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**REVIEW OF THE TRANSPORT SITUATION IN UNECE MEMBER COUNTRIES  
AND OF EMERGING DEVELOPMENT TRENDS**

**Review of the transport situation and emerging trends in the UNECE region**

**Report by the secretariat<sup>1</sup>**

**I. INTRODUCTION**

1. At its fifty-fifth session in February 1993, the Inland Transport Committee adopted its terms of reference. These include, inter alia, the analysis of transport trends and economics and transport policy trends (ECE/TRANS/97, Annex 2). At its seventy-first session (24-26 February 2009), the Inland Transport Committee considered the review of the transport situation and emerging trends in 2008 and asked the secretariat to produce a similar report in 2010 (ECE/TRANS/206, para. 25).

2. This document reviews briefly main economic and inland transport developments in the UNECE region as well as policy responses. It was prepared by the secretariat on the basis of the data available in December 2009 and responses to a short questionnaire by UNECE member States that are available at <http://www.unece.org/trans/main/wp5/wp5.html?expandable=99>.

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<sup>1</sup>The present document has been submitted after the official documentation deadline due to resource constraints.

## II. ECONOMIC AND TRANSPORT TRENDS IN THE UNECE REGION

3. In 2009 all major economies in the UNECE region registered negative growth (year-on-year) of GDP, merchandise trade and transport services. The composite leading indicators released by the Organisation for Economic Co-operation and Development (OECD) as well as diverse measures of business and consumer sentiment indicate that a modest output recovery is likely to take place in 2010 in all UNECE subregions, i.e. North America, Western Europe, Southeast Europe and Eastern Europe (Chart 1). In a number of UNECE economies, unemployment is expected to increase in spite of positive economic growth in 2010.

4. International trade declined by more than 10 per cent in 2009. Trade volumes in economies of Europe and North America stabilized in the second quarter of 2009 at significantly lower levels than a year earlier. Subsequently, trade flows started to recover slowly.<sup>2</sup> Since trade and transport flows contracted much more rapidly than GDP during the economic recession and the pace of recovery in major UNECE economies remains slow, a rebound of freight transport volumes to 2008 levels may well be delayed until 2011 or 2012.

5. The majority of UNECE emerging market economies experienced significant declines in aggregate output and transportation activity. In Eastern Europe, Caucasus and Central Asia (EECCA), GDP fell on average during the first three quarters of 2009 by 9 per cent while cargo transportation volumes plummeted by 19 per cent (year-on-year). Economic performance during this period was uneven throughout the EECCA, ranging from steep output declines in Armenia, Ukraine and the Russian Federation to positive growth in a few smaller economies, including Azerbaijan and Uzbekistan.<sup>3</sup> Most countries of Southeast Europe (SEE) experienced an economic downturn in 2009, with GDP declines averaging some 6 per cent. GDP downturn averaged about 3½ per cent in Central Europe and the Baltic States (CEB); however, there were large cross-country variations. A fragile recovery is expected to take place in most UNECE emerging market economies in 2010. The European Bank for Reconstruction and Development (EBRD) forecasts indicate GDP growth rates in 2010 of some 3 per cent in EECCA and about 1 per cent in SEE and CEB (Table 1).

6. In response to a sharp deceleration of industrial production and trade since the last quarter of 2008, freight transport volumes declined rapidly across the UNECE region. The pattern of slowdown differed across markets and transport modes. The latest available data from the United States Bureau of Transportation Statistics show that, following a steep decline, the volumes of both freight and passenger services have stabilized since the middle of 2009 (Chart 2). Available data indicate that a stabilization or fragile recovery of transport services has been taking place in Western Europe and some transition economies since the third quarter of 2009.

7. Driven by rapidly declining trade flows, road haulage plummeted throughout the UNECE region during the first half of 2009. Given the competitive structure of the road sector that

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<sup>2</sup> For details, see OECD, "Trade flows stabilise in second quarter 2009," 23 October 2009 at <http://www.oecd.org/dataoecd/29/42/43935946.pdf>.

<sup>3</sup> See Interstate Statistical Committee of the CIS, "Main macroeconomic indicators of the countries of the CIS" at [http://www.cisstat.com/eng/mac1\\_ann.htm](http://www.cisstat.com/eng/mac1_ann.htm).

consists typically of a few major firms and a large number of small contractors, the shock was absorbed by falling haulage rates and rapid layoffs. Some 200,000 contractors lost employment in North America, about 140,000 layoffs took place in the European Union (EU) and 120,000 in the EECCA.<sup>4</sup> The expected slow recovery of industrial production and trade implies a slow recovery of the road haulage sector.

8. The International Union of Railways (UIC) statistics for the first three quarters of 2009 shows that rail freight traffic, measured by tonne-km, declined in Western Europe (EU + EFTA) by 27 per cent over the same period of the preceding year. Freight traffic in Eastern Europe, Turkey and the United States of America also declined noticeably.<sup>5</sup> Rail passenger traffic, measured in passenger-km, fell over the same time period in Western Europe and the United States by 2 and 5 per cent respectively while increasing slightly in Turkey. No significant layoffs were reported to take place in the rail sector where employment levels were typically maintained with part-time work arrangements.<sup>6</sup>

9. Port-hinterland flows decreased during the first half of 2009 by some 20 per cent (year-on-year) in Western Europe. Combined (road + rail) traffic volumes in Europe decreased over the same time period by 20 to 25 per cent for unaccompanied and up to 15 per cent for accompanied traffic.

10. International container traffic on the lines operated by Russian Railways (RZD) fell during the first half of 2009 by 31 per cent (year-on-year). Container traffic on the Trans-Siberian route decreased by 59 per cent over the same time period, reflecting the impact of lower trade volumes and extremely low rates on competing maritime routes between East Asia and Europe.

### III. SELECTED TRANSPORT ISSUES

#### A. Policy responses to the economic downturn

11. The global 2008-09 economic crisis triggered massive public expenditure growth and significant declines in tax receipts, resulting in rapidly growing government deficits and debt levels in all major UNECE economies. The amount of the public funding used for the stabilization of large financial institutions alone has exceeded the volume of total development assistance over the last 50 years.<sup>7</sup>

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<sup>4</sup> These estimates were provided by the International Road Transport Union. For details, see <http://unece.org/trans/doc/2009/wp5/ECE-TRANS-WP5-2009-22-inf01e.pdf>.

<sup>5</sup> For details, see <http://www.uic.org/spip.php?article1348>.

<sup>6</sup> For instance, according to the chief executive of Russian Railways (RZD), about 500,000 employees accepted reduced hours and wages in 2009. This has enabled RZD to avoid some 170,000 layoffs and keep its work force at the pre-crisis level of 1.2 million (*Reuters*, 17 September 2009).

<sup>7</sup> For details, see United Nations, *World Economic Situation and Prospects: Update as of mid-2009*, New York, 2009 (<http://www.un.org/esa/policy/wesp/wesp2009files/wesp09update.pdf>).

12. Large fiscal stimuli in UNECE economies included some components that are directly relevant to the transportation sector, mainly the public support for infrastructure investment and state aid for the automotive sector but also grants for applied research in the field of mobility, especially for innovations in the field of transport and vehicle technology.<sup>8</sup>

13. Infrastructure investment is important for the effective service delivery and long-term growth. In order to support this type of investment, a number of governments with a relatively strong fiscal position provided grants for capital expenditures, accelerated the pace of infrastructure projects, and provided state aid for automobile manufacturers. Countries with fragile fiscal positions could not provide any comparable support and experienced a pronounced slowdown of investment.

14. Most UNECE governments have not provided any targeted short-term fiscal, financial or regulatory support measures for transport operators. This could be explained by the wide geographical dispersion and low visibility of layoffs in the transport services sector. Both strategic and shorter-term political economy considerations favored instead state aid for the highly visible car-manufacturing industry. Such aid was used for the assistance with restructuring of bankrupt American car manufacturers with subsidiaries in Canada and Western Europe and temporary incentives for buyers of new vehicles in various parts of Europe and the United States.

15. Motor vehicle production in the UNECE region takes place in some 350 plants, including foreign-owned facilities. Almost 300 of them are dispersed across 29 countries in the pan-European region, including a large number of EU countries, Russia, Serbia, Turkey, Ukraine and Uzbekistan. The remaining plants are located in North America, mainly in the United States. Although there seems to be an overcapacity problem on both sides of the Atlantic, plant closures have occurred recently or are scheduled to take place only in Canada and the United States.<sup>9</sup>

16. Automobile sales declined sharply in 2009 in North America, Eastern Europe and the United Kingdom of Great Britain and Northern Ireland, reflecting to some extent the restricted access to credit.<sup>10</sup> In contrast, sales and production were maintained with the aid of temporary incentives in continental Western Europe. In 2010, a reversal of these trends could take place. The problem of excess capacity may well intensify in Western Europe, where sales are expected to decline in the absence of scrapping programmes. In the medium term, car sales are likely to stagnate or grow slowly in high-income UNECE countries with saturated markets while increasing rapidly in the catching-up economies, including new EU member states, EECCA and SEE countries.

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<sup>8</sup> For a succinct description of a national fiscal stimulus package, see e.g. the German government's response to the UNECE questionnaire on the transport situation in 2009 at <http://www.unece.org/trans/Welcome.html>.

<sup>9</sup> According to the Economist Intelligence Unit, nine GM factories and seven Chrysler factories are expected to be closed in the United States in 2009-10 (*EIU Business Eastern Europe*, 26 Oct. 2009). According to Canadian sources, two GM plants are to be closed in Canada over the same time period.

<sup>10</sup> For details, see the analysis of the automotive sector in chapter 2 of the *OECD Economic Outlook*, volume 2009/2, No. 86, preliminary edition, November 2009.

## **B. Changing patterns of transport-related CO<sub>2</sub> emissions**

17. The economic downturn resulted inter alia in lower transport-related CO<sub>2</sub> emissions in most UNECE economies. The question is whether this reversal can be sustained during the period of economic recovery and in the longer term.

18. The economic downturn reduced transport-related CO<sub>2</sub> emissions in most UNECE countries and all UNECE subregions. It can be argued that the government stimulus packages mentioned above could drive the transport emissions in the desirable direction, in particular during the post-crisis period. A number of countries have targeted energy efficiency improvements in their recovery plans, aiming not only to stimulate economic activity but also to improve its sustainability. The “European green cars initiative” is a good example of this approach.<sup>11</sup>

19. A forward-looking alignment of “green recovery” strategies with long-term growth includes investment in public transport as well as research and development of energy-efficient motor vehicles and other innovations that would make transportation activity less CO<sub>2</sub> intensive and more sustainable.<sup>12</sup> Moreover, national stimulus packages in support of the automotive industry seem to be designed with a view to replacing rather than expanding national vehicle fleets.

20. In particular, temporary scrapping schemes have been beneficial for various reasons. First, the car fuel efficiency has gradually increased over time so that a new car today tends to be much more fuel efficient than a similar vehicle built 10-15 years ago. Therefore, a substitution of old cars by new ones is bound to improve the environmental performance of the renewed fleet. Second, some scrapping schemes have included maximum emission standards for new cars that would be eligible for government grants. Last but not least, the typical fixed scrapping bonus amounts tend to favor the purchase of smaller less expensive cars that generally have a comparatively good fuel efficiency.

21. With respect to technical progress, it should be noted that UNECE regulations address the construction of new vehicles and that the development period of a new type of passenger car (from the design to the real production) takes about three years. By 2015, consumers will have a large choice of different types of environmentally friendly vehicles (EFV). However, for the market penetration of new vehicles, one has to factor in about 10-15 years (in Europe) for the usual replacement of the vehicle fleet (in emerging market economies even longer). Governments could accelerate this period by tax incentives for such EFVs. The range of available options over time is illustrated in Chart 3.

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<sup>11</sup> European Commission, *Communication from the Commission to the European Council – a European economic recovery plan*. Brussels, April. This document is available at [http://ec.europa.eu/commission\\_barroso/president/pdf/Comm\\_20081126.pdf.2](http://ec.europa.eu/commission_barroso/president/pdf/Comm_20081126.pdf.2).

<sup>12</sup> See OECD, *Strategies for aligning stimulus measures with long term growth. Technical report*, Paris, 2009 (<http://www.oecd.org/dataoecd/12/62/42555546.pdf.2>).

22. Another important factor that could improve sustainability in the post-crisis period is a switch towards integrated transport policy in a number of UNECE countries. In addition to traditional tasks such as the financing and provision of transport infrastructure, such policies also address the optimal pricing of access to infrastructure and emission-reducing innovations as well as an effective coordination of all transport modes. Furthermore, some transport operators have adopted voluntary environmental commitments.<sup>13</sup> While all of these factors should improve the environmental performance of the transport sector, the ultimate outcome depends on the combined effect of lower emissions per unit of freight or passenger transport and growth of such activities.

#### IV. CONCLUSIONS

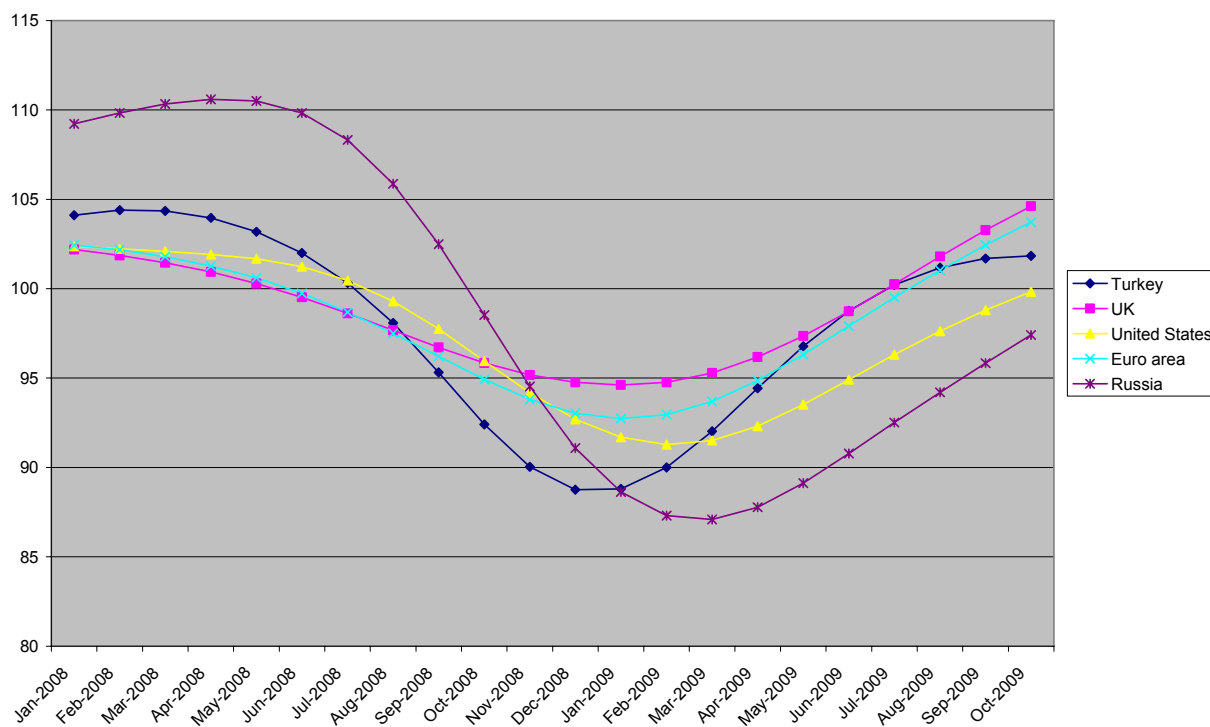
23. The economic downturn in the UNECE region has impacted all inland transport modes. Freight transport services declined more than GDP while passenger traffic decreased less. The automotive manufacturing sector was hit hard in Eastern Europe and North America by falling consumer and business demand for motor vehicles. State aid in the form of car scrapping schemes helped to preserve sales and production in Western Europe. Transport infrastructure investment has been accelerated by governments with fiscal space but fell rapidly in countries that had to pursue fiscal consolidation.

24. In the short run, the economic crisis has reduced CO<sub>2</sub> emissions of the transport sector but the medium and long-term evolution remains unclear. The CO<sub>2</sub> intensity of transport activity is likely to keep decreasing as a result of technological progress and integrated transport policies. However, the continued growth of activity could overwhelm the reduced intensity of transport-related emissions.

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<sup>13</sup> For instance, at the International Road Transport Union (IRU) General Assembly held on 6 November 2009, the IRU Member Associations unanimously adopted the “30-by-30” Resolution, which includes a voluntary commitment by the road transport industry to reduce CO<sub>2</sub> emissions by 30 per cent by 2030.

Chart 1  
Composite leading indicators, January 2008 – October 2009



Source: OECD ([http://stats.oecd.org/Index.aspx?datasetcode=MEI\\_CLI&lang=e](http://stats.oecd.org/Index.aspx?datasetcode=MEI_CLI&lang=e)).

Note: A long-term average = 100.

Table 1

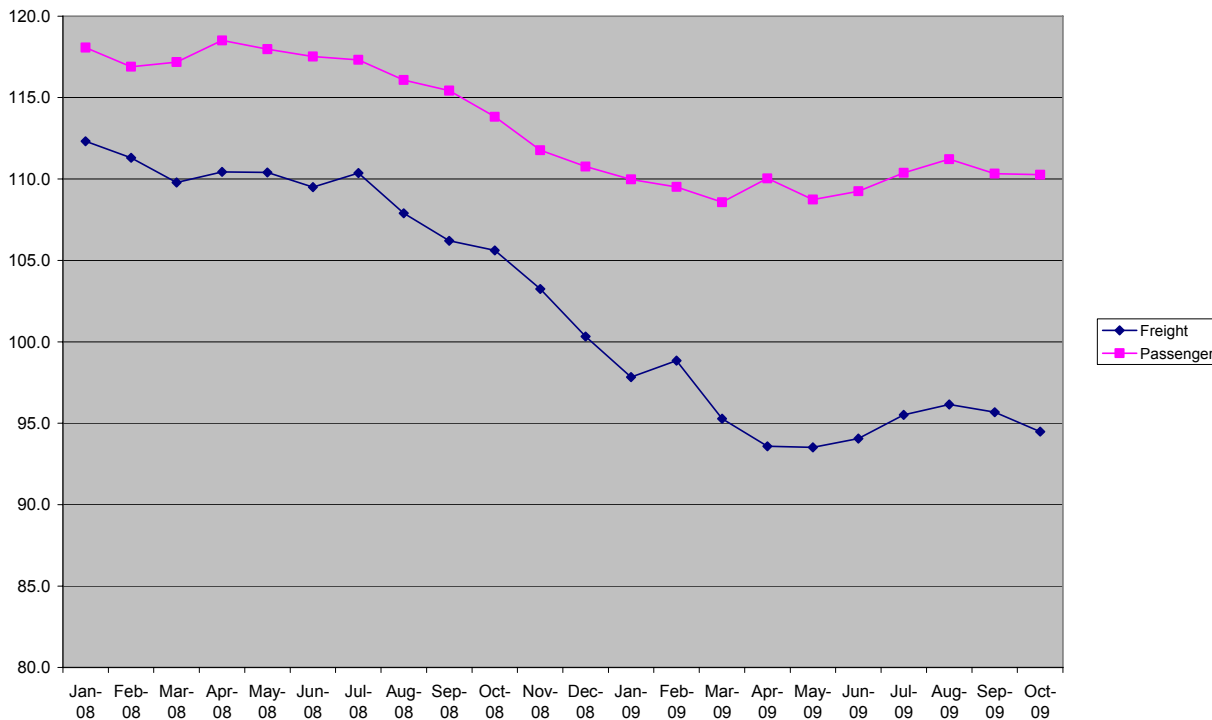
Growth in real GDP (per cent)					Estimated level of real GDP in 2008
2007	2008 <i>Estimate</i>	2009 <i>Projection</i>	2010		
<b>Central Europe and the Baltic states</b>					<i>(1989=100)</i>
Croatia	5.5	2.4	-5.4	1.5	111
Czech Republic	6.1	2.7	-4.3	1.3	142
Estonia	7.2	-3.6	-13.2	-0.9	147
Hungary	1.2	0.6	-6.5	-0.9	136
Latvia	10.0	-4.6	-16.0	-1.2	118
Lithuania	9.8	2.8	-18.4	-3.0	120
Poland	6.8	4.9	1.3	1.8	178
Slovak Republic	10.4	6.4	-6.0	3.5	164
Slovenia	6.8	3.5	-7.8	2.6	156
<i>Average<sup>1</sup></i>	<i>6.3</i>	<i>3.3</i>	<i>-3.6</i>	<i>1.2</i>	<i>156</i>
<b>South-eastern Europe</b>					
Albania	6.0	6.8	3.0	1.6	163
Bosnia and Herzegovina	6.8	5.4	-3.1	0.8	84
Bulgaria	6.2	6.0	-6.0	-1.5	114
Former Yugoslav Republic of Macedonia	5.9	4.9	-1.6	2.0	102
Montenegro	10.7	7.5	-4.1	0.1	92
Romania	6.0	7.1	-8.0	1.0	128
Serbia	6.9	5.4	-4.0	1.0	72
<i>Average<sup>1</sup></i>	<i>6.3</i>	<i>6.5</i>	<i>-6.2</i>	<i>0.7</i>	<i>114</i>
<b>Eastern Europe and the Caucasus</b>					
Armenia	13.8	6.8	-14.3	1.3	153
Azerbaijan	23.4	10.8	5.0	7.1	177
Belarus	8.2	10.0	-3.0	0.9	161
Georgia	12.4	2.1	-5.5	2.0	61
Moldova	3.0	7.2	-8.5	1.5	55
Ukraine	7.9	2.1	-14.0	3.0	70
<i>Average<sup>1</sup></i>	<i>10.0</i>	<i>5.0</i>	<i>-8.7</i>	<i>3.1</i>	<i>100</i>
<b>Turkey</b>	4.7	1.1	-6.0	3.0	221
<b>Russian Federation</b>	8.1	5.6	-8.5	3.1	108
<b>Central Asia</b>					
Kazakhstan	8.9	3.2	-1.3	1.6	141
Kyrgyz Republic	8.2	7.6	1.5	3.0	102
Mongolia	10.2	8.9	1.0	5.0	167
Tajikistan	7.8	7.9	2.0	3.0	61
Turkmenistan	11.6	10.5	6.0	13.0	226
Uzbekistan	9.5	9.0	7.0	7.0	163
<i>Average<sup>1</sup></i>	<i>9.2</i>	<i>5.0</i>	<i>0.8</i>	<i>3.6</i>	<i>149</i>
<b>All transition countries</b>					
<i>Average<sup>1</sup></i>	<i>7.0</i>	<i>4.2</i>	<i>-6.2</i>	<i>2.5</i>	<i>140</i>

Source: EBRD.

Notes: Data for 2008 are preliminary estimates. Data for 2009 and 2010 represent EBRD projections, except for the Czech Republic (IMF, World Economic Outlook, Oct. 2009).



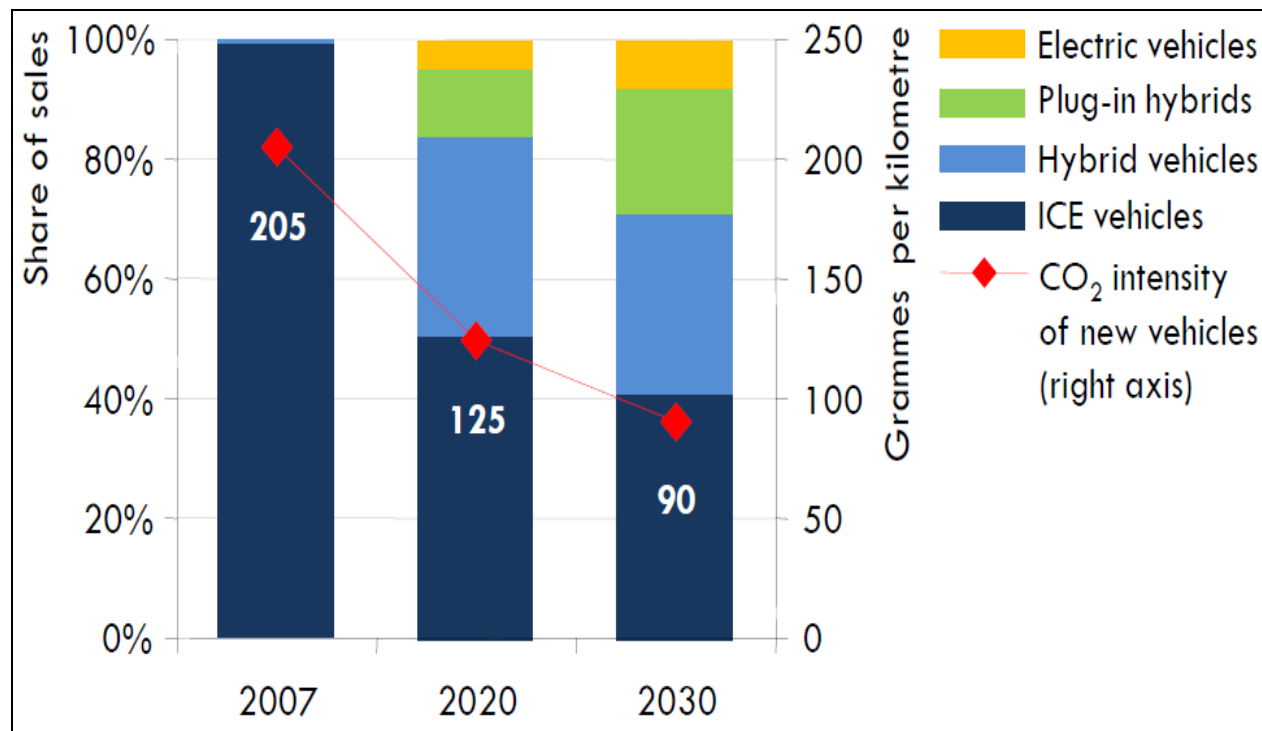
Chart 2  
**Transportation services index, United States**  
**(2000 = 100, seasonally adjusted)**



Source: Bureau of Transportation Statistics  
([http://www.bts.gov/press\\_releases/2009/bts057\\_09/html/bts057\\_09.html](http://www.bts.gov/press_releases/2009/bts057_09/html/bts057_09.html)).

Note: The Freight transport Services Index (TSI) measures the output of the for-hire freight transportation industry and consists of data from for-hire trucking, rail, inland waterways, pipelines and air freight. The passenger TSI measures the volume of air, local transit and intercity rail services.

Chart 3  
**World passenger vehicle sales & average new vehicle CO<sub>2</sub> intensity in the International Energy Agency 450 Scenario**



Source: International Energy Agency.

Note: The IEA 450 Scenario estimates deployment of next generation vehicles through 2030.

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