
Which domestic industry? Structure and geography

Detroit, MI
May 10, 2010

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Outline

- 1980 vs 2009 – this is not your father's industry

- ◆ Market share
- ◆ Production share

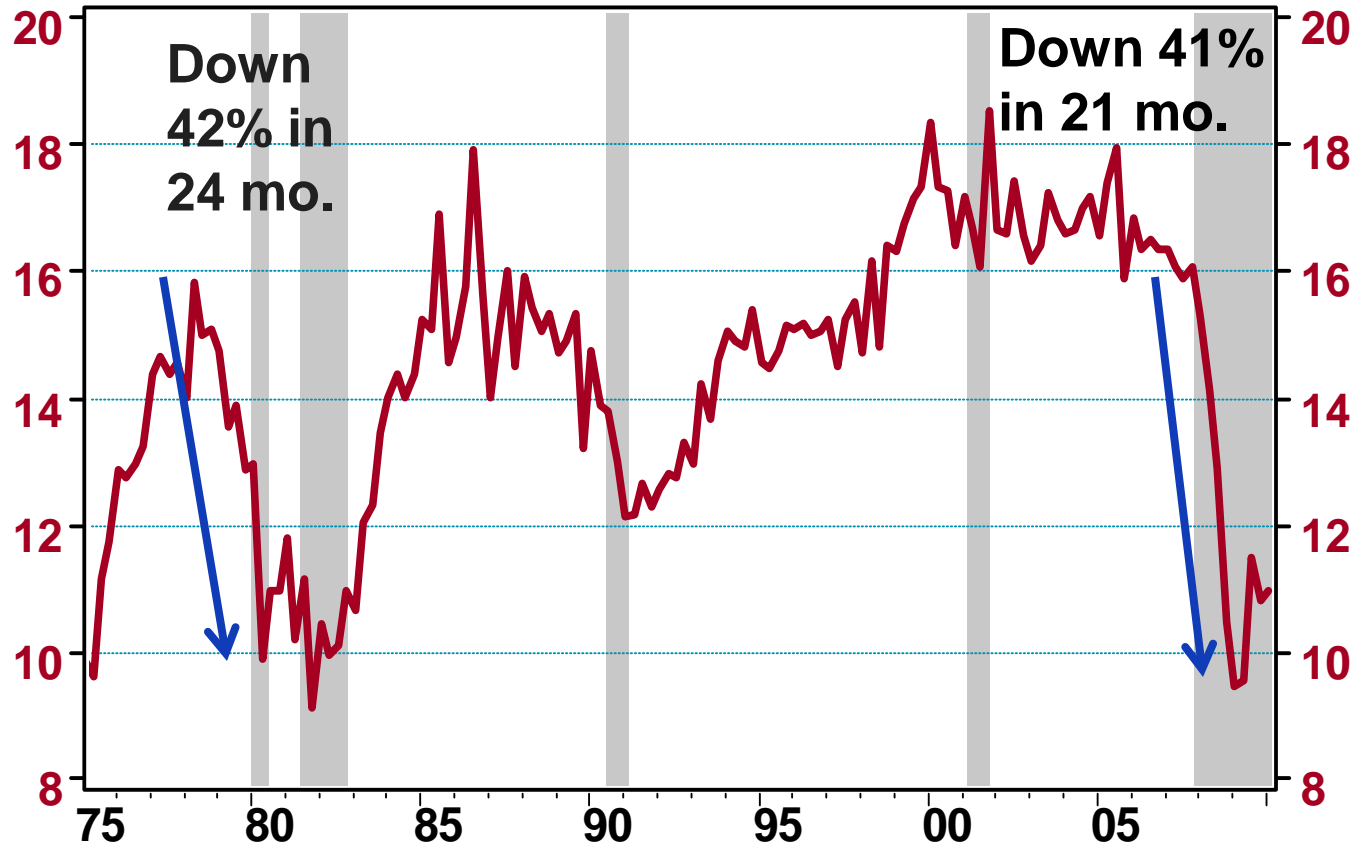
- Structure shapes geography

- ◆ Auto alley
- ◆ NAFTA as production center

- Perspective on recovery

1980 and 2009 – Two bad downturns

Light vehicle sales (SAAR, million units)



Source: Bureau of Economic Analysis/Haver Analytics

Yet, this is not your father's industry

Motor Trend Car of the Year



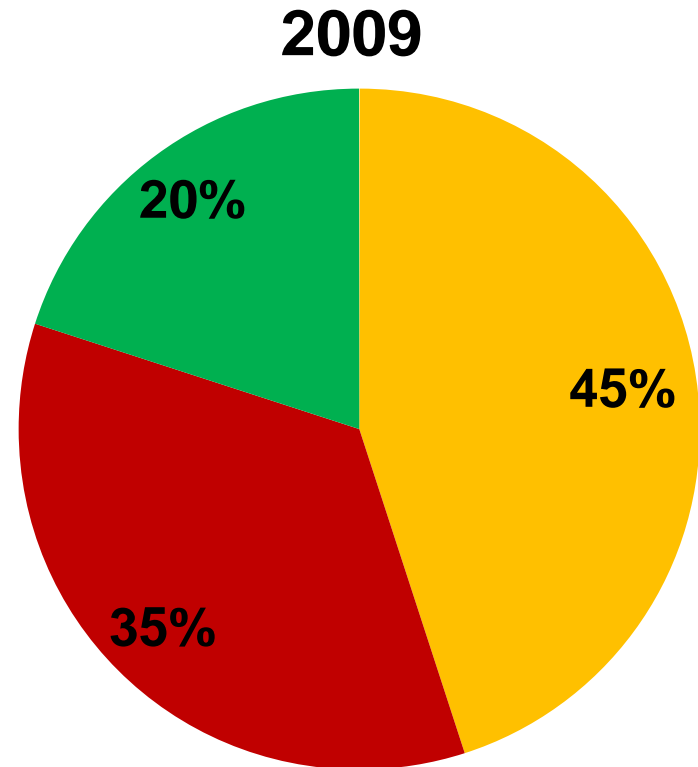
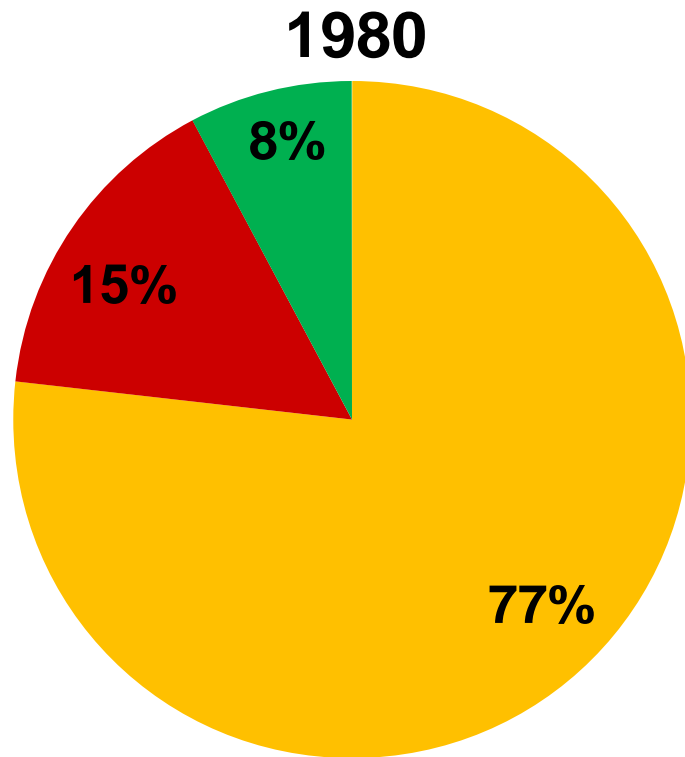
1980: Chevy Citation



2010: Ford Fusion

Detroit lost 1/3 of the market

Share of U.S. light vehicle sales



Detroit , **Japan Three** , **Other**

Change was broad-based

Sales leader by market segment

Segment group	Make of best-selling model	
	MY 1980	MY 2009
<i>Small car</i>	GM	Toyota
<i>Midsized car</i>	GM	Toyota
<i>Large car</i>	GM	Chrysler
<i>Luxury car</i>	GM	BMW
<i>CUV</i>	-----	Honda
<i>SUV</i>	AMC	Chrysler
<i>Van</i>	Ford	Honda
<i>Pickup</i>	Ford	Ford

In addition, many producers entered...

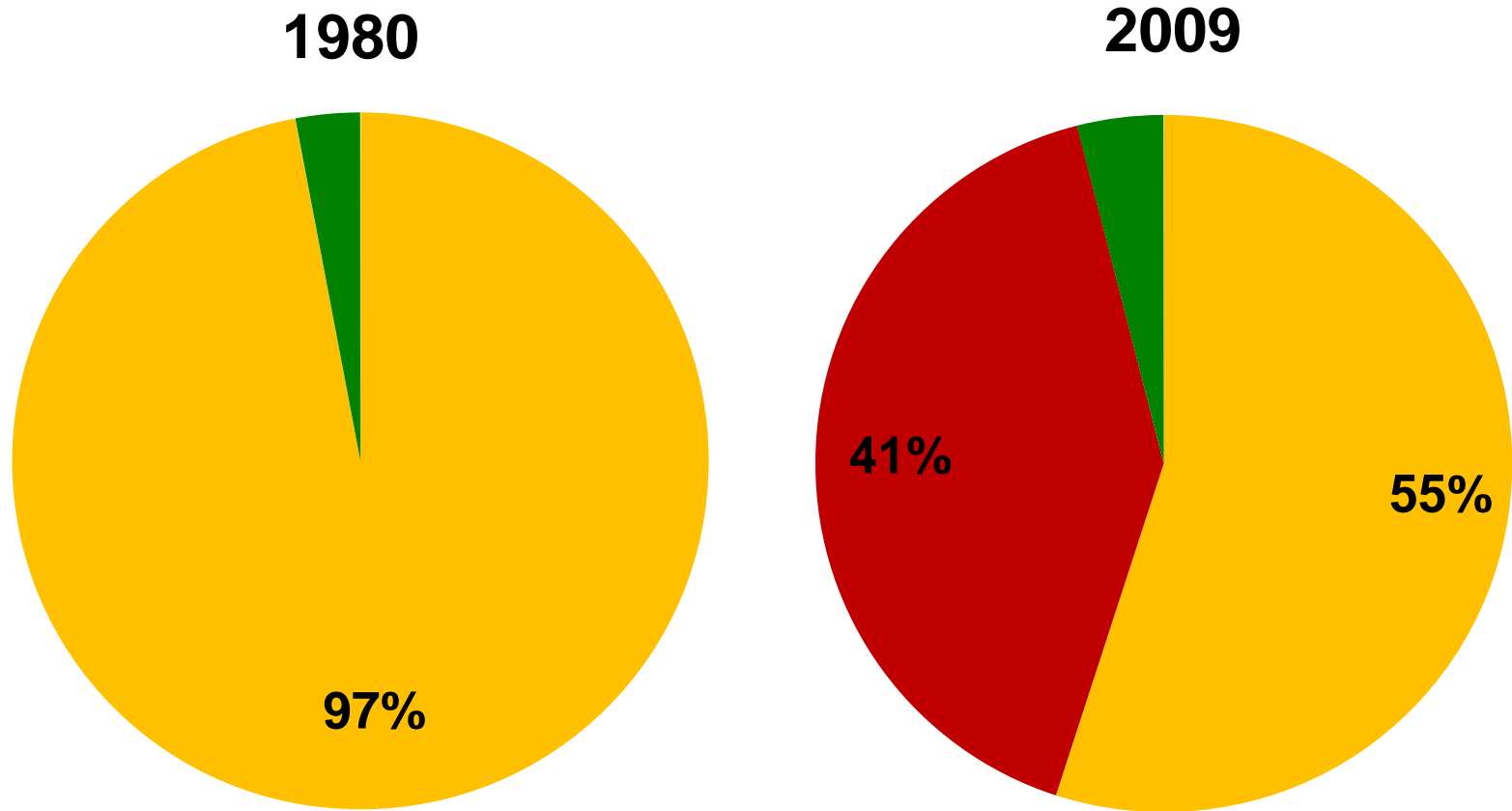
Foreign carmakers, by first year of producing in U.S.

VW (1)	1978
Honda	1982
Nissan	1983
Toyota	1984
Mitsubishi, Mazda	1987
Subaru	1989
BMW	1994
Mercedes	1997
Hyundai	2005
Kia	2009

(1) Closed in 1989, new plant to open in 2011

...and Detroit also lost production share

U.S. Light vehicle production share



Detroit , **Japan** , **Other**

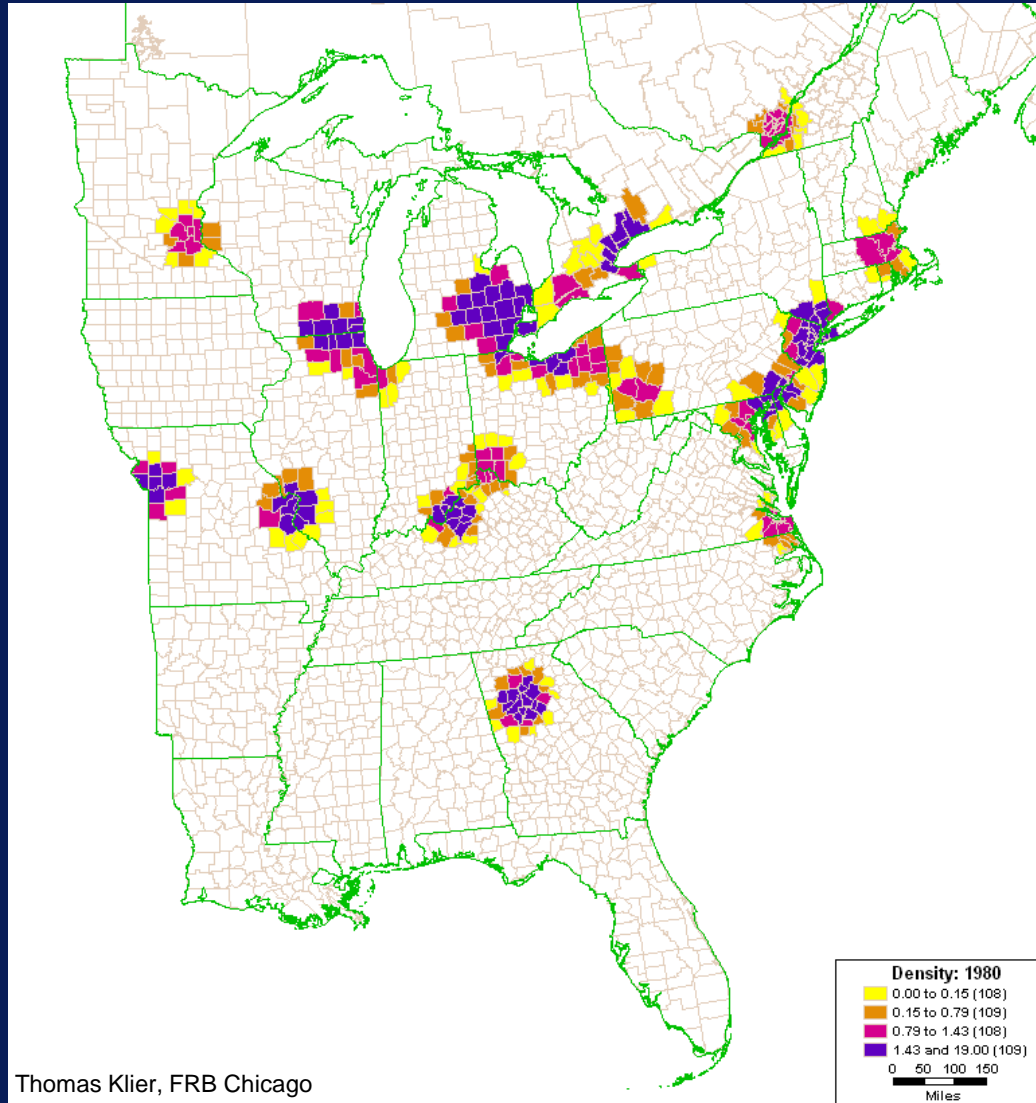
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From manufacturing belt...

Assembly line density

1980

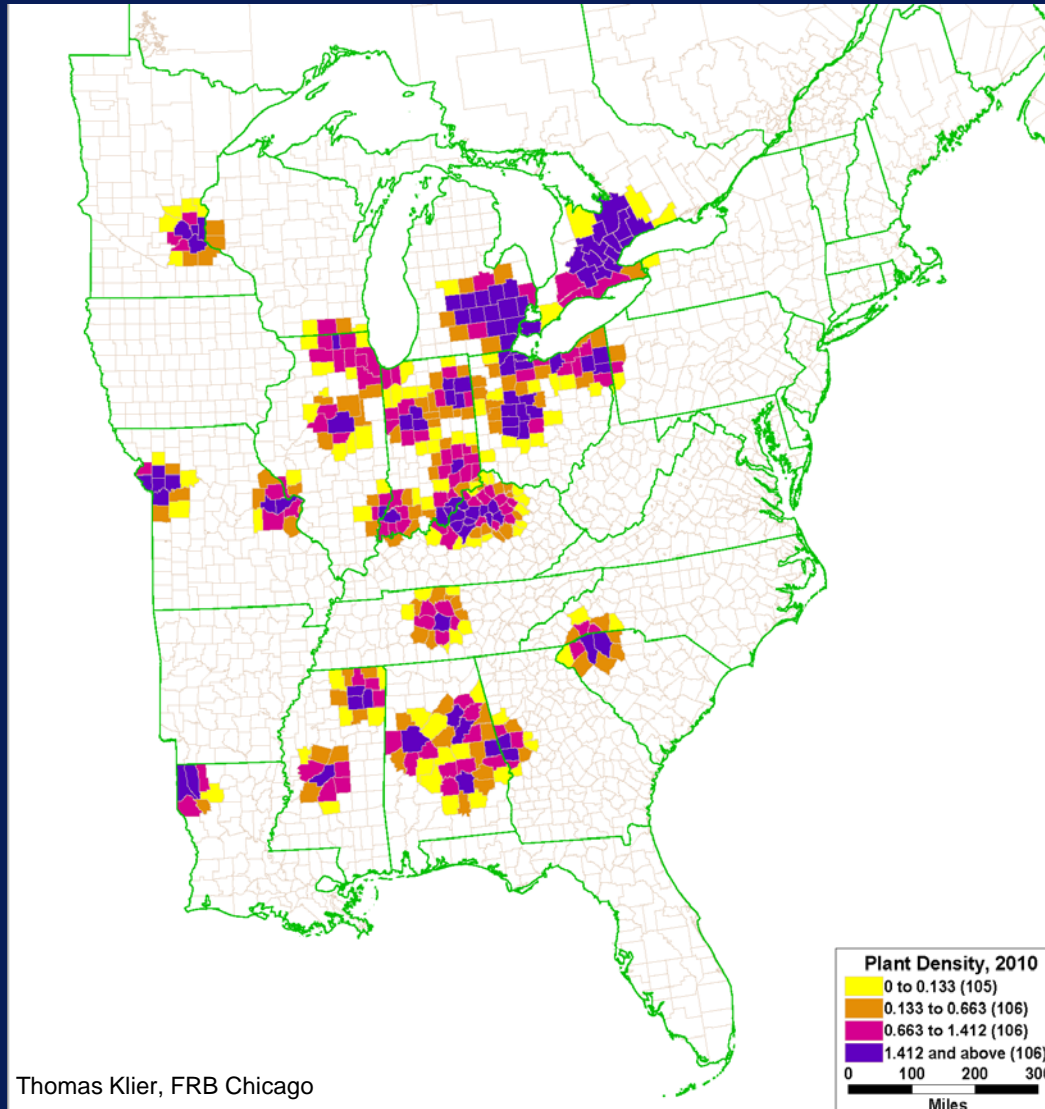


12 coastal
assembly
plants in
operation

...to auto alley

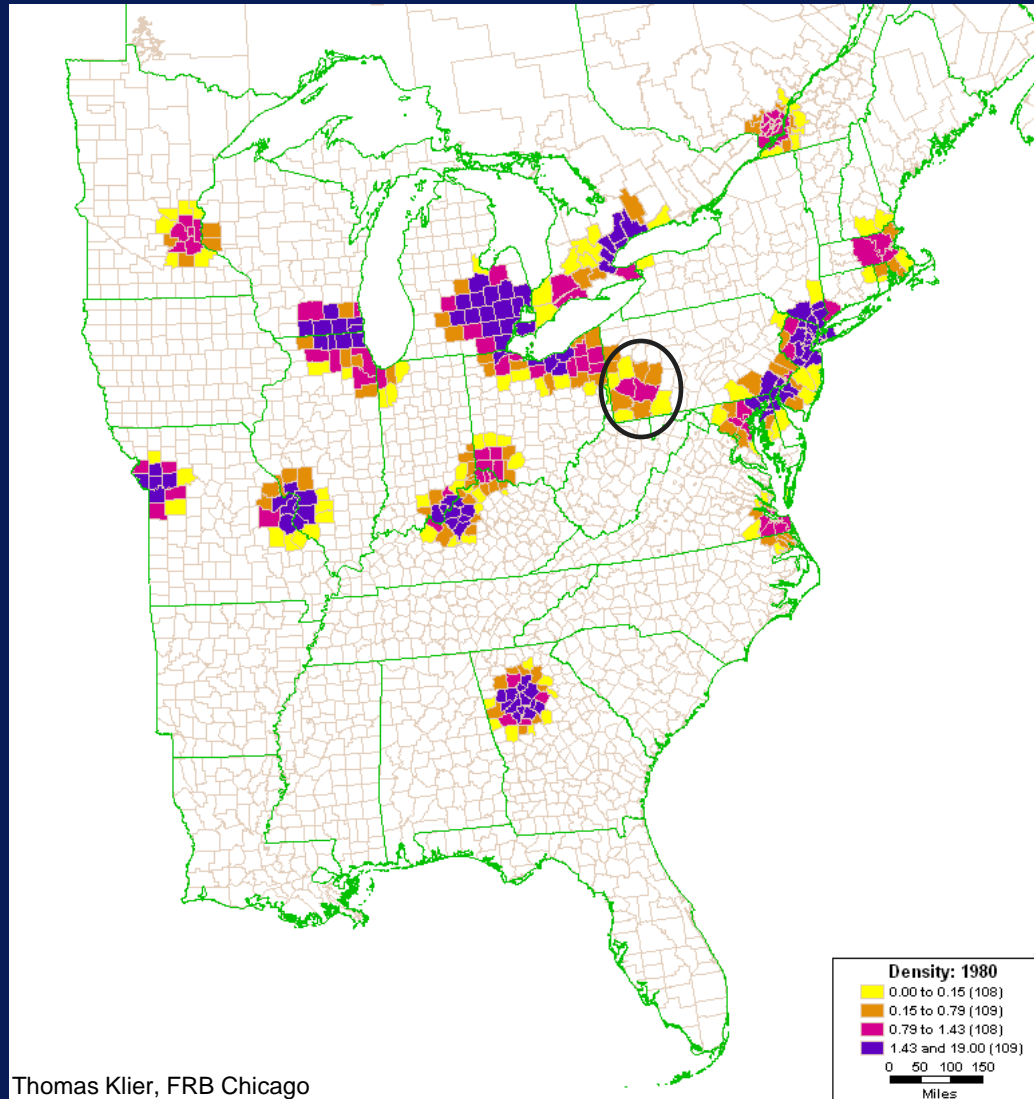
Assembly line density

2010



No coastal
assembly
plants left

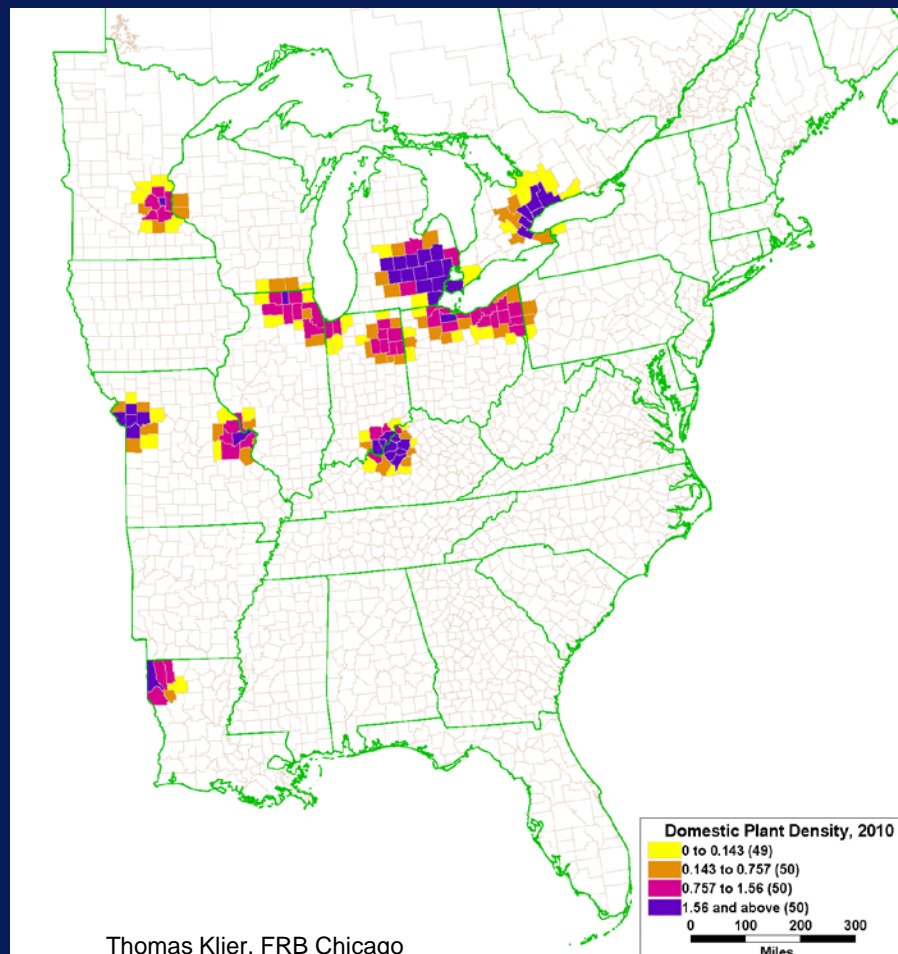
1980: Domestic = Detroit



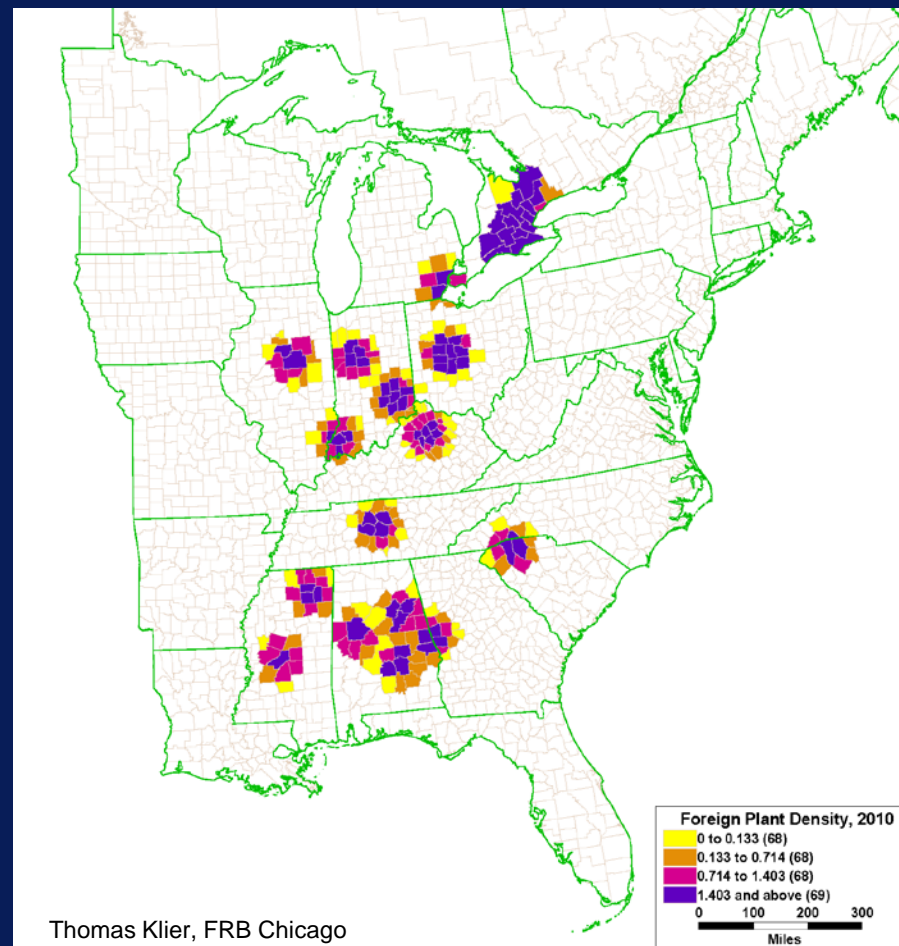
Thomas Klier, FRB Chicago

2010: Detroit about half of industry

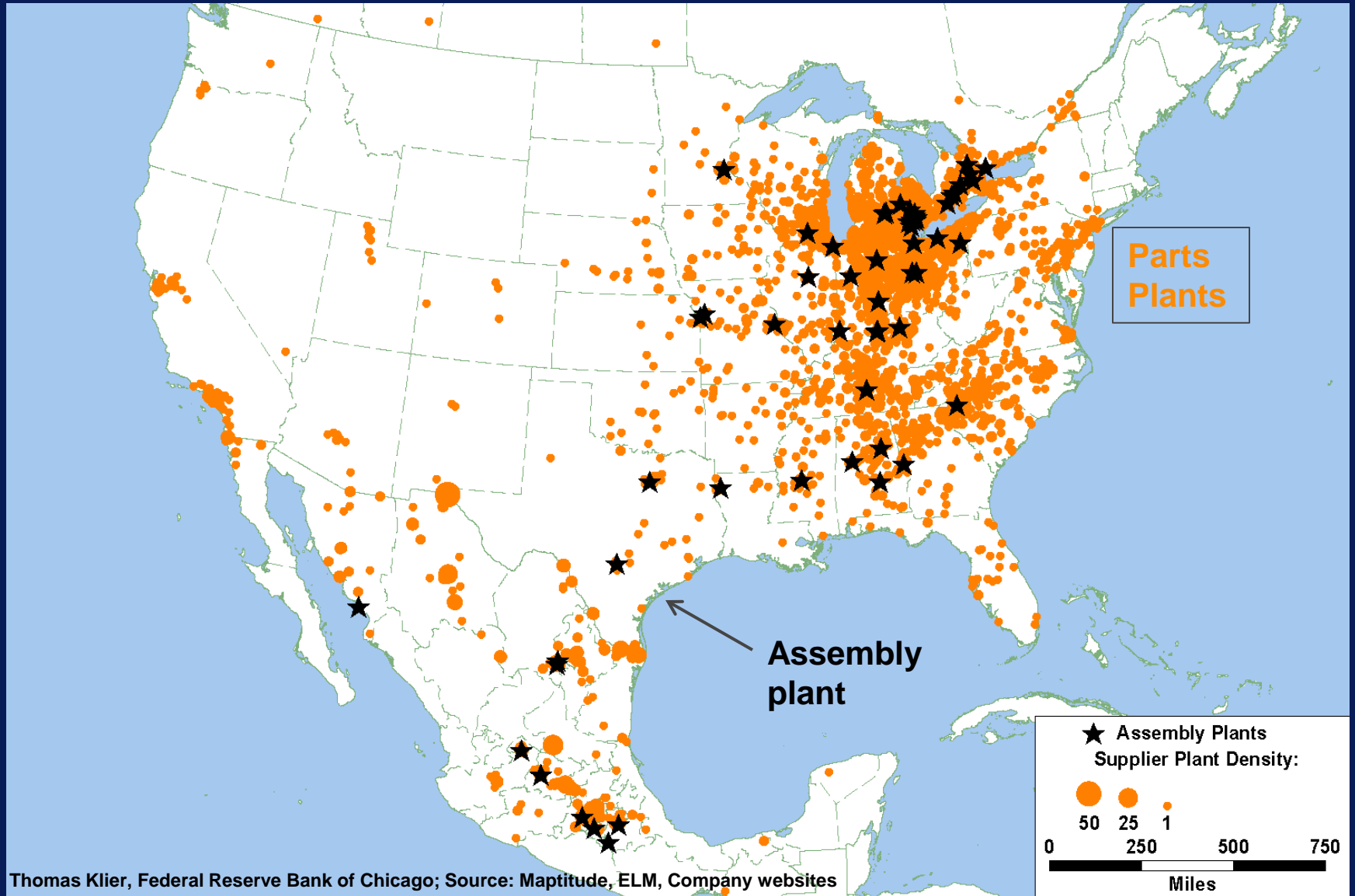
Detroit Three



Others



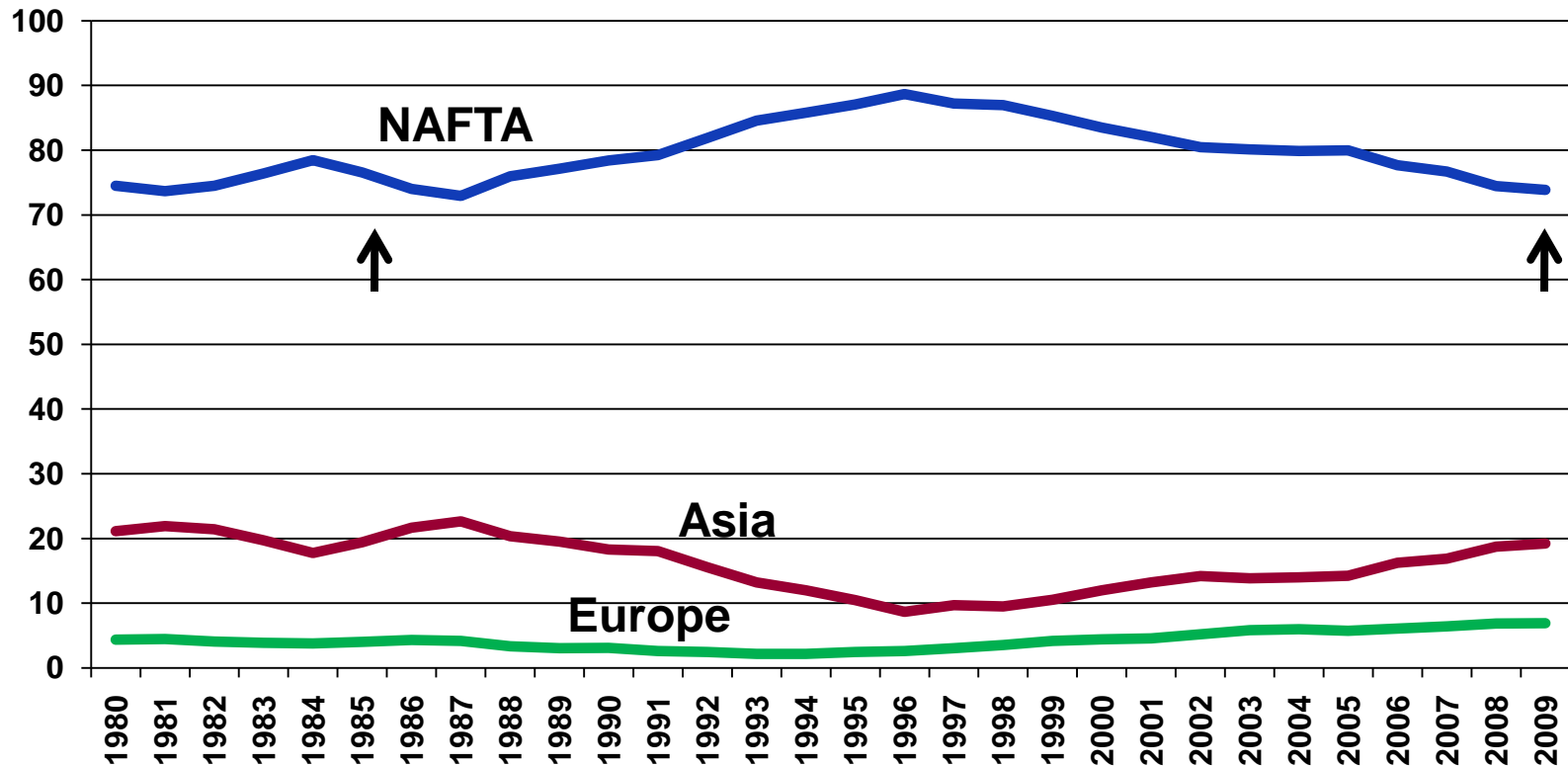
Geography of auto production, ca. 2010



North America kept production

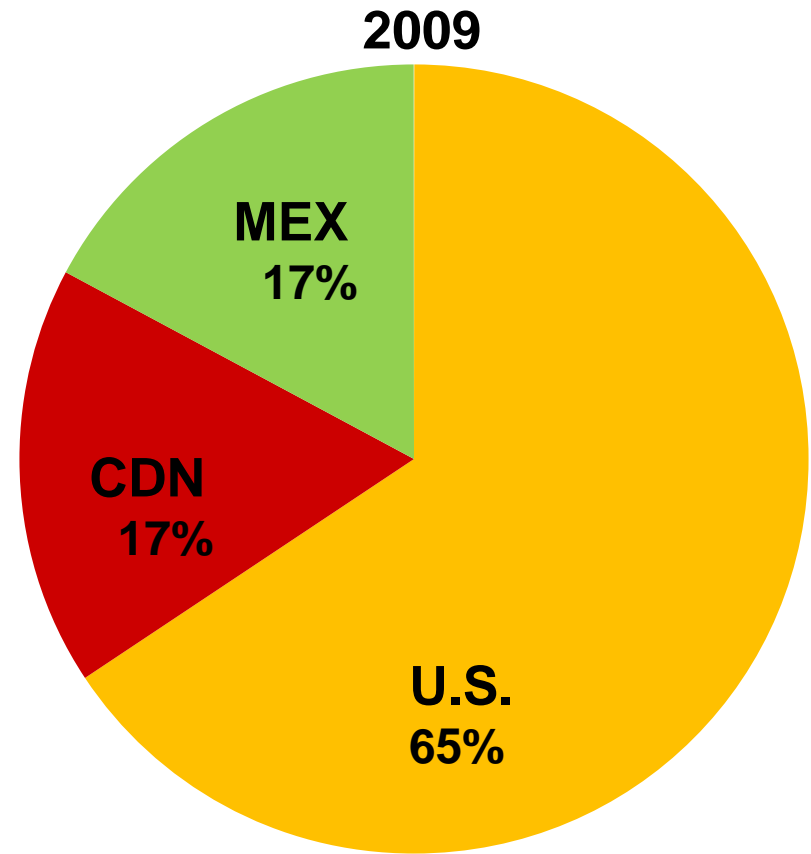
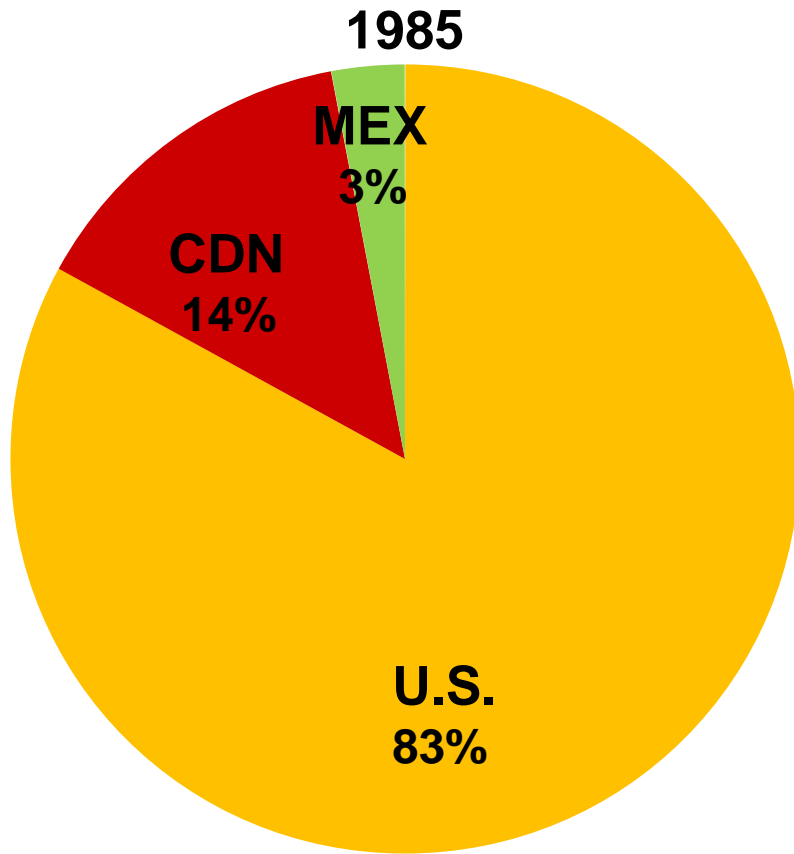
U.S. light vehicle sales by major production region

Percent



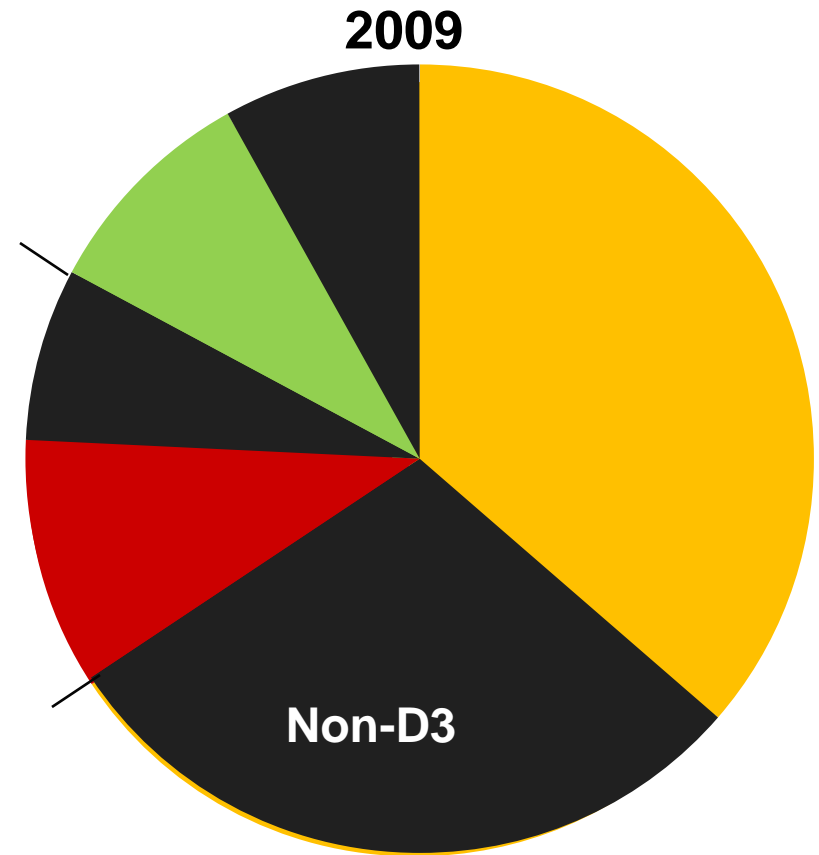
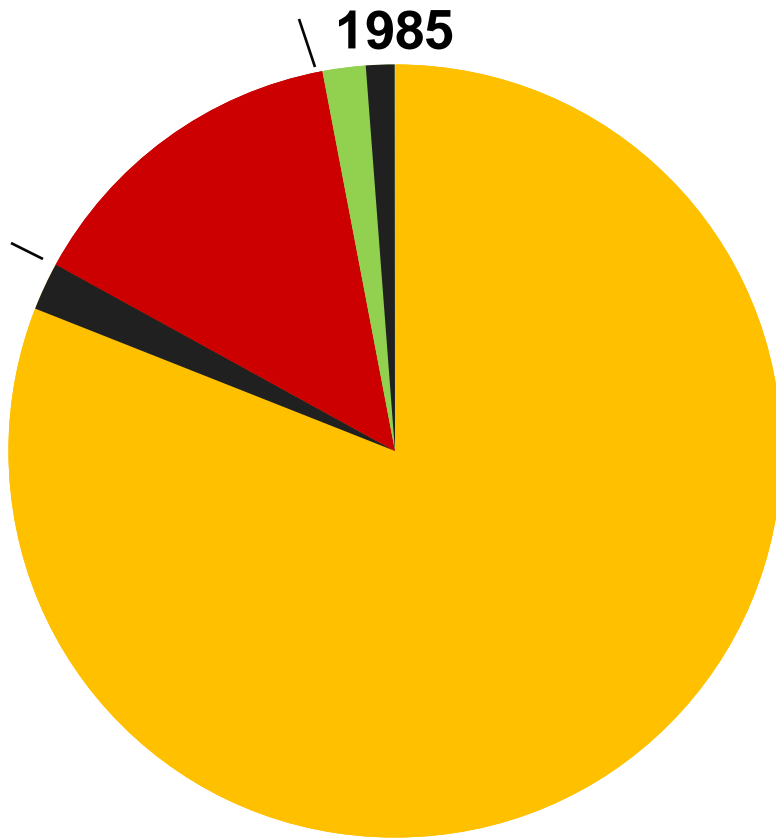
Mexico gained production share

NAFTA light vehicle production



D3 production share falls from 96% to 55%

NAFTA light vehicle production

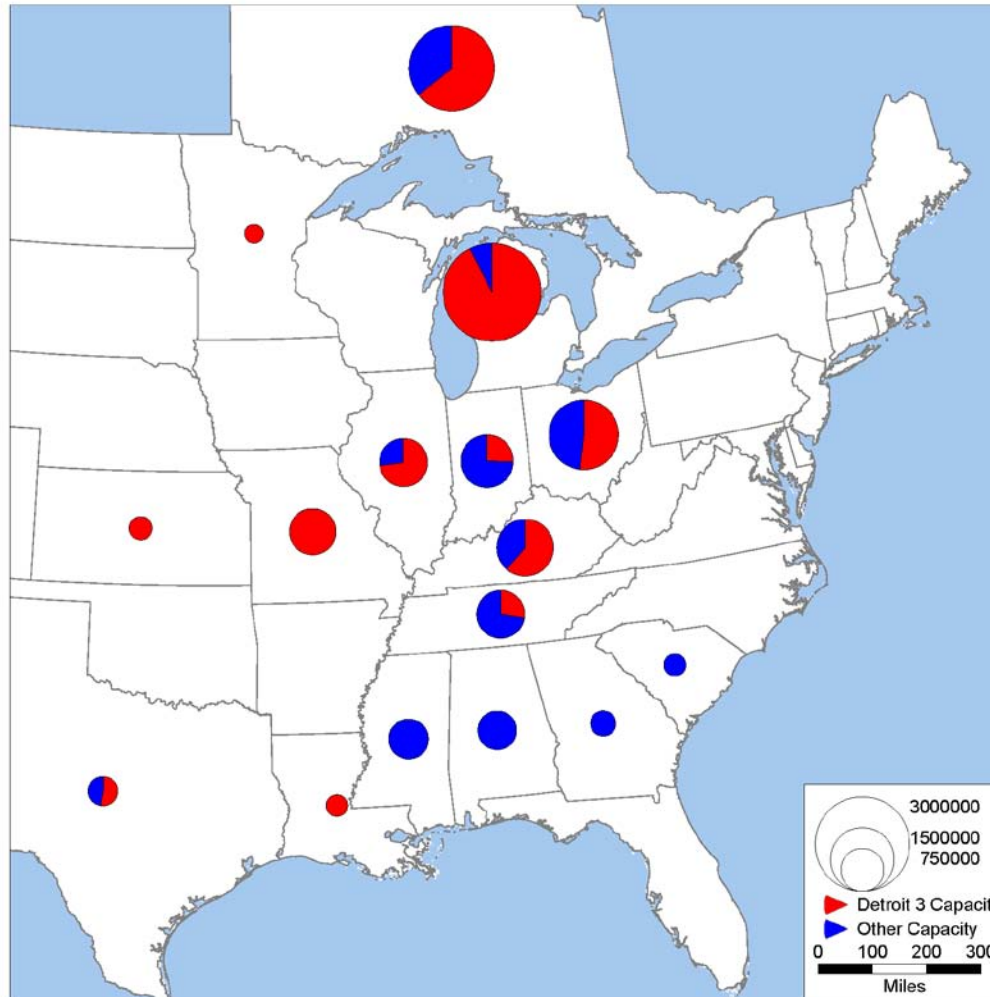


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Geography of recovery

Light vehicle production capacity, 2010



MI and ONT represent 50% of D3 capacity shown.

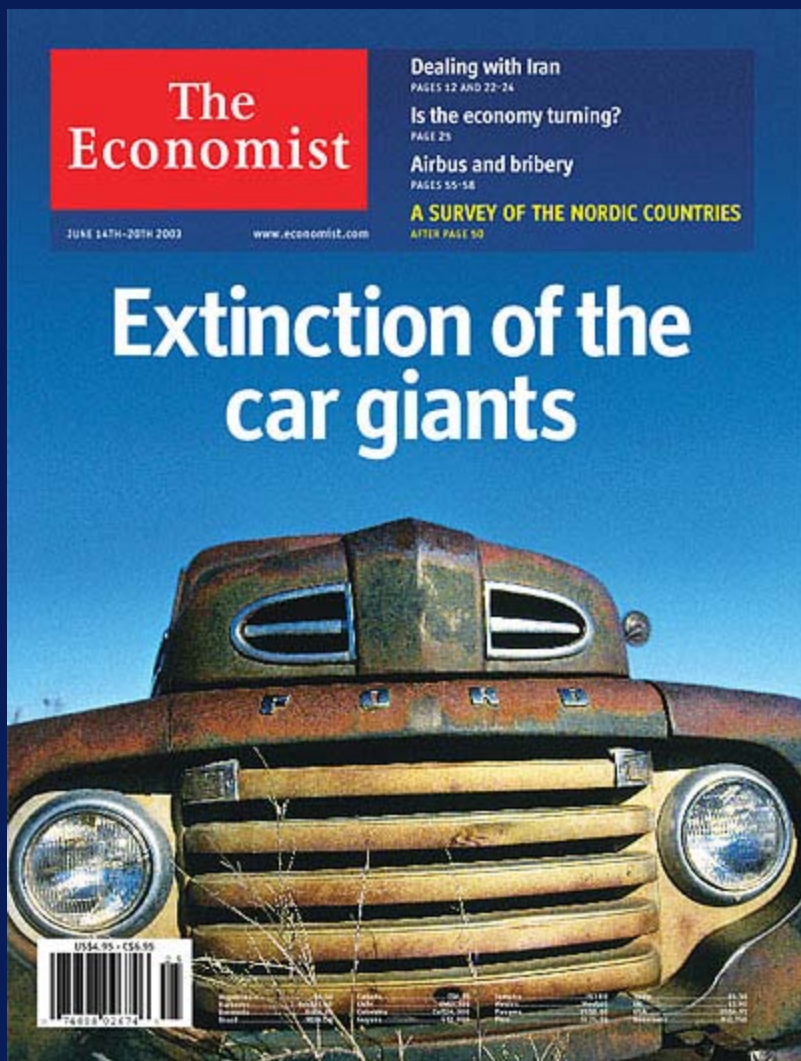
Virtually no presence of D3 in southern half of auto alley.

At current low capacity utilization rate this footprint can accommodate a substantial volume expansion.

Global perspective

- **Growth is elsewhere: In 2010/Q1 GM sold more vehicles in China than in the U.S.**
- **2009 light vehicle sales**
 - ◆ **NAFTA** **12.6 million units**
 - ◆ **EU** **13.2 million units**
 - ◆ **China** **13.6 million units**

Company effects matter



2003



2009

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