

# ***TROUBLING TRENDS IN ENERGETIC AND ECOLOGICAL INDICATORS IN PASSENGER TRANSPORT IN SELECTED OECD COUNTRIES***

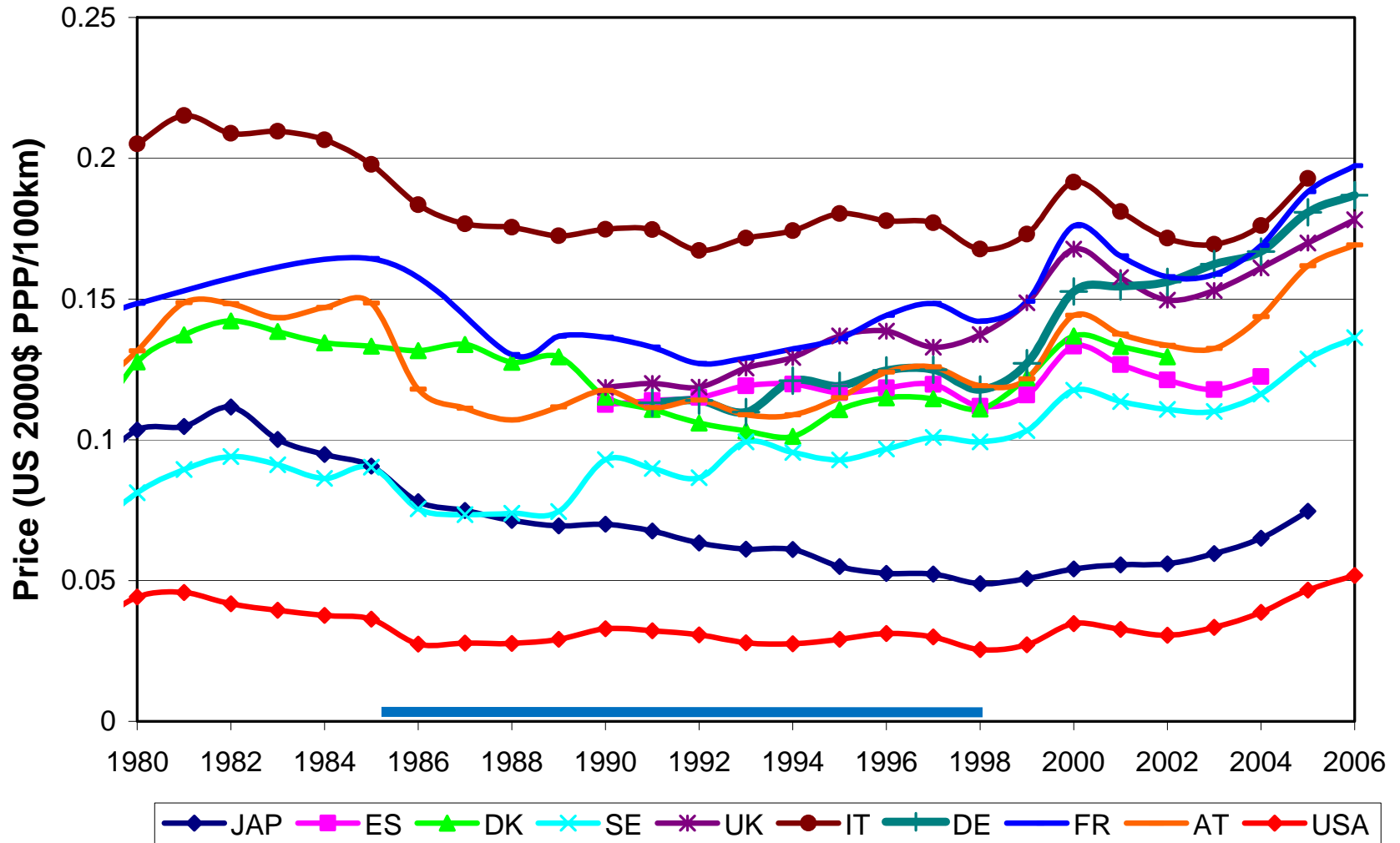
*Amela Ajanovic<sup>1</sup>, Lee Schipper<sup>2</sup>, Reinhard Haas<sup>1</sup>*

*1) Vienna University of Technology, Energy Economics Group*

*2) Precourt Institute for Energy, Stanford University and Global Metropolitan Studies, UC Berkeley*

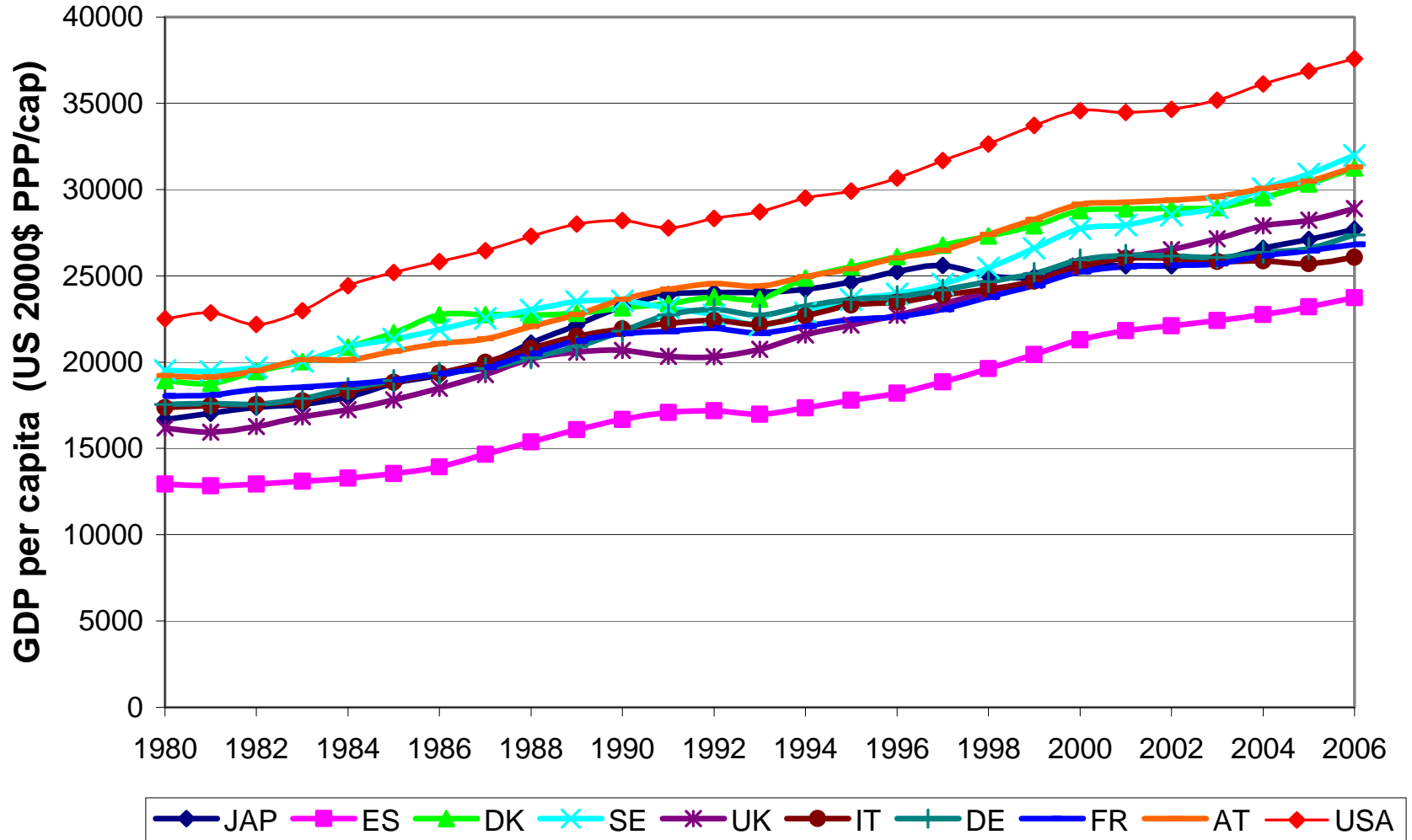
1. Introduction
2. Energy consumption in road passenger transport
3. Vehicle stock
4. Fuel intensity
5. Travel activity
6. Conclusions

# 1. Introduction



Price of service mobility for cars and household light trucks/SUV in road passenger transport (Fuel price/fuel economy) in US 2000\$ PPP/100 km (including all taxes)

# 1. Introduction

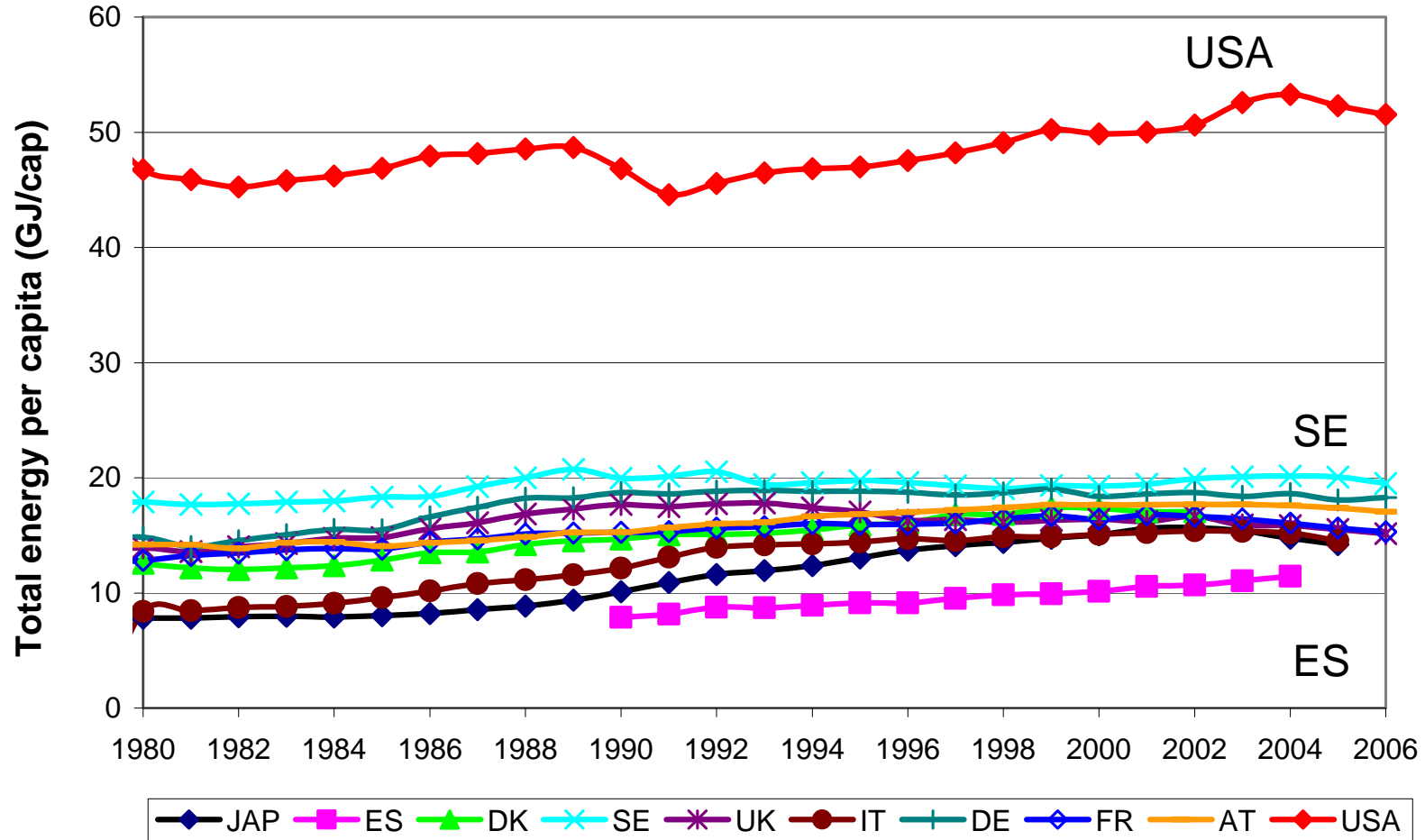


Development of GDP per capita (US 2000\$ PPP/capita)

# 1. Objective

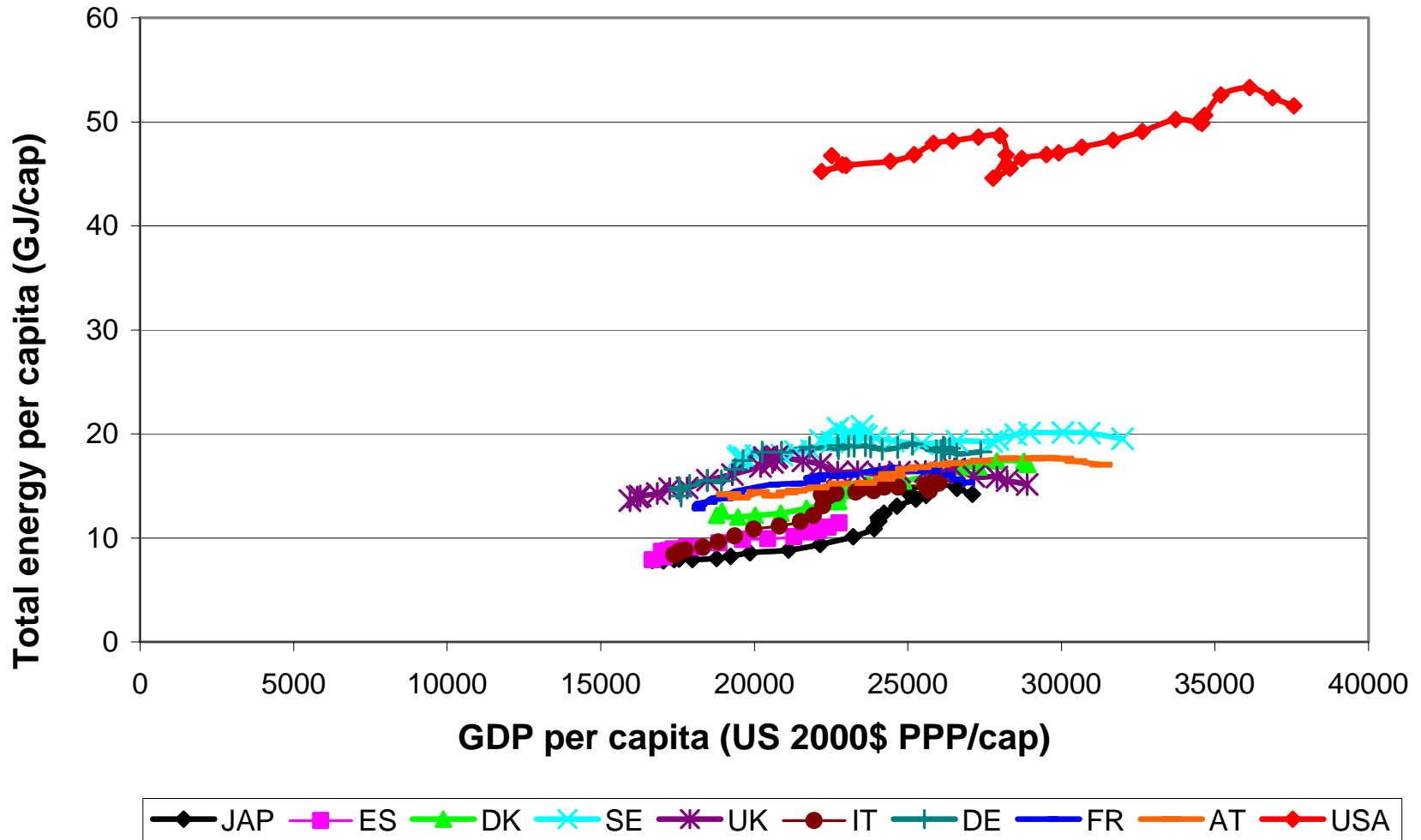
- The **core objective** of this work is to analyze the impact of economic parameters – income and fuel price – on service indicators – car ownership, overall travel activity, annual car use – and on car fuel economy in individual motorized transport in different OECD countries.

## 2. Energy consumption in road passenger transport



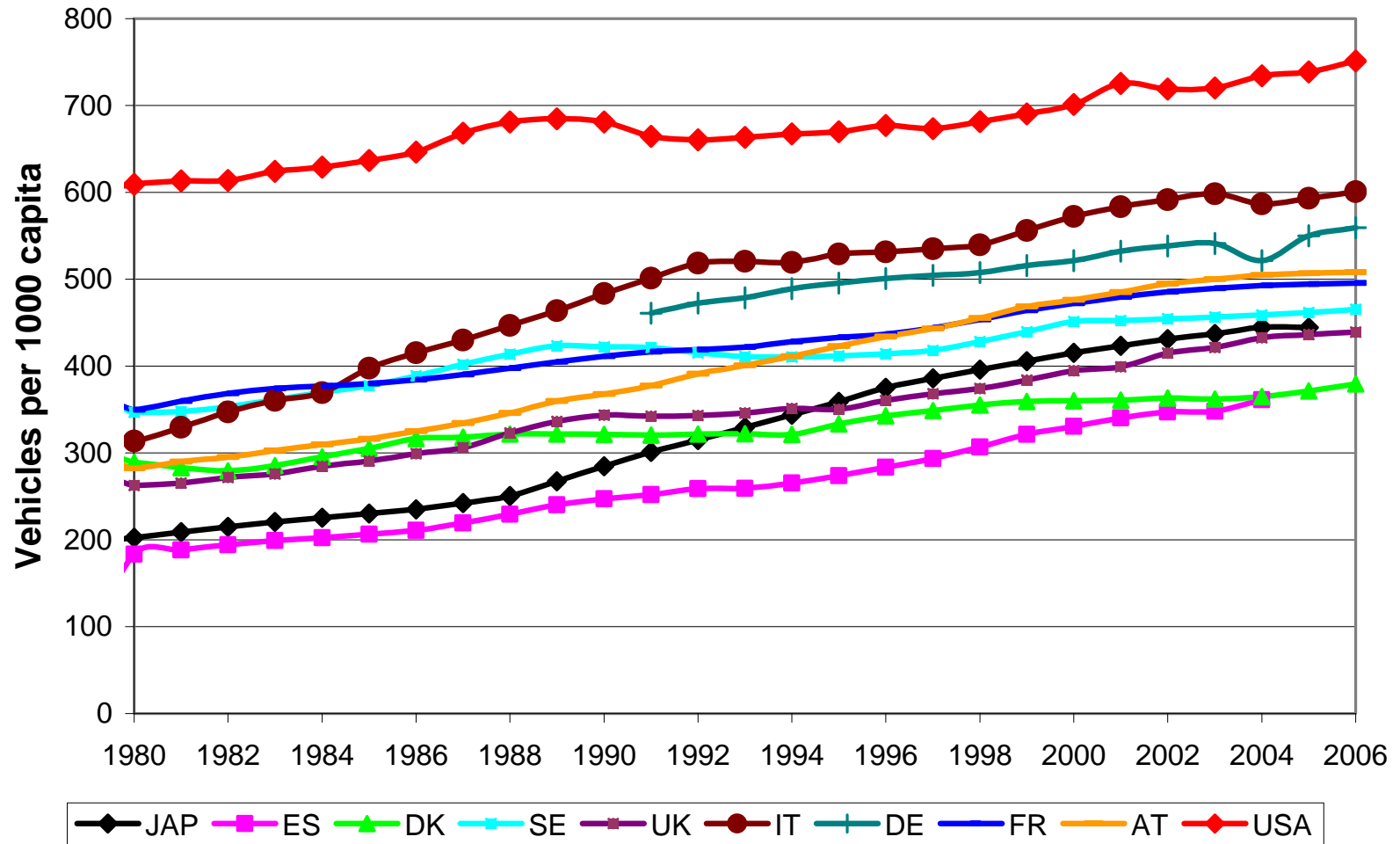
Development of total energy use for cars in road passenger transport

## 2. Energy consumption in road passenger transport



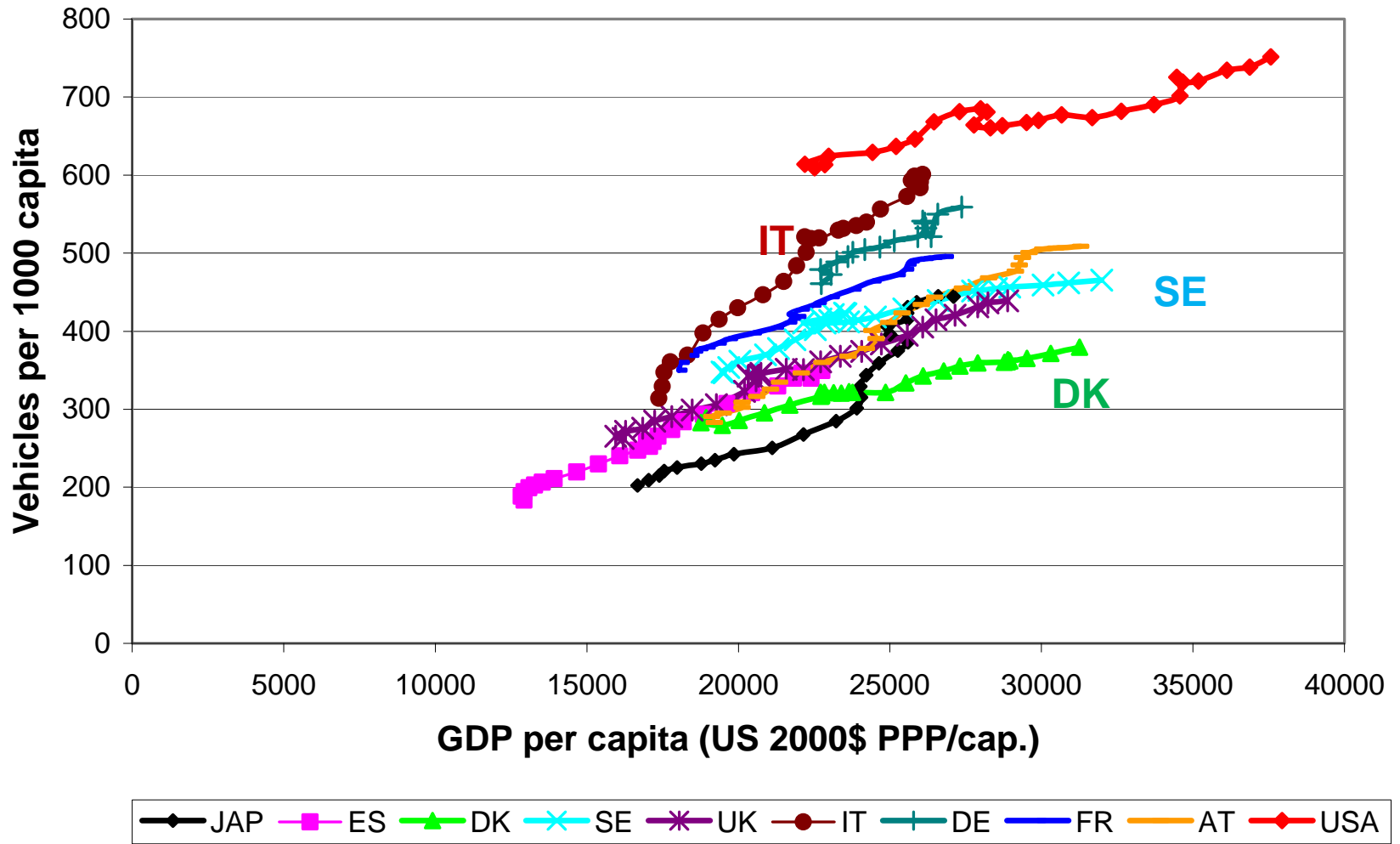
Total energy use per capita for cars in road passenger transport versus GDP per capita

### 3. Vehicle stock



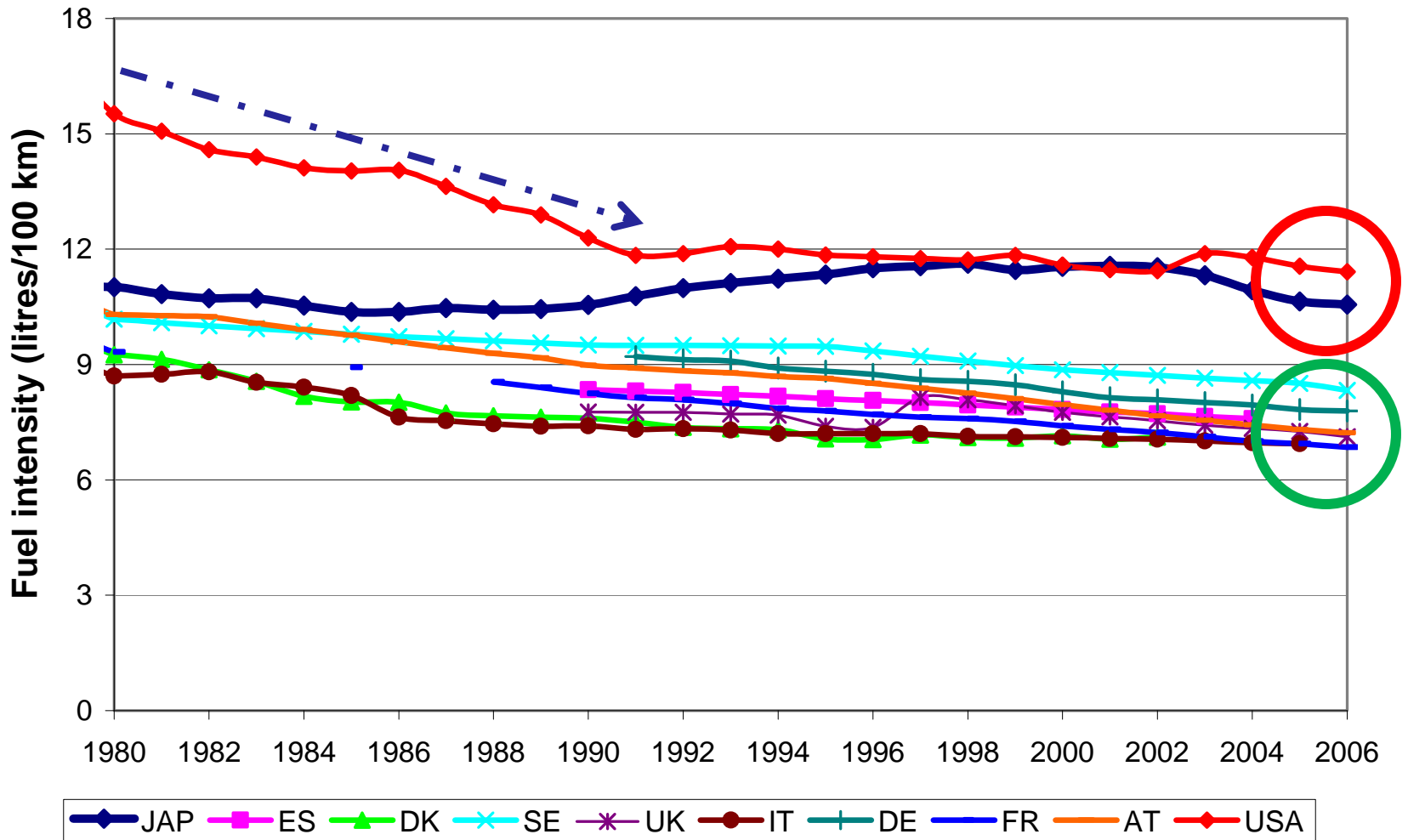
Car ownership: Vehicles per thousand inhabitants

### 3. Vehicle stock



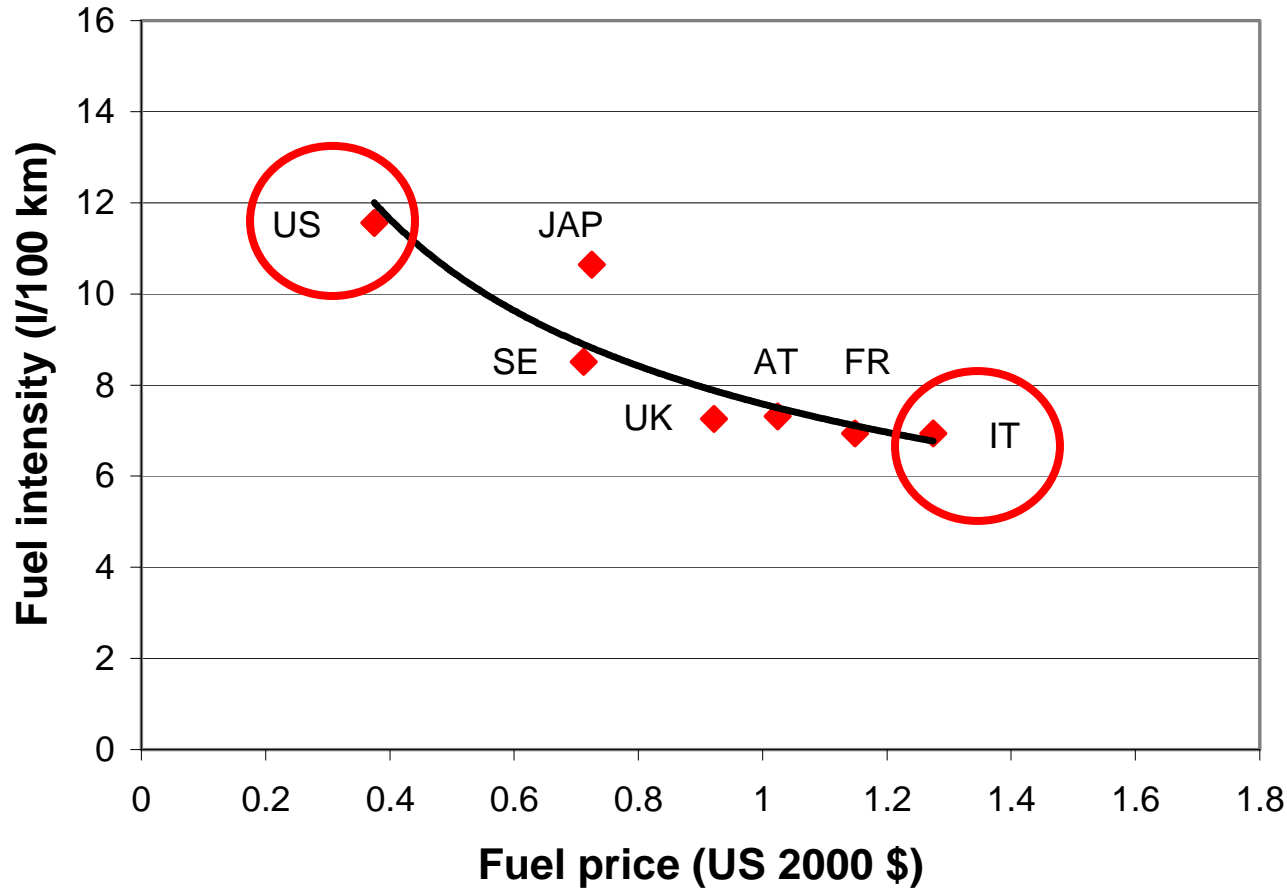
Car ownership versus GDP

## 4. Fuel intensity



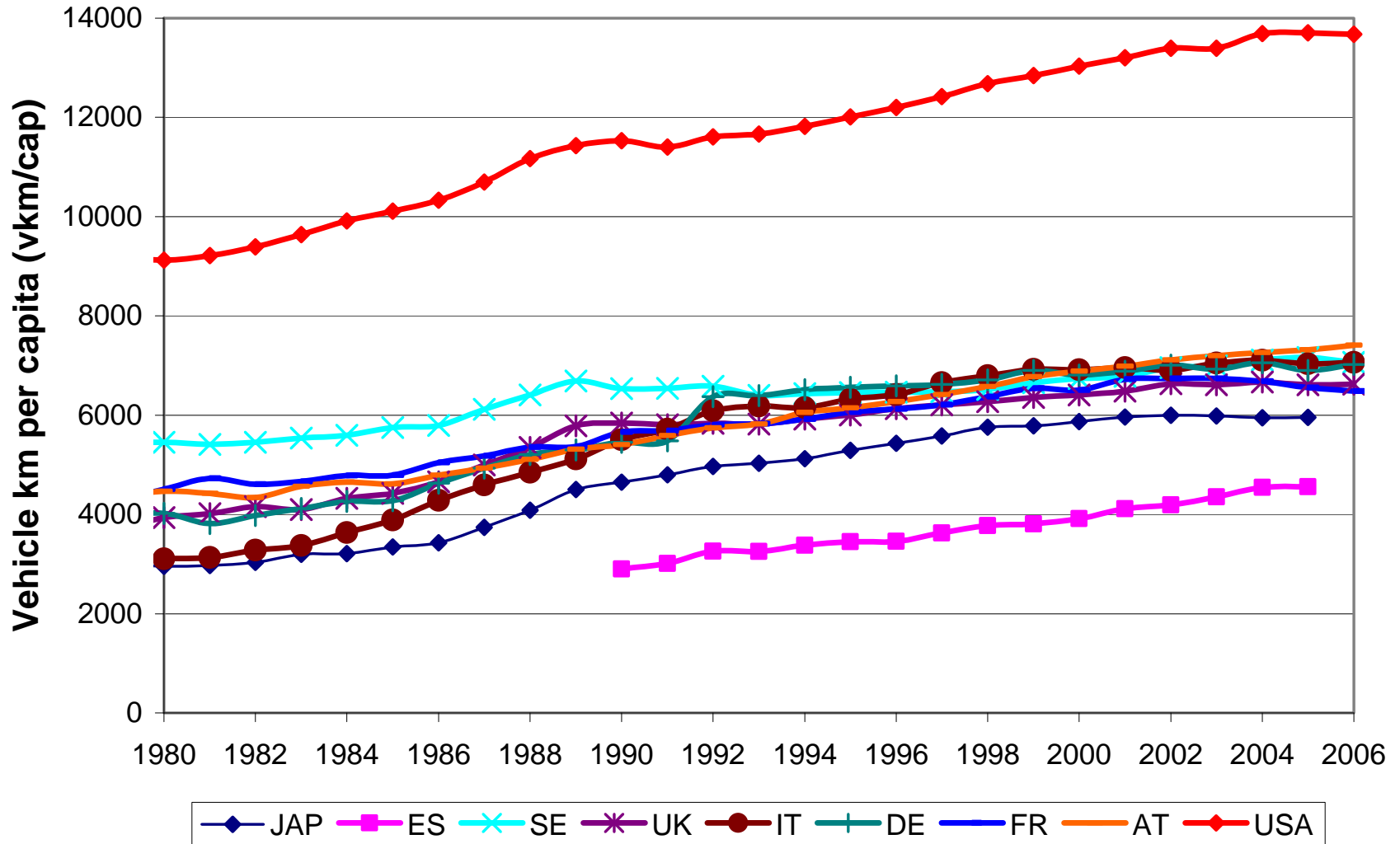
Average on road fuel intensity of stock of cars and household light truck fleet

## 4. Fuel intensity



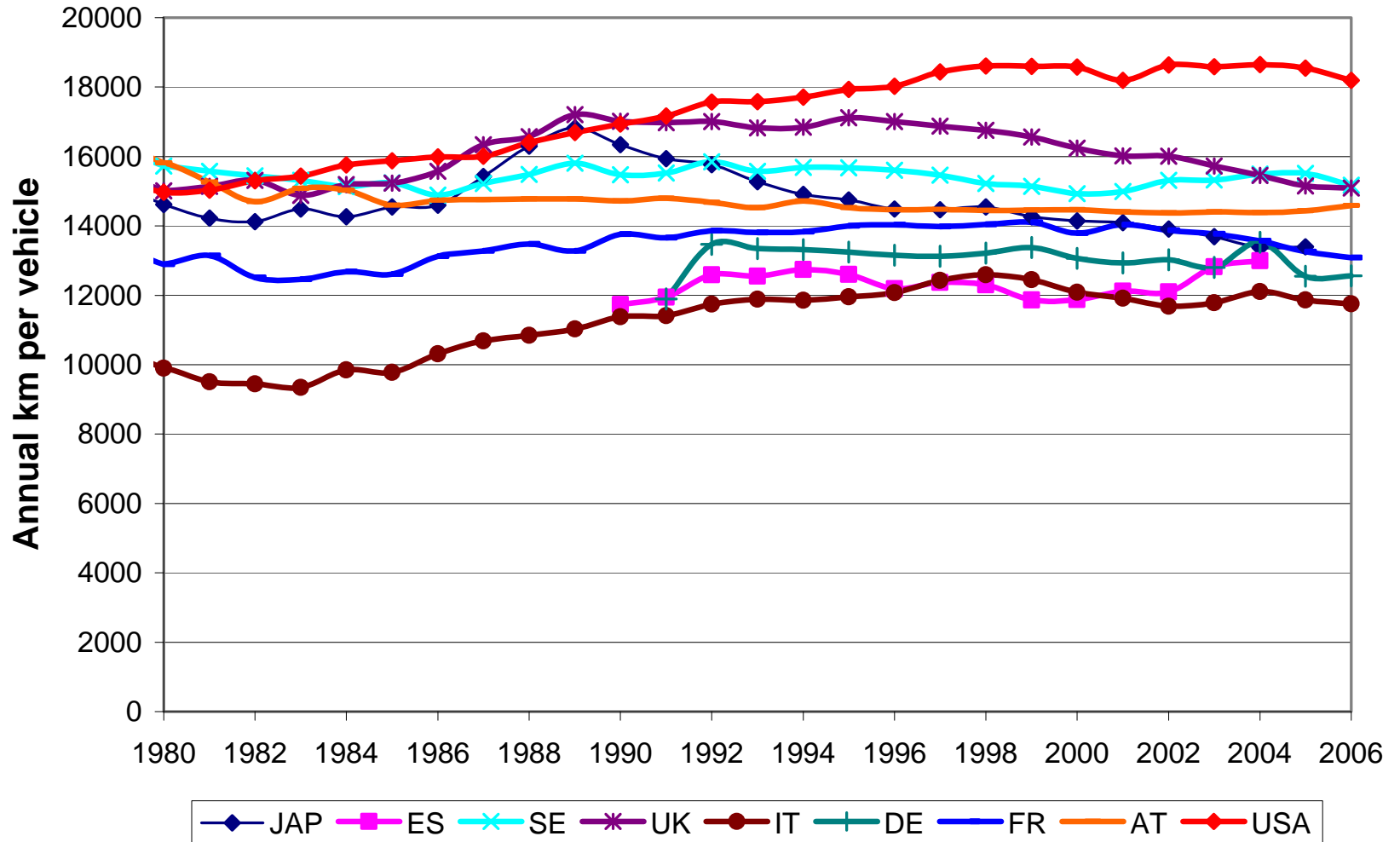
Car fuel intensity versus average fuel price

## 5. Travel activity



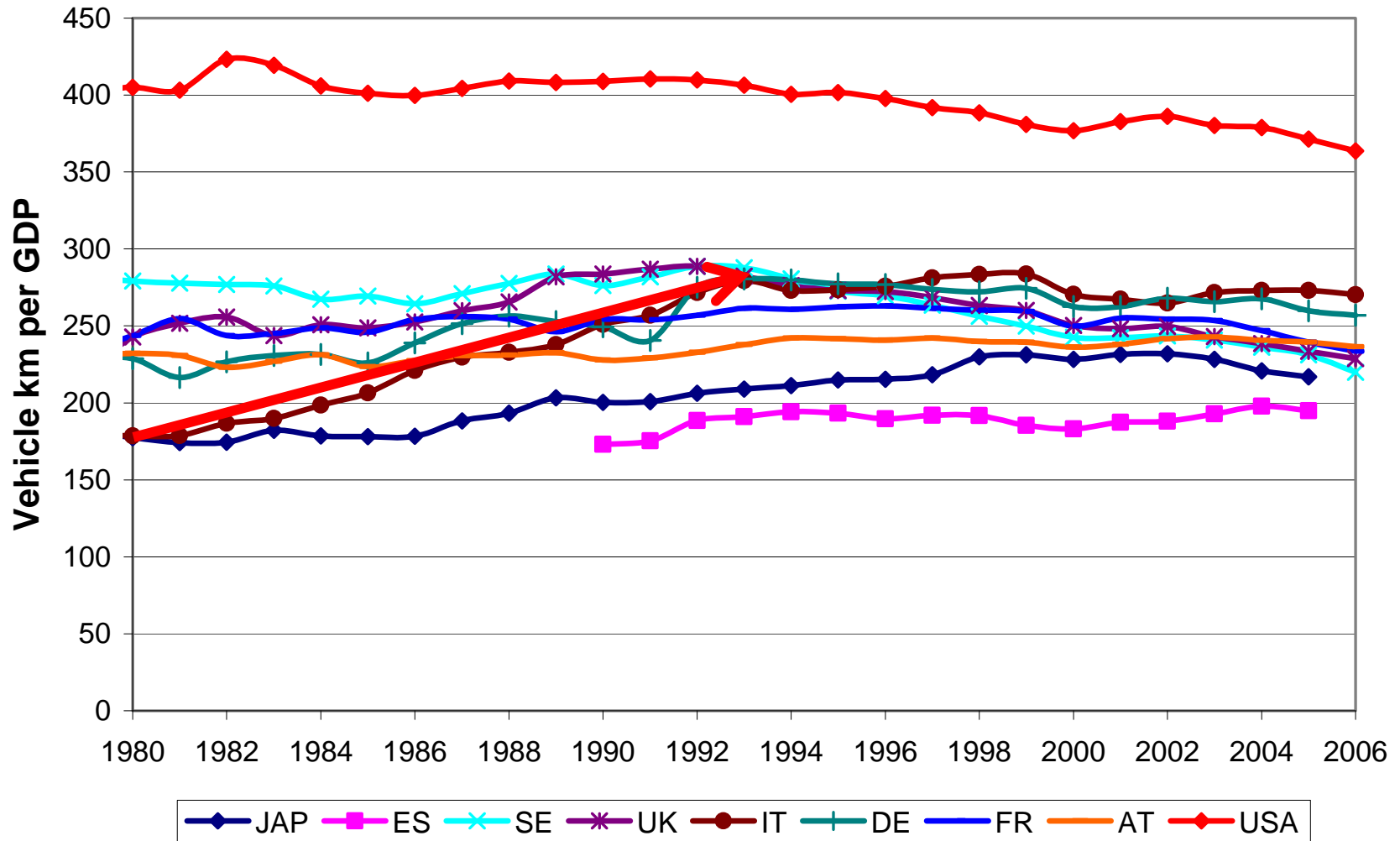
Development of vehicle kilometer per capita

## 5. Travel activity



Annual kilometers per vehicle

## 5. Travel activity



Vehicle kilometre per GDP

## 6. Conclusions

The major conclusions of this analysis are:

- Overall energy conservation and corresponding CO<sub>2</sub> reduction have not been large enough yet to offset long-term trends increasing overall travel activity in cars.
- Fuel prices have a significant impact on fuel economy.
- In recent years when fuel price increased, per capita travel activity in cars decreased or stagnated moderately.
- Car ownership and travel activity are strongly correlated with GDP.

*Thank you for attention!*