



# **Commercial Vehicle Demand Review: 2007-2008**

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# CV Demand Modeling

- The economy generates the freight hauled by Class 8 tractors and trailers
  - Class 8: 1% GDP growth ~20,000 more U.S. population,
  - ~30,000 NA population
- Scrappage accounts for ~75% of vehicles purchased
  - Class 8: U.S. replacement at ~160k units/yr.,
  - N.A. replacement at ~200k units/yr.
- While the economy ultimately determines how many trucks/trailers are needed, other factors play a large part in determining when equipment is purchased

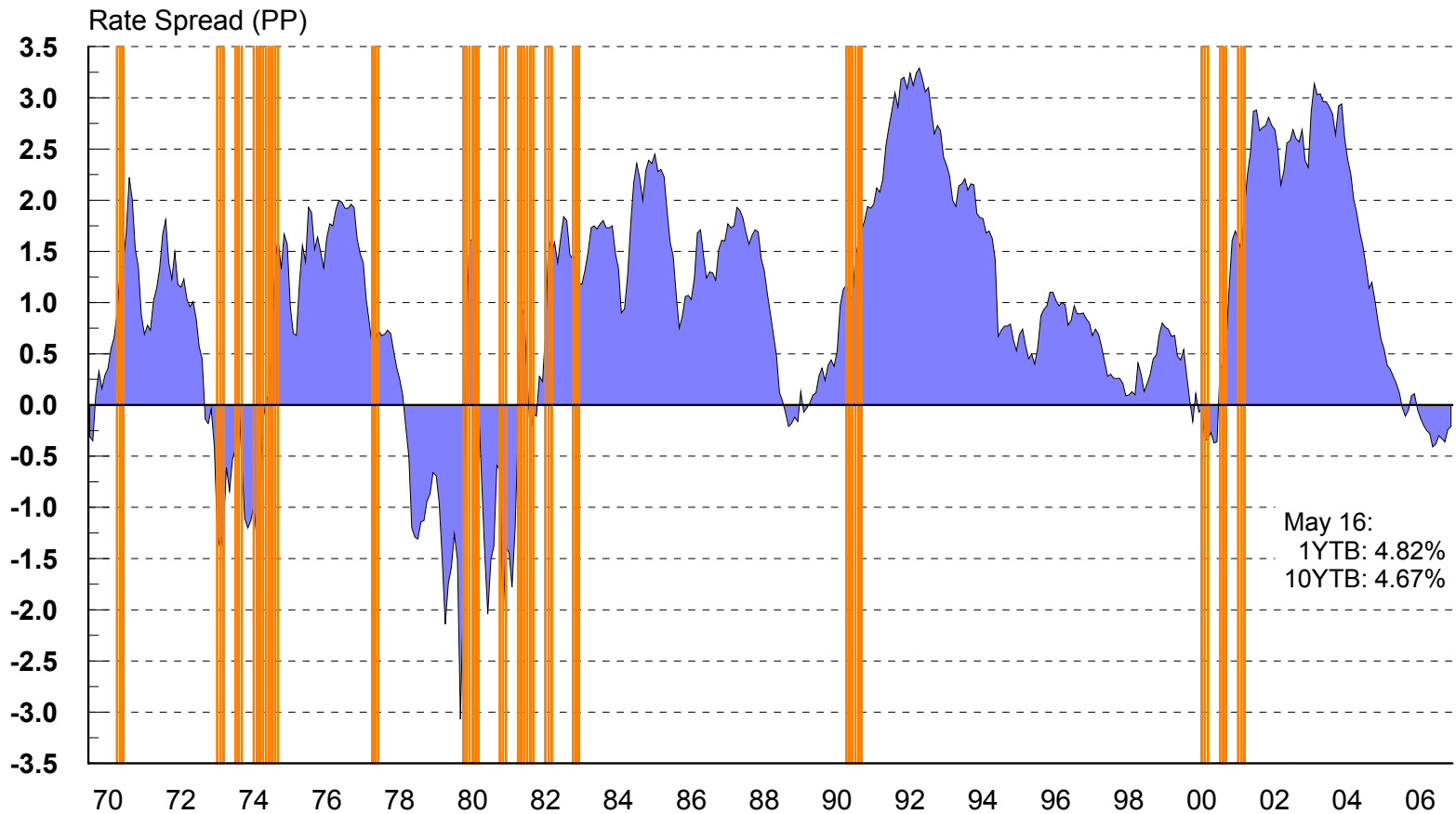
# U.S. Economy: Mixed Signals

- Outlook opaque
  - Will nascent manufacturing upturn be nipped in the bud by higher gasoline prices?
  - Some classic recession predictors are predicting recession
  - Otherwise, it looks pretty good

# Famous Last Words?

## YIELD SPREAD

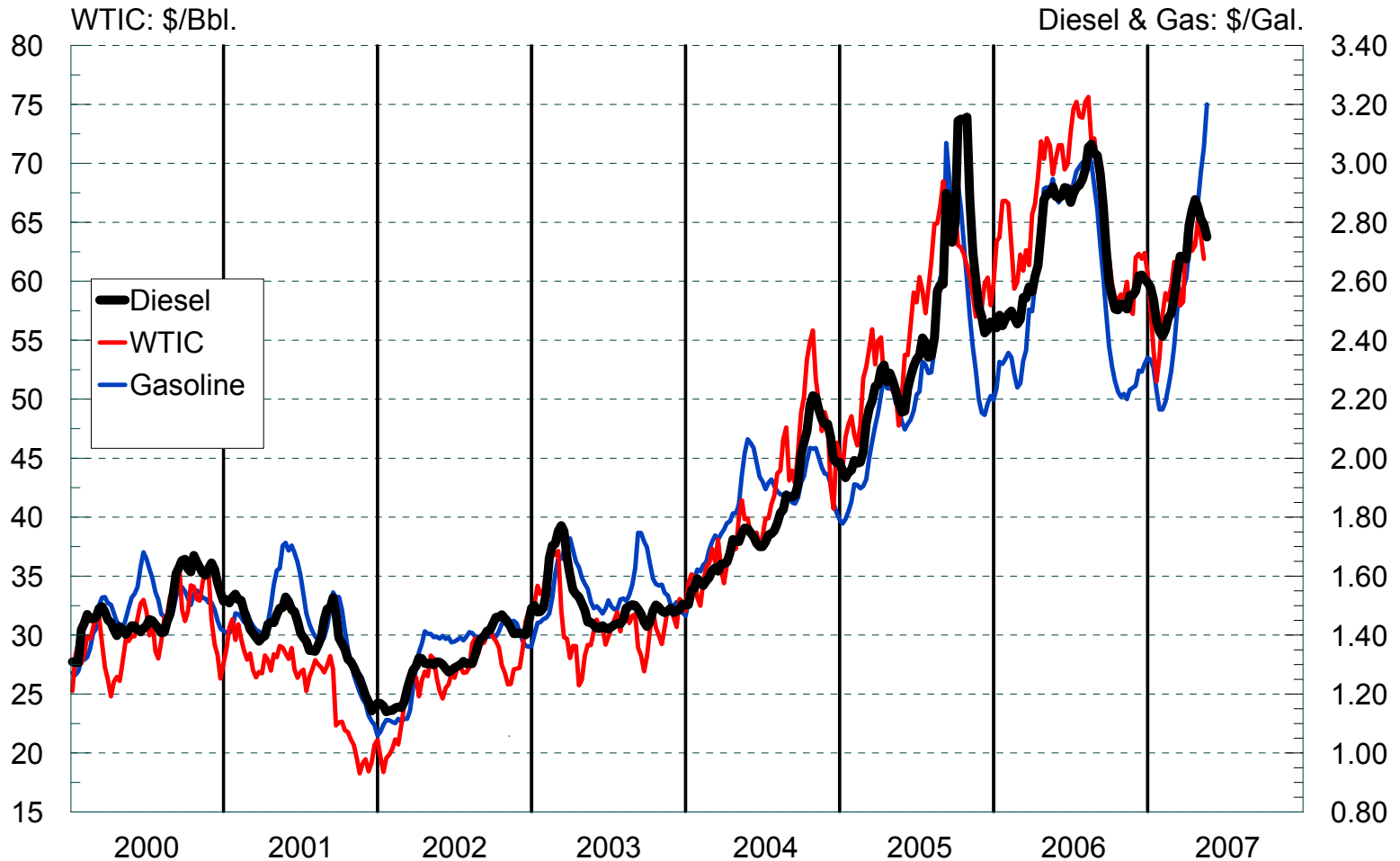
1-Year and 10-Year Treasuries  
January 1989 - MTD May 2007



# Short-Term Issue?

## Gasoline, Diesel & Spot Crude Oil (WTIC) Prices

2000-2007 (Week 21)

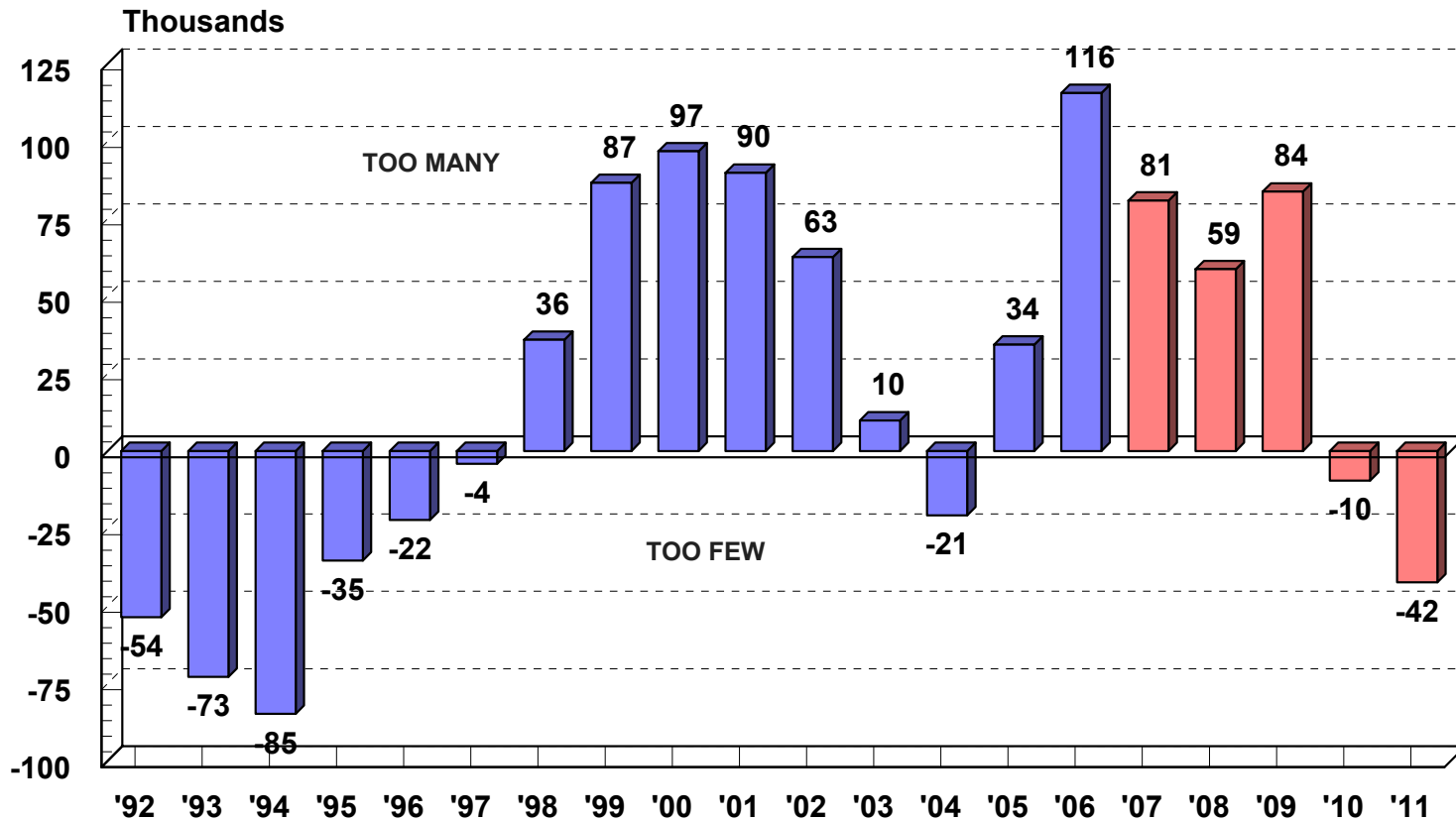


# Truckers & Freight

- Too many trucks chasing too little freight
  - Economic softening hits just as truckers finish overbuying equipment to avoid post-EPA 2007 engines
  - Freight recession thanks to softness in key freight sectors
    - » Bad year for flatbed trailer demand
- Carrier profits under pressure
  - Too many trucks and falling freight put shippers in the driver's seat for the first time since 2002

# Fortunately, this cycle drivers, not equipment, are the primary measure of capacity

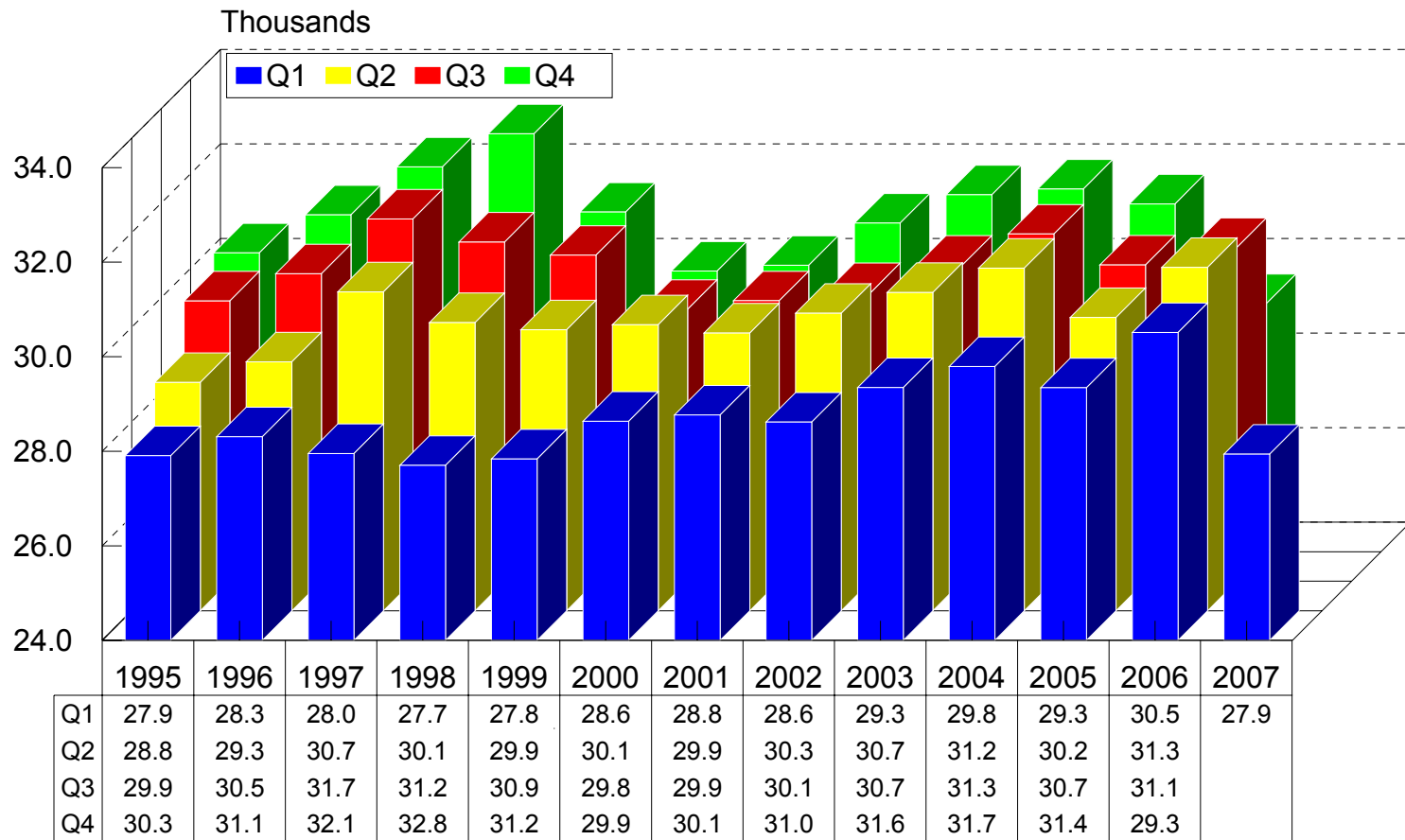
**Cummulative Over/Underbuy:  
U.S. Class 8 Population Relative to U.S. GDP Growth  
1992 - 2011e**



# Freight Cycle Shift

## TL Carrier Database: Average Miles Per Tractor

Q1'95 -Q1'07

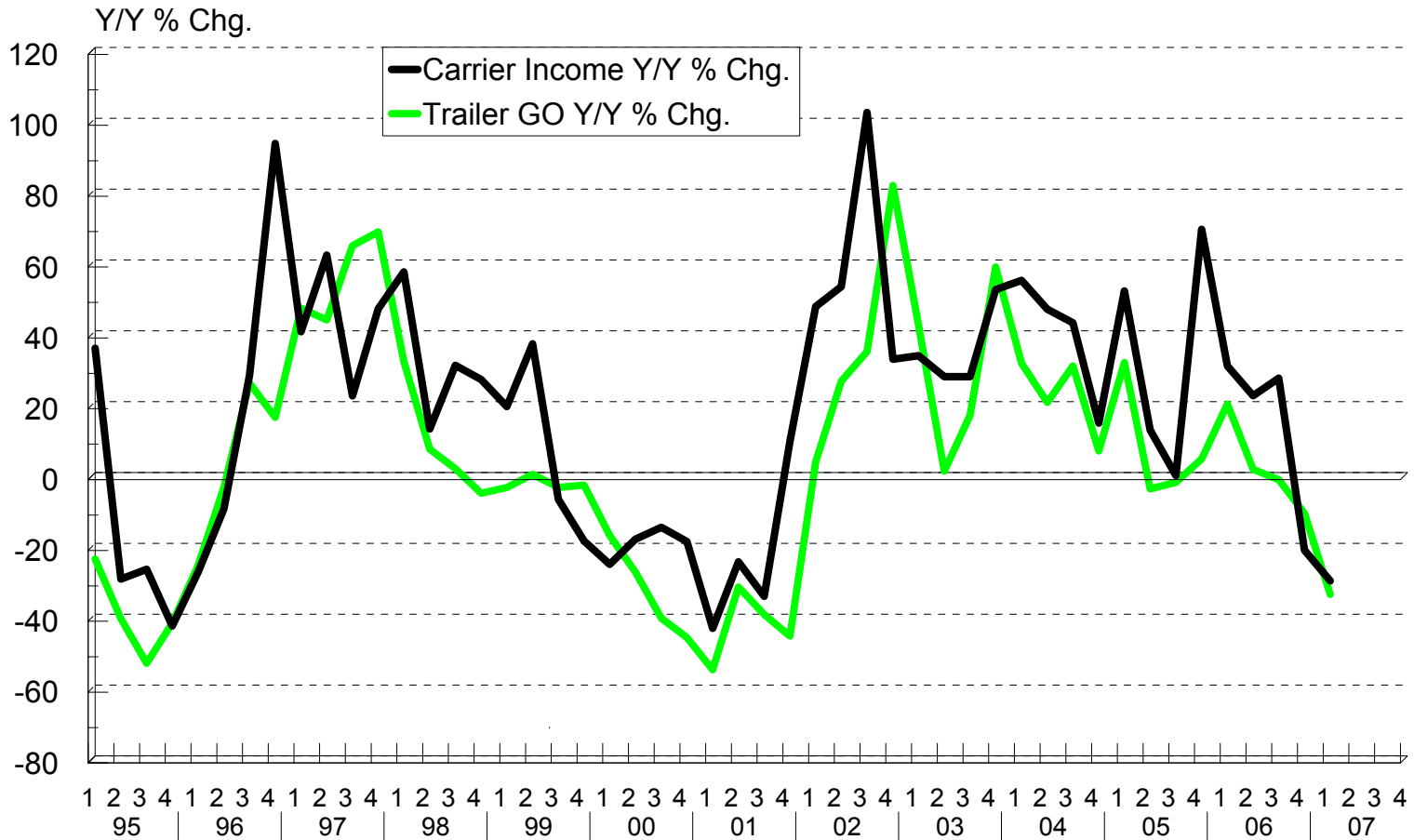




# Why Trucker Profits Matter

## TL Carrier Database: Carrier Net Income & New US Trailer Orders

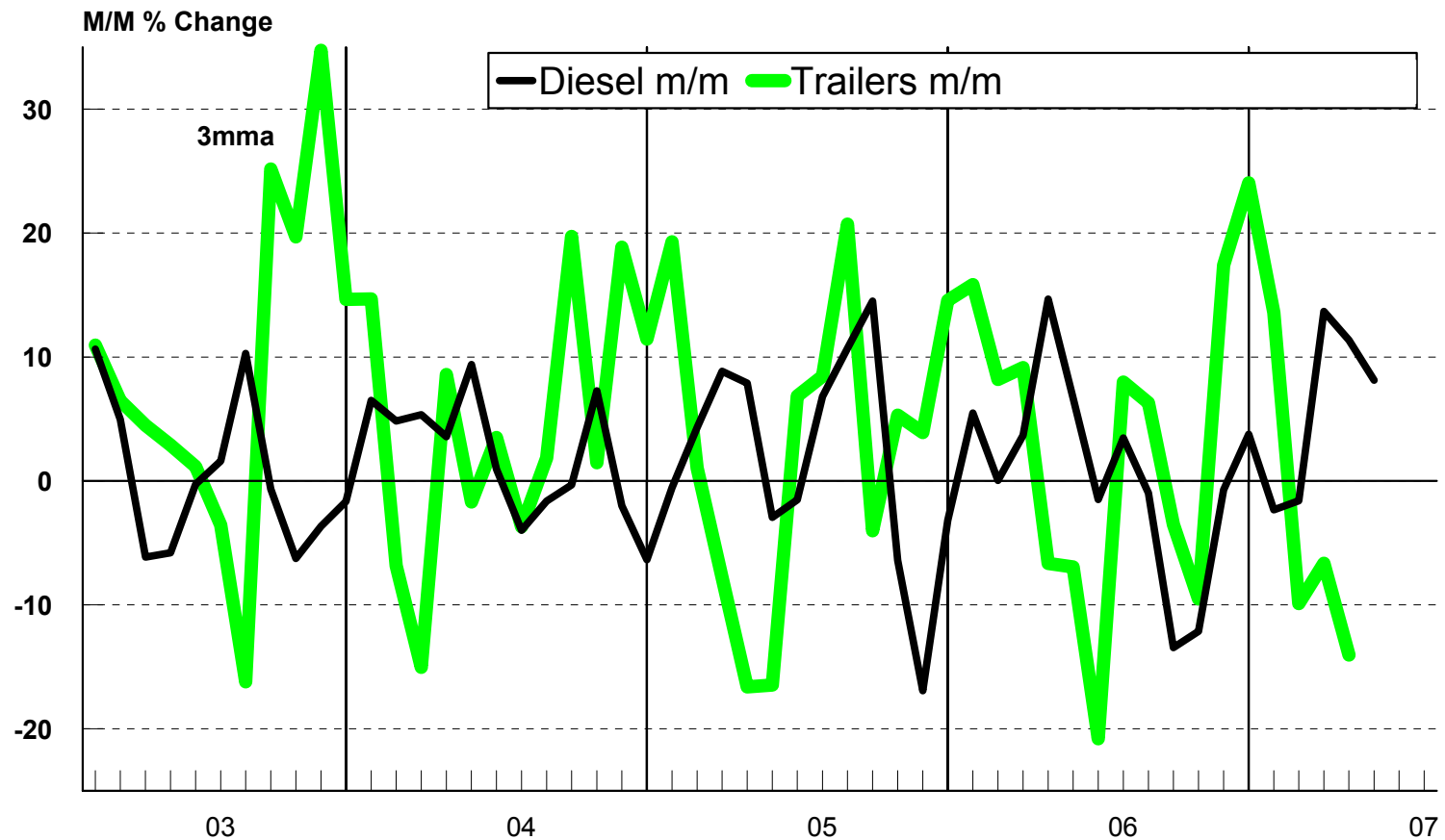
Year over Year Percent Change  
Q1'95 -Q1'07



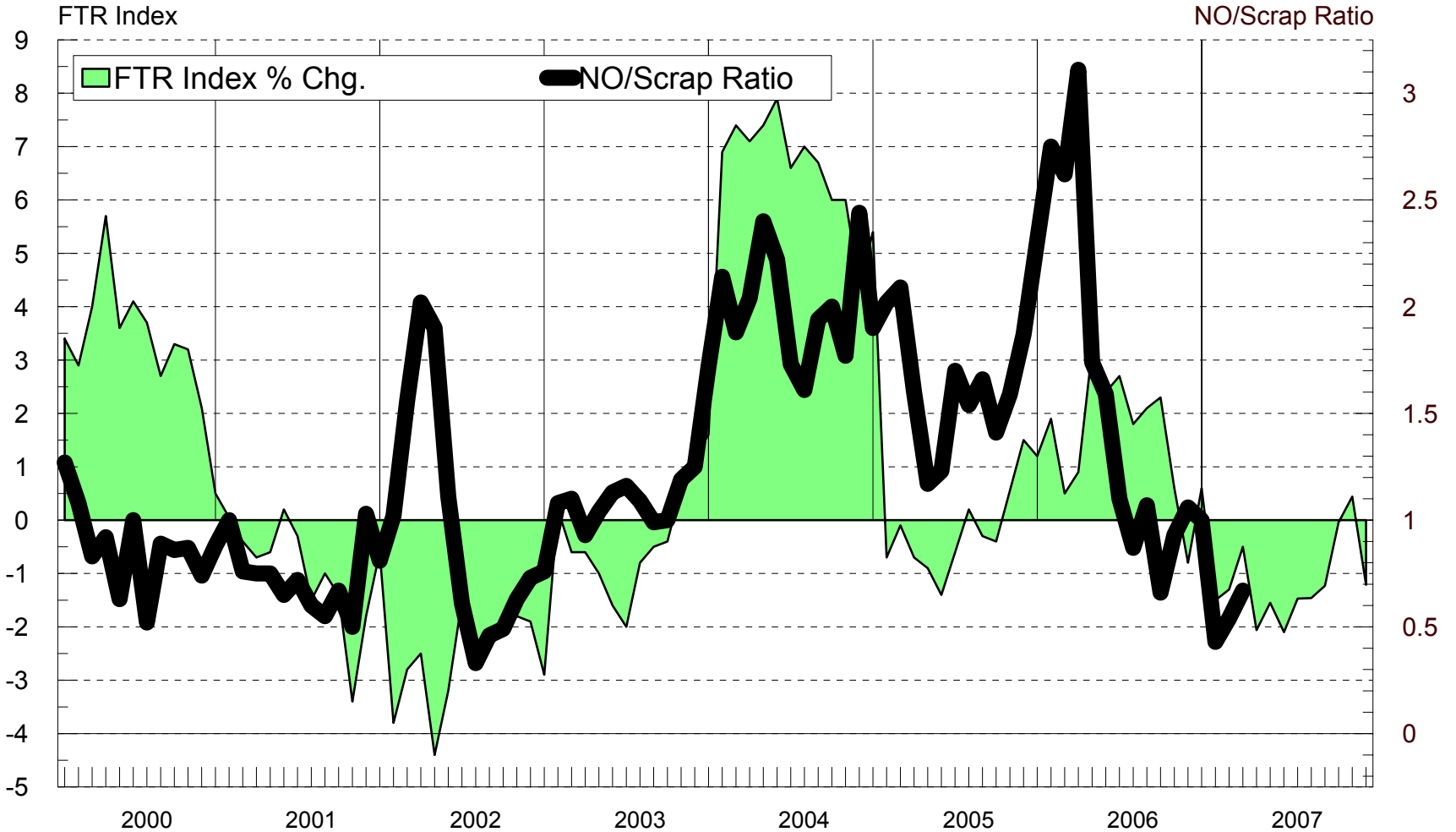
# Gasoline Prices Matter Too

## Gasoline Prices & U.S. Trailer Orders SA

Month/Month % Change  
January 2003 - May 2007



# FTR Trailer Loads Index & Class 8 Population Change 2000 - 2007



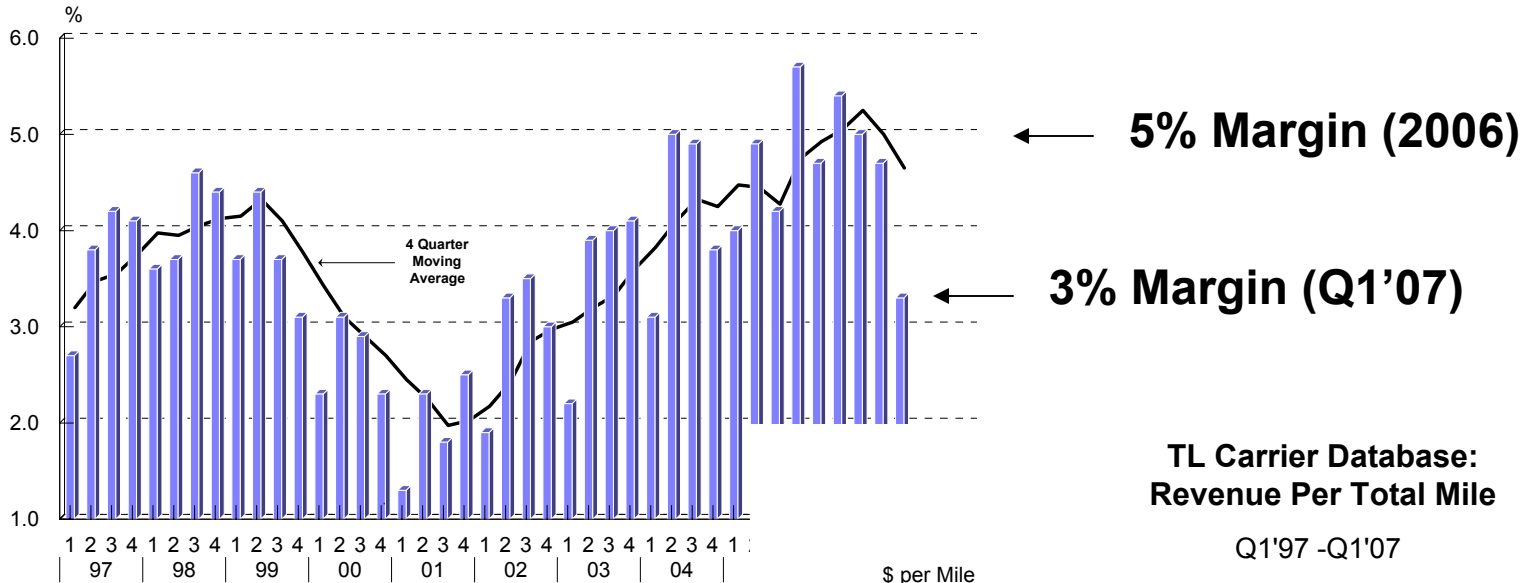
# 2007: The Math at 400k Miles

	MPG Degradation	Fuel & Maintenance	Added Costs	Cost Per Mile Increase
<b>2007</b>				
<b>NEW COST</b>			\$10,000	2.5 cpm
<b>FUEL ECONOMY</b>	-1%	675 gal. @ \$2.50	\$1,700	0.4 cpm
<b>MAINTENANCE</b>		\$1,000/yr avg. Mechanic training, cores and cleaners, oil and lube	\$4,000	1.0 cpm
<b>TOTAL</b>			<b>\$15,700</b>	<b>3.9 cpm</b>

- Fleets that prebuy won't have to worry about fuel quality
- Each 1pp degradation in fuel economy adds ~675 gallons over 400k miles

# TL Carrier Database: Net Profit Margin

Q1'97 -Q1'07

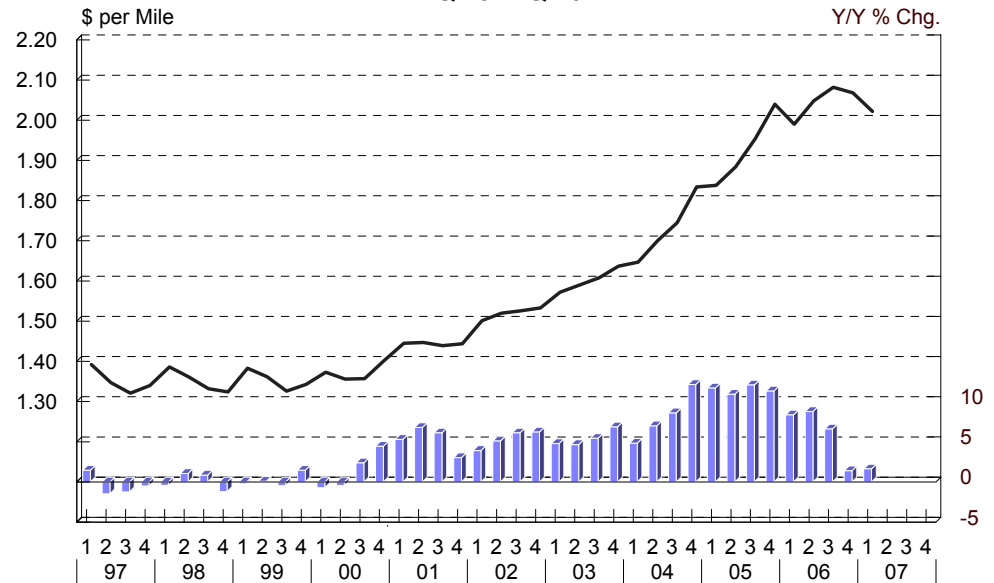


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**\$2.00/mi. Revenue** →

# TL Carrier Database: Revenue Per Total Mile

Q1'97 -Q1'07



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# Will there be Prebuy III?

- **Higher new purchase price**
- **Early adapters have no initial recourse to recover higher costs**
- **Early buyers get the bugs**
- **Fuel economy/Ad Blue concerns**
  - **Active vs. Passive Regeneration**
- **ULSD quality in early 2007**
  - **Ability to use higher energy content LSD where available**
- **DPF technology/Associated maintenance**
  - **Parts availability**
  - **Spare cores and cleaners**
  - **Mechanic training**
- **Heat rejection impact on component/engine life**
- **First engine not certified until November 9, 2006**
  - **Nor definitive pricing**
    - » **Tough to plan without knowledge**

# B-B-B-B-B-BAD

- April Class 8 Market Indicators
  - Orders: 55-month low
  - Backlog: 40-month low
  - Build: 48-month low (looks like the bottom)
  - Retail sales: 38-month low and falling
  - Inventory: 9-month low, but ~50% too large

# Noncompliant Markets Thriving

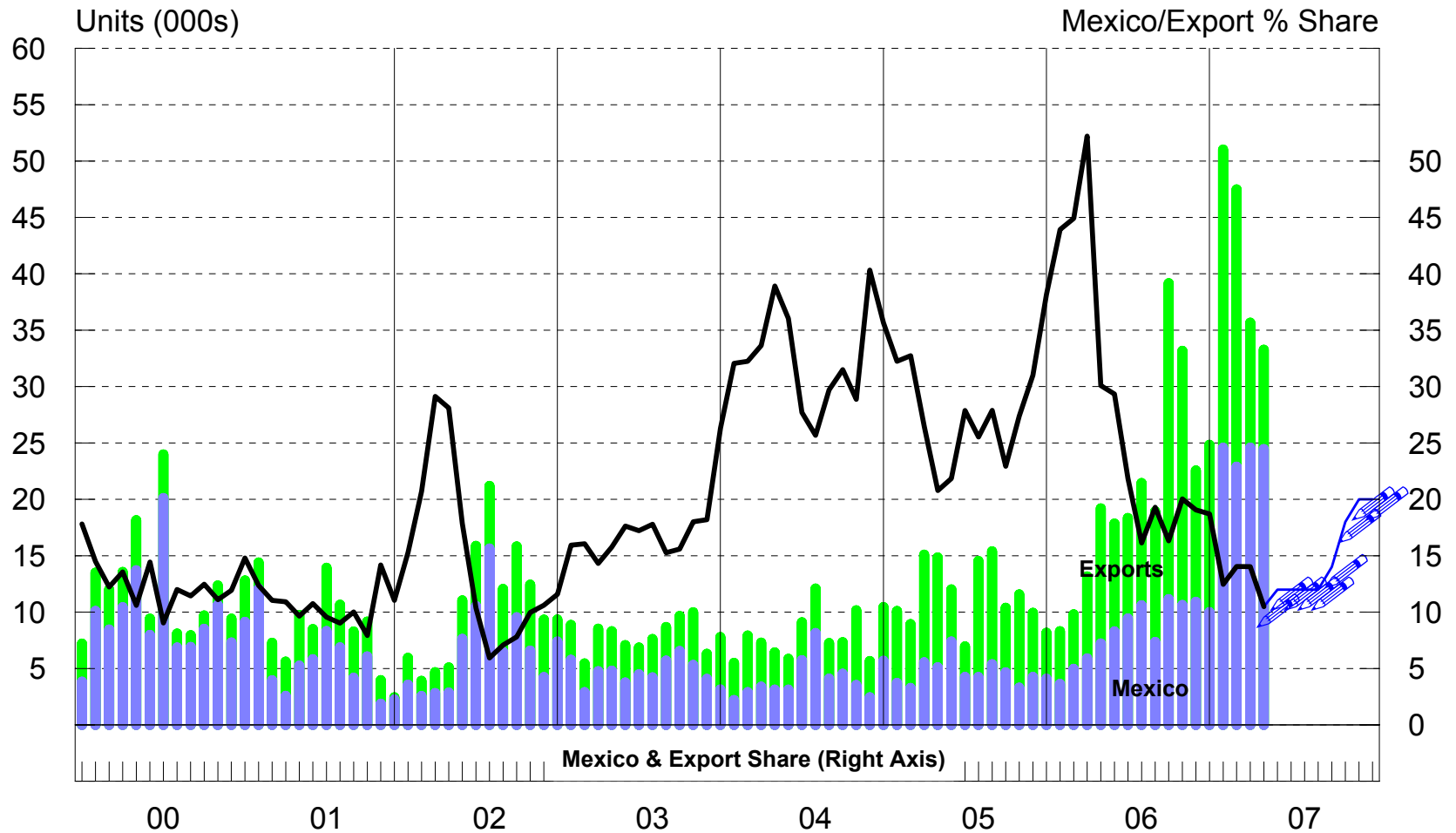
(Data through April, annualized)

<b>Class 8 Orders</b>	<b>U.S.</b> (000s)	<b>Canada</b> (000s)	<b>Mexico</b> (000s)	<b>Exports</b> (000s)	<b>Total</b> (000s)
Past 12	<b>130.8</b>	<b>21.1</b>	<b>27.8</b>	<b>32.1</b>	211.8
Past 6 (AR)	<b>104.5</b>	<b>12.1</b>	<b>32.5</b>	<b>28.5</b>	<b>177.6</b>
Past 3 (AR)	<b>84.0</b>	<b>9.6</b>	<b>36.9</b>	<b>23.7</b>	<b>154.3</b>
April (AR)	<b>73.1</b>	<b>10.9</b>	<b>30.8</b>	<b>11.1</b>	125.9
C8 RS 2006	290.7	38.5	20.0	20.1	369.3
6NO/06RS	<b>-64%</b>	<b>-69%</b>	<b>+63%</b>	<b>+42%</b>	<b>-52%</b>



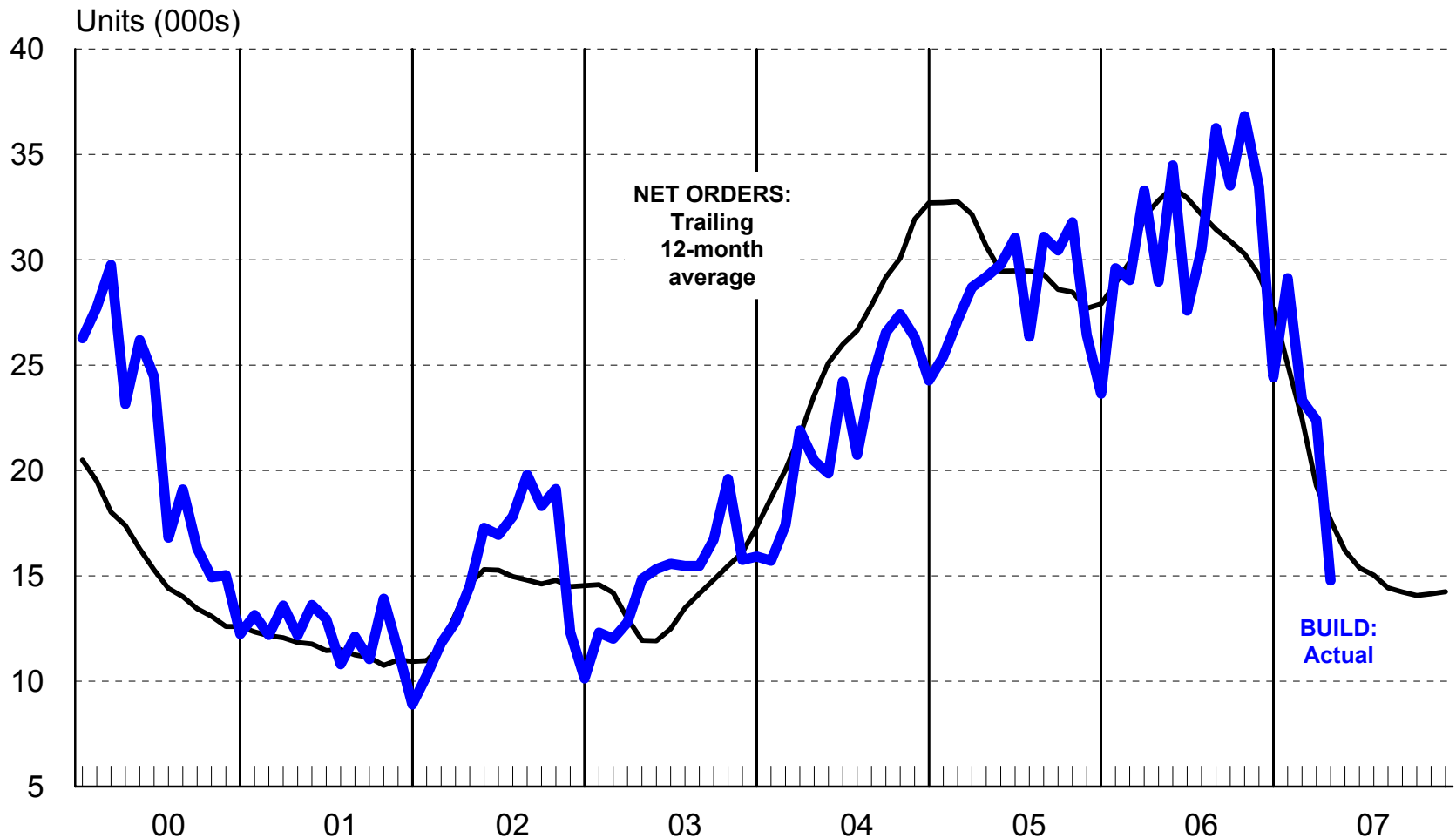
# TOTAL CLASS 8: N.A. NET ORDERS

January '00 - April '07 (Not Seasonally Adjusted)



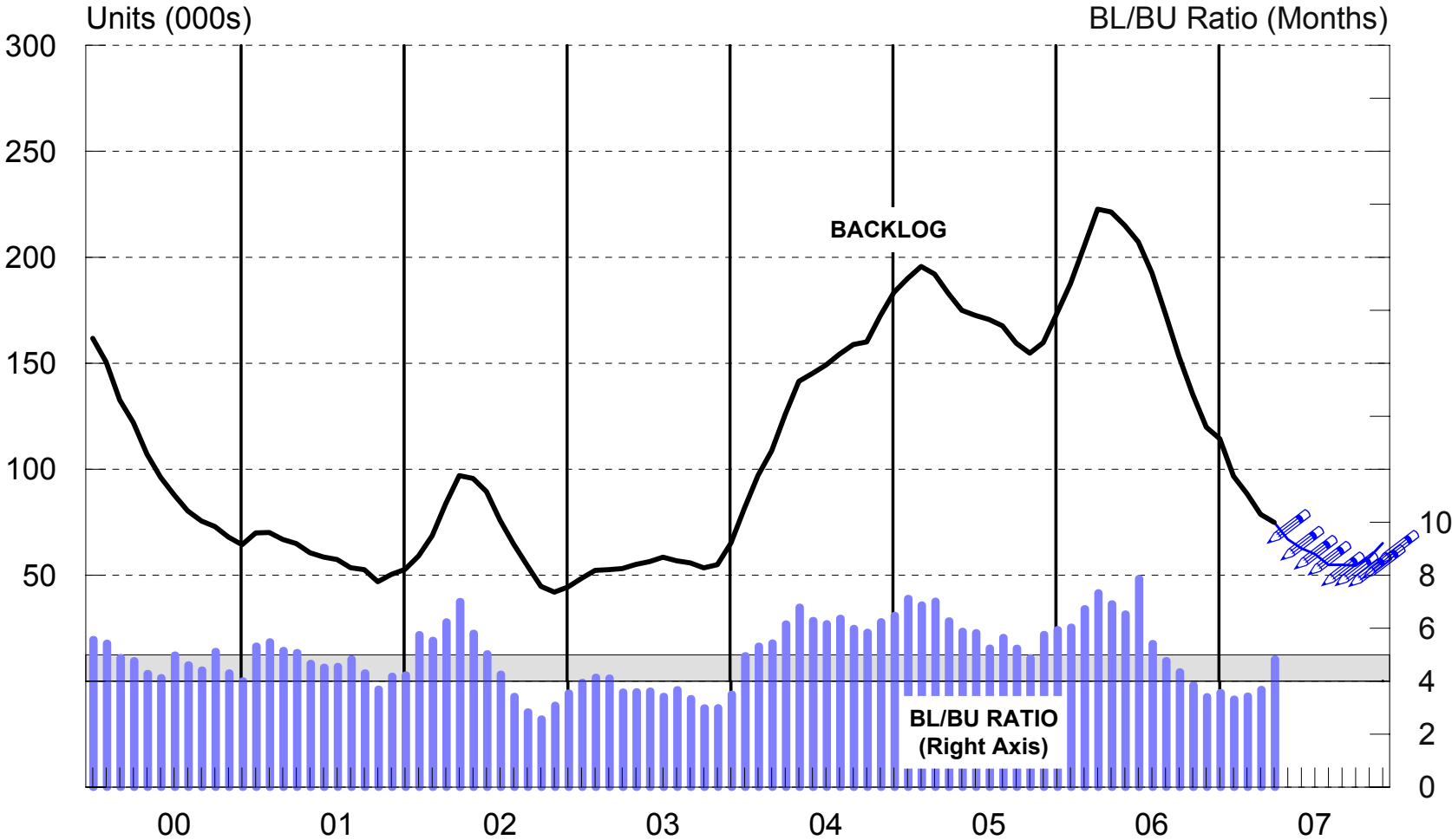
# TOTAL CLASS 8 NA: NET ORDERS (Trailing 12 Months) & BUILD

January '00 - April '07 (Not Seasonally Adjusted)



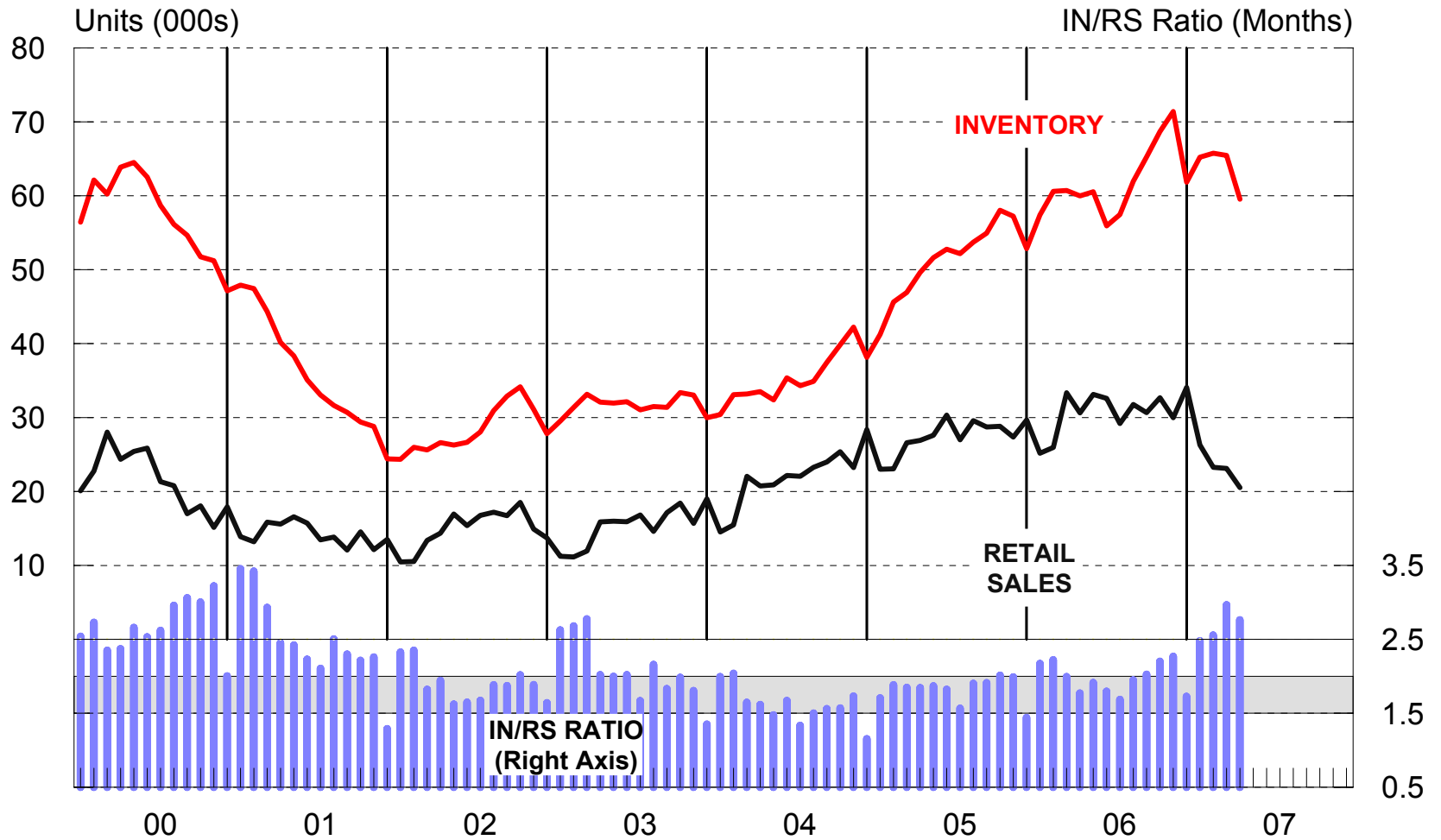
# TOTAL CLASS 8: N.A. BACKLOG & BL/BU RATIO

January '00 - April '07 (Not Seasonally Adjusted)



# TOTAL CLASS 8: N.A. INVENTORY/RETAIL SALES RATIO

January '00 - April '07 (Not Seasonally Adjusted)

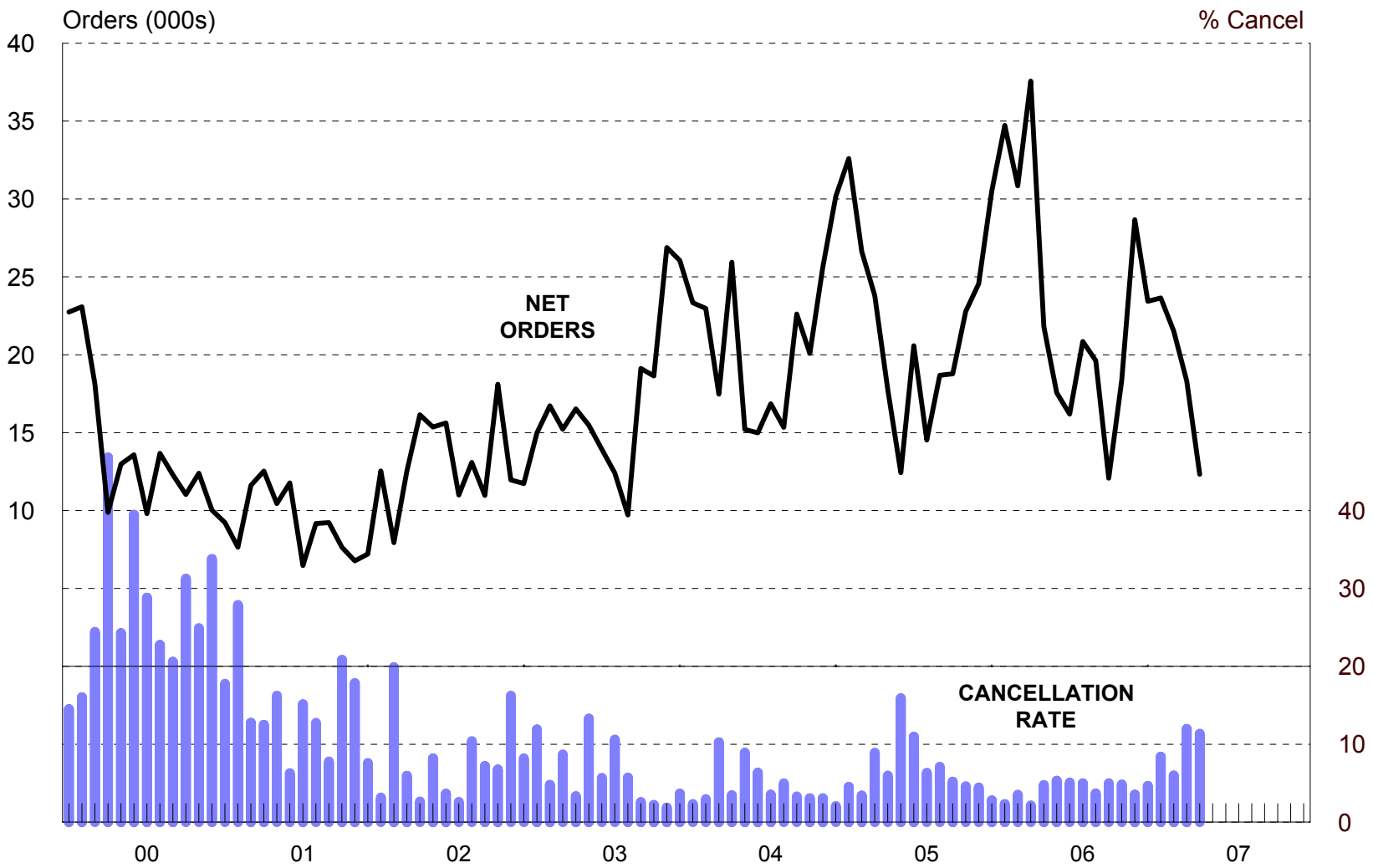


# Trailers

- Uninspired activity through peak order season
  - Commodity driven trailer prices increases hit just as freight volumes cratered in late Q3'06
  - Truckers swimming in excess Class 8 capacity (~5%) decide not to add to their equipment predicament
- Backlogs down 28% y/y April
- Industry responds quickly to weak Fall orders
  - Build down 10% y/y YTD April, 11% y/y April

# TOTAL TRAILERS: NET ORDERS & CANCELLATION RATE\*

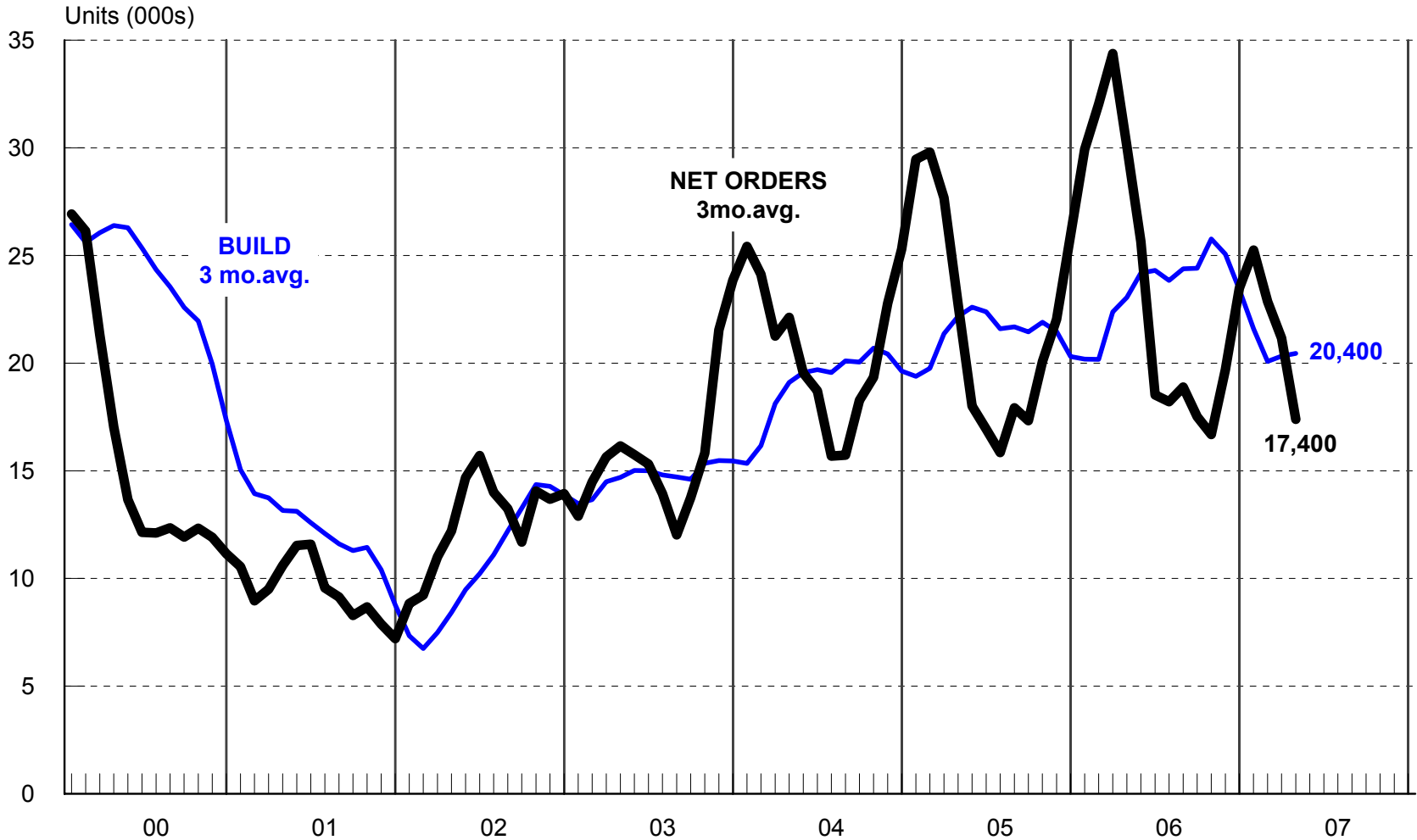
January '00 - April '07



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U.S. TICG:TRAILER INDUSTRY CONTROL GROUP

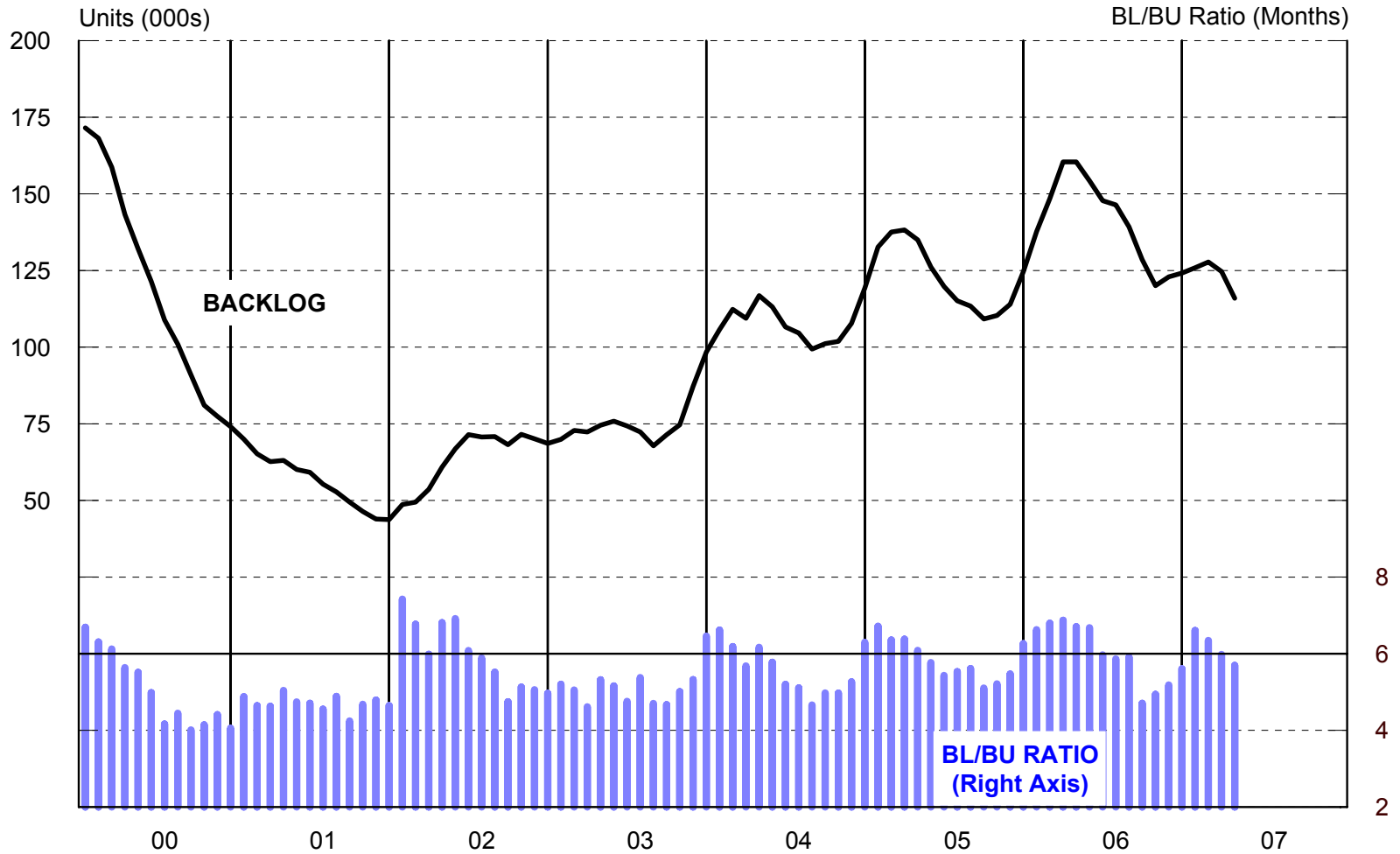
# TOTAL TRAILERS: NET ORDERS & BUILD - 3 MO. AVG.\*

January '00 - April '07



# TOTAL TRAILERS BACKLOG & BACKLOG/BUILD RATIO\*

January '00 - April '07



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U.S. TICG:TRAILER INDUSTRY CONTROL GROUP



# Longer-Term Considerations

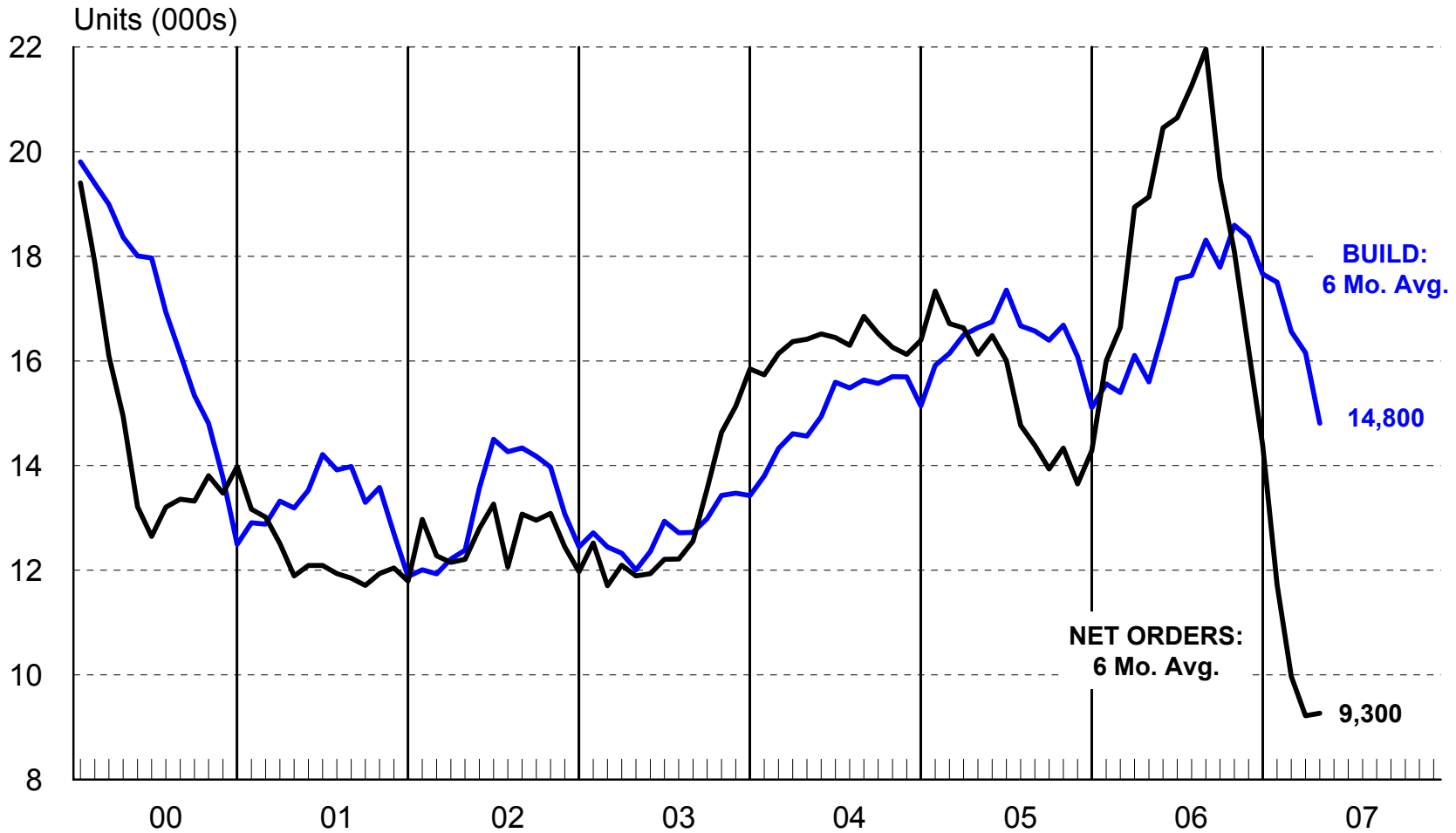
- Class 8 overbuy in 2009 could lead to softer trucker profits again in 2010
- Current Congressional fuel efficiency legislation proposes taking GVW to 97,000 pounds
  - At capacity, railroads less likely to fight higher GVW
  - When, not if
- Small engine emissions mandate in 2013 likely to cause reefer van prebuy in 2012

# Classes 5-7

- Market not as homogeneous as Class 8
  - 3 Configuarations
    - Truck (70%), Bus (15%), RV (15%)
      - » ~135 applications
- Due to proximity to home, it is easy for Classes 5-7 customers to defer purchases
  - Also, MD vehicles are not typically profit centers

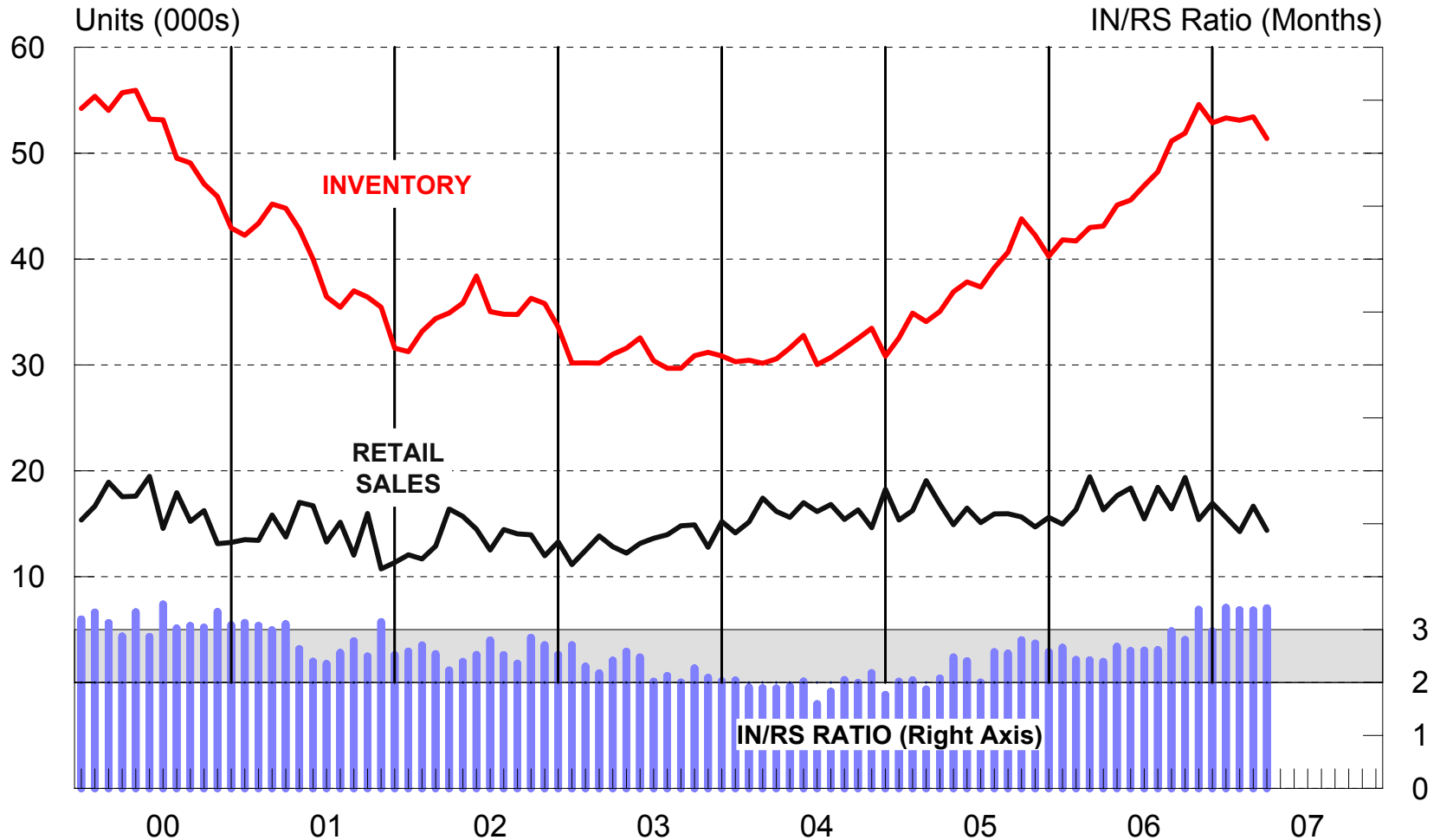
# TOTAL CLASSES 6-7: N.A. NET ORDERS & BUILD - 6 Mo. Avg.

January '00 - April '07 (Not Seasonally Adjusted)

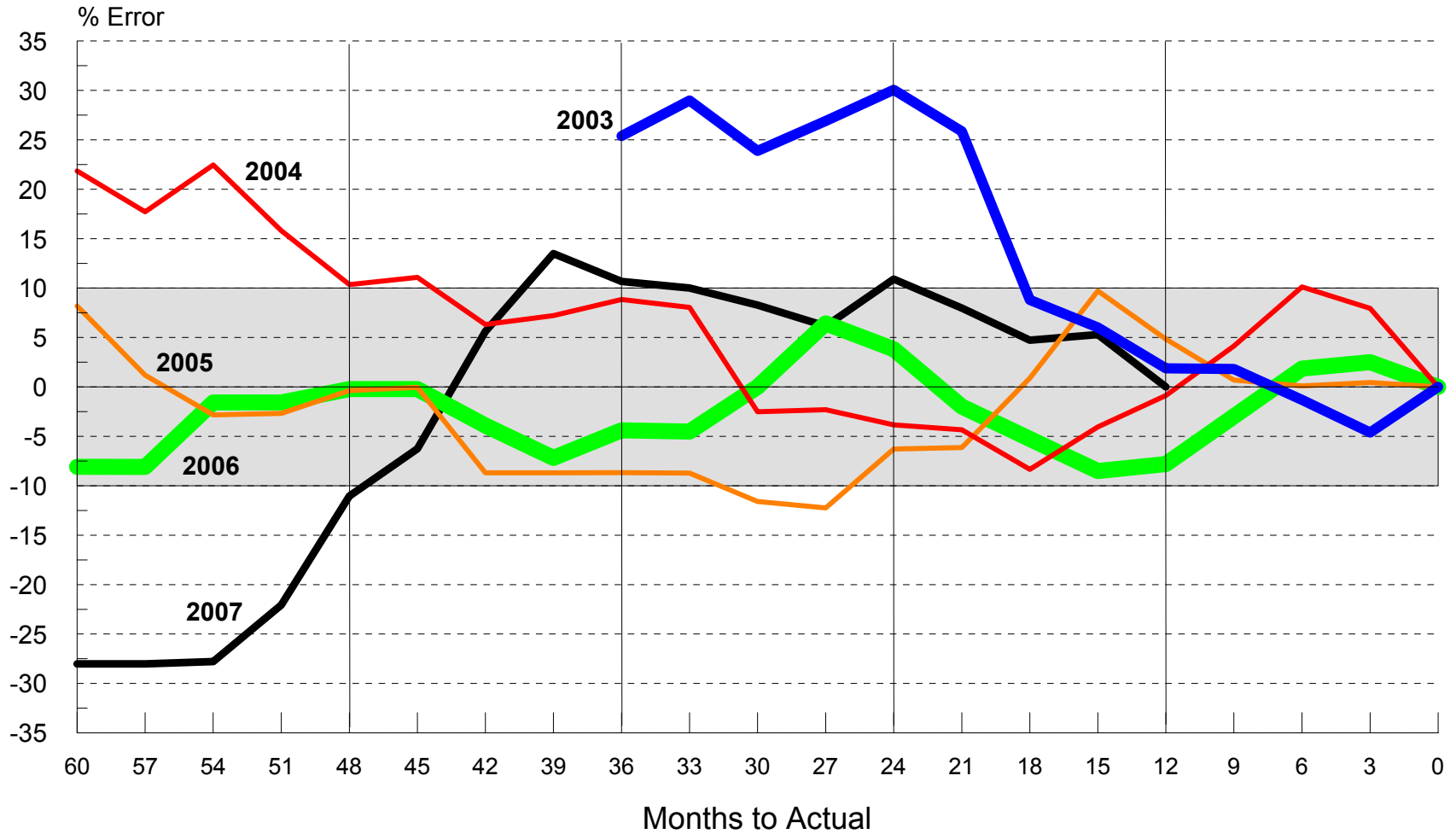


# TOTAL CLASSES 6-7: N.A. INVENTORY/RETAIL SALES RATIO

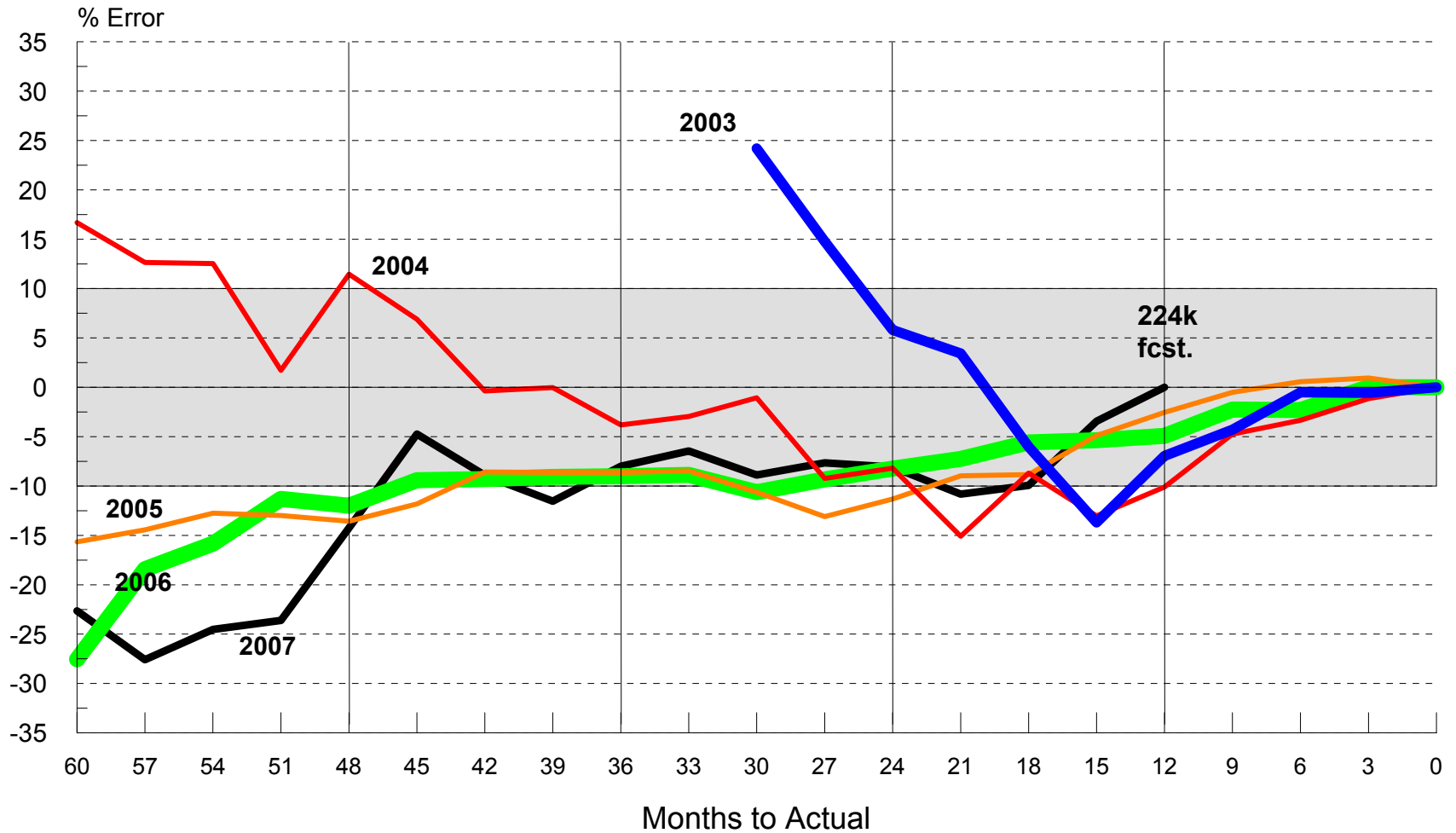
January '00 - April '07 (Not Seasonally Adjusted)



# GCVF Forecast Performance NA CLASSES 4-7 PRODUCTION 2003- 2007



# GCVF Forecast Performance NA CLASS 8 PRODUCTION 2003- 2007

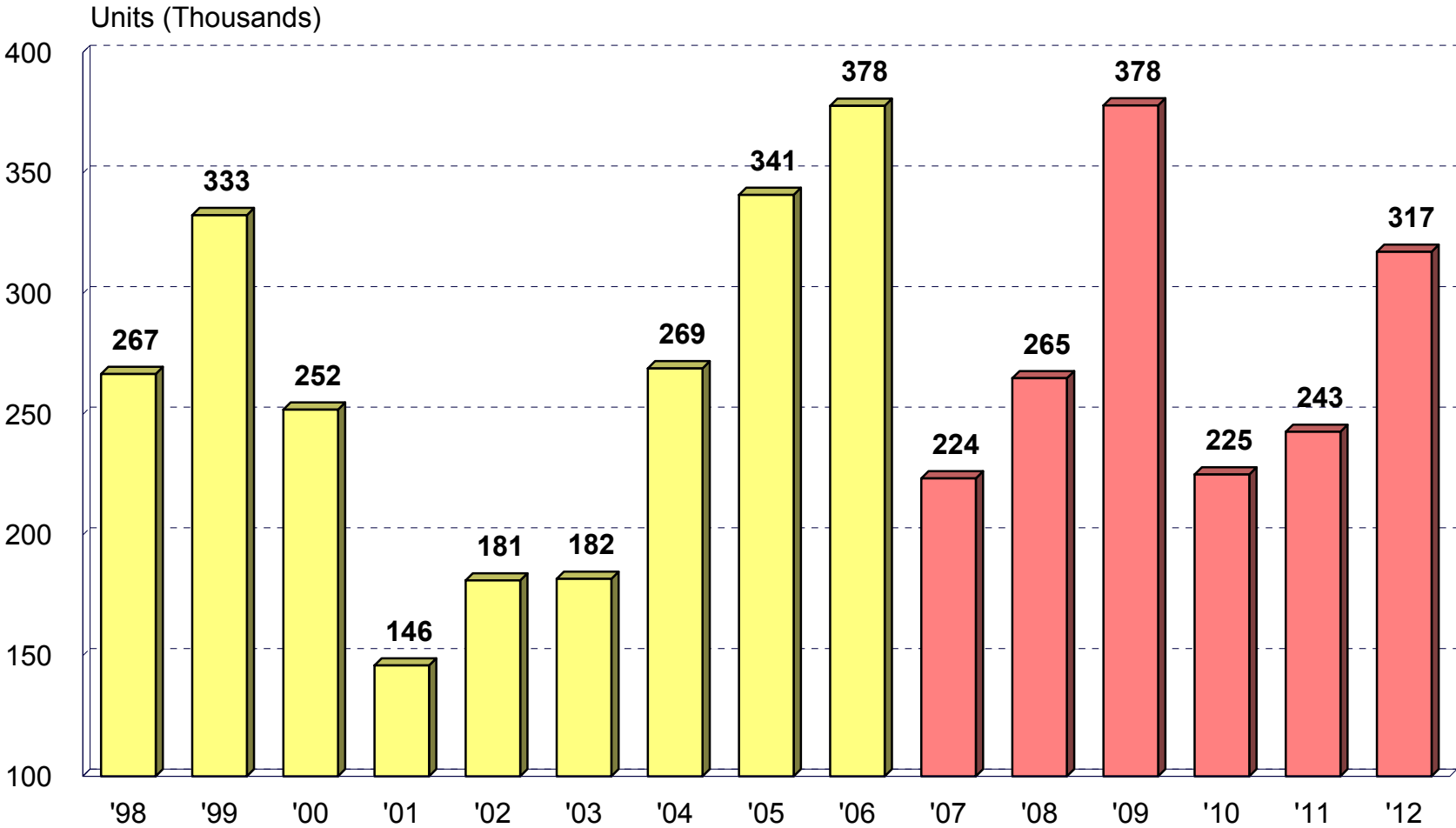


# Forecast Notes

- **2007: Should be very close to final**
  - Inventory assumptions inject greatest variability
- **2008: Rising downside concerns as forecasts are predicated on economic rebound**
  - Stronger domestic economic activity in 2H'07 leads to
  - Stronger CV orders in Q4'07 leads to
  - Rising production in Q1'08
- **2009: Leaning towards new Class 5-8 build records**
  - **UPSIDE:** Higher 2010 lifecycle costs and sustained industry through late 2006 suggest possibility of bigger prebuy
  - **DOWNSIDE:** If 2008 gets off to slow start, build rates in 2009 will start the year below expectations.

# N.A. Class 8 Production

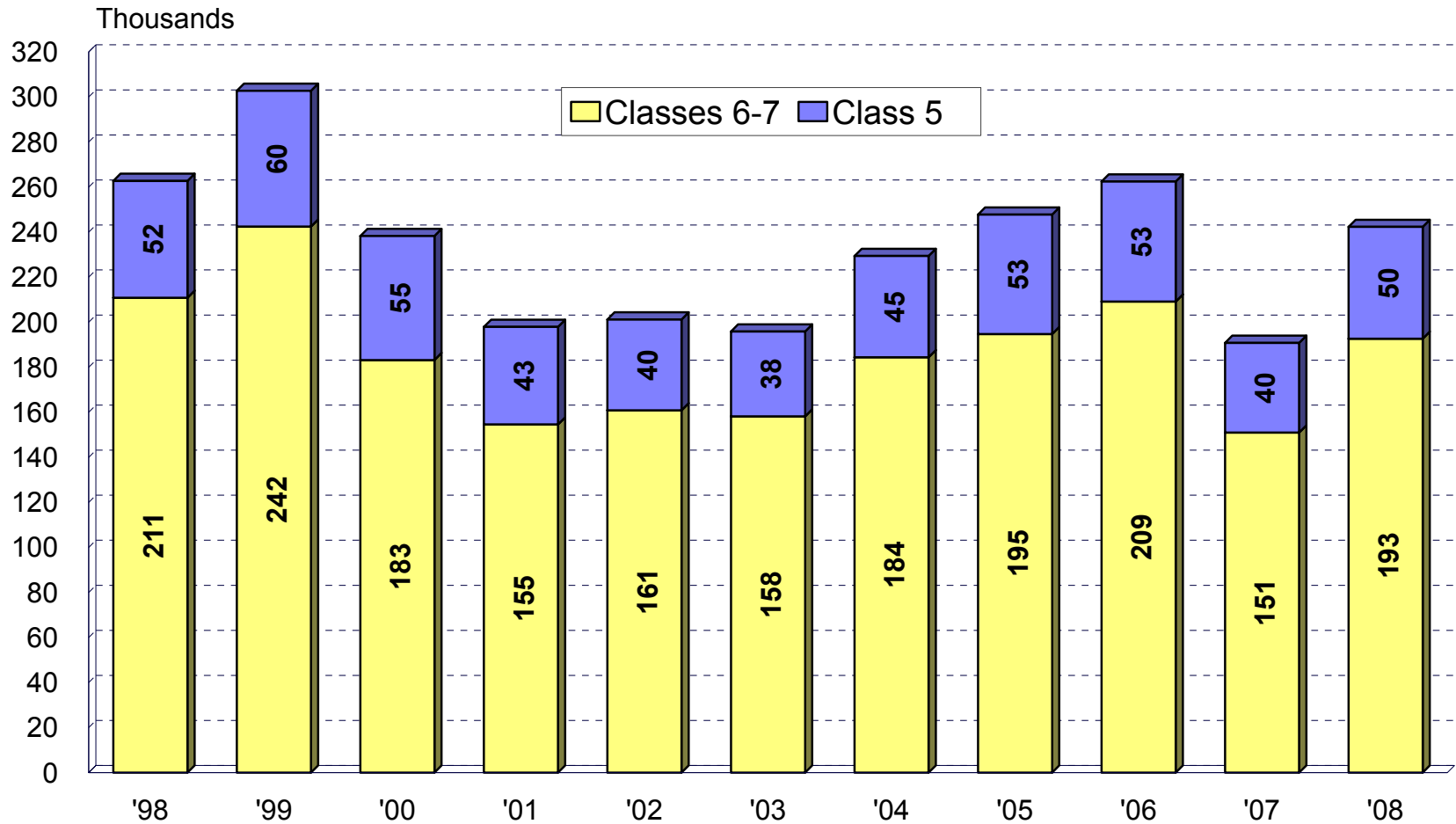
1998-2012





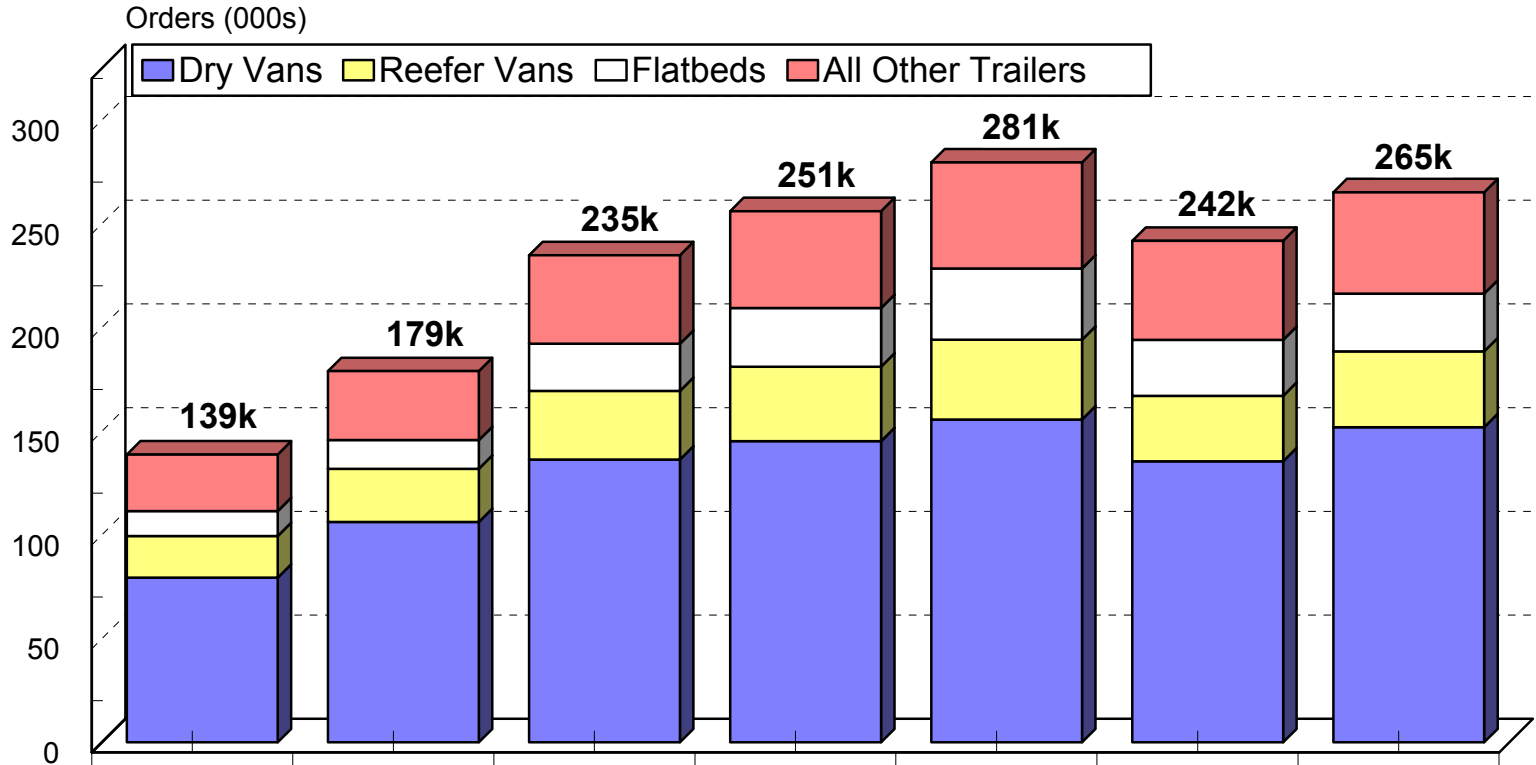
# N.A. Classes 5-7 Production

1998-2008



# TRAILER FACTORY SHIPMENTS

## 2002- 2008



	02	03	04	05	06	07	08
All Other Trailers	27	33	43	47	51	48	49
Flatbeds	12	14	23	28	34	27	28
Reefer Vans	20	26	33	36	38	32	37
Dry Vans	79	106	136	145	156	136	152

# Summary

- Where is oil (gasoline) headed and what will the velocity of the U.S. economy be in the second half of 2007?
  - Economic timing will determine recovery timing
  - Trucker profits sagging, but shouldn't fall apart
  - If the economy remains weak, there is a *HUGE* stock of late-model equipment
  - Orders from Mexico should be strong into late Q3/early Q4
- How much will the OEMs incentivize to prop up demand in 2007?
- Will Congress incentivize the market for 2010?



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