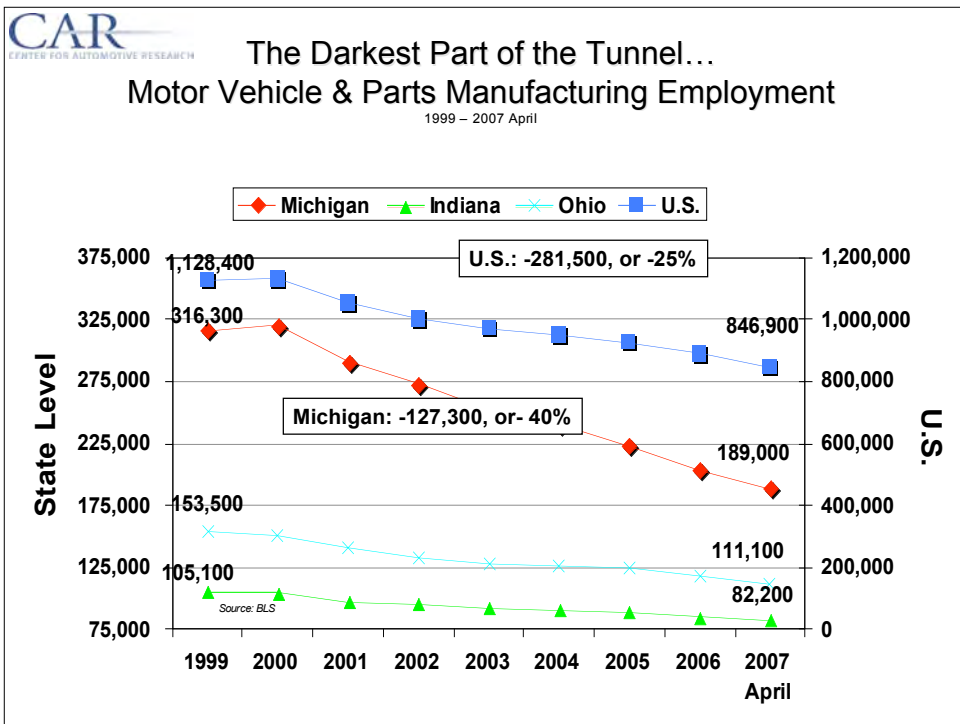
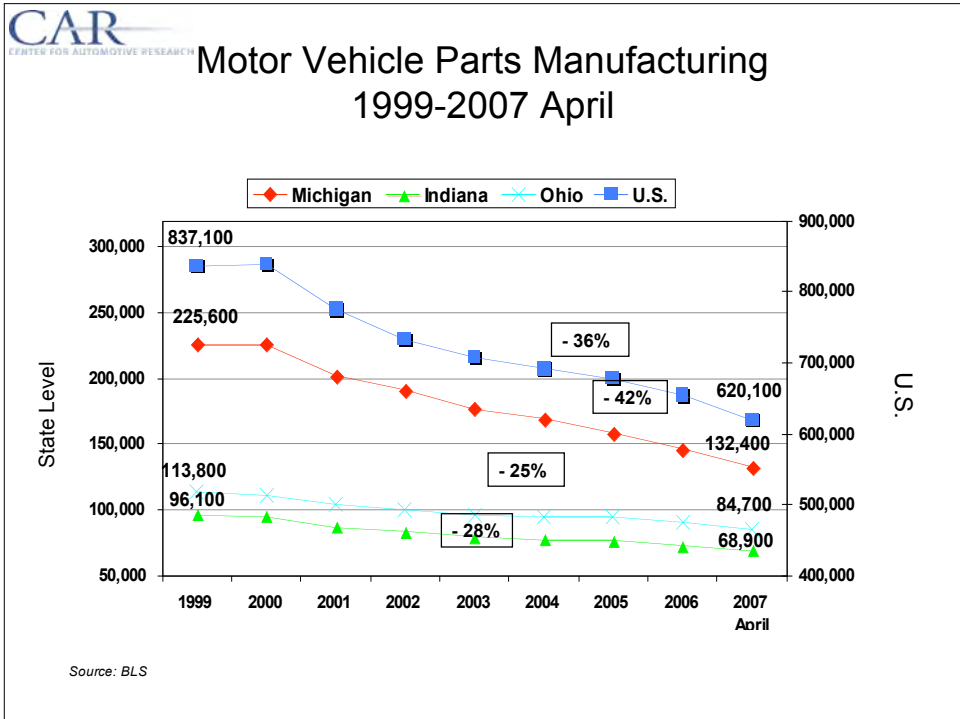


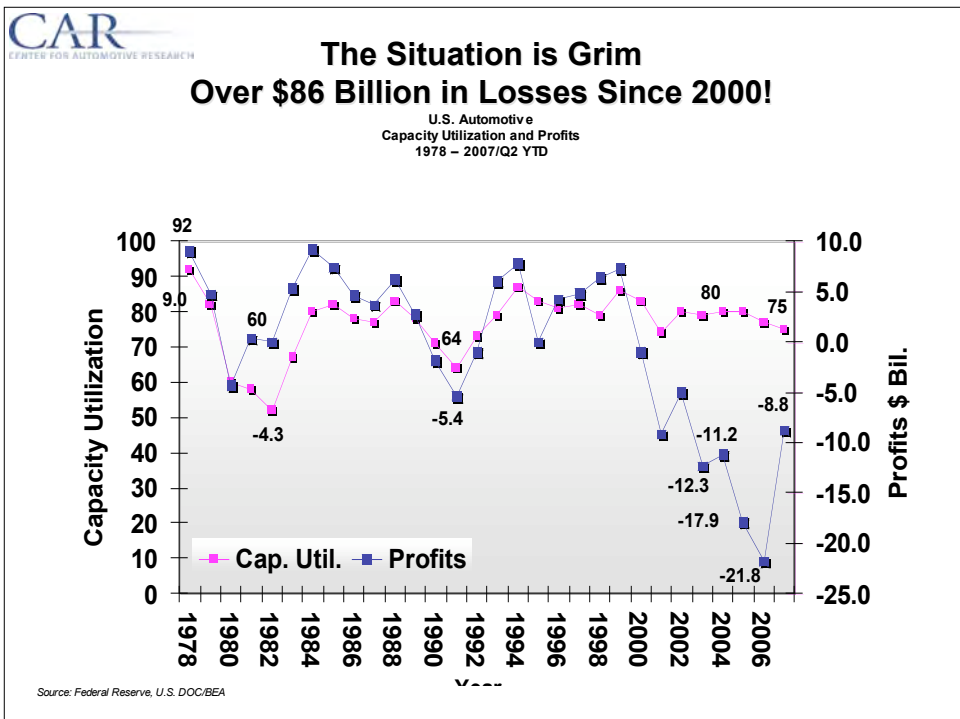
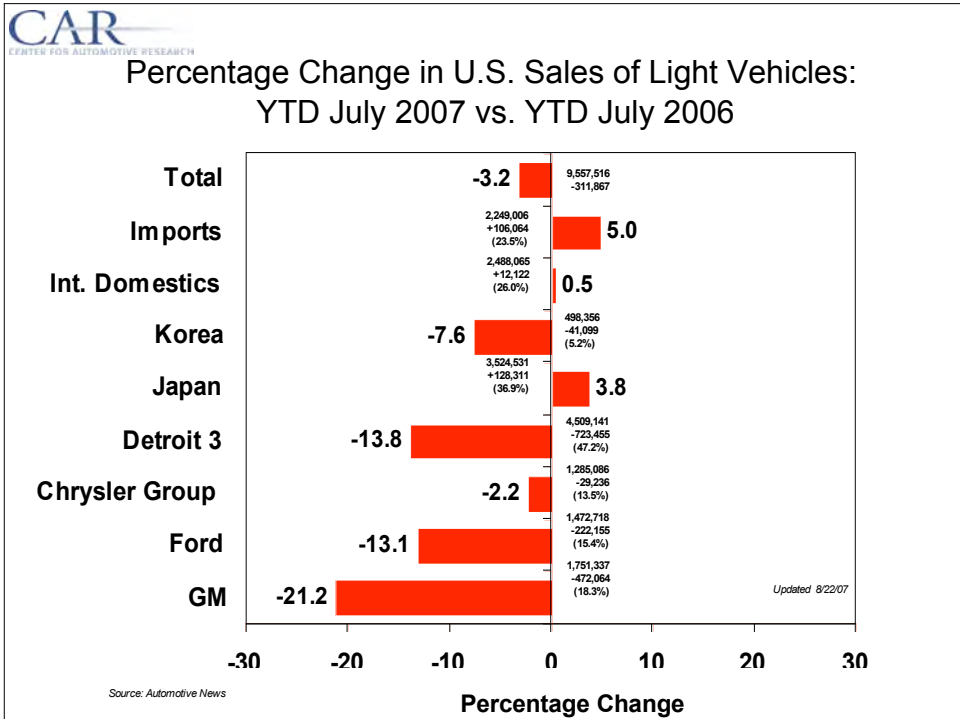


**CAR**  
CENTER FOR AUTOMOTIVE RESEARCH

### The Center for Automotive Research

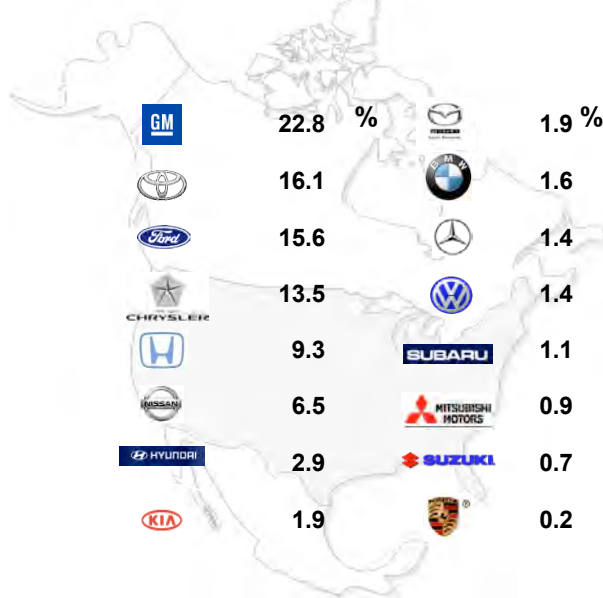
- An independent non-profit research organization
  - Don't pick winners or losers
- A corporate, public sector, and academic interface
- Funded by:
  - Private companies and organizations (contract research)
  - Public entities (federal, state & local governments), and
  - Foundations
- Focused on future trends





## Too Much Competition?

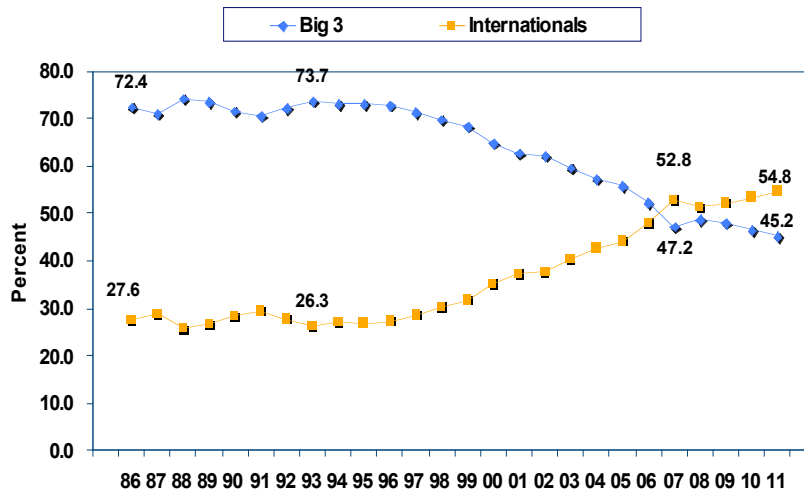
New Market Structure?  
U.S. Market Share of Light Vehicle Sales: 1<sup>st</sup> Half-2007



## Down Below 50%

### Detroit 3 U.S. Market Share\*

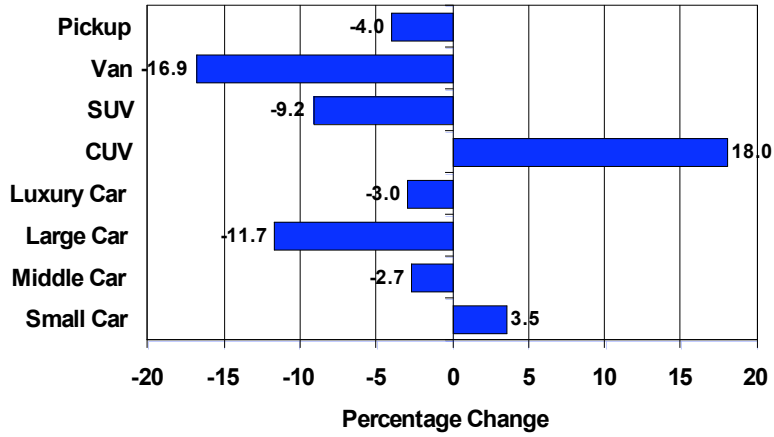
1986 – 2011



\* Detroit 3 North American "owned" production.

## Segment Breakdown - U.S. LV Sales YOY % Change

First Half 2007

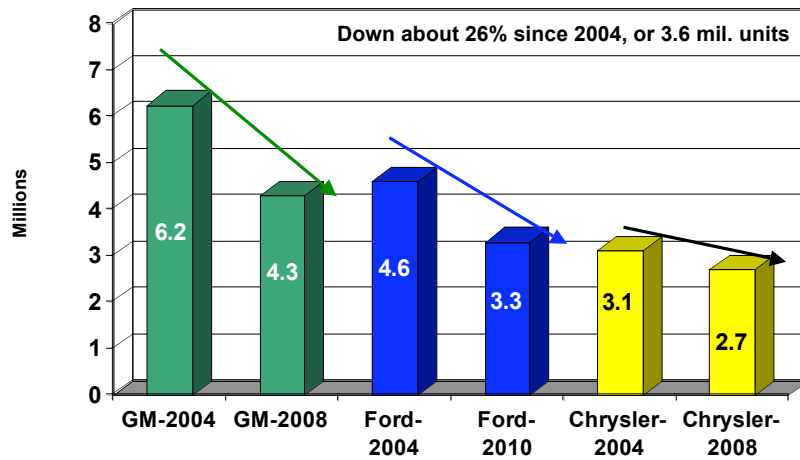


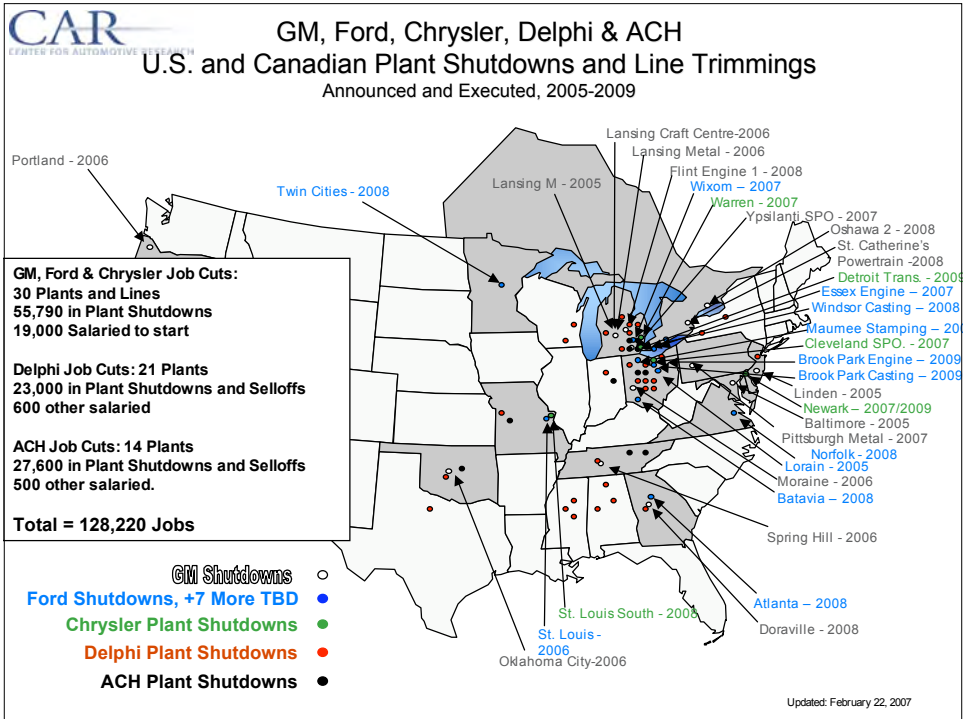
Source: Ward's Automotive Reports

So . . .

GM will be the size of Ford, and Ford the size of Chrysler  
and Chrysler will be even smaller . . .

2004-2010 Change in North American  
Vehicle Production Capacity



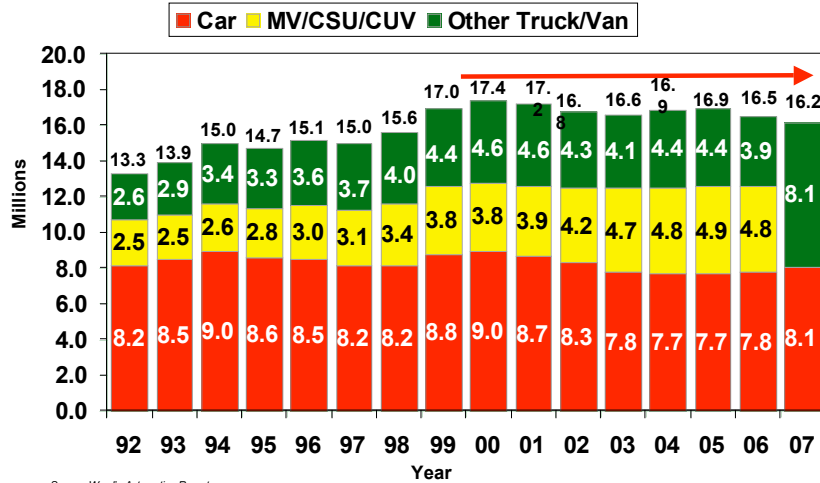


**CAR**  
CENTRE FOR AUTOMOTIVE RESEARCH

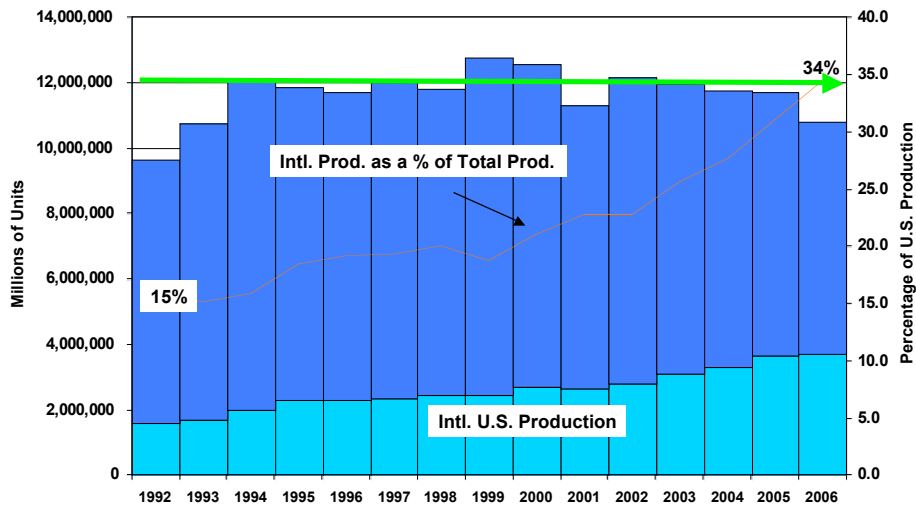
### Why are the Detroit 3 Losing Share in their “Home” Market?

- **Too many sales and too much capacity in light truck segments:**
  - GM = 57%, Ford = 63%, Chrysler = 69%, Market = 51.0%
- **Over-reliance on car “fleet” sales (over 35%) and employee sales (5-10%).** Reduces residuals and resale.
- **Product models are older and product development is slower.**
- **Quality and productivity has “almost” caught up to best of Japanese but has not caught them yet.** The Koreans have . . .
- **Technology to design & build modern vehicles has diffused.** No technical barriers. Koreans have caught up, and now . . . China?
- **Companies are restructuring to their real share of the market where price can deliver profits – but they must re-negotiate fixed costs....**
- **If 07’ GDP growth below 2.5% - then sales will fall fast.** Scrapage rates are very low. Falling housing prices and tighter credit are having a negative wealth effect. Fuel and other operating costs at record highs. Interest rates higher.

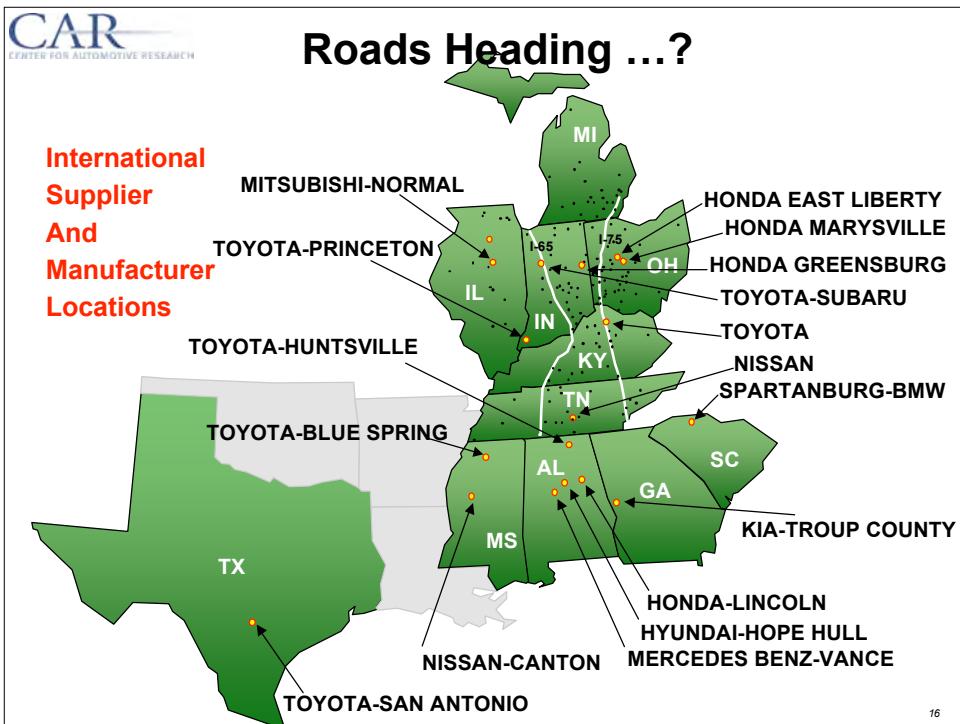
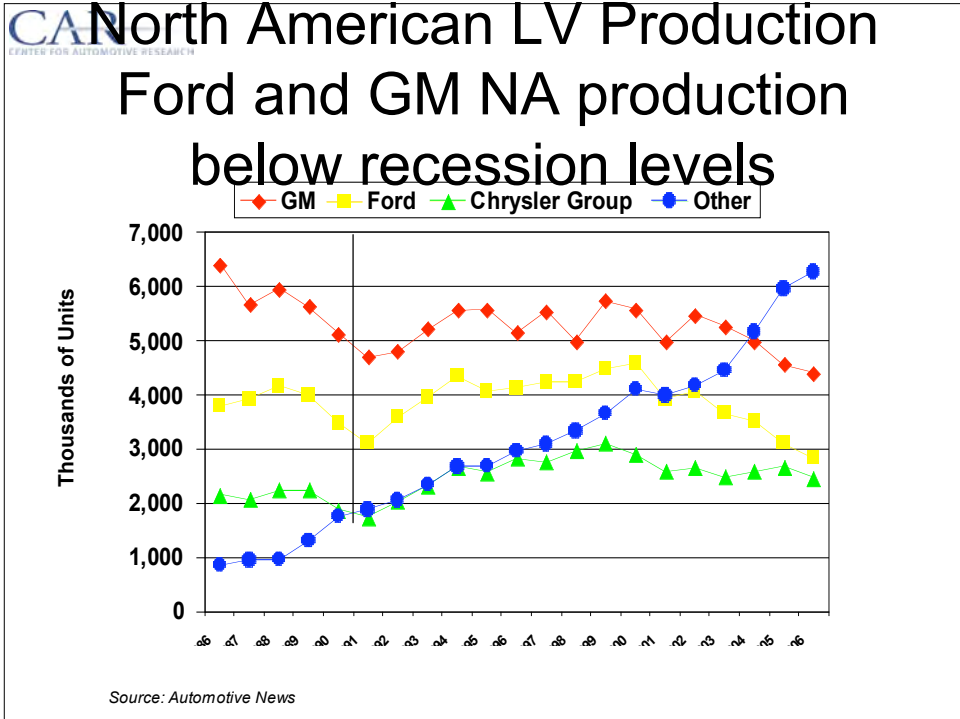
### Stuck on a Plateau or Worse! Total U.S. Sales of Light Vehicles: 1992 - 2007



### Not at 12 Million! U.S. Light Vehicle Production



Internationals added 140k a yr. over last 10 years, but 180k a year over last 5 years. Will need to add about 280k a year to replace coming Big cuts in capacity/production.



## International Assembly Facilities in U.S. & Canada

EXISTING	Employment	Investment (Thru June 2006, Millions \$)	Capacity
South	32,634	15,580	2,410,000
North	31,626	15,420	2,742,000
<b>TOTAL</b>	<b>64,260</b>	<b>31,000</b>	<b>5,152,000</b>

FUTURE	Employment	Investment (2006 - 2009, Millions \$)	Capacity
South	6,500	3,350	650,000
North	3,500	1,800	450,000
<b>TOTAL</b>	<b>10,000</b>	<b>5,150</b>	<b>1,100,000</b>

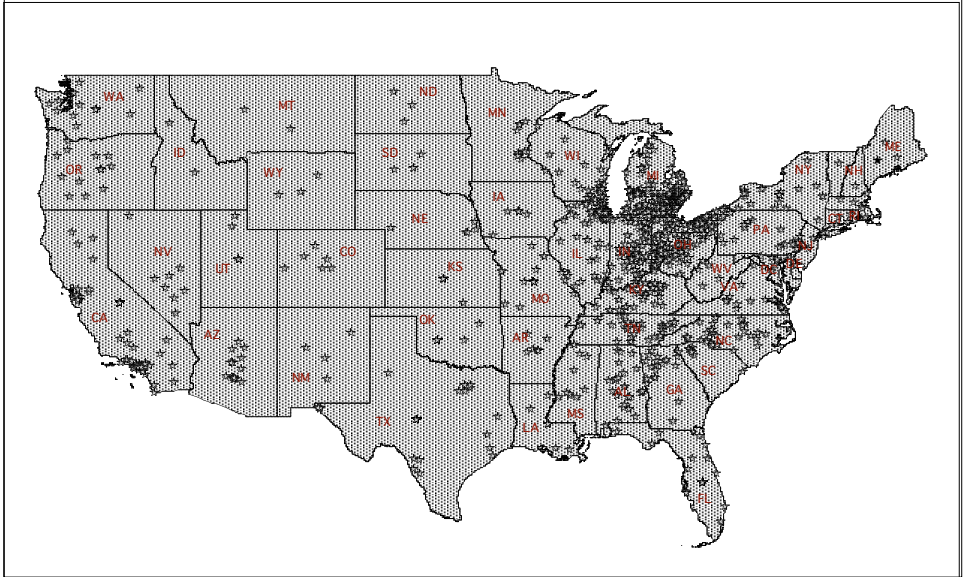


Source: Automotive News, Harbour Report, CAR Research

## They Bring Their Friends...

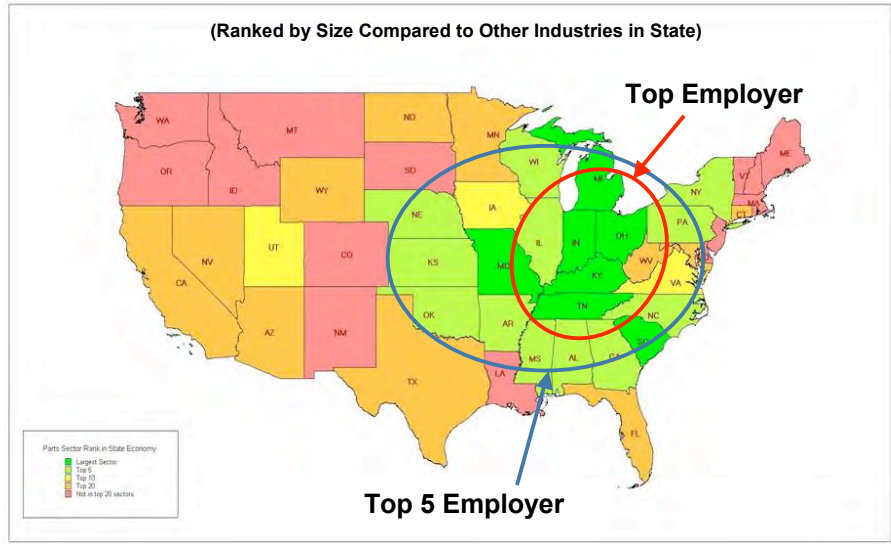


**Parts suppliers are located in all 50 states:**  
 (over 783,000 direct employment)



**Parts suppliers are top employer in 7 states,**  
**top 5 employer in 12 other states**  
 (over 3 percent of workforce in the 17 states)

(Ranked by Size Compared to Other Industries in State)



### Motor Vehicle Manufacturing Multiplier of

**7.5**

**6.5 additional jobs for each job at a  
U.S. Motor Vehicle Firm**

### Motor Vehicle Parts Supplier Multiplier of

**5.7**

**4.7 additional jobs for every one job  
at a parts making company**

Source: Contribution of the U.S. Motor Vehicle to the Economies of the United States, California, New York, and New Jersey, Center for Automotive Research, 2003.  
Contribution of Toyota to the Economies of Fourteen States and the United States in 2003, Center for Automotive Research 2005,  
Contribution of the Motor Vehicle Supplier Sector to the Economies of the United States and Its 50 States, Center for Automotive Research 2007

### Total Impact From Supplier Direct Employment

- ▲ 4.5 million total jobs impact
- ▲ Ten states have 150,000 or more employees impacted by the supplier sector
- ▲ Fifteen states have 100,000 or more impacted
- ▲ Thirty states have 35,000 or more impacted
- ▲ For the nation as a whole this industry impacts 3% of the labor force, and for 17 states, this industry represents 3 percent or more of the workforce
- ▲ However, threats to U.S. manufacturing and jobs are and will alter landscape

## However, more parts are imported.....



### US Original Equipment and Aftermarket Parts Market

Year	Size of the U.S. Parts Market \$US Billions	Imports of Parts from Mexico and Canada	Imports of Parts from all Countries Ex. Mexico & Canada	Parts Sourced From U.S. Owned and US Located Suppliers	Parts Sourced From Overseas Owned but US Located Suppliers	
1997	\$193.6	11.2%	9.1%	67.7%	12.0%	→ 79%
1998	\$211.0	10.9%	8.8%	65.8%	14.5%	
1999	\$242.2	11.1%	8.6%	61.0%	19.3%	
2000	\$225.6	12.6%	10.3%	57.0%	20.0%	
2001	\$214.2	12.3%	10.3%	56.5%	20.9%	
2002	\$218.8	13.5%	10.9%	52.9%	22.7%	
2003	\$236.0	13.3%	11.1%	50.6%	24.9%	
2004	\$244.0	14.2%	12.3%	46.3%	27.2%	
2005	\$238.7	15.5%	14.0%	40.9%	29.6%	→ 70%

Global "Localization" has seriously hurt traditional US owned and based suppliers

desrosiers



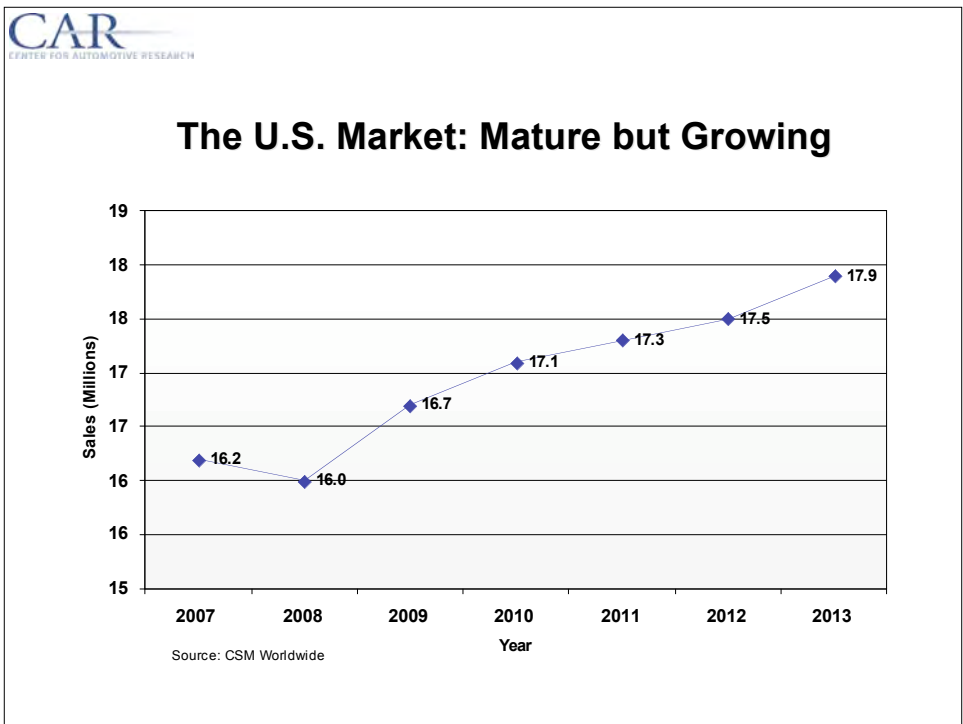
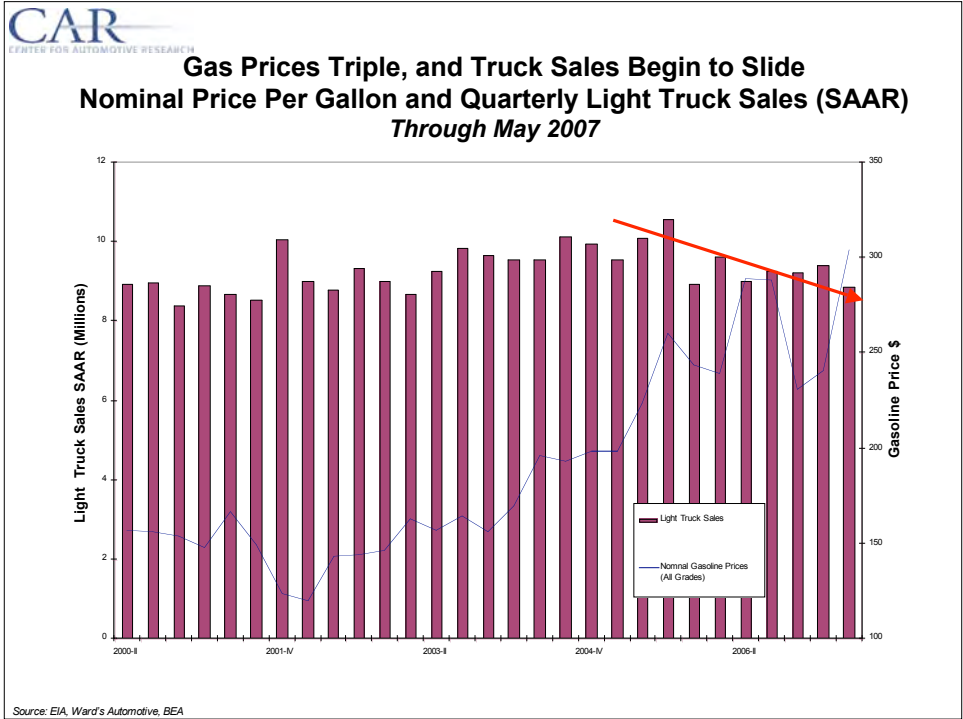
## Pending Legislation in the U.S. Congress

BILL	TARGET (MPG)		TIMING	SUBSEQUENT YEARS
	EFFECTIVE TARGET			
	CARS	LDTs		
<b>SENATE</b> (H.R. 6)	<b>35</b>		2020	"Redefines" Maximum Feasible
	CARS 42.1	LDTs 28.7		
<b>MARKEY</b> (H.R. 1506)	<b>35</b>		2019	-----
	CARS 43.3	LDTs 27.6		
<b>HILL-TERRY</b> (H.R. 2927)	<b>32-35</b>		2022	Maximum Feasible
	CARS UP TO 42.1	LDTs 29.8		

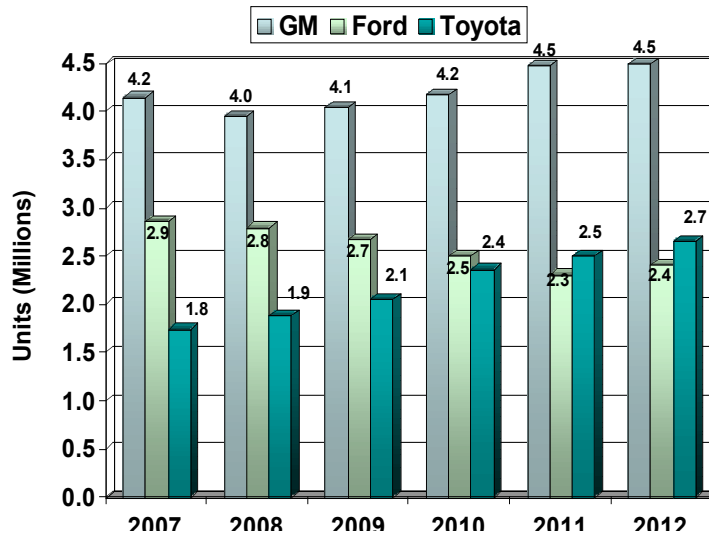
Source: Alliance of Automobile Manufacturers, Presentation on 8/8/07

## They Will Be Small . . . (but where are they built?)





## North American Production—Forecasted 2007 – 2012



Source: CSM

## In Conclusion....

- U.S. sales market will recover by 2009 and then grow . . .
- International producers will take 50% of the market in 07', 50% of production in '11.
- Detroit 3 will fall below 50% market share, "retreat to the core" and move some production off-shore.
  - Fuel economy requirements could hasten off-shoring
- Less total workers in motor vehicle and parts manufacturing segments as productivity improvements and size rationalizing among Detroit 3 continues
- States in some regions of the country will fare better than others
- Sales of vehicles will go up, but where will they come from?????
  - As housing sales go up, houses will be built here, cars may not be built here.