



HORNSBY & COMPANY, INC.

www.hornsbyco.com

Energy Risk  
Management Services

---

International Petroleum Analysis

September 29, 2008

## World Petroleum Perspectives Monthly Review and Outlook

### Summary

Since our last report the prompt NYMEX crude oil contract has declined by more than \$15.00 per barrel on a point-to-point basis. Within the period, however, prompt crude oil fell to a settlement low of close to \$91.00 per barrel, the lowest such settlement since early February. Many factors contributed to the price decline, including a recovering dollar versus the euro, but perhaps the greatest non-fundamental impact was the concern over a financial “meltdown” exemplified by fears of a failure of AIG. Given the insurer’s substantial derivative holdings, the market began selling assuming any lack of bailout or rescue would lead to a massive liquidation of passive length. In the final analysis, AIG received a reprieve, and despite the bankruptcy of Lehman Brothers, hedge funds regained some confidence that the worst would not occur. Concurrent with this development was a reversal in the dollar’s fortunes, reigniting the long crude oil/ short dollar trade that has characterized the short-term behavior of crude oil prices for the last year or so. As we issue this report, however, financial turmoil has returned in force.

From a fundamental standpoint, the market appreciated the impact of both production and refinery shutdowns in the aftermath of hurricanes Gustav and Ike. Because of weaker implied refined product demand and world economic uncertainty, however, the price response has thus far been modest. Stepping back and looking at global fundamentals for the remainder of 2008 and through the course of 2009, we have made relatively little revision to our forecast balances. Given deteriorating conditions in Europe, we believe the consensus, and particularly the IEA, will further revise down expectations for oil demand growth for the fourth quarter of 2008 and all of 2009. At the same time, however, we remain conservative on the prospects for non-OPEC supply growth, and as we anticipated the market is now realizing that Saudi oil policy will remain one of meeting refiner sour crude oil demand, no more and no less. While it is clear that the Kingdom would prefer sub-\$100.00 WTI to ensure economic stability and viable long-term global demand growth, we do not envision any radical departure from sales policy that in and of itself would lead to a collapse in oil prices.

---

+ World oil demand is expected to increase by 0.7%%, or some 550 MB/D in 2009, roughly unchanged from last month’s assessment after adjusting for the implied demand effects of Gustav and Ike.

+ Non-OPEC supply is forecast to gain by some 400 MB/D next year, a modest upward revision reflecting hurricane-induced downtime in 2008.

+ Our balances imply a requirement for Saudi crude oil averaging about 9.0 MMB/D in 2009, assuming little net change in global stocks for the year as a whole.

---

## **Viewpoint**

Since the publication of our previous monthly report the prompt NYMEX crude oil contract has declined in excess of \$15.00 per barrel on a point-to-point basis. As we issue this report prompt crude oil is attempting to stave off another decline below \$100.00 per barrel.

Within this time period, prompt NYMEX crude oil fell to a settlement low of close to \$91.00 per barrel, marking the weakest such settlement since early February before the market began its bull run toward \$150.00 per barrel.

Many factors contributed to this sub-\$100.00 per barrel price decline. Of significance was a recovery in the dollar versus the euro. Even eclipsing this phenomenon, however, was the concern over a potential financial “meltdown” as exemplified by fears of a failure of AIG.

Given the insurer’s apparent substantial and complex derivative holdings with various counterparties, market participants began selling, assuming that a lack of a bailout or some form of rescue would lead to a massive liquidation of passive crude oil length.

In the final analysis, AIG received a reprieve, and despite the bankruptcy of Lehman Brothers which had relatively little oil exposure, hedge funds regained some confidence that the worst would not occur.

Concurrent with this development was a reversal in the dollar’s gains against the euro, reigniting once again the long crude oil/ short dollar trade that has characterized the short-term behavior of crude oil prices for the past 12 months.

As we issue this report, renewed financial turmoil is characterizing the market. In the United States, there is concern that the \$700+ billion bailout may not be enough. In Europe ECB intervention has confirmed that the financial crisis is indeed global, and not limited to this side of the Atlantic.

From a fundamental standpoint, the market clearly has appreciated the impact of both production and refinery shutdowns in the aftermath of hurricanes Gustav and Ike. As we issue this report more than 700 MB/D of Gulf

of Mexico crude oil production remains offline as well as three refineries in Texas.

Because of progressively weaker implied refined product demand, particularly in the United States, along with global economic uncertainty, however, the price response to this situation alone appears to be modest.

Stepping back and looking at global fundamentals for the remainder of 2008 and through the course of 2009, we have made little or no revision to our forecast of demand and only modest revisions to our outlook for non-OPEC supply.

Given the deterioration of economic conditions in Europe, we believe the consensus, and particularly the IEA, will need to further revise down expectations for oil demand growth for the fourth quarter of 2008 and for all of 2009.

By the same token, however, and as previously discussed, we remain quite conservative on the prospects for non-OPEC supply growth. In addition, as we anticipated the market is now recognizing that Saudi oil policy will remain one of meeting refiner sour crude oil nominations, no more and no less.

While it is clear that the Kingdom would prefer sub-\$100.00 WTI to ensure economic stability/recovery and viable long-term global oil demand growth, we do not envision any radical departure from sales policy that in and of itself would lead to a collapse in oil prices.

Saudi Aramco is simply not willing to “flood the market” with inordinate discounts toward reaching a specific price “target” recognizing, correctly as it turns out, that much of the crude oil price gains this year have not been fundamentally driven.

## **Global Oil Demand**

We have made virtually no revision to the demand side of the equation for the remainder of 2008 and 2009. World oil demand is expected to rise by only 0.4%, or some 290 MB/D this year, followed by a slight acceleration in growth to +0.7%, or about 550 MB/D in 2009.

OECD oil demand is forecast to decline by 1.7%, or 770 MB/D in 2008, followed by a decline of 0.9%, or some 375 MB/D in 2009. Non-OECD oil demand, once again in contrast, is expected to rise by 2.8% or about 1.06 MMB/D this year, followed by a slight moderation in growth to +2.3%, or 925 MB/D next year.

## United States

The latest data from the Department of Energy, subject once again to revision for July, August, and September, reveal that total implied refined product demand has declined by 4.3%, or some 883 MB/D from the comparable period in 2007.

While the NYMEX bounces up and down depending upon sentiment regarding the potential \$700+ billion bailout, underlying sentiment reflected what appeared to be an *acceleration* in the rate of decline in implied product demand compared to a few weeks ago.

Although clearly the U.S. consumer is driving less, buying more fuel efficient vehicles, and the manufacturing sector remains weak, we believe the most recent data partially reflect the distortions created by Hurricanes Gustav and Ike.

We believe we are witnessing a similar situation to that following Katrina and Rita in 2005, i.e. that due to logistical problems, reported implied demand is less than “desired” demand and thus the numbers are understating to a degree underlying rates of normalized consumption.

Having said this, however, following a correction as the refining and distribution returns to normal, based on economic and anecdotal evidence for August it would not surprise us to see somewhat weaker implied demand data than the experience of earlier in 2008.

For this year as a whole we expect U.S. refined product demand to decline by 3.5%, or about 730 MB/D. In terms of 2009, our models continue to suggest that despite our expectations of modestly lower retail gasoline prices, U.S. gasoline demand will decline once again, albeit at a more modest rate, reflecting

the underlying increase in average fleet fuel efficiency.

In addition, due to ongoing industry restructuring, we expect jet fuel demand to continue to fall as well next year. On the other hand, we believe, right or wrong, that manufacturing growth will experience a modest recovery, gaining at about 2.0% versus 2008 for the year as a whole, thus leading to a modest increase in diesel demand.

Putting it all together, we anticipate U.S. refined product demand will decline by 1.2%, or some 235 MB/D in 2009, representing a moderation from the fall of 2008, but a decline nonetheless.

## Europe

Recent economic data from Germany suggests that business sentiment as well as conditions are not improving and, if anything, are coming in weaker than the consensus of euro economists have anticipated.

While the IEA has recently trimmed their expectations for OECD Europe oil demand, we believe that for the second half of 2008 and for all of 2009 the Agency remains too optimistic.

As we have previously discussed, we were detecting a response to higher oil prices when WTI was “only” \$65.00 per barrel or so, and have long recognized that inherent lags in the system lead to a price response extending over several years.

Recent data suggest some rebound in Europe oil demand during the summer, but the recovery was largely due to a gain in implied gas oil demand in both Germany and France reflecting consumer restocking that exhibited a somewhat different pattern than the prior year.

This impact more than offset continued declines in gasoline and heavy fuel oil demand across the Continent. Although German consumer gas oil stocks in particular remain relatively low, the impact of restocking this fall will be partially offset by ongoing conservation which has been in evidence for the last few years in this market.

While in general the oil demand picture in countries such as the U.K., Spain,

and Italy has been weaker than for Germany and France reflecting contrasting economic performance, Germany has now begun to falter somewhat compared to a few months ago. For 2008 as a whole, we estimate OECD Europe oil demand to decline by 1.0%, or about 115 MB/D. Next year we are looking for OECD Europe oil demand to decline further by 1.1%, or some 120 MB/D.

## Japan and South Korea

Recent data for Japan suggest that the positive impacts of higher heavy fuel oil and direct crude oil demand substituting for offline TEPCO nuclear capacity now barely offset declines by other products. Revised data submissions suggest the overall oil demand picture has been even weaker than first estimated for the second quarter.

Gasoline demand in particular, as discussed in previous reports, continues to suffer in Japan due to higher prices in combination with demographic shifts that are structural in nature. The impact on gasoline demand should continue into next year as electric vehicles penetrate the passenger vehicle fleet.

We have also assumed that next year offline nuclear capacity will return, although clearly the timing remains uncertain. Overall, we have made little revision to our outlook. We anticipate that Japan oil demand will rise by 1.5%, or about 75 MB/D this year, which may end up somewhat on the high side. For 2009, we are looking for Japan oil demand to decline marginally by 0.3%, or around 15 MB/D.

In South Korea, oil demand had been holding up earlier in 2008, but as discussed in previous reports consumption had begun to weaken over the course of the second and third quarter and now shows a similar picture to Japan.

Transportation fuel demand, particularly gasoline but now diesel as well, was quite weak over the summer, with gasoline demand dropping by 5.0% while diesel demand fell by a substantial average of

20%. These declines were compounded by the underlying fall in heavy fuel oil demand due to alternative fuel substitution.

Overall, we expect South Korea oil demand to decline by 1.3%, or about 25 MB/D in 2008, followed by a similar decline in 2009 although as in the case of Japan, if we are off the mark the declines are likely to be somewhat greater.

## Non-OECD

Despite expectations in many quarters that China oil consumption would moderate following the Beijing Olympic Games, there is yet to be any substantive evidence of such an occurrence, although data for September are obviously not yet in hand.

It is quite clear that the summertime boost in implied demand was inventory driven, however, as we have previously discussed, in order to ensure adequate supplies of transportation fuels prior to the Games.

By the same token, refined product inventories do not appear inordinately high, and thus overall we would not be looking for a “collapse” in implied demand in the fourth quarter reflecting a massive de-stocking effort, but rather a moderation in implied demand growth.

By the same token, there is yet little evidence of a material slowdown in economic activity, despite expectations by many economists to the contrary. Overall, therefore, we see little need at this time to revise our expectations for China for the remainder of the year and through 2009.

As such, we are looking for a gain in China implied oil demand for this year of 5.6%, or some 360 MB/D, followed by a 4.1%, or 280 MB/D increase in 2009. The expected moderation in growth largely reflects a lack of incremental product inventorying that temporarily boosted implied demand over the summer prior to the Olympics.

Elsewhere outside the OECD, we see little need to revise our expectations, with OPEC oil demand growth continuing apace, particularly in the Arabian Gulf.

We would note that some Asian countries have rescinded part of the respective governments' previous retail price increases, bowing to severe domestic political pressure, but due to the relatively modest consumption rates in these countries compared to China, India, and Indonesia, for example, we do not believe any revision to overall non-OECD Asian oil demand is warranted at this time.

On balance, we are looking for non-OECD oil demand to increase by 2.8%, or some 1.06 MMB/D this year, followed by a modest moderation in growth in 2009 to 2.3%, or about 925 MB/D.

## **Global Oil Supply**

### **Non-OPEC**

As we issue this report the U.S. Minerals Management Service reveals that in excess of 700 MB/D of Gulf of Mexico crude oil production remains offline in the aftermath of Hurricanes Gustav and Ike. On September 26 Shell indicated that it hopes to have all of its production restored in about two weeks.

Absent any further storm-induced shutdowns, by Halloween if not sooner U.S. crude oil production should be back to averaging 5.0-5.1 MMB/D.

With this timetable, we estimate that total non-OPEC production will increase by an average of only 45-50 MB/D in 2008. As discussed in previous reports, core to our global outlooks has been not only a conservative view of world oil demand, but non-OPEC supply growth as well.

Aside from the impacts of hurricanes this year, we are witnessing production in the FSU that is up only marginally thus far this year, impacted by flat to lower production in Russia. The U.K. and Norwegian sectors of the North Sea continue to decline about on track with our expectations, while output from the giant Cantarell field in Mexico has now fallen below 1.0 MMB/D.

If we assume for the moment that next year will be void of any prolonged hurricane-induced GOM production outages, the U.S.

average will by definition, recover, also reflecting a further buildup in Thunder Horse and other new field production.

Taking into account our ongoing conservative view of production gains elsewhere in the world, however, our Base Case calls for a non-OPEC production increase next year averaging around 400 MB/D, still well below consensus and IEA expectations.

With regard to the IEA's latest assessment, despite recently downgrading Russian expectations for 2009 which we have believed has been long overdue, the Agency expects non-OPEC gains averaging about twice our forecast. As with the demand side of the equation, we anticipate the IEA will cut its view of non-OPEC supply growth as well.

### **OPEC and Inventory**

The outcome of OPEC's meeting held since our last report was in line with our expectations, with ministers emphasizing the importance of adherence to existing "allocations" as established in September of 2007. The target aggregate of about 28.8 MMB/D excludes Indonesia given its decision to withdraw from the Organization.

As previously discussed, however, the member most impacted by the meetings outcome was of course Saudi Arabia, since the Kingdom was the only producer materially exceeding its quota in volumetric terms, although there have been more modest "overages" by others, largely Kuwait and the UAE.

As we also flagged before public dissemination, however, the stage had already been set for lower Saudi production relative to the summer highs reflecting reduced refiner nominations in hand prior to the meeting.

We had received indications from our sources that September/October and possibly November Saudi production would be averaging in the range of 9.1-9.2 MMB/D, which we had already embraced in our Base Case. Our balances anticipate that this magnitude of production rate will continue into the first quarter.

**OPEC “12”  
Targeted Vienna “Quotas”  
v.  
Estimated September Production  
(MB/D)**

	<b>“Quota”</b>	<b>Production</b>	<b>Prod. Vs. “Quota”</b>
Algeria	1,358	1,340	-18
Angola	1,900	1,870	-30
Ecuador	520	500	-20
Iran	3,818	3,720	-98
Kuwait	2,487	2,475	-12
Libya	1,704	1,730	+26
Nigeria	2,173	1,880	-293
Qatar	824	800	-24
S. Arabia	8,987	9,200	+213
UAE	2,546	2,495	-51
Venezuela	2,485	2,410	-75
Total	28,802	28,420	-382

For 2009 as a whole, we estimate that Saudi Arabia production will averaged modestly in excess of 9.0 MMB/D next year, about in line with our previous assumptions. In the case of Iraq, we likewise have made little change, estimating a production average of almost 2.3 MMB/D in 2008, with a similar average prevailing next year.

Putting all sides of the equation together, we estimate a net build in global stocks averaging around 545 MB/D this year. By year end we expect usable commercial inventory to stand at about two days higher than the end of 2007, with the bias toward products.

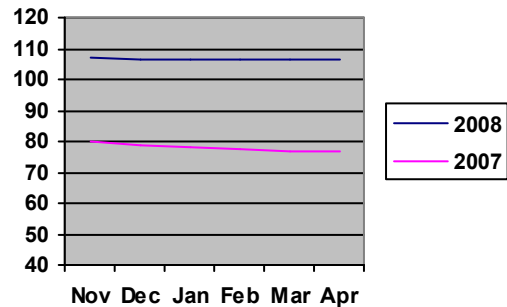
For 2009, our balances imply little net change in inventory for the year as a whole, in part reflecting a continued Saudi policy of matching production levels with refiner requirements, no more and no less.

**Implications for Price**

As we issue this report the prompt NYMEX crude oil contract is attempting to stabilize around \$100.00 per barrel following a decline in response to ongoing concerns about the sufficiency of the U.S. \$700+ billion bailout plan and now concerns about Europe after word of ECB intervention to preclude commercial financial failures.

The latter development has weakened the euro versus the dollar, leading some funds to unwind further their long crude oil/short dollar trades that had been in place.

**Current Six-Month NYMEX Crude Oil  
Term Structure  
2008 vs. 2007**



Thus far our quantitative work appears to accurately reflect the relationship between the hydrocarbon and the exchange rate, with an average \$5-\$6 per barrel change in WTI for a given 2.0+% change in the dollar/euro rate.

Not that fundamentals do not matter any more. The market had received support from hurricane activity, but such support appears to be waning for both crude oil and natural gas.

On balance, crude oil price behavior has thus far fallen broadly in line with our overall 2008 scenario, i.e. second half weakness following the second quarter peak. Third quarter WTI will end up averaging about \$116.00 per barrel, a bit below our most recent estimate but about in line with our previous Base Case.

For the fourth quarter, we will still assume that for the period as a whole prompt

WTI will average modestly above \$100.00 per barrel.

Therefore, we will also continue to assume that any sustainable move below \$100.00 per barrel will be reserved for the first quarter of 2009, when we envision an average of \$90.00 per barrel with a trough achieved in the \$80s per barrel.

Clearly, the degree to which our outlook is reasonable or not in terms of flat price is dependent just as much upon financial market developments and the fate of the dollar as the underlying global fundamental balance.

Our rationale for holding above \$100.00 per barrel for the fourth quarter as a whole is premised upon a net decline in U.S. crude oil inventories for normal seasonal reasons which the neotrader will interpret as constructive.

Moving into the first quarter, however, our forecast further weakness reflects a seasonal decline in Atlantic Basin crude oil demand coupled with the inevitable discounting of the upcoming “weak” second quarter.

In addition, as previously discussed we have assumed there will be some early-year “disinvestment” out of passive length by pension funds and others in response to what we expect to be mediocre to negative returns in the second half of this year, combined with a modest move toward more active commodity portfolio management by these institutions at the margin.

Following the first quarter, we are looking for a modest seasonal rally in WTI into the second quarter, followed by stability and some weakness in the second half of the year. Overall, our forecast average of \$90.00 per barrel for WTI for 2009 remains unchanged from last month’s report.

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

	<b>2008(E)</b>	<b>2009(E)</b>
<b>Q1</b>	<b>\$97.90</b>	<b>\$90.00</b>
<b>Q2</b>	<b>\$123.76</b>	<b>\$95.00</b>
<b>Q3</b>	<b>\$116.25</b>	<b>\$90.00</b>
<b>Q4</b>	<b>\$105.00</b>	<b>\$85.00</b>
<b>Yr.</b>	<b>\$110.73</b>	<b>\$90.00</b>

September 29, 2008

Table 1  
OECD Oil Demand  
(Thousands of Barrels Daily)

BASE CASE 9/26/08							% Chng					% Chng	
	Q1	Q2E	Q3E	Q4E	2008E	08/07	Q1E	Q2E	Q3E	Q4E	2009E	09/08	
DEMAND													
United States	19876	19683	20128	20200	19972	-3.5	19605	19564	19809	19965	19736	-1.2	
Motor Gasoline	8908	9135	9250	9129	9105	-2.0	8748	8948	9075	8970	8935	-1.9	
Jet Fuel	1539	1582	1569	1549	1560	-3.9	1508	1550	1537	1518	1529	-2.0	
Distillate	4200	3924	4155	4187	4116	-2.5	4272	4178	4164	4243	4214	2.4	
Residual	598	678	628	651	639	-13.0	538	610	597	644	597	-6.5	
Other	4631	4364	4527	4684	4551	-5.8	4538	4277	4436	4590	4460	-2.0	
Canada	2203	2099	2147	2142	2148	0.2	2207	2093	2158	2158	2155	0.3	
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	826	791	778	0.8	746	757	834	802	785	1.0	
Kerosene	81	79	91	81	83	1.0	81	79	91	81	83	-0.1	
Gasoil/Diesel	675	473	501	598	562	-0.6	675	463	506	604	562	0.1	
Fuel Oil	141	94	83	157	119	-0.8	143	92	81	154	118	-0.8	
Other	278	346	352	298	318	-0.4	272	339	349	301	315	-1.0	
Mexico	1972	2032	2040	2077	2030	0.6	1952	2033	2051	2098	2033	0.2	
United Kingdom	1504	1403	1391	1578	1469	-0.6	1490	1397	1389	1577	1463	-0.4	
Naphtha	85	75	61	90	78	1.0	86	75	62	91	79	1.0	
LPG	134	134	114	132	128	1.0	135	135	115	133	130	1.0	
Gasoline	431	383	392	407	403	-3.1	416	371	384	399	393	-2.6	
Kerosene	248	202	220	215	221	0.5	248	202	219	215	221	-0.1	
Gasoil/Diesel	368	474	460	577	470	0.6	372	479	465	583	474	1.0	
Fuel Oil	143	44	39	52	69	-1.5	139	43	39	52	68	-1.7	
Other	95	92	105	104	99	-0.4	94	91	105	104	99	-0.4	
France	1772	1597	1763	1615	1687	0.0	1773	1568	1746	1613	1675	-0.7	
Naphtha	168	145	224	251	197	0.5	169	146	225	252	198	0.5	
LPG	163	94	76	130	116	0.1	163	94	76	130	116	0.1	
Gasoline	204	270	232	179	221	-3.5	195	260	226	175	214	-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	993	751	898	792	859	-0.3	
Fuel Oil	90	93	59	79	80	-1.4	89	90	57	76	78	-2.4	
Other	68	116	143	100	107	0.2	68	116	143	101	107	0.2	
Italy	1561	1477	1477	1476	1498	-3.2	1547	1415	1441	1451	1463	-2.3	
Naphtha	68	78	47	38	58	1.0	69	79	48	38	58	1.0	
LPG	149	99	105	146	125	1.0	150	100	106	148	126	1.0	
Gasoline	339	310	322	301	318	-3.3	329	300	316	295	310	-2.5	
Kerosene	67	73	77	64	70	0.8	67	73	76	64	70	-0.1	
Gasoil/Diesel	602	473	581	559	554	-0.2	621	468	575	565	557	0.6	
Fuel Oil	194	341	218	225	245	-14.3	169	290	192	198	212	-13.2	
Other	141	103	126	143	128	1.0	143	104	127	144	130	1.0	
Germany	2334	2287	2289	2512	2355	-0.4	2356	2252	2260	2479	2337	-0.8	
Naphtha	257	225	218	252	238	0.2	257	225	218	252	238	0.2	
LPG	135	135	117	114	125	0.1	135	135	117	114	125	0.1	
Gasoline	531	582	522	566	550	-2.5	515	564	511	554	536	-2.5	
Kerosene	99	140	145	122	126	1.0	98	140	145	122	126	-0.1	
Gasoil/Diesel	1130	944	976	1186	1059	0.3	1169	925	957	1163	1053	-0.5	
Fuel Oil	66	77	113	99	89	-2.3	62	75	112	100	87	-1.5	
Other	117	186	198	173	168	1.0	118	188	200	175	170	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	
OECD Europe	11672	10972	11476	11940	11515	-1.0	11593	10782	11346	11853	11393	-1.1	
Japan	5653	4428	4332	5111	4881	1.5	5673	4410	4293	5090	4867	-0.3	
Naphtha	673	579	577	790	655	1.4	681	587	586	802	664	1.4	
LPG	918	624	572	702	704	1.6	941	633	578	709	715	1.6	
Gasoline	965	950	896	923	934	-1.8	936	922	879	914	913	-2.3	
Kerosene	1036	455	365	656	628	2.1	1025	450	361	650	622	-1.0	
Gasoil/Diesel	1169	1069	911	1242	1098	-2.0	1134	1037	892	1244	1077	-1.9	
Fuel Oil	416	400	600	390	451	20.7	478	439	594	370	470	4.3	
Other	194	174	206	225	200	-0.3	190	172	207	227	199	-0.3	
Direct Crude	282	178	203	182	211	0.6	288	169	195	174	207	-2.2	
South Korea	2094	1954	1827	1932	1952	-1.3	2052	1896	1808	1952	1927	-1.3	
Australia	878	837	839	898	863	1.1	887	845	851	907	873	1.1	
New Zealand	106	108	105	113	108	0.5	106	108	106	114	108	0.5	
Total OECD	44453	42111	42894	44412	43468	-1.7	44075	41730	42422	44140	43092	-0.9	

Table 2  
World Oil Demand  
(Thousands of Barrels Daily)

BASE CASE 9/26/08							% Chng								% Chng	
	Q1	Q2E	Q3E	Q4E	2008E	08/07	Q1E	Q2E	Q3E	Q4E	2009E	09/08				
DEMAND																
United States	19876	19683	20128	20200	19972	-3.5	19605	19564	19809	19965	19736	-1.2				
Canada	2203	2099	2147	2142	2148	0.2	2207	2093	2158	2161	2155	0.3				
Mexico	1972	2032	2040	2077	2030	0.6	1952	2033	2051	2098	2033	0.2				
United Kingdom	1504	1403	1391	1578	1469	-0.6	1490	1397	1389	1577	1463	-0.4				
France	1772	1597	1763	1615	1687	0.0	1773	1568	1746	1613	1675	-0.7				
Italy	1561	1477	1477	1476	1498	-3.2	1547	1415	1441	1451	1463	-2.3				
Germany	2334	2287	2289	2512	2355	-0.4	2356	2252	2260	2479	2337	-0.8				
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	11476	11940	11515	-1.0	11593	10782	11346	11853	11393	-1.1				
Japan	5653	4428	4332	5111	4881	1.5	5673	4410	4293	5090	4867	-0.3				
South Korea	2094	1954	1827	1932	1952	-1.3	2052	1896	1808	1952	1927	-1.3				
Australia	878	837	839	898	863	1.1	887	845	851	907	873	1.1				
New Zealand	106	108	105	113	108	0.5	106	108	106	114	108	0.5				
Total OECD	44453	42111	42894	44412	43468	-1.7	44075	41730	42422	44140	43092	-0.9				
Non-OECD	38662	39948	40293	38797	39425	2.8	39560	40874	41270	39691	40349	2.3				
FSU	4237	3190	3155	3974	3639	0.6	4275	3191	3187	4014	3667	0.8				
Non-OECD Europe	2519	2373	2408	2531	2458	-0.5	2503	2358	2394	2531	2446	-0.5				
China	5614	8113	7893	5505	6781	5.6	5839	8437	8224	5737	7059	4.1				
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	2231	2247	2139	1.1	1957	2213	2253	2269	2173	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	2173	2229	2250	3.8	2354	2358	2228	2276	2304	2.4				
Other Asia	4086	4169	4064	3840	4040	0.5	4102	4185	4080	3856	4056	0.4				
Int. Bunkers	2072	2084	2090	2074	2080	0.3	2052	2072	2071	2067	2066	-0.7				
Refinery F/L	3329	3339	3357	3325	3338	1.5	3317	3338	3351	3336	3335	-0.1				
Grand Total Demand	83116	82059	83186	83210	82893	0.4	83635	82604	83692	83831	83441	0.7				

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 Demand**  
(Thousands of Barrels Daily)

BASE CASE 9/26/08						% Chng							% Chng	
	Q1	Q2E	Q3E	Q4E	2008E	08/07	Q1E	Q2E	Q3E	Q4E	2009E	09/08		
Grand Total Demand	83116	82059	83186	83210	82893	0.4	83635	82604	83692	83831	83441	0.7		
Inventory Change	122	1417	729	-84	546		-714	838	90	-431	-54			
SUPPLY	83237	83476	83916	83126	83439	1.5	82921	83442	83782	83400	83386	-0.1		
United States	5115	5146	4747	5000	5002	-2.0	5195	5180	5165	5150	5173	3.4		
United Kingdom	1508	1424	1430	1528	1472	-4.1	1478	1339	1444	1482	1436	-2.5		
Norway	2215	2125	2166	2210	2179	-4.1	2171	2083	2122	2166	2135	-2.0		
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	2780	2775	2819	-8.8	2798	2636	2641	2636	2678	-5.0		
Canada	2605	2615	2710	2710	2660	1.0	2655	2610	2710	2710	2671	0.4		
Argentina	655	625	650	650	645	-2.3	655	650	650	650	651	1.0		
Brazil	1905	1885	2035	2075	1975	9.0	2075	2080	2080	2080	2079	5.3		
Colombia	515	525	530	530	525	5.0	515	525	530	530	525	0.0		
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	690	690	690	-2.6	685	685	690	690	688	-0.4		
Syria	345	345	345	345	345	-10.7	345	345	345	345	345	0.0		
Other Middle East	365	365	365	65	290	0.0	365	365	365	65	290	0.0		
Congo	195	195	195	195	195	0.0	195	195	195	195	195	0.0		
Egypt	625	645	635	625	633	1.6	620	625	620	620	621	-1.8		
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	550	545	545	7.9	540	545	545	535	541	-0.7		
India	685	690	690	690	689	0.9	685	685	685	685	685	-0.5		
Malaysia	670	670	670	680	673	-3.9	670	675	670	680	674	0.2		
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	11679	11769	2.1	12011	12225	11869	11913	12004	2.0		
China	3745	3805	3795	3800	3786	1.4	3790	3795	3790	3790	3791	0.1		
NGL	4879	4876	4928	4983	4916	1.3	4942	4941	4995	5050	4982	1.3		
Ref. Gain/Other	1870	1846	1872	1872	1865	0.4	1882	1859	1883	1886	1877	0.7		
Non-Conventional	1189	1194	1200	1215	1199	2.5	1219	1224	1230	1245	1229	2.5		
Total Non-OPEC	48074	48044	47687	47927	47933	0.1	48539	48329	48293	48169	48332	0.8		
OPEC SUPPLY	35163	35432	36229	35198	35505	3.4	34383	35114	35489	35231	35054	-1.3		
OPEC NGL	1895	1910	1915	1915	1909	7.8	1925	1930	1930	1935	1930	1.1		
OPEC CONDENSATE	1875	1885	1880	1880	1880	7.5	1885	1885	1890	1900	1890	0.5		
OPEC CRUDE SALES	31393	31637	32434	31403	31717	2.9	30573	31299	31669	31396	31234	-1.5		
Saudi Arabia	8950	9100	9400	9100	9138	4.5	9000	9000	9100	9000	9025	-1.2		
Iran	3708	3732	4164	3733	3834	2.7	3583	3609	3674	3566	3608	-5.9		
Iraq	2295	2295	2285	2275	2288	9.8	2250	2275	2275	2300	2275	-0.5		
Kuwait	2425	2525	2550	2450	2488	1.0	2100	2425	2550	2550	2406	-3.3		
Qatar	835	835	840	840	838	2.8	835	835	840	840	838	0.0		
UAE	2550	2650	2650	2425	2569	2.6	2100	2450	2550	2450	2388	-7.1		
Algeria	1410	1410	1410	1410	1410	4.6	1410	1410	1410	1410	1410	0.0		
Angola	1895	1900	1900	1900	1899	13.8	1900	1910	1910	1910	1908	0.5		
Nigeria	1905	1805	1875	1900	1871	-11.0	2000	2000	2000	2000	2000	6.9		
Libya	1745	1745	1745	1745	1745	1.5	1745	1745	1745	1745	1745	0.0		
Ecuador	485	475	455	465	470	3.9	485	475	455	465	470	0.0		
Venezuela	2315	2315	2310	2310	2313	-1.4	2315	2315	2310	2310	2313	0.0		
Indonesia	875	850	850	850	856	-0.1	850	850	850	850	850	-0.7		
Inventory Change	122	1417	729	-84	546		-714	838	90	-431	-54			
Assumed Inventory Position(c)														
Days Supply of MOV	50	50	50	49	49		50	49	49	49	49			
Days Supply of UC	14	15	16	16	16		16	16	16	16	16			
Days Supply of MOV+	65	65	66	66	66		66	66	66	65	65			
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.

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.