

DEMAND

Summary

- **Global oil product demand** has been significantly revised for both 2007 and 2008. World demand is now estimated at 86.0 mb/d in 2007 (+1.3% or +1.1 mb/d over the previous year and +140 kb/d over last month's report). In 2008, demand is expected to reach 87.2 mb/d (+1.5% or +1.3 mb/d over 2007, and -310 kb/d compared with the last report). These revisions are due to a confluence of factors: firstly and most importantly, a significant downward adjustment to global GDP forecasts, notably in the US, based on the most recent IMF assessment; secondly, the introduction of a new FSU methodology, based on primary rather than apparent demand figures, which results in a higher base; and thirdly, baseline adjustments and revised data submissions.
- **OECD oil product demand** has been lowered by some 320 kb/d to 48.9 mb/d in 2008 (-0.3% or -0.2 mb/d over 2007). The changes result from the IMF's considerable adjustment of its US GDP forecast (from 1.5% to 0.5% in 2008) and from a large downward revision to US January data, which largely offset strong demand for heating and power generation fuels in Europe and the Pacific. Given the virtual stagnation of the US economy and the prevalence of historically high oil prices, US demand is expected to contract by as much as 2% in 2008, to 20.4 mb/d.

Global Oil Demand (2006-2008)

	(million barrels per day)														
	1Q06	2Q06	3Q06	4Q06	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008
Africa	3.0	3.0	2.9	2.9	2.9	3.1	3.1	3.0	3.1	3.1	3.2	3.2	3.1	3.2	3.2
Americas	30.4	30.4	30.9	30.8	30.6	31.0	31.0	31.2	31.3	31.1	30.6	30.9	31.2	31.2	31.0
Asia/Pacific	25.3	24.2	23.8	24.9	24.5	25.4	24.9	24.4	25.6	25.1	26.4	25.5	25.0	26.4	25.8
Europe	16.8	16.0	16.3	16.5	16.4	16.0	15.7	16.1	16.4	16.0	16.3	15.8	16.1	16.3	16.1
FSU	4.0	3.9	4.1	4.2	4.1	4.1	3.9	4.2	4.3	4.1	4.1	4.0	4.2	4.3	4.2
Middle East	6.2	6.3	6.6	6.3	6.3	6.5	6.6	6.8	6.5	6.6	6.8	6.9	7.2	7.0	7.0
World	85.6	83.6	84.6	85.6	84.9	86.1	85.1	85.6	87.1	86.0	87.3	86.3	86.9	88.4	87.2
Annual Chg (%)	0.8	1.1	1.3	1.4	1.2	0.5	1.8	1.2	1.7	1.3	1.5	1.4	1.5	1.5	1.5
Annual Chg (mb/d)	0.7	0.9	1.1	1.2	1.0	0.5	1.5	1.0	1.5	1.1	1.3	1.2	1.3	1.3	1.3
Changes from last month's report (mb/d)	-0.01	0.00	0.04	-0.22	-0.05	0.04	0.17	0.12	0.25	0.14	-0.62	-0.17	-0.26	-0.20	-0.31

- **Non-OECD oil product demand** has been revised up by roughly 150 kb/d to 36.9 mb/d in 2007 (+3.8% or +1.4 mb/d over the previous year) but kept unchanged at 38.3 mb/d in 2008 (+3.9% or 1.4 mb/d). The 2007 revision was almost entirely related to the adoption of the new FSU methodology, which implied adjustments in all quarters. Meanwhile, in 2008, minor downward adjustments in Africa, China, Europe and the Middle East offset upward changes in the FSU, Latin America and Other Asia, due both to stronger than expected monthly submissions and alterations in baseline data.

Global Overview

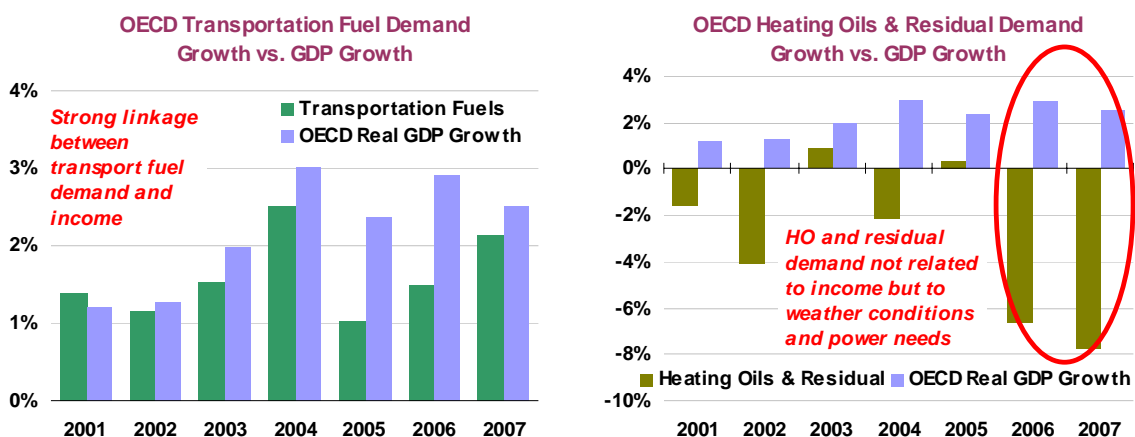
This month's report includes several key adjustments that have noticeably altered both 2007 oil demand levels and the 2008 forecast. Global oil product demand is now estimated at 86.0 mb/d in 2007 (a growth rate of +1.3% or +1.1 mb/d over the previous year) and is expected to reach 87.2 mb/d in 2008 (+1.5% or +1.3 mb/d over 2007). These new figures imply significant revisions versus last month's report, and result from several factors.

Revisions versus OMR dated 11 March 2008

	2007	2008
Total demand (kb/d)	+140	-310
Relative growth (percentage points)	+0.2	-0.5
Absolute growth (kb/d)	+190	-460

1. **GDP adjustments.** The IMF released the latest edition of its *World Economic Outlook* on 9 April, revising down its previous assessment of global economic growth – upon which this report's econometric demand model is based. This was particularly dramatic in the case of the US (growth in 2008 was cut from 1.5% to 0.5%), but most OECD countries were also adjusted down. More interestingly, although most emerging economies were also revised, such changes were somewhat less pronounced relative to their growth trends: some were slightly down, such as China (from 10.0% to 9.3%), while others were up, such as Brazil (from 4.5% to 4.8%). This suggests that the case for 'decoupling' has some merits (see text box below); for the first time, a sharp US economic downturn is not expected to cause such significant impact in key emerging countries as in the past.
2. **New FSU methodology.** As often highlighted in previous reports, estimating *apparent* FSU demand based on supply and trade data was sub-optimal, notably because of the volatility of trade figures, which often led to large revisions. We have been able, however, to finally obtain reliable *oil demand* data for several key FSU countries, notably Russia, and as such FSU demand has now become the sum of oil use among regional countries. Overall, this new and more detailed methodology indicates that FSU demand grew by 0.9% in 2007 (implying a +150 kb/d revision versus the previous report), and that it should further expand by 1.6% in 2008 (a +70 kb/d revision). This contrasts with implied demand data, which suggested a contraction in demand during 2007 despite buoyant GDP growth.
3. **Baseline adjustments and revised data submissions.** We are integrating new annual non-OECD demand figures for 2006 as they become available, in addition to systematically including revisions to previously submitted data. We have adjusted up both Latin America and Other Asia demand (collectively by +80 kb/d in 2007 and +120 kb/d in 2008), and more significantly, US demand in 1Q08 (-390 kb/d) given a massive revision to weekly estimates in January.

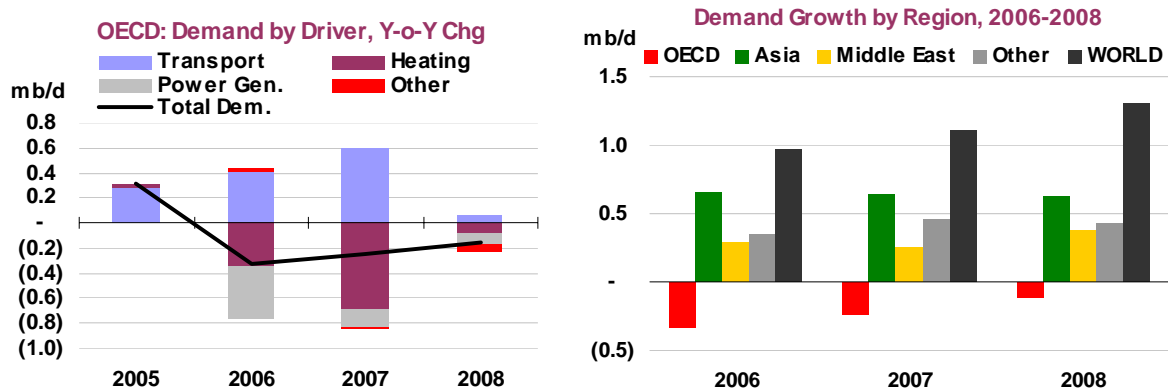
Weaker-than-expected economic growth has the greatest implications for global oil demand. There is the question of OECD demand growth, which has basically been sustained by North America in recent years. As oil prices began their relentless rise in 2004, many observers predicted a significant contraction in OECD oil demand – which did not materialise until late 2007. Such an assessment, however, ignored that OECD oil demand is essentially driven by transportation fuels. These are both highly price inelastic, notably in areas such as North America where public transportation alternatives are limited, and relatively stable in terms of consumption, reflecting the fact that developed economies are mature and that changes in income must be quite large to elicit significant variations in oil demand.



Short-term changes in OECD oil demand tend to reflect weather patterns and power generation needs, which can prompt very large swings in consumption levels. Indeed, the unusually mild winter temperatures observed in the past two years largely explain why OECD oil demand contracted slightly in both 2006 and 2007. In the medium term, by contrast, oil demand is clearly affected by income variations (there is usually a time lag between changes in income and oil demand). The US economic slowdown

began in mid-2007, and gasoline demand has finally started to contract. And yet this decline has been relatively moderate so far, considering that the economic outlook has worsened markedly. This is not to say, however, that a US downturn is inconsequential. As the latest revisions suggest, total oil demand has contracted by more than expected and should continue to fall in the months ahead, as consumers adapt their consumption patterns to the less benign economic circumstances.

Given the weight of US demand, we have adjusted down our 2008 prognosis for OECD North America by 270 kb/d. Elsewhere in the OECD, transportation fuels demand is essentially flat, reflecting the fact that economic conditions appear to be less bleak than in the US, but demand for other types of fuel remains strong. Indeed, oil demand in Europe and the Pacific has largely been supported by heating needs (late heating oil buying in Germany and a strong kerosene rebound in both Japan and Korea) and electricity requirements (residual and direct crude deliveries in Japan as a result of continued nuclear power plant outages). Overall, OECD oil product demand has been revised down by 320 kb/d, compared with the previous report, to 48.9 mb/d in 2008.



By contrast, oil consumption in two key non-OECD areas (the Middle East and Asia, which together account for over 80% of global oil demand growth) is likely to continue expanding apace, largely offsetting marginal declines in other non-OECD regions. In both areas, demand is driven by strong economic momentum and continued urbanisation, industrialisation and population growth, coupled with favourable end-user administered price regimes. This last point is particularly true in the Middle East, where high international oil prices have led to rising incomes (the IMF has actually revised up its GDP forecast for this region), not to mention the fact that energy prices there are among the lowest in the world.

Within Asia, China remains the single most important driver. In this country, the determinants of oil demand are more complex; oil use has indeed risen with income, but at a slightly slower pace. Although the difference can be partly explained by its relatively more efficient oil use, a key aspect behind this dichotomy is China's pricing policy. Capped end-user prices do indeed encourage demand, notably for transportation fuels, by shielding Chinese consumers from the vagaries of the international oil market. However, they also prompt widespread shortages whenever international prices rise sharply, since local refiners find that supplying the domestic market becomes unprofitable. In that sense, pent-up demand in China is arguably significant, only limited by supply constraints, which since last year have become a usual occurrence. Paradoxically, even if economic growth were to slow down slightly and/or if end-user prices were to be liberalised (the main constraint being further inflationary pressures), Chinese oil demand could potentially increase, if only supplies were sufficient to meet such a surge. In the meantime, we have only slightly adjusted down the country's demand in 2008 (-70 kb/d) to account for the 1Q08 weather disruptions and slightly lower economic growth projections, but an Olympics-driven upward revision cannot be discarded.

Decoupled Globalisation?

As the United States slips into a sharp economic slowdown, some observers predict that this will inevitably affect the rest of the world. The argument behind this view is that globalisation has synchronised the world's main economies via trade and financial flows. However, even though a US downturn will likely affect other countries, there is some evidence that the so-called 'decoupling' effect – understood as a more limited impact on developing economies than that observed in the past – is actually taking place. As such, the outlook of global economic activity and oil demand growth is brighter than commonly assumed – a conclusion that is tacitly shared by the IMF, whose 2008 global GDP growth forecast is still a relatively healthy 3.7%, despite the woes of the US economy.

Three key structural factors support the decoupling case: 1) emerging countries trade increasingly among themselves, rather than with developed economies; 2) domestic investment and demand, as opposed to net exports, have become the main driver of economic growth in the largest emerging economies; and 3) the price of commodities – a key export from developing economies – is no longer mainly sustained by demand from rich countries, but mostly by emerging ones, engineering in turn a boom among commodity exporters. China is the exemplary incarnation of these trends. Half of its exports go to other emerging countries, notably Brazil, India and Russia; its domestic consumption and investment (of which almost half is devoted to infrastructure and property) contribute to roughly 80% of nominal GDP growth; its domestic demand is boosted by productivity gains and growing wages; and its insatiable appetite for commodities, ranging from oil to coal and soy, has helped sustain price booms in other emerging (and a few developed) countries.

A protracted US recession is not yet on the horizon, according to the IMF forecast, which still sees low but nonetheless positive US growth in both 2008 and 2009, despite the continuing problems in the country's financial and housing sectors, the fall of the dollar, signs of weakening activity in manufacturing and services, and rising inflationary concerns. Yet the course of the global economy is arguably increasingly dependent upon Chinese developments. What is then the outlook for China's economy? As noted, China's export sector can arguably weather falling US demand, as long as demand elsewhere remains buoyant. This, in turn, is likely to have a supportive effect for other developing economies, particularly primary commodity producers (strong Chinese demand for commodities => higher income in exporting countries => growing demand for Chinese goods => further Chinese demand for commodities).

A bigger uncertainty concerns the Eurozone, which has become China's main trading partner and which is arguably more prone to be affected by a US slowdown, as the IMF predicts. Yet Europe may manage to hold its ground, as long as capital exports from Germany – which is the main engine of the European economy – remain relatively strong. Perhaps more crucially, as long as the yuan remains undervalued vis-à-vis the euro, China's exports to Europe should also remain reasonably buoyant. And even if exports to Europe were to fall dramatically, China's significant foreign currency reserves – resulting from its huge current account surpluses – gives it leeway to conduct a countercyclical fiscal policy if needed.

OECD

According to preliminary data, total OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 0.8% year-on-year in February, with North American losses largely offsetting gains in Europe and the Pacific.

Total OECD Demand by Product
(million barrels per day)

	2006	2007	1Q07	2Q07	3Q07	4Q07	Nov 07	Dec 07	Jan 08*	Latest month vs.	
										Dec 07	Jan 07
LPG & Ethane	4.78	4.82	5.24	4.64	4.44	4.95	5.00	5.24	5.22	-0.01	-0.11
Naphtha	3.17	3.21	3.38	3.06	3.15	3.24	3.27	3.32	3.26	-0.06	-0.21
Motor Gasoline	14.86	14.90	14.44	15.06	15.28	14.81	14.81	14.74	14.01	-0.74	-0.04
Jet & Kerosene	4.16	4.11	4.35	3.90	3.96	4.22	4.22	4.31	4.36	0.05	-0.04
Gas/Diesel Oil	13.25	13.17	13.50	12.60	12.87	13.70	13.84	13.36	13.42	0.06	0.34
Residual Fuel Oil	4.04	3.93	4.19	3.87	3.76	3.90	3.99	3.90	4.08	0.19	-0.10
Other Products	5.08	4.98	4.58	5.03	5.24	5.05	5.16	4.82	4.70	-0.12	0.19
Total Products	49.34	49.10	49.69	48.16	48.70	49.86	50.29	49.69	49.06	-0.63	0.03

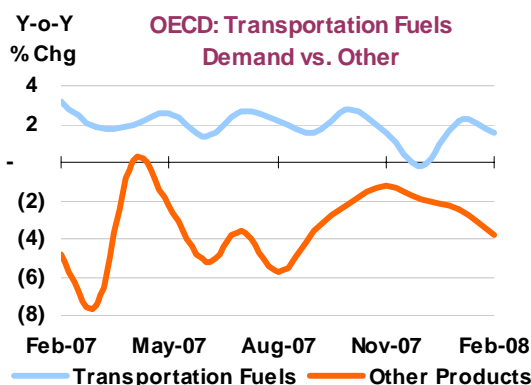
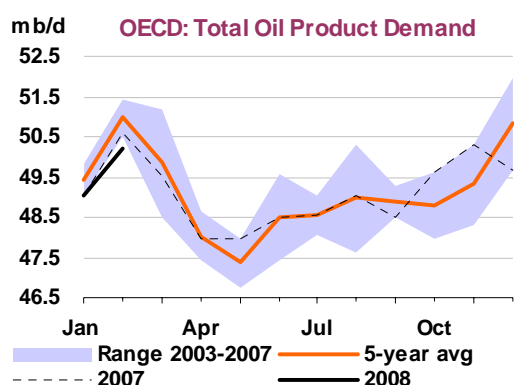
* Latest official OECD submissions (MOS)

Oil product demand in OECD North America (which includes US Territories) plummeted by 4.1%, dragged down by the US; only gasoline posted marginal gains (+0.1%), given the resilience of Canadian and Mexican demand. In OECD Europe, demand growth (+1.7%) was as expected supported by a rebound of heating oil deliveries, notably in Germany, given somewhat colder weather. Continued strong demand for residual fuel oil and direct crude for power generation in Japan, together with higher deliveries of kerosene in both Japan and Korea following sharply colder temperatures, boosted demand in OECD Pacific (+4.5%).

OECD Demand based on Adjusted Preliminary Submissions - February 2008

	(million barrels per day)													
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	10.53	0.1	1.89	-1.6	4.19	11.4	1.29	-34.3	1.07	-27.5	6.14	-6.16	25.11	-4.1
US50	9.00	-0.6	1.66	-2.3	3.64	12.4	0.72	-46.8	0.57	-41.0	4.67	-7.9	20.28	-5.3
Canada	0.71	1.7	0.11	2.9	0.21	1.7	0.41	-9.6	0.16	2.3	0.84	0.9	2.43	-0.6
Mexico	0.76	6.5	0.08	8.2	0.29	7.8	0.13	7.8	0.25	-6.0	0.56	-1.6	2.07	2.8
OECD Europe	2.32	-3.7	1.23	-0.4	4.25	3.2	2.37	13.6	1.73	-9.8	3.69	3.5	15.59	1.7
Germany	0.45	-2.9	0.19	7.0	0.63	7.3	0.50	34.9	0.17	-11.0	0.62	8.3	2.56	8.3
United Kingdom	0.41	-3.5	0.36	-7.4	0.41	0.7	0.14	-2.0	0.08	-6.3	0.33	-0.4	1.74	-2.8
France	0.20	-3.0	0.14	2.1	0.68	5.4	0.38	6.4	0.10	-13.5	0.46	-4.7	1.97	0.8
Italy	0.27	-5.5	0.07	3.5	0.57	4.0	0.11	2.9	0.26	-30.8	0.38	1.8	1.66	-5.4
Spain	0.14	-5.9	0.11	2.7	0.54	2.1	0.30	17.1	0.21	-1.8	0.37	4.5	1.67	3.8
OECD Pacific	1.53	-3.5	1.39	7.4	1.23	-3.4	0.63	-6.3	1.06	8.1	3.65	11.6	9.50	4.5
Japan	0.96	-5.2	1.02	7.5	0.62	-5.9	0.51	-3.8	0.62	34.0	2.28	17.0	6.01	8.1
Korea	0.17	-2.6	0.25	10.3	0.26	-7.5	0.12	-15.5	0.40	-16.2	1.15	4.9	2.34	-2.0
Australia	0.35	0.3	0.10	1.8	0.32	5.2	0.00	-36.9	0.02	-3.8	0.20	-2.0	1.00	1.3
OECD Total	14.38	-0.9	4.52	1.4	9.68	5.6	4.28	-9.1	3.86	-11.8	13.48	0.8	50.19	-0.8

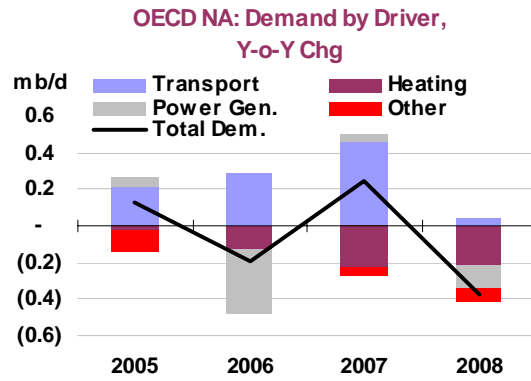
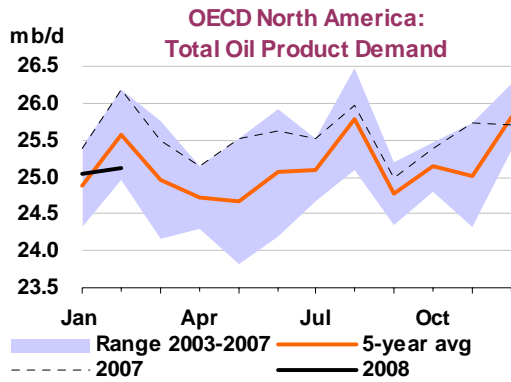
* Including US territories



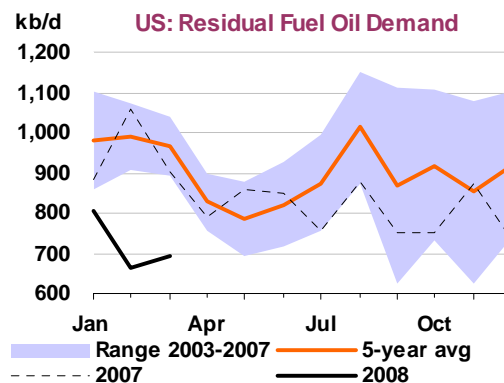
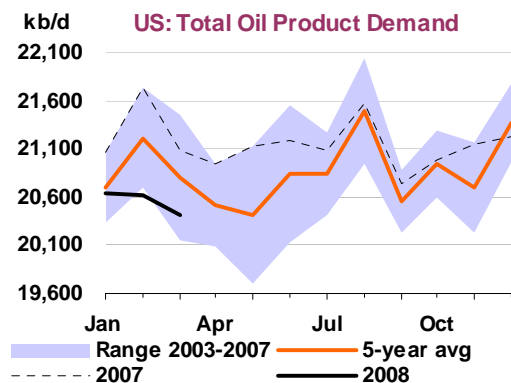
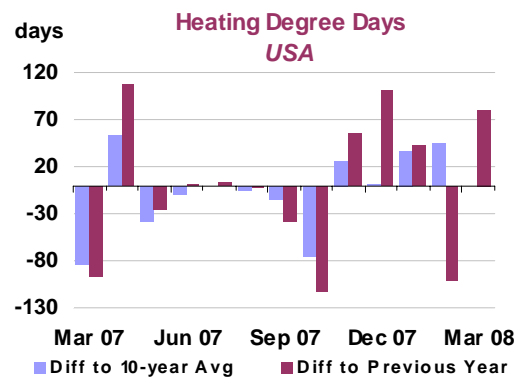
North America

Preliminary data indicate that oil product demand in North America (including US Territories) contracted by 4.1% year-on-year in February, mostly as a result of a general weakness in all product categories in the US. Regional gasoline (+0.1%) and diesel (+11.4%) demand was largely supported by Canadian and Mexican needs. The contraction in deliveries was particularly marked in the case of high-sulphur gasoil (heating oil), which fell by 34.3% (although this is partly related to reclassification issues in the US, since low-sulphur non-road, locomotive and marine gasoil is now counted as diesel) and residual fuel, which plummeted by 27.5%. Given current trends, OECD North American demand is expected to average 25.2 mb/d in 2008 (-1.5% when compared with 2007).

Adjusted preliminary data indicate that inland deliveries in the continental **United States** – a proxy of oil product demand – contracted by 5.3% year-on-year in February. The fall was related to weak demand across the key product categories (gasoline: -0.6%; jet fuel/kerosene: -2.3%, gasoil/diesel: -5.1%; residual fuel oil: -41.0%). To a large extent, this contraction – notably with respect to transportation fuels – reflects a deteriorated economic environment, as the country's marked economic slowdown is compounded by high oil prices.

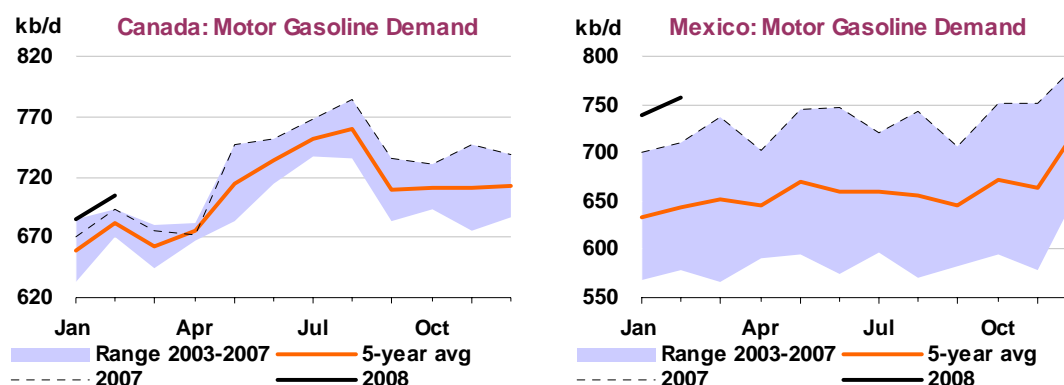


Even though these figures are in line with previous estimates, the significant downward revisions to January demand statistics (660 kb/d) were much larger than expected. Revisions are usual (given the inherent differences in the ways that the US Energy Information Administration collects monthly and weekly data), but they have rarely been so large. Although it could be tempting to attribute January's adjustment to worsening economic conditions, it should be noted that two-thirds come from changes to preliminary weekly estimates for oil products that are mostly related to heating and power needs (high-sulphur gasoil, residual fuel and 'other products', which together account for some 18% of US demand). By contrast, the adjustment to those products that are more sensitive to the level of economic activity (gasoline, jet fuel/kerosene and diesel, which account for 69% of US demand) was relatively limited (that is, relative to the size of US demand and compared with historical revisions). Overall, the revisions may suggest that interfuel substitution in favour of natural gas has been higher than expected, despite relatively cold weather (the number of US heating-degree days in January was both higher than the 10-year average and than in the same month of the previous year). This is particularly true for residual fuel oil, but in the case of propane and distillates it is likely related to a postponement of tank refilling due to high prices.



Nevertheless, as expectations that the credit crisis that erupted in mid-2007 risks becoming a prolonged slump take hold, US consumers have begun to adopt a more energy-conscious lifestyle. Consumers are acting on several fronts: 1) reducing discretionary driving (fewer random drives in the countryside and more walking to shops, according to a New York Times online survey); 2) increasing their usage of public transportation, notably in urban areas (according to the American Public Transit Association, mass transit

use increased by more than 2% in 2007, reaching the highest level in half a century); and 3) switching to more efficient vehicles (sales of large SUVs fell by some 25% year-on-year in early 2008, while those of the smallest cars jumped by almost 40%). Admittedly, the fall in pickup sales is partly related to the virtual halt of home construction activity. Nevertheless, the change in vehicle purchasing patterns, if sustained, will have far-reaching consequences in the medium to longer term. Given these developments, we anticipate that gasoline demand will decline in 2008 (-0.9%), for the first time since the mid-seventies. Total US oil product demand, meanwhile, is poised to contract by as much as 2% in 2008, to 20.4 mb/d.



By contrast, transportation fuels demand in **Canada** and **Mexico** continues to roar ahead. In Canada, both gasoline and diesel demand rose by an estimated 1.7% year-on-year in February, according to preliminary data. In Mexico, the rise was even more spectacular: +6.5% and +7.8%. These growth rates are the more remarkable considering that the US economy – the main market for both countries' exports, which account for a big share of their respective GDPs – has markedly slowed down. Arguably, as discussed earlier, the economic resilience of both Mexico and Canada is grounded in two key elements: strong internal demand and high earnings from commodity exports – notably energy. As such, the IMF still sees both countries growing three to four times faster than the US in 2008 – an unprecedented occurrence in the case of Mexico, where the strength of domestic demand is a relatively new feature. Nevertheless, the pace of oil demand growth in both countries will probably be somewhat slower than in recent years.

OECD North America Demand by Product

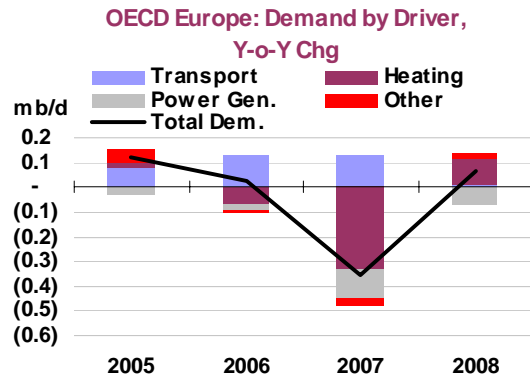
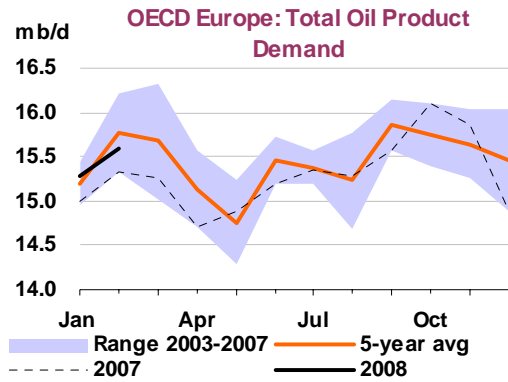
(million barrels per day)

	2006	2007	1Q07	2Q07	3Q07	4Q07	Nov 07	Dec 07	Jan 08*	Latest month vs.	
										Dec 07	Jan 07
LPG & Ethane	2.87	2.92	3.24	2.75	2.70	2.99	3.02	3.18	3.21	0.03	-0.12
Naphtha	0.44	0.43	0.42	0.45	0.43	0.43	0.43	0.41	0.40	-0.01	-0.04
Motor Gasoline	10.72	10.85	10.53	10.94	11.07	10.85	10.85	10.85	10.34	-0.51	-0.02
Jet & Kerosene	1.91	1.90	1.88	1.89	1.91	1.91	1.93	1.88	1.82	-0.06	-0.07
Gas/Diesel Oil	5.17	5.27	5.48	5.13	5.13	5.34	5.33	5.37	5.29	-0.08	-0.02
Residual Fuel Oil	1.20	1.24	1.38	1.26	1.18	1.16	1.25	1.12	1.20	0.08	-0.12
Other Products	2.99	2.94	2.74	3.02	3.07	2.93	2.92	2.89	2.76	-0.13	0.04
Total Products	25.31	25.55	25.67	25.43	25.49	25.60	25.73	25.71	25.03	-0.68	-0.35

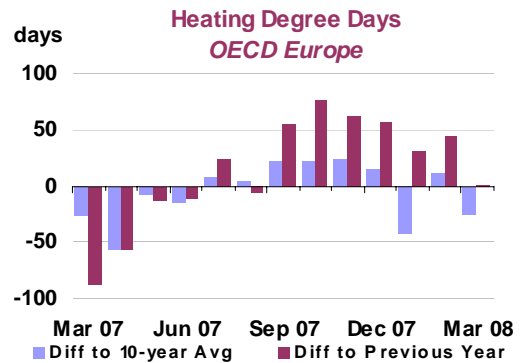
* Latest official OECD submissions (MOS)

Europe

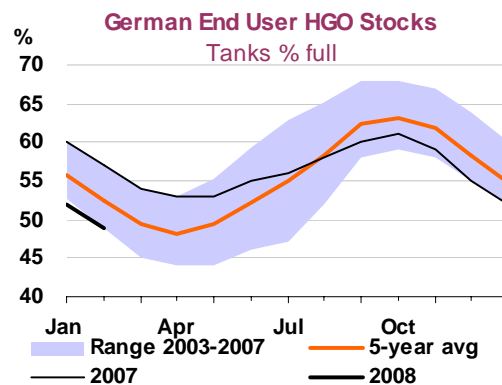
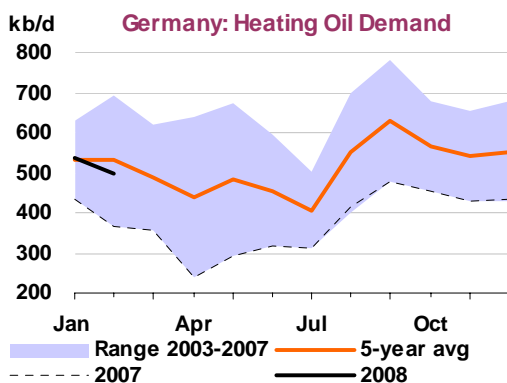
Preliminary inland delivery data show that European demand rose by 1.7% year-on-year to 15.6 mb/d in February. Across the continent, however, diverging trends emerged, with Germany growing by 8.3%, France remaining relatively flat at +0.8% and Italy and the UK contracting by 5.4% and 2.8%, respectively. Heating oil, in particular, grew strongly (+13.6%) in Europe as a whole, with German demand rebounding by 35%. Diesel demand remains surprisingly robust in the main economies, expanding by 3.2% despite a moderation in economic growth and high end-user prices. Residual fuel oil, meanwhile, was very weak (-9.8%), contracting in all main countries (France, Germany and Italy).



Despite February's poor weather (colder than last year and than the 10-year average), the rebound in demand was less strong than anticipated, leading to a downward revision of about 100 kb/d for the month. This suggests that continued high prices are starting to have a real effect on consumer behaviour. Moreover, the IMF's new economic projections have entailed further downward adjustments to our 2008 oil demand forecasts for several key countries. Although GDP growth in the Eurozone has been only revised down by 0.2% to 1.4%, this masks more substantial revisions. For example, GDP growth projections in Italy and Spain are sharply down (to 0.3% and 1.8%, respectively), those for France and Germany are minimally changed (1.4% each) and that for the UK is slightly up (1.6%). Coupled with weaker-than-expected January final data across most countries (with the major exception of Turkey, as discussed below), oil demand in 2008 has been revised down by 41 kb/d to 15.4 mb/d (+0.4% over 2007).

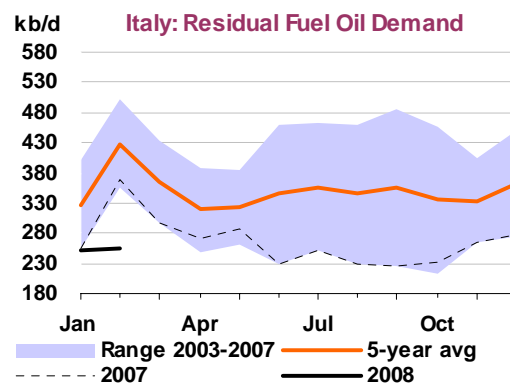
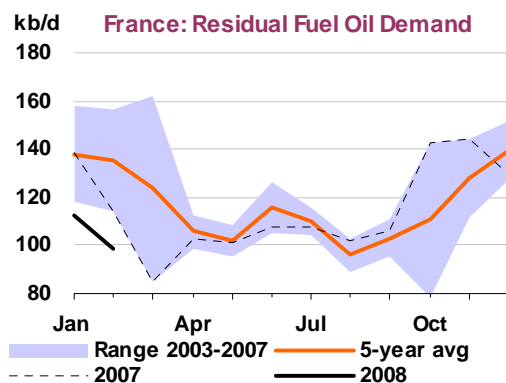


German demand has been adjusted down slightly in both 2007 and 2008, following revisions to the 2007 monthly submissions, as well as for January 2008 (demand for both diesel and heating oil was weaker than expected, leading to a downward adjustment of 50 kb/d for total gasoil). February preliminary data, however, was very much in line with our forecast (+8.3% on a yearly basis). Despite temperatures close to the 10-year average in both February and March, heating oil demand was below the historical average in February, suggesting a consumer response to high prices. Meanwhile, Germany's demand for transportation fuels (particularly diesel) continues to grow at a surprisingly fast pace. Total transportation demand (including motor gasoline, diesel and jet fuel) grew by 9.9% in January and 3.4% in February.



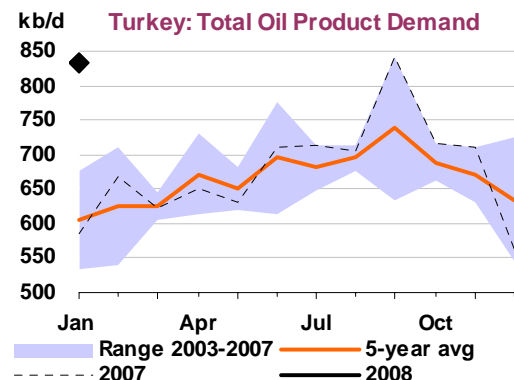
German end-user stocks of heating oil declined in line with seasonal trends in February, falling to 49% of capacity (from 52% by end-January). This represents a stock draw of about 200 kb/d, just slightly below the five-year average. Looking ahead, it remains to be seen whether German consumers will be comfortable with such a low level of stocks, given the increasing tightness in European distillate markets (and subsequent continued pressure on prices), or whether they will choose to resume filling their household tanks. In the latter case, the timing of such purchases would arguably have a significant impact on demand and prices.

Final January data led to a downward adjustment of 106 kb/d in **French** oil demand, as heating oil, residual fuel oil and LPG turned out to be lower than expected given warmer-than-average temperatures. February preliminary data were also slightly weaker (-26 kb/d). Deliveries of residual fuel oil, in particular, declined by 13.5%, in contrast to the strong growth seen since late 2007. Indeed, higher use of natural gas for power generation largely explains why fuel oil deliveries to both industry and electricity plants declined (-10% and -27%, respectively). Meanwhile, transportation fuel demand grew by a robust 3.2%, (jet: +2.1%; diesel: +5.4%; gasoline: -3.0%), mirroring the German trend. Overall, oil demand has been cut by 25 kb/d in 2008 as a result of revised data and lower GDP growth expectations.



Italian demand fell by 5.4% year-on-year in February, according to preliminary data, mostly as a result of lower fuel oil deliveries (-30.8%) and despite higher electricity demand and lower hydro generation. As in France, natural gas made up the difference (total thermoelectric generation was up by 6% on a yearly basis). Meanwhile, all other product categories bar gasoline and naphtha posted gains, with diesel increasing by 4%, jet by 3.5% and heating oil by 2.9%. As with other countries, our 2008 demand forecast has been adjusted down slightly given lower Italian GDP growth figures.

January **Turkish** demand was revised up by 288 kb/d – an extraordinarily large annual increase (+42.5%). Motor gasoline is reported to have grown by 59.6%, gasoil by 62.6% (the diesel and heating oil breakdown is not available), fuel oil by 45.0%, LPG by 22.7% and ‘other products’ by 29.8%. Only naphtha demand was weaker (-28.2%). These figures, however, should be treated with caution: a new reporting system was put in place last January, and these very high growth rates could indeed be related to reporting errors. Moreover, oil demand in January 2007 was very weak, further inflating growth rates. It should be noted that December demand was also weak, suggesting that some deliveries may have been delayed until early this year.



Belgium's 4Q07 demand for residual fuel oil, gasoil and naphtha were revised up. Heating oil demand, in particular, recorded strong growth (+24.7% year-on-year) in December – for the first time since January 2007. Fuel oil growth (+20.7%) turned out also to be much stronger than expected, essentially given buoyant bunker demand (which accounts for 85% of total Belgian residual fuel oil demand and which rose by 16% in 2007); by contrast, the use of fuel oil for power generation declined by 13% as natural gas made further inroads. Finally, given persistent anomalies in submitted data for **Norway** (LPG) and **Iceland** (all product categories), we have decided to apply a six-month rolling average to reported figures. Indeed, Norway tends to report sharp fluctuations in LPG use (from virtually none to as much as 150 kb/d), while Iceland reports reflect port deliveries rather than end-user consumption. The rolling average smoothes the series and gives a better sense of actual demand for both countries.

OECD Europe Demand by Product

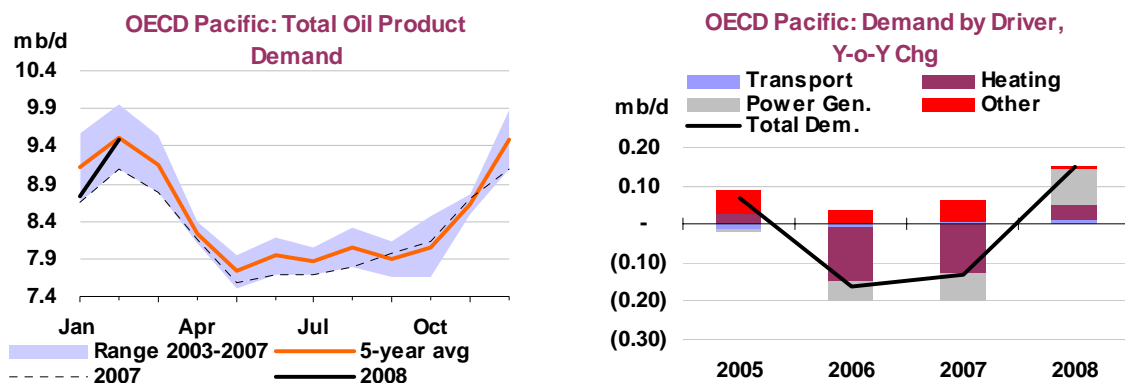
(million barrels per day)

	2006	2007	1Q07	2Q07	3Q07	4Q07	Nov 07	Dec 07	Jan 08*	Latest month vs.	
										Dec 07	Jan 07
LPG & Ethane	1.00	0.97	1.03	0.97	0.88	1.00	1.04	1.03	1.07	0.04	0.05
Naphtha	1.12	1.12	1.21	1.05	1.08	1.14	1.13	1.16	1.11	-0.05	-0.13
Motor Gasoline	2.57	2.49	2.38	2.58	2.58	2.40	2.40	2.31	2.23	-0.08	-0.01
Jet & Kerosene	1.27	1.29	1.22	1.28	1.39	1.28	1.26	1.22	1.23	0.01	0.00
Gas/Diesel Oil	6.25	6.12	6.17	5.73	6.07	6.50	6.61	6.16	6.46	0.31	0.37
Residual Fuel Oil	1.86	1.74	1.83	1.71	1.68	1.74	1.77	1.72	1.76	0.04	-0.09
Other Products	1.57	1.55	1.35	1.60	1.69	1.54	1.66	1.28	1.42	0.13	0.10
Total Products	15.63	15.28	15.19	14.93	15.39	15.61	15.86	14.88	15.28	0.41	0.28

* Latest official OECD submissions (MOS)

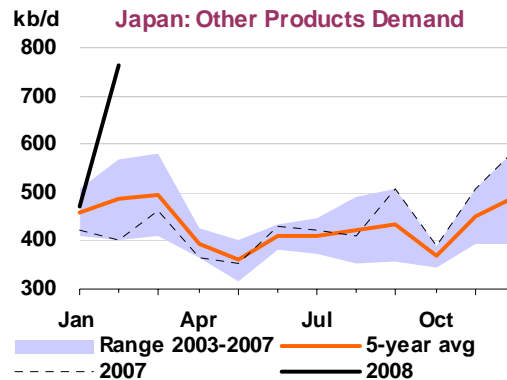
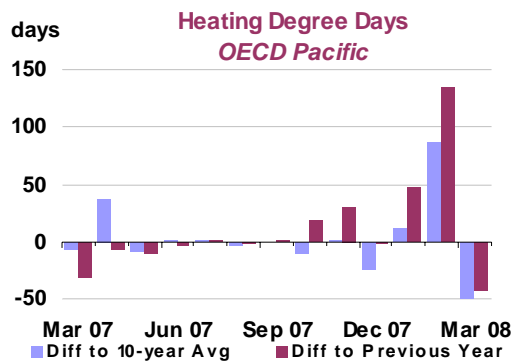
Pacific

February preliminary data indicate that oil product demand in the Pacific jumped by 4.5% year-on-year. Demand was largely supported by strong consumption of jet fuel/kerosene for heating in both Japan and Korea, and by fuel oil and direct crude for power generation in Japan. Temperatures were indeed sharply colder in February (the number of heating degrees was 87 higher than the 10-year average and 135 higher than in the same month of the previous year). Given the boost provided by this cold spell, OECD Pacific oil demand is slightly revised up, when compared with last month's report, at 8.4 mb/d in 2008 (+1.8% on a yearly basis).



According to preliminary data, oil product demand in **Japan** – which accounts for about two-thirds of OECD Pacific's total – soared by 8.1% year-on-year in February, driven by much colder-than-normal temperatures. Jet fuel/kerosene demand (used as a heating fuel) rose by 7.5% year-on-year, while fuel oil and direct crude for power generation (included in 'other products', which rose by an unprecedented 89.3% on a yearly basis). This reflects the heavy toll of the nuclear power outages that have plagued the country since last year – the average utilisation rate of nuclear power generation stood at roughly 53% in March, against 71% in the same month of 2007. Given that Japan's largest nuclear power plant – Tepco's

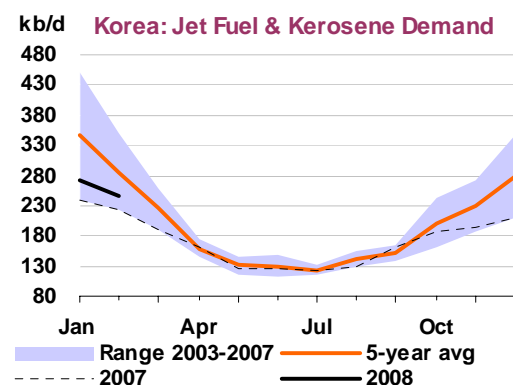
Kashiwazaki-Kariwa – is poised to remain shut at least until March 2009, if not longer, oil demand is expected to reach 5.1 mb/d (+1.7%) in 2008, reversing the declining trend observed in the past years.



It should be noted, however, that this forecast does not yet take into account the effect of the removal of Japan's gasoline tax. The so-called Special Taxation Measure, which had been levied in response to the oil price shocks of the 1970s on a 'temporary' basis to fund a road-building programme, expired on 31 March. The opposition Democratic Party of Japan (DPJ), which holds a majority in the upper house of parliament, refused to vote in favour of what, until now, had been a customary two-year renewal, arguing that the proceeds have been spent wastefully by local and central government officials. As such, Japan's tax burden has shrunk from being the sixth-lowest among OECD countries to become the fourth-lowest, higher only than the taxes prevailing in Mexico, the US and New Zealand (in that order). In theory, were retailers to pass on the tax cut in its entirety, regular gasoline prices would fall by about 20%. In practice, at the time of writing, retail prices have fallen by about 12%.

At this point, given that there is no precedent for such a sharp drop in gasoline prices, it is highly difficult to forecast exactly how gasoline demand may evolve (it should also be noted that it will take at least two weeks to clear stocks that had been delivered to retailers at the tax-inclusive ex-refinery price). Indeed, it remains to be seen whether the tax removal, if not reversed, offsets the structural decline in Japanese gasoline demand. Some observers reckon that April's demand could be some 5-10% higher than previously expected. So far, there have been reports of long queues outside service stations. The real test, however, will take place in July and August – the peak of the country's summer driving season. Over the next few weeks, the outlook should be clearer and we may reassess our Japanese gasoline demand prognosis for 2008 if warranted.

In **Korea**, preliminary data indicate that total oil product demand contracted by 2.0% year-on-year in February. Although both LPG and jet fuel/kerosene demand jumped by 14.1% and 10.3%, respectively, on the back of freezing temperatures, this failed to offset losses in other product categories, notably naphtha (-3.8%), which accounts for over a third of total Korean demand. Meanwhile, the 2008 outlook remains largely unchanged at 2.2 mb/d in 2008 (+1.8% over 2007).



Only a few weeks after decreeing a 10% temporary reduction in oil product taxes, the new government of President Lee Myung-Bak decided to cut tariffs on imported oil products and petrochemicals. The move, intended to further reduce the burden of high prices, became effective on 1 April. Import tariffs on gasoline, kerosene, diesel and residual have fallen from 3% to 1%, while those on petrochemical products

have been cut from roughly 5% to 4%. By contrast, the tariffs on crude oil, LNG, LPG and naphtha remain unchanged. Crude import tariffs were reduced from 3% to 1% in early 2004; last January, meanwhile, the duties on the other products were also sharply reduced (LNG: from 3% to 1%; LPG: from 3% to 1.5%; naphtha: from 3% to none). However, some local players contest the effectiveness of the measure, at least for some products. Indeed, since July 2007, no gasoline has been imported into South Korea; the country's needs have been met by local refiners. Meanwhile, imports of kerosene, diesel and residual account for less than 1% of the total demand for these products. Only petrochemical demand is likely to rebound given cheaper imports.

OECD Pacific Demand by Product

(million barrels per day)

	2006	2007	1Q07	2Q07	3Q07	4Q07	Nov 07	Dec 07	Jan 08*	Latest month vs.	
										Dec 07	Jan 07
LPG & Ethane	0.92	0.93	0.97	0.92	0.86	0.95	0.94	1.02	0.94	-0.09	-0.04
Naphtha	1.60	1.65	1.75	1.57	1.63	1.67	1.71	1.76	1.76	0.00	-0.04
Motor Gasoline	1.57	1.57	1.53	1.54	1.63	1.57	1.55	1.57	1.43	-0.15	-0.01
Jet & Kerosene	0.98	0.91	1.25	0.73	0.65	1.03	1.03	1.21	1.31	0.09	0.03
Gas/Diesel Oil	1.83	1.78	1.85	1.75	1.67	1.86	1.90	1.83	1.67	-0.16	0.00
Residual Fuel Oil	0.98	0.94	0.99	0.89	0.90	0.99	0.97	1.05	1.12	0.07	0.11
Other Products	0.52	0.49	0.49	0.41	0.48	0.58	0.59	0.64	0.52	-0.12	0.05
Total Products	8.40	8.27	8.83	7.80	7.81	8.64	8.70	9.10	8.74	-0.36	0.10

* Latest official OECD submissions (MOS)

Non-OECD

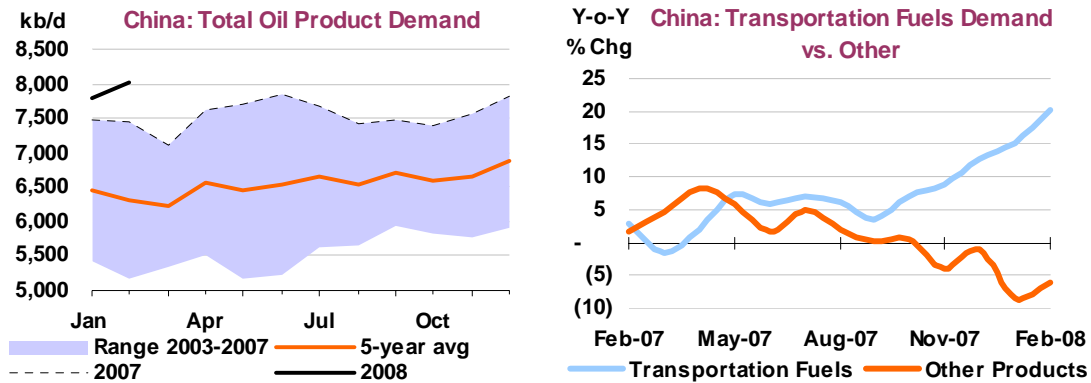
China

Preliminary data indicate that China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) rose by an estimated 7.8% year-on-year in February, a much higher pace than previously estimated (+5.3% in last month's report). Growth was sustained by significant gains in transportation fuels demand: gasoline rose by 22.8%, gasoil by 8.3% and jet fuel/kerosene by 3.5%. Meanwhile, January figures were revised down following the release of refining data for that month; as runs were some 150 kb/d lower than anticipated, apparent demand in January increased by about 4.2%, instead of a previous estimate of 6.1%.

These strong figures are indicative of the importance of the Lunar New Year holiday – which generally is the only opportunity for millions of migrant workers from the country's southern industrial heartland to return home for a few days – despite the severe weather conditions that wrought havoc to infrastructure and grounded travellers across the country from late January to mid-February. The surge in demand was met by higher refinery runs (+3.1% over January) and by steeper net imports of both crude (+359 kb/d versus the previous month) and products (+30 kb/d). Net gasoil imports reached yet another record high at 210 kb/d, and perhaps more significantly, net gasoline exports sharply fell for the second month in a row to about 10 kb/d – compared with roughly 100 kb/d on average during 2007. Given the prevailing high cracks for gasoline and gasoil, both PetroChina and Sinopec have reportedly applied for an exemption of the product import tax (although it remains to be seen whether the government will oblige, since it cut customs duty on gasoline, gasoil and jet fuel last January).

It is worth noting that runs by the larger independent refineries were slightly higher in February (about +2.9% month-on-month, according to our estimates), suggesting continued access to subsidised crude provided by state-owned Sinopec and PetroChina. By contrast, most 'teapot' refineries continue to be squeezed out of the market: residual fuel oil demand – their feedstock of choice – contracted by an estimated 6.8% year-on-year in February, for the seventh month in a row. Since mid-March, however, and despite higher refinery runs (the majors are reportedly running at full capacity, presumably because of strong government pressure), PetroChina and Sinopec have interrupted fuel deliveries to independent dealers and even to some of their own flagged outlets in several key eastern cities (Beijing, Tianjin and Shanghai). Since then, events have unfolded according an already well-honed script: a) gasoil shortages

and rationing at service stations have spread to other regions, notably northern and southern China; b) there have been renewed rumours of an impending hike in retail prices; c) officials have strenuously denied that end-user prices will be altered; and d) the oil majors have claimed that they are committed to supply the market and that shortages are variously due to refinery maintenance, stock rebuilding, transportation bottlenecks and hoarding by independent players.



China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2006	2007	2008	2007	2008	2007	2008
LPG & Ethane	701	669	656	-33	-13	-4.6	-2.0
Naphtha	756	812	825	56	13	7.5	1.6
Motor Gasoline	1,221	1,257	1,349	36	92	2.9	7.3
Jet & Kerosene	259	280	302	20	23	7.8	8.1
Gas/Diesel Oil	2,415	2,576	2,832	161	256	6.7	9.9
Residual Fuel Oil	791	744	711	-48	-33	-6.0	-4.4
Other Products	1,068	1,204	1,218	136	14	12.7	1.2
Total Products	7,213	7,542	7,893	329	352	4.6	4.7

As in previous episodes, the structural roots of these recurrent crises – capped end-user prices – have barely been cited. As the gap between domestic and international prices widens, state-owned companies are tempted to cut their losses by reducing domestic deliveries (until forced by the government to meet domestic demand regardless of the cost), while independent refiners and dealers are encouraged to hoard supplies with the expectation of cashing in if retail prices are raised. (Interestingly, the government decided in the end to compensate Sinopec for its losses; the company has been granted a \$1.74 billion subsidy covering 2007 and 1Q08.) More crucially, the shortages may probably worsen in the short term, as China is on the verge of entering its spring farming season, which generally signals a significant surge of gasoil demand (normally met by off-spec product from teapot refineries). Perhaps anticipating this unwelcome eventuality, the government is reportedly considering slashing the VAT on crude oil imports from the current 17% to as little as 4%, in order to provide some relief to the majors and boost independent production – a second-best option to the removal of retail price caps.

A Chinese Riddle: Where Will Oil Demand Head To In 2008?

Looking ahead, forecasting China's 2008 demand has become a particularly difficult and perilous exercise, as it will be subject to both bullish and bearish forces, at least until the third quarter.

1. The full consequences of the 1Q08 severe winter weather disruptions and power cuts are yet to be ascertained. As noted, February's strong preliminary data essentially offset January downward revisions, leaving quarterly estimates largely unchanged – but this may be reappraised as detailed February data are released (given the lunar New Year holidays, the average of January and February data generally provides a better idea of demand trends). In any case, as we have previously argued, further disruptions to coal supplies could well entail a surge of oil-fired power generation, particularly if the summer months are hot. At the moment, independent oil-fired power generators are reportedly operating at full capacity in the southern Guangdong province, which was severely affected by the weather emergency.
2. The renewed wave of gasoil shortages suggests that pent-up demand remains significant. As noted earlier, even if end-user prices were liberalised (an unlikely occurrence at this point), Chinese oil demand would probably rise sharply as long as supplies proved to be sufficient. In the meantime, domestic needs will likely continue to depend on a high level of imports, both of crude (particularly if the VAT is cut) and products (notably of diesel).
3. There is talk of closing down industrial sites around Beijing and Shenyang (the capital of the northern Liaoning province and a co-host city) a month ahead of the Olympics, which are scheduled to begin on 8 August, in order to improve air quality. This may happen in the case of small and medium factories with poor environmental standards, in addition to coal-fired cement factories west of Beijing, which generate much of the city's pollution. However, it is highly unlikely that local refiners will be shut down, given the country's product supply constraints, and coal-fired power generators – there are simply no alternatives to provide electricity to the capital, which will be crowded with tourists during a hot summer. (Most local refineries, though, are reportedly reasonably well equipped in terms of pollution controls; in that sense, the net reduction in pollution would be minimal if they were actually shut down.)
4. The Games themselves will lead to a surge of transportation fuels demand as tourists, spectators and athletes fly into the country and travel to the different venues and around China. Moreover, it remains to be seen whether the government will be successful in encouraging Beijing residents to leave their cars at home to prevent excessive congestion, as has been reported.
5. There is a significant degree of uncertainty regarding the country's economic activity. In the past, China has confounded critics by growing much faster than forecast by major institutions.

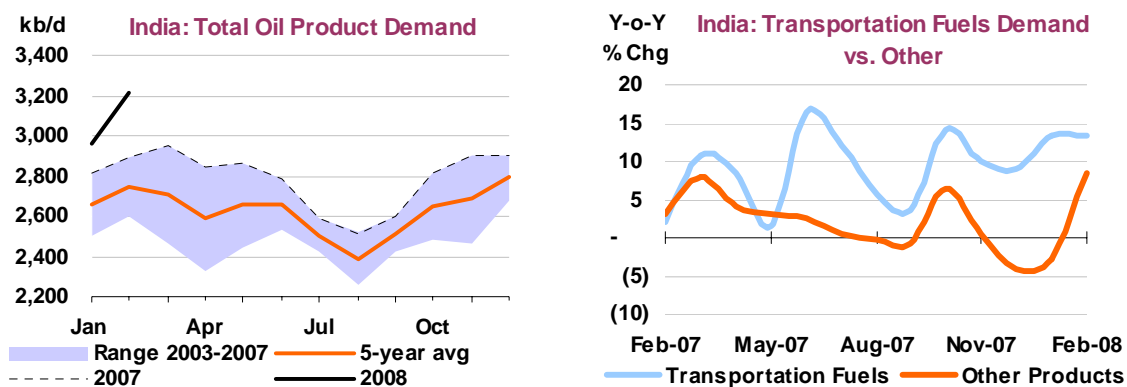
In the meantime, our 2008 forecast has been minimally revised down to 7.9 mb/d (+4.7% year-on-year), since 1Q08 demand could potentially be lower than expected given the weather emergencies, lower GDP projections and the current shortages. However, as the issues raised above become clearer, we may have to revisit this prognosis again, particularly for the second half of the year.

Other Non-OECD

According to **Indian** preliminary data, oil product sales – a proxy of demand – soared by 10.9% year-on-year in February, the highest pace since November 2006. All product categories registered significant gains, but it should be noted that transportation fuels – gasoline, jet fuel/kerosene and gasoil sales – jumped collectively by 13.4% year-on-year, while the rest of the product demand matrix rose by 'only' 8.4%. As such, we have slightly revised up our 2008 forecast to 2.9 mb/d (+4.8%).

A major factor supporting the strength of Indian demand, aside from the country's buoyant economic growth (forecast by the IMF at +7.9% this year, only slightly down from previous assessments), is the policy of capping retail fuel prices far below international levels. In this sense, India follows China's footsteps – and the consequences are similar: a squeeze of the domestic refining and marketing sector, which has become increasingly unprofitable as international oil prices continue to rise. However, as opposed to China, India has big private players that are not compensated for their mounting domestic losses (only state-owned companies qualify). Last month's timid end-user price increases were seemingly

not enough: in late March Reliance Industries, one of the country's largest private holdings, announced it will shut down in April the 900 service stations it directly controls and instead focus entirely on exporting oil products (however, some other 500 Reliance-flagged outlets, independently-owned, will continue to be supplied if they choose to carry on with their business).



The government is thus facing a difficult dilemma. On the one hand, maintaining capped prices is likely to lead to further closures of private outlets (totalling some 2,500 before Reliance's shut-down announcement) and may also increase the annual subsidy bill (currently \$2.3 billion), since state-owned companies will have to hike imports to avoid supply shortages. On the other hand, freeing prices would probably result in an inflationary spike and, ultimately, would be politically unpopular. Furthermore, given India's rising income from its large agricultural exports, providing subsidies on fuel and other inputs effectively stimulates overall growth.

Reassessing Former Soviet Union Demand

Following a careful and lengthy review of available oil product data sources for the fifteen countries – Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan – that are grouped under the 'Former Soviet Union' regional category (FSU), we have decided to implement a major methodological change in the way we estimate the region's demand. As of this report, FSU demand will be the sum of actual inland deliveries and end-user demand in each of these countries.

Until now, FSU apparent demand was defined as domestic crude production minus net exports of crude and oil products. However, this methodology often resulted in substantial demand swings, mostly because of large trade data revisions – but not for reasons intrinsically related to internal consumption patterns. Our FSU demand estimates for 2007, in particular, were counter-intuitive: given high export data, demand appeared to have sharply contracted while the region's economy expanded by 8.5% in that year, according to the IMF. A change in inventories could arguably explain such divergence; unfortunately, however, stock figures for the region are unavailable. Moreover, the use of aggregate regional trade data made it impossible to establish a proper oil product and country breakdown, nor did it allow a meaningful analysis of regional trends.

Our new product- and country-based methodology draws from a variety of sources. First, we have revised our historical series according to the *Annual Statistics of Non-Member Countries*, 2007 edition (commonly referred to as the 'Green Book'), which includes annual data up until 2005, by country and product. This compilation is the result of extensive work undertaken by the IEA's Energy Statistics Division in cooperation with national administrations and statistical agencies across the region. It should be noted, though, that Green Book naphtha data for Russia has been adjusted in this report, as the country's statistics do not currently include petrochemical feedstocks. Second, for 2006 and beyond, we use data from consultancies, the *Joint Oil Data Initiative (JODI)* database, trade press and other market reports. For Russia, which accounts for 70% of total FSU demand, data are being provided by Petromarket Research Group Ltd, a Moscow-based consultancy.

Reassessing Former Soviet Union Demand (continued)

To sum up, we now have detailed product demand until February 2008 on a product-by-product basis for Azerbaijan, Latvia, Lithuania, and Russia. These countries account for roughly 75% of total estimated FSU demand. We may eventually add other countries to the pool: we are in the process of assessing the quality of monthly Estonian and Kazakh data, and we are conducting further research on Belarus and Ukraine. The change in methodology has resulted in historical and current revisions, as detailed in the table. As such, the region's total oil product demand is now estimated at 4.1 mb/d in 2007 (+0.9% year-on-year), and is expected to reach 4.2 mb/d in 2008 (+1.6%) on the back of strong Russian demand.

Former Soviet Union: Oil Product Demand (kb/d)*								
	2001	2002	2003	2004	2005	2006	2007	2008
Former Soviet Union	3,804	3,751	3,826	3,882	3,902	4,062	4,097	4,162
Armenia	7	7	7	8	9	10	11	12
Azerbaijan	81	76	92	90	110	100	99	102
Belarus	145	146	147	146	147	155	160	164
Estonia	23	23	23	25	25	27	28	29
Georgia	13	13	13	13	17	19	21	23
Kazakhstan	179	196	187	187	199	211	220	228
Kyrgyzstan	9	8	10	12	13	14	15	16
Latvia	32	32	33	34	36	37	40	42
Lithuania	53	53	50	55	59	58	61	63
Moldova	11	12	13	14	14	15	16	17
Russia	2,732	2,662	2,700	2,754	2,742	2,870	2,867	2,893
Tajikistan	25	25	27	29	32	34	37	40
Turmenistan	81	83	95	91	93	96	98	101
Ukraine	278	284	282	284	291	300	308	315
Uzbekistan	134	130	147	138	114	115	116	117
Annual FSU Growth	0.2%	-1.4%	2.0%	1.5%	0.5%	4.1%	0.9%	1.6%
Revisions (kb/d)	51	208	152	(16)	(53)	(66)	147	70

* Sources: IEA's Annual Statistics of Non-Member Countries, JODI, Petromarket RG, IEA estimates

Admittedly, there is still much work to be done regarding the coverage and quality of national oil statistics. Yet we believe that this methodological change will contribute to enhancing the understanding of this key region. After all, FSU demand accounts for almost 5% of global oil consumption – Russia alone is the fourth-largest oil consumer after the US, China and Japan.