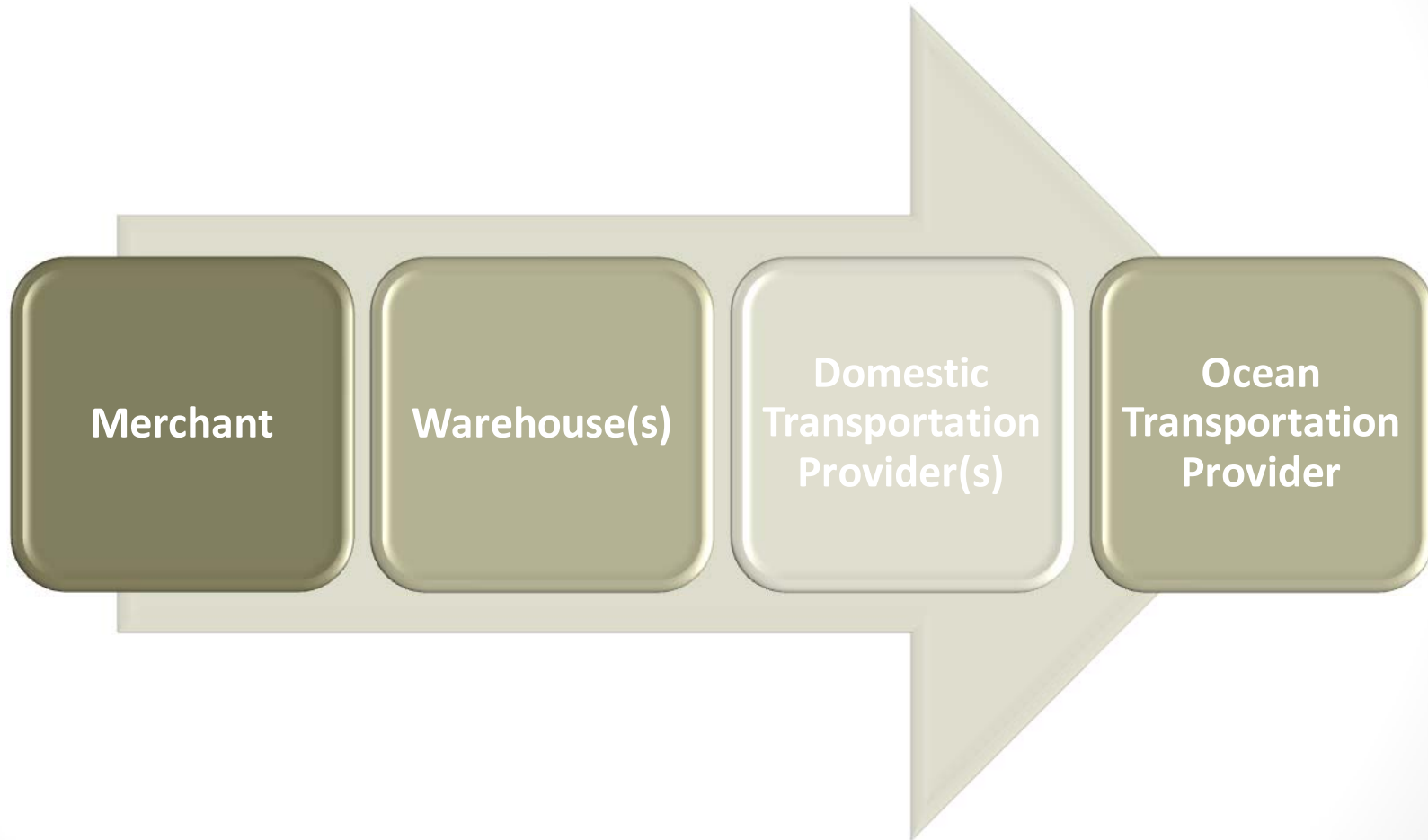
3. Export customers



COTTON LOGISTICS STAKEHOLDERS



Cotton Logistics Stakeholders



Stakeholder Considerations with Merchants

- **Ocean Carriers**
 - Lack of visibility on forward booking demand.
- **Truckers**
 - Lack of visibility on forward pick up demand.
- **Warehouses**
 - Provide adequate notice of dates needed – order ASAP.
 - Use bale selection methods that tend to group inventory locations, when possible.
 - Use warehouse calendar for setting load dates and for checking ready status, etc., when possible.
 - Any early information of changes in needs/volumes helps warehouse react quicker.
 - If pickup date changes, let warehouse know ASAP as it is much easier to make adjustments if the warehouse has not started running break for that day.
 - Pick up loads on time or make arrangements for other action.



Stakeholder Considerations with Warehouses

- **Merchants**

- Get ready date(s) that fit within our customer's requirements.
- Provide accurate and timely reporting of load details including but not limited to bales, mark(s), trailer(s)/railcar(s)/container number(s), and seal number(s).



Stakeholder Considerations with Domestic Transportation Providers

- **Merchants**

- Ensure sufficient drayage capacity - truck availability
- Confirm ready date(s) with warehouse operators at least forty-eight (48) hours in advance of scheduled pick up date.
- Notify the shipper or warehouse on schedule changes within forty-eight (48) hours that impact planned pick up at the warehouse, and the recovery plan.
- Ensure equipment that is clean, free of contaminants and leakage
- Pick up by the warehouse ready date
- Provide and affix their seal, in accordance with regulatory guidelines, to loaded trailer(s), railcar(s), or container(s).etc.
- Provide accurate and timely reporting of load details including but not limited to bales, mark(s), trailer(s)/railcar(s)/container number(s), and seal number(s).



Stakeholder Considerations with Domestic Transportation Providers

- **Warehouses**

- Pick up loads on time or make arrangements for other action.
- If pickup date changes, let warehouse know ASAP as it is much easier to make adjustments if the warehouse has not started running break for that day.
- Require drivers to inspect equipment prior to arrival. Cleaning trailers should always be done prior to arrival.



Stakeholder Considerations with Ocean Carriers

- **Merchants**

- Capacity - equipment and chassis availability
- Provide sufficient “wind and water tight” and clean containers to minimize US cotton shippers’ cargo damage and risks
- Pick up by the warehouse ready date, when handling door moves.
- Schedule integrity: changes impact port cutoffs and receiving dates, as well as document timelines.
- The EU and China documentation requirements prior to the port cut.
- Provide and affix their seal, in accordance with regulatory guidelines, to loaded trailer(s), railcar(s), or container(s) when handling door moves.
- Provide accurate and timely reporting of load details including but not limited to bales, mark(s), trailer(s)/railcar(s)/container number(s), and seal number(s) when handling door moves.



Stakeholder Considerations with Ocean Carriers

- **Warehouses**

- If pickup date changes when handling door moves, let warehouse know ASAP as it is much easier to make adjustments if the warehouse has not started running break for that day.
- Pick up loads on time or make arrangements for other action, when handling door moves.
- Require drivers to inspect equipment prior to arrival. Cleaning trailers should always be done prior to arrival.



Merchant Factors Affecting Cotton Flow

- Sale contract shipment month(s)
- Buyer meets payment requirements (prepay/LC)
- Warehouse ready dates
- Available truck capacity
- Available equipment & chassis
- Available vessel space
- Actual shipment execution – plan vs. actual
- Data integrity – timely and accurate shipment information



FUTURE OPPORTUNITIES / CHALLENGES



Panama Canal Expansion

- The Panama Canal Authority plans to open its third set of larger locks that can handle post-Panamax (13,000/14,000 TEU) vessels some time in May.
- According to the Panama Canal Authority website, the overall project is 97% complete as of 29 FEB.
- Once completed, the expansion will double the Panama Canal's capacity.
- Ocean container vessels service designs are focused on import cargo flows, therefore changes at Port of Houston will look at import potential and available port capacity to handle larger vessels.
- Too early to tell what opportunities there are for exporters.



Truck Driver Capacity

As noted in the *Journal of Commerce*, “trucker drivers are the basic unit of transportation capacity and **the glue** that holds supply chains together. No container or straight truck or trailer moves without, at some point, a truck driver.”

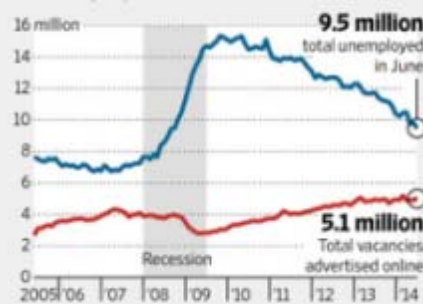
While mitigated by the recent decline in oilfield activity, the long term prospects for truck drivers remain challenging across the United States overall and more acute in less populated areas.



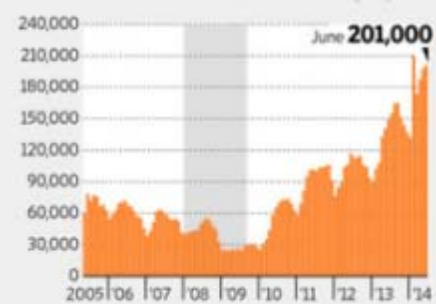
Lost Highway

As the ranks of unemployed workers in the U.S. have decreased, the number of help-wanted ads online, particularly a broad measure of demand for long-distance truckers, has climbed.

Unemployed versus help wanted
Seasonally adjusted



Long-haul truckers wanted
Advertised online vacancies, not seasonally adjusted



Sources: Conference Board (advertised vacancies); Labor Department (unemployment)

The Wall Street Journal



Safety of Life at Sea (SOLAS)

- A convention of the International Maritime Organization - a branch of the United Nations - which includes 173 countries.
- The SOLAS convention has been in effect since 1994.
- The US Coast Guard has IMO jurisdiction.
- A combined Verified Gross Mass (VGM) amendment goes into effect July 1, 2016 and requires certification of the gross cargo weight **and** the tare weight of the ocean container before the cargo loads to the an ocean vessel.
- Verified Gross Mass can be calculated in one of two ways under the amendment:
 - Method 1 – report the combined weight of loaded container and cargo having run it over a “certified” scale.
 - Method 2 - add weight of cargo of unitized cargo with labeled weights and tare weight printed on back of container together.



SOLAS – Exporter Challenges

IMO has adopted a global “shotgun” approach to address shipper - ocean carrier problems outside of the United States

1. Incremental Costs

- Certified weighing to meet VGM certification method of choice.
- Additional leg costs – for example, loading point to weighing point to marine terminal or inland rail hub.

2. Reduced Network Velocity

- Truck turns per day.
- Longer potential container dwell times at marine terminals.
- Vessel loading implications – does not make intend ocean vessel
- Shipper supply chain network / design changes to accommodate broader deficiencies.

3. Commercial Impacts

- Does an undue burden fall on the developed world since we are in better prepared to comply – thereby increasing our costs to land similar products to less developed countries?
- Customer commitment failure.
- Loss of sale / margin.
- How to address weight discrepancies for commodities sold by weight?



SOLAS – Proposed Solution

- Rear Admiral Paul Thomas of the United States Coast Guard has reiterated in a number of different forums that SOLAS applies to ocean vessels and that the current process for exporter submission of cargo description and weight complies with the SOLAS amendment.
- Cotton Maintain the current method in place today:
 - Exporters shall be responsible to certificate the accurate gross and net cargo weights to the ocean carriers.
 - Ocean carriers shall submit the weight of the ocean container it owns or leases from third parties.
- Please **NOTE** that despite the above, the ocean carrier industry continues down the same path requiring the shipper to comply with one of the two Verified Gross Mass methods.
- All industry stakeholders need to make their voices heard that no changes are necessary – contact Agriculture Transportation Coalition - Peter Friedmann mail@agtrans.org to get involved.



Questions ?

