

Oil Market Outlook 2011

Executive Summary

- The global recovery has helped underpin a strong rebound in oil demand, particularly in emerging markets, and prices have risen 26 percent to average an estimated \$78.2/b in 2010. Slowing global economic growth will dampen prospects in 2011, but oil demand will continue to rise and prices are projected to average \$82/b. Emerging markets will again be key sources of demand growth, especially China and the Middle East.
- The increasing use of oil as a mainstream asset class has been a major factor supporting oil prices during 2010. In an environment of low interest rates and high liquidity, investors have been attracted into oil by expectations of future demand growth and a belief that OPEC will defend prices. Oil prices will remain sensitive to investor sentiment on the state of the global economy in 2011, particularly exchange rate movements and policy developments in China.
- Rising non-OPEC supply has prevented a strong improvement in market fundamentals during 2010, with stock levels and OPEC spare capacity remaining at elevated levels. The oil market thus enters 2011 in a similar position to its start in 2010; with a supply overhang and a somewhat uncertain economic outlook as stimulus measures are withdrawn in many advanced economies.
- With oil prices trading in its \$70-80/b “comfort zone” OPEC has found it hard to curb production during 2010 despite concerns over high stock levels. Compliance with its quotas has deteriorated and production has risen by around 2 percent this year. However, the cartel maintains the ability and willingness to curb output during 2011 should prices fall outside its implicit target range which is understood to now be \$70-90/b.
- There is very limited scope for OPEC crude output increases in 2011 given the assumed slowdown in oil demand growth and OPEC’s own scheduled increases in NGL production. The extent to which OPEC has to reign in output will depend on the pace of growth of non-OPEC supply. After two years of rapid growth, this is expected to slow sharply in 2011, but any surprise on the upside would weaken fundamentals and put pressure on OPEC.

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2010 Market Summary

Prices strengthen to trade in a \$70-85/b range

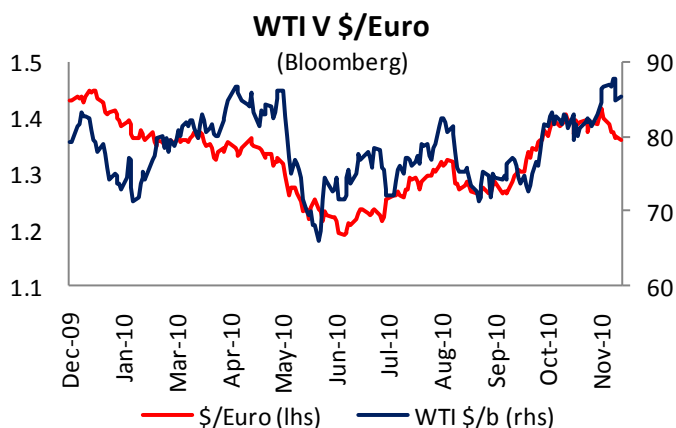
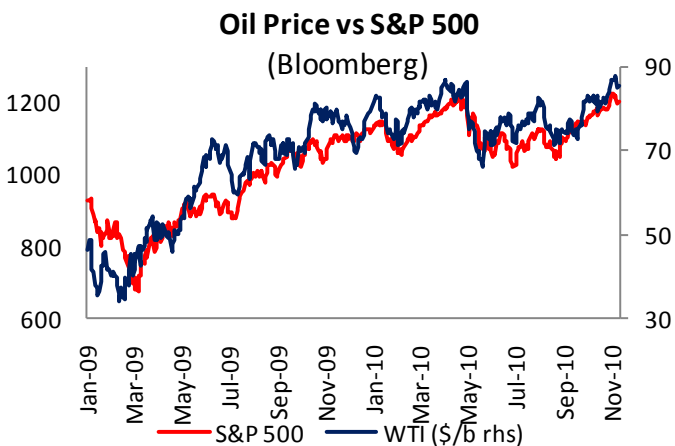
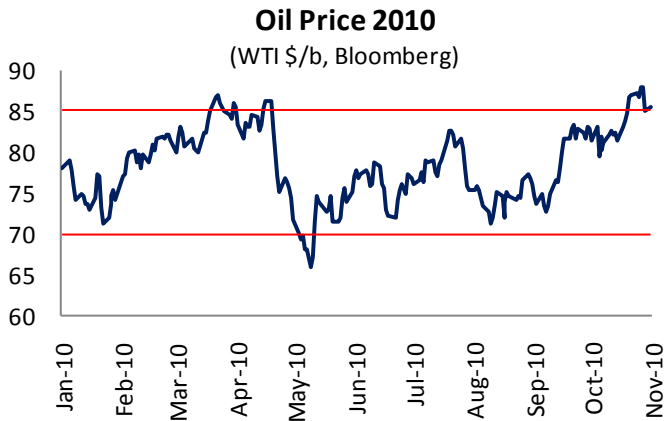
The return to growth in the world economy has helped underpin a 26 percent increase in average WTI oil prices to an estimated \$78.4/b for 2010. During the year prices have traded in a range between \$70-85/b, although there has been some wide swings within this, most noticeably when prices fell from \$86/b to a temporary low of \$66/b in May. Such movements primarily reflect the increasing use of oil futures as a mainstream asset class by non-commercial 'investors' which has led to a positive correlation with equity markets (a proxy for global growth prospects) and has accentuated the oft observed inverse relationship with the value of the US dollar. Oil prices have thus become more sensitive to investor sentiment on the state of the global economy, with the May slump reflecting mounting concerns over sovereign balance sheet issues in the Eurozone.

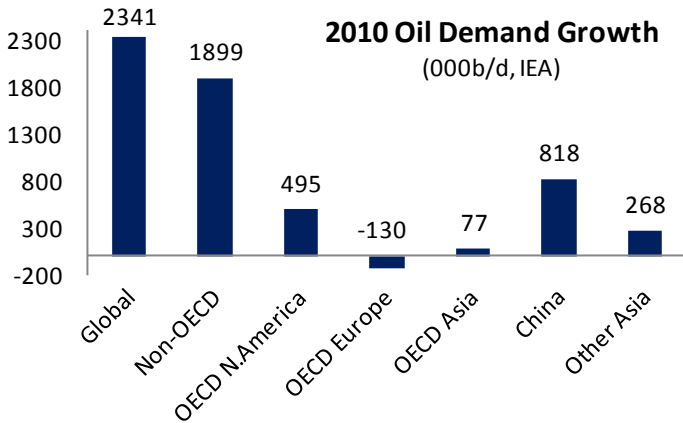
However, for the majority of the year prices have been supported by expectations of future demand growth, as well as expectations that OPEC maintains the ability and willingness to defend its "fair price". Following statements by Saudi's king Abdullah back in 2009, this has generally been interpreted to represent a range between \$70-80/b, although statements by the Saudi oil minister in November this year appear to have extended the upper range to \$90/b. These most recent statements coincided with another round of quantitative easing in the US and related weaker dollar to push prices over \$85/b in the last quarter of 2010 on the back of rising investor activity.

Demand has rebounded but stocks remain high

Support from financial investors has been a key factor in raising prices to current levels as oil market fundamentals remain relatively weak. While oil demand has rebounded strongly in 2010, this has been offset by increasing supply from both non-OPEC sources and also OPEC, in the form of rising NGL output as well as increasing crude production in excess of existing quota targets. As a result oil and product stocks have not been drawn down as much as expected following their rapid build up in 2008-09 and remain at historically high levels – albeit without the large offshore component apparent at end-2009. In addition, spare production capacity is at its highest levels since the 1980s.

The oil market thus enters 2011 in a similar position to its start in 2010; with a supply overhang and a somewhat uncertain economic outlook as stimulus measures are withdrawn in many advanced economies. That said, the consensus view is that the global economy will not slip back into recession, but that growth will slow in 2011 and oil demand with it. The extent to which this affects oil prices will continue to depend on how investors perceive developments and prospects, and on OPEC's actions,





Saudi Arabia is the second fastest growing oil market after China.

although recent developments suggest that prices have established a higher floor.

Recent Developments

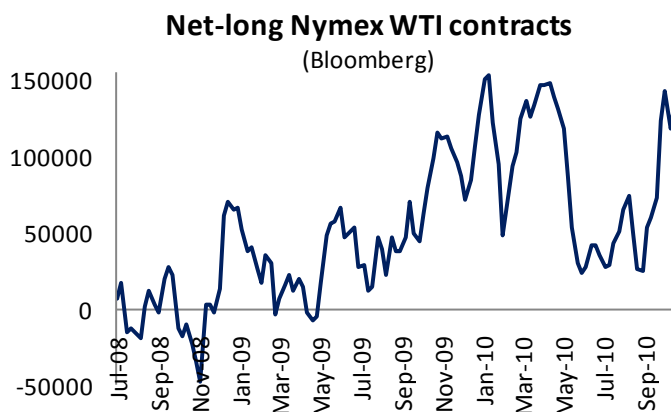
Oil consumption has grown rapidly in 2010

Oil demand growth is estimated to be running at around 2 percent in 2010 pushing global demand up by 2.1 mb/d to 86.9 mb/d according to the most optimistic projections from the IEA. Such demand growth has tracked the recovery in the global economy, and has been particularly pronounced in emerging markets which have been the principal driver of increased oil consumption in 2010, accounting for about 90 percent of the increase. This is especially true in China where strong economic growth combined with a stock building program has generated incremental demand growth of between 600-700,000 b/d.

India and The Middle East are also key source of strong demand, with Saudi Arabia being the second fastest growing oil market after China. In fact so rapid has been the recent expansion in domestic oil and gas consumption in GCC states that authorities there are increasingly looking at ways to curb demand to ensure a steady supply of energy over the long-term. In contrast overall OECD demand remains muted, held back by sustained declines in Europe and Japan which continue to face difficult economic conditions. This has offset a pickup in North American demand, particularly in the US.

Financial demand for oil has also been strong

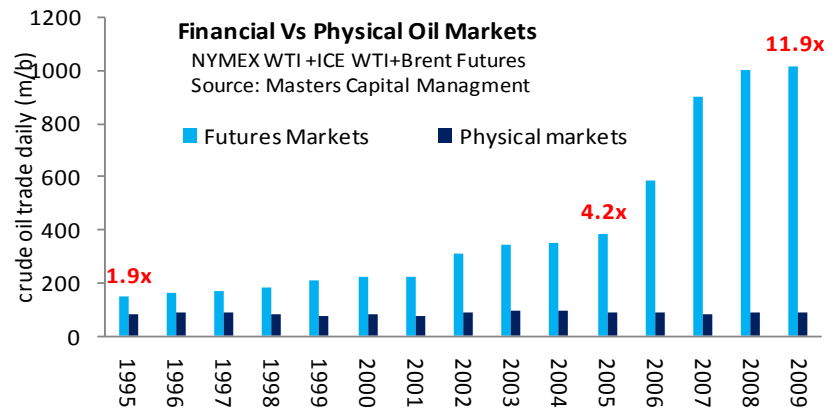
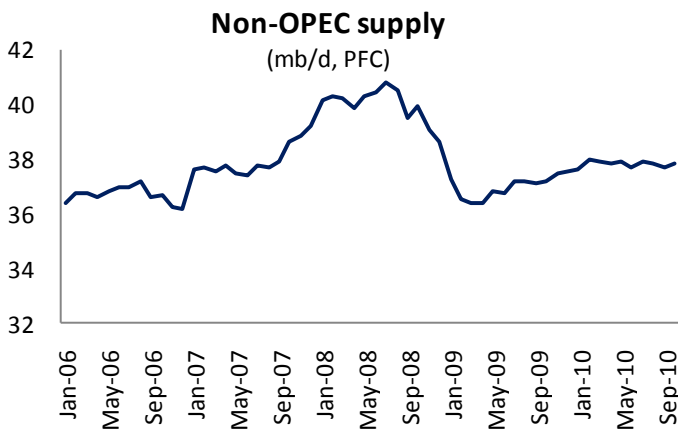
In addition to an increase in oil consumption during 2010, demand for oil from financial investors has been strong, boosted by low interest rates and high levels of global liquidity. This has helped buoy oil prices despite the still high level of stocks. Demand has been driven by a combination of high levels of global liquidity and a “supply crunch” narrative which hinges on the assumption that the recovery in economic growth currently underway will raise oil demand sufficiently to rebalance supply and demand, and clear high inventories within a few years. Markets have thus been focused on global economic indicators and drawn comfort from the strength in emerging market and recent signs of resilience in core Eurozone countries and the US.



The increased influence of financial demand for oil is reflected in the fact that over the past 15 years financial futures have grown from twice the size of physical oil markets to almost 12 times the size (see chart below which shows the ratio between physical and financial futures contracts in the crude oil markets). In addition, the oil markets are tiny compared to the size of global financial markets for which oil has become an asset class, and

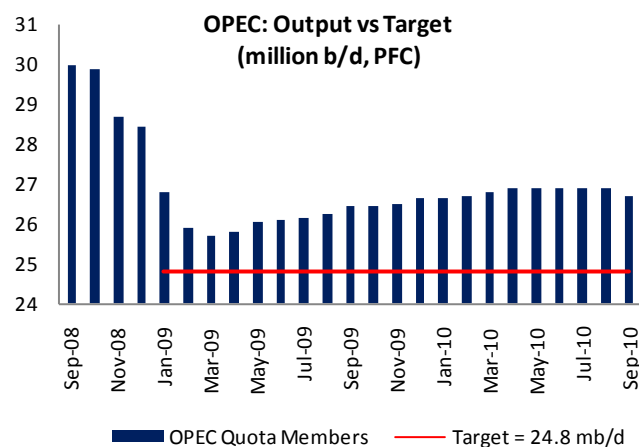
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hence prices can be more easily distorted. With futures trading essentially based on anticipation, market sentiment about the direction of the global economy can (and does) override oil supply and demand fundamentals in influencing prices – there was no change in market fundamentals when oil prices fell by \$20/b in May.



Non-OPEC supply growth has been surprisingly robust

Perhaps the most surprising factor on the supply side has been the sustained growth in non-OPEC output during 2010. Estimates from the IEA indicate that non-OPEC supply will rise by another 0.9 mb/d this year. Added to the 0.8mb/d gain in 2009 this takes non-OPEC supply up to 52.6 mb/d. This increase represents a significant shift following an outright decline in supply in 2008 and only marginal growth in 2006 and 2007. Around 40 percent of the 2010 increase represents higher NGL and biofuels output with the remainder accounted for by increased crude production. Russia has posted the largest increase in crude production taking its output to over 10 mb/d, a gain of over 150,000 b/d. But China, the USA, Brazil and Colombia have all also all raised crude output by over 100,000b/d, offsetting sustained declines in the North Sea and Mexico.



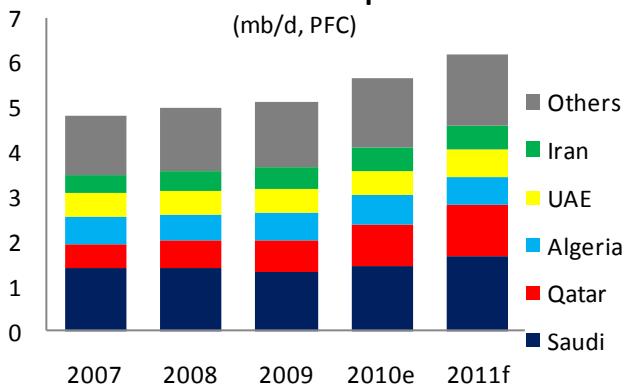
OPEC crude output exceeds quota and its spare capacity reaches 6mb/d

OPEC's total production quota (excluding Iraq which is currently not subject to quotas) was cut to 24.83 mb/d in late 2008. Initially strong compliance with the agreed cuts helped remove around 3.5 mb/d from the market as average production fell sharply in 2009. However, as oil prices rebounded and the global economy started to recover compliance with the agreed cuts has declined steadily and now stands at around 55 percent. OPEC average production has consequently risen by around 0.6 mb/d in 2010 (2.3 percent) to 26.8 mb/d. In contrast, Iraq has struggled to consistently raise its output much above 2.4mb/d

Given the strength of oil prices which have held in OPEC's 'comfort' zone during 2010, the cartel has found it hard to curb production despite its concerns over high levels of stocks and its own exceptionally high spare capacity.

While OPEC crude is subject to quotas NGL production is not and production has risen sharply in 2010.

OPEC NGL output
(mb/d, PFC)



during the year, although it is planning large gains during 2011-12.

Given the strength of oil prices which have held in OPEC's "comfort" zone during 2010, the cartel has found it hard to curb production despite its concerns over the still high levels of stocks and its own exceptionally high spare capacity. This has risen to around 6-7mb/d/depending on data source, the majority (around 4mb/d) held by Saudi Arabia. The willingness to ignore current weak market fundamentals as long as prices are "comfortable" appears to mark a shift in OPEC policy toward de facto price targeting. Should demand growth disappoint and prices drop, OPEC stands ready to take additional action if needed, and seems confident that it can secure strong compliance with any future cuts. However, this is a passive stance as opposed to previous attempts to proactively manage market imbalances, and carries greater risks that if demand growth fails to live up to financial market expectations, there could be a steep downward adjustment as weak fundamentals reassert themselves.

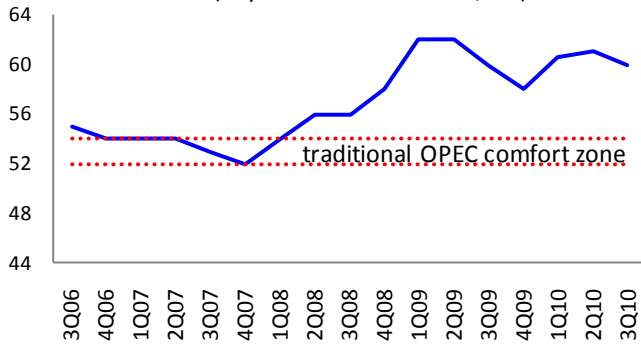
OPEC Crude Production					
	Sept. 2010	Sustainable	Spare capacity v Sept 10	OPEC	% compliance with vol. cuts
mb/d	Supply	production capacity	supply	Quota	
Saudi	8.38	12.2	3.82	8.01	81%
Nigeria	2.15	2.25	0.10	1.70	0%
UAE	2.31	2.72	0.41	2.23	90%
Kuwait	2.3	2.58	0.28	2.22	83%
Iran	3.68	3.96	0.28	3.33	23%
Libya	1.55	1.70	0.15	1.47	60%
Angola	1.68	2.00	0.32	1.50	25%
Venezuela	2.22	2.45	0.23	2.01	41%
Algeria	1.25	1.38	0.13	1.20	60%
Qatar	0.8	1.00	0.20	0.73	49%
Ecuador	0.45	0.48	0.00	0.43	72%
OPEC-11	26.77	32.72	5.92	24.83	54%
Iraq	2.52	2.50	-0.02		
Total OPEC	29.29	35.22	5.90		

Source :IEA

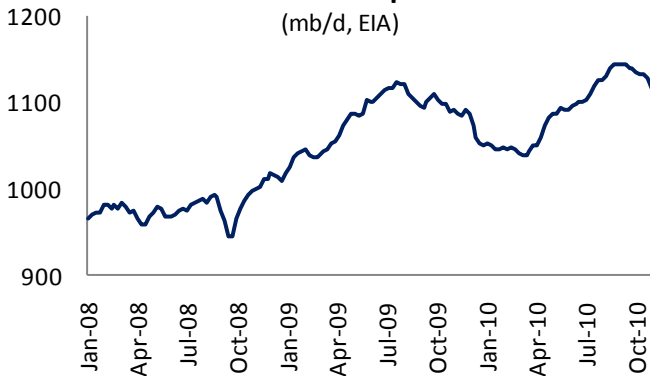
OPEC production of NGLs continues to rise

While OPEC crude is subject to quotas NGL production is not and production has risen sharply in 2010. According to data from PFC, total OPEC NGL output is expected rise by over 0.5 mb/d to average 5.2 mb/d in 2010. Around half this increase reflects the start up of new NGL facilities in Qatar which have raised output by nearly 1 mb/d, and further gains are expected in 2011. After a period of declines, Saudi NGL production is also being ramped up and is expected to recover to 1.5 mb/d this year and to top 1.7 mb/d by 2011.

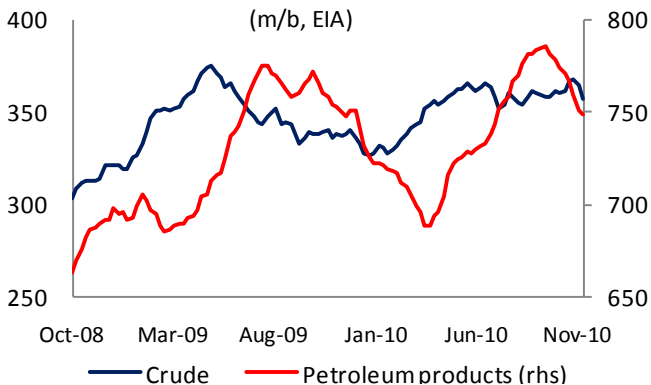
OECD Industry Stocks
(days of forward demand, IEA)



US combined crude & product stocks
(mb/d, EIA)



US Commercial Oil Stocks
(m/b, EIA)



Stocks have not been drawdown as expected

Despite some drawdown of floating product and crude inventory during the year, stock levels remain high. As of mid-November US commercial crude stocks were just 4.5 percent down on their peak in early 2009. US petroleum product stocks have fallen back more substantially in recent months but also remain at historically high levels, and combined crude and product levels are also still close to their peak. The broader OECD industry stock level monitored by the IEA show a similar trend with stock levels of 2750 m/b in September implying forward cover near 60 days, well above the 52 days that OPEC previously sought to maintain before the global crisis, and the second highest level since official statistics began to be reported in 1984. However, there is some regional differentiation with stock levels significantly lower in the OECD pacific region.

Developments in stocks during the fourth quarter of 2010 will be closely watched. There is usually a seasonal drawdown as the northern hemisphere winter raises fuel demand for heating, and markets are likely to take heart at a repeat of this pattern which would support recent price gains. In contrast, should there be a counter seasonal build, pressure would likely mount on prices. In either case the exceptionally high level of global stocks suggests that there will still be a substantial supply overhang as we enter 2011, even with a seasonal drawdown.

Outlook for 2011

Sustained global growth should support additional oil demand

While downside risks remain elevated, the global economic recovery currently underway is expected to continue in 2011. However, we anticipate that the rate of growth will moderate from 4.3 percent this year to 3.9 percent in 2011. Growth in emerging markets will remain robust at around 6 percent, down slightly on 2010 due to the knock on effects of slowing growth in the OECD and raising the need to boost domestic sources of demand. This will be necessary to offset muted household consumption in advanced economies where the pace of recovery is likely to be sluggish with high unemployment posing major social and policy challenges, key amongst which is the need for fiscal consolidation. Sovereign debt issues also remain a concern in peripheral Eurozone countries, with Ireland and Portugal the latest to face rapidly rising borrowing costs.

While the outlook for advanced industrial economies is challenging, including for the US, we continue to believe that the probability of a double dip recession in the States is less than 25 percent. Under such assumptions we believe that oil demand growth in 2011 will be close to the 1.4 percent (1.2mb/d)

World Economic Outlook			
	2009	2010f	2011f
Real GDP growth (percent, annual)			
World	-0.6	4.3	3.9
US	-2.6	2.7	2.2
Japan	-5.2	2.8	1.5
Euro area	-4.1	1.6	1.4
Emerging Markets	2.4	6.3	6.0
Official policy rate (end period)			
US	0.25	0.25	0.75
Japan	0.10	0.10	0.10
Euro area	1.00	1.00	1.50
(\$/b, period average)			
WTI crude oil price	62.0	78.2	82.0

Source: Samba estimates and forecasts

projected by the IEA. With OECD oil demand expected to stagnate, all of the demand growth will again need to come from emerging markets with the bulk accounted for by China and the Middle East (about 0.5 mb/d each). Economic prospects remain favourable in both regions, although markets will be particularly sensitive to developments in China.

Demand growth will not be sufficient to draw stocks without OPEC restraint

In general, for balance to be restored to oil market fundamentals and for stocks to decline substantially then supply growth needs to be less than the expected 1.2 mb/d increase in demand in 2011. This suggests much will depend on developments in non-OPEC supply. If this grows by another 0.9 b/d or so then there will be pressure on OPEC to cut its crude output as its own expected 0.5 mb/d increase in NGL production would (combined with non-OPEC supply) be more than enough to cover the projected increase in oil demand. OPEC will be hoping that after two years of strong gains, non-OPEC supply stalls in 2011.

Most oil institutions and analysts seem to believe this will happen with non-OPEC supply projected to rise between 0.1-0.5 mb/d. However, combined with OPEC's NGL output this still leaves little room for increased OPEC crude production – particularly if the IEA's higher 0.5 mb/d non-OPEC supply growth projection materialises – and the cartel will probably need to act to slow the current pace of output growth during 2011. This need will be accentuated if planned increases in Iraqi production are realised. Delays and disruptions are always possible, but Iraqi production could potentially rise by close to 0.4 mb/d in 2011 and in 2012 according to estimates by PFC.

Prices should average \$82/b in 2011

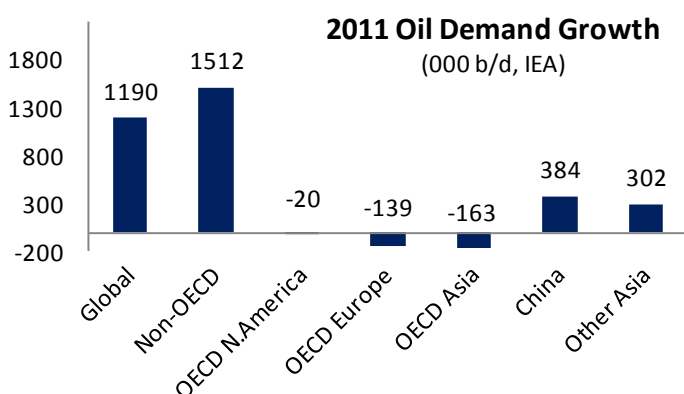
The surge in oil prices to near \$90/b in mid-November was driven primarily by the second round of US quantitative easing (QE2) through which another \$600 billion will be pumped into financial markets in the period to June 2011. Prior to the market's recognition that QE2 was on the way, oil prices had been trading at \$70-75/b, before surging from late September onwards in anticipation of the Fed's November meeting and in line with the weakening US dollar. In our view this has taken prices ahead of where fundamentals would suggest, and markets themselves may also begin to worry that QE has inflated a bubble in commodity prices that cannot be sustained in a slowing growth environment.

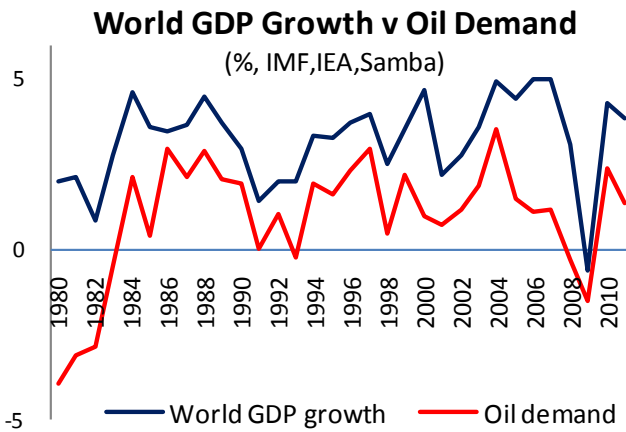
Prices have already fallen back from their highs, and it seems likely there will be some further correction during 2011. We project that oil prices will average \$82/b in 2011. However, we

IEA Global Oil Balance

(million b/d)	2008	2009	2010f	2011f
World Demand	86.0	84.8	86.9	88.2
OECD	47.6	45.5	45.8	45.5
North America	24.2	23.3	23.8	23.7
Europe	15.3	14.5	14.3	14.2
Asia-Pacific	8.1	7.7	7.7	7.5
Rest of World	38.4	39.4	41.2	42.7
World Supply	86.4	85.1	86.9	88.2
Non-OPEC	50.8	51.7	52.6	53.1
OPEC NGLs	4.4	4.8	5.2	5.8
Call on OPEC	30.8	28.5	29.2	29.3

Source: IEA





also see an increased possibility of wide swings of up to \$20/b either side of this level as oil investors react to economic and financial market developments which continue to face many uncertainties.

Our price projections are more than usually subject to both upside and downside risks given the environment of still exceptionally low interest rates, high liquidity, large global imbalances, concerns over exchange rate policies and fragile OECD economies, particularly in the periphery of the Eurozone, countered by strong growth prospects and inflationary pressures in emerging markets. The scope for policy errors in this uncharted environment is large with potential knock on effects for oil prices. However, although global tensions may rise next year, we believe that OPEC will remain a force for stability in the oil market and will look to keep prices in a \$75-85/b range.

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