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International Petroleum Analysis

April 21, 2009

## World Petroleum Perspectives Monthly Review and Outlook

### Summary

In general over the past month the prompt NYMEX crude oil contract had been trading in a relatively narrow channel. In the last couple days, however as May NYMEX crude approached expiration, WTI fell below the trough of its recent range. Despite previous relative price stability, the consensus became increasingly bearish with regard to the prospects for world oil demand in 2009. Visible outlooks published by OPEC, the EIA, and particularly the IEA have progressively slashed their demand forecasts, concluding that world oil consumption this year will fall anywhere from 1.0+ to 2.0+ MMB/D. Despite such sentiment, the relative stability in crude oil prices in our view has derived from relative stability in the S&P 500, which in turn has begun to discount a more favorable economic environment in the second half of the year. Given the increased non-commercial participation in crude oil price determination, therefore, crude oil prices are more likely to discount anticipated fundamental developments, as equities have customarily done.

Whether bloated crude oil inventories and weak first quarter refined product demand are elements of the past or reflect likely conditions for the duration of 2009 remains to be seen. However, despite some modest revisions to our demand outlook for this year, we remain even more of an “outlier” than previously since we believe that world oil demand will not decline in 2009 for the year as a whole. Granted, the first quarter was quite weak and we would look for another negative comparison in the current period. However, we retain our view that the year-over-year comparisons will improve in the second half of 2009. In addition, whereas previously we were viewed as overly conservative with regard to non-OPEC supply growth, the consensus has also passed us by on this side of the coin, expecting nil growth this year or even a decline. While we retain our current view of modest growth, we concede that if we are off the mark output is likely to be lower and not higher. With regard to price, our Base Case remains largely on track, and as such we expect prompt WTI to average around \$55.00-\$56.00 per barrel this year, unchanged from our previous report.

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- + World oil demand is forecast to be roughly comparable to the estimated average for 2008.
  - + Non-OPEC supply is expected to rise by some 500 MB/D this year.
  - + Our balances imply a net global stock draw for the year averaging about 480 MB/D.
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## Viewpoint

Up until the last couple days, over the past month the prompt NYMEX crude oil contract had been trading in a relatively narrow range. As May NYMEX crude approached expiration, however, WTI fell below its roughly \$48.00 per barrel trough.

Over the previous couple weeks, prompt WTI periodically traded as high as \$53.00-\$54.00 per barrel, often in sympathy with a rising S&P 500 or, to lesser degree these days, periodic weakness in the dollar.

Subsequently, however, WTI retraced as sellers came in under the belief, largely well founded, that crude oil prices had advanced ahead of *current* fundamentals.

Despite previous relative price stability, the consensus ultimately became increasingly bearish with regard to the prospects for world oil demand in 2009.

Such visible forecasts as those published by the OPEC Secretariat, the U.S. EIA, and particularly the IEA have progressively slashed their demand estimates for this year, concluding that world oil demand in 2009 will decline anywhere from 1.0+ to 2.0+ MMB/D.

In addition, despite declines in Cushing crude oil storage volumes over the past several weeks, total U.S. crude oil inventories have continued to rise to levels not seen in almost 20 years.

Despite such negative factors, the relative stability in crude oil prices has derived in our opinion from relative stability in the S&P 500, which in turn has begun to discount a more favorable economic environment in the second half of the year.

As discussed in previous reports, since the beginning of the year the positive coincident correlation between the equity market and prompt WTI has been stronger than in has in a substantial number of years.

Given the increased non-commercial participation in crude oil price determination these days, WTI is more likely to discount *anticipated* fundamental developments, as equities have customarily done, as opposed to reflecting purely current fundamentals.

Whether bloated crude oil inventories and weak first quarter refined product demand

are now history or will end up reflecting likely conditions for the duration of 2009 remains to be seen.

However, despite some modest revisions to our demand outlook for this year, we are now even more of an “outlier” than previously given our belief that world oil demand will not decline in 2009 for the year as a whole.

We fully concede that first quarter world oil demand was quite weak, and we would look for another-negative comparison in the current period.

However, we retain our view that the year-over-year comparisons will improve in the second half of the year due both to an improving economic environment compared to consensus expectations as well as “easier” comparisons with last year.

In addition, whereas previously we were viewed as quite conservative with regard to non-OPEC supply growth, the consensus has also passed us by with this element of the equation, expecting either no growth this year or an outright decline.

While we retain our current view of modest growth in non-OPEC supply, influenced by one-time gains in the United States, we concede that if we are off the mark output is likely to be lower and not higher, since odds favor further declines from Russia at this point.

In terms of price, our Base Case for 2009 established back in January remains largely on track, and as such we expect prompt WTI to average around \$55.00-\$56.00 per barrel this year, unchanged from our previous assessment.

## Global Oil Demand

World oil demand is forecast to be about unchanged this year compared to 2008, a modest downward revision from last month’s report reflecting updated, though preliminary, numbers for the first quarter. Although slightly less constructive than last month, the revisions largely reflect weaker than expected demand for the first quarter, but there are factors which we believe suggest we should not extrapolate the experience for the year as a whole.

Thus, our current view lies in stark contrast to current consensus expectations that are quite bearish on world oil demand for 2009, which forecast anywhere from a 1.0+ to a 2.0+ MMB/D decline in world oil demand this year.

The latest IEA outlook is likely on the extreme of the consensus, with the agency now forecasting a 2.4 MMB/D drop in oil demand compared to 2008. This forecast incorporates a 3.2 MMB/D estimated decline in the first quarter alone.

We fully concede that the first quarter on all fronts was quite weak, but we believe that data revisions and statistics for March could lead to a less negative estimate once fully revised.

More importantly, however, we believe that the severe weakness, in addition to reflecting a decline in actual consumption, or “burn”, also reflected destocking on down the supply chain. This is a behavior we have witnessed in both directions over the last ten years when major developments, either positive or negative, emerged on the world stage.

If our thesis is reasonable, then the eventual end to non-primary destocking will by definition lead to a recovery in reported implied demand, even if there has been no underlying change in the actual rate of consumption. Preliminary March gasoil data for Germany would tend to support our beliefs in this regard.

Within our forecast that world oil demand will be about unchanged this year, we expect OECD oil demand to decline by 1.5%, or some 655 MB/D this year, while non-OECD oil demand is forecast to rise by 1.7%, or around 680 MB/D.

## **United States**

Although in general there is little or no sign of economic stability yet in the United States, recent data is becoming more mixed and in some cases “less bad” than previously.

Nonetheless, in terms of U.S. refined product demand year-over-year comparisons remain negative for all products, and given the likelihood that DOE demand estimates will be

revised down over time, conservatism on what has already happened is warranted.

In this regard, when preliminary data for the week ending April 10 were released, they included year-to-date estimates in addition to the latest four-week rolling averages. The DOE reported that through April 10, U.S. refined product demand had fallen by 4.0%, or some 791 MB/D.

We believe, based on our models and released relevant economic variables, that for the first half of 2009 U.S. refined product demand will decline by 3.0%, or around 585 MB/D. We are therefore looking for a moderation in the rate of decline in demand versus last year within the current period, but a decline nonetheless.

For the second half of the year, however, we are still anticipating the beginnings of economic stabilization. In addition, because of the deterioration in U.S. oil demand as we progressed through the end of last year, all else equal the year-over-year comparisons should become somewhat “easier”. As such, for the fourth quarter we are looking for U.S. oil demand to rise by 0.8%, or about 150 MB/D.

Although most product demand, including gasoline and jet fuel, are forecast to decline during this period, if we are close to the mark that manufacturing activity will begin to stage a modest recovery, diesel demand should begin to gain over the previous year. For 2009 as a whole, we expect U.S. oil demand to fall by 1.3%, or about 249 MB/D.

## **Europe**

Preliminary data for the first quarter reveal that demand for fuels most sensitive to economic activity as well as feedstocks continued to decline in OECD Europe. The aggregate fall in total refined product demand was mitigated to a degree by colder weather in February boosting both gas oil and residual fuel oil demand. Naphtha demand for feedstock dropped by double digits, with more moderate declines registered for gasoline, diesel, and jet fuel during the period.

Overall, we estimate that OECD Europe oil demand fell by 2.9%, or some 335

MB/D during the first quarter. As with the United States, we are looking for a more moderate decline in the second quarter. Unlike the United States, however, we forecast that each quarter of this year will register a fall in demand versus the previous year.

This distinction is due in large part to larger anticipated declines in gasoline demand, impacting the overall barrel to a greater degree, as well as a greater underlying conservation/substitution impact.

For 2009 as a whole, we expect OECD Europe oil demand to decline by 1.6%, or about 190 MB/D versus 2008.

## Japan and South Korea

Preliminary estimates for most of the first quarter reveal that the decline in Japan oil demand versus the prior year accelerated significantly. Japan oil demand has been falling each month since the middle of last year as global demand for Japan exports has dried up, leading to a significant decline in manufacturing output.

This factor has been compounded by the ongoing secular decline in gasoline demand due to an aging population and as consumers turn increasingly to smaller, even more fuel-efficient automobiles.

In addition, rising Pacific and Middle East LNG availability has led to further declines in heavy fuel oil demand and crude oil for direct burning. Milder weather further reduced consumption of space heating fuels such as kerosene.

All of these elements led to an estimated decline in first quarter oil demand of -9.5%, assuming a slight rebound in March from the preliminary double-digit decline in February.

To retain consistency with our global economic expectations, however, we are still looking for a stabilization in Japan economic activity in the second half of the year.

Thus, while fuel substitution at the bottom of the barrel should continue, we expect the decline in total Japan oil demand to begin to moderate as we move toward the end of 2009. For the year as a whole, we anticipate

Japan oil demand will decline by 4.0%, or about 190 MB/D from 2008.

In contrast, mid-first quarter oil demand in South Korea rebounded from the prior year, led by an unexpected rebound in naphtha demand, although we would assume that part of the recovery reflected restocking versus a rise in final feedstock consumption.

In addition, however, diesel fuel demand recovered modestly in February along with heavy fuel oil, with the latter reflecting a short-term switch away from more costly LNG.

For the year as a whole, however, we would still expect a decline in South Korea oil demand, which we estimate will be -1.6%, or some 30 MB/D.

## Non-OECD

With OECD oil demand expected to continue to fall this year, one of the obvious keys as to whether *total* world oil demand declines or not is China, just as they helped determine global growth at the margin ever since 2004.

Early first quarter, highly preliminary data suggest that implied China oil demand fell from the previous year. However, there appears to be anecdotal and statistical data suggesting that a modest rebound may have occurred in March in response to economic stimulus measures, although we must be cautious since stocking could have played a role in a number of sectors.

Nonetheless, at this stage we estimate that for the first quarter as a whole, implied China oil demand declined by only 2.0%, or about 110-115 MB/D, a significant moderation in decline from preliminary February data, where modest stocking in diesel fuel suggests that manufacturing activity continued to moderate and implied gasoline demand appeared to have fallen.

We therefore concede we may be too optimistic, but there is enough evidence for March to reserve final revisions, if any, until complete data for March are in hand. For 2009 as a whole, we believe China implied demand will come in positive versus 2008, consistent

with our global economic stabilization in the second half of the year, rising by 1.7%.

Elsewhere, early first quarter data imply that India oil demand rebounded modestly led by gasoline and gasoil, more than offsetting declines in petrochemical feedstocks and heavy fuel oil. For India we expect 2009 oil demand to increase by 2.4%, or some 55 MB/D over last year.

Based on updated stats we have modestly revised down our outlook for FSU demand in 2009, now expecting a 0.5%, or 20 MB/D gain. For the non-OECD group of countries in total, our Base Case anticipates a 1.7%, or 680 MB/D rise in oil demand in 2009.

## **Global Oil Supply**

### **Non-OPEC**

From 2004 through 2008 the market mantra largely centered on demand, although toward the end of crude oil's bull run there was greater discussion of the "peak oil" theory to justify WTI in excess of \$100.00 per barrel.

Fast forward to April 2009, where the consensus is now quite bearish on the prospects for world oil demand through the entirety of 2009 at a minimum.

There is no question, however, that more recently the issue of non-OPEC supply has emerged as a major factor to monitor. In other words, the consensus "knows" how weak demand will be, and therefore the ability of prices to move higher from here centers more on supply, or lack therefore, as the IEA and others warn of a such deterioration in upstream investment that this year will lead to first stability, followed by a decline, in non-OPEC supply.

In its latest monthly report, the IEA now believes that for 2009 as a whole, non-OPEC supply will decline by some 320 MB/D. While of this total 220 MB/D represents a cut in biofuels expectations, the remaining 100 MB/D derives from conventional crude oil production.

The Agency expects that the primary influence on lower conventional non-OPEC supply this year will come from the North Sea, primarily Norway, and the FSU.

It is fair to say that over the last few years, while we have not been strict advocates of the "peak oil" theory, our outlook for non-OPEC production growth has been the most conservative around. We also identified some time ago the likelihood that Russian production would not live up to expectations.

While we retain these views, we believe, right or wrong, that the IEA has now gone somewhat too far on the non-OPEC supply side of the equation as well as the demand side.

The IEA is looking for "OECD Europe" production to fall by a full 540 MB/D in 2009. Our current Base Case suggests a decline in North Sea output of only some 60 MB/D, despite revisions to Haltenbanken expectations in Norway.

For the FSU, the IEA forecast a decline of 220 MB/D this year, while we expect a modest increase, with non-Russian production accounting for all the gain.

We concede that we could be too optimistic on both accounts, and if the IEA is correct, particularly with regard to Europe, and we are closer to the mark on demand, all else equal the balance should "tighten" in the second half of the year.

Elsewhere we, as well as the IEA, are looking for either minimal gains or declines. Thus, for 2009 as a whole we expect non-OPEC supply, including a modest rise in non-conventional fuels, to increase by about 500 MB/D.

Looking at conventional crude oil and NGLs alone, our forecast suggests a non-OPEC gain of 465 MB/D, confirming in turn that the primary source of difference between ourselves and the IEA lies with the North Sea and FSU.

### **OPEC and Inventory**

Our customary table laid out below suggests little change in estimated April production for the "OPEC 11" compared to March, with Saudi Arabia remaining under 8.0 MMB/D. Iran, Angola, and Nigeria remain the primary quota "violators" but we have not assumed that overall OPEC compliance will improve from current levels.

**OPEC “11”  
Targeted Allocations**

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**Estimated April 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	3,605	+269
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	2,035	+50
Total	24,845	25,760	+915

On the contrary, as discussed in previous reports, if our Base Case unfolds with regard to both balance and price, we have assumed some relaxation of compliance in the second half of the year. To quantify, for the July-December time period we anticipate “OPEC 11” crude oil deliveries to average about 26.5 MMB/D, some 700 MB/D above current levels. It would simply not be reasonable to assume that recovering demand for crude and price would not illicit incremental barrels from OPEC, irrespective of any official agreement.

Having said this, however, putting our demand and supply sides together we still arrive at a more constructive balance for 2009 as a whole than current consensus expectations.

As refiners continue to adjust output and refined product inventories to weaker demand, over time we believe the aggregate global crude oil balance will begin to improve. Our numbers suggest a progressive drawdown in floating storage over the course of the year in combination with a decline onshore.

If we are too optimistic on demand, refiner runs will remain lower longer, thus

prolonging the time frame for any material improvement in the crude oil balance, perhaps into next year. If we are too optimistic on demand but the IEA is closer on non-OPEC supply, then the net effect would be the same as under our current Base Case.

As it stands now, however, our balances suggest that in the second half of the year there will be a net global stock draw, primarily crude oil, averaging about 885 MB/D. At the end of the year, it would imply usable commercial stocks standing about 1.5 days below the end of 2008.

Of course, our numbers must assume that any relaxation in compliance by OPEC does not occur until the third quarter.

If Iran, for example, produces even more and sooner than expected with the increment likely moving into floating storage, it will require a revision to our time frame for improvement, with the resultant price impact as discussed below.

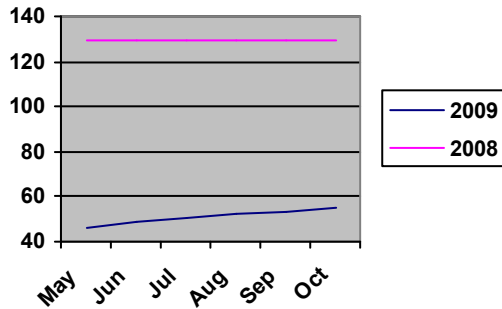
### **Implications for Price**

Until recently, prompt WTI was tracking well our Base Case for 2009 as laid out back in January. As we issue this report, however, May crude is about to expire, with the market falling below its recent trading range in response to a weaker S&P 500 and a stronger dollar.

Traders and funds had been reaching for reasons to keep buying crude oil, but renewed financial uncertainty took some wind out of the equity market, with reported earnings and earnings expectations falling short of estimates.

We had discussed in previous reports our expectations that financial factors would move WTI first, since even if we were accurate in our fundamental outlook we were the first to concede that it would take a few months.

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



We still believe that over time, the 2009 balance will evolve in a more constructive manner than the market now anticipates.

If so, after the recent price drop prompt WTI should be able to reestablish its previous range, with a move above the range as we move toward the end of the second quarter and into the third.

Financial firms clearly want to buy more crude, seeing how an improvement in demand can lead to the magnitude of prices witnessed last year, although we strongly emphasize we do not believe the odds favor a return to \$100+ per barrel WTI for a substantial number of years.

Nevertheless, if WTI has a “6 handle” in the second half of the year, it will clearly be a major surprise to the consensus of analysts, who will invariably revise up their longer-term outlooks by too much.

Returning to 2009, however, as our table below illustrates, we retain our “outlier” forecast for this year, with prompt WTI averaging around \$55.00-\$56.00 per barrel.

	2008	2009(E)
Q1	\$97.90	\$43.08
Q2	\$123.76	\$55.07
Q3	\$116.19	\$67.86
Q4	\$60.74	\$56.28
Yr.	\$99.65	\$55.57

If we are dead wrong, however, we do not believe the odds are high that prompt WTI will return to a \$30.00-\$35.00 per barrel range. We believe equity markets will trade in a range for a while, but not fall back to the lows on the S&P 500 of earlier this year.

Our primary forecast error would come through a lack of any material draw in global crude oil stocks for the reasons discussed previously. If so, we believe the most likely alternative to our Base Case would be prompt WTI trading in a \$40.00-\$50.00 per barrel range for the remainder of the year, implying the actual average for 2009 will come in some \$10.00 per barrel below our Base Case.

April 21, 2009

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

**Table 1**  
**OECD Oil Demand**  
(Thousands of Barrels Daily)

BASE CASE 4/20/09											% Chng	
	Q1	Q2	Q3	Q4E	2008E	08/07	Q1E	Q2E	Q3E	Q4E	2009E	09/08
<b>DEMAND</b>												
United States	19876	19683	18825	19282	19416	-6.2	19179	19207	18849	19432	19167	-1.3
Motor Gasoline	8908	9135	8877	8917	8959	-3.5	8798	9046	8988	8883	8929	-0.3
Jet Fuel	1539	1582	1540	1412	1518	-6.4	1462	1503	1509	1384	1464	-3.5
Distillate	4200	3924	3690	3942	3939	-6.7	4028	3815	3745	4249	3959	0.5
Residual	598	678	576	624	619	-15.7	538	610	547	618	578	-6.6
Other	4631	4364	4142	4386	4381	-9.4	4353	4233	4059	4298	4236	-3.3
Canada	2203	2099	2121	2100	2131	-0.6	2158	2093	2132	2119	2126	-0.2
Naphtha	74	72	69	78	73	1.0	74	73	70	79	74	1.0
LPG	217	280	225	139	215	1.3	215	290	227	140	218	1.3
Gasoline	739	755	810	767	768	-0.5	717	757	818	779	768	0.0
Kerosene	81	79	91	81	83	1.0	81	79	91	81	83	-0.1
Gasoil/Diesel	675	473	491	586	556	-1.6	661	463	496	592	553	-0.5
Fuel Oil	141	94	83	154	118	-1.5	138	92	81	151	115	-2.0
Other	278	346	352	295	318	-0.6	272	339	349	298	314	-1.0
Mexico	1972	2032	2050	2015	2017	-0.1	1952	2033	2061	2035	2020	0.1
United Kingdom	1504	1403	1387	1538	1458	-1.3	1460	1397	1385	1538	1445	-0.9
Naphtha	85	75	61	88	77	0.4	81	75	62	89	77	-0.7
LPG	134	134	114	130	128	0.7	127	135	115	132	127	-0.6
Gasoline	431	383	388	407	402	-3.4	414	371	380	399	391	-2.8
Kerosene	248	202	220	215	221	0.5	248	202	219	215	221	-0.1
Gasoil/Diesel	368	474	460	543	461	-1.2	357	479	465	548	462	0.2
Fuel Oil	143	44	39	52	69	-1.6	139	43	39	52	68	-1.7
Other	95	92	105	103	99	-0.7	94	91	105	103	98	-0.4
France	1772	1597	1762	1600	1683	-0.2	1717	1568	1745	1599	1657	-1.5
Naphtha	168	145	224	247	196	0.0	151	146	225	248	192	-1.8
LPG	163	94	76	129	115	-0.2	155	94	76	129	113	-1.7
Gasoline	204	270	230	173	219	-4.5	195	260	224	168	212	-3.3
Kerosene	96	112	122	88	104	0.8	95	111	121	87	103	-1.0
Gasoil/Diesel	983	767	907	788	861	0.9	964	751	898	792	851	-1.2
Fuel Oil	90	93	60	77	80	-1.5	89	90	58	75	78	-2.4
Other	68	116	143	99	107	-0.1	68	116	143	99	107	0.2
Italy	1561	1477	1479	1429	1486	-3.9	1468	1415	1442	1406	1433	-3.6
Naphtha	68	78	47	36	58	0.5	65	79	48	37	57	-0.8
LPG	149	99	105	143	124	0.4	140	100	106	145	123	-1.1
Gasoline	339	310	322	292	316	-4.0	322	300	316	286	306	-3.1
Kerosene	67	73	77	64	70	0.8	67	73	76	64	70	-0.1
Gasoil/Diesel	602	473	575	537	547	-1.4	572	468	569	542	538	-1.6
Fuel Oil	194	341	226	217	245	-14.3	159	290	199	191	210	-14.2
Other	141	103	126	140	128	0.4	143	104	127	142	129	1.0
Germany	2334	2287	2318	2534	2368	0.1	2265	2240	2289	2501	2324	-1.9
Naphtha	257	225	218	249	237	-0.1	231	220	218	249	230	-3.1
LPG	135	135	117	112	125	-0.4	122	128	117	112	120	-4.0
Gasoline	531	582	516	566	549	-2.7	515	564	506	554	535	-2.5
Kerosene	99	140	145	122	126	1.0	98	140	145	122	126	-0.1
Gasoil/Diesel	1130	944	1011	1223	1077	2.0	1118	925	991	1198	1058	-1.7
Fuel Oil	66	77	113	94	87	-3.8	62	75	112	94	86	-1.5
Other	117	186	198	169	167	0.5	118	188	200	171	169	1.0
Austria	224	214	237	289	241	-1.2	220	211	235	286	238	-1.2
Belgium	427	418	390	459	423	-2.3	416	408	382	450	414	-2.2
Denmark	215	190	198	209	203	0.2	213	188	200	213	203	0.3
Finland	222	219	217	214	218	0.6	220	222	219	218	220	0.6
Greece	301	260	281	344	296	-1.5	295	255	279	340	292	-1.5
Iceland	12	16	26	25	20	2.0	12	16	26	25	20	2.0
Ireland	125	115	125	134	124	1.0	126	116	126	135	126	1.0
Luxembourg	52	48	47	46	48	2.0	53	48	48	47	49	2.0
Netherlands	421	398	401	399	405	-2.4	411	388	391	389	395	-2.5
Norway	192	188	194	205	195	1.1	195	190	196	207	197	1.1
Portugal	195	283	266	289	258	1.0	196	285	269	292	261	1.0
Spain	897	785	963	919	891	-2.3	870	762	934	900	867	-2.7
Sweden	381	332	309	319	335	-0.2	380	332	308	318	335	-0.2
Switzerland	275	271	282	355	296	-0.6	269	268	277	361	294	-0.6
Turkey	564	472	621	554	553	-1.2	553	462	620	549	546	-1.2
<b>OECD Europe</b>	<b>11672</b>	<b>10972</b>	<b>11502</b>	<b>11861</b>	<b>11502</b>	<b>-1.1</b>	<b>11338</b>	<b>10770</b>	<b>11371</b>	<b>11774</b>	<b>11313</b>	<b>-1.6</b>
Japan	5653	4428	4218	4786	4771	-0.8	5124	4259	4160	4773	4579	-4.0
Naphtha	673	579	577	763	648	0.4	632	587	586	774	645	-0.4
LPG	918	624	572	688	701	1.1	872	633	578	695	695	-0.9
Gasoline	965	950	860	914	922	-3.0	888	922	843	905	889	-3.6
Kerosene	1036	455	365	633	622	1.2	994	450	361	627	608	-2.2
Gasoil/Diesel	1169	1069	901	1154	1074	-4.1	1088	1037	883	1156	1041	-3.0
Fuel Oil	416	400	532	237	396	6.0	312	340	506	225	346	-12.8
Other	194	174	206	225	200	-0.3	155	156	207	227	186	-6.6
Direct Crude	282	178	203	170	209	-0.7	184	134	195	163	169	-19.0
South Korea	2094	1954	1808	1854	1928	-2.5	2031	1896	1790	1873	1897	-1.6
Australia	878	837	839	881	859	0.6	878	845	851	889	866	0.9
New Zealand	106	108	105	112	108	0.1	106	108	106	112	108	0.5
<b>Total OECD</b>	<b>44453</b>	<b>42111</b>	<b>41468</b>	<b>42891</b>	<b>42731</b>	<b>-3.4</b>	<b>42766</b>	<b>41211</b>	<b>41318</b>	<b>43009</b>	<b>42076</b>	<b>-1.5</b>

Table 2

World Oil Demand  
(Thousands of Barrels Daily)

BASE CASE 4/20/09											% Chng	
	Q1	Q2	Q3	Q4E	2008E	08/07	Q1E	Q2E	Q3E	Q4E	2009E	09/08
DEMAND												
United States	19876	19683	18825	19282	19416	-6.2	19179	19207	18849	19432	19167	-1.3
Canada	2203	2099	2121	2100	2131	-0.6	2158	2093	2132	2119	2126	-0.2
Mexico	1972	2032	2050	2015	2017	-0.1	1952	2033	2061	2035	2020	0.1
United Kingdom	1504	1403	1387	1538	1458	-1.3	1460	1397	1385	1538	1445	-0.9
France	1772	1597	1762	1600	1683	-0.2	1717	1568	1745	1599	1657	-1.5
Italy	1561	1477	1479	1429	1486	-3.9	1468	1415	1442	1406	1433	-3.6
Germany	2334	2287	2318	2534	2368	0.1	2265	2240	2289	2501	2324	-1.9
Austria	224	214	237	289	241	-1.2	220	211	235	286	238	-1.2
Belgium	427	418	390	459	423	-2.3	416	408	382	450	414	-2.2
Denmark	215	190	198	209	203	0.2	213	188	200	213	203	0.3
Finland	222	219	217	214	218	0.6	220	222	219	218	220	0.6
Greece	301	260	281	344	296	-1.5	295	255	279	340	292	-1.5
Iceland	12	16	26	25	20	2.0	12	16	26	25	20	2.0
Ireland	125	115	125	134	124	1.0	126	116	126	135	126	1.0
Luxembourg	52	48	47	46	48	2.0	53	48	48	47	49	2.0
Netherlands	421	398	401	399	405	-2.4	411	388	391	389	395	-2.5
Norway	192	188	194	205	195	1.1	195	190	196	207	197	1.1
Portugal	195	283	266	289	258	1.0	196	285	269	292	261	1.0
Spain	897	785	963	919	891	-2.3	870	762	934	900	867	-2.7
Sweden	381	332	309	319	335	-0.2	380	332	308	318	335	-0.2
Switzerland	275	271	282	355	296	-0.6	269	268	277	361	294	-0.6
Turkey	564	472	621	554	553	-1.2	553	462	620	549	546	-1.2
OECD Europe	11672	10972	11502	11861	11502	-1.1	11338	10770	11371	11774	11313	-1.6
Japan	5653	4428	4218	4786	4771	-0.8	5124	4259	4160	4773	4579	-4.0
South Korea	2094	1954	1808	1854	1928	-2.5	2031	1896	1790	1873	1897	-1.6
Australia	878	837	839	881	859	0.6	878	845	851	889	866	0.9
New Zealand	106	108	105	112	108	0.1	106	108	106	112	108	0.5
Total OECD	44453	42111	41468	42891	42731	-3.4	42766	41211	41318	43009	42076	-1.5
Non-OECD	38652	39935	40316	38676	39395	2.7	38966	40534	41230	39566	40074	1.7
FSU	4237	3190	3187	4014	3657	1.1	4152	3222	3234	4094	3676	0.5
Non-OECD Europe	2519	2373	2408	2531	2458	-0.5	2503	2358	2394	2531	2446	-0.5
China	5614	8113	7900	5321	6737	5.0	5502	8194	8177	5534	6852	1.7
OPEC	7845	7247	7721	7743	7639	5.9	8330	7682	8183	8199	8099	6.0
Argentina	484	528	509	546	517	0.3	484	530	511	548	518	0.3
Brazil	1919	2159	2253	2258	2147	1.5	1921	2203	2298	2303	2181	1.6
Other L. A.	1514	1603	1771	1834	1681	1.3	1530	1619	1807	1852	1702	1.3
Egypt	569	583	583	589	581	2.4	581	598	598	604	595	2.4
South Africa	460	496	509	521	496	2.1	469	508	519	531	507	2.1
Other Africa	1075	1118	1180	1188	1140	1.7	1095	1136	1203	1207	1160	1.7
Non-OPEC M. E.	653	634	648	651	647	2.3	672	646	661	664	661	2.3
India	2285	2312	2195	2281	2268	4.6	2319	2358	2249	2361	2322	2.4
Other Asia	4086	4169	4064	3840	4040	0.5	4102	4185	4080	3856	4056	0.4
Int. Bunkers	2062	2074	2071	2060	2067	0.1	2031	2036	2037	2026	2032	-1.7
Refinery F/L	3329	3336	3317	3299	3320	1.0	3275	3258	3279	3255	3267	-1.6
Grand Total Demand	83105	82046	81784	81566	82125	-0.6	81733	81744	82548	82575	82150	0.0

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

Information contained herein is believed to be reliable but its accuracy cannot be guaranteed. Past performance is not indicative of future results and the risk of loss is substantial in futures trading. Hornsby & Company, Inc. and W.H. Brown may, from time to time, have positions in the futures market relative to these recommendations.

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

<b>BASE CASE 4/20/09</b>											<b>% Chng</b>	
	Q1	Q2	Q3	Q4E	2008E	08/07	Q1E	Q2E	Q3E	Q4E	2009E	09/08
Grand Total Demand	83105	82046	81784	81566	82125	-0.6	81733	81744	82548	82575	82150	0.0
Inventory Change	114	1351	1144	920	882		143	-285	-580	-1195	-479	
<b>SUPPLY</b>	<b>83219</b>	<b>83397</b>	<b>82928</b>	<b>82486</b>	<b>83008</b>	<b>1.0</b>	<b>81876</b>	<b>81459</b>	<b>81967</b>	<b>81379</b>	<b>81671</b>	<b>-1.6</b>
United States	5115	5146	4655	4902	4954	-2.9	5249	5250	5253	5247	5250	6.0
United Kingdom	1508	1424	1395	1420	1437	-6.4	1495	1339	1409	1377	1405	-2.2
Norway	2215	2125	2125	2230	2174	-4.3	2235	2083	2083	2185	2146	-1.3
Denmark	380	380	380	380	380	-0.7	380	380	380	380	380	0.0
Netherlands	52	51	51	53	52	-1.0	52	51	51	53	52	0.0
Other OECD Europe	460	460	460	460	460	0.0	460	460	460	460	460	0.0
Non-OECD Europe	305	305	305	305	305	0.0	305	305	305	305	305	0.0
Mexico	2945	2775	2765	2730	2804	-9.3	2710	2710	2705	2695	2705	-3.5
Canada	2605	2615	2695	2672	2647	0.5	2655	2610	2710	2710	2671	0.9
Argentina	655	625	635	640	639	-3.2	640	640	635	635	638	-0.2
Brazil	1905	1885	1880	1845	1879	3.7	1900	1925	1940	1975	1935	3.0
Colombia	515	525	545	550	534	6.7	545	545	540	540	543	1.6
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	135	130	131	0.0
Other L. A.	75	80	80	80	79	0.0	75	80	80	80	79	0.0
Bahrain	37	37	38	38	38	0.0	37	37	38	38	38	0.0
Oman	695	685	675	645	675	-4.8	645	640	640	640	641	-5.0
Syria	345	345	345	340	344	-11.0	335	335	335	335	335	-2.5
Other Middle East	365	365	365	365	365	25.9	365	365	365	365	365	0.0
Congo	195	195	195	195	195	0.0	195	195	195	195	195	0.0
Egypt	625	645	635	635	635	2.0	645	640	640	640	641	1.0
Gabon	265	265	265	265	265	0.0	265	265	265	265	265	0.0
Tunisia	130	130	125	125	128	0.0	130	130	125	125	128	0.0
Other Africa	365	375	380	380	375	0.0	365	375	380	380	375	0.0
Australia	525	560	595	655	584	15.6	660	655	655	660	658	12.6
India	685	690	690	700	691	1.3	710	710	700	700	705	2.0
Indonesia	875	850	835	810	843	-1.7	800	800	800	800	800	-5.0
Malaysia	670	670	670	680	673	-3.9	685	680	680	680	681	1.3
Brunei	135	135	130	130	133	0.0	135	135	130	130	133	0.0
Other Asia/Pacific	610	610	615	615	613	1.9	610	610	615	615	613	0.0
FSU	11775	11985	11636	11565	11740	1.9	11952	12141	11752	11680	11881	1.2
China	3745	3805	3795	3815	3790	1.5	3810	3810	3805	3805	3808	0.5
NGL	4879	4876	4928	4983	4916	1.3	4942	4941	4995	5050	4982	1.3
Ref. Gain/Other	1870	1846	1840	1835	1848	-0.6	1839	1839	1857	1858	1848	0.0
Non-Conventional	1189	1194	1200	1215	1199	2.5	1230	1224	1230	1245	1232	2.7
Total Non-OPEC	48949	48894	48168	48492	48626	-0.2	49291	49139	48993	49084	49127	1.0
OPEC SUPPLY	34270	34503	34760	33994	34382	2.7	32585	32320	32974	32295	32544	-5.3
OPEC NGL	1895	1910	1915	1915	1909	7.8	1930	1930	1930	1935	1931	1.2
OPEC CONDENSATE	1875	1885	1880	1880	1880	7.5	1900	1900	1900	1900	1900	1.1
OPEC CRUDE SALES	30500	30708	30965	30199	30593	2.1	28755	28490	29144	28460	28712	-6.1
Saudi Arabia	8950	9100	9100	8800	8988	2.8	8150	7900	7900	8100	8013	-10.8
Iran	3690	3653	3780	3874	3749	0.6	3760	3720	3709	3730	3730	-0.5
Iraq	2295	2295	2265	2275	2283	9.6	2285	2250	2250	2275	2265	-0.8
Kuwait	2425	2525	2550	2310	2453	-0.4	2275	2200	2350	1350	2044	-16.7
Qatar	835	835	840	840	838	2.8	720	720	840	840	780	-6.9
UAE	2550	2650	2650	2405	2564	2.4	2300	2250	2250	2300	2275	-11.3
Algeria	1410	1410	1410	1395	1406	4.4	1295	1300	1400	1410	1351	-3.9
Angola	1895	1900	1875	1910	1895	13.6	1800	1800	1910	1910	1855	-2.1
Nigeria	1905	1805	1995	2005	1928	-8.3	1995	2000	2000	2000	1999	3.7
Libya	1745	1745	1725	1710	1731	0.7	1600	1600	1745	1745	1673	-3.4
Ecuador	485	475	480	480	480	6.1	475	475	480	490	480	0.0
Venezuela	2315	2315	2295	2195	2280	-2.8	2100	2275	2310	2310	2249	-1.4
Inventory Change	114	1351	1144	920	882		143	-285	-580	-1195	-479	
Assumed Inventory Position(c)												
Days Supply of MOV	50	51	51	50	50		50	49	49	49	49	
Days Supply of UC	14	16	17	18	18		18	18	17	17	17	
Days Supply of MOV+	64	66	68	68	68		68	67	67	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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