
Performance vs fuel efficiency- Lessons from the past

Auto Outlook Symposium-
Meeting fuel efficiency challenges
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Outline



- Two oil shocks during the 70s

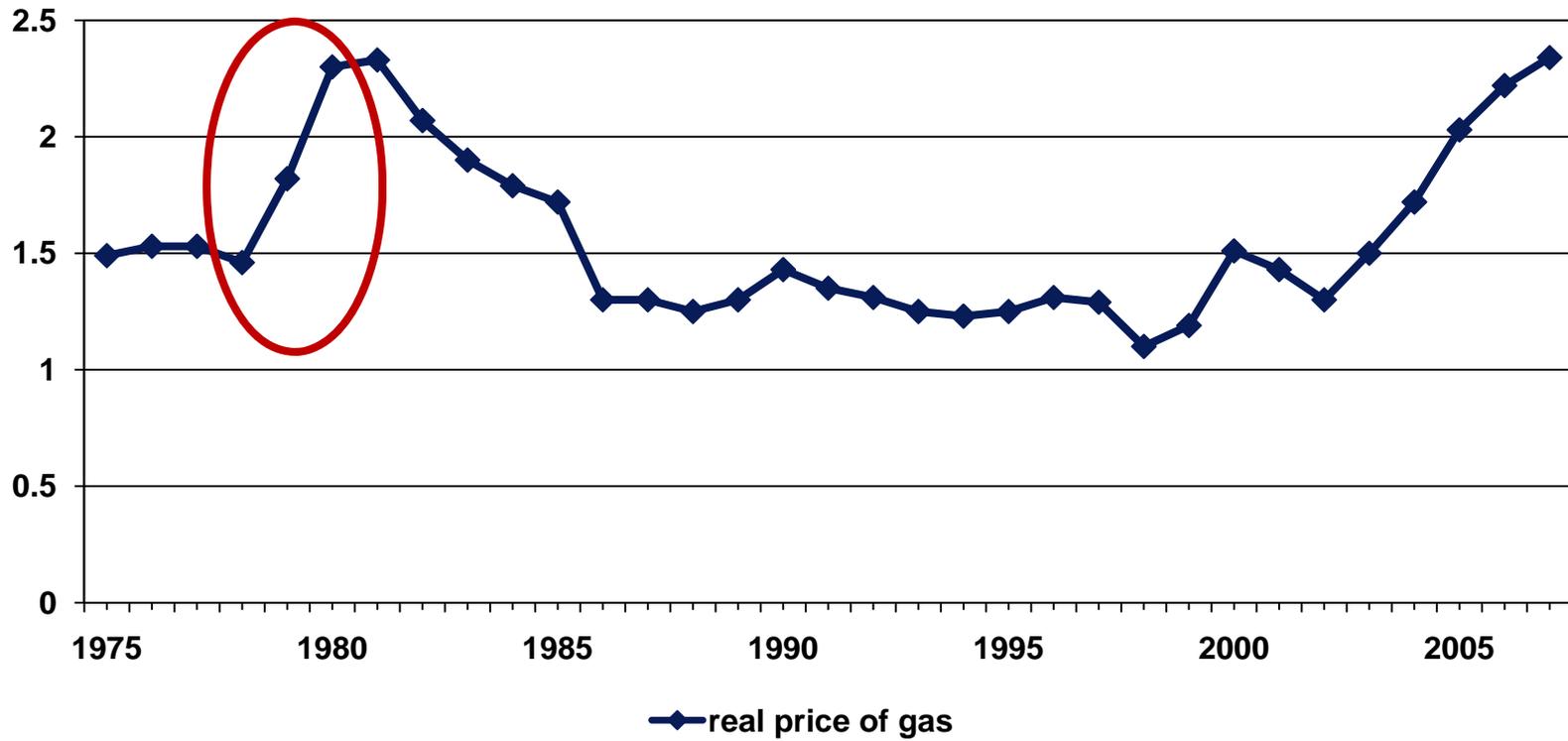
- Cheap oil (and gasoline) 1986-2000



- Extremely volatile 2008

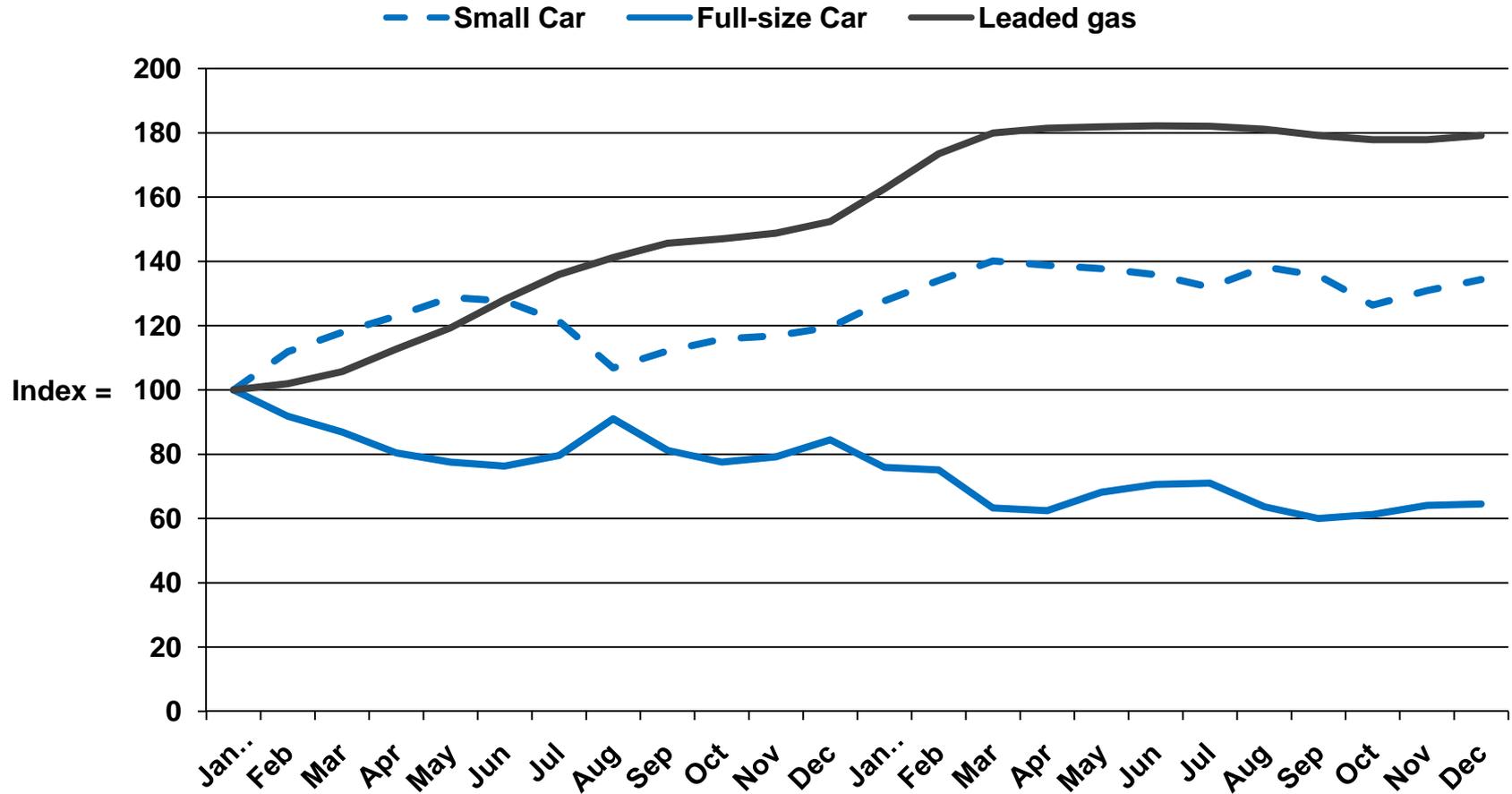


Two oil shocks and no trend?

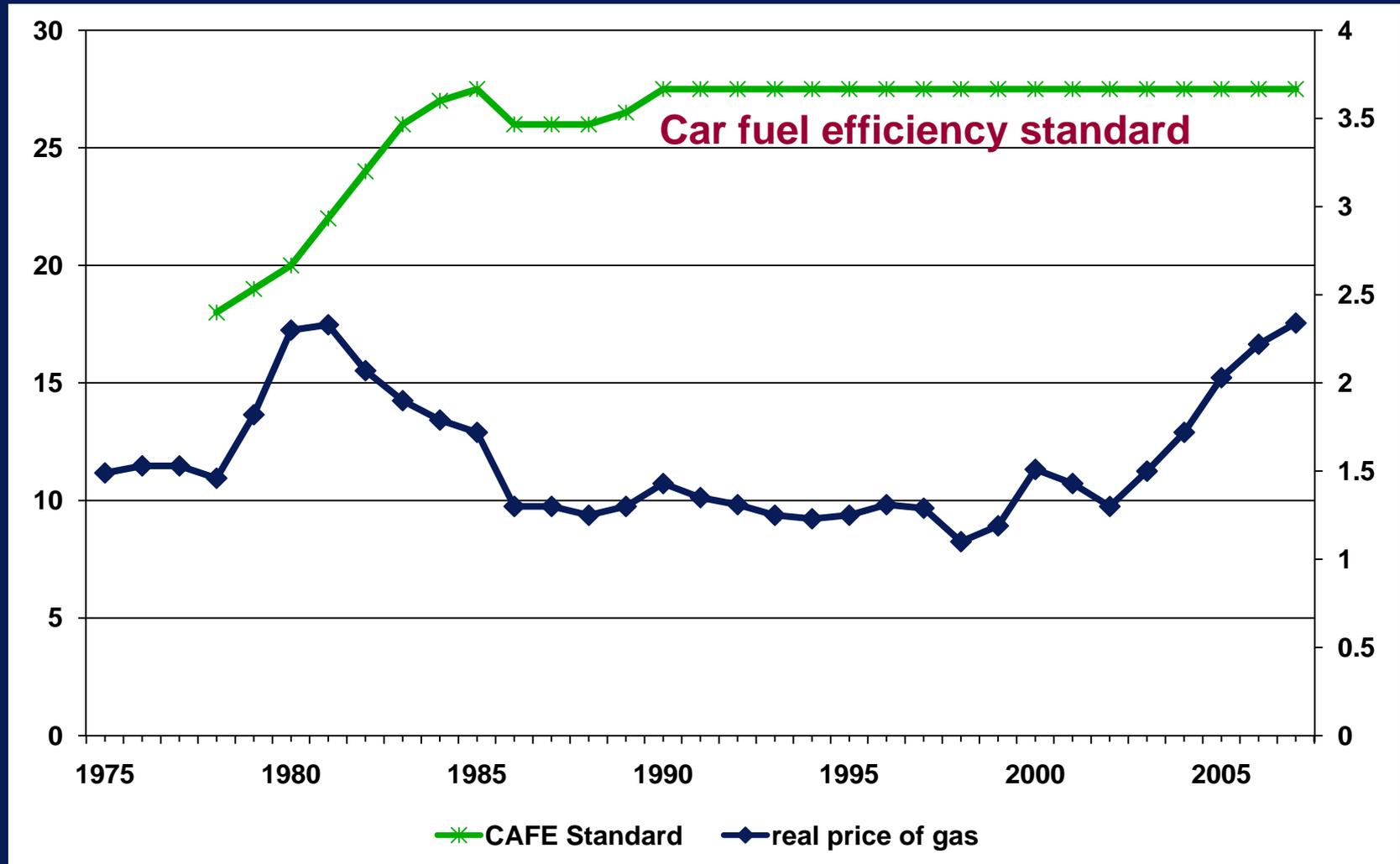


1979-80: small beats large

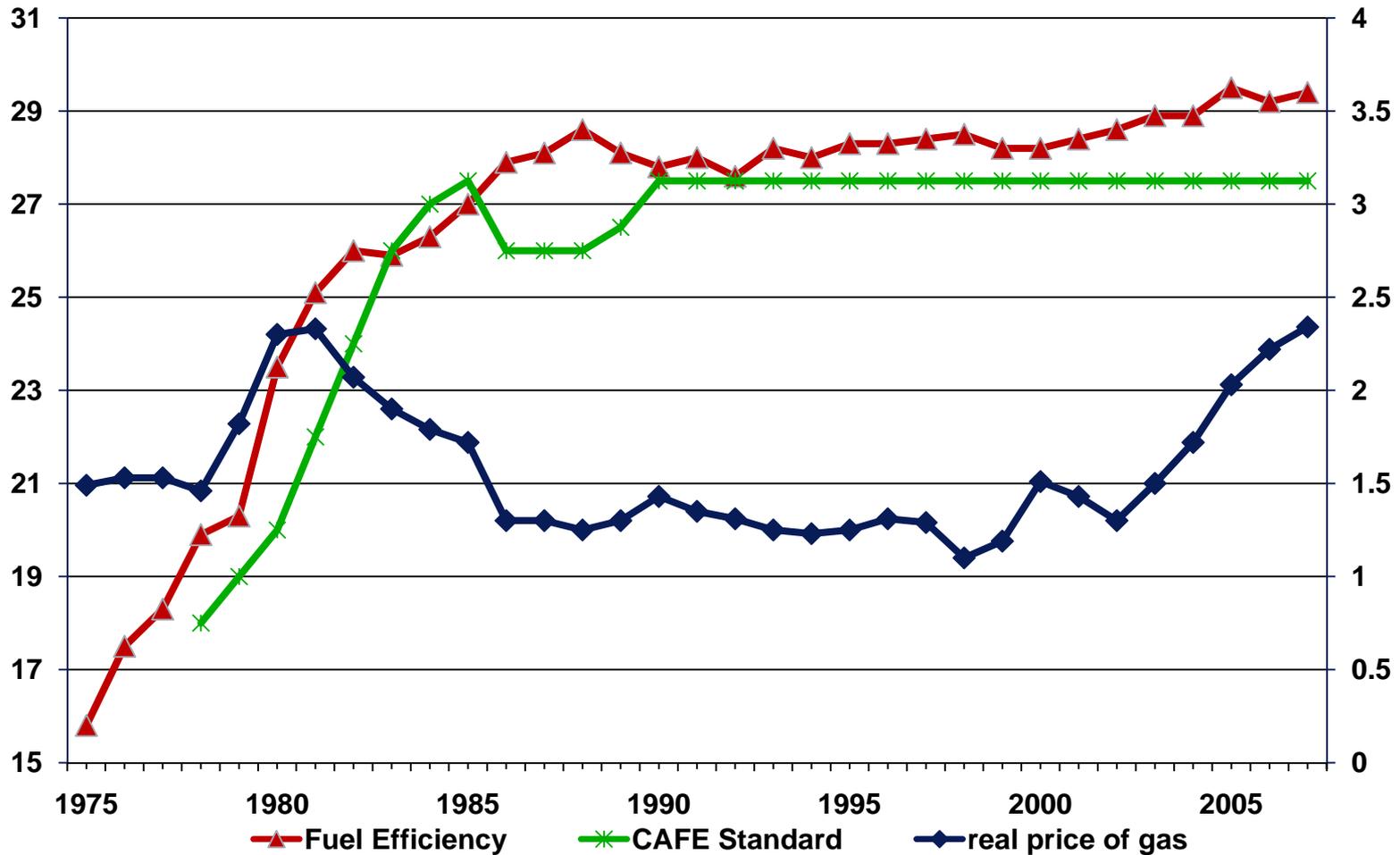
Consumer response in vehicle size purchased



CAFE standards in place by 1978



Fuel efficiency up substantially



Producers adjust characteristics of cars



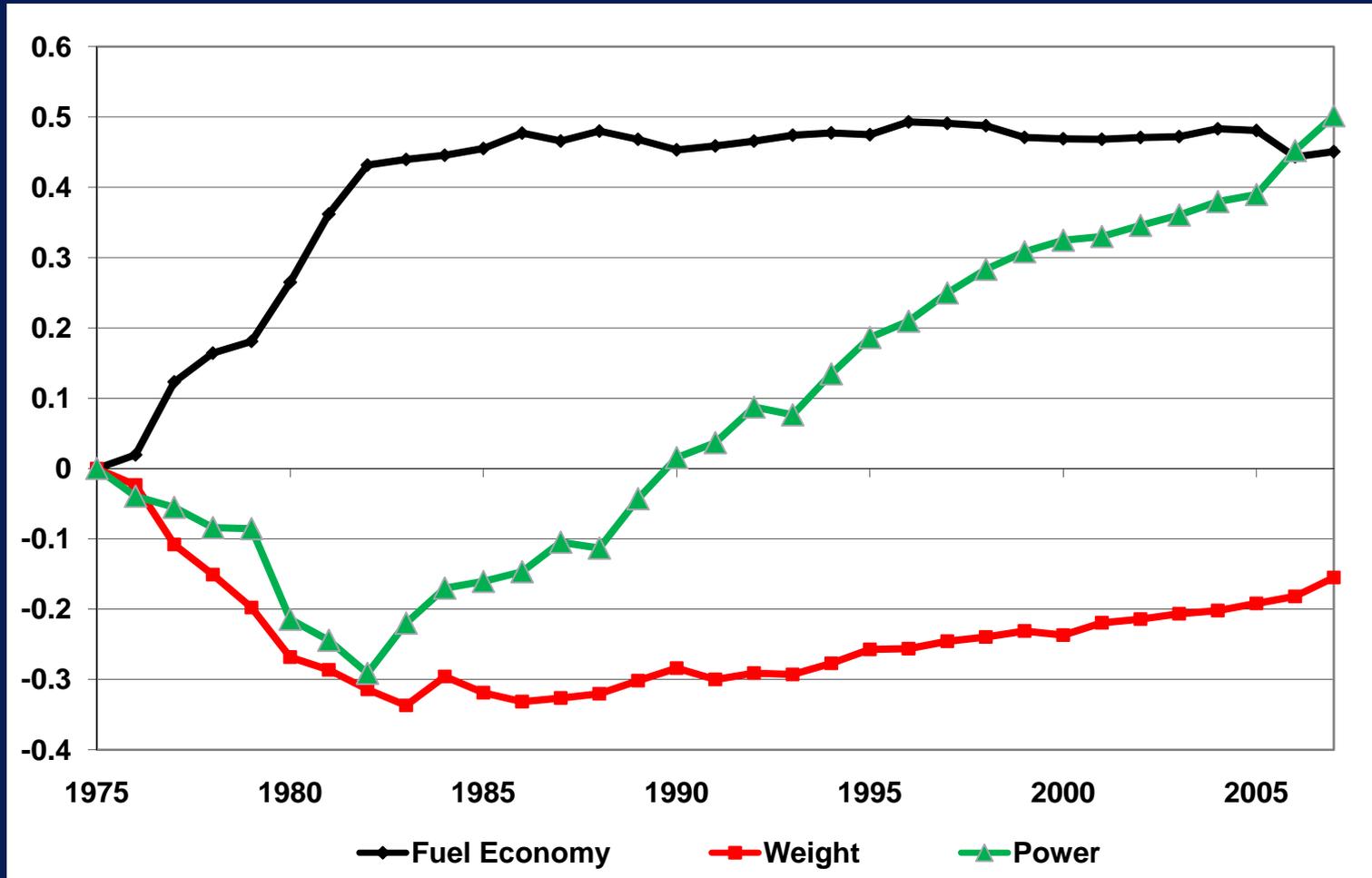
1975 Chevy Impala

Shorter and lighter



1977 Chevy Impala

Producers adjust characteristics of cars



Cheap gas favors performance

Larger and faster



1986 Honda Accord

2.0 L 4 cyl 98 hp

2.0 L 4 cyl 120 hp



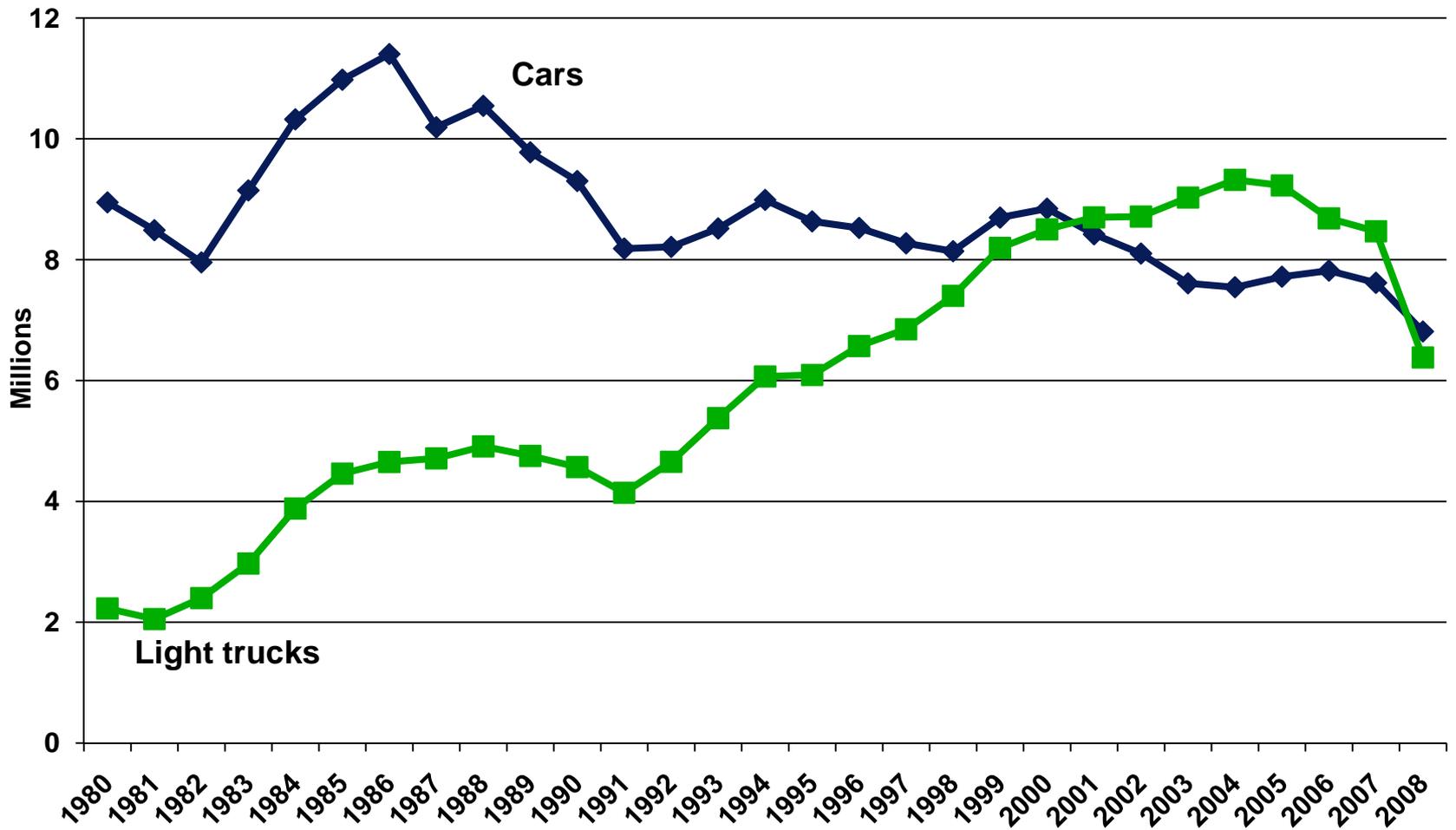
2008 Honda Accord

2.0 L 4 cyl 154 hp

3.5 L 6 cyl 268 hp

The rise of the SUV

U.S. light vehicle sales



Detroit 3 discover light trucks...



1984



2008



1990



2006

...and they grow them



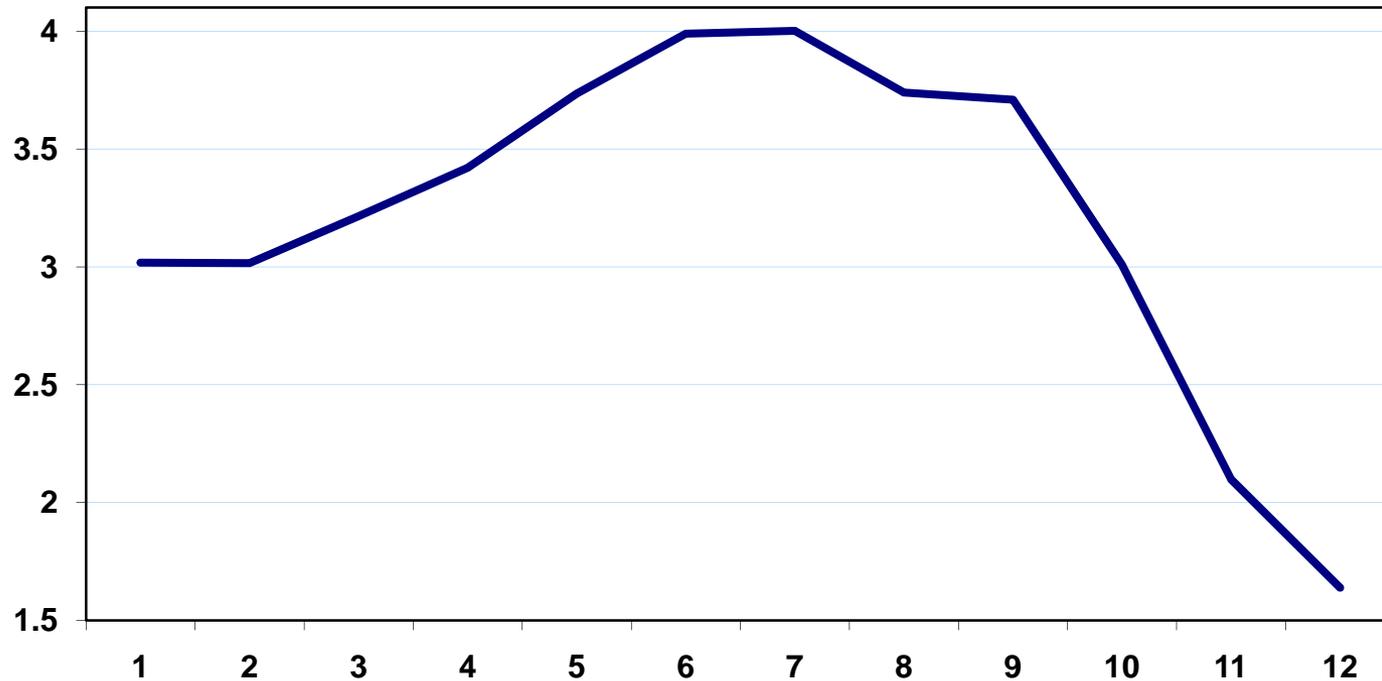
1981



2009

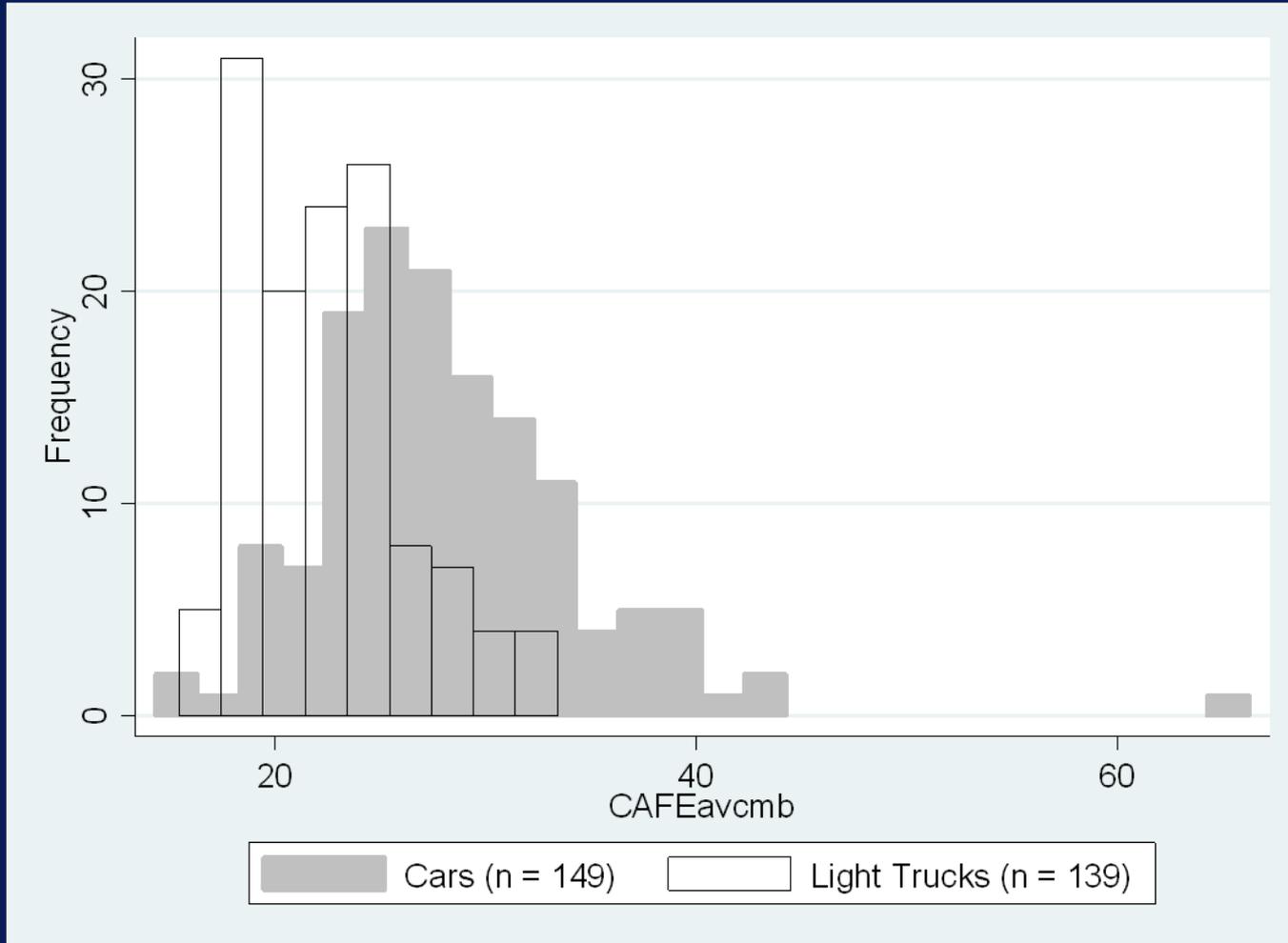
Gas price swings wildly in 2008

2008 Monthly Gas Price

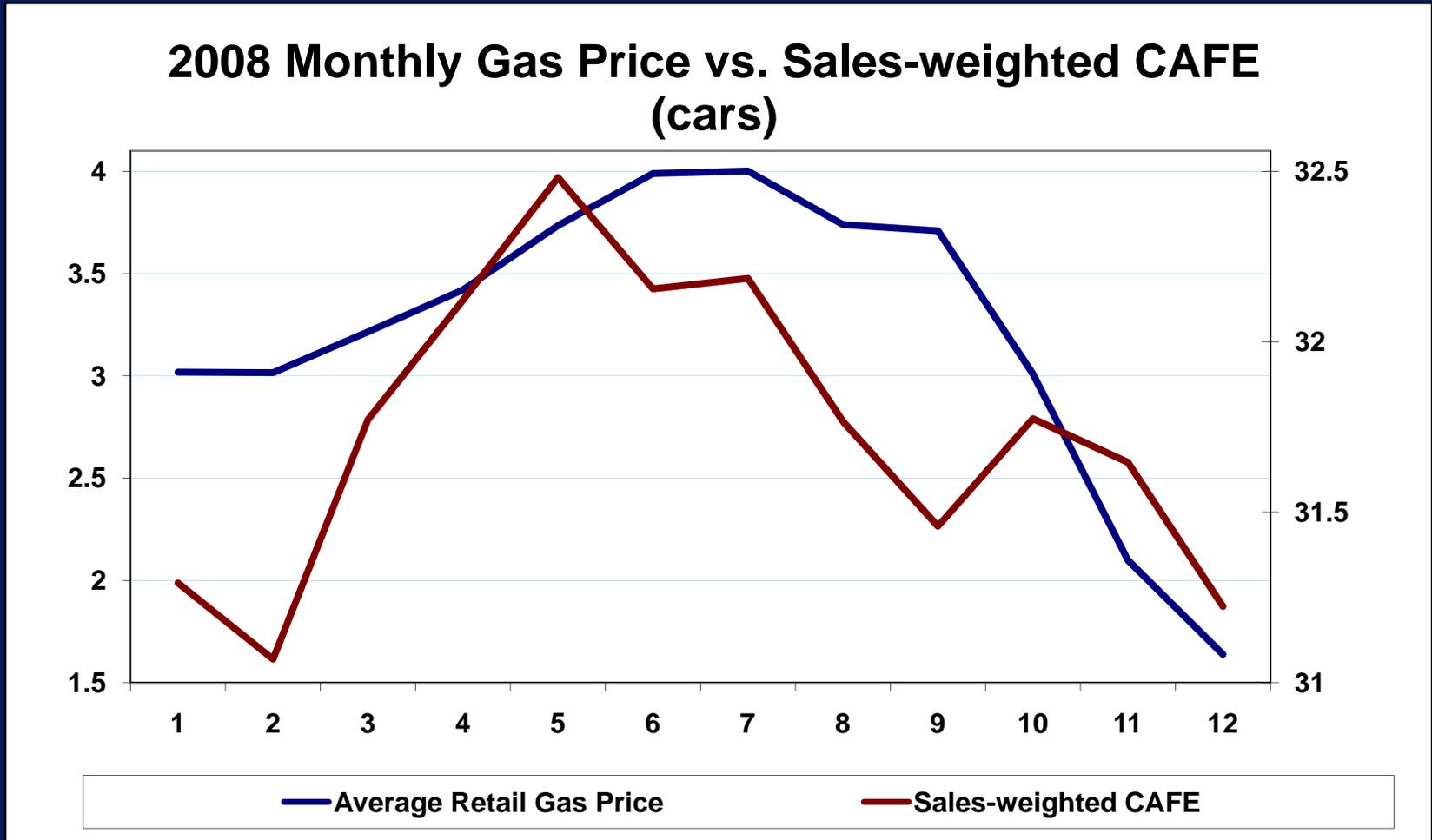


— Average Retail Gas Price

Consumer choice in fuel efficiency

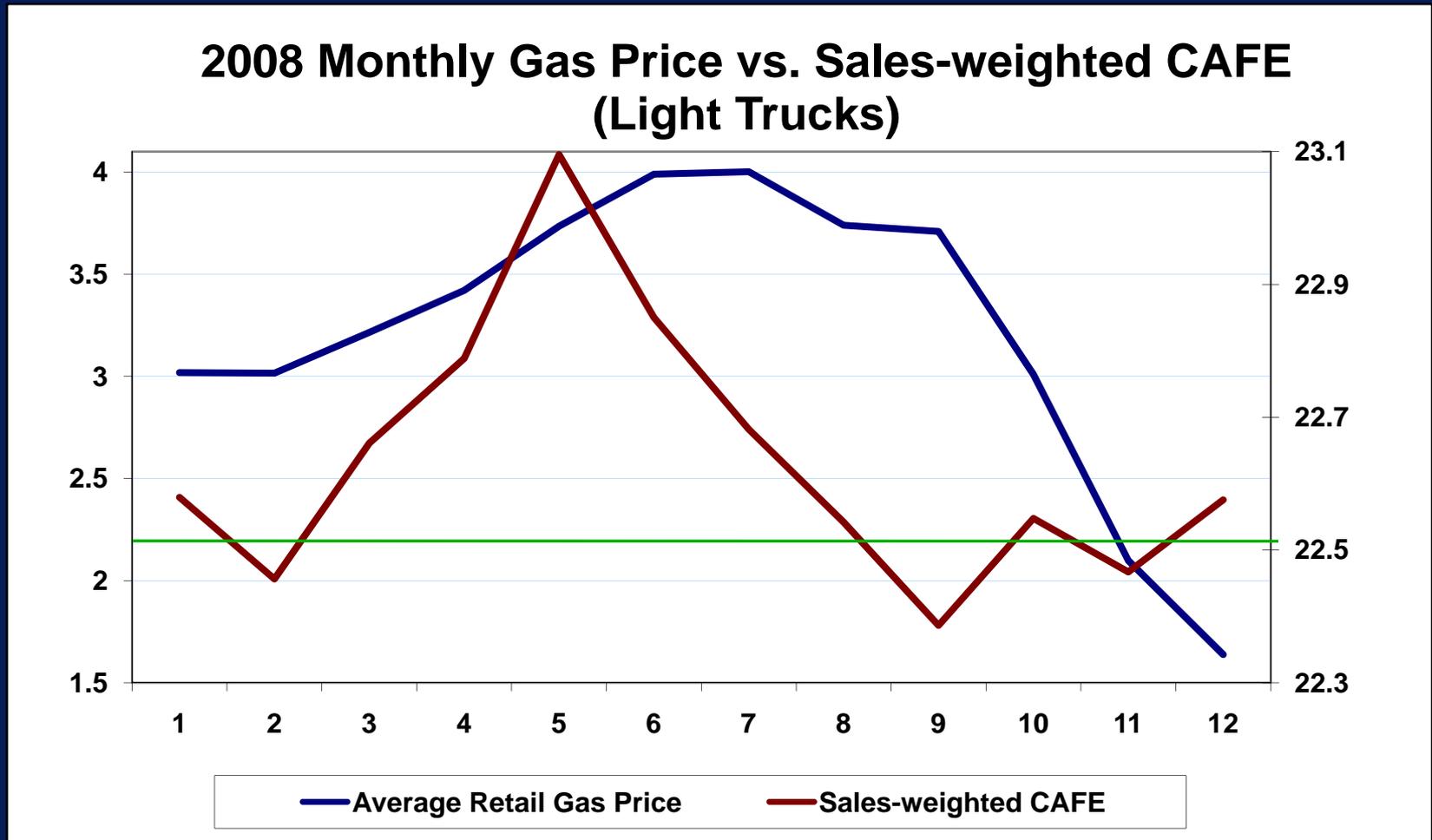


Consumers opt for fuel efficiency (1)



Note: car CAFE fleet requirement for 2008 MY at 27.5 mpg

Consumers opt for fuel efficiency (2)



Note: light truck CAFE fleet requirement for 2008 MY at 22.5 mpg

Summary

- Regulation can force technology
- Take-up rate depends on cost effectiveness
- Consumers have preferences for both performance and fuel efficiency