

# POTENTIAL EFFECTS OF HIGHER CAPACITY VEHICLES ON ROAD FREIGHT ACTIVITY, INTERMODAL TRANSPORT AND MODAL SHIFT

S. PERKINS

International Transport Forum at the OECD, Paris

[STEPHEN.PERKINS@OECD.ORG](mailto:STEPHEN.PERKINS@OECD.ORG)

## ABSTRACT

Rapid economic growth in the bubble economy prior to the financial crisis in 2008 strained road infrastructure capacity across many networks. Post 2008, rapid recovery in trade, particularly between Europe and China, is straining capacity on many routes linking ports to their hinterlands. Resources to expand capacity are limited and a range of policy tools to make the most efficient use of infrastructure capacity needs to be explored. Electronic road user charges have been introduced in a number of countries and have some potential to manage demand, to the extent that international political agreements allow. Ongoing liberalisation of rail freight services coupled with investment in key rail infrastructure will expand the market for rail, making a contribution to coping with the overall volume of freight traffic. Further options are urgently required, raising interest in the potential of higher capacity vehicles to carry more freight with fewer trucks.

Higher capacity vehicle is a term that covers a spectrum of trucks with weights and/or dimensions outside general limits under current regulations. The term embraces small modifications to dimensions to allow more efficient loading and more major changes including the concepts of “European modular vehicles”, “long combination vehicles” in North America and “higher productivity vehicles” in Australia.

Such vehicles promise significant productivity gains that, in a market as competitive as trucking, will be passed on to consumers, generating economic growth. Consolidation of loads also promises environmental gains in the short term. But there is concern among environmental stakeholders that reduced costs will drive additional road freight traffic (rebound effect) and from some parts of the rail industry of a modal shift to road. More generally politicians are concerned about potential hostility to larger vehicles among the general public.

This paper examines the evidence for rebound effects and modal shift from recent studies of the potential impact of the introduction of higher capacity vehicles. It reviews the estimates of price-sensitivity on which the studies are based and explores potential impacts on rail markets at a disaggregate level. It concludes that rebound effects are likely to be small. Modal shift impacts are likely to vary greatly between markets and in some cases can be very large. For most of continental European markets, however, effects are likely to be small and probably less significant than factors that influence the cost and quality of rail services directly. The paper also discusses the constraints on network access that would most likely accompany the introduction of higher capacity vehicles.

## REFERENCES

1. ITF 2011, Moving Freight with Better Trucks, OECD Publishing 2011.