

## **Vehicle Ownership and Income Growth, Worldwide: 1960-2030**

**Joyce Dargay, Dermot Gately and Martin Sommer**

### **Abstract:**

The speed of vehicle ownership expansion in emerging market and developing countries has important implications for transport and environmental policies, as well as the global oil market. The literature remains divided on the issue of whether the vehicle ownership rates will ever catch up to the levels common in the advanced economies. This paper contributes to the debate by explicitly modelling the vehicle saturation level as a function of observable country characteristics: urbanization and population density. The model is estimated on the basis of pooled time-series (1960-2002) and cross-section data for 45 countries that include 75 percent of the world's population. We project that the total vehicle stock will increase from about 800 million in 2002 to over 2 billion units in 2030. By this time, 56% of the world's vehicles will be owned by non-OECD countries, compared with 24% in 2002. In particular, China's vehicle stock will increase nearly twenty-fold, to 390 million in 2030. The implications of this extreme pace of vehicle ownership expansion for oil demand is also illustrated in the paper.

To be presented by:

Joyce Dargay  
Institute for Transport Studies, University of Leeds  
Leeds LS2 9JT, England  
j.m.dargay@leeds.ac.uk