Coal, Cars and Cold: Cheap or Costly Carbon Containment?

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Cost Effective Carbon Restrictions Conference

Detroit Branch of the Federal Reserve Bank of Chicago

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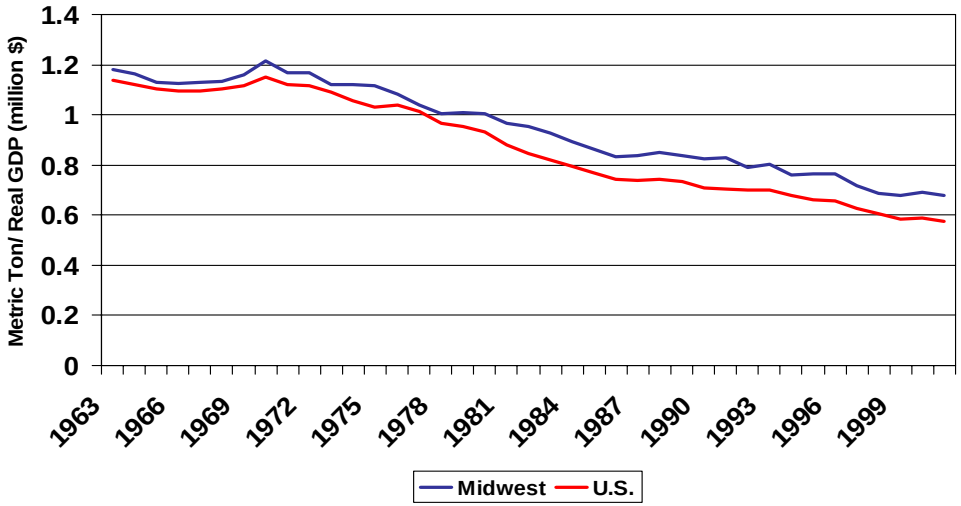
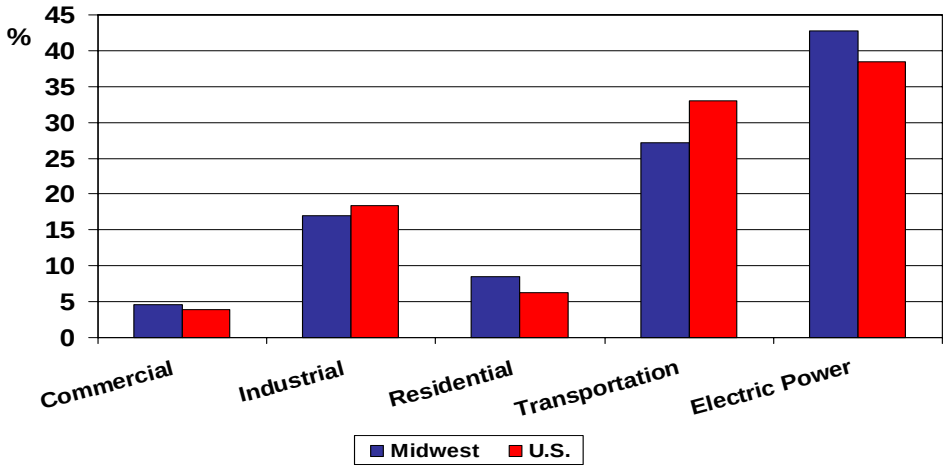
Carbon control policies are moving forward

- The carbon reduction train appears to be leaving the station
- The Midwest is not advantaged from the "get-go"
  - -- Coal-fired electric power
  - -- Production of low mileage vehicles
  - -- Cold temps and seasonal extremes make for high residential energy demands

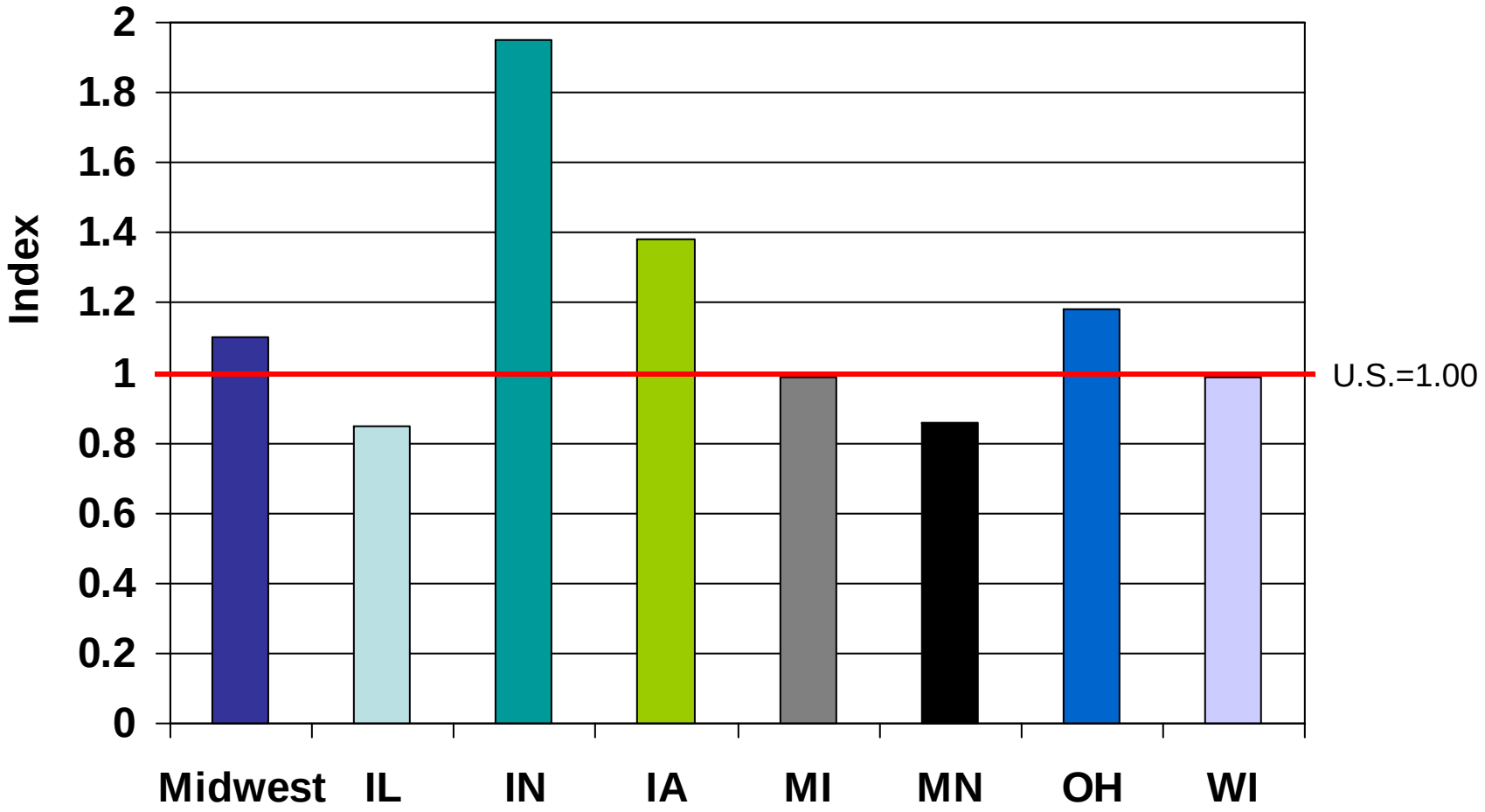
Total CO_2 Emissions per Real GDP (2000 Dollars) 1963-2001



2004 Share of CO_2 Emissions by Major Sector Midwest vs. U.S.

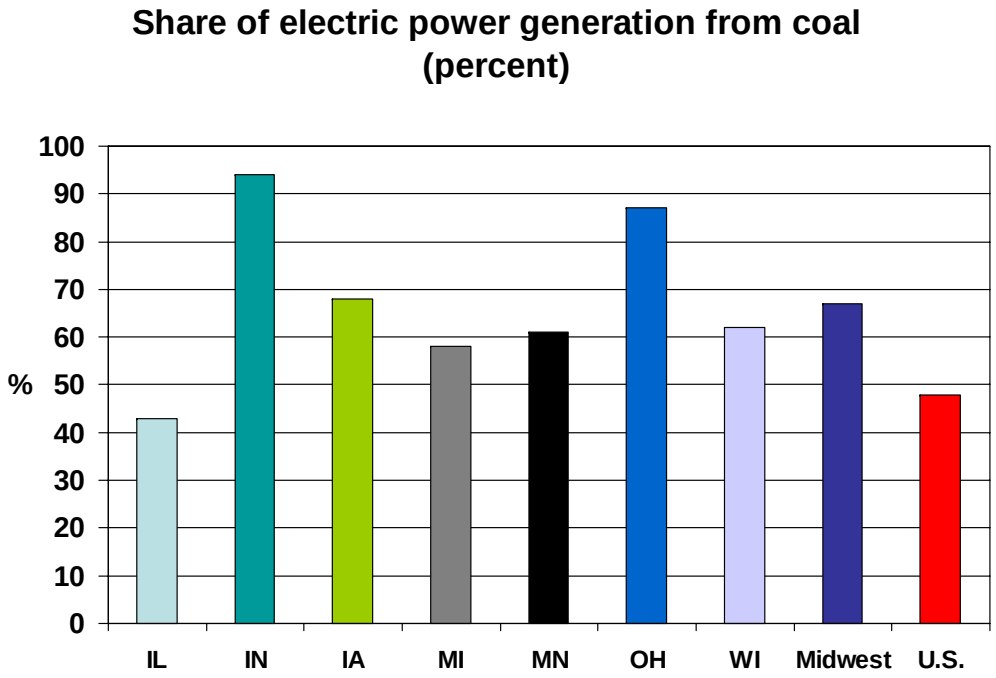


2004 Total CO_2 Emissions per GDP
Midwest vs. U.S. (Index)

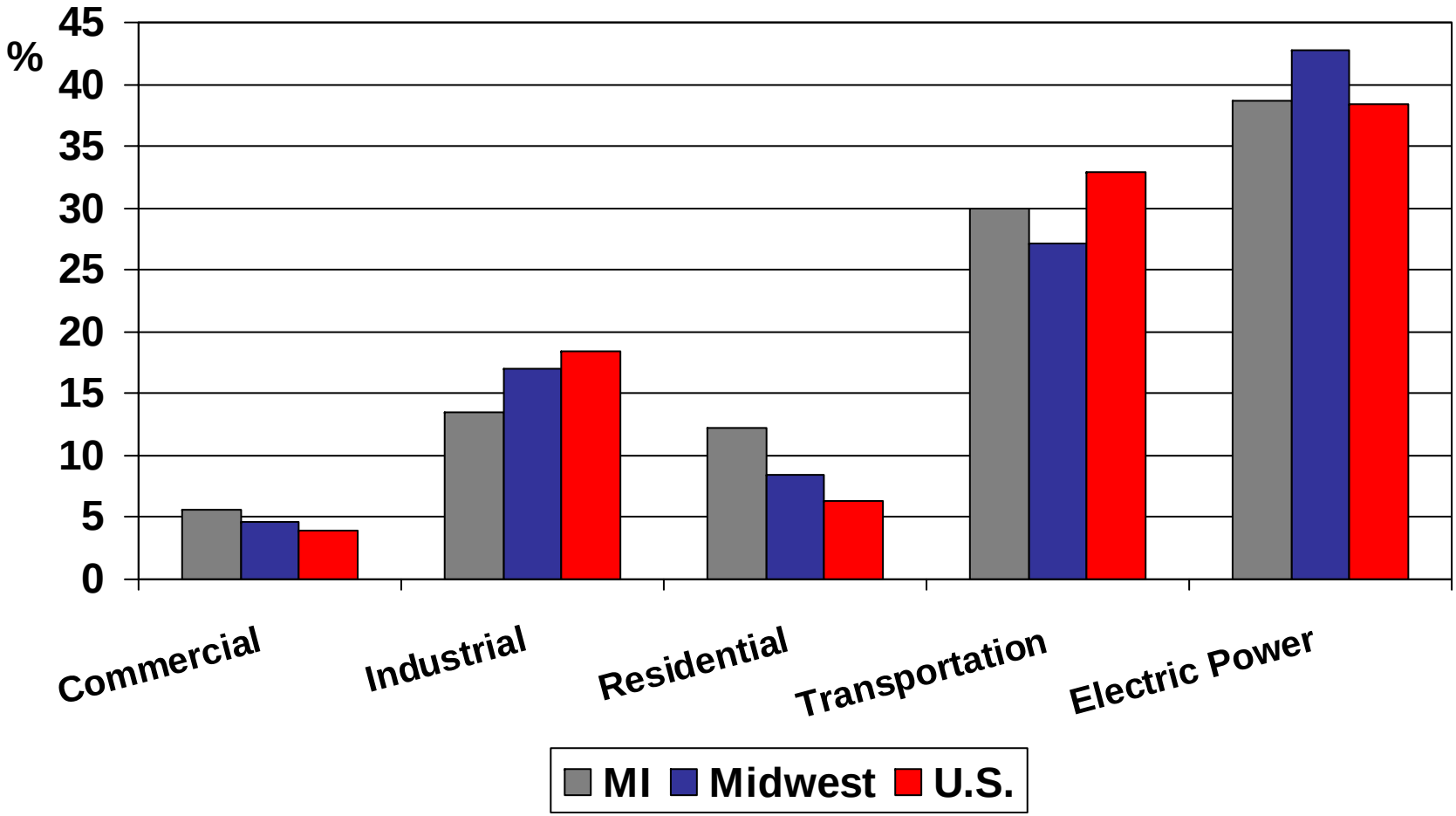


Midwest electric power generation presents a challenge

- Coal is among the most carbon intensive fuels
- The Midwest relies on coal for electric power generation
- Midwest states mine coal as well

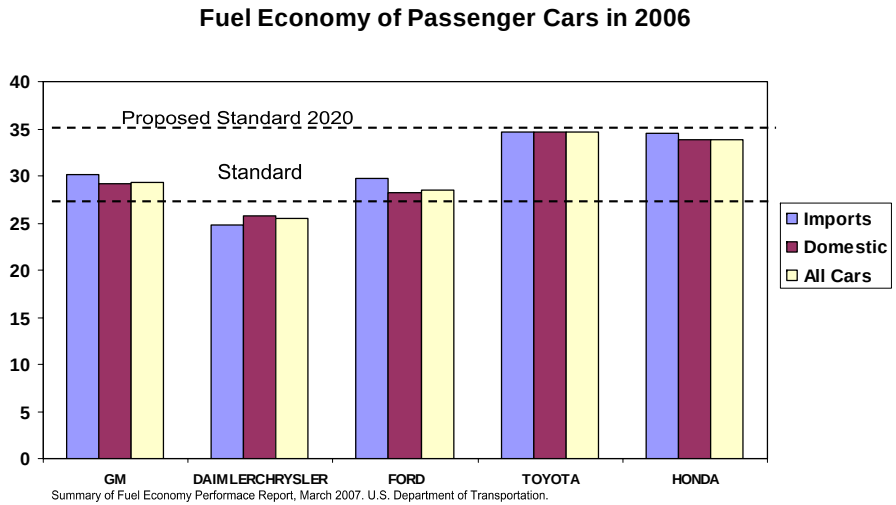


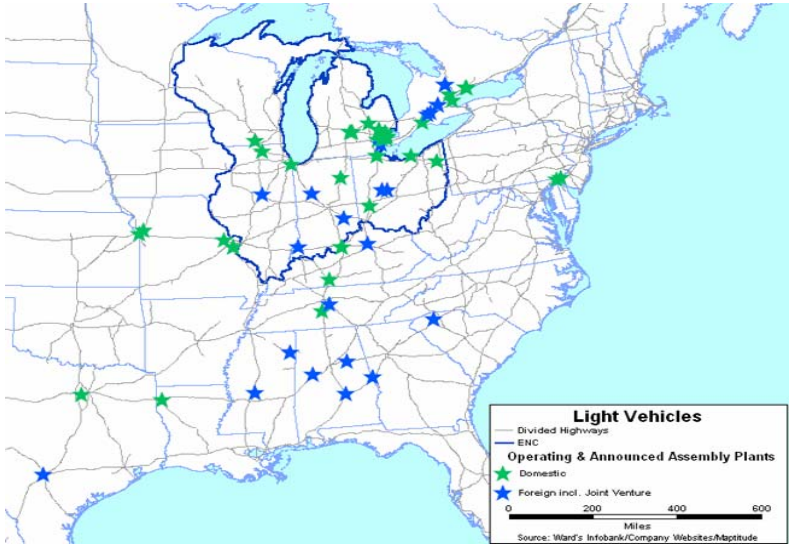
2004 Share of CO_2 Emissions by Major Sector
MI vs. U.S



Transportation mileage within national parameters

- Despite its goods-producing orientation, VMT not an outlier in the MW
- But production of energy-intensive vehicles remains concentrated in the region

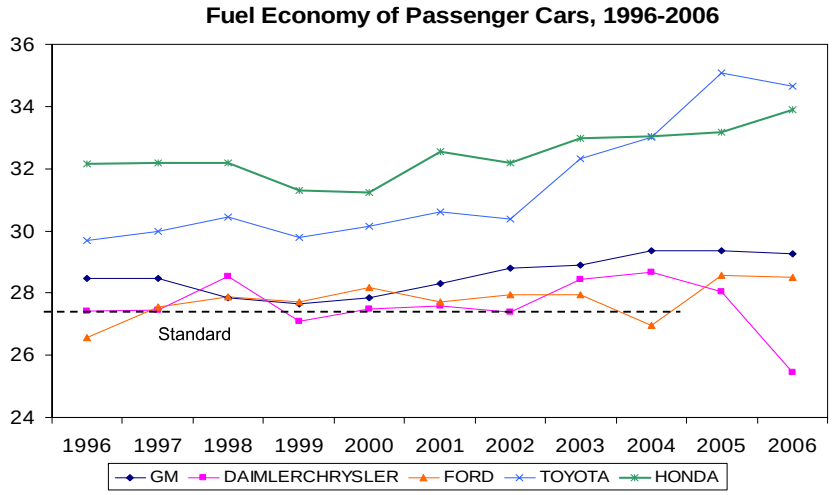




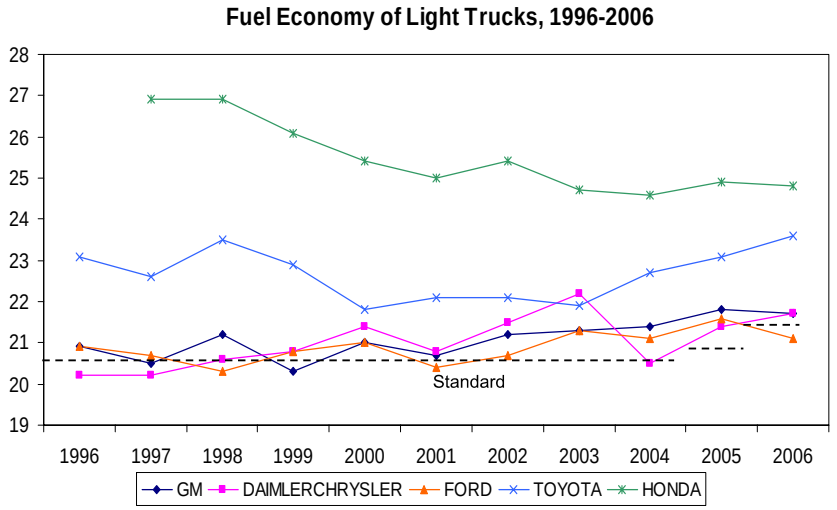
Competitors making progress on fuel efficiency

- Asian-domiciled auto makers making more head-way in fuel efficiency….

- ….although they too have been shifting to heavier vehicles



Summary of Fuel Economy Performace Report, March 2007. U.S. Department of Transportation.



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Conference issues

- What approaches can soften the cost impact of the region's carbon reductions?

  -- market based approaches?

  -- technology-forcing such as CAFÉ and clean-fuel/renewable mandates for electric power?

  -- how can Midwest households, communities and companies best adapt to each?

- What are likely regional cost and other impacts of compliance (under various compliance scenarios)?