

Oil vs. Natural Gas: Prices and US Economy Wide Factors

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Resources for the Future

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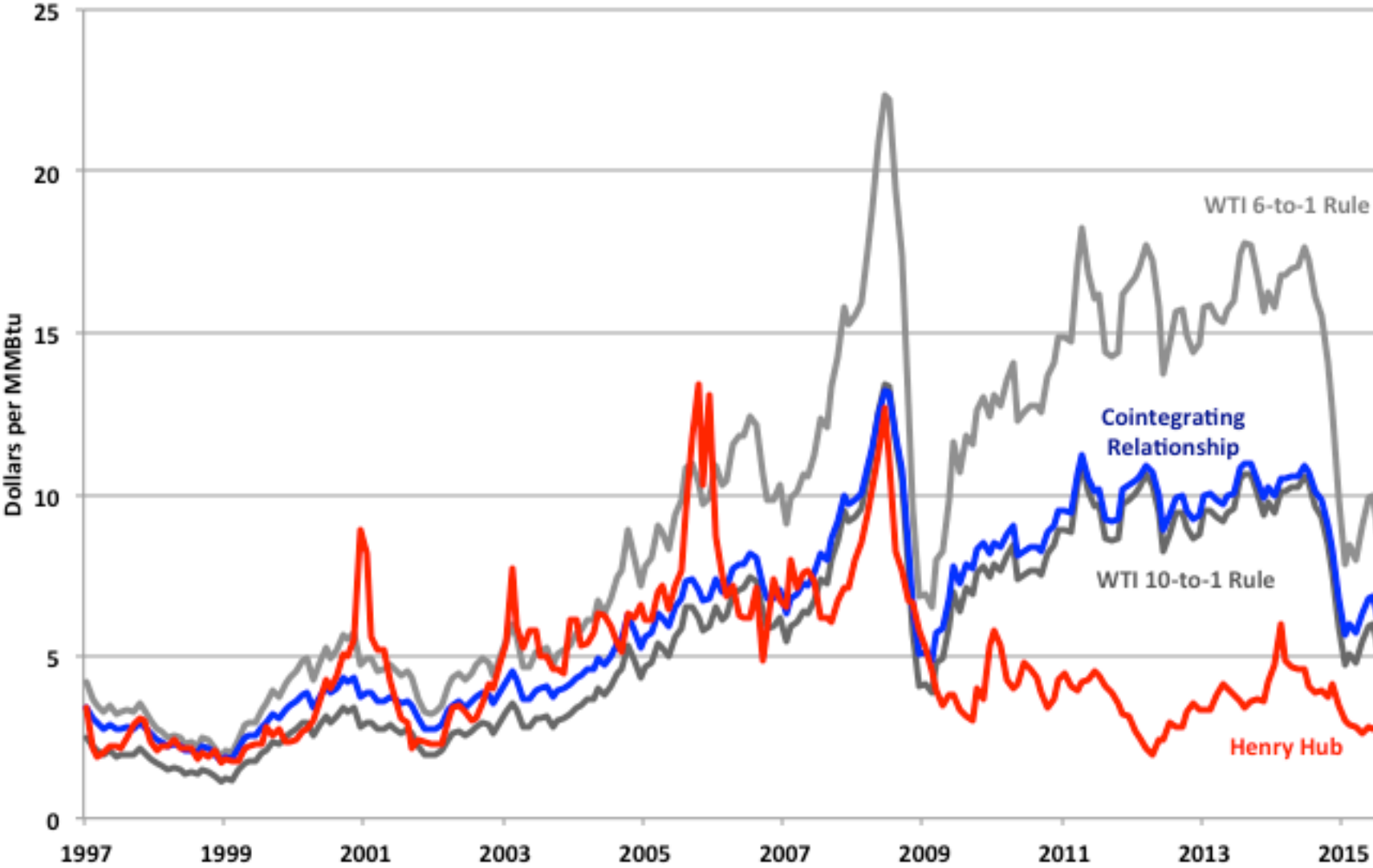
RESOURCES
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Abundant Natural Gas

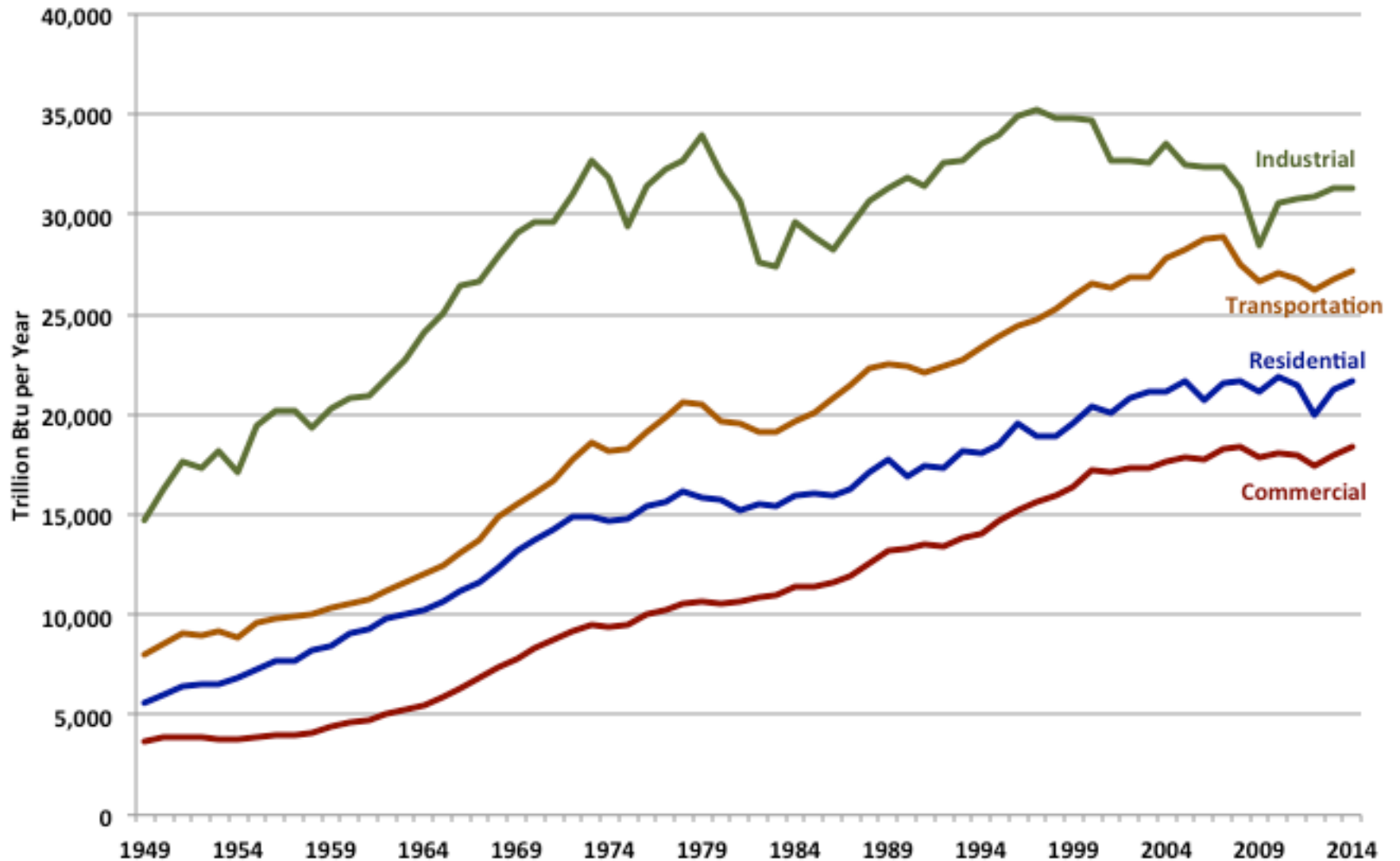
Has it been a game changer?

- Substantial increase in the quantity of U.S. shale gas resources available to be produced
 - Technological change
- Reduced U.S. reliance on imported natural gas
- Substantially lower natural gas prices
- How has natural gas consumption responded?
- Will natural gas prices remain low relative to oil?
- Brown and Yücel (2008); Huntington (2007)

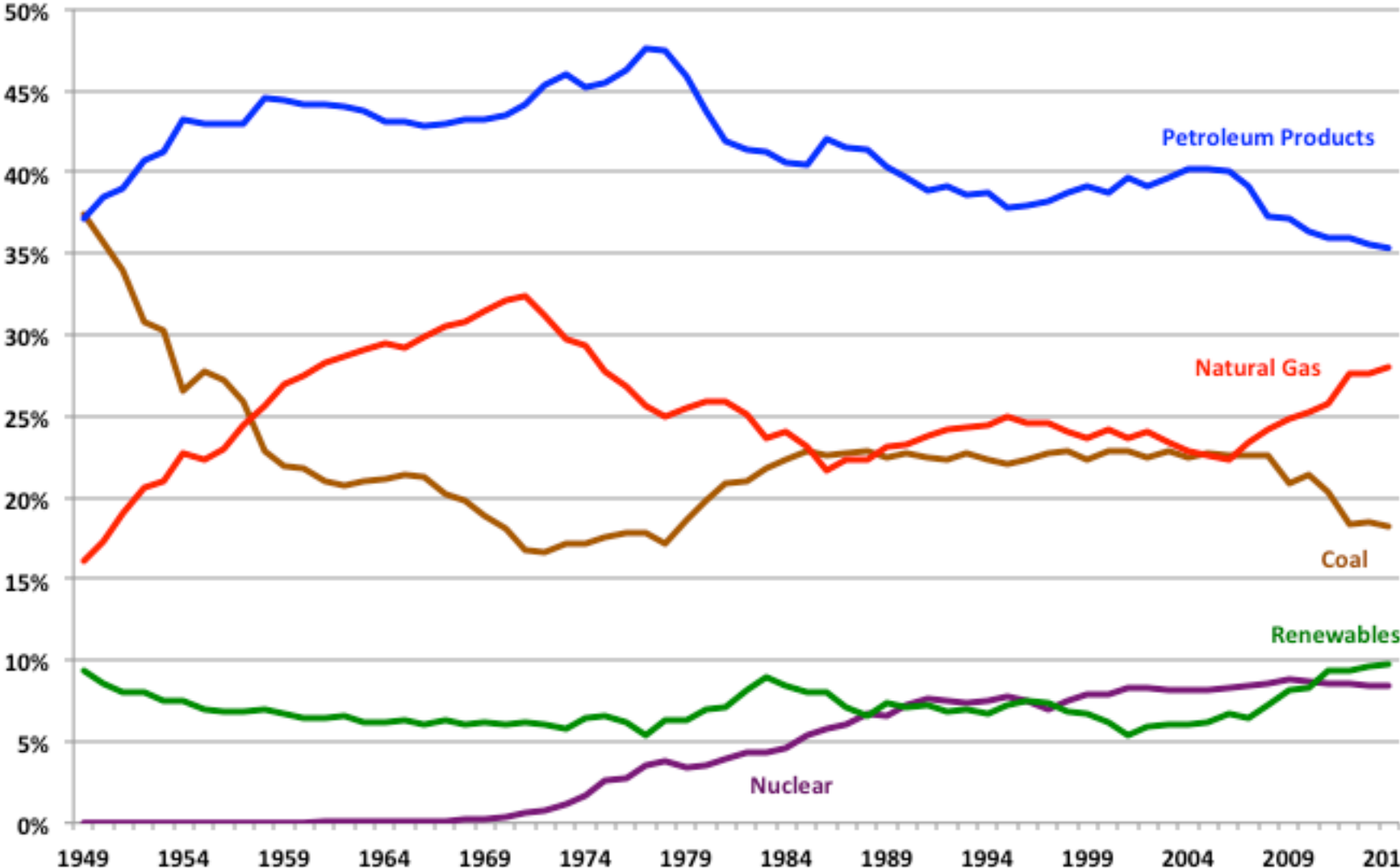
Natural Gas Prices



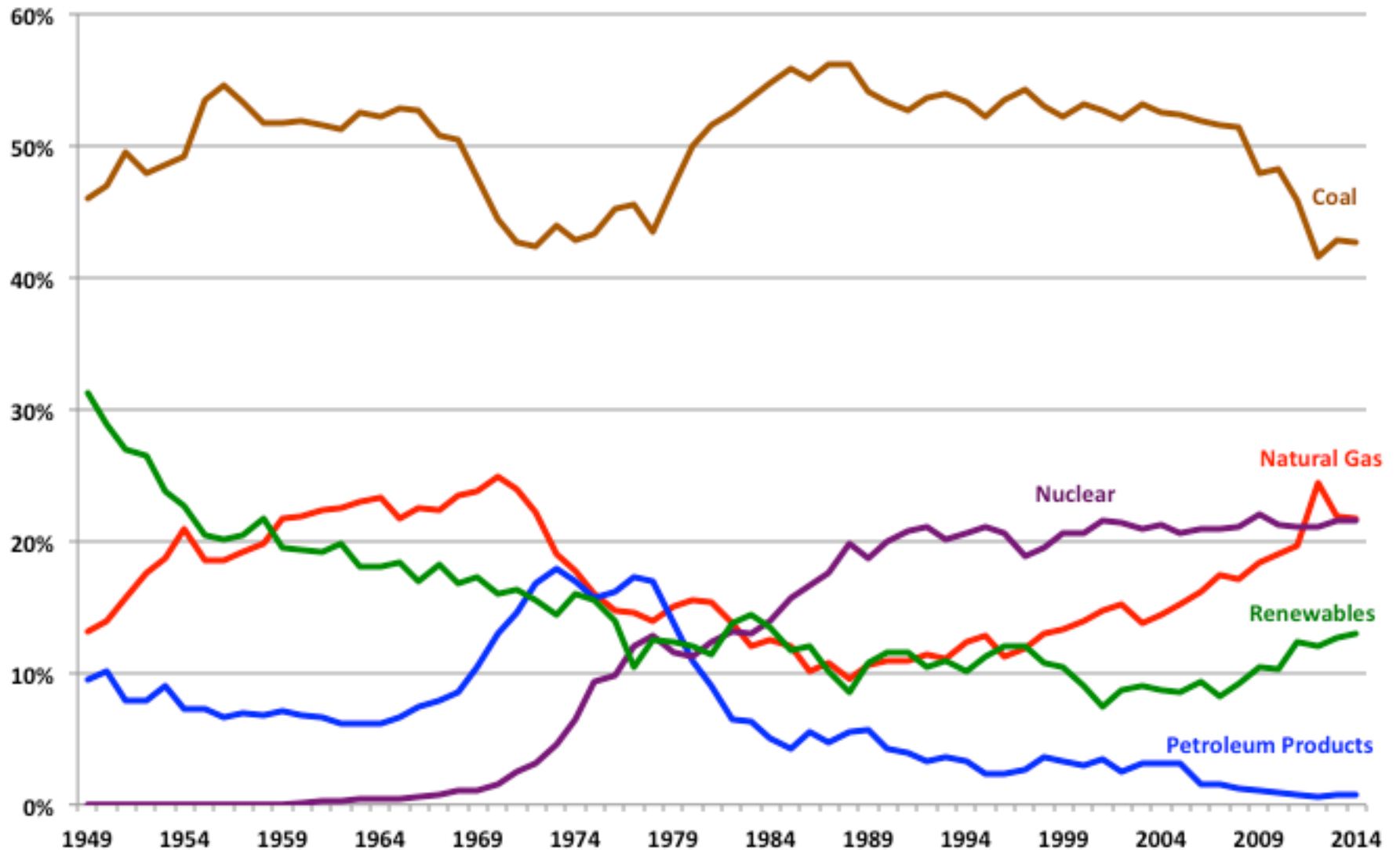
Total Energy Consumption by End Use Sector



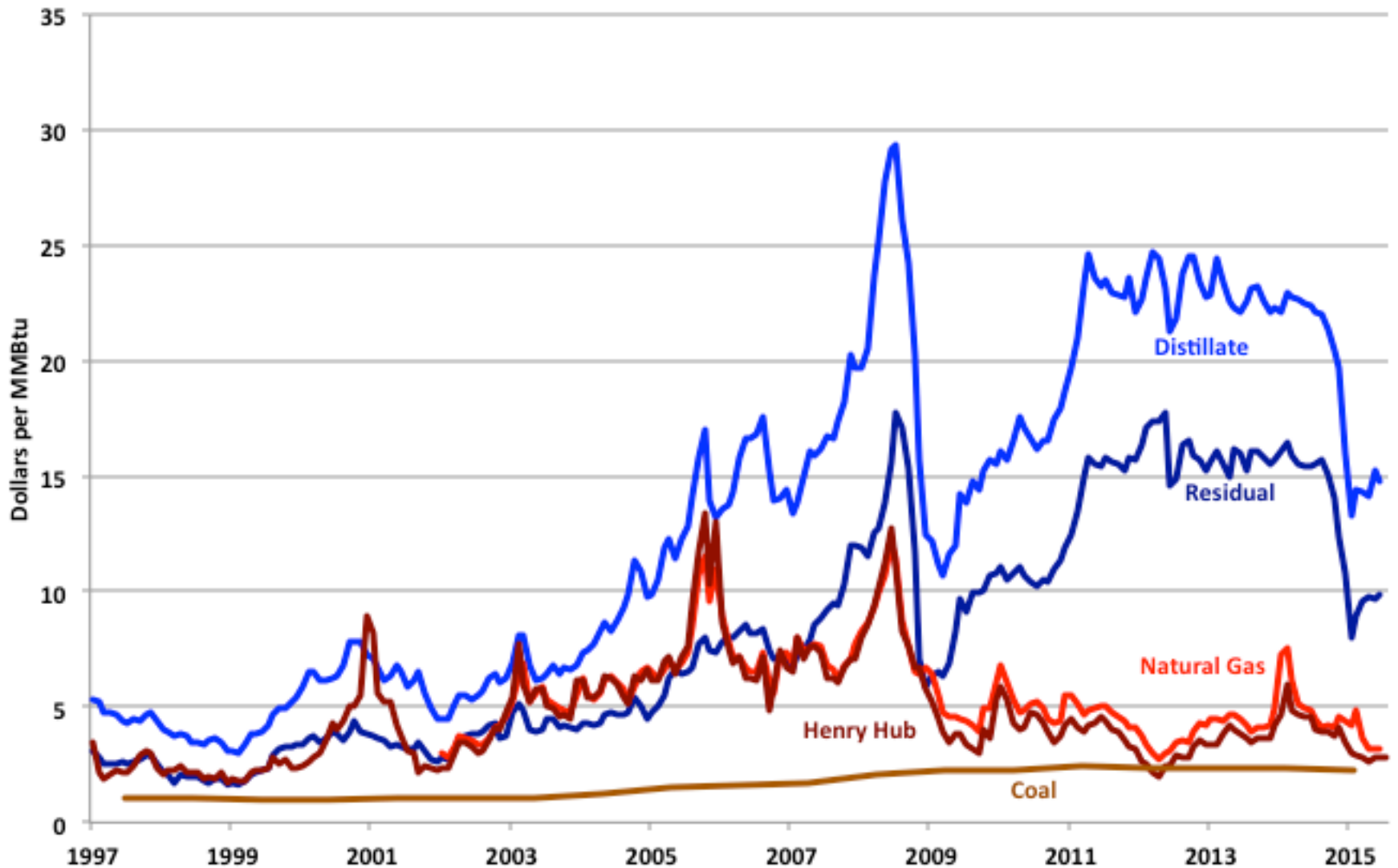
U.S. Energy Consumption by Primary Source



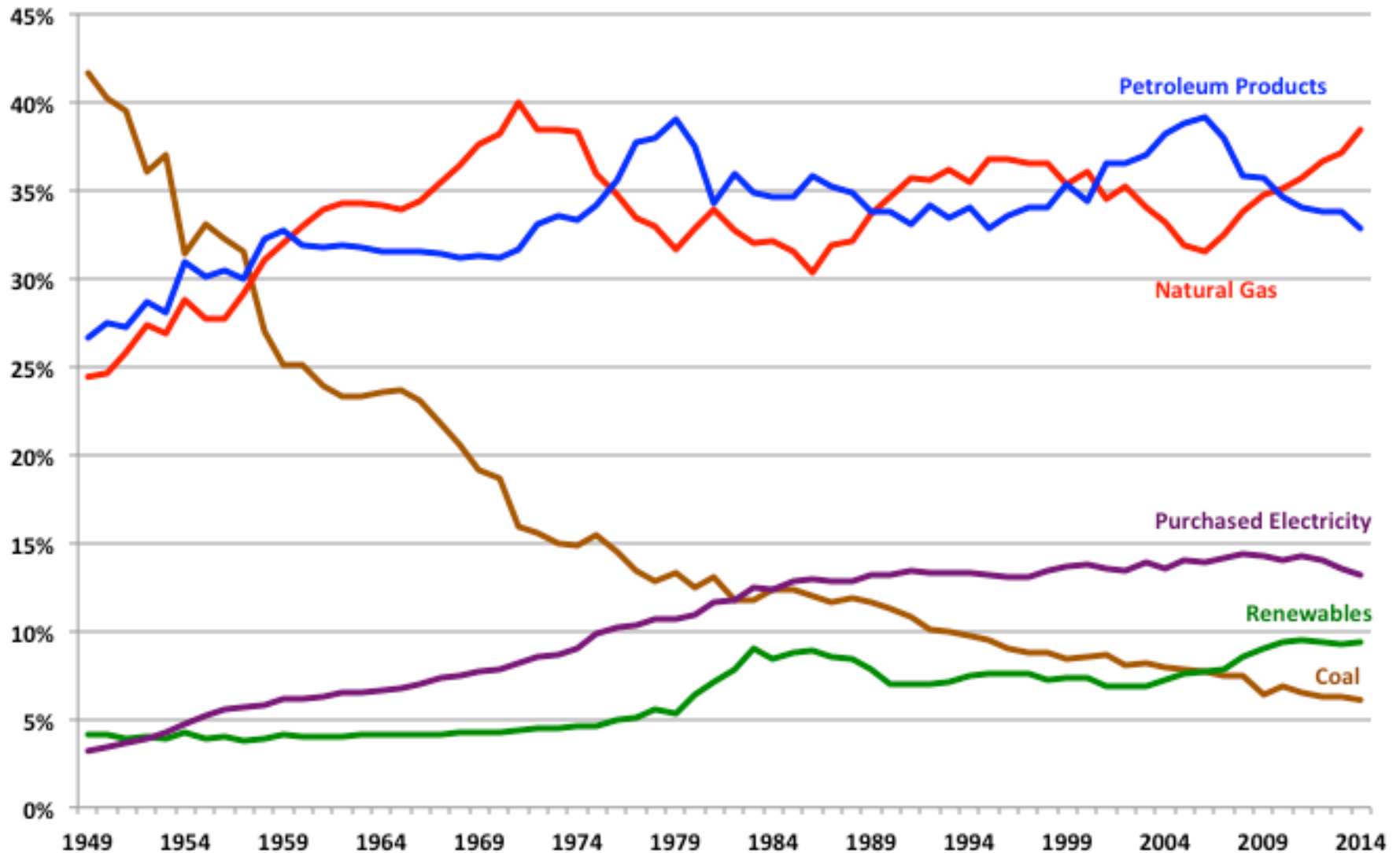
U.S. Electric Power Energy Consumption



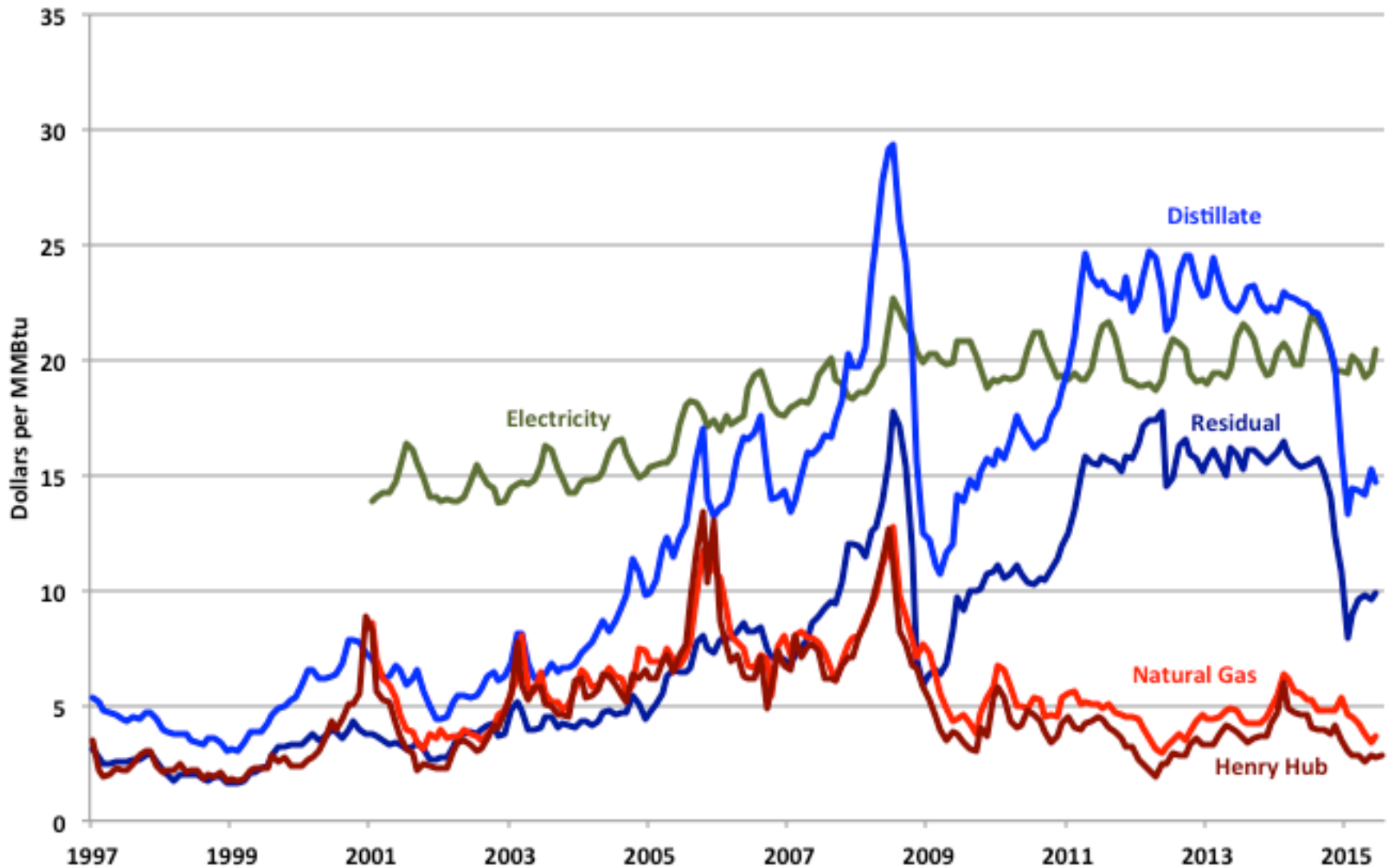
Electric Power Sector Energy Prices



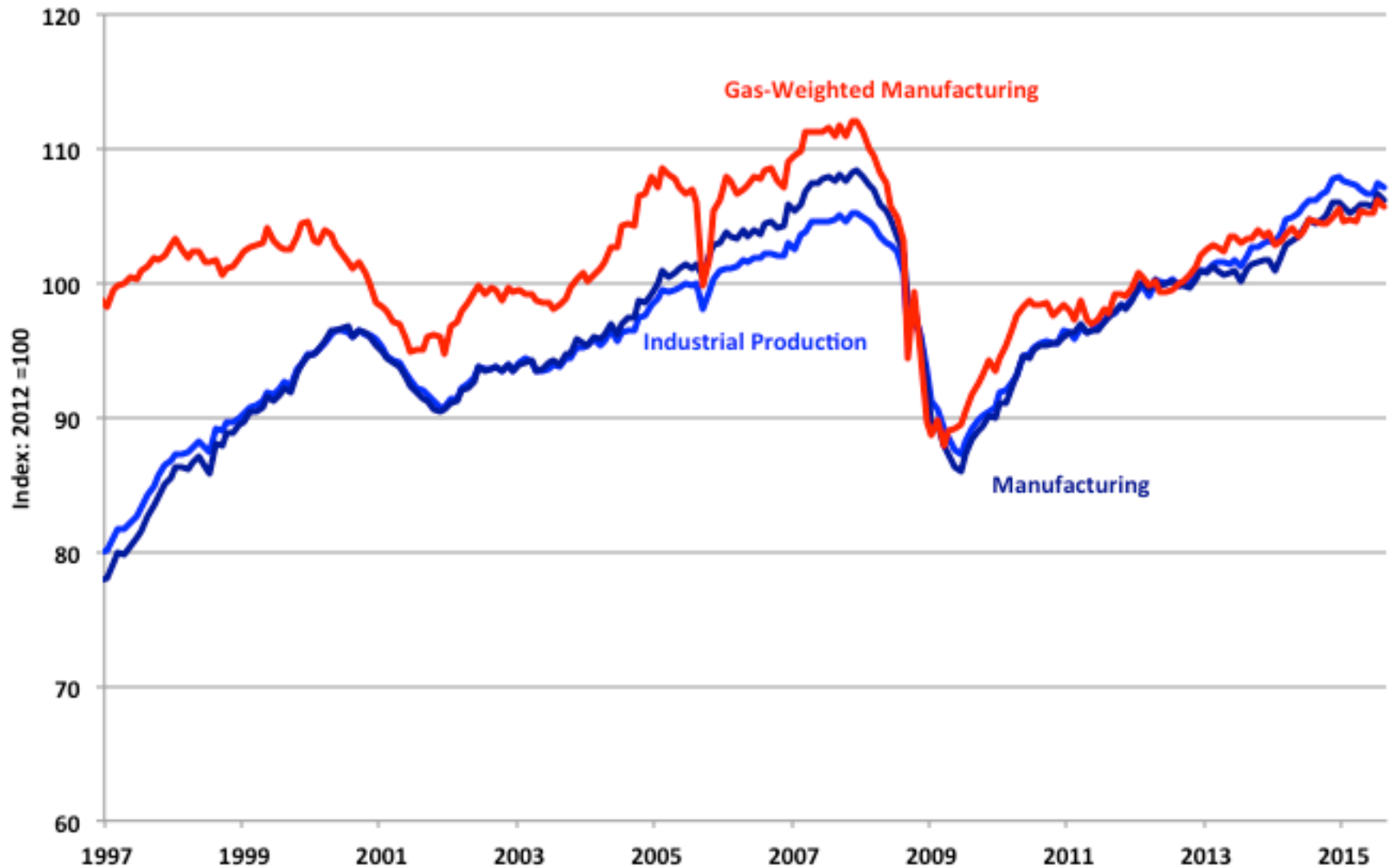
U.S. Industrial Energy Consumption



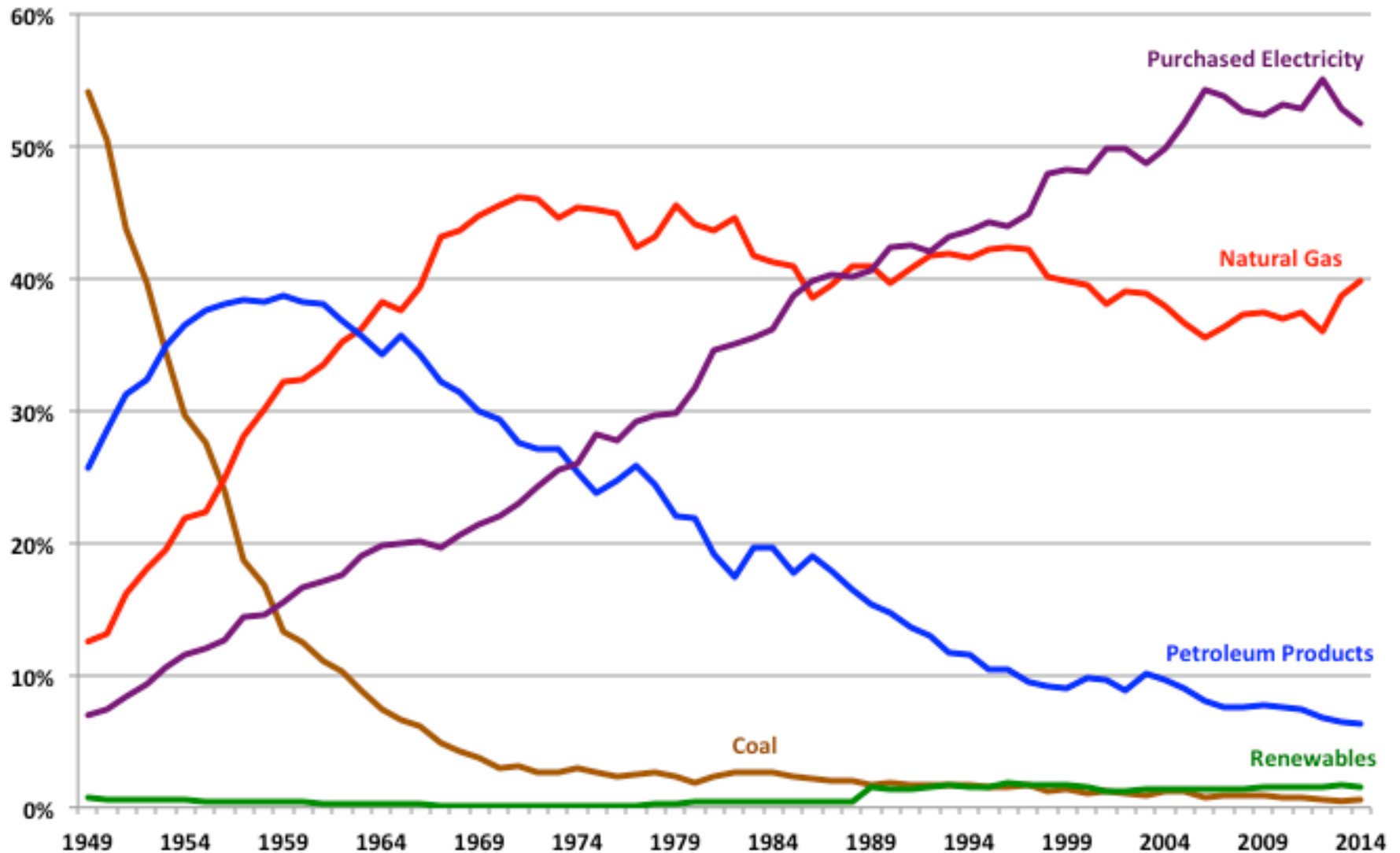
Industrial Sector Energy Prices



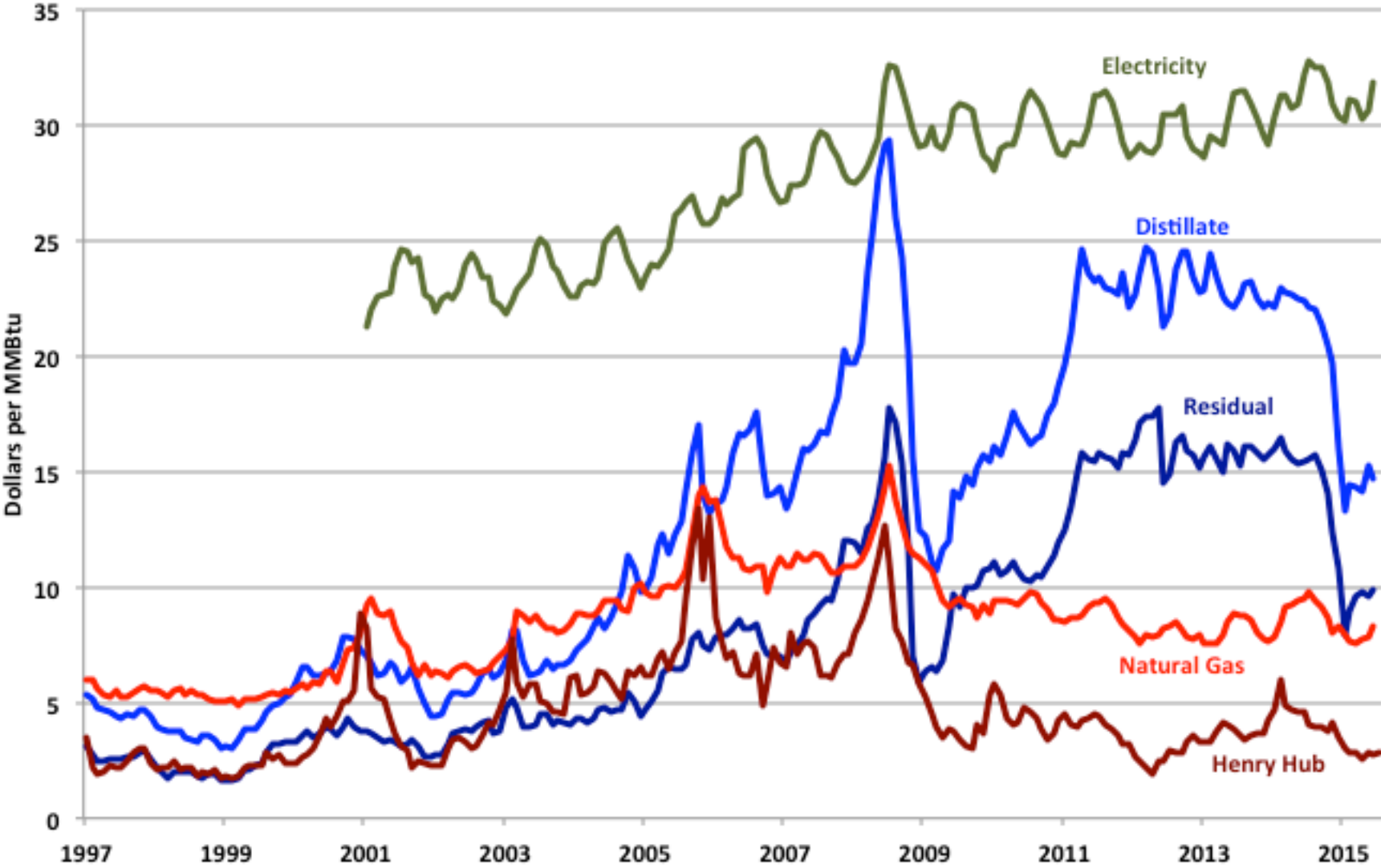
U.S. Industrial Production



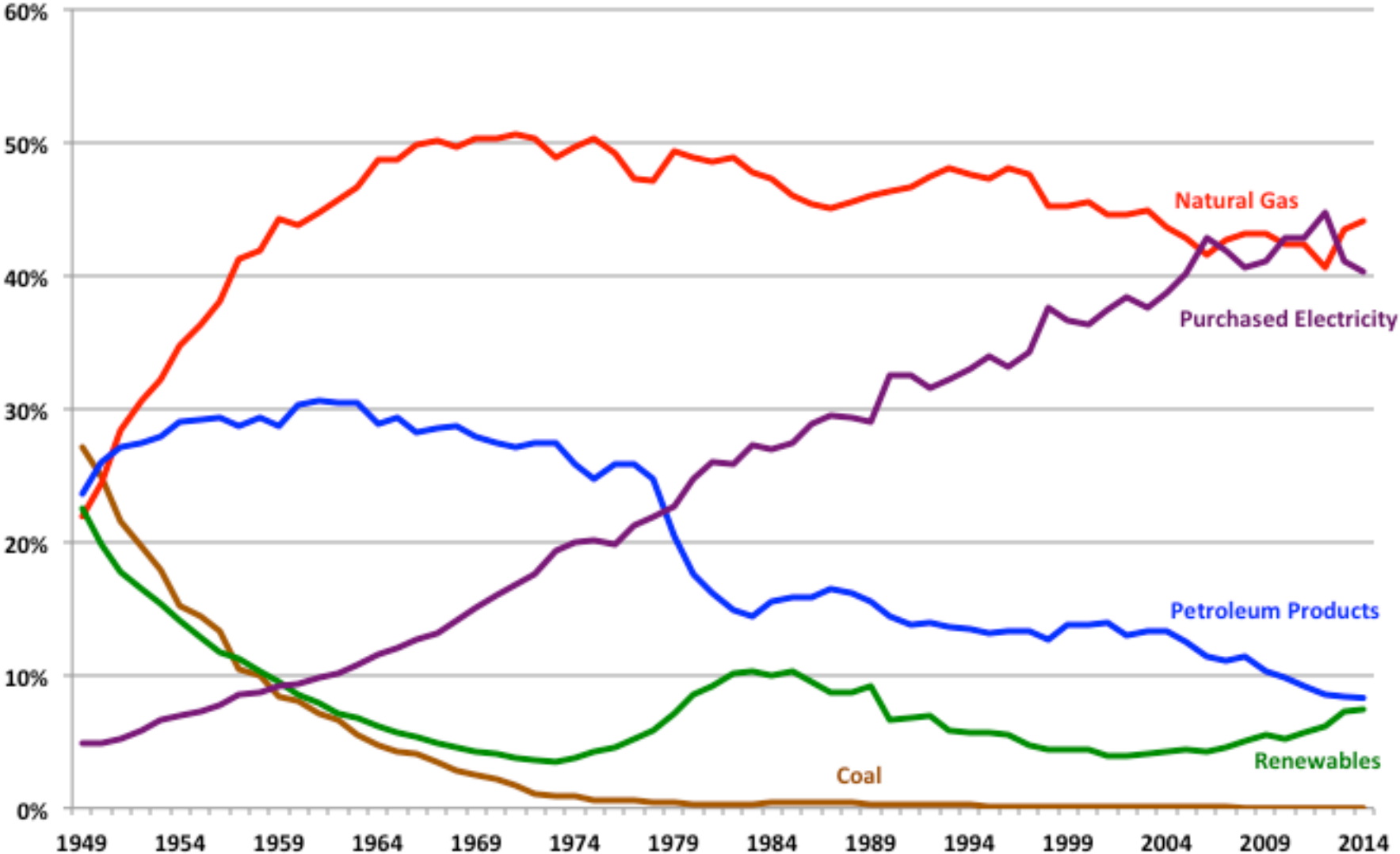
U.S. Commercial Energy Consumption



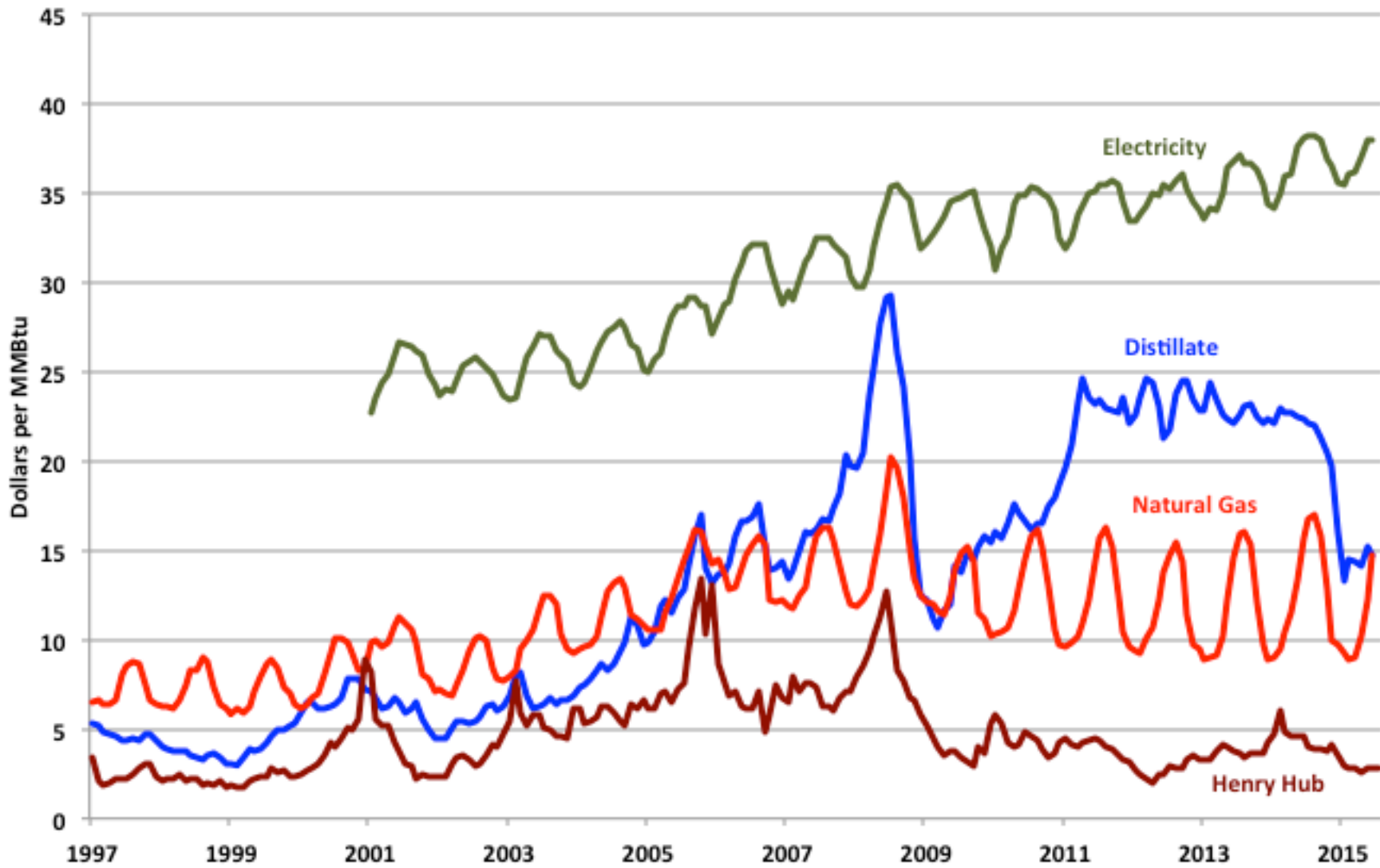
Commercial Sector Energy Prices



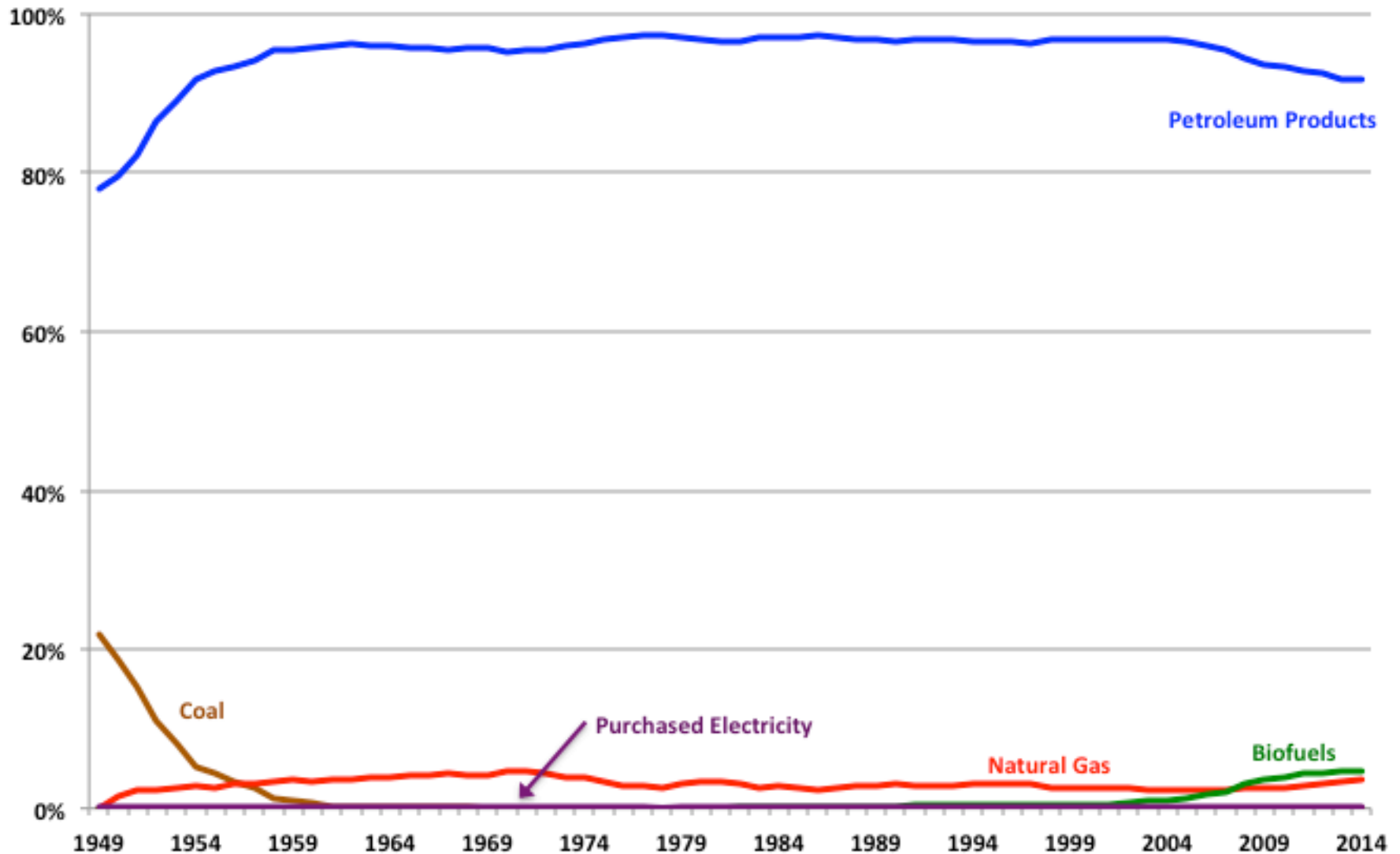
U.S. Residential Energy Consumption



Residential Sector Energy Prices

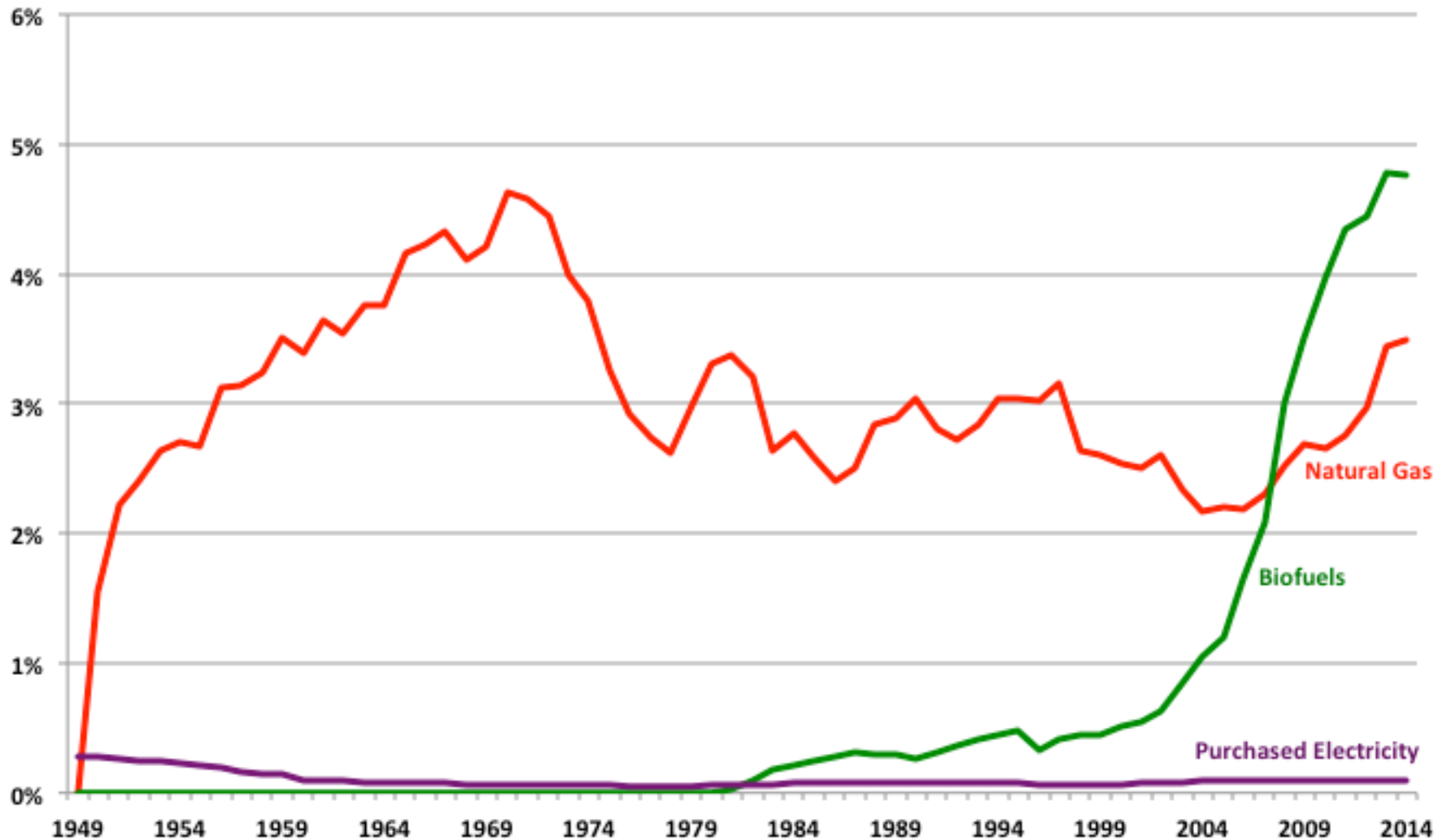


U.S. Transportation Energy Consumption



U.S. Transportation Energy Consumption

Excluding Coal and Petroleum Products



Conclusions

- U.S. natural gas prices have diverged sharply from oil prices since early 2009
- Total U.S. energy consumption down since Great Recession—all end-use sectors
- Natural gas use up since before Great Recession
 - Gains in electric power generation; industrial use; commercial use; transportation
 - No gains in residential use
- Gains in natural gas use are relatively moderate
 - Absent substantial exports of natural gas, natural gas prices don't seem likely to resume link to oil prices

