Transport Outlook: Scenarios to 2050

Hall 4, Level +1

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In the ITF’s central scenario, international trade represents 50% of global GDP and is expected to increase 350% by 2050. Trade patterns will shift geographically, driven by changes in income distribution, consumption structure and relative productivity. As a result, global freight transport volumes will more than quadruple by 2050. The expected growth will create unprecedented challenges for the transport system and lead to increasing capacity constraints.

This session presented long-term trade and transport scenarios up to 2050 and discussed policy implications of the increased growth. It discussed the future trade and related freight movements, and the policy implications of this growth for transport capacity and CO2 emissions.

Trade and transport scenarios are an important strategic tool to support policy-making in shaping future transport policies. They allow us to analyse how the world could change if we choose different policies and development paths, assessing factors that affect supply and demand for transport. The in-house modelling work at the ITF is characterised by a coherent approach across modes, with the possibility to also carry out more detailed scenario analysis at the regional level.

Growth in emerging economies will continue to outpace growth in advanced economies. World trade will increase by 350% by 2060 with a shift in the centre of gravity towards emerging economies. A growing share of trade will also take place between emerging economies – one third of trade will take place between non-OECD economies by 2060, compared with only 15% today. There will also be a major shift in export specialisation as emerging economies move into higher value-add activities.

Investment in education is crucial for trade and high-skill specialisation over the coming decades. Slower up-skilling in China and India would reduce exports of higher-skill activities such as business services and electronics. Further, trade liberalisation combined with well-designed framework policies can facilitate trade and increase growth.

At the global level, maritime transport is expected to exceed 250 trillion tonne-km by 2050. This increase is driven by changes in product composition but also by growth in the average length of haul resulting from changes in the geographic composition of trade. The expected growth of international freight transport will set unprecedented challenges for the transport system with increasing capacity constraints and CO2 emissions. The traditional trade routes between developed economies will grow relatively slowly, whereas the growth of the trade corridors connecting emerging economies will average 17% annually. By 2050, the transport corridor between the United States and Asia will be subject to the highest flow of
goods in both directions. By 2030, the North Pacific corridor will surpass the North Atlantic as the main freight corridor. Significant growth will also take place in the Indian Ocean and Mediterranean and Caspian Sea corridors.

While accounting for 10% of the total tonne-kilometers, domestic freight transport related to international trade accounts for around 30% of the total trade related CO2 emissions, because of the predominance of road haulage in port hinterland transport. Increasing international trade will set unprecedented challenges for the movement of goods from ports to consumption/production centers.

Infrastructure, transport and logistics require holistic analysis and integrated solutions. Globalised and competitive markets necessitate continued improvements in the quality of the products and price, reinforcing the importance of logistics planning. However, logistics strategies are still absent from public policy in many countries. Most countries still develop transport policies focused on one mode at a time – not in terms of the overall competitiveness, efficiency and sustainability of the logistic system. Only a few, progressive countries monitor their progress and advances in logistics performance.

The main challenge is to align policies related to infrastructure and transport services, to improve logistics competitiveness and to integrate sustainability principles to future transport policies and strategies. For this, collaboration and coordination are needed.

In international air passenger transport, the future growth will depend on the network being able to grow with demand. In a dynamic network scenario, international revenue passenger-kilometers are projected to grow at the annual rate of 5.5% up to 2030 - driven by increasing competition and strong penetration of low-cost carriers for short-haul distances. In a scenario driven by exogenous variables (GDP, population) alone, the growth will be only 2.8%. In the dynamic scenario, CO2 emissions from international air passenger transport will grow by a factor of four, underlining the need to evaluate mitigation strategies.

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José Viegas has been Secretary-General of the International Transport Forum at the OECD since August 2012. A Portuguese national, Mr. Viegas has had a distinguished career in academia and in the private sector before joining the Forum as its chief executive. A full Professor of Transport at the Technical University of Lisbon, he served as Director of MIT-Portugal’s Transport Systems focus area and founded TRANSPORTNET, a group of eight European University Research Groups in Transport Systems. As chairman of TIS.pt consultants he successfully advised governments and international institutions including the World Bank and the European Commission on a number of high-profile policy initiatives and transport projects.

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