What do Backlog and the Order Season mean for 2017 and beyond?

Frank Maly
ACT Fall Seminar
September 29, 2016
This Afternoon...

- Current State of the Industry
- Regulatory overview – GHG II is here
- Backlogs...how they have changed this year
- The current order cycle
- The longer-term viewpoint
- Forecast Review
Current Market Conditions

• Backlogs continually declining since Dec’15 peak
• New orders are weak...seasonality or more?
• Production has been trimmed recently
  • July surprisingly weak UPD
  • August increase lower than expected
• Late May / Early June enthusiasm has softened
• The 2016 / 17 order season
  • Pull-ahead unlikely
  • Volume will likely lag recent years
• Are we in a “pre-election pause”
  • “Any” decision vs. the unknown
Current Market Conditions

• GHG II regulations are over the horizon
  • Any pre-buy?
  • “Costs” and payback reasonable?
• Industry adding production capacity
  • Reports projects behind schedule
  • More of a 2017 impact
  • Increases into a slowing market
  • Lower orderboards will be a challenge
• Recent cancellation patterns troubling
  • Some cancel / reorder activity
  • Some fleet retrenchment
  • Some fleet reassess needs
Spot and Contract Rates Disappoint

Contract rates have been neg y/y since March
Spot has improved, but neg y/y for over year; react to capacity and volume
More significant small and medium fleet impact, but large not immune
Fleet Bias to Trailers Continues

- Even with slowing orders, trailer remain stronger
- Build lags the turn by roughly 6 months, travel a smoother path
- Are we seeing a change in industry patterns?
Industry Production Easing

- Production has been negative y/y for 6 of last 8 months
- Last three months noticeably down
  - Reaction to declining backlog
- New capacity coming on-line in face of softening market
- Our projections show further softening in build rates
- Any impact from recent Hanjin bankruptcy?
  - Supply chain disruptions?
    - Brake drums
    - Axles
    - Frame parts/stampings
    - Castings
    - Flooring
Regulatory Calendar

- FSMA
- GHGII
- ELD
- Speed limiters
- 34 hour restart status
- ...etc
GHG II Trailer Impact

• Usage of
  • Aerodynamics
  • Low Rolling Resistance Tires
  • Tire Inflation or Monitoring Systems
  • Lightweighting

• No retrofit
• Starts in 2018
• Question on actual payback
  • Actual cost of modifications
• Will there be a pre-buy to avoid extra expense?
  • There is a payback to implementation
GHG II Trailer Impact

- Dry Vans – Longer than 50 feet
- Reefer Vans – Longer than 50 Feet
- Dry Vans – 50 Feet and Less
- Reefer Vans – 50 Feet and Less
- Partial aero Long Box Dry Vans
- Partial aero Long Box Reefer Vans
- Partial aero Short Box Dry
- Partial aero Short Box Reefer Vans
- Non-aero box Vans
- Non-box Trailers (tanker, flatbed, container chassis)
GHGII – Market Coverage

2015 Factory Shipments

- Dry Vans: 55%
- Reefer Vans: 14%
- Chassis: 11%
- Other: 3%
- Bulk Tanks: 0%
- Liquid Tanks: 2%
- Dumps: 3%
- Lowbeds: 3%
- Flatbeds: 7%
- Grain: 2%
- Bulk Tanks: 0%
- Liquid Tanks: 2%
- Dumps: 3%
- Lowbeds: 3%
- Flatbeds: 7%
- Grain: 2%
- Other: 3%
- Chassis: 11%
- Dry Vans: 55%
- Reefer Vans: 14%

ACT Research Co., LLC, Copyright 2016
Industry Backlogs...
Two Segments Converging

Dry Van
Reefer Van
Flatbeds
Heavy Low Bed
Medium Low Bed
Dump
Liquid Tank
Bulk Tank
Grain/Comm
Total

ACT Research Co., LLC, Copyright 2016
Industry Backlogs...
Horizons Dramatically Different

<table>
<thead>
<tr>
<th>Category</th>
<th>Feb-16</th>
<th>Aug-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Van</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Reefer Van</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Flatbeds</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Heavy Low Bed</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Medium Low Bed</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Dump</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Liquid Tank</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Bulk Tank</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Grain/Comm</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Months
Dry Vans

Most notable: recent cancel activity
BL/BU on steady decline
Net Orders soft on weaker new support

Production schedules still support good 2016
but 2017 will challenge
Reefer Vans

BL/BU in steady decline
Cancels up last two months
Low orders...seasonal or more reassessment?

OEMs adjusting build rates to reflect orderboard
Still some FMSA and CARB and impact in short/medium term, but waning
Energy sector continues to disappoint
Less construction support occurring
Autos a question mark
Cancels “acceptable” but new orders lagging
Aluminum more successful
Build rates likely to drop to reflect conditions
Orders and build near equilibrium

Food and chemical not enough to offset oil patch impact

Backlog may be near bottom
BL/BU level for 4 months
Shipments now neg y/y

Has been some increase in drill rigs, but no rebound

Used equip continues to compete with new
Its not all oil driven, but highly impacted
Historical Order Patterns...

Short Term versus Long Term perspective
Seasonal more evident in short term view, cycle evident in long term view

Peaks of the order cycle on a upward trend...latest peak set all-time record
Last three cycles...trough averaged about 15% of the cycle peaks
Cycle duration is quite volatile

Current order cycle is at about 35% of the peak and relatively “young”
So...if history holds, we could still have adjustment ahead
A combination of seasonal and cyclical
If current order season is lower and delayed.....
Trough to Peak Order Pattern

Last four cycles...latest order peak an all-time record
Cycle duration is also quite volatile

There was a significant large fleet impact to the last peak
Timed with the seasonal order cycle
Several interim peaks during longer term stability before surge
Reaction to a dramatically older fleet
Trailer Demographics

• Fleet was extremely old
  – Fleet age has recovered from early decade peak
  – Dry vans, reefer vans and flats all nearing equilibrium ages

• Population approaching 2006-2007 peak
  – Growing since 2011-2012 bottom
  – Forecast projects population will eclipse 2007 later this decade

• Underlying replacement at peak levels
  – Many segments show lower replacement at end of forecast horizon
Dry Vans

DRY VANS:
Population & Average Age
1979 - 2021

ACT Research Co., LLC: Copyright 2016

DRY VANS:
Scrappage/Underlying Replacement Demand
1979 - 2021

ACT Research Co., LLC: Copyright 2016
Reefer Vans

**REEFER VANS:**
Population & Average Age
1979 - 2021

**REEFER VANS:**
Underlying Replacement Demand
1979 - 2021

ACT Research Co., LLC: Copyright 2016
Flats

FLATBED TRAILERS:
Population & Average Age
1979 - 2021

ACT Research Co., LLC: Copyright 2016
Tanks
Historically, A Deeply Cyclical Industry

Barriers to entry rising for new fleets

More consistent replacement investment driving less cyclical trailer demand

A forecaster’s quandary...no clear visibility on the end of the economic cycle

Even with lower 2016 & 2017 volume, the outlook calls for 11 unprecedented years
Conclusions

- Difficult current conditions. . .
  - Fall-off in orders and, correspondingly, backlogs
  - Separating the cyclical from the seasonal
- Capacity overshot the mark
- Pent-up demand appears to be satisfied
- Difficult used pricing challenges investment ability
- If outlook holds in 2016, unusual 6 year run
  - 3 GOOD years (2011-2013) then 3 GREAT years (2014-2016)
- Forecast pushes us to a solid good 11 year run
- There is not a compelling case for pre-buy due to GHGII