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Energy Risk  
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International Petroleum Analysis

July 24, 2009

## World Petroleum Perspectives Monthly Review and Outlook

### Summary

Over the last month the prompt NYMEX crude oil contract has declined by some \$2.00 per barrel on a point-to-point basis. Within the period, however, WTI fell modestly below \$60.00 per barrel before staging a recovery. The fall to \$58.00-\$59.00 per barrel reflected the commodity and equity markets' unwillingness to feed off any "green shoots" as a rationale to rise further off the March lows. That is to say, markets had gotten ahead of themselves relative to economic realities. Once this "adjustment" was made, however, better than expected second quarter earnings led to a recovery in the S&P 500 off the July lows, with crude oil rising in sympathy, helped by falling U.S. crude oil inventories.

What has *not* helped the commodity, however, has been the incessant rise in refined product inventories as demand remains relatively weak. In this regard, we have posed the thesis that narrow refining margins will induce refiners to adjust yields and reduce runs over the summer. While on a short-term basis this could slow or even temporarily halt the decline in crude oil stocks, over time improving product inventories will lead to widening margins, eventually pulling crude oil back up. Thus, for this reason and our general view that U.S. economic activity will begin to stabilize toward the end of the third quarter, at this point we retain our view that prompt WTI can recover back above \$70.00 per barrel later in the third quarter before falling off once again toward the end of the year.

With regard to our global balances, second quarter world oil demand came in a bit weaker than we have assumed, and we have made some modest adjustments accordingly. However, non-OPEC supply is also coming up somewhat short of expectations, and thus our net balance has not changed materially from our last report. In terms of crude oil prices, we expect a WTI average for this year of roughly \$57.00 per barrel, while our 2010 average also remains unchanged at \$65.00 per barrel.

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+ World oil demand is forecast to rise by 1.4%, or more than 1.1 MMB/D next year, about unchanged from last month's report.

+ Non-OPEC supply is expected to rise by about 200 MB/D in 2010, a slight downward revision from previous expectations.

+ Saudi Arabian crude oil sales are anticipated to average around 8.3 MMB/D next year, well below effective capacity.

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## Viewpoint

Over the last month the prompt NYMEX crude oil contract has declined by some \$2.00 per barrel on a point-to-point basis. As we issue this report the September contract is attempting to remain above \$67.00 per barrel.

Within the period, however, WTI declined modestly below \$60.00 per barrel before staging a recovery, with the bottom on a settlement basis reached on July 14 at \$59.52 per barrel.

The mid-month, intra-day fall to \$58.00-\$59.00 per barrel reflected the commodity and equity markets' unwillingness to trade off any remaining "green shoots" as a rationale to rise further off the March lows.

Traders and investors alike needed to see an actual improvement before continuing to buy. In a nutshell, markets had gotten ahead of themselves relative to current economic realities.

Once this selling "adjustment" was made, better than expected second quarter earnings for many companies led to a recovery in the S&P 500 off the July closing low on July 10, with crude oil subsequently rising in sympathy, also aided by declining U.S. crude oil inventories.

What has clearly *not* helped crude oil, however, has been the incessant rise in refined product inventories reported in the weekly U.S. data as major product demand remains relatively weak.

In this regard, in recent reports we have put forth the thesis that poor refining margins will induce refiners to adjust yields and reduce runs over the summer. This behavior helped trim gasoline stocks prior to this year's summer driving season and was, as we completely anticipated, a major contributor to crude oil's strength off the first quarter trough.

While on a short-term basis any reduction in runs, as we have just seen in the data for the week ending July 10, could slow or even temporarily halt the decline in crude oil stocks, over time improving product inventories even with weak demand will lead to widening margins, eventually pulling crude

oil back up as runs recover and crude stocks resume their decline.

Thus, for this reason and our general view that U.S. economic activity will begin to stabilize toward the end of the third quarter, at this point we retain our view that prompt WTI can recover back above \$70.00 per barrel later in the third quarter before falling off once again toward the end of the year.

As will be discussed later, one of our reasons for a tail-off in crude oil prices once again in the fourth quarter reflects the recovery in runs and a move back toward ample product stocks prior to winter.

With regard to our global balances, second quarter world oil demand came in a bit weaker than we have assumed, largely in the OECD, and we have made some modest adjustments accordingly.

However, non-OPEC supply has also thus far come up somewhat short of expectations, and as a result our *net* balance for 2009 has not changed materially from our last report. Our numbers imply a global crude oil stock draw this year averaging about 145 MB/D.

For 2010, we have made little change to our numbers, to be detailed below. Our balance for next year implies a stock draw averaging some 135 MB/D.

In terms of crude oil prices, we expect a WTI average for this year of roughly \$57.00 per barrel, while our 2010 average also remains unchanged at \$65.00 per barrel.

## Global Oil Demand

World oil demand is forecast to decline by 0.8%, or some 620 MB/D this year, a modest downward adjustment from our last report. OECD oil demand is expected to drop by 3.0%, or almost 1.3 MMB/D this year, with non-OECD demand pegged to rise by 1.7%, or about 660 MB/D.

With regard to 2010, we expect a recovery in world oil demand by 1.4%, or around 1.1 MMB/D. Within this aggregate, OECD oil demand is forecast to increase by only 0.3%, or about 140 MB/D, while non-

OECD oil demand is anticipated to rise by 2.5%, or around 1.0 MMB/D.

## United States

The latest data from the DOE, which include both revisions and preliminary estimates, reveal that year to date U.S. refined product demand is off by 6.3%, or 1.245 MMB/D, versus the comparable period in 2008.

All products save gasoline have declined in varying degrees, with the largest percentage drop lying with propane/propylene, off by 17.9%, followed by kerosene-based jet fuel, down by 13.9%.

As discussed in previous reports, however, the key product to watch remains distillate fuel oil, which at this time of year is largely diesel fuel. A few weeks ago we suggested the weekly demand trend was implying a “stretched u” type of economic configuration, which has since been confirmed by more lagged “conventional” economic data.

After hitting a 2009 low, implied distillate demand has recovered over the last two weeks, but only back to what we would characterize as “normalized” levels under what we believe to be current levels of manufacturing activity.

Thus, we are still faced with the need to *forecast*, and not *react*, in terms of our outlook for the remainder of the year and through 2010. We believe that in the fourth quarter of this year, U.S. total refined product demand will still be off from the prior year, but by only 1.3%, or about 245 MB/D.

For distillate fuel oil, fourth quarter implied demand is pegged to be down by only 4.2%, or about 165 MB/D, and thus we remain conservative through year end.

For 2010, we are looking for total U.S. refined product demand to rise, but by only 0.4%, or 65 MB/D. We are assuming that manufacturing output will register a net increase for the year averaging 4.4% and assume as well normal winter weather, partially offset by incremental conservation. On balance, distillate fuel oil demand is

forecast to recover by 4.4%, or 160 MB/D for the year as a whole.

However, our economic outlook also assumes that consumer spending will remain constrained, i.e. even if the economy recovers as we suggest in terms of industrial production, firms will be slow to rehire and consumers will remain cautious, retaining a higher than historical savings rate.

This behavior, in combination with a modest improvement in average fleet fuel efficiency, implies that gasoline demand will decline by 1.5%, or 135 MB/D. With small gains expected for other products, distillate demand will therefore largely determine whether 2010 witnesses a rise in U.S. oil demand or not.

## Europe

The second quarter demand picture in OECD Europe was quite weak, particularly in France and Italy, with most products down across the board. Although we must bear in mind that the data are preliminary and subject to revision, nonetheless we are compelled to modestly revise our estimates for the period and for the remainder of the year.

Second quarter heating oil deliveries were relatively strong, which may have been impacted by non-primary stocking under the consumer assumption that retail prices had bottomed out.

The recession’s impacts, however, managed to overwhelm this product’s gains, with economically sensitive products such as petrochemical feedstocks and diesel fuel falling versus the previous year. In most major countries gasoline demand, which had been declining on a structural basis over the past few years, managed to drop at somewhat larger rates than those in evidence in the first quarter.

In looking at Europe oil demand down the road, we continue to embrace both the positive effect once the recession ends, partly offset by what we believe will be a continuation of underlying conservation/substitution efforts which we had identified early on a few years ago.

On balance, for 2009 we expect a decline in OECD Europe oil demand of 2.0%, or about 235 MB/D. For 2010, despite a forecast of a modest economic recovery, for the combination of reasons discussed above we expect a gain in OECD Europe oil demand of only 0.1%, or 10 MB/D.

## **Japan and South Korea**

Second quarter oil demand in Japan remained quite depressed. Virtually the only product to have risen versus the previous year was gasoline, which was influenced by inordinate weakness in the second quarter of last year as tax considerations distorted normal seasonal behavior.

All products sensitive to economic activity such as petrochemical feedstocks and particularly heavy fuel oil plummeted versus the prior year. The easy assumption would be that the trend will continue in the second half of the year.

Demand could in fact remain quite weak, but for the sake of consistency we have assumed that the declines will moderate, such that in the fourth quarter Japan oil demand will end up falling only marginally versus the fourth quarter of 2008.

For next year, we forecast that Japan oil demand will be about even with this year, with declines in most products about offset by modest recoveries in naphtha and LPG as petrochemical throughput recovers.

The overall economic prospects for South Korea are assumed to be somewhat brighter by the end of the year and through 2010. At the present time, though, oil demand is off, though not nearly the magnitude of the decline in Japan.

Second quarter middle distillate demand was off versus the prior year, partially offset by stronger naphtha requirements. For 2009 as a whole, we expect Korea oil demand to decline by 1.6%, or some 30 MB/D.

In 2010, assuming that real GDP recovers at a somewhat more robust rate than we expect for Japan, oil demand is anticipated to rise by 0.6%, or 10-15 MB/D, constrained

by the ongoing substitution of heavy fuel oil by LNG.

## **Non-OECD**

We have been encouraged by recent data out of China, however preliminary and suspect it may be. When 2009 began, the consensus and particularly the IEA was “bearish” on the prospects for China oil demand this year with the latter expecting a gain of only 1.1% from the perspective of the Agency’s January monthly report. We retained our view of somewhat stronger growth.

Thus far, our Base Case has been closer to the mark, with second quarter implied oil demand gaining by an estimated 2.0%. The recovery has reflected rising petrochemical feedstock demand, somewhat stronger trends in air travel, as well as fairly robust vehicle sales.

The estimated surge in implied demand in May of more than 9.0% versus the previous the year biases the quarter as a whole, however, which was biased in turn by some hoarding in advance of expected retail product price hikes.

Nonetheless, sifting out as much noise as possible suggests there are sufficient reasons not to amend our Base Case outlook, which calls for China implied oil demand to rise by 2.1%, or about 140 MB/D this year.

For 2010, the IEA currently expects China oil demand to rise by 4.2%. However, in line with our overall global thesis that conservation will remain an important consumer theme and practice, we anticipate China oil demand to rise by “only” 3.0% next year.

Elsewhere, demand in other non-OECD countries such as India and Russia continue largely on track with our expectations, requiring only periodic minor modification as data come in. Given that oil prices have been tracking fairly well our expectations since January, we have seen no need to revise our forecast growth in OPEC oil demand.

On balance, we expect non-OECD oil demand to gain by 1.7%, or about 660 MB/D this year, with 2010 growth anticipated at 2.5%, or around 1.0 MMB/D.

## **Global Oil Supply**

### **Non-OPEC**

With regard to non-OPEC supply, once again our overall thesis for the last several years has implied lower than consensus rates of growth due to maturity in major areas such as the North Sea. Our thesis has been borne out, with declines in Mexico and elsewhere exceeding even *our* expectations.

For 2009, our forecast has implied a somewhat stronger gain than the consensus and IEA have been looking for. However, we have emphasized this was an effective “one-off” phenomenon, influenced largely by a recovery in U.S. crude oil production from the hurricane-induced lows of last year, complemented by new offshore field output.

Even so, it would appear that we may end up a bit too optimistic for this year, in part because U.S. crude oil production is falling somewhat short of our original trend line.

Elsewhere, recent output levels in countries including Norway, Mexico, and Canada have required us to modify our expectations for 2009 and to a degree for 2010 as well.

Although we have been quite conservative with regard to non-OPEC production trends over the last few years, we do not consider ourselves “peak oilers”. The reserves are still there, but at considerable cost, and in many cases even \$60.00 per barrel is not sufficient for marginal development, particularly when combined with the uncertainty that still faces the industry.

Overall, we now expect non-OPEC output to rise by 340 MB/D this year, with 2010 growth slated at 200 MB/D. In this regard, we would note that while previously expecting a decline this year, the IEA has now revised up their expectations to a gain of 190 MB/D, so at least on one side of the equation we are beginning to converge with the Agency.

For 2010, the IEA expects non-OPEC supply to rise by 410 MB/D which we would obviously suggest is too robust. The Agency is concentrating their growth expectations on Azerbaijan, Brazil, the U.S. Gulf, and Canadian oil sands.

While we would concur with these areas, our overall outlook is more conservative assuming that output onshore the U.S., the North Sea, and other select areas continues to decline.

### **OPEC and Inventory**

OPEC has been rather quiet lately, and as we have always suggested, from their standpoint that tends to be a positive. Nonetheless, they obviously remain critical to the fundamental equation, and as our customary table below reveals we estimate little change in July output from June.

We estimate that as we move through the third quarter, Saudi production will begin to inch up from its 2009 lows, such that fourth quarter crude oil deliveries will average around 8.0 MMB/D.

As we move into the first quarter of 2010, our balances suggest that Saudi deliveries will fall off once again, this time to a somewhat lower average of 7.7 MMB/D, which we believe the Kingdom will condone if our balances end up reasonably close to the mark.

Thereafter, due both to seasonal refiner requirements and our economic assumptions, Saudi crude oil deliveries rebound to around 8.7 MMB/D in the second half of the year. Volumes are expected to average around 8.3 MMB/D for 2010 as a whole.

In the case of Iraq, although production has been recovering recently we remain somewhat skeptical, right or wrong, that such volumes are sustainable given ongoing security issues and reservoir performance. For the sake of the Iraqi people we indeed hope we are wrong, but time will tell.

### **OPEC “11”**

**Targeted Allocations**  
v.  
**Estimated July Production**  
**(MB/D)**

	<b>Estimated</b>		<b>Prod.</b>
	<b>Allocations</b>	<b>Production</b>	<b>Vs.</b>
			<b>Allocations</b>
Algeria	1,202	1,250	+48
Angola	1,517	1,755	+238
Ecuador	434	475	+41
Iran	3,336	3,705	+369
Kuwait	2,223	2,225	+2
Libya	1,469	1,575	+106
Nigeria	1,673	1,995	+322
Qatar	731	720	-11
S. Arabia	8,052	7,900	-152
UAE	2,223	2,225	+2
Venezuela	1,985	2,120	+135
Total	24,845	25,945	+1,100

With regard to Nigeria, we have been assuming that in 2010 production will recover modestly under the belief that Niger Delta violence could come to a head with an eventual compromise hammered out with the central government.

While we emphasize that this scenario may be a ways away, we are somewhat encouraged by the recent attempts at a dialog and the efforts to establish a Niger Delta committee to act as intermediary between militant groups and President Yar'Adua. In any event, we have not assumed at this time that Nigerian production will recover to full capacity of some 2.55 MMB/D in 2010.

Putting together our outlook for demand and supply, for 2009 our balances imply a net global stock draw averaging about 145 MB/D. While an improvement, the going will be slow.

Even if the curve flattens under our price outlook and freight rates begin to rise, we would still expect offshore tanker storage to total some 20 million barrels at year end.

Onshore, the draw in the second half of the year is biased toward crude oil as well, although we believe that product stock gains will largely taper off on a seasonally adjusted basis.

For next year, our numbers suggest a further net global stock draw averaging about 135 MB/D. Thus, even under a rising demand environment, excess productive and refining capacity will preclude the days supply of usable commercial inventory from falling more than one day from the end of this year to the end of 2010.

### **Implications for Price**

As we issue this report the prompt NYMEX crude oil contract has rebounded back into the calendar July range we anticipated back in January. The S&P 500 has been able to close above 950 for the first time in a while, pulling crude oil along.

In addition, however, we sense the market has begun to embrace our refiner product management thesis which has assumed that U.S. refiners will adjust yields and runs in the third quarter to restore gasoline and distillate stocks to levels more appropriate for underlying demand.

Our forecast therefore assumed that under this scenario, margins would widen once again, eventually pulling crude oil up as the market discounted the prospect that the demand for crude oil would recover.

This underlies our expectations that prompt WTI will recover back above \$70.00 per barrel in August. Although one or two days do not a market make, there would now appear to be a reasonable chance that our Base Case will be realized.

Perhaps the more difficult forecast centers around our assumption that once our August peak is realized, WTI falls back and retraces to the levels seen earlier in July, i.e. a price with a "5 handle" by year end.

If in fact the economy stabilizes and finally begins to improve, in this world of non-commercial participation in commodities, why wouldn't crude oil continue to gain through year end?

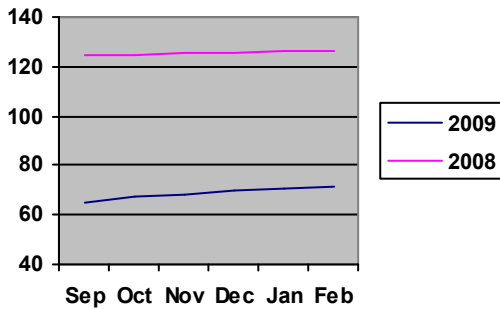
We are the first to concede that this is not an unreasonable scenario. We have assumed, however, right or wrong, that prices will "recalibrate" to a degree. That is, the bar

has been raised due to cost considerations and non-commercial influences with a long bias.

However, the fundamental fact will remain that even if demand improves as we expect, there will continue to exist more than adequate productive capacity within OPEC, albeit largely sour.

There will also be significant excess refining capacity which will exist for the foreseeable future. By definition this implies that the incremental crude oil barrel and the incremental product barrel will be readily available to meet any gain in demand. There should be, therefore, a “terminal price” reflecting these available barrels.

**Current Six-Month NYMEX Crude Oil Term Structure 2009 vs. 2008**



From the non-commercial standpoint, we have always believed that the Obama Administration will be less tolerant of exceedingly high crude oil prices, and that therefore through a combination of regulation and jawboning, will likely deter non-commercial players from getting “too long”, also placing a lid on price.

What we are therefore suggesting in our scenario for the second half of the year is that prompt WTI effectively trades in the range recently seen, i.e. \$55.00-\$75.00 per barrel, but somewhat more protracted from a time basis than we saw in a period of a couple months.

For 2010, we expect a similar range to occur, with weaker prices in the first quarter accompanied by a seasonal rise in the second, with second quarter WTI averaging \$75.00 per

barrel, higher than this year’s \$59.62 per barrel average due to the impact, both fundamental and financial, of recovering economies.

On an annual basis, we expect prompt WTI to average around \$57.00 per barrel this year and \$65.00 per barrel in 2010, unchanged from our previous report.

**Forecast Prompt NYMEX Crude Oil Prices By Quarter: Base Case**

	2008	2009(E)	2010(E)
Q1	\$97.90	\$43.08	\$60.00
Q2	\$123.76	\$59.62	\$75.00
Q3	\$116.19	\$67.86	\$65.00
Q4	\$60.74	\$56.28	\$60.00
Yr.	\$99.65	\$56.71	\$65.00

July 24, 2009

Table 1  
OECD Oil Demand  
(Thousands of Barrels Daily)

BASE CASE 7/22/09											% Chng	
	Q1	Q2E	Q3E	Q4E	2009E	09/08	Q1E	Q2E	Q3E	Q4E	2010E	10/09
DEMAND												
United States	18834	18521	18400	19036	18698	-3.7	18703	18643	18392	19317	18764	0.4
Motor Gasoline	8791	9133	9006	8915	8961	0.0	8538	9069	8884	8804	8824	-1.5
Jet Fuel	1380	1392	1463	1384	1405	-7.5	1394	1406	1478	1398	1419	1.0
Distillate	3907	3458	3478	3777	3655	-7.2	4051	3604	3530	4081	3817	4.4
Residual	604	610	518	618	588	-5.1	610	616	526	627	595	1.2
Other	4152	3928	3935	4342	4089	-6.7	4110	3947	3974	4407	4110	0.5
Canada	2158	2068	2132	2119	2119	-0.5	2170	2079	2153	2145	2137	0.8
Naphtha	74	73	70	79	74	1.0	75	74	71	80	75	1.3
LPG	215	290	227	140	218	1.3	217	293	230	141	220	1.0
Gasoline	717	740	818	779	763	-0.6	721	742	826	790	770	0.9
Kerosene	81	79	91	81	83	-0.1	81	80	92	81	83	0.5
Gasoil/Diesel	661	458	496	592	552	-0.8	661	458	501	598	555	0.5
Fuel Oil	138	92	81	151	115	-2.0	139	93	82	153	117	1.0
Other	272	335	349	298	313	-1.3	275	339	353	301	317	1.2
Mexico	1952	1930	2052	2035	1992	-1.2	1971	1949	2073	2056	2012	1.0
United Kingdom	1460	1370	1385	1538	1438	-1.4	1455	1370	1385	1539	1437	-0.1
Naphtha	81	74	62	89	76	-1.1	82	75	62	90	77	1.0
LPG	127	132	115	132	127	-1.1	128	134	116	133	128	1.0
Gasoline	414	368	380	399	390	-3.0	405	360	373	391	382	-2.0
Kerosene	248	202	219	215	221	-0.1	248	202	219	215	221	-0.1
Gasoil/Diesel	357	460	465	548	457	-0.8	362	466	472	556	464	1.5
Fuel Oil	139	43	39	52	68	-1.7	136	42	38	51	67	-2.0
Other	94	91	105	103	98	-0.4	93	90	106	103	98	-0.4
France	1717	1518	1741	1599	1644	-2.3	1722	1519	1745	1604	1648	0.2
Naphtha	151	139	225	248	191	-2.6	152	140	226	249	192	0.5
LPG	155	91	76	129	113	-2.3	155	91	76	129	113	0.1
Gasoline	195	260	224	168	212	-3.3	192	254	220	165	208	-2.0
Kerosene	95	109	121	87	103	-1.5	94	108	120	86	102	-1.0
Gasoil/Diesel	964	728	898	792	846	-1.8	973	736	907	800	854	1.0
Fuel Oil	89	79	54	75	74	-7.2	88	78	53	74	73	-1.0
Other	68	112	143	99	106	-0.6	69	112	144	100	106	0.2
Italy	1468	1375	1442	1406	1423	-4.3	1462	1365	1437	1402	1417	-0.4
Naphtha	65	76	48	37	56	-2.1	66	77	48	37	57	1.0
LPG	140	97	106	145	122	-1.7	141	98	107	146	123	1.0
Gasoline	322	297	316	286	305	-3.3	316	294	313	283	302	-1.3
Kerosene	67	71	76	64	69	-0.9	67	71	76	64	69	-0.1
Gasoil/Diesel	572	458	569	542	535	-2.0	578	463	575	547	541	1.0
Fuel Oil	159	273	199	191	206	-16.0	151	260	189	181	195	-5.0
Other	143	102	127	142	128	0.6	144	103	129	143	130	1.0
Germany	2265	2277	2289	2501	2333	-1.5	2270	2282	2295	2510	2339	0.3
Naphtha	231	220	218	249	230	-3.1	231	221	218	250	230	0.2
LPG	122	128	117	112	120	-4.0	122	128	117	112	120	0.1
Gasoline	515	570	506	554	536	-2.2	510	564	501	549	531	-1.0
Kerosene	98	140	145	122	126	-0.1	98	140	145	122	126	-0.1
Gasoil/Diesel	1118	953	991	1198	1065	-1.1	1129	963	1001	1210	1076	1.0
Fuel Oil	62	78	112	94	87	-0.7	59	77	111	95	85	-1.5
Other	118	188	200	171	169	1.0	119	189	202	173	171	1.0
Austria	220	207	235	286	237	-1.7	216	205	232	283	234	-1.2
Belgium	416	399	382	450	412	-2.7	420	403	386	454	416	1.0
Denmark	213	184	200	213	202	-0.2	211	182	202	217	203	0.3
Finland	220	213	219	218	217	-0.4	218	215	221	221	219	0.6
Greece	295	250	279	340	291	-1.9	292	247	276	337	288	-1.0
Iceland	12	16	26	25	20	1.8	13	16	27	26	20	1.8
Ireland	126	112	126	135	125	0.3	127	113	127	137	126	1.0
Luxembourg	53	47	48	47	49	1.3	53	48	49	48	49	1.7
Netherlands	411	380	391	389	393	-3.0	415	371	381	379	387	-1.6
Norway	195	182	196	207	195	0.2	197	184	198	209	197	1.0
Portugal	196	274	269	292	258	-0.1	198	277	272	295	260	1.0
Spain	870	746	934	900	863	-3.2	878	753	943	908	870	0.9
Sweden	380	325	308	318	333	-0.7	383	324	308	318	333	0.1
Switzerland	269	263	277	361	292	-1.1	272	260	271	368	293	0.1
Turkey	553	453	620	549	544	-1.7	558	444	619	543	541	-0.5
OECD Europe	11338	10591	11367	11774	11267	-2.0	11357	10579	11374	11799	11277	0.1
Japan	5124	4109	4071	4762	4517	-5.3	5134	4114	4069	4756	4518	0.0
Naphtha	632	567	586	774	640	-1.2	640	576	595	786	649	1.4
LPG	872	605	578	695	688	-1.9	894	614	584	702	698	1.6
Gasoline	888	917	834	905	886	-3.9	879	908	826	896	877	-1.0
Kerosene	994	446	361	627	607	-2.4	984	441	358	621	601	-1.0
Gasoil/Diesel	1088	1005	883	1156	1033	-3.8	1089	1006	884	1157	1034	0.1
Fuel Oil	312	280	426	213	308	-22.3	315	282	422	203	305	-0.7
Other	155	156	207	227	186	-6.6	152	155	208	230	186	-0.2
Direct Crude	184	134	195	163	169	-19.0	182	132	193	162	167	-1.0
South Korea	2031	1896	1790	1873	1897	-1.6	2011	1915	1812	1901	1909	0.6
Australia	878	812	830	889	852	-0.7	887	820	843	898	862	1.1
New Zealand	106	105	106	112	107	-0.1	107	106	106	113	108	0.5
Total OECD	42421	40032	40747	42601	41450	-3.0	42340	40204	40823	42984	41588	0.3

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Table 2  
World Oil Demand  
(Thousands of Barrels Daily)

BASE CASE 7/22/09											% Chng	
	Q1	Q2E	Q3E	Q4E	2009E	09/08	Q1E	Q2E	Q3E	Q4E	2010E	10/09
DEMAND												
United States	18834	18521	18400	19036	18698	-3.7	18703	18643	18392	19317	18764	0.4
Canada	2158	2068	2132	2119	2119	-0.5	2170	2079	2153	2145	2137	0.8
Mexico	1952	1930	2052	2035	1992	-1.2	1971	1949	2073	2056	2012	1.0
United Kingdom	1460	1370	1385	1538	1438	-1.4	1455	1370	1385	1539	1437	-0.1
France	1717	1518	1741	1599	1644	-2.3	1722	1519	1745	1604	1648	0.2
Italy	1468	1375	1442	1406	1423	-4.3	1462	1365	1437	1402	1417	-0.4
Germany	2265	2277	2289	2501	2333	-1.5	2270	2282	2295	2510	2339	0.3
Austria	220	207	235	286	237	-1.7	216	205	232	283	234	-1.2
Belgium	416	399	382	450	412	-2.7	420	403	386	454	416	1.0
Denmark	213	184	200	213	202	-0.2	211	182	202	217	203	0.3
Finland	220	213	219	218	217	-0.4	218	215	221	221	219	0.6
Greece	295	250	279	340	291	-1.9	292	247	276	337	288	-1.0
Iceland	12	16	26	25	20	1.8	13	16	27	26	20	1.8
Ireland	126	112	126	135	125	0.3	127	113	127	137	126	1.0
Luxembourg	53	47	48	47	49	1.3	53	48	49	48	49	1.7
Netherlands	411	380	391	389	393	-3.0	415	371	381	379	387	-1.6
Norway	195	182	196	207	195	0.2	197	184	198	209	197	1.0
Portugal	196	274	269	292	258	-0.1	198	277	272	295	260	1.0
Spain	870	746	934	900	863	-3.2	878	753	943	908	870	0.9
Sweden	380	325	308	318	333	-0.7	383	324	308	318	333	0.1
Switzerland	269	263	277	361	292	-1.1	272	260	271	368	293	0.1
Turkey	553	453	620	549	544	-1.7	558	444	619	543	541	-0.5
OECD Europe	11338	10591	11367	11774	11267	-2.0	11357	10579	11374	11799	11277	0.1
Japan	5124	4109	4071	4762	4517	-5.3	5134	4114	4069	4756	4518	0.0
South Korea	2031	1896	1790	1873	1897	-1.6	2011	1915	1812	1901	1909	0.6
Australia	878	812	830	889	852	-0.7	887	820	843	898	862	1.1
New Zealand	106	105	106	112	107	-0.1	107	106	106	113	108	0.5
Total OECD	42421	40032	40747	42601	41450	-3.0	42340	40204	40823	42984	41588	0.3
Non-OECD												
FSU	38952	40472	41179	39610	40053	1.7	39904	41477	42260	40609	41063	2.5
Non-OECD Europe	4152	3158	3218	4094	3656	0.0	4227	3215	3276	4168	3722	1.8
China	2503	2358	2394	2531	2446	-0.5	2487	2343	2380	2531	2435	-0.5
China	5502	8275	8177	5560	6879	2.1	5667	8523	8422	5727	7085	3.0
OPEC	8330	7682	8183	8199	8099	6.0	8855	8154	8684	8694	8597	6.1
Argentina	484	530	511	548	518	0.3	484	530	511	548	518	0.0
Brazil	1921	2138	2298	2303	2165	0.8	1959	2181	2344	2349	2208	2.0
Other L. A.	1530	1619	1807	1852	1702	1.3	1545	1635	1843	1871	1723	1.3
Egypt	581	598	598	604	595	2.4	592	613	613	619	609	2.4
South Africa	469	508	519	531	507	2.1	479	521	530	542	518	2.1
Other Africa	1095	1136	1203	1207	1160	1.7	1114	1154	1226	1226	1180	1.7
Non-OPEC M. E.	672	646	661	664	661	2.3	693	659	674	678	676	2.3
India	2319	2370	2249	2361	2325	2.5	2368	2420	2297	2411	2374	2.1
Other Asia	4102	4185	4080	3856	4056	0.4	4123	4210	4109	3883	4081	0.6
Int. Bunkers	2027	2032	2029	2033	2030	-1.7	2023	2037	2041	2044	2036	0.3
Refinery F/L	3264	3236	3251	3266	3254	-2.0	3289	3282	3312	3320	3301	1.4
Grand Total Demand	81373	80504	81926	82211	81504	-0.8	82245	81681	83083	83594	82651	1.4

Note: Demand by country is shown on an "inland" basis, i.e., excluding bunkers and refinery fuel/loss.

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**Table 3**  
**World Oil Supply**  
**(Thousands of Barrels Daily)**

BASE CASE 7/22/09					% Chng						% Chng	
	Q1	Q2E	Q3E	Q4E	2009E	09/08	Q1E	Q2E	Q3E	Q4E	2010E	10/09
Grand Total Demand	81373	80504	81926	82211	81504	-0.8	82245	81681	83083	83594	82651	1.4
Inventory Change	234	394	-649	-560	-145		-24	364	-289	-598	-137	
<b>SUPPLY</b>	<b>81607</b>	<b>80898</b>	<b>81277</b>	<b>81651</b>	<b>81358</b>	<b>-2.0</b>	<b>82220</b>	<b>82044</b>	<b>82794</b>	<b>82996</b>	<b>82513</b>	<b>1.4</b>
United States	5236	5226	5177	5180	5205	5.1	5147	5135	5128	5122	5133	-1.4
United Kingdom	1495	1360	1409	1377	1410	-1.8	1545	1278	1423	1336	1396	-1.0
Norway	2235	1898	2083	2185	2100	-3.4	2190	1860	2041	2142	2058	-2.0
Denmark	380	380	380	380	380	0.0	380	375	375	380	378	-0.7
Netherlands	52	51	51	53	52	0.0	51	51	51	53	52	-0.5
Other OECD Europe	460	460	460	460	460	0.0	455	455	455	460	456	-0.8
Non-OECD Europe	305	305	305	305	305	0.0	305	305	305	305	305	0.0
Mexico	2710	2618	2705	2695	2682	-4.3	2700	2685	2675	2670	2683	0.0
Canada	2655	2580	2710	2710	2664	0.6	2710	2710	2710	2710	2710	1.7
Argentina	640	620	625	625	628	-1.8	625	620	620	620	621	-1.0
Brazil	1900	1935	1940	1975	1938	3.1	2065	2070	2080	2080	2074	7.0
Colombia	545	575	555	550	556	4.2	530	530	530	530	530	-4.7
Peru	105	105	105	105	105	0.0	105	105	105	105	105	0.0
Trinidad & Tobago	130	130	135	130	131	0.0	130	130	130	130	130	-1.0
Other L. A.	75	80	80	80	79	0.0	80	80	80	80	80	1.6
Bahrain	37	37	38	38	38	0.0	38	37	38	38	38	0.7
Oman	700	725	700	700	706	4.6	670	670	665	665	668	-5.5
Syria	325	320	320	335	325	-5.5	345	340	340	340	341	5.0
Other Middle East	365	365	365	365	365	0.0	365	360	360	360	361	-1.0
Congo	195	195	195	195	195	0.0	195	195	190	190	193	-1.3
Egypt	645	640	640	640	641	1.0	620	620	620	620	620	-3.3
Gabon	255	240	240	240	244	-8.0	240	240	240	240	240	-1.5
Tunisia	130	130	125	125	128	0.0	125	125	125	125	125	-2.0
Other Africa	365	375	380	380	375	0.0	380	380	380	380	380	1.3
Australia	625	610	610	600	611	4.7	590	590	590	590	590	-3.5
India	710	700	700	700	703	1.6	680	680	680	685	681	-3.0
Indonesia	800	800	800	800	800	-5.0	845	845	845	845	845	5.6
Malaysia	685	680	680	680	681	1.3	670	670	670	680	673	-1.3
Brunei	135	135	130	130	133	0.0	130	130	130	130	130	-1.9
Other Asia/Pacific	610	610	615	615	613	0.0	610	610	610	610	610	-0.4
FSU	11952	12141	11752	11680	11881	1.2	12071	12262	11870	11797	12000	1.0
China	3795	3785	3775	3790	3786	-0.1	3790	3790	3790	3790	3790	0.1
NGL	4942	4941	4995	5050	4982	1.3	5009	5009	5065	5122	5051	1.4
Ref. Gain/Other	1831	1811	1843	1850	1834	-0.8	1851	1838	1869	1881	1860	1.4
Non-Conventional	1230	1224	1230	1245	1232	2.7	1261	1255	1261	1276	1263	2.5
Total Non-OPEC	49255	48787	48853	48969	48966	0.7	49503	49035	49046	49086	49168	0.4
OPEC SUPPLY	32352	32111	32424	32681	32392	-5.8	32717	33009	33748	33910	33346	2.9
OPEC NGL	1930	1930	1930	1935	1931	1.2	1935	1935	1935	1935	1935	0.2
OPEC CONDENSATE	1900	1900	1900	1900	1900	1.1	1900	1900	1900	1900	1900	0.0
OPEC CRUDE SALES	28522	28281	28594	28846	28561	-6.6	28882	29174	29913	30075	29511	3.3
Saudi Arabia	8100	7900	7900	8000	7975	-11.3	7700	8000	8700	8650	8263	3.6
Iran	3577	3441	3504	3546	3517	-6.2	3692	3609	3603	3815	3680	4.6
Iraq	2285	2320	2250	2250	2276	-0.3	2250	2250	2250	2250	2250	-1.2
Kuwait	2275	2200	2200	2200	2219	-9.5	2225	2250	2300	2300	2269	2.3
Qatar	720	720	840	840	780	-6.9	835	835	840	840	838	7.4
UAE	2300	2250	2250	2250	2263	-11.8	2250	2300	2300	2300	2288	1.1
Algeria	1295	1300	1300	1325	1305	-7.2	1410	1410	1410	1410	1410	8.0
Angola	1800	1800	1850	1900	1838	-3.0	1910	1910	1910	1910	1910	3.9
Nigeria	1995	2000	2000	2000	1999	3.7	2100	2100	2100	2100	2100	5.1
Libya	1600	1600	1745	1745	1673	-3.4	1745	1745	1745	1745	1745	4.3
Ecuador	475	475	480	490	480	0.0	465	465	465	465	465	-3.1
Venezuela	2100	2275	2275	2300	2238	-1.9	2300	2300	2290	2290	2295	2.6
Inventory Change	234	394	-649	-560	-145		-24	364	-289	-598	-137	
Assumed Inventory Position(c)												
Days Supply of MOV	50	50	49	50	50		50	49	49	49	49	
Days Supply of UC	18	19	18	18	18		18	18	18	17	17	
Days Supply of MOV+	69	68	68	68	68		68	67	66	66	66	
Days Supply of S/C	14	14	14	14	14		14	14	14	14	14	

- a) OPEC supply measured on a delivered sales basis, i.e. accounting for tanker transit and storage time lag, plus net producer stock change.  
b) Includes share of Neutral Zone, shared equally.  
c) MOV: Minimum Operating Volume; UC: Usable Commercial; S/C: Strategic/Compulsory.

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