NOMURA

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RUNNING THEME

WEEKLY

This week's highlights

The closest comparison to the current MENA unrest is the 1990-91 Gulf War. If Libya and Algeria were to halt oil production together, prices could peak above US$220/bbl and OPEC spare capacity will be reduced to 2.1mmbbl/d, similar to levels seen during the Gulf war and when prices hit US$147/bbl in 2008. This could also result in a temporary demand destruction of some 2.0mmbbl/d globally.

Oil Market Update – 'MENA crisis to further fuel oil prices?'

- In order to estimate the impact the current MENA crisis could have on oil supply and prices, we analysed past crises that rocked the region. There have been a few events that drove oil prices higher (from 30% to 130% per event), most of which were during the period in which OPEC controlled oil prices. However, we believe the closest comparison is the 1990-91 Gulf War as this is the only event outside of that period. During the seven months of Gulf War, prices jumped 130% as OPEC spare capacity was reduced to 1.8mmbbl/d while demand came off briefly by 1.7%. Similarly, today, if Libya and Algeria were to halt operations, OPEC spare capacity will also likely be drawn down to 2.1mmbbl/d, in our view, which could fuel higher oil prices.

- We have identified three distinct stages of the Gulf war which led to changes in oil prices and we believe we are only at the initial stage of the three stage process for the current MENA unrest. During the initial stage of the Gulf war, prices moved up by 21%. This is comparable to what we have seen recently when oil price went up by 13% since the beginning of the MENA unrest. As we see further evidence of real supply disruption, we will be moving into Stage 2 of the event – during this stage of the Gulf war, prices moved to its peak (up 130%) within a period of two months. On the assumption that prices will move up by the same amount, we could see US$220/bbl should both Libya and Algeria halt their oil production. We could be underestimating this as speculative activities were largely not present in 1990-91.

- Open interest in WTI futures contracts has risen 2.4% since the beginning of the MENA crisis in January this year. On the other hand, open interest in Brent future contracts has fallen 7.6% during the same period. This was primarily on back of the large WTI-Brent differential during the period, as WTI crude prices are being suppressed by Cushing storage and infrastructure issues while Brent crude price was lifted by supply outages in North Sea fields.

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Exhibit 1. Price summary

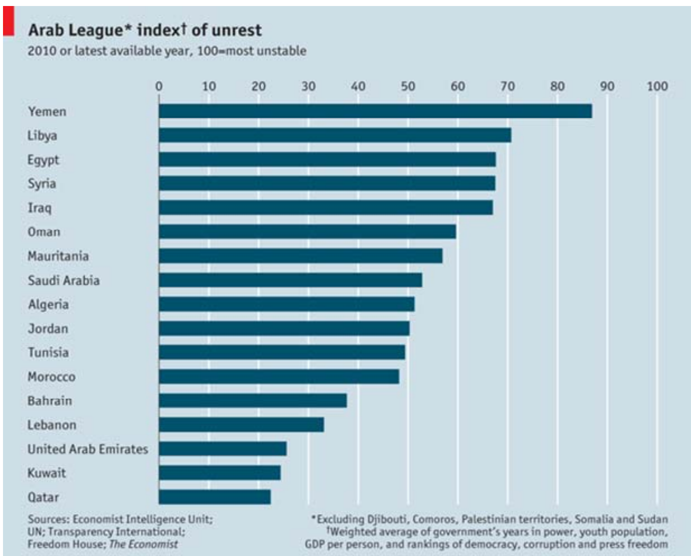
Commodity	Units	Price	YTD Average	Daily Change	%age	Weekly Change	%age	Yearly Change	%age	YTD Change	%age
Crude Oil and Products		22-Feb-11									
WTI	$/bbl	93.57	88.7	7.37	8.5%	9.25	11.0%	13.8	17.3%	2.0	2.2%
WTI, 48-month	$/bbl	99.48	96.6	-0.59	-0.6%	0.30	0.3%	13.4	15.5%	7.3	8.0%
Brent	$/bbl	105.89	98.8	-1.51	-1.4%	4.69	4.6%	28.3	36.5%	11.3	11.9%
Brent, 48-month	$/bbl	102.33	98.7	-1.96	-1.9%	0.47	0.5%	16.0	18.5%	8.8	9.4%
Oman	$/bbl	103.62	95.1	2.92	-0.4%	4.41	4.4%	26.2	33.8%	11.6	12.6%
Dubai	$/bbl	103.35	94.9	2.92	2.9%	4.36	4.4%	31.7	44.2%	11.5	12.6%
OPEC Basket	$/bbl	100.59	94.9	1.51	1.5%	2.35	2.4%	24.8	32.8%	10.8	12.0%
RBOB	c/g	260.21	247.4	5.08	2.0%	11.33	4.6%	53.7	26.0%	19.6	8.1%
Heating Oil	c/g	279.24	267.0	7.95	2.9%	6.34	2.3%	76.0	37.4%	23.9	9.4%
ICE Gasoil	$/ton	889.75	829.0	12.50	1.4%	22.75	2.6%	261.0	41.5%	91.8	11.6%

Source: Bloomberg

More turmoil in MENA

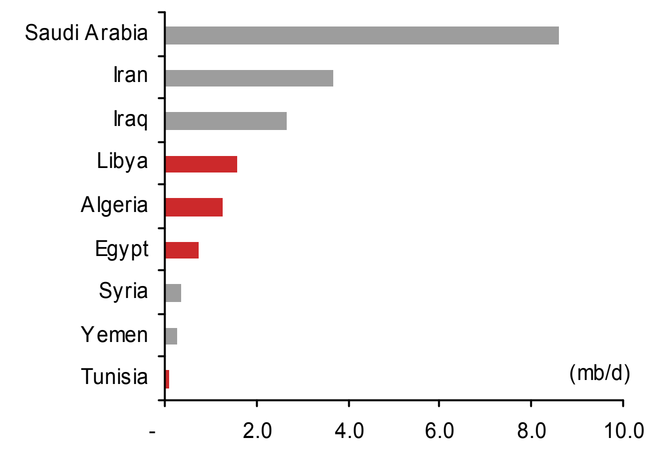
Over the past week, the crisis in the Middle East and North Africa (MENA) region, which led to the overthrow of President Ben Ali in Tunisia and President Hosni Mubarak in Egypt, has spread much further, with Yemen, Libya, Algeria, Bahrain and Iran being the most vulnerable, as per our Senior Political Analyst Alastair Newton. He also believes that after Egypt, Libyan leader Muammar Gaddafi could be the next one to go. According to the Time Magazine, Algeria also remains very vulnerable. Protests have already led the Algerian government to lift the 19-year old state of emergency last week, and the country remains a stronghold of Islamic militants. However, the civil unrest in Iran has been going on for a long time and the current outburst seems disconnected from the rest of the region. While the exact extent of the geopolitical risk and its impact is difficult to ascertain with the crisis spreading like wildfire, we attempt to draw up a scenario for oil prices if the current turmoil continues.

Exhibit 2. Unrest in MENA



Source: The Economist

Exhibit 3. Oil production in countries with unrest



Source: BP, IEA, Nomura Research

Potential shut-ins in Libya, Algeria could affect supply: In January 2011, Libya produced 1.58mmbbl/d while Algeria produced another 1.27mmbbl/d of oil. With the Libyan protests gaining strength over the past week, there has been considerable risk of possible supply shut-ins in the country. So far, while the Libya National Oil Corporation has said that it has no information about a disruption in production of crude, Al-Jazeera has reported that Libya's Nafoora oil field had stopped producing because of an employee strike. According to Thomson Reuters, Shell has stopped its operations in Libya whereas Total, Statoil and Wintershall are suspending operations and are in the process of evacuating international staff. While the country's biggest oil producer, Eni has said that its production is continuing as normal even as it evacuates non-essential staff and family members of employees.

In addition, there have been terrorist threats to oil infrastructure in Algeria, given the current political situation in the country. We believe that if the crisis worsens, we could see further supply shut-ins in both Libya and Algeria, especially in the onshore fields. Also, if a regime change were to happen in the countries, all existing contracts with IOCs could be under threat and may be cancelled or re-evaluated, leading to a drop in supply in the near-term.

Exhibit 4. OPEC crude production (mmbbl/d)

OPEC Crude Production

(million barrels per day)

	Nov 2010 Supply	Dec 2010 Supply	Jan 2011 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Jan 2011 Supply	End-2011 Sustainable Production Capacity	Production Capcity Chg 1Q11 vs 4Q11
Algeria	1.27	1.27	1.27	1.30	0.03	1.35	0.05
Angola	1.66	1.62	1.65	1.84	0.19	2.01	0.17
Ecuador	0.47	0.48	0.48	0.50	0.02	0.50	0.00
Iran	3.68	3.68	3.66	3.70	0.04	3.68	(0.02)
Kuwait[2]	2.29	2.32	2.32	2.55	0.23	2.55	0.00
Libya	1.56	1.56	1.58	1.80	0.22	1.82	0.02
Nigeria[3]	2.18	2.26	2.24	2.50	0.26	2.66	0.16
Qatar	0.82	0.82	0.82	1.00	0.18	0.98	(0.03)
Saudi Arabia[2]	8.50	8.60	8.60	12.10	3.50	12.10	0.00
UAE	2.29	2.32	2.37	2.70	0.33	2.74	0.04
Venezuela[4]	2.19	2.20	2.21	2.35	0.14	2.29	(0.07)
OPEC-11	**26.91**	**27.13**	**27.20**	**32.35**	**5.15**	**32.67**	**0.33**
Iraq	2.42	2.45	2.66	2.70	0.05	2.78	0.08
Total OPEC	**29.33**	**29.57**	**29.85**	**35.05**	**5.19**	**35.45**	**0.41**
(excluding Iraq, Nigeria, Venezuela					*4.74)*		

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria's current capacity estimate excludes some 250 kb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 450 kb/d in January.

Source: IEA

Exhibit 5. OPEC spare capacity scenario

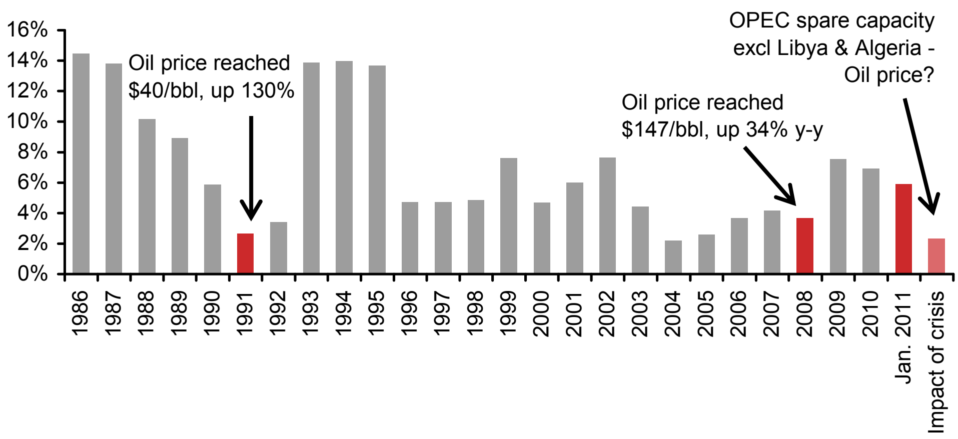
	mmbbl/d	% of oil demand
OPEC Spare Capacity in Jan 2011	**5.19**	
Libya Production Capacity	*1.80*	
OPEC Spare Cap. excl Libya capacity	3.39	
Algeria Production Capacity	*1.30*	
OPEC Spare Cap. excl Libya & Algeria capacity	**2.09**	**2.3%**
OPEC spare capacity in 1989 before Gulf war	5.9	8.9%
OPEC spare capacity in 1991 after Gulf war	1.8	2.7%
OPEC spare capacity in 2008 during oil price spike	3.17	3.7%

Source: IEA, Nomura estimates

Scenario analysis of past crises in the Middle East on oil supply and prices: In order to estimate the possible impact MENA crisis has on oil supply and prices, we analyse the past crises that have rocked the region. There have been a few events that drove oil prices higher, most of which are during the period in which OPEC controlled oil prices. For example, during the 1973 Arab-Israel war, OPEC increased oil prices by US$6.5/bbl or 128%, while in 1979-1981 the Iran revolution followed by the Iran-Iraq war saw oil prices move up by about 77%. In fact the only major event that is comparable is the Gulf War in 1990-91 as it is the only event in the Middle East which seems close to the ongoing crisis during the free-market pricing era. Before the Gulf War, OPEC spare capacity stood at 5.9mmbbl/d. During the war, OPEC production capacity was severely reduced (OPEC spare capacity came down to less than 2.0mmbbl/d) and oil prices jumped 130% in a period of two and a half months.

We can identify three distinct stages of the Gulf war which led to changes in oil prices. The initial phase is the anticipation of war and just the threat to oil supply; during this period, oil prices moved up by 21%. This is comparable to what we have seen recently - oil price is up by 13% since the beginning of the MENA unrest and we believe we are still at the initial stage of the three stage process for the current MENA unrest. As we see further evidence of real supply disruption, we will be moving into stage 2 of the event. The second stage is the actual reduction in oil supply when the Gulf war started and during this period oil price moved to its peak of US$41/bbl, up 109% within a period of two months. The third stage will mark the end of the crisis with the anticipation that supply will resume and during the Gulf war, prices returned back to pre-crisis level (below US$20/bbl) in three months.

Exhibit 6. OPEC Spare Capacity as %age of Global oil demand



Source: IEA, Nomura Estimates

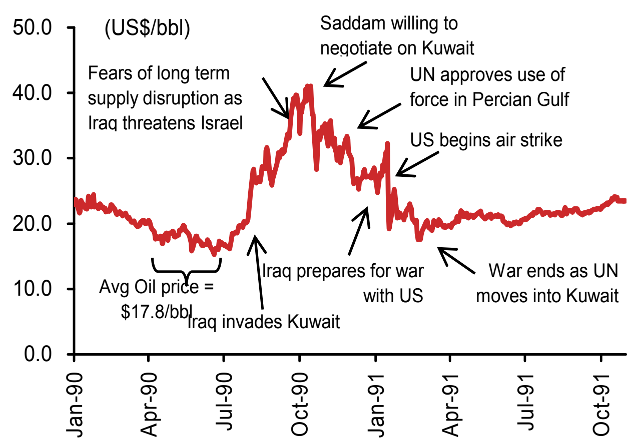
Currently, OPEC spare capacity stands at 5.2mmbbl/d & OPEC has said that it is willing to increase output if need be. If Libya and Algeria go offline, one can see a 3.1mmbbl/d of reduction in production capacity pushing spare capacity again to 2.1mmbbl/d, as seen in 1990-91. Even in 2008, when oil prices reached US$147/bbl, OPEC spare capacity was as low as 2.3mmbbl/d in June 2008, causing prices to spike a month later. Based on the Gulf War, coupled with the fact that demand is much higher now, leaving a lower spare capacity as % of demand, we estimate oil could fetch well above US$220/bbl, should Libya and Algeria stop production. We could be underestimating this as speculative activities were largely not present in 1990-91.

Exhibit 7. Past events in the Middle East

Event	Year	Time Period	Duration (months)	Oil price (rise/fall)	(%)
OPEC controlled oil pricing					
Suez crisis	1956/57	29 Oct 1956 – Mar 1957	5		
Oil embargo	1967	6 Jun – 1 Sept 1967	3		
Yom Kippur War	1973	6 Oct – 25 Oct 1973	1	$6.5	128%
Iranian Revolution	1978/79	Jan 1978 – Feb 1979	13		30%
Iraq's invasion on Iran	1980/81	22 Sep 1980 – Mar 1981	6	$10.0	36%
Market determined oil pricing					
Gulf War	1990/91	2 Aug 1990 – 28 Feb 1991	7	$23.2	130%

Source: Nomura Research

Exhibit 8. Oil prices during 1990-91 Gulf War

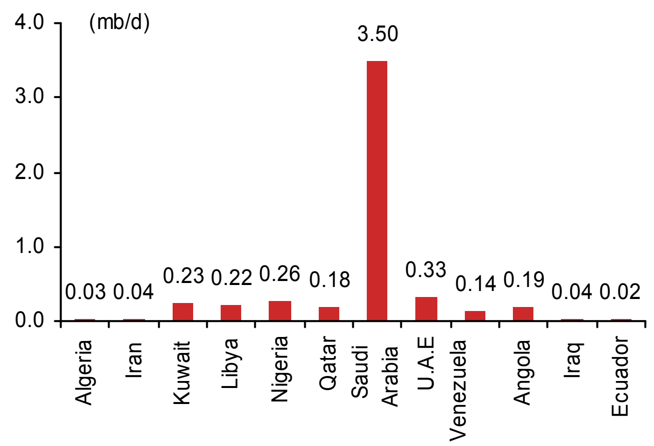


Source: Bloomberg, Nomura Research

High inventories reduce concerns for the very near term: While the supply disruptions from the Middle East threaten to pose a serious concern to the global oil markets, high global crude inventories could help in case the disruptions were to remain only for a very short term. According to Thomson Reuters, OECD countries agreed this week to release oil from stockpiles to meet any supply disruptions. According to IEA, OECD industry crude inventory currently stands at 968mmbbl with government controlled inventory being an additional 1,302mmbbl. This translates to 48 days of demand cover in the OECD region. In addition, oil products provide for another 42 days of demand cover in the region. However, if the supply disruptions were to sustain for a longer period, we could see an imbalance in the oil markets.

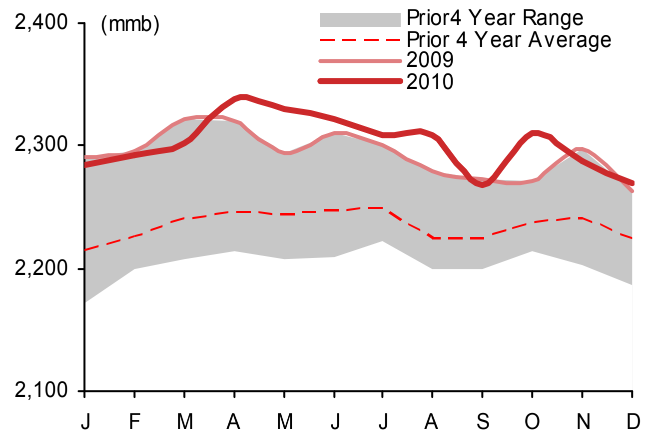
Current OPEC spare capacity sufficient to ward off immediate supply concerns: Currently, OPEC spare capacity stands at 5.2mmbbl/d with 3.5mmbbl/d of that coming from Saudi Arabia. As a result, we believe that there is enough spare capacity available in the OPEC to ward off any near-term supply disruptions owing to the crisis as it stands currently. However, we could see a spike in oil prices in case supply is actually disrupted, given the uncertainty that it would bring.

Exhibit 9. OPEC spare capacity by country



Source: IEA

Exhibit 10. OECD crude inventory



Source: IEA

Situation could worsen if crisis spreads further to other oil producing countries: If the situation in the region were to worsen in a way that it encompasses other oil producing countries as well in the future, the oil supply-demand balance could change very rapidly. In particular, if the crisis were to spread to Saudi Arabia, (possibility of which is quite low at present according to our Senior Political Analyst Alastair Newton), there can be real threat to global oil production, the impact of which is impossible to ascertain on prices. In addition, the recovery in Middle East oil production would depend upon the extent of damage to oil infrastructure during the crisis and the extent of restoration of stability. Overall, we do not rule out the possibility of oil prices touching record highs in excess of US$200/bbl in the near term, should the MENA crisis continue to spread over the coming weeks.

High oil price could lead to demand destruction: We try to analyse the impact of higher oil price on global oil demand growth. For this purpose we look at the demand destruction that occurred during the Gulf war and accordingly estimate that a high oil price scenario, as estimated earlier, could dent the oil demand growth momentum by about 2.4% or 1.05mmbbl/d. However, with demand growth estimated at 1.8mmbbl/d for 2011F, we estimate that the total demand growth could fall to about 0.7mmbbl/d in 2011F, should we see oil price at US$220/bl.

Exhibit 11. Demand sensitivity to oil price during Gulf War

Demand during the two quarters of Gulf War	Demand (mmbbl/d)	Growth (mmbbl/d)	Growth (%)
4Q88 – 1Q89	67.3		
4Q89 – 1Q90	68.2	0.97	1.45%
4Q90 – 1Q91 (Gulf War)	67.1	(1.17)	-1.71%
4Q91 – 1Q92	68.8	1.75	2.60%
4Q92 – 1Q93	68.8	(0.06)	-0.09%
4Q93 – 1Q94	69.6	0.84	1.22%
Average		**0.47**	**0.69%**
Current oil consumption	87.8	mmbbl/d	
Oil demand destruction based on Gulf war @ $220/bbl peak	2.11	mmbbl/d	
Oil demand destruction based on Gulf war @ $220/bbl peak %	2.4%		
Annualised demand destruction	1.05	mmbbl/d	

Source: Bloomberg, IEA, Nomura estimates

Weekly events summary

1. International Energy Forum signs charter amidst Middle East uncertainty

IEA is ready to release oil from stockpiles if Middle East unrest continues.

2. Commercial crude stocks in China rose 2.5% m-m in January

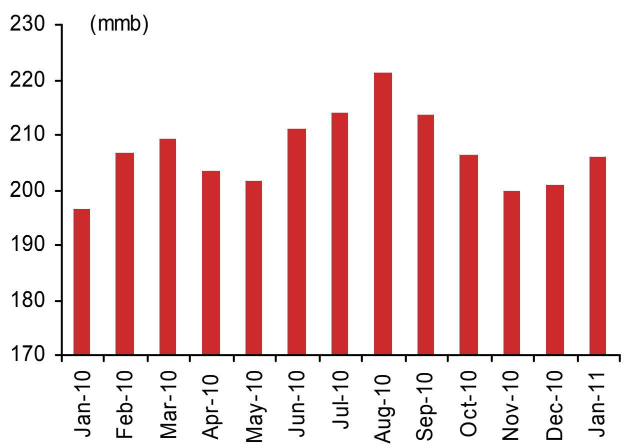
Refined product stocks also rose by 11% m-m in January.

Key oil market events during the week

1. **International Energy Forum signs charter amidst Middle East uncertainty:** On 22 February 2011, energy producers and consumers met at Riyadh in the International Energy Forum (IEF), which was being looked upon as the meeting point of problem solvers for the ongoing Middle East crisis. The charter aims at “encouraging stability and moderation in crude markets after the political turmoil in Middle East countries”. According to Bloomberg, WTI and Brent crude prices have reached a new two and a half year high recently amidst the crisis. The International Energy Agency (IEA) chief economist, Faith Birol, assured the oil markets during the conference by confirming that industrialised nations will be ready to release oil from stockpiles to meet any Middle East supply disruptions. Earlier, the OPEC had also said that member countries can increase production to take care of any shortfall in production from the region, due to the crisis (according to Thomson Reuters). However, IEA feels that oil prices are currently in the ‘danger zone’ and could rise further if turmoil continues in the Middle East.

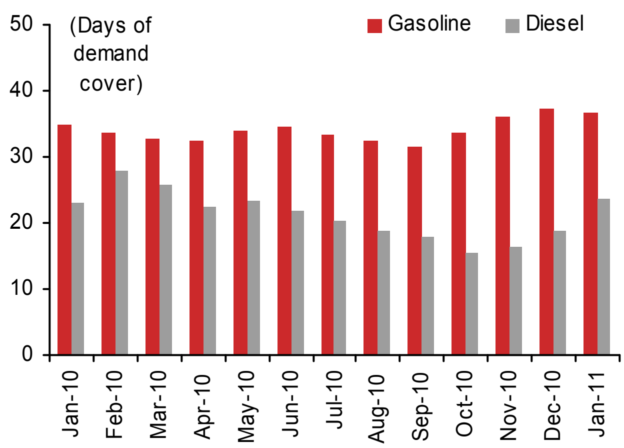
2. **Commercial crude stocks in China rose 2.5% m-m in January:** According to Xinhua News Agency and Thomson Reuters, commercial crude stocks in China rose by 2.5% m-m at the end of January. Refined products stocks also rose by 11% m-m, led primarily by diesel. Diesel stocks rose by 25% m-m where as gasoline stocks fell by 1.4% m-m. According to Thomson Reuters, these numbers were in line with those reported earlier in February by Sinopec, which said that its diesel stocks rose by 93% y-y to a record level. The rise in China fuel stocks indicates that refiners continue to replenish their fuel storage tanks with higher crude runs (refinery throughput in January is estimated to exceed 38mn tonnes).

Exhibit 12. China commercial crude stocks



Source: Xinhua News Agency, Thomson Reuters, Nomura Research

Exhibit 13. China product days of demand cover

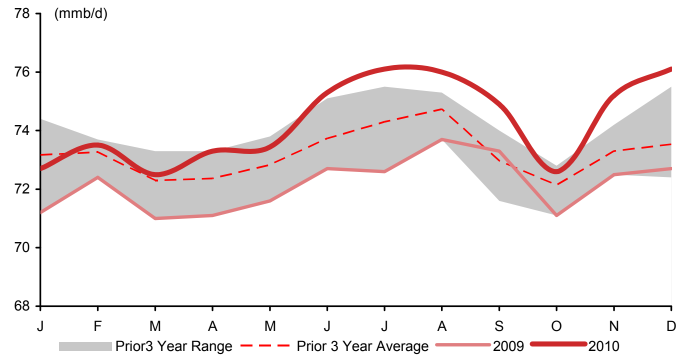


Source: Xinhua News Agency, Thomson Reuters, Nomura Research

Crude oil

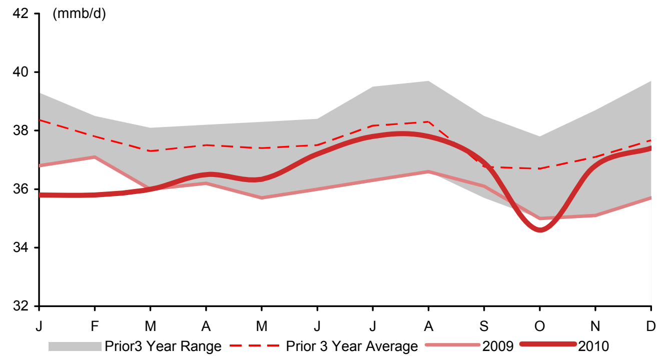
Exhibit 14. Crude oil runs

Global Runs



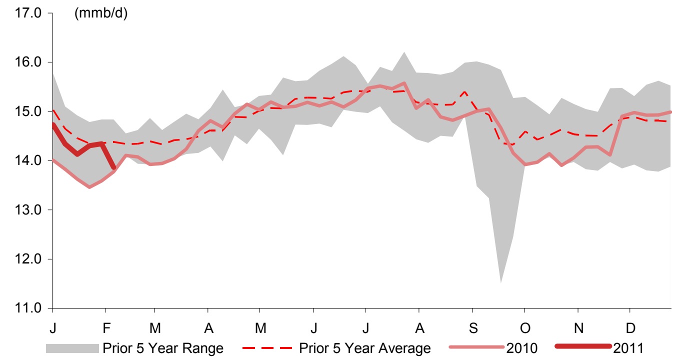
Source: IEA

OECD



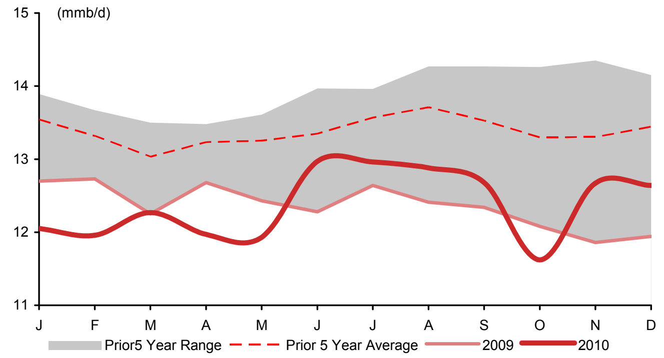
Source: IEA

United States



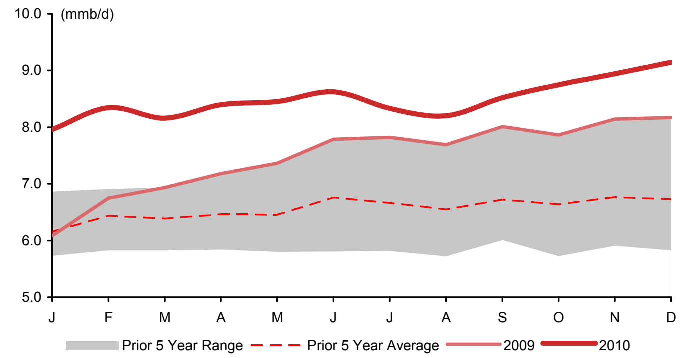
Source: DOE

OECD Europe



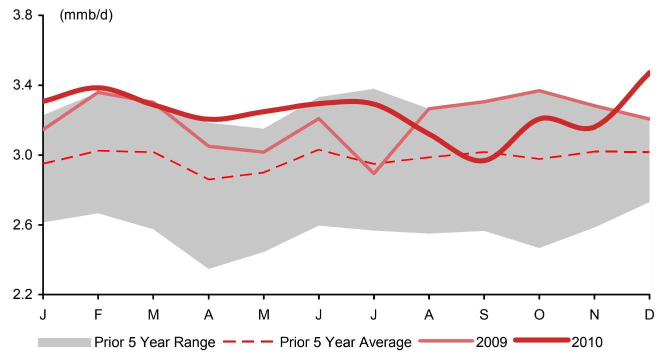
Source: IEA

China



Source: Thomson Reuters

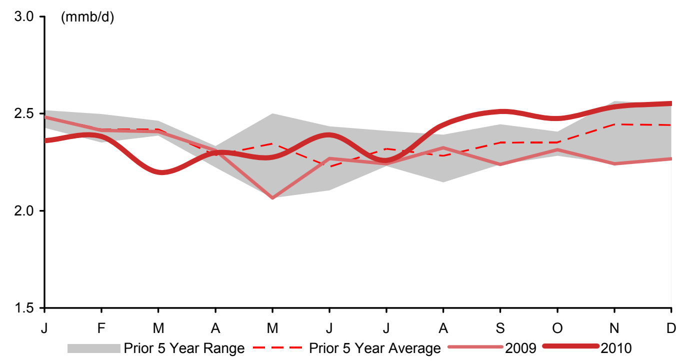
India



Source: Thomson Reuters

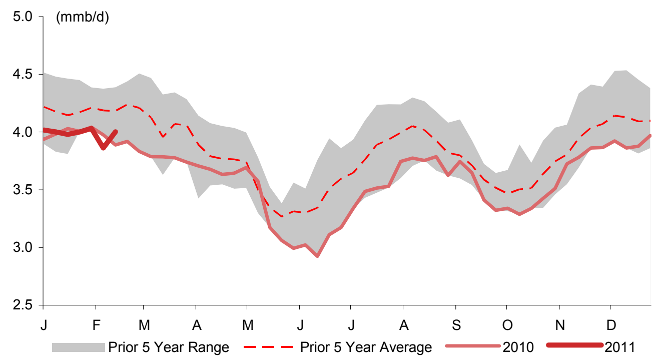
* excludes new RPL refinery

Korea



Source: Petronet

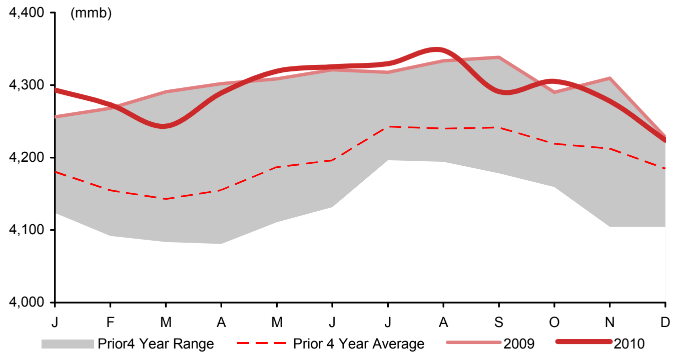
Japan



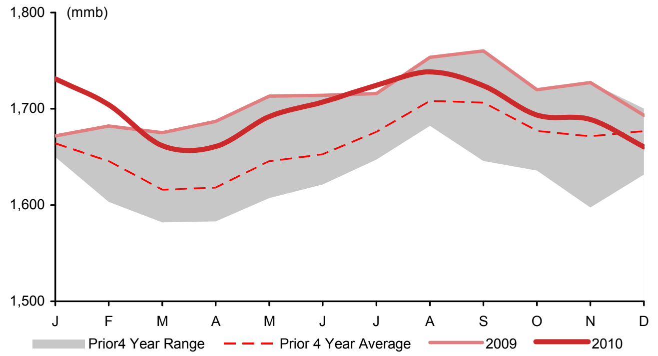
Source: Petroleum Association of Japan

Exhibit 15. OECD inventories

Total OECD Stocks



OECD Oil Product Stocks

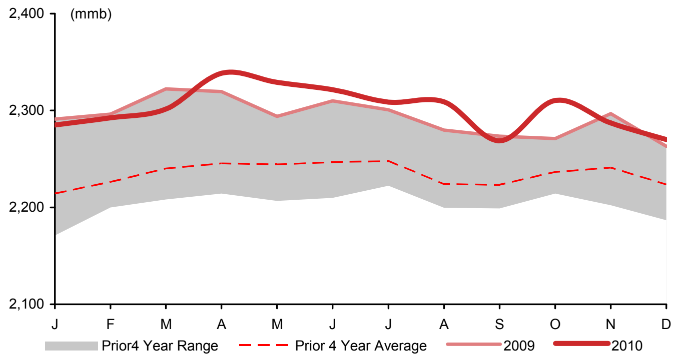


Source: IEA * includes both crude and products

Source: IEA

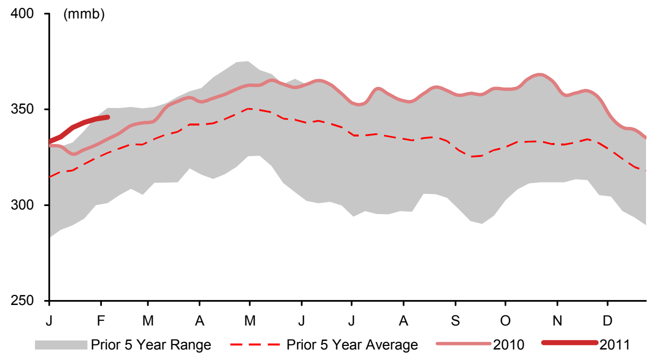
Exhibit 16. Crude inventories

OECD



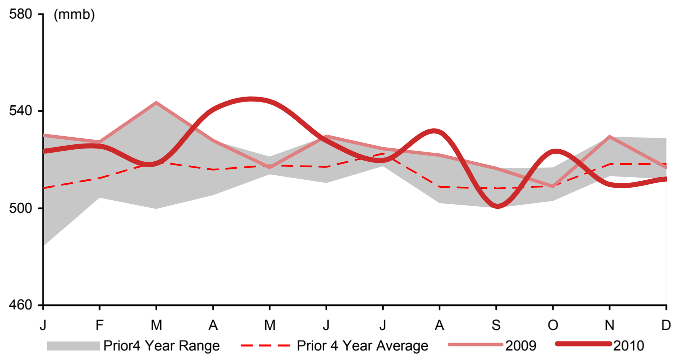
Source: IEA

United States



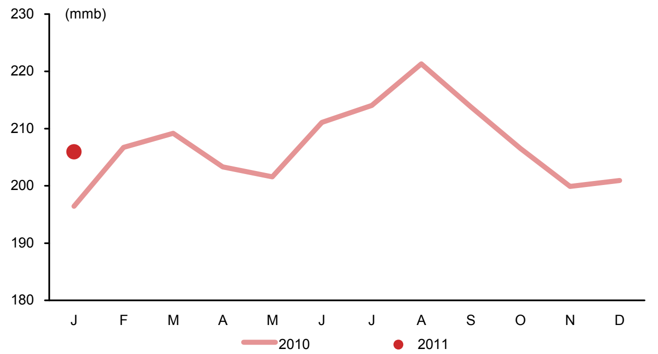
Source: DOE

OECD Europe



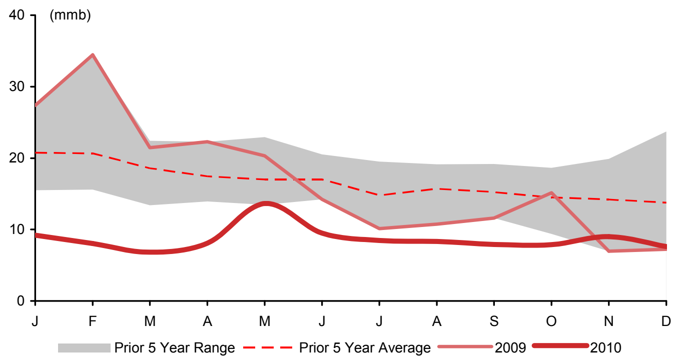
Source: IEA

China



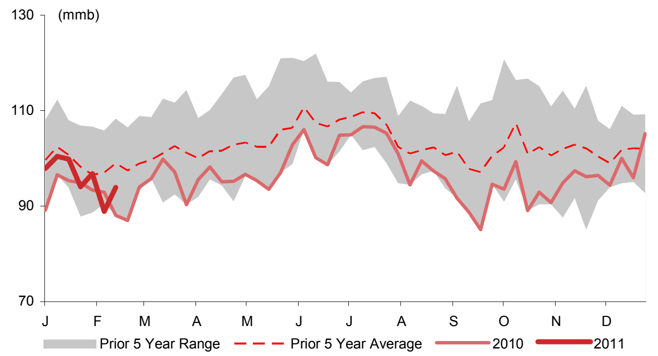
Source: Xinhua News Agency, Thomson Reuters * commercial

Korea



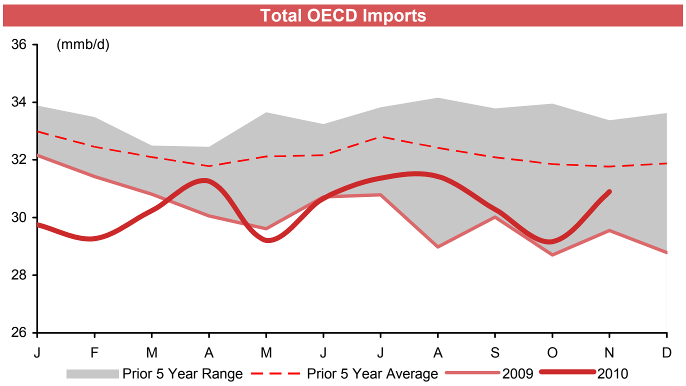
Source: Petronet

Japan

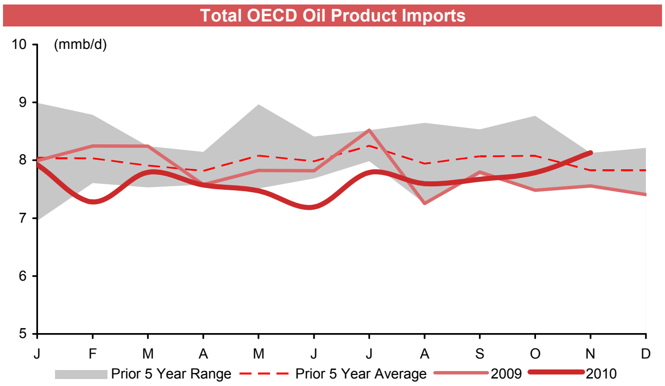


Source: Petroleum Association of Japan

Exhibit 17. OECD imports

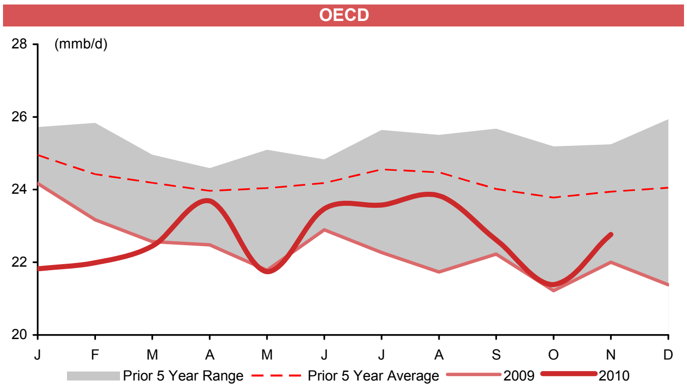


Source: IEA

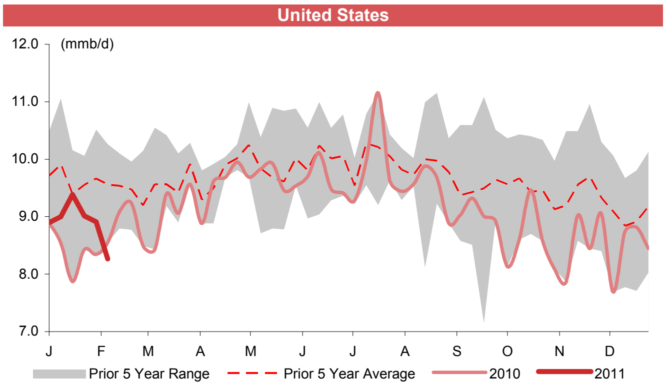


Source: IEA

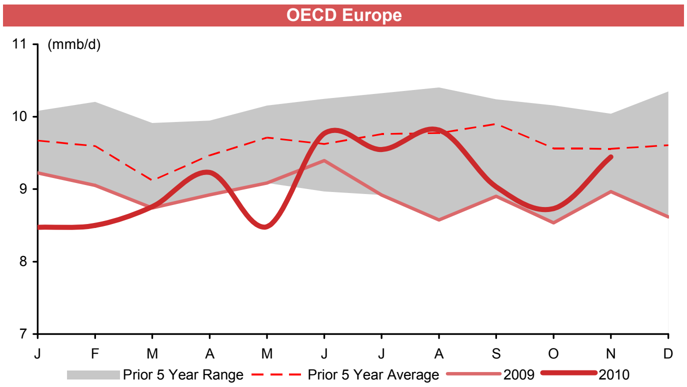
Exhibit 18. Crude oil imports



Source: IEA



Source: DOE



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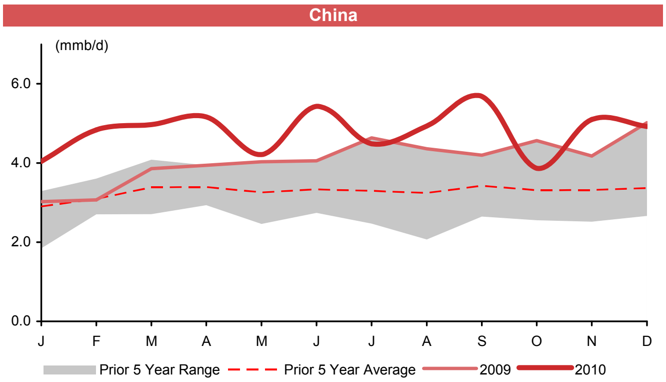
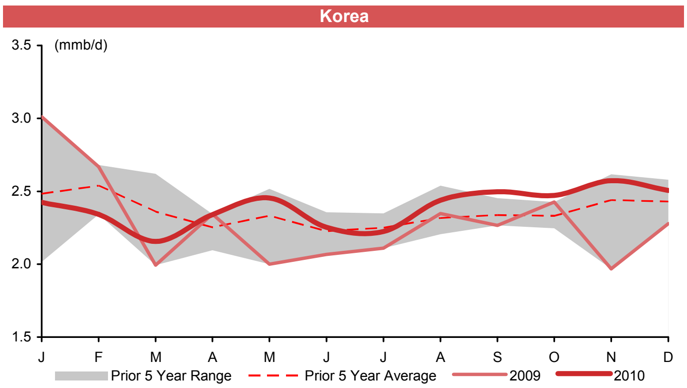
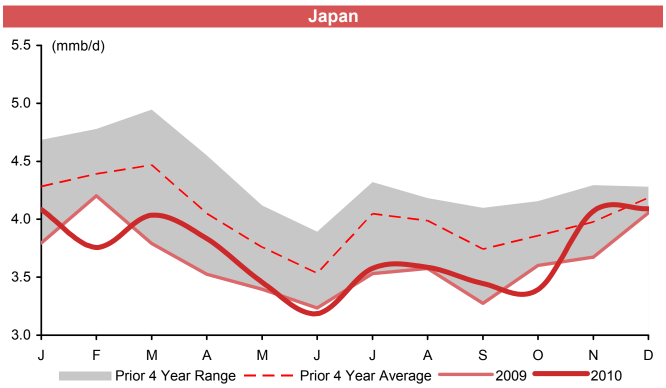


Source: Thomson Reuters



Source: Petronet

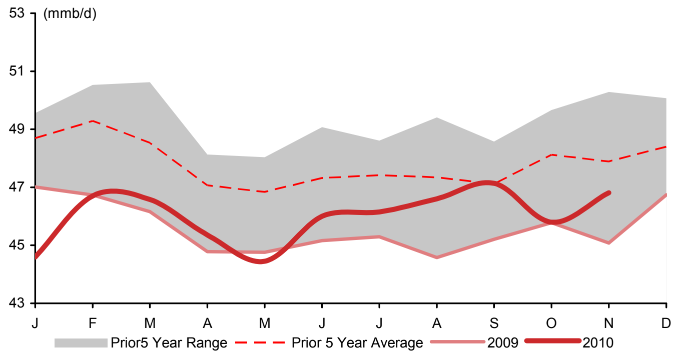


Source: METI, Thomson Reuters

Total products

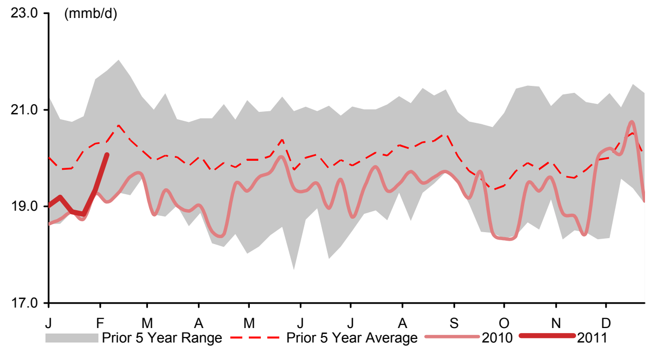
Exhibit 19. Total product demand

OECD



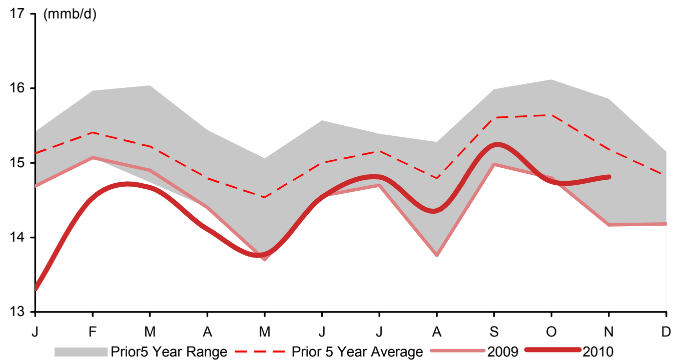
Source: IEA

United States



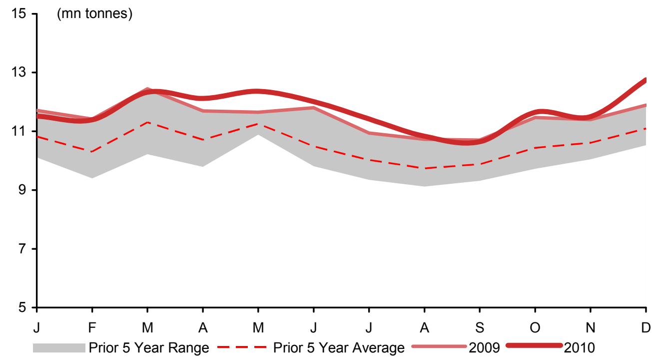
Source: DOE

OECD Europe



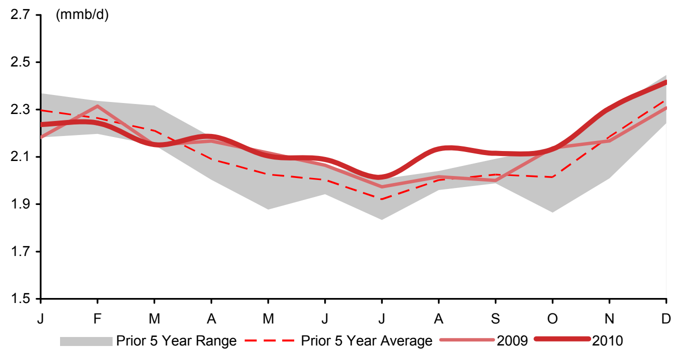
Source: IEA

India



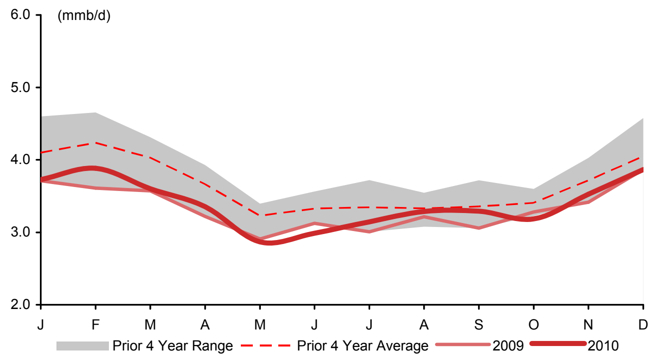
Source: Thomson Reuters

Korea



Source: Petronet

Japan

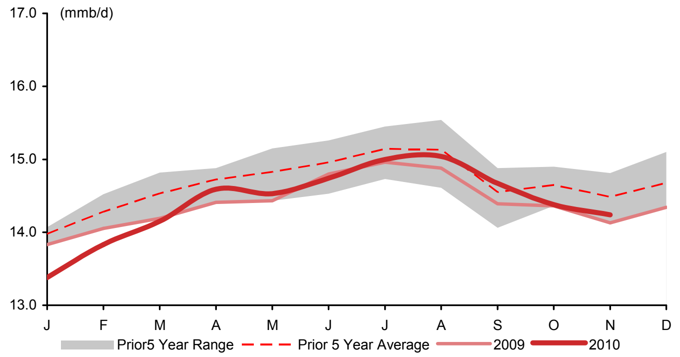


Source: METI, Thomson Reuters

Gasoline

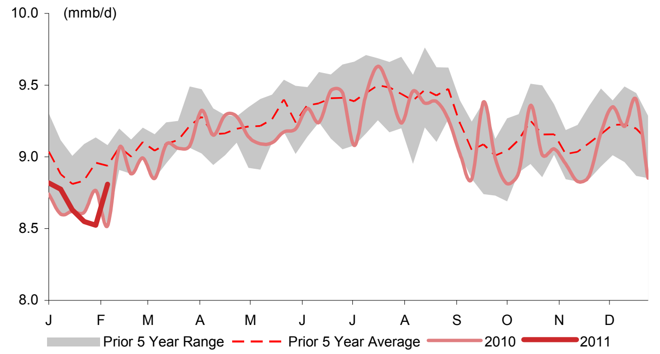
Exhibit 20. Gasoline demand

OECD



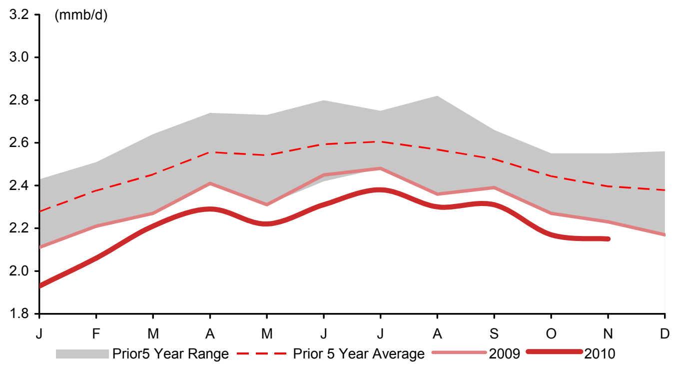
Source: IEA

United States



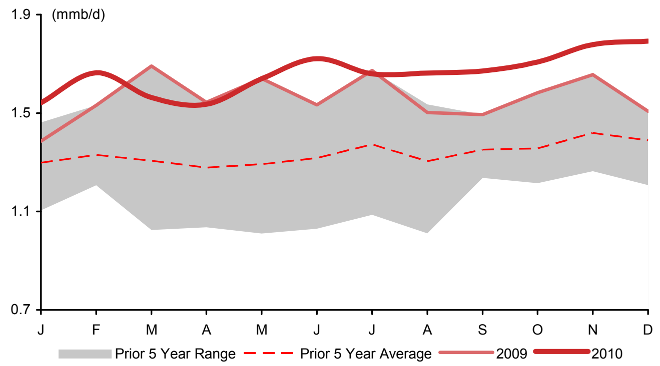
Source: DOE

OECD Europe



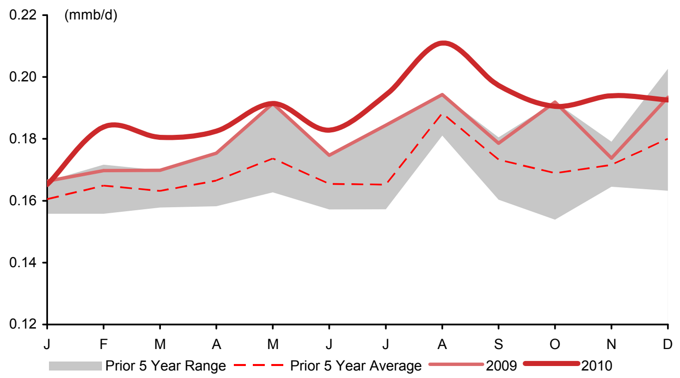
Source: IEA

China



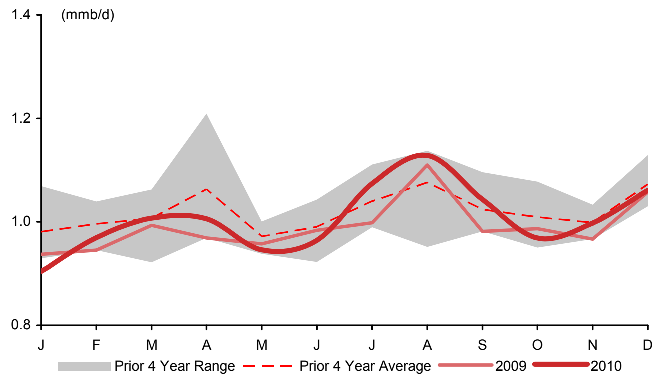
Source: Thomson Reuters *Implied Demand

Korea



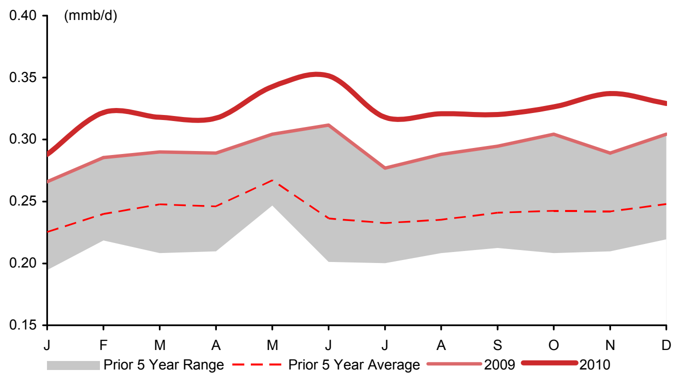
Source: Petronet

Japan



Source: METI, Thomson Reuters

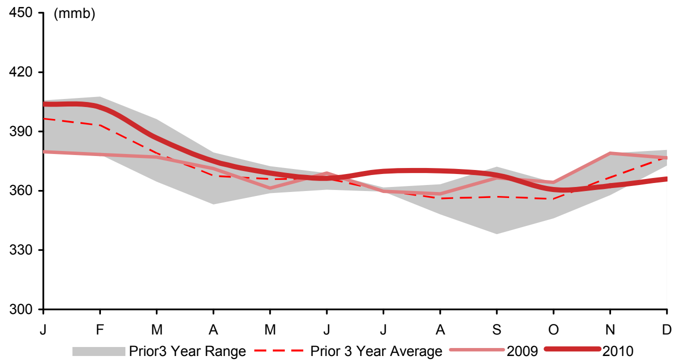
India



Source: Thomson Reuters

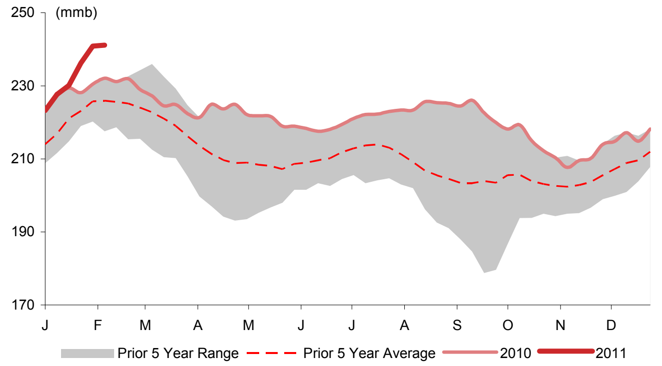
Exhibit 21. Gasoline inventories

OECD



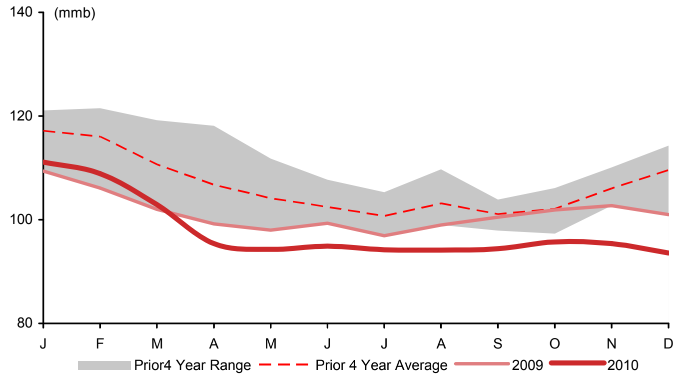
Source: IEA *Industrial stocks

United States



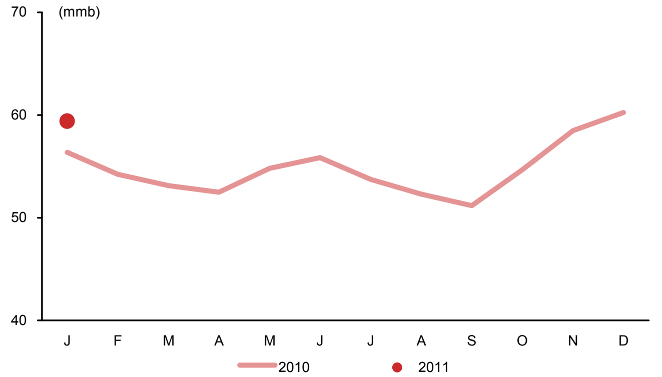
Source: DOE

OECD Europe



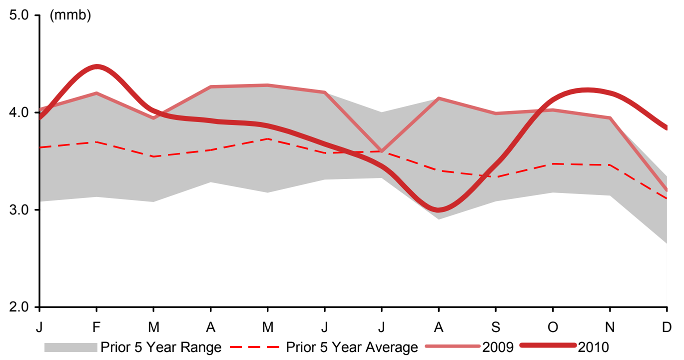
Source: IEA * Industrial stocks

China



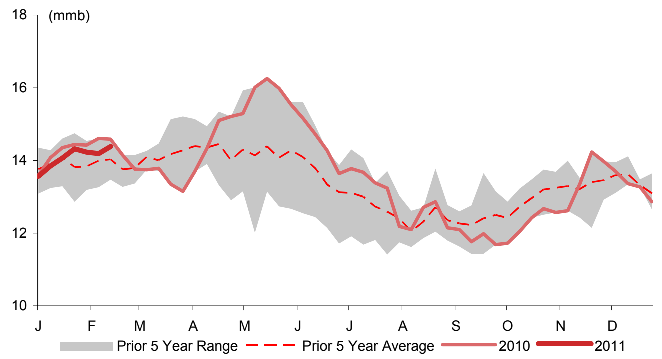
Source: China OGP, Xinhua News Agency * Commercial

Korea



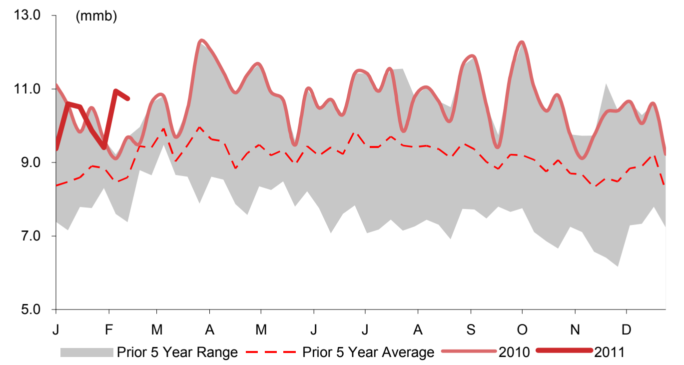
Source: Petronet

Japan



Source: Petroleum Association of Japan

Singapore

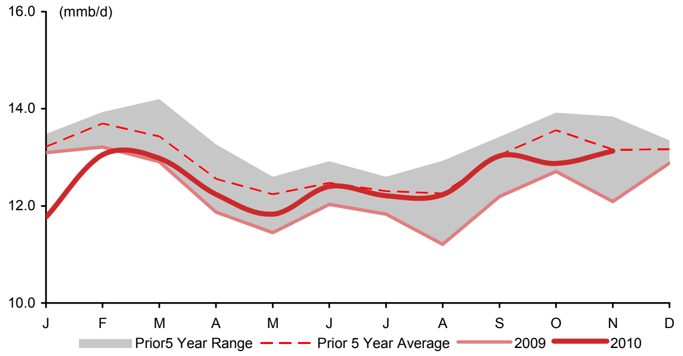


Source: Thomson Reuters

Distillates

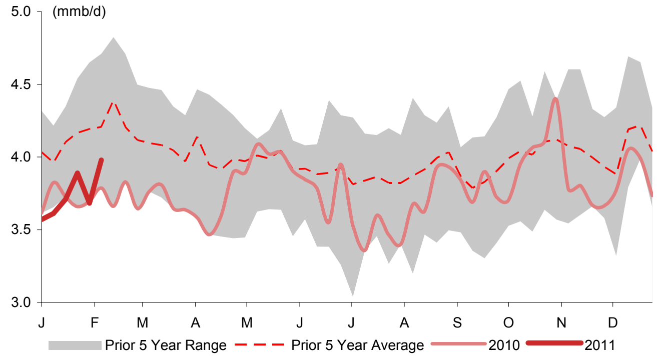
Exhibit 22. Distillate demand

OECD



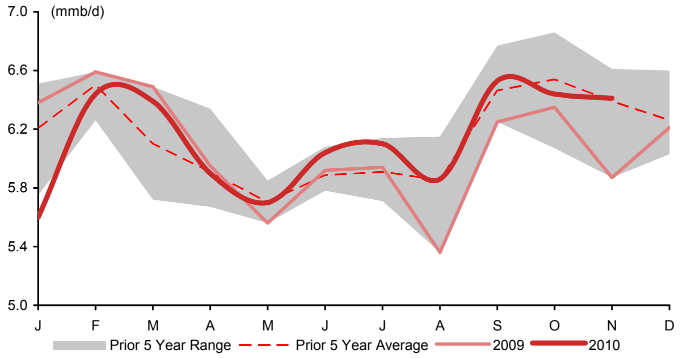
Source: IEA

United States



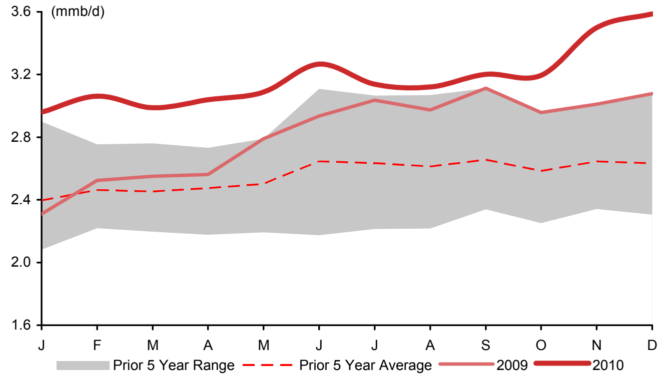
Source: DOE

OECD Europe



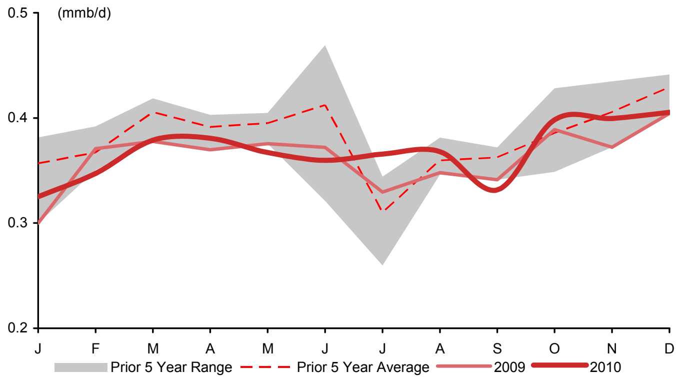
Source: IEA

China



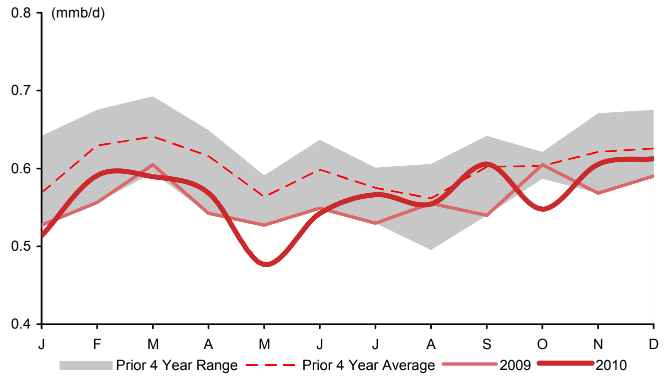
Source: Thomson Reuters *Implied Demand

Korea



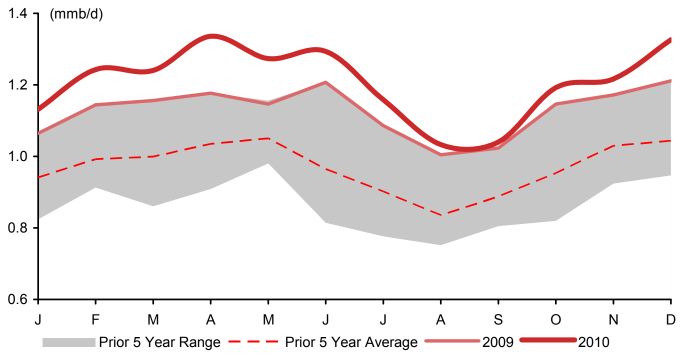
Source: Petronet

Japan



Source: METI, Thomson Reuters

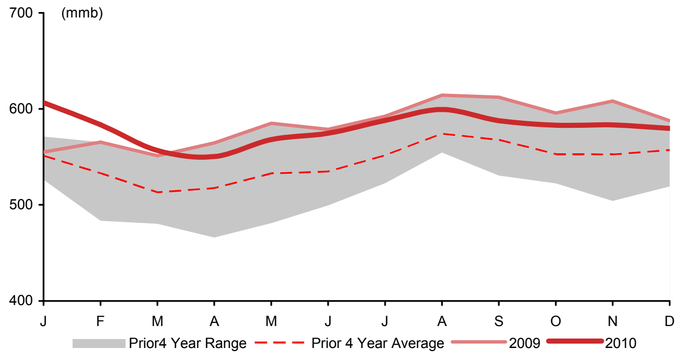
India



Source: Thomson Reuters

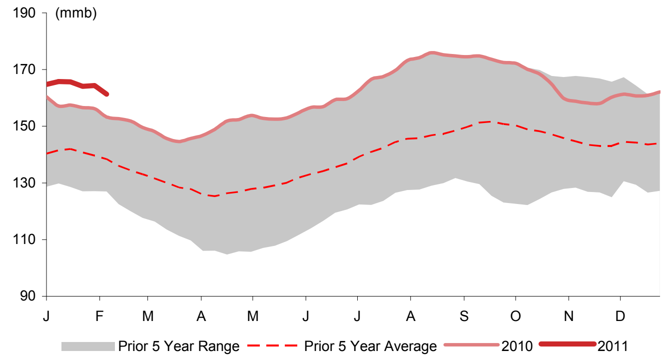
Exhibit 23. Distillate inventories

OECD



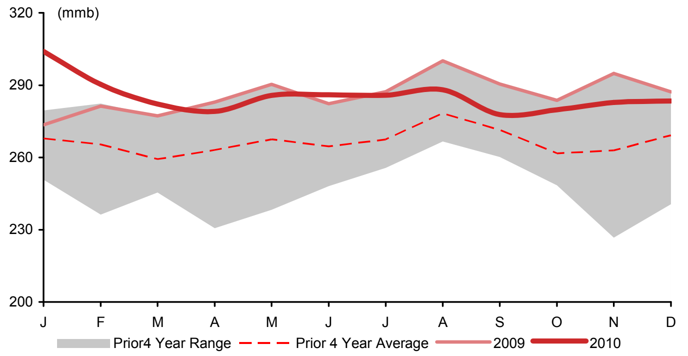
Source: IEA *Industrial stocks

United States



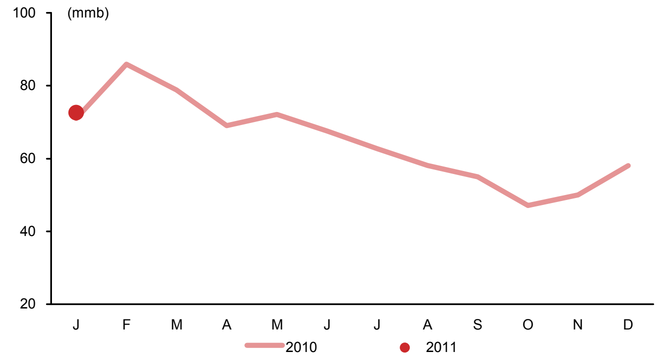
Source: DOE

OECD Europe



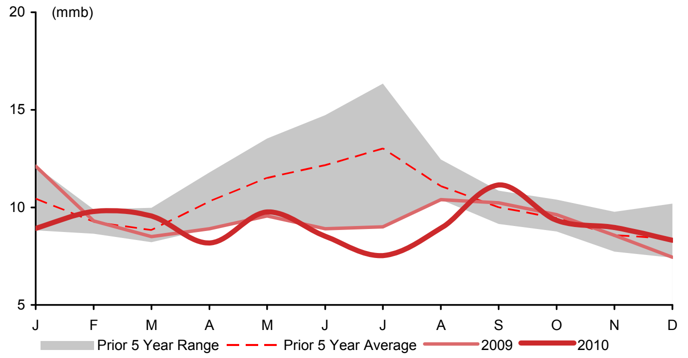
Source: IEA *Industrial stocks

China



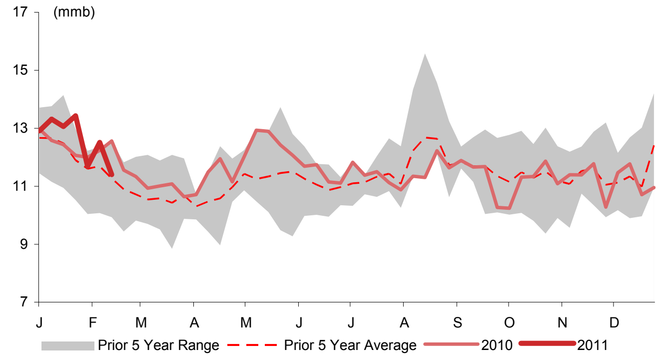
Source: China OGP, Xinhua News Agency * Commercial

Korea



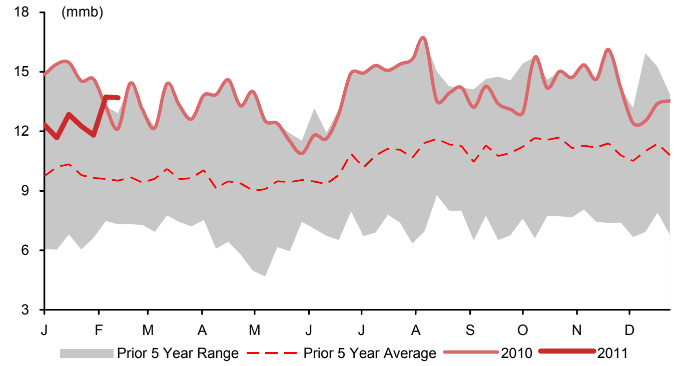
Source: Petronet

Japan



Source: Petroleum Association of Japan

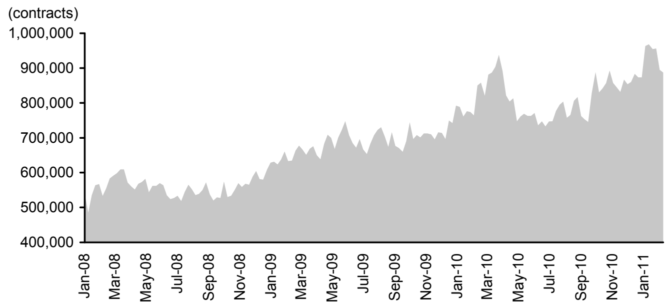
Singapore



Source: Thomson Reuters

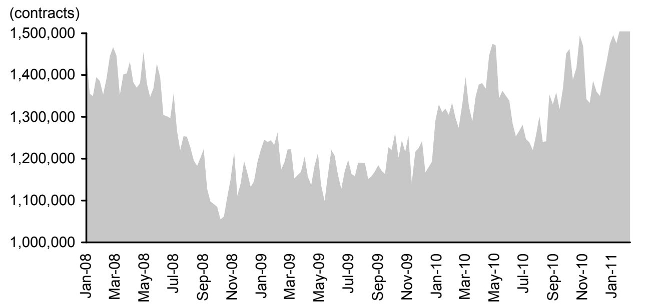
Exhibit 24. Trading summary

ICE Brent Futures Aggregate Open Interest



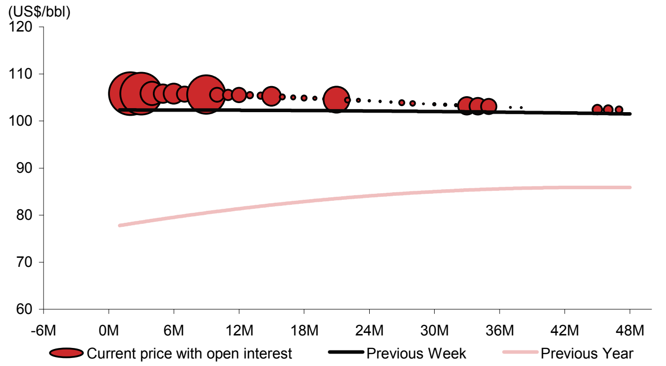
Source: Bloomberg

Nymex WTI Futures Aggregate Open Interest



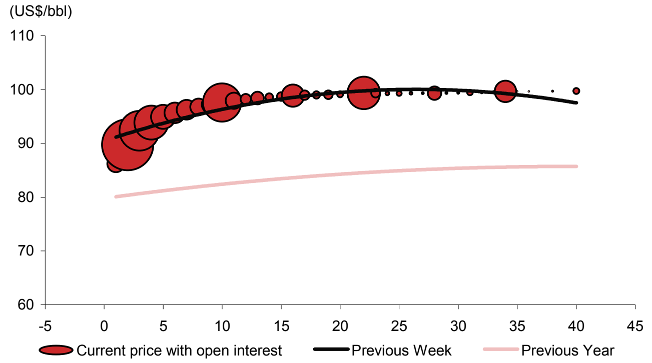
Source: Bloomberg

ICE Brent: Price versus Open Interest



Source: CFTC, Bloomberg

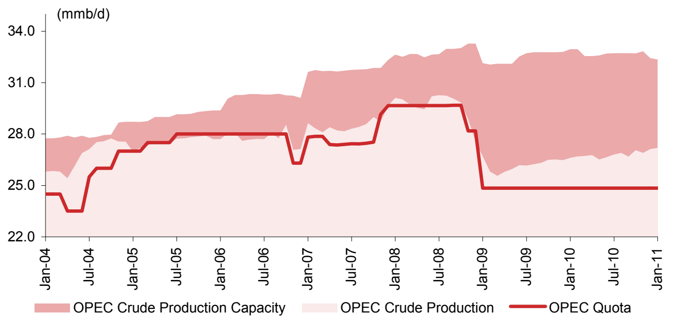
NYMEX WTI: Price versus Open Interest



Source: CFTC, Bloomberg

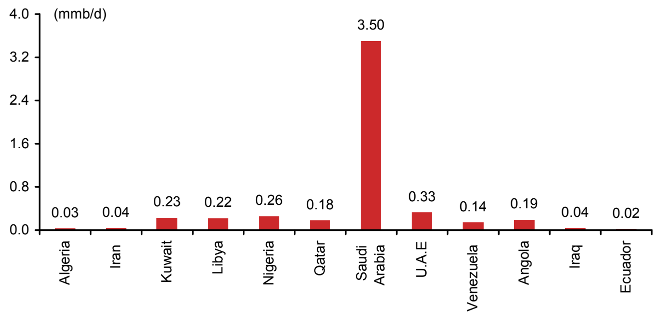
Exhibit 25. OPEC crude oil statistics

OPEC Crude - Production, Capacity & Quota



Source: IEA

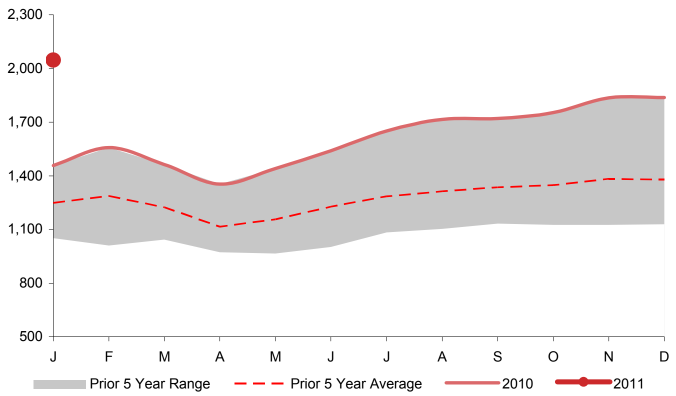
OPEC Spare Capacity - January 2011



Source: IEA, Nomura Research

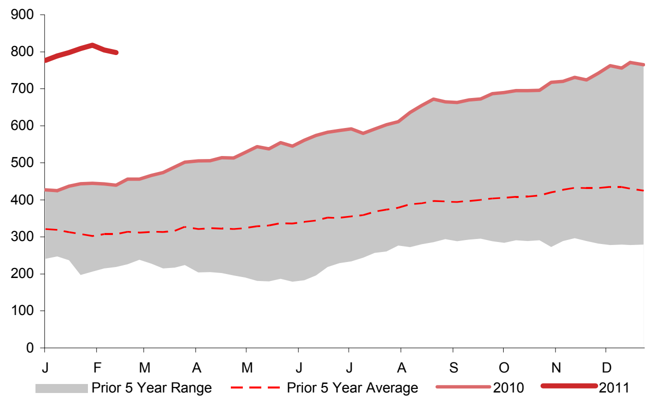
Exhibit 26. International rotary rig count

World Oil Rig Count



Source: Baker Hughes, Nomura Research

US Oil Rig Count



Source: Baker Hughes, Nomura Research

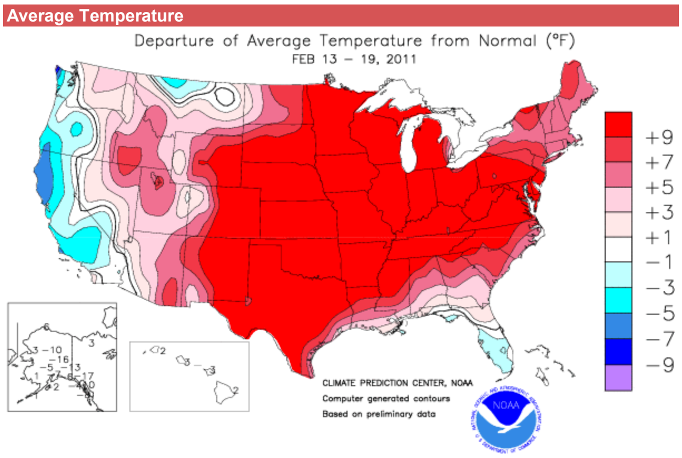
Exhibit 27. US Department of Energy's weekly summary table

Data	Product	2/11/2011	2/4/2011	W-o-W	W-o-W %	2/12/2010	Y-o-Y	Y-o-Y %	5 YR AVG	∆ from 5YR AVG	% from 5YR AVG
Stocks	Crude Oil	346	345	0.9	0.2%	335	11.4	3.4%	327	18.8	5.7%
(mmb)	Motor Gasoline	241	241	0.2	0.1%	232	9.0	3.9%	226	15.2	6.7%
	Distillate	161	164	(3.1)	-1.9%	153	8.0	5.2%	138	22.9	16.5%
	Diesel (>15 to 500 ppm)	11	10	0.1	0.7%	16	-5.8	-35.5%	32	(21.2)	-66.8%
	Diesel (<15 ppm)	112	115	(3.2)	-2.8%	95	17.2	18.2%	62	50.1	80.9%
	Heating Oil (>500 ppm)	39	39	0.1	0.2%	42	-3.4	-8.1%	45	(6.0)	-13.4%
	Kerosene-Type Jet Fuel	41	43	(1.5)	-3.5%	43	-1.2	-2.9%	42	(0.4)	-0.9%
	Residual Fuel Oil	39	39	0.3	0.8%	38	1.6	4.2%	38	1.0	2.5%
	Total Products	724	733	(9.2)	-1.3%	711	12.8	1.8%	697	26.7	3.8%
	Crude Oil Runs (kbd)	13863	14344	(481)	-3.4%	13772	91	0.7%	14380	(517)	-3.6%
	Capacity Utilization (%)	81.2	84.7	(3.5)		79.8	1.5		83.8	(2.6)	
Weekly	Crude Oil	8266	8909	(643)	-7.2%	8548	(282)	-3.3%	9557	(1291)	-13.5%
Imports	Motor Gasoline	935	1037	(102)	-9.8%	709	226	31.9%	956	(21)	-2.2%
(kbd)	Distillate	211	296	(85)	-28.7%	391	(180)	-46.0%	371	(160)	-43.2%
	Diesel (>15 to 500 ppm)	1	0	1		167	(166)		56	(55)	-98.2%
	Diesel (<15 ppm)	143	161	(18)	-11.2%	118	25	21.2%	108	35	31.9%
	Heating Oil (>500 ppm)	68	135	(67)	-49.6%	106	(38)	-35.8%	207	(139)	-67.2%
	Kerosene-Type Jet Fuel	61	61	0	0.0%	64	(3)	-4.7%	126	(65)	-51.6%
	Residual Fuel Oil	525	457	68	14.9%	373	152	40.8%	400	125	31.3%
Demand	Motor Gasoline	8.8	8.5	0.3	3.4%	8.5	0.3	3.4%	8.9	(0.1)	-1.4%
(mbd)	Distillate	4.0	3.7	0.3	8.1%	3.8	0.2	5.1%	4.2	(0.2)	-5.4%
	Kerosene-Type Jet Fuel	1.4	1.5	(0.0)	-2.5%	1.2	0.2	16.6%	1.5	(0.0)	-2.4%
	Residual Fuel Oil	0.7	0.8	(0.1)	-15.1%	0.8	(0.2)	-20.0%	0.8	(0.1)	-12.8%
	Total Products	20.1	19.3	0.7	3.8%	19.1	1.0	5.1%	20.3	(0.3)	-1.3%

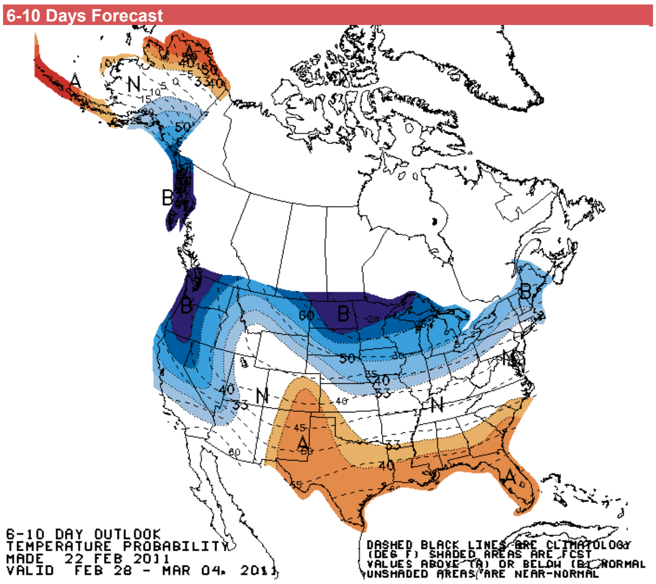
Source: Energy Information Administration, Nomura Research

Exhibit 28. Weather update and forecast

Average Temperature



6-10 Days Forecast



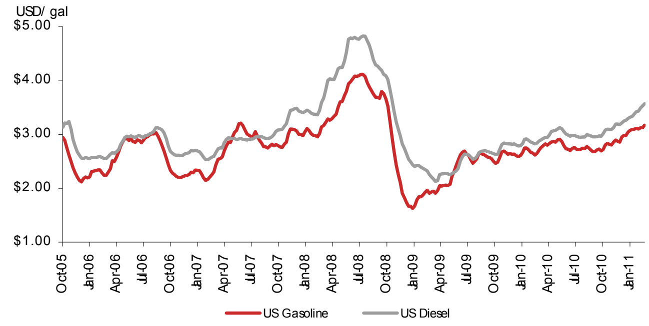
Code	Colour Shading	Forecast
A	Orange-Red	Above Normal
B	Blue	Below Normal
N	White	Neutral

* * Numbers indicate %age probability above/below normal

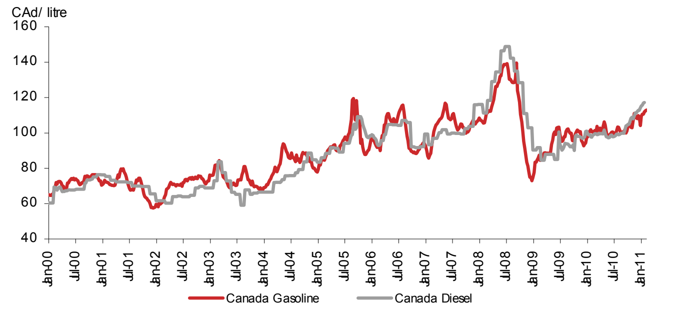
Source: National Weather Service, United States

Exhibit 29. Global retail prices for gasoline and diesel

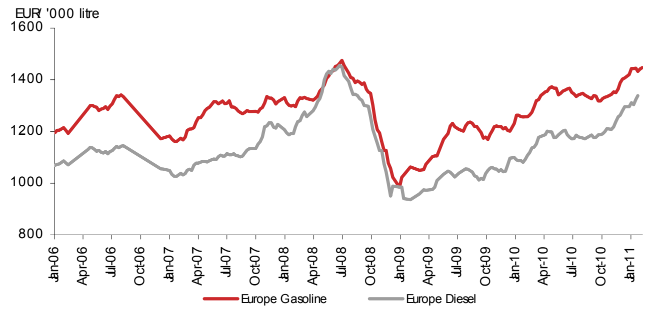
United States



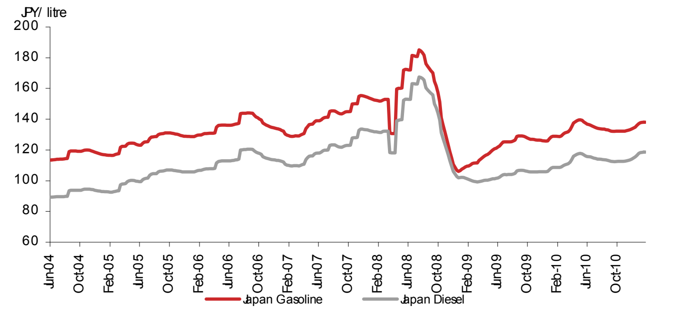
Canada



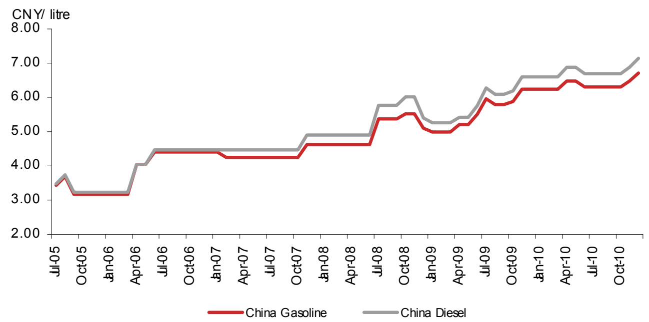
Europe



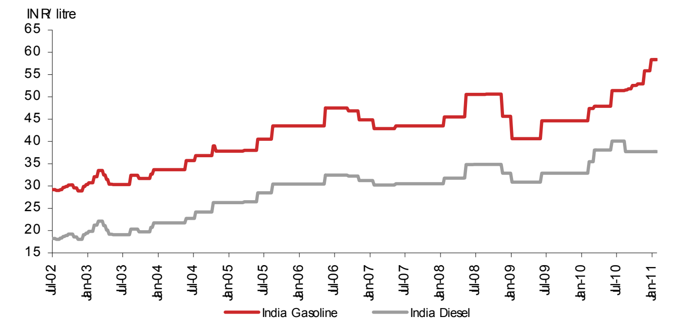
Japan



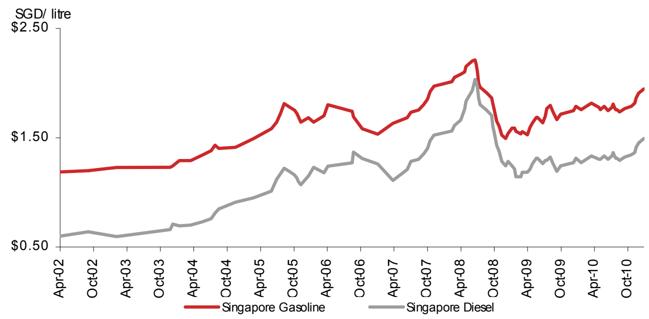
China



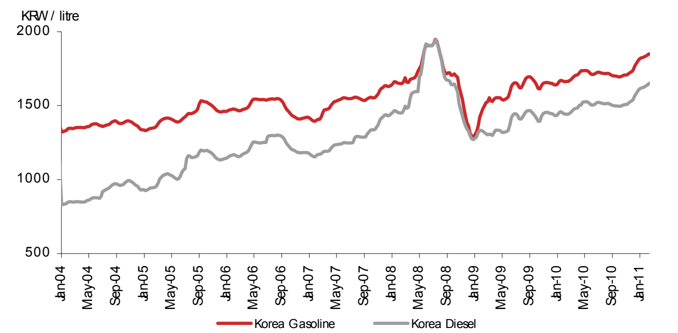
India



Singapore



Korea



Source: Bloomberg

Exhibit 30. Nomura Brent oil price forecast

	1Q10	2Q10	3Q10	4Q10	1Q11F	2Q11F	3Q11F	4Q11F	2009	2010	2011F	2012F	LT
Brent	76.7	78.8	76.7	86.9	92	94	95	100	**62**	**79.7**	**95**	**110**	**75**

Source: Nomura estimates

Exhibit 31. Global oil supply & demand

				2009					2010F					2011F						Change, 10 vs 09		Change, 11 vs 10	
(mm bls/d)	**2006**	**2007**	**2008**	**Q1**	**Q2**	**Q3**	**Q4**	**2009**	**Q1**	**Q2**	**Q3F**	**Q4F**	**2010F**	**Q1F**	**Q2F**	**Q3F**	**Q4F**	**2011F**	**2012F**	**(mmbbl/d)**	**(%)**	**(mmbbl/d)**	**(%)**
Demand																							
North America	25.4	25.5	24.2	23.4	22.9	23.3	23.6	23.3	23.6	23.8	23.7	23.6	23.7	23.8	24.0	24.0	23.7	23.9	24.0	0.4	1.6	0.2	0.8
Europe	15.7	15.5	15.4	14.9	14.3	14.5	14.4	14.5	14.2	14.1	14.5	14.4	14.3	14.4	14.3	14.6	14.5	14.4	14.5	(0.2)	(1.3)	0.1	0.7
Pacific	8.5	8.4	8.0	8.1	7.3	7.2	8.0	7.7	8.2	7.3	7.3	7.9	7.7	8.1	7.4	7.5	7.9	7.7	7.8	0.0	0.2	0.0	0.2
OECD	49.5	49.3	47.6	46.4	44.5	45.0	45.9	45.4	45.9	45.2	45.5	45.9	45.6	46.2	45.6	46.0	46.1	46.0	46.2	0.2	0.4	0.3	0.7
FSU	4.0	4.1	4.2	4.0	3.9	4.1	4.0	4.0	4.2	4.1	4.2	4.1	4.2	4.3	4.2	4.3	4.3	4.3	4.4	0.2	4.1	0.1	2.7
Europe	0.7	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	(0.0)	(1.7)	0.0	3.8
China	7.2	7.6	7.7	7.5	8.5	8.7	8.8	8.4	8.9	9.4	9.2	9.2	9.1	9.3	9.8	9.7	9.6	9.6	10.0	0.8	9.3	0.4	4.8
Other Asia	9.0	9.5	9.6	9.9	10.0	9.8	10.1	9.9	10.1	10.3	10.2	10.3	10.2	10.4	10.6	10.5	10.6	10.5	10.8	0.3	3.1	0.3	2.9
Latin America	5.4	5.7	6.0	5.8	6.0	6.1	6.1	6.0	6.0	6.2	6.3	6.2	6.2	6.2	6.4	6.5	6.3	6.4	6.5	0.2	2.9	0.2	3.0
Middle East	6.3	6.5	6.8	6.6	7.1	7.6	6.9	7.1	7.0	7.4	7.7	7.3	7.3	7.3	7.6	7.9	7.6	7.6	7.8	0.3	4.0	0.3	3.6
Africa	3.0	3.1	3.2	3.3	3.2	3.2	3.1	3.2	3.2	3.3	3.3	3.3	3.2	3.3	3.3	3.4	3.4	3.4	3.4	0.1	1.6	0.1	3.6
Non OECD	35.7	37.2	38.4	37.7	39.4	40.1	39.8	39.3	40.1	41.4	41.5	41.1	41.0	41.5	42.6	43.0	42.7	42.5	43.6	1.7	4.4	1.4	3.5
Total demand	**85.2**	**86.5**	**86.0**	**84.2**	**83.9**	**85.1**	**85.7**	**84.7**	**86.1**	**86.6**	**87.0**	**87.0**	**86.7**	**87.7**	**88.2**	**89.0**	**88.7**	**88.4**	**89.9**	**1.9**	**2.3**	**1.8**	**2.0**
% increase y-y	**1.4**	**1.5**	**(0.6)**	**(3.7)**	**(2.8)**	**(0.8)**	**0.4**	**(1.4)**	**2.2**	**3.2**	**2.2**	**1.5**	**2.3**	**1.9**	**1.9**	**2.3**	**2.0**	**2.0**	*1.7*				
Supply																							
North America	14.2	13.9	13.3	13.5	13.5	13.7	13.8	13.6	13.9	14.1	13.6	13.6	13.8	13.8	13.6	13.5	13.6	13.6	13.5	0.2	1.4	(0.2)	(1.4)
Europe	5.3	5.0	4.8	4.9	4.5	4.2	4.5	4.5	4.5	4.2	4.1	4.3	4.3	4.3	4.0	3.9	4.1	4.1	3.9	(0.2)	(5.2)	(0.2)	(5.4)
Pacific	0.6	0.6	0.6	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	(0.0)	(1.6)	0.1	9.4
OECD	20.1	19.5	18.7	19.0	18.6	18.6	18.9	18.8	19.1	18.9	18.4	18.6	18.7	18.7	18.2	18.1	18.4	18.4	18.1	(0.1)	(0.3)	(0.4)	(2.0)
FSU	12.2	12.8	12.8	13.0	13.3	13.4	13.5	13.3	13.5	13.5	13.6	13.8	13.6	13.8	13.8	13.6	13.9	13.8	13.8	0.3	2.5	0.2	1.2
Europe	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.0	(0.0)	(3.7)
China	3.7	3.7	3.9	3.8	3.9	3.9	3.9	3.9	4.0	4.1	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.1	0.2	5.7	(0.0)	(1.2)
Other Asia	3.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.5	0.0	1.0	0.0	0.1
Latin America	3.9	3.6	3.7	3.8	3.9	3.9	4.0	3.9	4.0	4.1	4.1	4.2	4.1	4.3	4.4	4.5	4.5	4.4	4.5	0.2	6.1	0.3	7.9
Middle East	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.0	1.8	0.0	1.1
Africa	2.5	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	(0.0)	(0.4)	0.0	1.2
Non OECD	28.0	28.2	28.5	28.7	29.0	29.2	29.4	29.0	29.6	29.8	29.9	30.2	29.9	30.4	30.3	30.3	30.5	30.4	30.3	0.8	2.9	0.5	1.6
Processing gains	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	(0.1)	(4.3)	0.0	1.9
Other Biofuels	0.2	1.1	1.5	1.5	1.5	1.6	1.7	1.6	1.8	1.8	1.8	1.8	1.8	2.0	2.0	2.0	2.0	2.0	2.1	0.2	12	0.2	12
Non OPEC	50.4	50.9	50.9	51.5	51.4	51.7	52.3	51.7	52.7	52.6	52.2	52.8	52.6	53.3	52.8	52.6	53.1	52.9	52.7	0.9	1.7	0.4	0.7
OPEC 11 crude	28.8	28.2	28.9	26.2	26.0	26.2	26.5	26.2	26.7	26.6													
Iraq crude	1.9	2.1	2.4	2.3	2.5	2.6	2.5	2.4	2.4	2.4													
OPEC NGLs	4.4	4.3	4.4	4.6	4.5	4.7	4.8	4.7	5.0	5.0	5.2	5.4	5.2	5.7	5.8	5.8	5.9	5.8	6.2	0.5	10.8	0.6	12.6
Total supply	**85.6**	**85.5**	**86.6**	**84.7**	**84.4**	**85.2**	**86.0**	**85.1**	**86.7**	**86.6**													
Call on OPEC crude*	**30.4**	**31.3**	**30.6**	**28.1**	**28.0**	**28.7**	**28.6**	**28.4**	**28.4**	**29.0**	**29.6**	**28.8**	**28.9**	**28.7**	**29.7**	**30.6**	**29.7**	**29.7**	**31.0**	**0.6**	**2.0**	**0.7**	**4.7**
Implied stock change - m bls/d	0.3	(1.0)	0.6	0.5	0.5	0.1	0.3	0.3	0.6	0.0													
Implied stock change - m bls	31	(91)	217	41	43	4	29	117	66	8													
OECD stock change - m bls	94	(62)	73	58	(34)	(45)	(6)	(28)	42	21													

Note: Demand estimates are Nomura estimates and 2010 & 2011 supply estimates are IEA estimates

* Call on OPEC crude from Q3 2010 onwards is total demand minus Non OECD supply and OPEC NGLs, such that the implied stock change in forecast years is zero

Source: International Energy Agency, Nomura estimates

Exhibit 32. Upcoming events calendar

February						
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**
	1 OPEC production survey by Reuters Japan PAJ Stats CFTC CoT	2 DOE Weekly Report	3 Singapore Oil Stats	4	5	6
7	8 Japan PAJ Stats CFTC Commitment of Traders, EIA STEO	9 DOE Weekly Report	10 Singapore Oil Stats IEA OMR OPEC Monthly	11	12	13
14	15 Japan PAJ Stats CFTC Commitment of Traders	16 DOE Weekly Report	17 Singapore Oil Stats	18	19	20
21 China Oil Stats, WTI contracts expiration	22 Japan PAJ Stats CFTC Commitment of Traders	23	24 DOE Weekly Report Singapore Oil Stats	25	26	27
28 Japan METI data India Oil Stats						

*some dates are tentative

March						
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**
	1 OPEC production survey by Reuters Japan PAJ Stats CFTC CoT	2 DOE Weekly Report	3 Singapore Oil Stats	4	5	6
7	8 Japan PAJ Stats CFTC Commitment of Traders EIA STEO	9 DOE Weekly Report	10 Singapore Oil Stats	11 OPEC Monthly	12	13
14	15 Japan PAJ Stats CFTC Commitment of Traders IEA OMR	16 DOE Weekly Report	17 Singapore Oil Stats	18	19	20
21 China Oil Stats	22 Japan PAJ Stats CFTC CoT, WTI Contracts expiration	23	24 Singapore Oil Stats DOE Weekly Report	25	26	27
28 Japan METI data India Oil Stats	29	30 DOE Weekly Report	31			

*some dates are tentative

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