

## Global Transport Trends in Perspective

This Statistics Brief describes longer-term developments in the different transport modes, as measured by data collected by the International Transport Forum at the OECD. General observations include:

- ▶ Following the economic crisis and the collapse of world trade in 2009, most regions embarked on the path of recovery in 2010. Global trade volumes transported by sea and air rebounded strongly.
- ▶ Due to continuous economic uncertainty, mainly in developed economies, growth slowed in 2011 while preliminary data for 2012 shows further weakening.
- ▶ There is a marked difference in transport growth between emerging and advanced economies, with emerging economies continuing to outperform developed markets.

Maritime freight, measured in tonnes loaded, grew by 4% to 8.7 billion tonnes in 2011 according to UNCTAD preliminary data. This is 6% above the pre-crisis peak in 2008. In tonne-miles, sea cargo grew by 5%, reaching 42.8 billion tonne-miles. The movement of seaborne freight reflects the two-speed growth in the world economy, with developing countries faring better than developed economies. Nine out of the ten busiest container ports are all located in East and Southeast Asia (Figures 1 and 2).

▶ Maritime freight reflects two-speed growth in world economy

Air freight transport rebounded in 2010 and grew 20% from the previous year to a new high of 172 billion freight tonne-kilometres. However, air freight stagnated to zero growth in 2011, followed by a 1.5% decline in 2012 (Figures 3 and 4). The slowdown in world trade growth and shifts in the commodity mix favouring sea transport are among the factors contributing to the negative growth, according to IATA.

▶ Stagnation and drop in air freight

Rail freight tonne-km grew 3% in the OECD countries in 2011, reaching pre-crisis levels. In the United States, rail freight volumes increased by 3% nearly reaching the 2008 level. The Russian Federation and China recorded a 6% and 7% growth in 2011 respectively. The United States, Russia and China account for nearly 80% of total estimated global rail freight (Figure 5). Preliminary 2012 data for rail freight, based on our quarterly statistics, indicate stagnation in Europe and freight volume growth turning negative in the United States.

▶ Rail freight grows in Russia and China

Road freight in the OECD and European Union continue to stagnate below pre-crisis levels. In 2011, the growth in tonne-kilometres slowed down both in the OECD and EU countries, increasing by only 1%. Emerging economies, especially China and India, continued to expand throughout the 2008-2011 period. Road freight tonne-km in China and India increased 18% and 5% respectively (Figure 6). Our preliminary

▶ Road freight: EU down 4%, China up 18%

estimate for the EU area in 2012, covering 75% of the total road tonne-kilometres, indicates a decline of around 4% for road freight.

Data on freight transport by inland waterways shows a rapid recovery in tonne-kilometres in the OECD and the EU in 2010 after the decline in 2009. The growth in volume slowed down in the OECD in 2011 (+1%) and turned negative in the European Union (-4%). The economic crisis had an impact also in China where tonne-kilometres grew only by 4% in 2009. In 2010 and 2011, inland waterway freight volumes grew again rapidly, by 24% and 16% respectively.

▶ **Rapid recovery of inland waterways**

In 2011, air passenger-kilometres grew by 6.5% while the estimate for 2012 puts growth at 5.3%, reaching 5 330 billion passenger-kilometres or 2.85 billion passengers (Figure 8). The biggest growth in passenger numbers took place in markets linked to emerging economies. China, the second largest domestic passenger air transport market, recorded the strongest growth. Traffic expanded by 9.5% reaching 85.8 billion passenger-kilometres in 2012. The United States, with over 900 billion passenger-kilometres, remains the world's largest domestic air travel market albeit passenger-kilometres increased by only 0.8%. The international passenger traffic increased by 6% in 2012. Middle Eastern carriers recorded the strongest international PKM growth (15.4%) according to IATA.

▶ **Air transport grows in markets linked to emerging economies**

Rail passenger-kilometres fell around 2% both in the OECD and the EU area in 2009 after which the volume recovered back to the pre-crisis levels by 2011. However, there are marked differences in growth rate between individual countries. Outside Europe, available data for Russian Federation and Japan show close to zero growth in 2011. Rail passenger-kilometres continue to show strong growth in China and India with 10% and 8% increase respectively in 2011 compared with 2010 (Figure 9). India and China account for nearly 70% of the estimated global rail passenger transport. Preliminary data for 2012 show that passenger rail traffic for the EU area has remained stable in 2012 at near pre-crisis levels.

▶ **EU rail passenger traffic stable at pre-crisis levels**

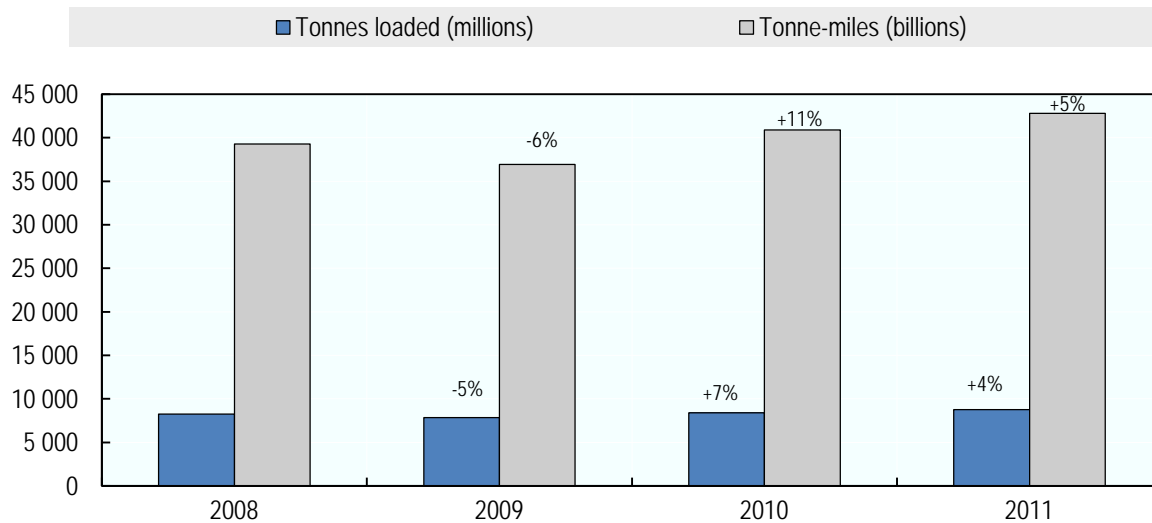
Data on passengers-km travelled on buses and coaches are less detailed. In the European Union, bus passenger transport experienced high growth rates in the 1970s and the 1980s (Figure 10). Recent data suggest a mix of trends in the EU countries. In 2011, bus transport grew in France (2.4%), Italy (1.0%) and Spain (9.5%) while it declined in Bulgaria (-1.2%), Croatia (-4.2%), Denmark (-1.2%), Poland (-4.4%), Romania (-1.5%) and the United Kingdom (-4.4%). Outside Europe, passenger-km grew in Australia (2.3%), Mexico (3.3%) and the United States (0.1%) and fell in the Russian Federation (-1.5%).

▶ **Mix of trends in bus and coach travel**

Over the past 10 to 15 years, the growth of passenger vehicle travel volumes has decelerated in several high-income economies and in some growth has stopped or turned negative. Figure 11 shows an index of passenger-km volumes in a selection of high-income economies from 1990 through 2011. The slowdown in growth is clear in Germany. In France, car use is virtually unchanged since 2003. In Japan, car use has been declining since 1999. In the United Kingdom growth is negative since 2007 and it had slowed down considerably since 2003. The United States displays a decline since around 2005 or even earlier.

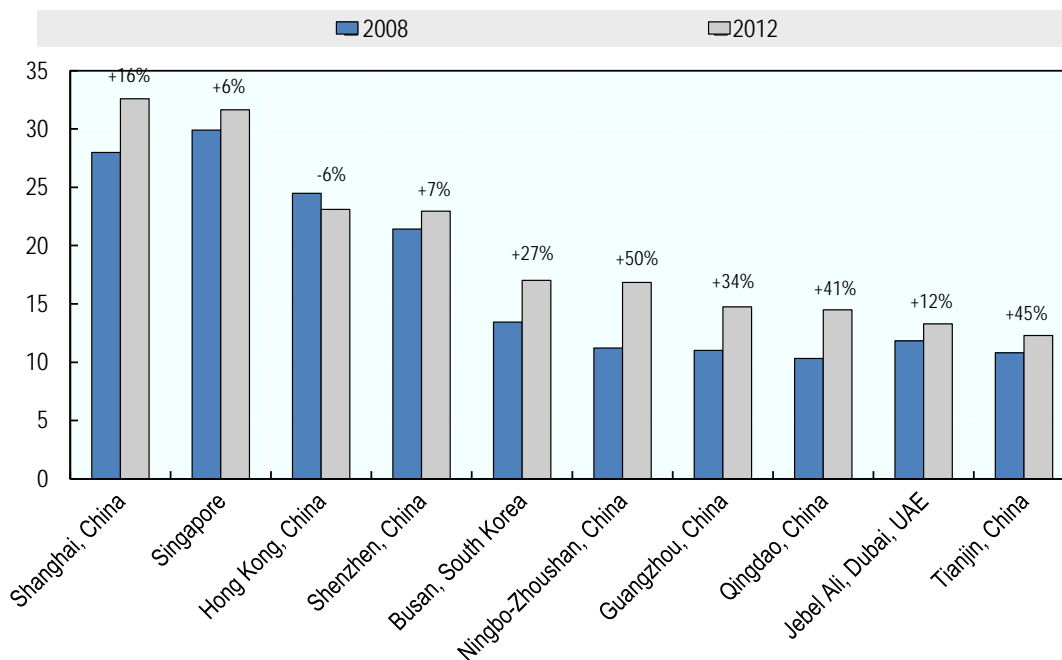
▶ **Car use stagnant or falling in high-income countries**

Figure 1. **World seaborne trade 2008-2011**  
Million tonnes and billion tonne-miles and annual % change



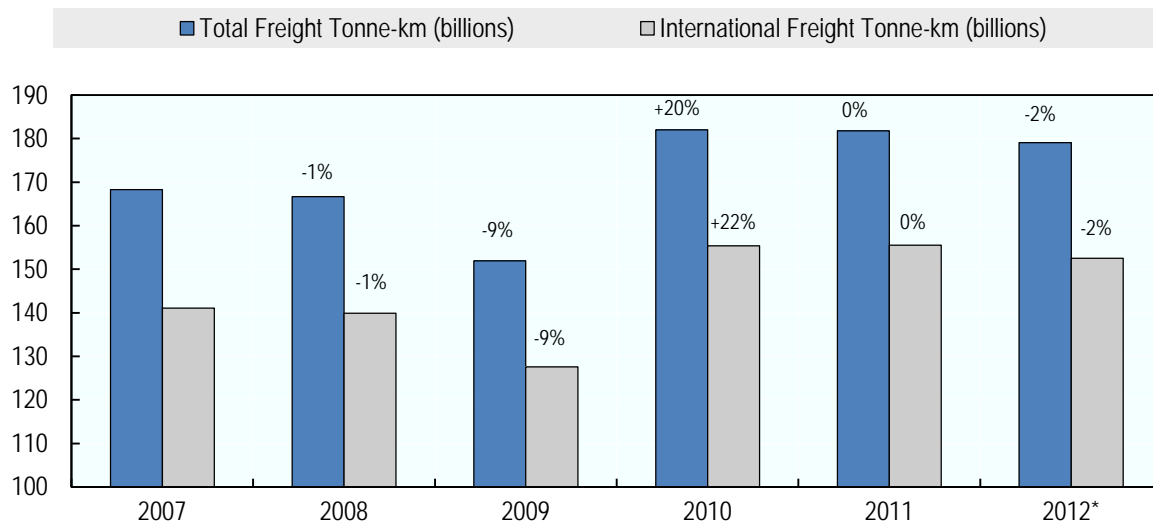
Source: UNCTAD Review of Maritime Transport 2012.

Figure 2. **The 10 leading world ports in terms of container traffic**  
20 foot equivalent units (TEU) and annual % change



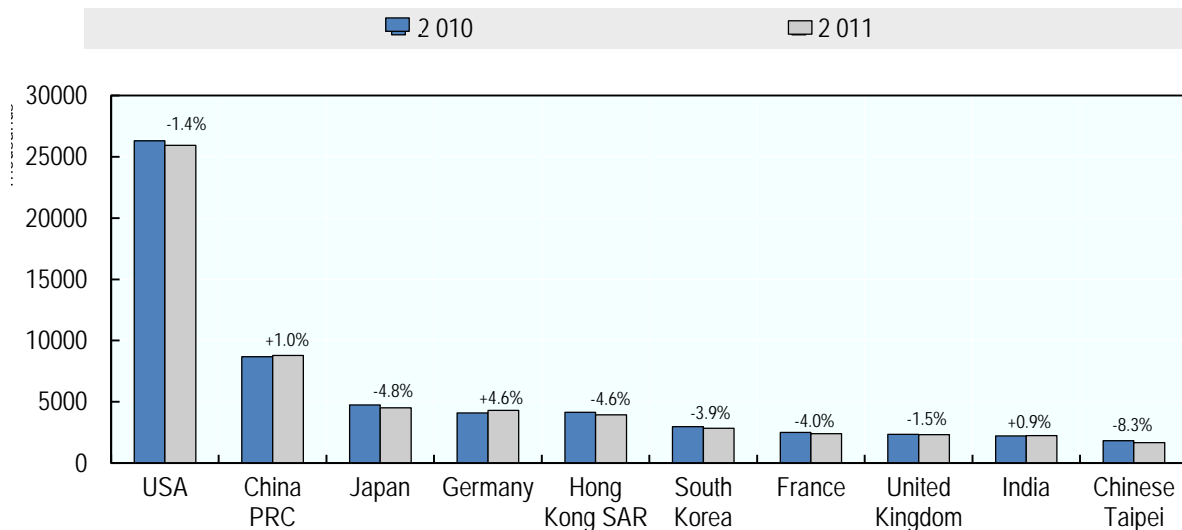
Source: Based on World Shipping Council and Containerisation International. TEU: Container traffic measured in twenty-foot equivalent unit as all containers handled, including full, empty and transhipped containers.

**Figure 3. World airline revenue traffic**  
Total and international



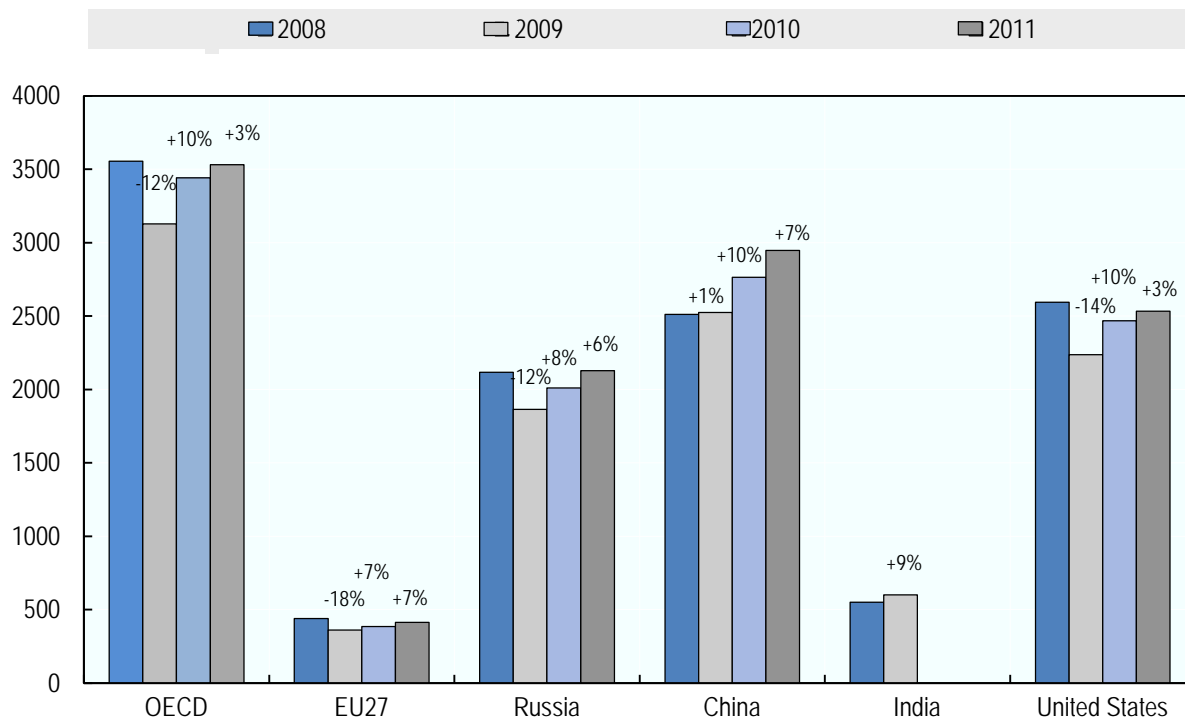
Source: Based on IATA Annual Review 2013 and ICAO Annual Report of the Council 2011. Data for 2012 a preliminary estimate.

**Figure 4. Air freight volume by country**  
Thousand tonnes and annual % change



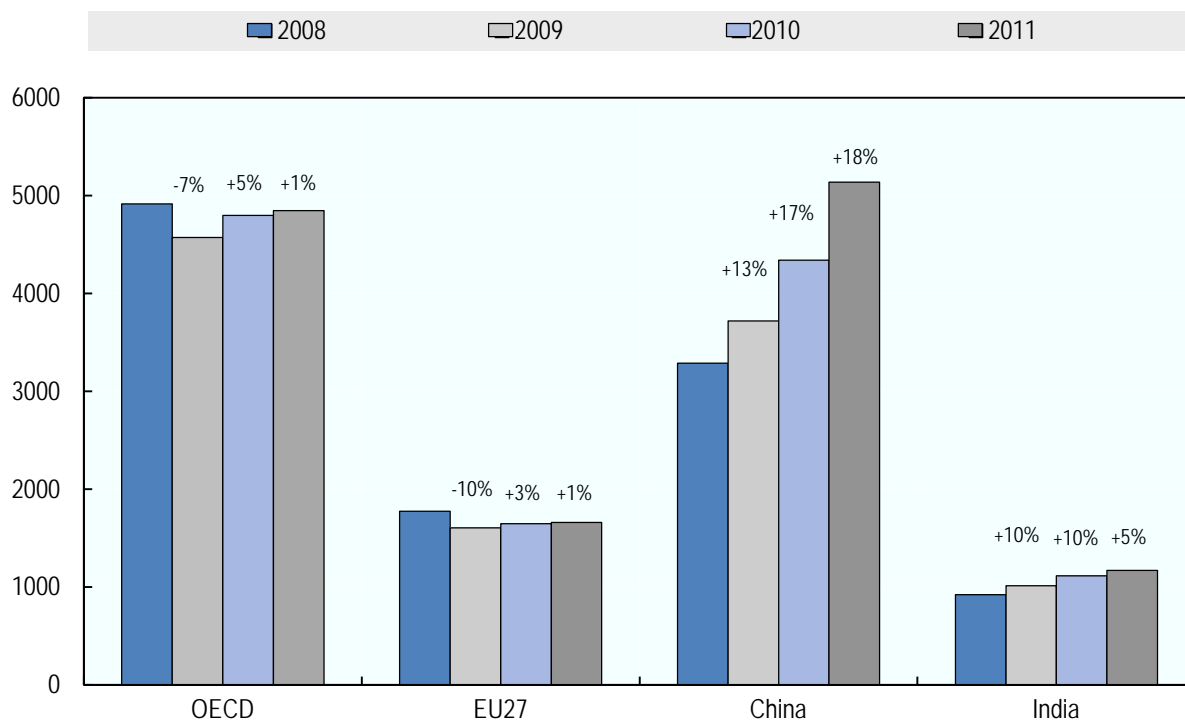
Source: Airport Council International.

Figure 5. **Rail freight**  
Billion tonne-kilometres and annual % change



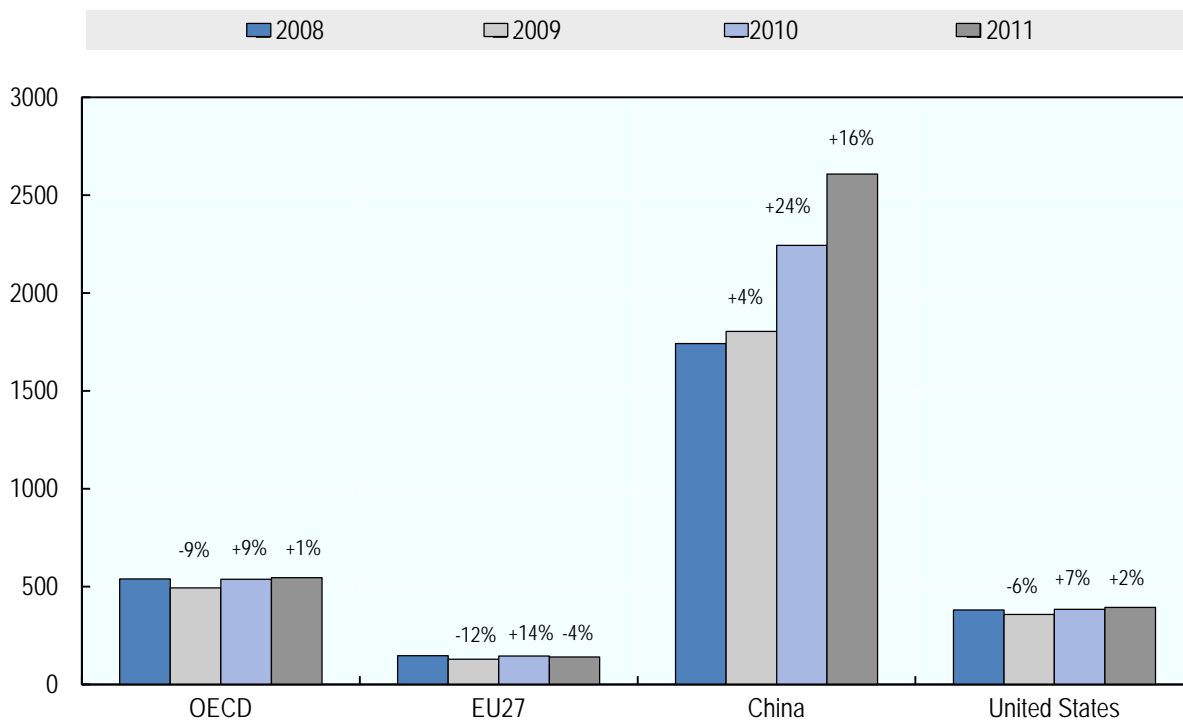
Source: International Transport Forum. 2010 and 2011 data for India are not available. Data for Italy estimated for 2011.

Figure 6. **Road freight (Billion tonne-kilometres)**



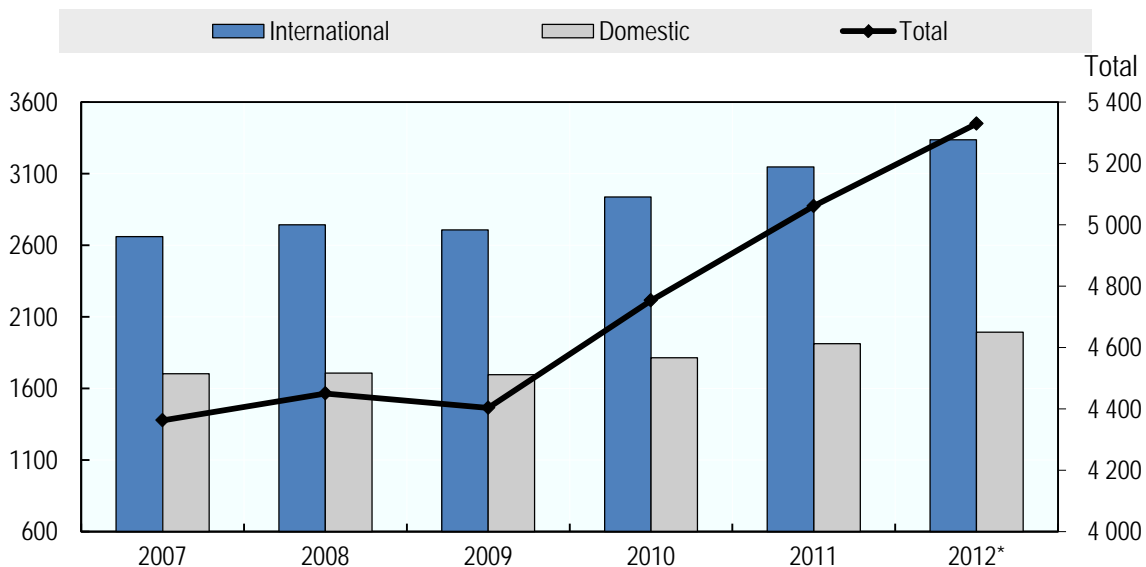
Source: International Transport Forum. Data for Canada, Greece, Italy, United Kingdom and United States estimated for 2011. Data for Malta not available.

**Figure 7. Inland waterways freight**  
Billion tonne-kilometres



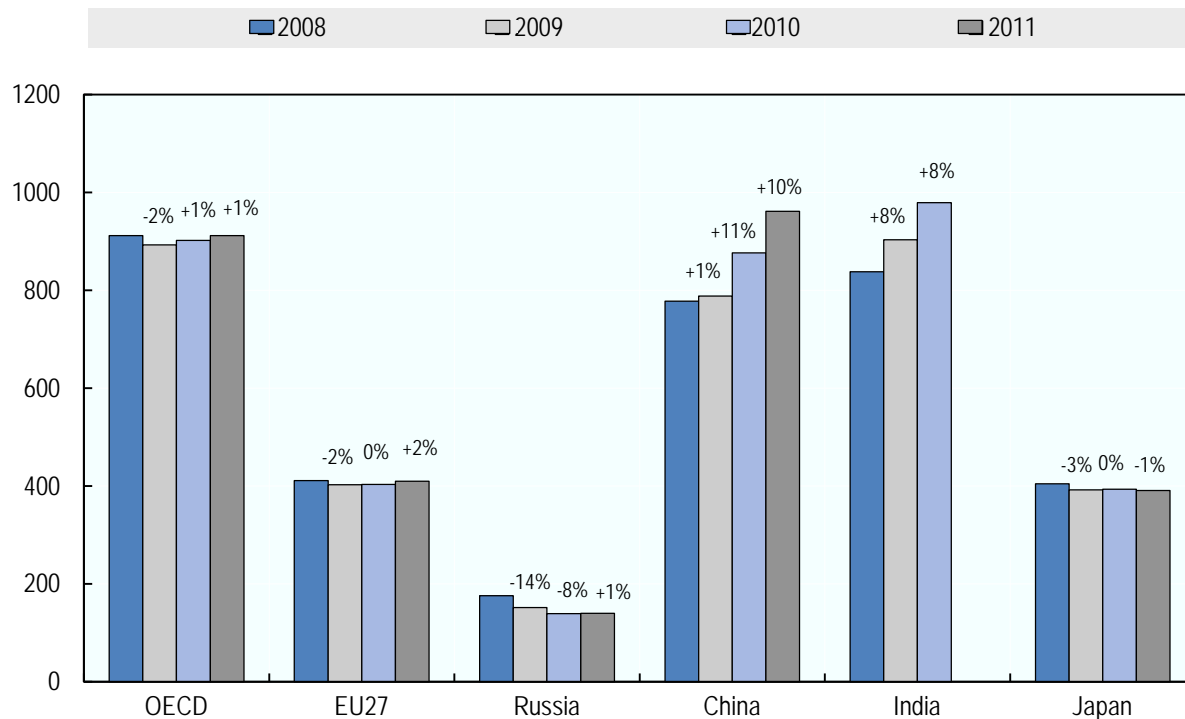
Source: International Transport Forum. Data for Switzerland estimated for 2011.

**Figure 8. World total air passenger traffic – international and domestic**  
Billion passenger-kilometres



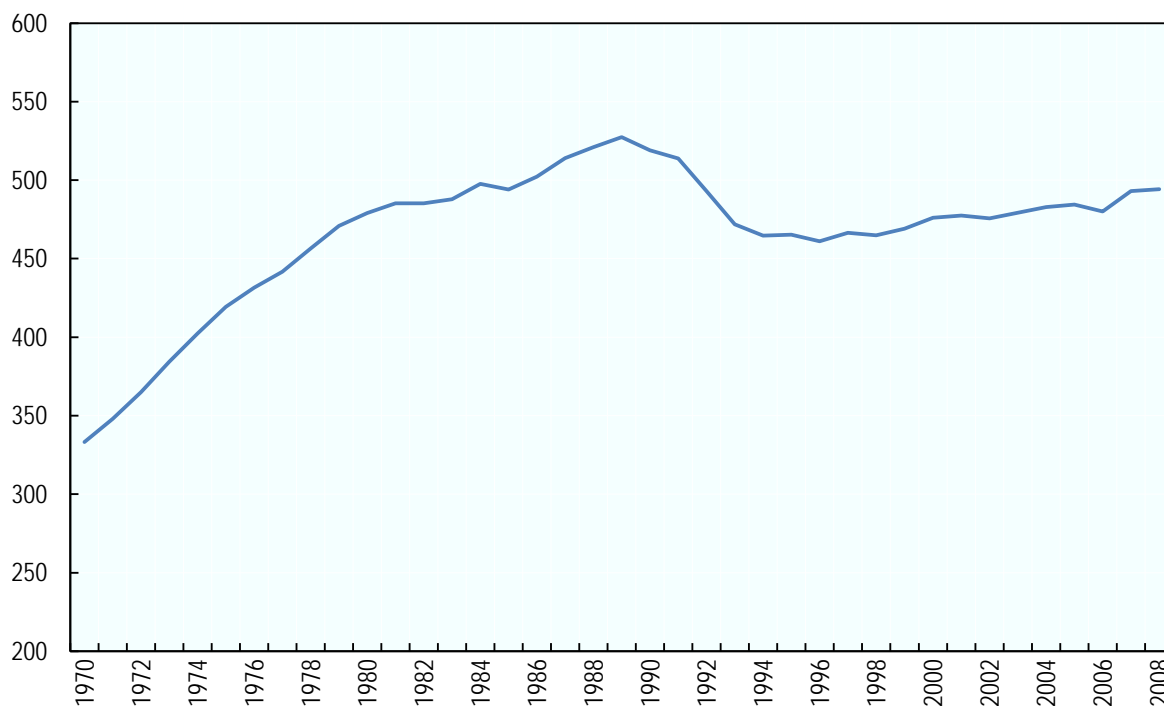
Source: Based on IATA Annual Review 2013 and ICAO Annual Report of the Council 2011. Data for 2012 a preliminary estimate.

**Figure 9. Rail passenger traffic**  
Billion passenger-kilometres and annual % change



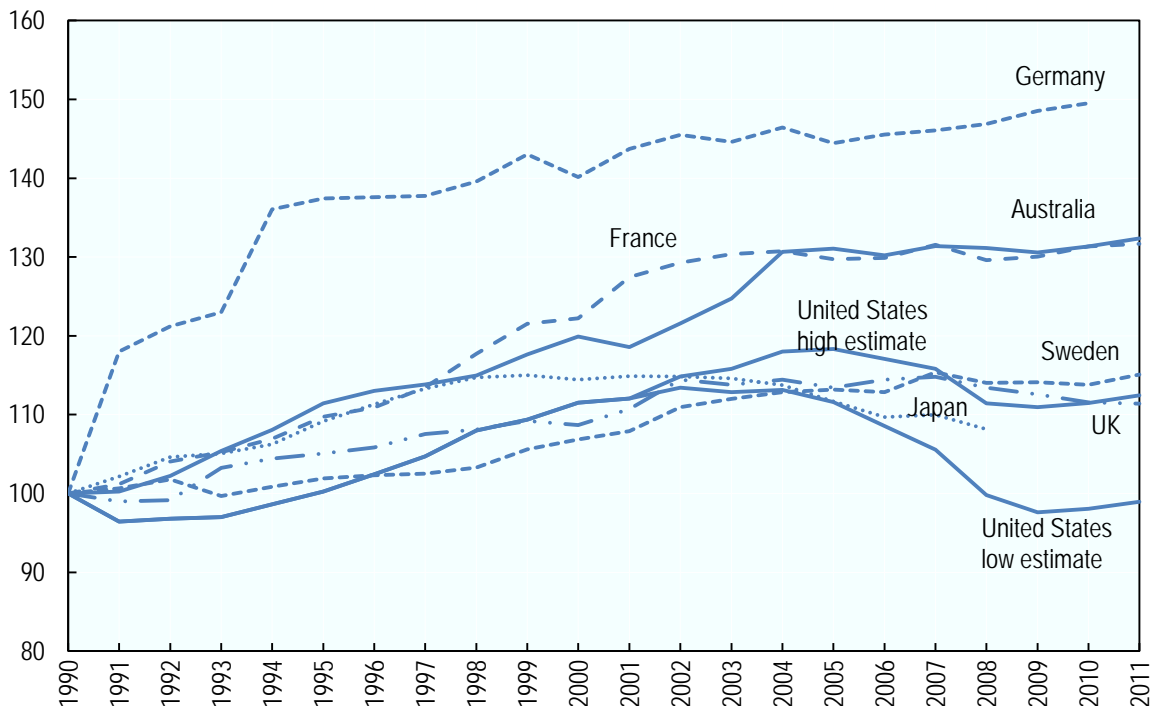
Source: International Transport Forum. Note: 2011 data for India are not available. Japan 2011 estimated based on ITF quarterly statistics.

**Figure 10. Passenger transport by bus in the EU**  
Billion passenger-kilometres



Source: International Transport Forum. European Union excludes Ireland, Luxembourg and Malta.

Figure 11. **Passenger-kilometres by private car**  
1990=100



Source: International Transport Forum. The Federal Highway Administration estimate of vehicle occupancy in the US has been revised for 2009 based on the 2009 National Household Travel Survey (NHTS), resulting in a lower occupancy rate than previously. High estimate applies the vehicle occupancy based on 2001 NHTS while low estimate is based on a gradual decline from 2001 rate to 2009 rate.

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For additional information on our transport statistics, go to <http://internationaltransportforum.org/statistics/index.html>