THE STARS ALIGN:
Old Trucks, Trailers, a Growing Economy and …

Ken Vieth
A.C.T. Research Co., LLC
Federal Reserve Bank of Chicago
Automotive Outlook Symposium
June 4, 2004
A.C.T. Research Co., LLC

State of the Industry (SOI) Reports:

1. NA Classes 5-8 Vehicles
   1a. Classes 5-8 Vehicles by Country
   1b. Classes 5-7 Bus Report

2. NA BU and RS by OEM by Country

3. U.S. Trailers (with TICG database)

4. NA Classes 5-7 Bus Market

5. Topical Studies/White Papers

The OUTLOOK,
The Road Ahead

Global Commercial Vehicle Forecast (GCVF)

with FTR Associates

with LMC Automotive/
JD Powers
CV Demand & Economic Activity

- Over time, there is a strong relationship between truck demand and economic activity
  - Demand tends to lag freight measures on the way up, lead on the way down

- Short-term economic considerations:
  - Energy costs: Macro and micro impacts (1-3 qtrs.)
  - Interest rates, inflation: Macro and micro impacts (2-4 qtrs.)
  - Housing starts: Implied durable goods spending (1-2 qtrs.)
  - Manufacturing Sector: Putting the “C” in cyclical (1-3 qtrs.)
  - Commodity Prices
CV Demand & Economic Activity, And...

- **Longer-term economic considerations:**
  - Manufacturing flight to SE Asia
  - Commodity prices

- **Non-economic factors/Government Regulation**
  - Hours of Service
  - 2007, 2010 Emissions Standard
  - NHTSA Braking Regulations
  - Trailer tracking technology
  - Size and Weight: No change in picture through 2010
  - Security
  - ???
Business Fixed Investment & Class 8 Trucks

Year over Year Percent Change

1960 - 2003

Source: BEA, A.C.T. Research Co., LLC: Copyright 2004
Truckers Today

- **Freight environment:**
  - Carriers reporting healthy levels of freight

- **Rising costs**
  - HoS reduces productivity - maybe
  - Fuel again becoming a factor
  - Driver pay shortage = tight driver supply

- **Rising barriers to entry favor continued consolidation**
  - Engine mandates: more $ up front, more to operate, less at trade
  - Government security regulations
  - Higher cost insurance and tougher credit

- **Carrier fiscal discipline**
  - Until recently, operating results have not justified investment
  - Stronger economy suggests continuation of strong freight rate gains
National Average Diesel Fuel Price & Per Mile Impact
January 1998 - 3 Weeks May 2004 (Seasonally Adjusted)

Chg. Cost Per Mile (in cents)

Source: EIA, ACT Research: Copyright 2004
TL Carrier Database:
Miles Per Tractor
Q1'95 - Q1'04

Thousands

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<th>Year</th>
<th>Q1</th>
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Fleets Continued to Age in 2003

TL Carrier Database:
Tractors: Average Age
1993-2003

TL Carrier Database:
Trailers: Average Age
1994-2003
Trucks Coming on Strong

- Broad-based rise in order activity
  - Trucks enjoying stronger demand
  - Orders likely to cool moving through Q2 and into Q3

- Backlogs up 137%, 72,000 units in 6 months
  - Up 138% versus last April

- Build rates up 37% y/y in April
  - Expected to move steadily higher in coming quarters
  - Retail sales following build higher

- Inventories slightly higher y/y

- Used equipment prices recover as glut subsides
# Current Market Activity: Class 8 Trucks

NO & BU Data: Seasonally Adjusted Annual Rate

<table>
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<tr>
<th>Ending April</th>
<th>Backlog (Actual)</th>
<th>Net Orders (SAAR)</th>
<th>Build (SAAR)</th>
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<tbody>
<tr>
<td>Past 12 Mo.</td>
<td>52.8</td>
<td>277.4</td>
<td>199.9</td>
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<tr>
<td>Past 6 Mo.</td>
<td>52.9</td>
<td>358.1</td>
<td>211.4</td>
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<td>Past 3 Mo.</td>
<td>81.2</td>
<td>410.0</td>
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<tr>
<td>April</td>
<td>125.4</td>
<td>486.2</td>
<td>234.1</td>
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</table>
TOTAL CLASS 8 NET ORDERS & BUILD - 6 Mo. Avg.

January '98 - April '04 (Not Seasonally Adjusted)

A.C.T. Research Co., LLC: Copyright 2004
Class 8 Trucks & Trailers: Money Takers & Money Makers

- **Strong historical relationship between Class 8 tractor and trailer demand.**
  - 1.5 U.S. trailers per 1.0 U.S. Class 8 HDD through 1990s

- **Competing for same pool of capital**
  - Likely to see disproportionate $ shift to Class 8 in 2006, with correction in 2007

- HoS and driver shortage will continue pressuring freight shift to “drop & hook”
  - Offsets negative trend from tracking technology
U.S. TRAILERS & CHASSIS* and U.S. CL.8 HDD TRUCKS
Build Ratio
1996 - YTD March '04

* AS MODELED BY A.C.T. Research Co., LLC: Copyright 2004

U.S. TICG: TRAILER INDUSTRY CONTROL GROUP
CLASSES 5-7 TRUCKS:
Past 5 Years RS/Past 10 Years RS
1979 - 2008

Forecast

Percent

A.C.T. Research Co., LLC: Copyright 2004
2007: The Great Unknown

Factors affecting drop-off/duration of recovery

- Fleet age/replacement cycle: Fleets who do not lower their average fleet age during the next 18 months may have no choice but to do so sooner, rather than later, thereby lessening the effect of a pre-buy.

- Freight hauling capacity: If there is profitable freight to be hauled and truckers need trucks, they may add capacity.
2007: The Great Unknown (con’t)

- Factors affecting drop-off/duration of recovery

  - Fleet segmentation:  Will all segments (long haul, regional haul, truckload, less-than-truckload, owner/operator, etc.) be affected in the same manner?

  - Industry participant experience:  All player in this space are painfully aware of “binge & purge” mentality and are working to avoid or at least restrain the ramp up and ramp down.
## Evolution vs. Revolution

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<th>Technology</th>
<th>Price Low</th>
<th>Price as Expected</th>
<th>Price High</th>
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<tr>
<td>OK</td>
<td>Demand Stable</td>
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<tr>
<td>Neutral</td>
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<tr>
<td>Poor</td>
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<td>Large Pre-Buy</td>
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</table>
# N. A. Commercial Vehicle Forecast

Units (Thousands)

Source: ACT Publications Commercial Truck, Bus, and Trailer Industry OUTLOOK

<table>
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<th>2003</th>
<th>2004</th>
<th>2005</th>
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<tbody>
<tr>
<td>Class 8 Trucks</td>
<td>177</td>
<td>248</td>
<td>299</td>
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<tr>
<td>Classes 5-7 Trucks</td>
<td>196</td>
<td>243</td>
<td>271</td>
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<tr>
<td>US Trailer (FS)</td>
<td>211</td>
<td>287</td>
<td>332</td>
</tr>
<tr>
<td>Total Units</td>
<td>584</td>
<td>778</td>
<td>902</td>
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</table>
Summary

- Key demand drivers point to healthy market
  
  - Economic cycle turning: Economy generates the freight needed to justify fleet replacement and expansion
  
  - Trucker profitability: Tightening capacity, growing freight, and rising freight rates make it easier to justify investment
  
  - The fleet is aging while freight is growing: Replacement demand plus capacity additions
If you would like to know more about the trucks and trailer databases, and/or the SOI Reports, contact A.C.T. Research:

A.C.T. Research Company, LLC
11545 North Marr Road
Columbus, IN  47203
Phone: (812) 379-2085
Fax:  (812) 378-5997
Email:  trucks@actresearch.net

www.actresearch.net