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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

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**REVIEW OF THE TRANSPORT SITUATION AND  
EMERGING DEVELOPMENT TRENDS IN MEMBER COUNTRIES  
OF THE UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE**

**Note by the secretariat**

**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).
2. At its seventieth session (19-21 February 2008), the Inland Transport Committee took note of the review of the transport situation and emerging development trends in 2007 (ECE/TRANS/200, para. 14). Document ECE/TRANS/2009/3 provides an assessment of the transport situation in the Economic Commission for Europe (ECE) region in 2008 as well as emerging trends and projections. It has been prepared by the secretariat on the basis of the data available in early December 2008.
3. This document describes briefly main economic and inland transport developments in the ECE region, the impact of the global financial crisis and fluctuating fuel prices on the transportation sector as well as some policy responses. The national contributions submitted by ECE member States are available on the Transport Division website: <http://www.unece.org/trans/Welcome.html>.

## I. ECONOMIC AND TRANSPORT TRENDS IN THE ECONOMIC COMMISSION FOR EUROPE REGION

4. The deepening financial crisis and increasingly tight credit conditions resulted in a remarkable slowdown of economic activity throughout the ECE region in the second half of 2008. 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 GDP growth is likely to be subdued or negative in 2009 in all ECE sub-regions, i.e. North America, Western Europe, Southeast Europe and Eastern Europe (Chart 1). The extent of the financial crisis is illustrated by the fact that a number of ECE countries, including Belarus, Hungary, Iceland, Latvia and Ukraine started loan negotiations with the International Monetary Fund (IMF) in the final quarter of 2008.

5. Output expansion came to a halt in high-income economies of Western Europe and North America that account for over a half of global GDP. Expert projections for North America, Britain and Euro-zone range from a mild U-shaped downturn to a protracted L-shaped recession to a depression unseen since the 1930s. Given the extent of the economic damage inflicted by the proliferation of complex mortgage derivatives on the banking sector and the expectations of investors, economic stagnation may well persist over the medium term in spite of massive government bailouts of large financial institutions and ad hoc support for some exposed 'strategic' non-financial firms.

6. Countries of Central Europe and Southeast Europe (SEE) experienced a growth slowdown in 2008 while GDP apparently declined in two Baltic States.<sup>1/</sup> Eastern Europe, the Caucasus and Central Asia (EECCA) continued to outperform other ECE sub-regions, with GDP growth of 7 per cent and freight transport growth of 4 per cent in the first three quarters of 2008 over the same period of the preceding year. Despite a deceleration in the last quarter of 2008, year-on-year growth remained positive in all EECCA countries. However, projections imply a stagnation of demand in the EECCA commodity sector in 2009, including construction materials, steel and energy. Transport is likely to move in line with these developments.

7. According to available statistics, freight transport growth decelerated to a greater extent than GDP growth across the ECE region. The pattern of slowdown differed across markets and transport modes. International Transport Forum (ITF) quarterly data imply that road transport of goods continued to grow in the ECE region during the first half of 2008. However, car passenger traffic and petrol deliveries apparently declined over the same time period.<sup>2/</sup> The International Union of Railways (UIC) statistics for the first half of 2008 show that rail freight traffic, measured by tonne-km, declined in Western Europe (EU + EFTA) by 2 per cent. In contrast, rail freight traffic grew by 6.6 per cent in Russia and 1.9 per cent in the United States while stagnating in Turkey.<sup>3/</sup> Rail passenger traffic, measured in passenger-km, increased over the same time period in Western Europe, Russia, Turkey and United States by 3.2 per cent, 1.4 per cent, 11.5 per cent and 1.9 per cent respectively.

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<sup>1/</sup> Estonia and Latvia.

<sup>2/</sup> See <http://www.internationaltransportforum.org/shorttermrends/>.

<sup>3/</sup> For details, see <http://www.uic.asso.fr/stats/spip.php?article2>.

8. The latest available data from the United States Bureau of Transportation Statistics show that the situation deteriorated markedly in the third quarter of 2008 and the volume of both freight and passenger services declined for the year.<sup>4/</sup> Passenger car traffic declined in response to relatively high fuel prices while the use of public transport increased.<sup>5/</sup> Available national data indicate a similar pattern in Western Europe.<sup>6/</sup> Freight traffic in the EECCA region started to decline strongly during the final quarter of 2008.<sup>7/</sup>

9. Statistics of the International Union of Combined Road-Rail Transport Companies (UIRR) show that road-rail intermodal traffic increased rapidly in Europe in 2007 when it jumped 9 per cent over the previous year. Growth of intermodal transport slowed down in the first 8 months of 2008 to 5.4 per cent.<sup>8/</sup> The service quality has improved only slightly with less than 60 per cent of international intermodal trains arriving on time.<sup>9/</sup>

10. Container traffic on Euro-Asian inland transport links continued to grow. International container shipments by Russian Railways (RZD) exceeded for the first time 1 million twenty-foot equivalent units (TEU) in 2007, growing by 33 per cent (year-on-year) and consisting of imports (42 per cent of total), exports (44 per cent) and transit traffic (14 per cent). Container traffic on the Trans-Siberian route alone reached 620,000 TEU in 2007, increasing by a phenomenal 48 per cent (year-on-year). Over the first three quarters of 2008, the pace of growth of international container traffic on RZD routes decelerated to 9.6 per cent, reflecting a slowdown of shipments to and from the European Union.

## II. SELECTED TRANSPORT ISSUES AND POLICY RESPONSES

### A. The impact of the global financial crisis

11. Growth prospects of the world economy have darkened dramatically over the last year. With global economic activity slowing down, commodity prices started to weaken while unemployment trended upward. Equity markets have remained shaky while business and consumer confidence indicators have deteriorated in all parts of the ECE region, even though the initial effects of the financial crisis were relatively weak in some ECE emerging market economies, reflecting their weaker integration into the global economy. Second-round effects appear to have been much stronger, resulting in a reversal of capital flows and indiscriminate debt and equity market sell-offs that reflect the increasing risk aversion among investors. How

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<sup>4/</sup> For details, see [http://www.bts.gov/press\\_releases/2008/bts053\\_08/html/bts053\\_08.html#table\\_01](http://www.bts.gov/press_releases/2008/bts053_08/html/bts053_08.html#table_01).

<sup>5/</sup> According to the US Federal Highway Administration, "Americans drove 4.4 per cent less, or 10.7 billion fewer vehicle miles traveled (VMT), in September 2008 than September 2007, the eleventh-straight month of declining driving." <<http://www.fhwa.dot.gov/pressroom/fhwa0824.htm>>

<sup>6/</sup> For instance, the provisional figures of the UK Department for Transport indicate a decrease of 2.2 per cent in overall road traffic levels between the third quarters of 2007 and 2008. See *Transport Statistics Bulletin - Road Traffic and Congestion in Great Britain: Quarter 3 2008* <<http://www.dft.gov.uk/162259/162469/221412/221546/224925/224965/368305/roadtraffgbq308.pdf>>.

<sup>7/</sup> According to estimates of Russian Railways, the dramatic decline in cargo transportation during the last 2½ months of 2008 is likely to exceed the increase observed in the preceding 9½ months. See *RZD-Partner*, RBC, 1 December 2008.

<sup>8/</sup> Accompanied traffic grew 13.4 per cent while unaccompanied traffic increased by 4.2 per cent.

<sup>9/</sup> Less than 30 minutes late.

will adverse credit conditions and declining growth rates impact transport services, production of vehicles and infrastructure investment?

12. The volume of global trade is projected by international organizations to decline or stagnate in 2009 for the first time since 1982, reflecting inter alia an unprecedented lack of standard credit facilities.<sup>10/</sup> Falling merchandise trade is likely to reduce inland transport flows. All transport modes have been and will continue to be affected negatively by the weakening consumer and investment demand. International shipping rates have fallen rapidly in the second half of 2008 and are bound to remain subdued in 2009 while the quantities shipped (both liquid and dry bulk) keep declining.

13. Motor vehicle sales have plummeted in the United States and Western Europe while slowing noticeably in other parts of the ECE region. Following the tentative approval of state support for the American car industry in the fall of 2008 (\$25 billion in government-guaranteed loans to develop less polluting cars), European car manufacturers requested €40 billion in low-interest European Investment Bank (EIB) loans that would help them develop vehicles that meet stricter CO<sub>2</sub> targets. Both American and European car makers have also requested access to bank recapitalisation packages for their financial arms. In the maritime transport sector, following the collapse of shipping rates, ship owners minimized their losses by cancelling a number of orders, including those for large dry-bulk carriers.<sup>11/</sup>

14. Adverse psychological effects of the financial crisis are likely to reduce the availability of funds for privately financed infrastructure projects, especially in Eastern Europe. For instance, under the federal programme “Development of the Transport System of Russia (2010 - 2015)” more than 50 per cent of funding was to be provided by non-budgetary sources. However, in the aftermath of the global financial crisis, private investors are unlikely to get involved in markets that are perceived as risky. Meanwhile the Russian Development Bank (VTB), that was expected to invest heavily in transport infrastructure projects, saw its main activity shifting to the refinancing of foreign debts of large domestic corporations, including aluminium producers and energy firms.

15. In the short term, the key issue is how to protect infrastructure investment, especially in countries with fragile fiscal positions. Typically, public infrastructure spending cuts follow a worsening fiscal situation while current expenditure and employment are maintained. This pattern would threaten transport infrastructure investment for the future development, especially in ECE emerging market economies. Some of these economies rely on official development assistance that may well be increased in order to neutralize negative effects of slower growth on investment.<sup>12/</sup>

16. Over the medium term, transport infrastructure spending may well pick up. Following massive financial operations to recapitalise strategic banks and insurers, credit conditions have

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<sup>10/</sup> According to *World Economic Situation and Prospects 2009* of the UN, world trade could decrease by as much as 3 per cent in 2009. For details, see <http://www.un.org/esa/policy/wess/wesp2009files/wesp2009pr.pdf>.

<sup>11/</sup> See *Financial Times*, 10.11.2008, p. 15.

<sup>12/</sup> For details, see ‘Global Financial Crisis: Responding Today, Securing Tomorrow.’ World Bank, 15 November 2008 <<http://go.worldbank.org/TM8VAV33P0>>.

continued to be tight. In order to avoid the liquidity trap,<sup>13/</sup> easy monetary policy needs to be reinforced by a powerful fiscal boost to enhance demand for goods and services. This objective could be achieved by large public infrastructure programmes that would be beneficial to the economy as a whole by reducing chronic traffic bottlenecks in inland transport networks.

17. A number of countries, including France, Germany and the United States, have already adopted or are expected to adopt soon relatively modest fiscal stimulus packages aiming to overcome the liquidity trap. Such spending packages include some acceleration of planned public investment in transport infrastructure (e.g. roads and railways) as well as additional outlays.<sup>14/</sup> In case of a prolonged recession, further increases in transport infrastructure investment could take place in the framework of more expansionary fiscal policies. Given the time lags associated with the implementation of public works programmes, transport infrastructure spending could pick up sometime in the second half of 2009 and in 2010.

18. In post-communist member States of the EU, EECCA and SEE countries transport infrastructure expenditure from public budgets will be supplemented by loans and equity investments of international financial institutions. The future lending pipeline of the World Bank and European Bank for Reconstruction and Development (EBRD) includes some 30 transport projects over the next two to three years worth over \$8 billion. In addition, both institutions announced additional infrastructure investments in 2009, aiming to ameliorate the effect of tight credit conditions.

19. Longer term, the form and delivery of transport services are likely to be influenced by the emerging widespread scepticism about the desirability and efficiency of competitive markets. While strict regulation and even state control for a limited time period may well be desirable in the financial sector in order to avert an excessive destruction of credit and real assets, there is no equally compelling argument for a stronger regulation and state intervention in the transport services sector and goods-producing industries. Nevertheless, important shifts in public opinion have been observed and could translate into intervention-prone policies in transport and other key sectors of the economy.<sup>15/</sup>

## **B. Effects of volatile fuel prices**

20. Oil prices reached an historical peak in July 2008 and subsequently started to fall in response to changing supply and demand conditions when expectations of a major economic slowdown or recession started to prevail (Chart 2). While production from a new oil field in Saudi Arabia boosted global supply, demand started to decrease as consumers responded to the price shock. Faced with unprecedented gasoline and diesel prices at the pump, American and European drivers began to purchase less fuel, switching to more efficient cars, driving less and

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<sup>13/</sup> The liquidity trap refers to a situation in which monetary policy becomes ineffective when demand for money remains flat at low interest rates. This case was extensively analyzed by Keynes in his *General Theory* that also presented logically consistent arguments for the use of expansionary fiscal policy to overcome the trap.

<sup>14/</sup> In case of Germany, new outlays for transport infrastructure investment over the 2009-10 period amount to €2 billion. *Central European Weekly*, 05.11.2008, p. 2.

<sup>15/</sup> For instance, a recent public opinion poll implies that a large majority of German voters would welcome the nationalization of transport, energy and financial sectors (*Financial Times*, 29.10.2009). Opinion surveys in the United States have detected a sharp decrease in public support for free trade and thus for globalization.

using public transit more often. It remains to be seen whether these behavioural changes are transitory or permanent.

21. Despite recent price volatility, the authoritative *World Energy Outlook 2008* of the International Energy Agency assumes that the imported crude oil import price averages \$100 per barrel (in constant 2007 dollars) until 2015 and rises subsequently to \$120 by 2030. High oil prices have a significant impact on numerous industries, including the transport sector in particular because of its dependence on oil products. In most ECE countries, petroleum products are subject to an excise tax as well as value-added tax (VAT). Excises are usually set in absolute amounts per unit of fuel whereas VAT is an ad valorem tax. Even though income and substitution effects reduce demand for fuel when oil prices are high, the increase in the VAT revenue tends to overcompensate the losses due to lower demand, resulting in a higher tax intake. Consequently, the road industry often questions the use of this revenue windfall, claiming that the extra tax amounts should be returned to those who paid them or be invested to their benefit, e.g. for developing or maintaining the road transport network.

22. The redistribution or use of such additional revenues is the responsibility of governments. Ideally, the authorities would use the extra revenue to improve society's welfare. Whether this should be done via spending increases or tax cuts or reduction in public debt can only be assessed on a case by case basis. When taking into account the externalities of transport, in particular road transport, it can be argued that high tax collection due to higher fuel prices is a first - inadvertent from the public policy point - step towards their internalization that would be desirable from the efficiency point of view.

23. Given the current costs of transport and wage differentials, cost minimization sometimes leads to counterintuitive economic behaviour. An example often mentioned by environmentalists is the transport of shrimp by truck from Scandinavia to Morocco with the sole purpose to have them peeled at low cost and shipped back. The cost of fuel is not the only factor underlying such a practice (wage and tax differentials play a major role). In any case, the actual environmental and health costs generated by such transport operations are not fully paid by the companies undertaking them. Some countries have already attempted to internalize some externalities with the aid of flexible taxation schemes. A good example is Switzerland with its heavy-duty vehicle fee (HVF) introduced in 2001, which is calculated on the basis of distance, weight and emissions standards.

24. Higher fuel costs have manifold effects on the logistics chain, including an increased use of intermodal transport or changes in the management of stocks. There is not yet a viable alternative to diesel for road transport and other modes of transport offer limited substitution possibilities. Trucking enjoys a considerable comparative advantage when it comes to speed and flexibility. Trains and inland waterway vessels are not adequate for door to door delivery but could play an increased role in long distance transport, if the intermodal shift induced by relatively high fuel prices were to persist.

25. The car industry is developing vehicles that use alternative power sources. This could reduce dependence on fossil fuels and improve air quality, especially in urban areas. Hybrid passenger vehicles, consistent with improvements in air quality and fuel efficiency, were introduced in the most developed markets. While hybrid engines have demonstrated their effectiveness in vehicles up to a certain size, technological innovation has provided cleaner

diesel engines for bigger vehicles. Diesel vehicles generally achieve about 30 per cent better fuel economy than comparable gasoline-powered cars.<sup>16/</sup> The new generation of diesel engines, unveiled at the end of 2006, will emit fewer particulates than previous models. Other new clean technologies such as hydrogen and fuel cell vehicles will contribute to the reduction of pollutants and CO<sub>2</sub> emissions.

26. A growing number of observers have argued that high fuel prices would ultimately reverse the globalization process by increasing the cost of container shipping from East Asia to final destinations in Europe and North America.<sup>17/</sup> This provides incentives to European and American manufacturers to rely increasingly on less remote factories rather than Asian suppliers. But even if recent declines in crude oil prices below \$50 per barrel could be sustained, the economies of scale associated with container transport may have been largely exhausted in the United States and major efficiency gains are unlikely unless the capacity of port-hinterland linkages can be expanded significantly with the aid of massive investment.<sup>18/</sup> The situation in Europe is broadly similar, even though there is, at least in principle, more room for improving efficiency of hinterland transport by the creation of a competitive rail transport regime, including the optimal “last mile” access to container terminals.

27. Competitive rail freight networks have emerged in parts of Western Europe in the wake of the uneven implementation of the first railway package of the European Commission. A number of UNECE governments have also continued to implement national measures to promote intermodal transport.<sup>19/</sup> Some countries have continued to use discriminatory measures to ensure that that freight shippers favour domestic ports. While this makes sense from the geopolitical point of view, national preferences are usually not conducive to supply chain efficiency.

### III. CONCLUSIONS

28. The expected prolonged recession in large economies of the ECE region will have various effects on the transport sector. Growth of transport services will decline broadly in line with GDP trend. Freight traffic will be affected by the projected decline or stagnation in merchandise trade. Passenger traffic will see shifts to public transport modes, providing that they are available. The automotive manufacturing sector will be hit hard by falling consumer and business demand for motor vehicles. Transport infrastructure investment could be accelerated by governments that use public works programmes to stimulate aggregate demand in order to overcome the liquidity trap.

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<sup>16/</sup> On the other hand, the relatively low price of diesel relative to gasoline in most UNECE countries provides an incentive for owners of diesel-powered cars to drive more. This undesirable effect (from the social point of view) could be eliminated by the rebalancing of relative diesel-gasoline pump prices with the aid of excise taxes as, for example, in Switzerland and United Kingdom.

<sup>17/</sup> For an elaboration of this argument and some references see “Port Competition and Hinterland Connections: Summary and Conclusions,” p. 14. *OECD/ITF Joint Transport Research Centre Discussion Papers*, No. 2008-19, October 2008 <<http://www.internationaltransportforum.org/jtrc/DiscussionPapers/DP200819.pdf>>.

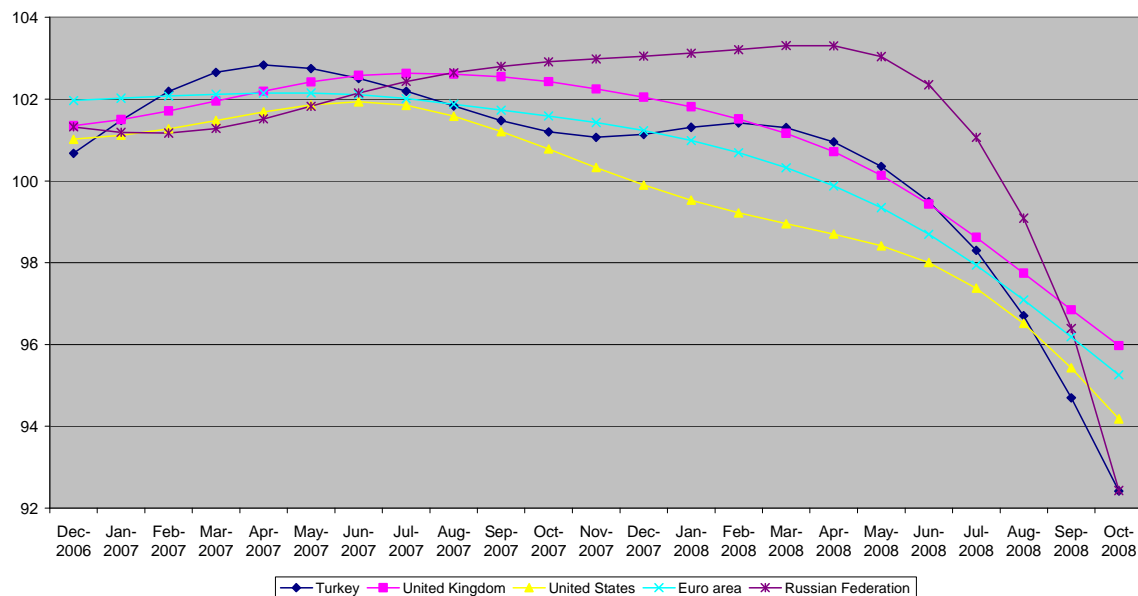
<sup>18/</sup> See M. Levinson, ‘Freight Pain: The Rise and Fall of Globalization.’ *Foreign Affairs*, Volume 87, No. 6, November-December 2008.

<sup>19/</sup> For details for 12 UNECE countries, see the document ECE/TRANS/WP.24/2008/5 and addenda 1 to 6 <<http://www.unece.org/trans/wp24/wp24-official-docs/24docs.html>>.

29. High oil prices are beneficial to export revenue recipients in producing countries and oil companies. For oil importing countries, there is no reason to treat the additional VAT revenue resulting from oil price hikes differently from other tax revenues. The best use of the tax revenue is where it is optimal for the economy as a whole which does not necessarily imply a direct compensation of major taxpayers. High fuel prices should encourage a substitution of long distance transport from road to rail or inland waterways, if no substitutes for diesel are found.

30. The approaching exhaustion of economies of scale in intercontinental maritime container transport and lack of capacity and/or competition on hinterland links could result in some globalization reversals that would see a relocation of production from East Asia to North American and East European factories. The consequent shortening of supply chains would probably entail positive environmental effects.

**Chart 1. Composite leading indicators  
December 2006 - October 2008**

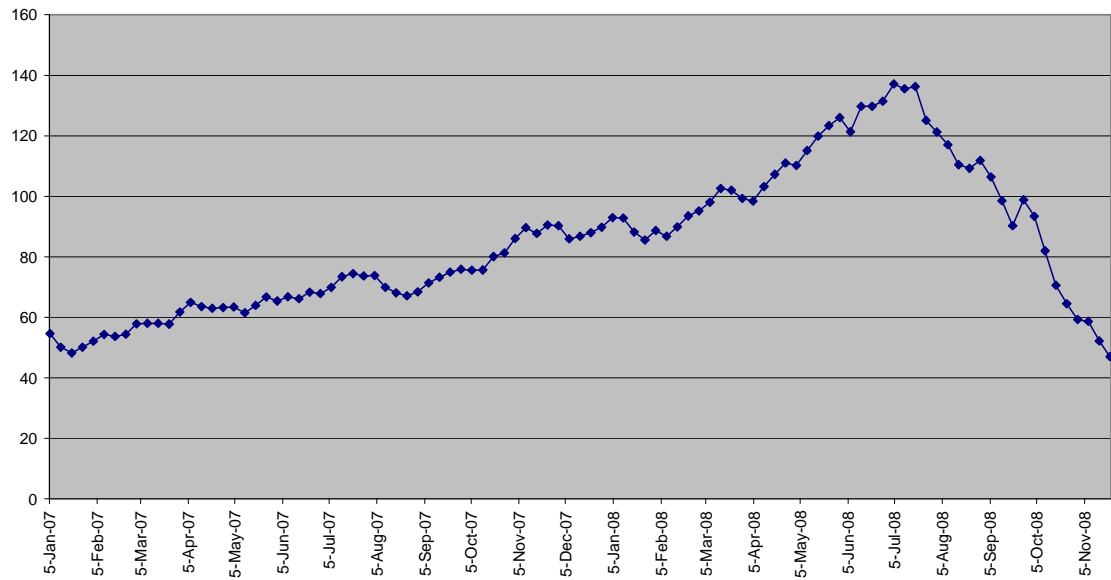


Note: A long-term average = 100.

Source: OECD < [http://stats.oecd.org/wbos/Index.aspx?datasetcode=MEI\\_CLI](http://stats.oecd.org/wbos/Index.aspx?datasetcode=MEI_CLI) >.



**Chart 2. Imported crude oil prices (\$ per barrel)  
5 January 2007 - 21 November 2008**



*Note:* Weekly All Countries Spot Price FOB Weighted by Estimated Export Volume.

*Source:* Energy Information Administration, Official Energy Statistics from the U.S. Government <  
[http://tonto.eia.doe.gov/dnav/pet/pet\\_pri\\_wco\\_k\\_w.htm](http://tonto.eia.doe.gov/dnav/pet/pet_pri_wco_k_w.htm)>.

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