Global: Energy: Oil - Refining

Equity Research

Closures, project delays, demand outlook to drive upcycle in '12-13E

Mothballing, capacity delays to lead refinery recovery and upcycle over medium term; Asian refiners key beneficiaries of higher cracks

While the market focuses on weak 4QCY11 results of refiners, we believe the global refining cycle is now heading for recovery and upcycle during 2012E-13E driven by 1) major mothballing of refineries in US/ Europe, 2) delays in new projects, 3) oil demand recovery from 2H12E. We also note there is only limited capacity addition after 2Q12E. Overall, global utilisation has moved up for all years: 2012E-14E. We believe the Asian refiners would be key beneficiaries of rising cracks while US/Europe refiners are plays on WTI-LLS and light-heavy oil spreads.

Supply side reaction to weak margins has picked up in US/Europe

We have witnessed announcements of mothballing of about 1.2 mb/d of refining capacity since Sep '11, of which 1.1 mb/d will take place until July 2012. In addition to this, we believe about 2.4 mn b/d of refining capacity in the western hemisphere remains under strategic review. This represents about two years of normalised oil demand growth globally.

Delay in new projects to support refining cycle over medium term

Moreover, we believe delays in new projects have become a central theme in the refining sector driven by delays in logistics, delays in acquiring land, obtaining clearances/permits and some tightness in engineering chain. We find more than half of the 1.5 mb/d likely delays for 2012E are in Asia.

Raise Singapore cracks for 2H12E-2013E, normalised 2014E margin in line with oil forecasts; upgrade Asia refining stance to Attractive

We raise our Singapore cracks forecasts for 2012E-13E by 20% and upgrade our refining sector stance to Attractive from Neutral. China will continue to have tight distillate supply over the medium term, in our view.

S-Oil, Thai Oil, RIL and Western are our favorite refiners

In Asia we upgrade S-Oil to Buy (CL), Thai Oil, RIL and GS Holdings to Buy, Caltex to Neutral; in US, Western Refining (CL), HollyFrontier, and CVR Energy remain our Buy-rated favorites. In Europe, we prefer the oil producers within the refining/integrated sector: RD Shell and BG (both CL Buy). **Key risks**: 1) Demand slowdown from weak macro, 2) oil price spike from low spare capacity in 2013E, 3) supply crunch from Iran tension escalation.

GLOBAL REFINING STOCK COVERAGE SUMMARY

	Rating	Target Price	Potential upside %
Asia Refiners with E&P			
Reliance Industries (Rs)	Buy	970.00	17%
Asia Refiners			
S-Oil (W)	Buy*	170,000.00	41%
SK Innovation (W)	Buy	220,000.00	28%
GS Holdings (W)	Buy	78,000.00	21%
Thai Oil (Bt)	Buy	79.00	23%
Caltex Australia (A$)	Neutral	12.85	0%
Formosa Petrochemical (NT$)	Neutral	85.00	-5%
US Refiners			
Western Refining (US$)	Buy*	21.00	26%
HollyFrontier (US$)	Buy	36.00	18%
CVR Energy (US$)	Buy	25.00	-2%
Sunoco (US$)	Neutral	39.00	2%
Tesoro Petroleum (US$)	Sell	23.00	-7%
Valero Energy (US$)	Sell	21.00	-12%
Europe Refiners			
Motor Oil Hellas (EUR)	Neutral	7.80	33%
ERG (EUR)	Neutral	11.00	28%
Tupras (TL)	Neutral	48.10	14%
MOL (HuF)	Neutral	21,500.00	13%
Hellenic Petroleum (EUR)	Sell	6.40	12%
Saras (EUR)	Sell	1.10	0%
PKN (PLN)	Sell	37.50	-1%
Neste Oil (EUR)	Sell	8.40	-5%

Note: *denotes stock is on our regional Conviction list. Target prices are based on 12-month time horizon
Potential upside based on the close of February 01, 2012

Source: Goldman Sachs Research estimates

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All prices in this report are as of February 1, 2012, unless mentioned otherwise.

Exhibit 1: Goldman Sachs Global Investment Research – Global Oil & Gas team

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Source: Goldman Sachs Research

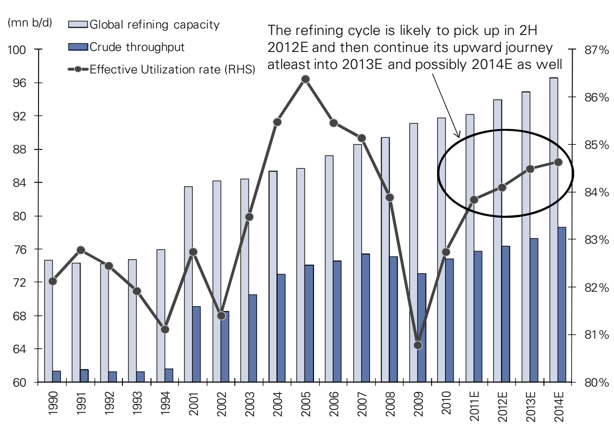
Capacity mothballing, project delays and forecasted demand recovery to drive refining upcycle from 2H12E – 2013E

While the market focuses on weak 4QCY11 results of refiners, we believe the global refining cycle is now heading for recovery and upcycle during 2012E-13E driven by **1)** major mothballing of refineries in US/ Europe, **2)** delays in new projects, **3)** oil demand recovery from 2H12E. We also note there is only limited new refinery capacity addition after 2Q12E this year. Overall, global refinery utilisation rates have moved up for all the years – 2012E-14E – in our updated global refinery supply-demand model.

Apart from the supply side response to weak margins picking up in recent months, we are also witnessing regular delays in new capacities that will help the cycle recover and sustain for medium term, in our view.

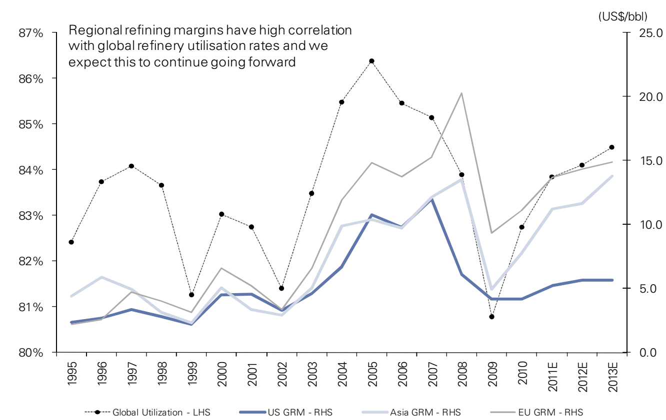
We believe the **Asian refiners would be key beneficiaries of rising cracks primarily** because of stronger Asia demand and lackluster US/Europe demand and **US/Europe refiners are more plays on the WTI-LLS and light-heavy oil price spreads**.

Exhibit 2: Our new demand/supply forecasts imply a refining upcycle during 2012E-2013E
Trend of global refinery utilisation rates



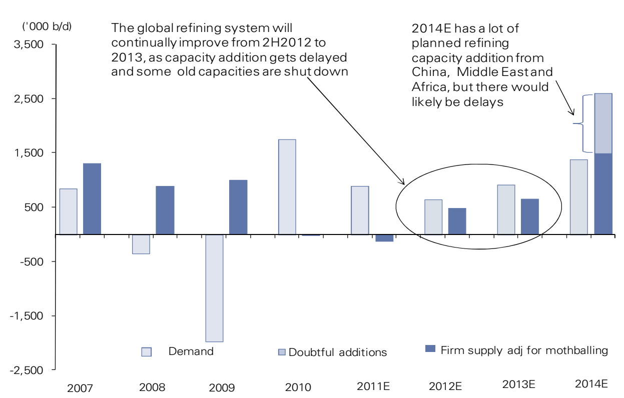
Source: BP Statistical Review, Goldman Sachs Research estimates

Exhibit 3: Historical correlation between utilisation rates and regional margins remains high
Trend of global utilization rate and regional margins



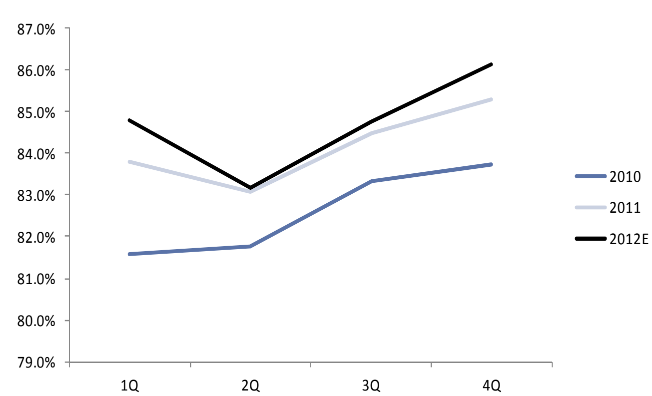
Source: BP Statistical Review, Goldman Sachs Research estimates

Exhibit 4: Refining demand growth will outpace firm capacity addition (with mothballing) for next two years
Global refinery annual supply-demand additions



Source: Reuters, Goldman Sachs Research estimates

Exhibit 5: 2012E quarterly utilisation rates are likely to be better than both 2010 and 2011 levels
Quarterly refining utilization rates



Source: Goldman Sachs Research estimates

In the near term, we expect margins to improve incrementally in 2H 2012E as compared to 1H inline with increase in our quarterly utilization forecasts. We note that global capacity additions remain limited post 961kb/d in 2Q 2012.

Exhibit 6: 2Q 2012E will see most of the refinery capacity additions this year, leading to a relatively better S-D scenario in 2H12E
List of refining capacities ramping up during the four quarters of 2012E globally (K b/d)

Company	Location	b/d	% of 2012 addition
1Q12 CY		**120,000**	**8%**
Repsol YPF SA	Cartagena, Spain	120,000	
2Q12 CY		**961,345**	**67%**
MRPL	Mangalore	106,345	
Essar	Vadinar	80,000	
Hindustan Petroleum Corp Ltd	Bhatinda	180,000	
Motiva Enterprises LLC	Port Arthur, Tex	325,000	
Tatneft	Taneco, Russia	40,000	
Sinopec	Jinling	110,000	
Nagarjuna	Cuddalore	120,000	
3Q12 CY		**260,000**	**18%**
PetroChina	Hohhot, Inner Mongolia	70,000	
PetroChina	Niger	20,000	
Rosneft	Tuapse, Russia	140,000	
A-Oil	Russia	20,000	
Tesoro	Mandan, US	10,000	
4Q12 CY		**87,000**	**6%**
Sinopec	Anqing	70,000	
Marathon	Detroit	15,000	
WNR	Gallup	2,000	
Total		**1,428,345**	

Note: Net capacity addition of 488 K b/d in 2012E would be after adjusting these for mothballing

Source: Company data, Factiva, Reuters, and Goldman Sachs Research estimates]

The **key risks to our positive refining outlook** would be: **1)** Demand slowdown from weak macro, **2)** oil price spike from low spare capacity in 2013E, **3)** supply crunch from Iran tension escalation. Further **refinery project delays would be the key upside risk**.

Asia – Pacific: Improved refining outlook on global mothballing and limited capacity additions in 2012E-13E

In line with the changes in the refinery utilisation rates, we have **raised our product cracks and Singapore complex margin forecasts for 2012E-13E by 20%.**

Exhibit 7: We change crack/margin estimates and now forecast higher distillate cracks in 2012-13E
Asian refining margins and product crack forecasts

(US$/bbl)	2012E		2013E		Normalized	
Refining Margins	**Old**	**New**	**Old**	**New**	**Old**	**New**
Complex	9.8	11.6	11.5	13.8	8.0	8.0
Product crack spreads						
Gasoline	11.5	13.5	12.5	14.5	9.0	9.0
Kerosene	16.8	19.0	19.5	21.5	14.0	14.0
Gasoil	15.3	18.5	18.0	21.0	12.0	12.0
Fuel Oil	-7.9	-4.0	-7.5	-4.0	-5.0	-5.0
Naphtha	0.0	-2.8	0.0	0.5	0.5	0.5

Source: Goldman Sachs Research estimates

While the broad market remains worried about the Dec quarter results, which are likely worse than expected, we believe the outlook 1-2 quarters out is encouraging. With the rising trend of refining margins over the next 2 years, we **upgrade our Asian refinery sector stance to Attractive from Neutral.**

While 1Q-2Q of 2012E is likely to have stable refining margins, **we believe that the real uptick would start from 2H12E** as we move past the majority of capacity additions for the year and oil demand picks up.

Following our upgrade of Singapore complex margins, we have raised 2012E-13E earnings of the Asian refiners under our coverage by an average of 7-8% in 2012-13 and raised their 12-month target prices by an average of 16%.

We have made the following changes:

1) **S-Oil to Buy (Conviction list) from Neutral,**

2) Thai Oil to Buy from Sell

2) GS Holdings to Buy from Neutral,

3) RIL to Buy from Neutral,

4) and Caltex Australia to Neutral from Sell as a result of these changes.

We keep our **Buy rating on SK Innovation and Neutral rating on Formosa Petrochemical**.

Europe: Crude oil price differentials likely to remain the key driver for European refiners in 2012

We note that despite a healthy pick up in global and European refining utilisation rates in 2011, European refiners suffered another year of poor refining margins and low profitability. In fact due to refinery closures in Europe, refined product prices slightly improved relative to their global peers. However the shut in of Libyan production and subsequent impact on crude differentials had a far more material negative impact on profitability for the EU refiners. Indeed the scarcity of suitable crude supplies to offset the dramatic shortfall of Libyan production drove premiums for European light sweet crudes to record highs.

We believe this **theme of crude differentials driving profitability is likely to continue in 2012.** The return of Libyan volumes will benefit EU refiners, particularly those in the Med, with lower crude premiums. This however will at least partially be offset by EU embargoes on Iranian crude, another important source of EU crude imports. The knock on impact on Ural/Brent spreads as **refiners look to source Russian crude to replace Iranian crude could have a material negative impact on the complex East European refiners**.

While the recent refining closures in Europe and the US have helped to balance the market and have driven a temporary recovery in margins YTD from a weak 4Q, we note that there remains ample spare capacity in Europe, and global oil demand coming through as we expect in 2012/13 and no further non-OPEC crude supply disappointments would be needed to have a recovery in EU margins from 2H12. While **this is an upside risk to our view**, we believe with the relatively high uncertainty on economic growth and oil demand in Europe, it is unlikely the market will price in a sustainable margin recovery for the EU refiners until firm evidence of recovering oil demand supports it.

In our view crude differentials will therefore remain the key theme of 2012 for the EU refiners, with Ural/Brent spreads likely to narrow as demand picks up to offset EU Iranian embargoes. **Sell rated Neste Oil, PKN and Saras are most exposed of the EU refiners to tightening Ural/Brent spreads**. Tupras (Neutral) is most likely to benefit relative to its refining peers with easy access to Saudi/Iraqi crudes and critically no sanctions on buying cheap Iranian crude, which accounts for over 50% of Tupras' crude slate. Overall however **we continue to prefer exposure to the oil producers within the refining/integrated sector in Europe and RDShell (CL Buy) and BG (CL Buy, Last Close:1,425.00p) remain our top picks.**

US: Margin outlook improved following capacity reductions, but crude oil access still the more important investment consideration

Recent indications of refinery closures in the Atlantic region of the US and Europe have helped lift benchmark US product crack spreads from the low levels seen in 4Q2011. We think the reduced supply announced to date and potential for **further rationalizations of disadvantaged capacity under strategic review has improved the outlook for all US refiners following a rough patch in 4Q2011.**

That said, relative to the markedly more robust growth outlook for areas like non-OECD Asia, **oil demand in the US and Europe remains more of a headwind than a tailwind** (the primary reason our regional benchmark margin forecasts are unchanged). Signs of economic vitality in the US and Europe, we think, are still key to determining whether regional refining margins can take a sustainable leg higher. With **an increasingly supportive supply outlook**, however, the bar for improvements in regional demand now appears to be set lower.

Notwithstanding **the potential for broad-based margin upside, we see regional crude oil sourcing and product pricing advantages as likely to remain the more important investment consideration for the US refiners**. The path toward, and level of, "normalized" discounts for WTI-referenced crude oils we believe will be pivotal in determining US refining profitability and driving share price performance going forward. Overall, we continue to prefer exposure to Mid-Continent over diversified "coastal" peers given (1) sustainable competitive crude oil sourcing advantages (which we quantify as our $4/bbl "normalized" Louisiana Light Sweet (LLS)-West Texas Intermediate (WTI) spread, which is equivalent to $2/bbl for Brent-WTI), (2) niche refined product market exposure, and (3) commensurately superior free cash flow generation vis-à-vis other refining regions and energy sub-sectors, even under narrower LLS-WTI spreads.

Western Refining (CL), HollyFrontier, and CVR Energy remain our Buy-rated favorites for exposure, with Marathon Petroleum (Neutral) also screening attractively. **We maintain our relative-to-the-sector Sell ratings on more diversified, "coastal" peers, Valero and Tesoro,** given each company's relatively lower exposure to favorable Mid-Continent refining fundamentals.

Supply side reaction getting more pronounced on western front

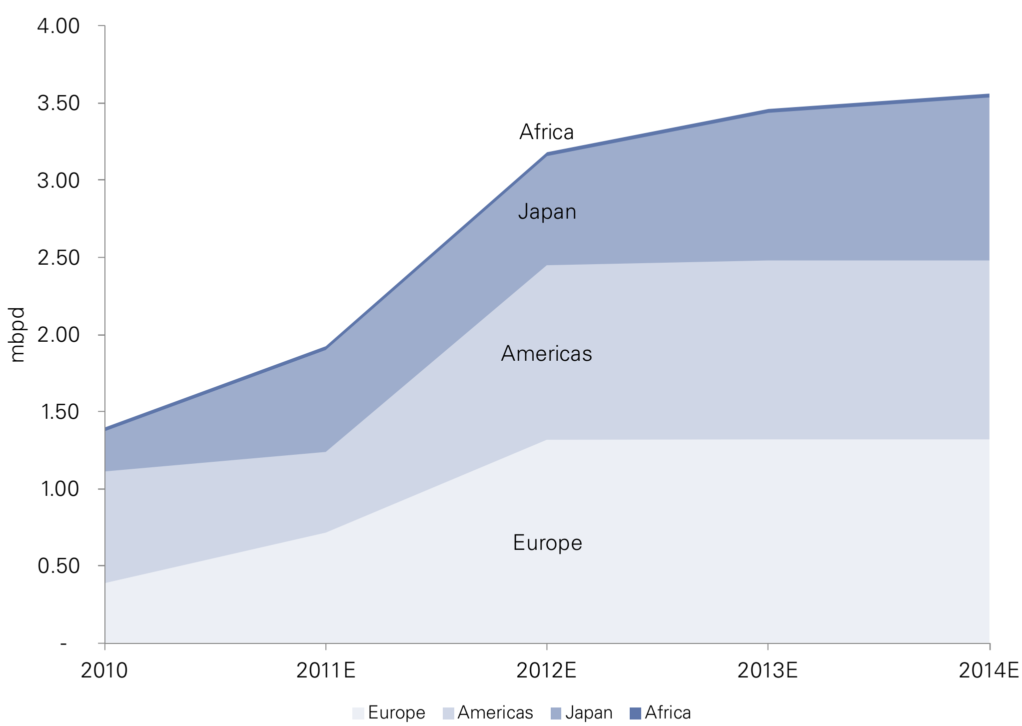
We have witnessed announcement of mothballing of about 1.2mb/d of refining capacity since October 2011, of which 1.1m b/d will take place between now and July 2012. We believe **another weak refining quarter in 4Q2011 along with weak WTI-LLS spread in the US and balance sheet issues with a European refiner** have hastened this decision.

Exhibit 8: Recent mothballing announcement should support the cycle to start recovering
Announced mothballing since Sep'11

Idled since	Company	Location	Capacity (b/d)
Europe			
Nov'11	ENI	Venice, Italy	80,000
Jan'12	Petroplus	Petit Couronne, France	161,800
Jan'12	Petroplus	Antwerp, Belgium	107,500
Jan'12	Petroplus	Cressier, Switzerland	68,000
Americas			
Oct' 11	Conoco	Trainer, PA	185,000
Nov'11	Sunoco	Marcus Hook, PA	178,000
Jan'12	Hess	Hovensa	350,000
Asia			
Mid-2013	Shell	Clyde, Australia	79,000
Total anounced			1,209,300
Between Oct 2011 and July 2012			1,130,300

Source: Company data

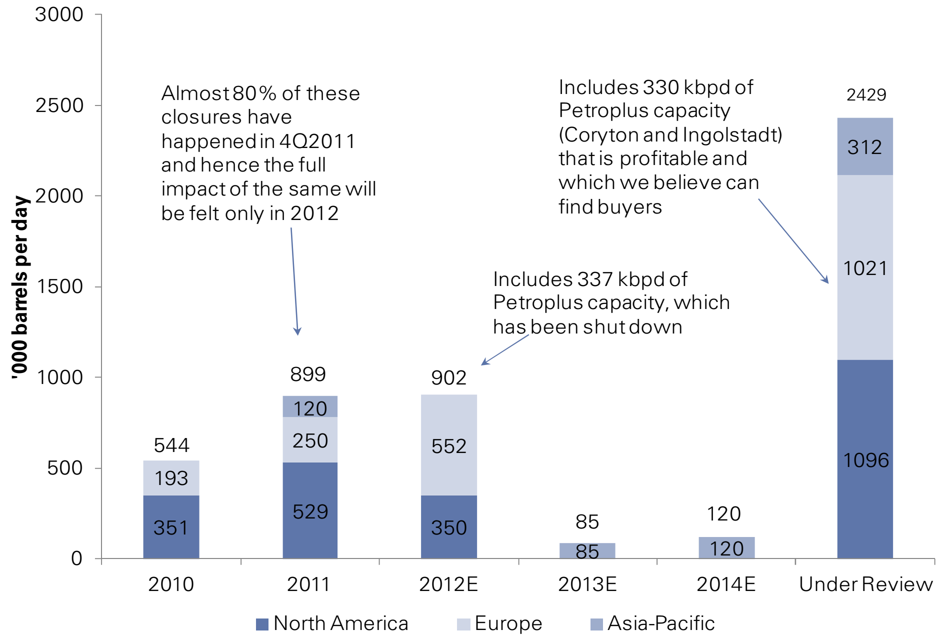
Exhibit 9: We expect an increase in the mothballing of capacities over the next two years
Trend of mothballed capacities globally



Source: Company data, Factiva, Goldman Sachs Research estimates

In addition to this, we believe **about 2.4 mn b/d of refining capacity** in the western hemisphere remains under strategic review. The shut-down capacities represent about **two years of normalised oil demand growth globally**. We believe this is likely to play a meaningful role in the recovery of the refining cycle from 2H12E onwards

Exhibit 10: 2.1 mn b/d of additional OECD refining capacities remain under strategic review and these should mostly shut down in the absence of buyers
Global refining capacity closures('000 b/d)

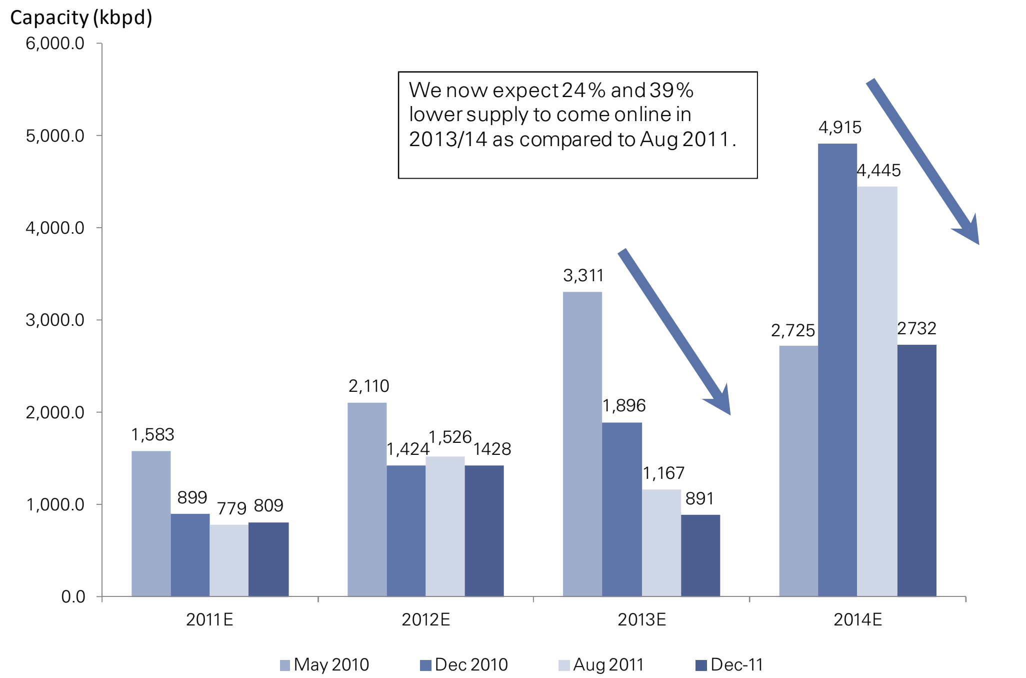


Source: Company data, Goldman Sachs Research

Delay in capacity to support the refining cycle at least till 2013E

We believe delays in new projects have become a central theme in the refining sector driven by **delays in logistics, delays in acquiring land, obtaining clearances/permits and some tightness in the engineering chain**. This is effectively pushing the current cycle to at least 2013E, in our view.

Exhibit 11: We believe delays in new refining capacities are largely driven by weakness in demand along with logistics challenges across the globe
Trend in global refining capacity expectations

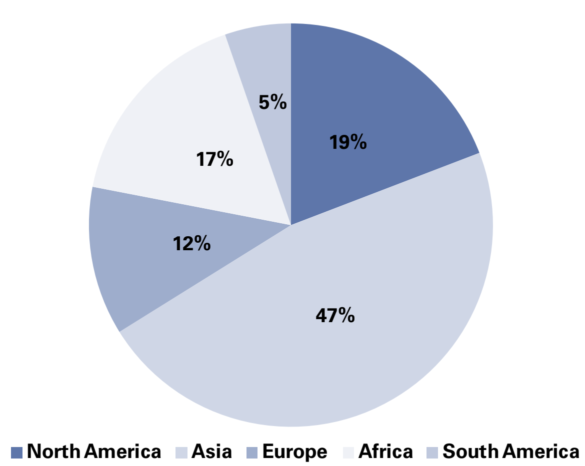


Note: Adding delays of about 0.8mn b/d carried over from 2011, we will get 1.5mn b/d of likely capacity delays for 2012E

Source: Goldman Sachs Research estimates

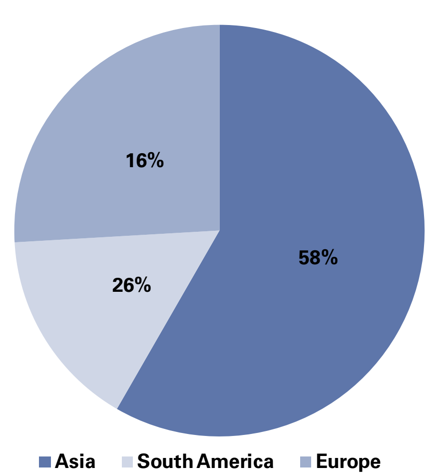
Additionally, we find more than half of 1.5 mb/d of likely capacity delays for 2012E are in Asia owing to logistics, delays in acquiring land, obtaining clearances/permits and some tightness in the engineering chain.

Exhibit 12: Majority of delays in 2011 capacity additions came from Asia primarily in China and India…
Capacity delay by region - 2011



Source: Goldman Sachs Research estimates

Exhibit 13: …and that could possibly continue into 2012E
Capacity delay by region – 2012E

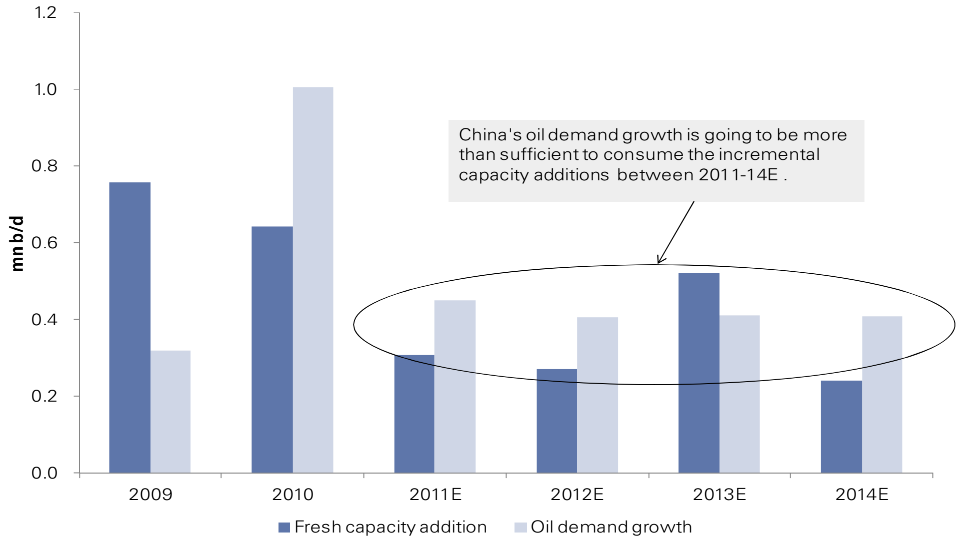


Source: Goldman Sachs Research estimates

Chinese oil demand growth likely to remain strong and support distillate cracks in the medium term

We estimate that despite the regular refinery capacity additions in China, oil demand growth in the country will continue to outstrip incremental product supply growth, thereby keeping the domestic demand-supply balance on the edge, particularly for distillates.

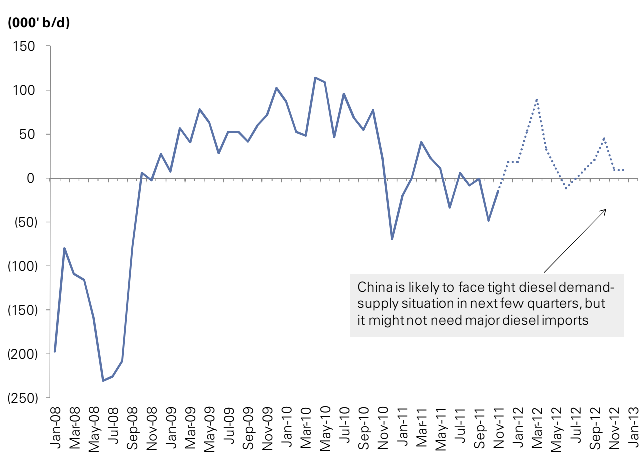
Exhibit 14: Oil demand growth in China likely to be more than sufficient to meet refinery capacity additions over the medium term, in our view



Source: BP Statistical Review of World Energy, Goldman Sachs Research estimates

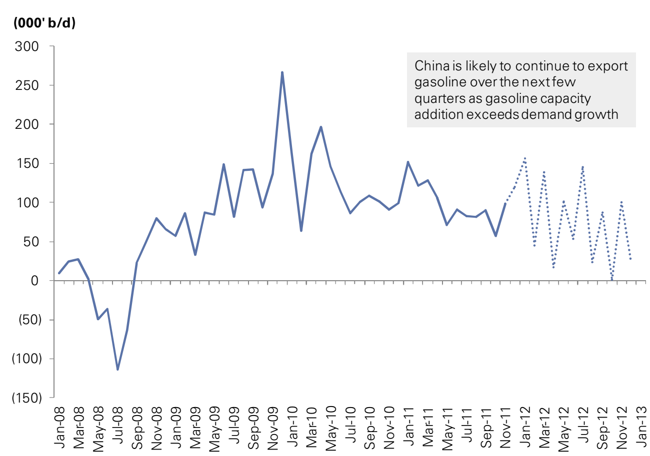
In fact, we estimate **China to be a net importer of diesel every once in a while, lending support to regional cracks**. However, the outlook for gasoline is less robust given that China will likely be an exporter of the product in the foreseeable future.

Exhibit 15: China will face tight diesel demand-supply situation leading to occasional diesel imports
China's net import and export of diesel



Source: Company data, Factiva, Goldman Sachs Research estimates

Exhibit 16: China will continue to export gasoline in the foreseeable future despite demand growth
China's net import and export of gasoline

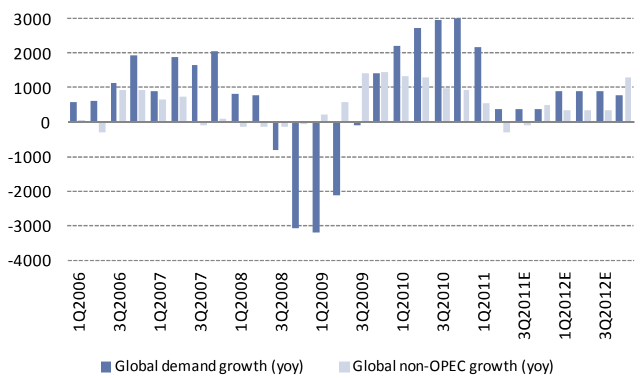


Source: Company data, Factiva, Goldman Sachs Research estimates

Key risks: Demand slowdown from weak macro, oil price spike from low spare capacity in 2013E, supply crunch from Iran conflict

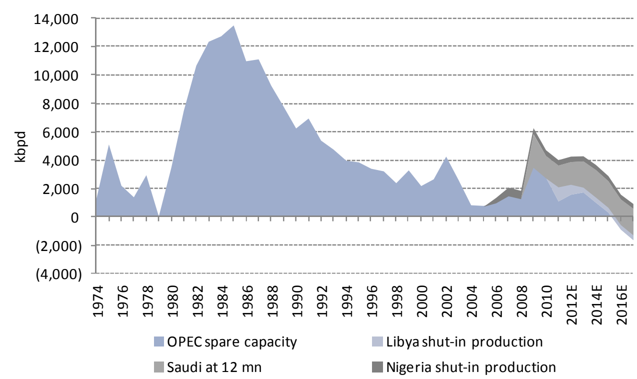
We believe continued disappointment in non-OPEC oil supply growth and robust oil demand growth could pose a risk of earlier than expected deterioration of OPEC spare capacity in 2013E, leading to a spike in crude oil prices. **An oil price spike above the "demand rationing" range of US$135+/bbl** would likely result in destruction of refined products demand and hence put pressure on refining margin, in our view.

Exhibit 17: Continued delays in non-OPEC supply could further increase S-D gap …
Global oil demand and non-OPEC supply growth (kbls/d)]



Source: Goldman Sachs Research estimates

Exhibit 18: … resulting in earlier than expected deterioration of OPEC spare capacity in 2013-14
Trend in OPEC spare capacity



Source: Goldman Sachs Research estimates

Additionally, global macro uncertainties in OECD pose a risk to lower than expected growth in global GDP resulting in lower than expected oil demand growth in 2012/13E.

Exhibit 19: Our sensitivity analysis of global GDP and oil demand indicates negative incremental demand below global GDP growth of 2.5%
Global oil demand sensitivity to GDP growth

2012E global oil demand growth scenarios (in thousands of b/d)

Efficiency gains (% improvement in bbls/GDP)	Global GDP growth	0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%
	1.0%	(891)	(450)	(9)	432	873	1,314	1,755	2,196	2,637
	1.5%	(1,336)	(897)	(459)	(20)	419	857	1,296	1,735	2,174
	2.0%	(1,782)	(1,345)	(909)	(472)	(36)	401	837	1,274	1,710
	2.5%	(2,227)	(1,793)	(1,358)	(924)	(490)	(56)	379	813	1,247
	3.0%	(2,672)	(2,240)	(1,808)	(1,376)	(944)	(512)	(80)	352	784
	3.5%	(3,118)	(2,688)	(2,258)	(1,828)	(1,399)	(969)	(539)	(109)	321

Key assumptions	
Current GS base -case 2012E global oil demand growth (thou. b/d)	862
Base-case 2012E non-OPEC oil + OPEC NGLs supply growth (thou. b/d)	872
Current GS base-case global GDP growth (2012E % yoy)	3.2%
Current GS base-case efficiency gain (2012E % yoy)	2.2%

Source: Goldman Sachs Research estimates

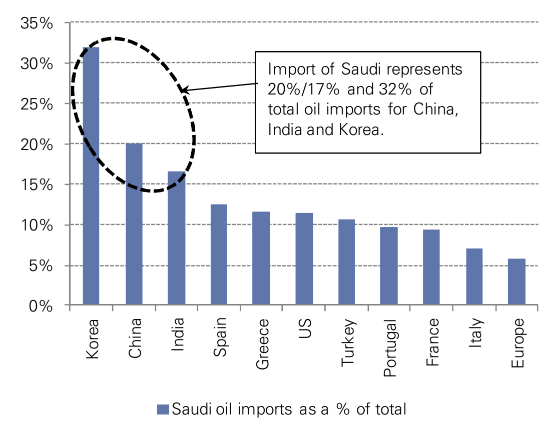
In addition to the fundamental demand-supply scenarios in the oil market, we see **risks around escalation of the tension between Iran and western powers**. While a European ban on Iran oil imports could be positive for some Asian refiners in the near term, a rise in cost of Saudi oil from higher demand would offset the benefit in our view. However if the tension escalates and Iran block the Strait of Hormuz , this would result in large oil supply tightness and a sharp rise in oil prices beyond demand destruction range posing a risk to refining margins across the globe. Note that, according to the US DOE, almost 17 million b/d of oil passed though the strait in 2011, roughly 35% of all seaborne crude. 75% of all the oil shipments through the Strait of Hormuz go to Asian markets.

Exhibit 20: Loss of 450 kb/d EU imports would result in higher flows of cheaper Iran crude into Asia
Average imports of Iranian crude, January – June 2011

	% of Iran's exports	Total volume of crude imported from Iran, thousand b/d	Iran as % of total crude imported
European Union	18	450	
- Italy	7	183	13
- Spain	6	137	13
- France	2	49	4
- Greece	1	20	14
- Germany	1	17	1
- UK	0	11	1
- Netherlands	1	33	2
Japan	14	341	10
India	13	328	11
South Korea	10	244	10
Turkey	7	182	51
South Africa	4	98	25
Sri Lanka	2	39	100
Taiwan	1	33	4
China	22	543	11
Total	**91**	**2258**	

Source: Global Trade Atlas, APEX, EIA, Goldman Sachs Global ECS Research

Exhibit 21: However higher demand/cost for Saudi crude would offset the benefit to a large extent
Saudi crude oil import as a % of total

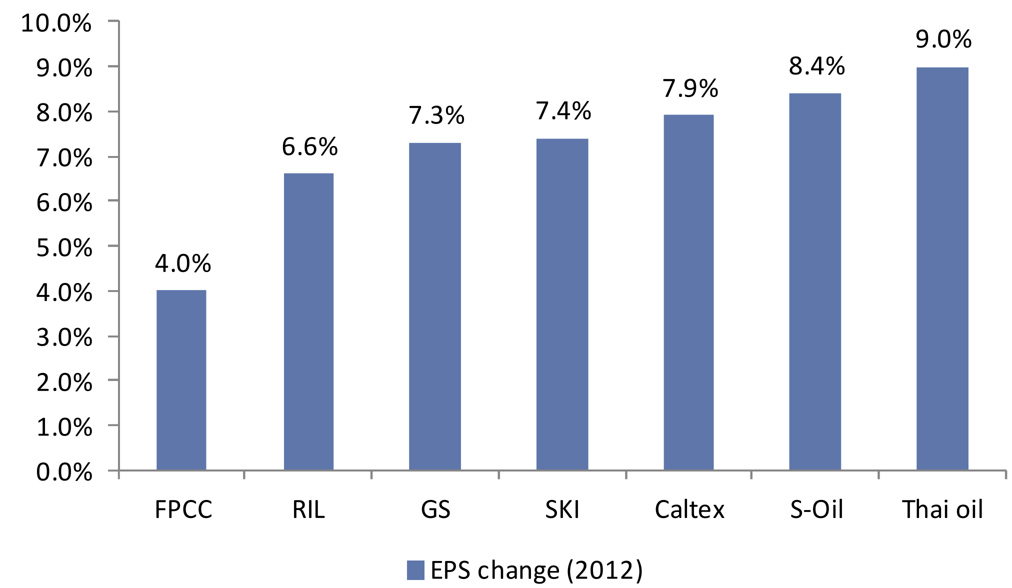


Source: IEA, Infraline, Reuters and Goldman Sachs research estimates

Key changes in our view: Upgrade S-Oil to Buy (add to CL), raise RIL, Thai Oil, GS Holdings to Buy and Caltex Australia to Neutral

Given our positive medium term outlook for the refining cycle, we believe that investors can take advantage of investment opportunities within the Asian refining sector based on: **(1)** earnings leverage to refining margins or **(2)** quality of the asset in terms of cost efficiency and exposure to light-heavy oil price differential or **(3)** any capacity expansion coming on stream in an environment of robust refining margins.

Exhibit 22: Earnings sensitivity to GRM remains high for Thai oil and Korean refiners
Earnings sensitivity to 10% GRM change



Source: Goldman Sachs Research estimates

Along with **higher than consensus earnings** for the refiners, we believe possible **extension of the cycle into 2014E could also likely lead to higher 2012E multiples** for the stocks.

Exhibit 23: Our estimates are 8-19% above consensus for 2012-13 for Asian refiners
Summary of GS vs. Consensus estimates

		Net income (New)			Net income (Consensus)			GS vs. Consensus		
Companies (reporting curr. mn)	**Ticker**	**2011E**	**2012E**	**2013E**	**2011E**	**2012E**	**2013E**	**2011E**	**2012E**	**2013E**
Asia Refiners with E&P										
Reliance Industries (Rs) (a)	RELI.BO	213,929	248,826	287,734	212,193	225,684	244,896	1%	10%	17%
Asia Refiners										
S-Oil (W)	010950.KS	1,212,067	1,687,091	1,881,933	1,274,559	1,501,712	1,529,056	-5%	12%	23%
SK Innovation (W)	096770.KS	3,308,818	2,281,350	2,776,331	3,359,720	2,212,857	2,457,956	-2%	3%	13%
GS Holdings (W)	078930.KS	966,295	976,062	1,148,824	916,214	921,694	971,213	5%	6%	18%
Thai Oil (Bt)	TOP.BK	16,951	14,383	18,316	15,299	14,430	15,056	11%	0%	22%
Formosa Petrochemical (NT$)	6505.TW	21,835	42,909	52,372	29,847	37,238	44,016	-27%	15%	19%
Caltex Australia (A$)	CTX.AX	267	331	460	259	311	373	3%	6%	23%
Average (ex Indian OMC)								**-2%**	**8%**	**19%**

(a) For fiscal year ending following March (i.e., FY2012E appears as 2011E).

Source: Datastream, Bloomberg Consensus, Goldman Sachs Research estimates

We upgrade S-Oil to Buy (on Conviction List) from Neutral, RIL and GS Holdings to **Buy from Neutral and Thai Oil to Buy from Sell.** We raise **Caltex Australia to Neutral from Sell and** retain our Buy rating on SK Innovation**.**

Exhibit 24: Summary of our ratings and 12-month price targets for refinery stocks under our Asian coverage
As of February 01, 2012

	Ticker	1-Feb-12 price	Rating (Previous)	Rating	TP (Previous)	Target Price (New)	Potential upside %	Valuation Methodology	Target Price Change
Asia Refiners with E&P									
Reliance Industries (Rs) (a)	RELI.BO	830.30	Neutral	**Buy**	960.00	**970.00**	**17%**	SOTP	1.0%
Asia Refiners									
S-Oil (W)	010950.KS	120,500.00	Neutral	**Buy***	140,000.00	**170,000.00**	**41%**	SOTP	21.4%
SK Innovation (W)	096770.KS	172,000.00	Buy	**Buy**	220,000.00	**220,000.00**	**28%**	SOTP	0.0%
GS Holdings (W)	078930.KS	64,300.00	Neutral	**Buy**	73,000.00	**78,000.00**	**21%**	SOTP	6.8%
Thai Oil (Bt)	TOP.BK	64.00	Sell	**Buy**	47.00	**79.00**	**23%**	EV/EBITDA	68.1%
Caltex Australia (A$)	CTX.AX	12.88	Sell	**Neutral**	11.25	**12.85**	**0%**	P/E multiple	14.2%
Formosa Petrochemical (NT$)	6505.TW	89.90	Neutral	**Neutral**	87.00	**85.00**	**-5%**	P/B and ROE	(2.3%)
Average							**18%**		**15.6%**

Source: Datastream, Goldman Sachs Research estimates

Exhibit 25: We raise our EPS estimates by 7-8% for 2012-13 based on our higher Singapore refining margin forecast
Summary of old vs. new EPS estimates

		EPS (New)			EPS (Previous)			Estimate changes		
Companies (reporting curr. mn)	**Ticker**	**2011E**	**2012E**	**2013E**	**2011E**	**2012E**	**2013E**	**2011E**	**2012E**	**2013E**
Asia Refiners with E&P										
Reliance Industries (Rs) (a)	RELI.BO	65.41	76.09	87.98	70.08	69.68	77.92	-7%	9%	13%
Asia Refiners										
S-Oil (W)	010950.KS	10,766.01	14,985.34	16,716.00	13,186.58	13,628.34	14,959.32	-18%	10%	12%
SK Innovation (W)	096770.KS	35,784.33	24,672.43	30,025.57	38,643.94	25,209.84	31,650.23	-7%	-2%	-5%
GS Holdings (W)	078930.KS	10,399.73	10,504.84	12,364.20	9,612.46	9,806.58	10,752.72	8%	7%	15%
Thai Oil (Bt)	TOP.BK	8.31	7.05	8.98	8.30	5.27	7.24	0%	34%	24%
Formosa Petrochemical (NT$)	6505.TW	2.29	4.50	5.50	4.00	5.56	6.17	-43%	-19%	-11%
Caltex Australia (A$)	CTX.AX	0.99	1.23	1.71	0.99	1.13	1.57	0%	9%	9%
Average								**-10%**	**7%**	**8%**

(a) For fiscal year ending following March (i.e., FY2012E appears as 2011E).

Source: Datastream, Goldman Sachs Research estimates

Top ideas: We prefer S-Oil, GS Holdings, RIL and Thai Oil; upgrade Caltex Australia to Neutral

S-Oil (010950.KS, Buy (add to Conviction list, 12-month price target W170,000)

Investment View: We upgrade S-Oil to Buy and add it to the Conviction list with revised 12-m SOTP target price of W170,000 (41% upside). We also revise our 11E/12E/13E EPS estimates by -18%/10%/12% to reflect our upwardly revised Asian refining margins for these years as well as the regional chemical margins deck. We like S-Oil based on the following: a) strong earnings momentum of 35% yoy in 2012E on sector outlook, noting S-Oil is one of the key beneficiaries of refining margin strength, b) outlook on P-X to remain relatively solid among regional chemical products, c) strongest dividend play in the Korea energy, chemicals space, with interim dividend likely to pay out at end-2Q, d) least exposure to potential risks relating to pending oil embargo, and local government risk on domestic prices given small domestic gasoline market share exposure. Furthermore, shares are currently trading at attractive levels, at 2.3X 2012E P/B vs. ROE of 32% and 2012E EV/EBITDA of 6X.

Valuation: We revise our 12-month SOTP target price to W170,000 (from W140,000, implying 41% upside) reflecting our revised refining margin outlook as well as relevant chemical products prices.

Key Risks: Global oil demand, downside to product spreads and potential cash misuse.

Please refer to *S-Oil Corp. (010950.KS) Buy: Beneficiary of refining margin strength, upgrade to Buy (CL)*, *Feb 06, 2011.*

Reliance Industries (RELI.BO, Buy, 12-month price target Rs 970)

Investment view: We upgrade Reliance Industries (RIL) to Buy from Neutral as we believe that an upcycle in refining will lift margins and is likely to drive an earnings surprise for RIL over the medium term, by offsetting lackluster E&P performance. We now forecast the refining cycle to be robust over 2HCY12E-CY13E driven by significant closures in US/Europe, delays in new projects and recovering oil demand. While D-6 ramp-up is unlikely till FY15E, we believe there could be positive updates from RIL's shale and broadband ventures in FY13E. Moreover, any update on value-accretive inorganic growth in existing lines of business could re-rate RIL stock, in our view.

Valuation: We revise our 12-m, SOTP based, TP to Rs 970 (from Rs 960) implying an upside of 17%. We raise FY13E-14E EPS by 9-13% to reflect higher margins and weaker INR-USD.

Key risks: 1) Low refining margin; 2) weak petchem margin; 3) expensive acquisitions.

Please refer to *Reliance Industries (RELI.BO) Buy: Refining upcycle to beat weak E&P, optionality of cash; raise to Buy*, *Feb 06, 2011.*

Thai Oil (TOP.BK, Buy, 12-month price target Bt 79)

Investment view: We have turned more positive on the outlook for refining margins, and Thai Oil is a prime beneficiary. We estimate every 10% increase in Singapore complex GRM could boost 2012E earnings by 23% (10% increase in achieved margins would boost earnings by 9%). Since Feb 2011, Thai Oil has benefitted from a partial float of LPG prices. If LPG is fully deregulated, we estimate a further 10% increase to 2012E earnings.

Valuation: Given the more positive outlook for refining (a multi-year upcycle), we are also raising our target EV/EBITDA multiple to 7X (mid-way between mid-cycle and peak) from prior 5.5X (midcycle), which we believe is appropriate given the stronger 2013E outlook (27% earnings growth). Our new 12-month target price is Bt 79 (prior Bt47), which implies 2013E EV/EBITDA of 6X, in line with mid-cycle. We upgrade to Buy (prior Sell).

Key risks: Lower than expected GRMs.

Please refer to *Thai Oil (TOP.BK) Buy: Highly leveraged to rising GRMs; raising EPS/TP, upgrade to Buy*, *Feb 06, 2011.*

SK Innovation (096770.KS, Buy, 12-month price target W220,000)

Investment View: We maintain our Buy rating on SK Innovation and our 12-m SOTP based target price of W220,000 implying upside potential of 28% from the current level. We also revise our EPS estimates by -7%/-2%/-5% or 11E/12E/13E after reflecting the latest Asian refining margin outlook as well as changes in key chemical products (ethylene, para-xylene etc). Our key investment thesis remains the following: a) favorable positioning with diversified earnings portfolio: a) TAC film/FCCL likely to start commercialization during 1H12, b) more progress on investments in E&P asset portfolio from use of last year's disposal proceeds, c) ongoing developments on the automobile rechargeable battery front, d) SK Innovation, with its ongoing investments in the E&P portfolio, also benefits from the higher oil price environment, which our GS ECS team expects to further tighten going into 2012E with $120/bbl (average), and e) one of the beneficiaries of our upgraded outlook on the regional Asia refining margins.

Valuation: We maintain our 12-m SOTP based target price of W220,000 (28% upside)

Key Risks: Global oil demand, downside to product spreads and potential cash misuse.

Formosa Petrochemical (6505.TW, Neutral, 12-month price target NT$85)

Investment View: We expect 97% yoy earnings growth for FPCC in 2012 due to 1) Capacity fully resumed at both its refineries and cracking units versus the major shut down in 2011, 2) The significant loss in 2H11 (NT$5bn) offers a low base for 2012, 3) Refinery sector which accounts for 70% of FPCC's 2012E revenue should see robust margin growth through 2012-2014 on further project delays. Our regional refining team expects Singapore complex refining margin to increase sequentially to US$15/bbl in 2014 from US$11.2/bbl in 2011, 4) Petrochemical sector which accounts for 25% of FPCC's 2012E revenues might see some headwinds giving the lackluster demand outlook and weak product margins.

Despite strong earnings growth, we think FPCC's valuation is not compelling versus regional refiners. FPCC's now trading at 3.4X 2012E P/B versus Asia refinery peers on 1.2X 2012E P/B.

Valuation: We maintain our Neutral rating on FPCC and revise down our 2011E/2012E/2013E EPS forecasts by 43%/19%/11% on the back of disappointing 4Q11 results and our cautious view on FPCC's cracking outlook. On the back of this, we also trim our 12-month P/B-ROE-based target price to NT$85 from NT$87 (-2%).

Key Risks: Upside risk: Better-than-expected petrochemical product demand; Downside risk: 1) Slower–than-anticipated expected capacity resumptions, and 2) Further industrial accidents at its plants.

Caltex Australia (CTX.AX, Neutral):

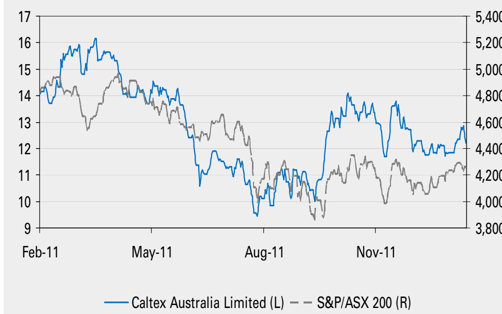
What happened

We remove Caltex Australia from the Sell list, and upgrade our 12-month price target (based on forward 10.5x PE) by 14% to A$12.85 (from A$11.25), reflecting our stronger '12E/'13E refining margin outlook. Since we added CTX to the Sell list on Jan 16 the shares are up 0.7% (on an improving US economic and regional refining margin outlook), compared with ASX200 down 6.2% (CTX has underperformed our Australian Energy coverage by 5.2% in this time). (Over 12 months -13.7%, vs. index -12.6%). Our new price target implies a total return of 6.5% (including dividends). We revise EPS estimates by +0.2%/+8.6%/+8.9% for 11E/12E/13E (refining margin upgrades, partially offset by wider light-heavy oil spreads).

Key data				Current
Price (A$)				12.21
12 month price target (A$)				12.85
Market cap (A$ mn)				3,296.7

	12/10	12/11E	12/12E	12/13E
NPAT preNRIs (A$ mn)	317.6	267.0	331.0	460.4
EPS adj (A¢) New	**117.6**	**98.9**	**122.6**	**170.5**
EPS revision (%)	0.0	0.2	8.6	8.9
EPS growth (%)	(2.1)	(15.9)	23.9	39.1
PER (X)	10.4	12.3	10.0	7.2
DPS (A¢)	60.0	39.0	45.0	72.0
Dividend yield (%)	4.9	3.2	3.7	5.9
Frank/Imput (%)	100.0	100.0	100.0	100.0
P/FCFPS (X)	44.1	16.8	11.5	7.7
EV/EBITDA (X)	5.4	5.8	4.8	3.6
P/BV (X)	1.1	1.0	0.9	0.8
Debt/equity (%)	17.7	14.4	8.5	0.7

Price performance chart



Share price performance (%)	3 month	6 month	12 month
Absolute	(6.4)	18.5	(13.2)
Rel. to S&P/ASX 200	(8.2)	20.8	(1.6)

Source: Company data, Goldman Sachs Research estimates, FactSet. Price as of 2/03/2012 close.

Current view

We retain our cautious fundamental view on Caltex Australia– we continue to believe its refineries are high cost and lack the flexibility to compete with large, complex Asian mega-refineries in the medium term (even given Australia's import dependence), and that while Caltex's marketing business is strong, there are major fundamental inter-dependencies between the two businesses (ie. marketing profitability would deteriorate without local Australian refining operations in our view).

However, with refining margins cyclically strengthening following the global industry's accelerated supply response to depressed margins in recent months, we now forecast earnings 6% above Bloomberg consensus for Caltex in 2012E. We also expect in the event of short term strength, the urgency around Caltex's refinery review may ease and outlook comments could become more upbeat. If so, investors may find a better level to reduce exposure to the stock in the coming quarters. Recent additional strength in the AUD/USD rate is notable, and does pose a major headwind to Caltex's refining earnings (even in the event of stronger US$ refining margins).

Key Risks

Upside (1) Strengthening of Asian refining cracks - particularly leading into the US driving season in 2Q, (2) Lower AUD/USD rate; (3) Improved economic growth & oil demand outlook, (4) Success in achieving long-term production distribution agreement with Chevron or another Asian refiner (which would allow for Caltex to begin to reduce refining exposure). Downside: Lower refining margins, lower oil demand, higher AUD/USD rate.

Caltex Australia: Summary Financials

Profit & Loss (A$ mn)		12/10	12/11E	12/12E	12/13E
Net Sales		13,780.5	18,154.2	20,580.3	23,741.0
Operating EBITDA		**708.9**	**651.4**	**743.9**	**920.6**
D & A (excl. G/Will)		208.9	219.4	226.7	232.5
Operating EBITA		**500.0**	**432.0**	**517.2**	**688.1**
GW/Contract Intangible Amortisation		0.0	0.0	0.0	0.0
Other (Non Operating Inc.)		0.0	0.0	0.0	0.0
EBIT		500.0	432.0	517.2	688.1
Net Interest Exp./(Rev)		57.4	52.6	46.4	32.5
PreTax Profit (pre NRI's)		**442.6**	**379.4**	**470.7**	**655.6**
Tax Expense (pre NRI's)		134.4	142.7	142.3	197.7
Assoc./ JV NPAT		3.5	3.5	3.5	3.5
Minorities (after Tax)		1.0	1.0	1.0	1.0
Pref. Dividends		0.0	0.0	0.0	0.0
Other Adj		6.3	111.2	5.0	110.8
Reported NPAT (Pre NRI) [(1)]		**317.0**	**350.3**	**336.0**	**571.1**
Non Recurring Items (after Tax)		(0.7)	83.3	5.0	110.8
Reported NPAT (post NRI's)		316.3	350.3	341.0	681.9
Reported EPS		117.4	129.8	124.4	211.5
GS Adjustments:					
Reported NPAT (Pre NRI's)		310.7	239.2	331.0	460.4
Gain/loss on crude inventory		22.0	211.9	7.2	158.3
RCOP after tax [(2)]		**317.6**	**267.0**	**331.0**	**460.4**
RCOP after tax EPS		117.6	98.9	122.6	170.5
Sales Growth	(%)	6.0%	31.7%	13.4%	15.4%
Op. EBITDA Growth	(%)	3.4%	-8.1%	14.2%	23.8%
NPAT (Adj.) Growth	(%)	-2.0%	-15.9%	23.9%	39.1%
EPS (Adj.) Growth	**(%)**	-2.1%	-15.9%	23.9%	39.1%
Op. EBITDA Margin	(%)	5.1%	3.6%	3.6%	3.9%
Op. EBITA Margin	(%)	3.6%	2.4%	2.5%	2.9%
D&A / Sales	(%)	1.5%	1.2%	1.1%	1.0%
Interest Cover - EBIT	**(X)**	**8.7**	**8.2**	**11.1**	**21.2**
Interest Cover - GCF	(X)	8.9	10.5	17.6	25.7
Tax Rate (pre Amort.)	(%)	30.4%	37.6%	30.2%	30.2%
Return on Equity [(3)]	**(%)**	**10.3%**	**10.6%**	**9.6%**	**14.5%**

Cash Flow Analysis (A$ mn)		12/10	12/11E	12/12E	12/13E
Operating EBITDA		708.9	651.4	743.9	920.6
Change in Working Cap. [(5)]		-199.0	-100.9	73.3	-84.2
Gross Cash Flow		**509.9**	**550.4**	**817.2**	**836.4**
Net Interest Paid		-57.4	-52.6	-46.4	-32.5
Tax Paid (inc. abs)		-60.5	-178.4	-144.4	-245.2
Other		36.4	215.4	10.7	161.8
Operating Cash Flow		**428.5**	**534.8**	**637.0**	**720.5**
Maint. Capex		-353.7	-338.7	-349.9	-291.7
FREE CASH FLOW (Pre Div's)		**74.7**	**196.0**	**287.1**	**428.8**
Dividends Paid		-148.5	-126.9	-113.4	-153.9
Expan. Capex		0.0	0.0	0.0	0.0
Acquisitions		0.0	0.0	0.0	0.0
Asset Sales		18.6	0.0	0.0	0.0
Dividends Received		0.0	0.0	0.0	0.0
Share Issues/Repurchases		0.0	0.0	0.0	0.0
Other (FX Adj, etc.)		51.2	-30.0	-50.0	-190.0
Inc. in Net Cash / (Debt)		**-4.0**	**39.1**	**123.7**	**84.9**
Gross CF / Op. EBITDA	(X)	0.72	0.85	1.10	0.91
Maint. Capex / Sales	(%)	2.6%	1.9%	1.7%	1.2%
Total Capex / Sales	(%)	2.6%	1.9%	1.7%	1.2%
Maint. Capex / D&A	(X)	1.69	1.54	1.54	1.25
Total Capex / D&A	(X)	1.69	1.54	1.54	1.25
Maint. Capex / GCF	(%)	69.4%	61.5%	42.8%	34.9%
Growth Spend [(4)]	(A$ mn)	0.0	0.0	0.0	0.0

Margin Assumptions	12/10	12/11E	12/12E	12/13E
Caltex Refiner Margin (CRM, US$/bbl))	8.39	7.04	7.70	9.10
Integrated Margin (Acpl)	9.27	8.34	9.00	10.24

Transport Fuels Prod. & Sales		12/10	12/11E	12/12E	12/13E
Production	bL	9.9	10.1	10.2	10.4
Sales	bL	15.0	15.6	15.9	16.2

Profit Reconciliation*	12/10	12/11E	12/12E	12/13E
RCOP NPAT (GS Adj)	**317.6**	**267.0**	**331.0**	**460.4**
Gain/Loss on Inventory (after tax)	15.4	148.3	5.0	110.8
Other				
Reported NPAT (Hist. Cost)	**333.0**	**415.3**	**336.0**	**571.1**
(Pre NRI's)				
**RCOP Adjusted to Stat Profit*				

Balance Sheet (A$ mn)		12/10	12/11E	12/12E	12/13E
ASSETS:					
Cash		18.4	57.5	181.2	266.1
Trade Debtors		839.7	1,010.9	1,069.6	1,233.8
Inventory		1,385.3	1,597.2	1,604.4	1,762.6
Prop., Plant & Equip. (net)		2,895.5	3,014.9	3,138.1	3,197.3
Intangibles		79.9	79.9	79.9	79.9
Investments		23.4	23.4	23.4	23.4
Other		48.6	48.6	48.6	48.6
TOTAL ASSETS		5,290.7	5,832.3	6,145.0	6,611.7
Debt		562.6	532.6	482.6	292.6
Trade Creditors		1,229.8	1,512.0	1,651.1	1,889.5
Provisions		331.1	481.7	482.8	483.8
Other		84.7	0.0	0.0	0.0
TOTAL LIABILITIES		2,208.1	2,526.2	2,616.4	2,665.8
EQUITY:					
Equity Reserves		537.6	537.6	537.6	537.6
Retained Profits		2,533.3	2,756.7	2,979.3	3,396.5
Minorities		11.8	11.8	11.8	11.8
Preference Capital		0.0	0.0	0.0	0.0
TOTAL EQUITY		**3,082.6**	**3,306.0**	**3,528.6**	**3,945.8**
Capital Employed		3,626.8	3,781.1	3,829.9	3,972.3
Net Debt / (Net Cash)	(A$ mn)	544.2	475.0	301.3	26.4
Net Debt / Equity	**(%)**	**17.7%**	**14.4%**	**8.5%**	**0.7%**
Net Debt / (D+E)	(%)	15.0%	12.6%	7.9%	0.7%
Avg. Working Capital	(A$ mn)	995.2	1,096.1	1,022.8	1,107.0
Avg. Work. Cap./ Sales	(%)	7.2%	6.0%	5.0%	4.7%
D&A / PPE (net)	(%)	7.2%	7.3%	7.2%	7.3%
Debtors Turnover	(days)	22.2	20.3	19.0	19.0
Inventory Turnover	(X)	9.9	11.4	12.8	13.5
Creditors Turnover	(days)	32.6	30.4	29.3	29.0

DCF Valuation	(A$ mn)	($ps)		
PV of Cash Flows	3,456	$12.80	RF:	6.5%
Mkt Value of Inv.	0	$0.00	MRP:	6.0%
(Debt) / Cash	544	$2.02	KE:	14.0%
Equity Value (Pre Imp.)	2,912	$10.78	KD:	4.6%
Value of Imp. Credits		$2.07	Beta:	1.25
DCF Value:		**$12.85**	WACC:	**12.1%**
Shares on Issue (m)	270.0			

ROCE Analysis		12/10	12/11E	12/12E	12/13E
Adjusted NOPAT	(A$ mn)	379.2	453.2	369.5	594.9
Avg. Capital Employed	(A$ mn)	3519.5	3703.9	3805.5	3901.1
ROCE	**(%)**	**10.8%**	**12.2%**	**9.7%**	**15.3%**
WACC	(%)	12.1%	12.1%	12.1%	12.1%
ROCE Spread	**(abs.)**	**-1.3%**	**0.1%**	**-2.4%**	**3.1%**
Change in ROCE	(abs.)	-19.8%	13.6%	-20.6%	57.1%

(1) Reported NPAT (pre NRI's) is before abnormal & non recurring items
(2) RCOP stands for Replacement Cost of Sales Operating Profit
(3) ROE excludes Pref. Capital
(4) Growth Spend represents Expansionary Capex & Acquisitions
(5) Change in Working Capital includes Contract Receivables

Source: Company data, IRESS, Goldman Sachs Research estimates

GS Holdings (078930.KS, Buy): Upgrade to Buy on robust refining

Source of opportunity

We upgrade GS Holdings from Neutral to Buy with a revised 12-m SOTP based target price of W78,000 (21% upside, previous: W73,000).

Catalyst

a) Riding out the stronger refining cycle via refining subsidiary (50% stake owned) GS Caltex: We believe that GS Holdings will be able to enjoy greater earnings momentum as such.

b) Following our sector outlook change to a robust refining margin cycle throughout 2014E, we revise 11E/12E/13E EPS estimates by 8%/7%/15%, driven by stronger earnings momentum at the subsidiary refining arm, GS Caltex.

c) Also we expect a company specific catalyst of commercialization of the new VGO FCC by early 2013E and completing mechanical completion of the facility by end year end.

Valuation

Our newly revised 12-m SOTP based target price is W78,000 (from previous W73,000) to reflect the stronger earnings momentum in refining, implying 1.1X 2012E P/B vs 15% ROE.

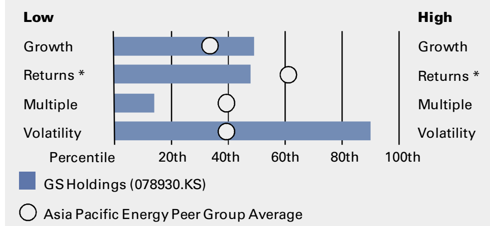
Key risks

Weaker than expected oil demand is a key risk to our price target.

INVESTMENT LIST MEMBERSHIP
Asia Pacific Buy list

Coverage View: Neutral

Investment Profile

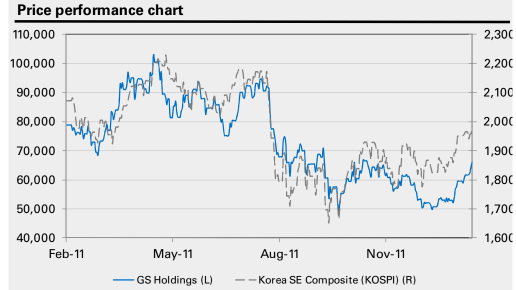


* Returns = Return on Capital For a complete description of the investment profile measures please refer to the disclosure section of this document.

Key data	Current
Price (W)	66,100
12 month price target (W)	78,000
Market cap (W bn / US$ mn)	6,141.7 / 5,491.2
Foreign ownership (%)	19.1

	12/10	12/11E	12/12E	12/13E
EPS (W)	3,634	10,400	10,505	12,364
EPS growth (%)	(31.7)	186.2	1.0	17.7
EPS (diluted) (W)	3,634	10,400	10,505	12,364
EPS (basic pre-ex) (W)	3,634	10,400	10,505	12,364
P/E (X)	18.2	6.4	6.3	5.3
P/B (X)	1.1	1.0	0.9	0.8
EV/EBITDA (X)	2.3	5.8	5.1	4.1
Dividend yield (%)	1.9	2.7	3.3	3.6
ROE (%)	7.2	16.8	14.9	15.5

Price performance chart



Share price performance (%)	3 month	6 month	12 month
Absolute	5.8	(28.0)	(16.1)
Rel. to Korea SE Composite (KOSPI)	1.2	(23.0)	(12.4)

Source: Company data, Goldman Sachs Research estimates, FactSet. Price as of 2/02/2012 close.

GS Holdings: Summary financials

Profit model (W bn)	12/10	12/11E	12/12E	12/13E
Total revenue	**42,269.9**	**7,922.1**	**8,346.6**	**9,082.9**
Cost of goods sold	(38,352.9)	(6,009.1)	(6,267.8)	(6,720.8)
SG&A	(2,260.9)	(815.6)	(859.3)	(935.1)
R&D	--	--	--	--
Other operating profit/(expense)	0.0	0.0	0.0	0.0
EBITDA	**2,278.5**	**1,217.3**	**1,357.4**	**1,583.4**
Depreciation & amortization	(622.4)	(119.9)	(137.9)	(156.4)
EBIT	**1,656.1**	**1,097.4**	**1,219.5**	**1,427.0**
Interest income	127.2	15.5	20.6	31.0
Interest expense	(341.9)	(11.0)	(12.5)	(11.0)
Income/(loss) from uncons. subs.	0.0	0.0	0.0	0.0
Others	(124.1)	35.0	40.0	45.0
Pretax profits	**1,317.2**	**1,136.8**	**1,267.6**	**1,492.0**
Income tax	(288.7)	(136.4)	(253.5)	(298.4)
Minorities	(690.9)	(34.1)	(38.0)	(44.8)
Net income pre-preferred dividends	**337.7**	**966.3**	**976.1**	**1,148.8**
Preferred dividends	0.0	0.0	0.0	0.0
Net income (pre-exceptionals)	**337.7**	**966.3**	**976.1**	**1,148.8**
Post-tax exceptionals	0.0	0.0	0.0	0.0
Net income	**337.7**	**966.3**	**976.1**	**1,148.8**
EPS (basic, pre-except) (W)	3,634	10,400	10,505	12,364
EPS (basic, post-except) (W)	3,634	10,400	10,505	12,364
EPS (diluted, post-except) (W)	3,634	10,400	10,505	12,364
DPS (W)	1,250	1,800	2,200	2,400
Dividend payout ratio (%)	34.4	17.3	20.9	19.4
Free cash flow yield (%)	(21.5)	0.9	5.5	7.5

Growth & margins (%)	12/10	12/11E	12/12E	12/13E
Sales growth	NM	(81.3)	5.4	8.8
EBITDA growth	350.0	(46.6)	11.5	16.6
EBIT growth	232.2	(33.7)	11.1	17.0
Net income growth	(31.7)	186.2	1.0	17.7
EPS growth	(31.7)	186.2	1.0	17.7
Gross margin	9.3	24.1	24.9	26.0
EBITDA margin	5.4	15.4	16.3	17.4
EBIT margin	3.9	13.9	14.6	15.7

Cash flow statement (W bn)	12/10	12/11E	12/12E	12/13E
Net income pre-preferred dividends	337.7	966.3	976.1	1,148.8
D&A add-back	622.4	119.9	137.9	156.4
Minorities interests add-back	690.9	34.1	38.0	44.8
Net (inc)/dec working capital	789.5	(659.6)	(75.9)	(131.7)
Other operating cash flow	(2,104.9)	0.0	0.0	0.0
Cash flow from operations	**335.6**	**460.7**	**1,076.0**	**1,218.3**
Capital expenditures	(1,406.5)	(400.0)	(700.0)	(700.0)
Acquisitions	(121.5)	0.0	0.0	0.0
Divestitures	0.0	0.0	0.0	0.0
Others	513.8	0.0	0.0	0.0
Cash flow from investments	**(1,014.2)**	**(400.0)**	**(700.0)**	**(700.0)**
Dividends paid (common & pref)	(94.8)	(118.4)	(170.5)	(208.4)
Inc/(dec) in debt	636.0	150.0	0.0	(100.0)
Common stock issuance (repurchase)	0.0	0.0	0.0	0.0
Other financing cash flows	(169.4)	0.0	0.0	0.0
Cash flow from financing	**371.8**	**31.6**	**(170.5)**	**(308.4)**
Total cash flow	**(306.7)**	**92.2**	**205.5**	**209.9**

Balance sheet (W bn)	12/10	12/11E	12/12E	12/13E
Cash & equivalents	217.1	309.3	514.8	724.7
Accounts receivable	1,205.4	1,325.9	1,396.9	1,520.2
Inventory	191.9	211.1	222.4	242.1
Other current assets	183.1	183.1	183.1	183.1
Total current assets	**1,797.4**	**2,029.4**	**2,317.2**	**2,669.9**
Net PP&E	1,440.9	1,762.9	2,358.6	2,929.1
Net intangibles	187.7	145.8	112.2	85.4
Total investments	4,190.3	4,190.3	4,190.3	4,190.3
Other long-term assets	1,469.2	1,469.2	1,469.2	1,469.2
Total assets	**9,085.6**	**9,597.6**	**10,447.6**	**11,344.0**
Accounts payable	639.8	119.9	126.3	137.5
Short-term debt	1,021.5	1,021.5	1,021.5	971.5
Other current liabilities	132.3	284.3	322.2	341.1
Total current liabilities	**1,793.5**	**1,425.7**	**1,470.0**	**1,450.1**
Long-term debt	158.5	208.5	208.5	158.5
Other long-term liabilities	1,097.2	1,097.2	1,097.2	1,097.2
Total long-term liabilities	1,255.7	1,305.7	1,305.7	1,255.7
Total liabilities	**3,049.2**	**2,731.4**	**2,775.7**	**2,705.8**
Preferred shares	**0.0**	**0.0**	**0.0**	**0.0**
Total common equity	**5,364.6**	**6,160.3**	**6,928.0**	**7,849.5**
Minority interest	671.8	705.9	743.9	788.7
Total liabilities & equity	**9,085.6**	**9,597.6**	**10,447.6**	**11,344.0**
BVPS (W)	**57,736**	**66,301**	**74,563**	**84,481**

Ratios	12/10	12/11E	12/12E	12/13E
ROE (%)	7.2	16.8	14.9	15.5
ROA (%)	4.7	10.3	9.7	10.5
ROACE (%)	20.9	13.5	12.4	13.5
Inventory days	0.9	12.2	12.6	12.6
Receivables days	5.2	58.3	59.5	58.6
Payable days	3.0	23.1	7.2	7.2
Net debt/equity (%)	16.0	13.4	9.3	4.7
Interest cover - EBIT (X)	7.7	NM	NM	NM

Valuation	12/10	12/11E	12/12E	12/13E
P/E (analyst) (X)	18.2	6.4	6.3	5.3
P/B (X)	1.1	1.0	0.9	0.8
EV/EBITDA (X)	2.3	5.8	5.1	4.1
Dividend yield (%)	1.9	2.7	3.3	3.6

Note: Last actual year may include reported and estimated data.

Source: Company data, Goldman Sachs Research estimates.

Source: Company data, Goldman Sachs Research estiamtes

Exhibit 26: Our SOTP analysis for GS Holdings

Equity investments	% stake	Base (W bn)	Multiple	Methodology	(W bn)	% to total value	Discount applied (%)	Implied value post discount	% to total value
GS Caltex Corporation	50%	2,914	7.0	Based on 7X 2012E EV/EBITDA net of '12E net debt	6,675	65%	30%	4,673	61%
GS Home Shopping	30%			Based on GSE target price (W140,000)	276	3%	30%	193	3%
GS Retail	66%		1.1	Based on GSE Retail 2012E book value	1,096	11%	30%	767	10%
GS EPS	70%			Based on GSE EPS 2012E book value	426	4%	30%	298	4%
GS Global	56%			Current Market Value	130	1%	30%	91	1%
GS Sports	100%			Based on GSE Sports 2012E book value	15	0%	10%	13	0%
Others									
(+) Tangible Assets (incl. GS Kangnam Tower)				Based on 2010 Book	553	5%	0%	553	7%
(+) Brand Royalty (DCF)					1,042	10%	0%	1,042	14%
(+) Treasury shares							30%	1	0%
Sum-of-the-parts value					**10,213**			**7,631**	
(-) Year-end 2012E parent net debt					**332**			**332**	
(-) Preferred shares					36			36	
Net asset value					**9,844**			**7,263**	
No. of common shares outstanding (mn)					92.915			93	
GS Implied Value (W/sh)					**100,000**			**78,000**	

Source: Company data, Goldman Sachs Research estimates

Exhibit 27: We expect global oil demand growth to be driven by non-OECD which should more than compensate for sluggish OECD demand outlook

GS global oil demand supply model

in million b/d, unless otherwise indicated	2009	2010	2011E	2012E									
	Year	Year	Year	1QE	2QE	3QE	4QE	Year	2013E	2014E	2015E	2016E	2017E
Demand:													
OECD	44.5	45.0	44.6	44.5	42.6	44.0	44.4	43.9	43.4	43.3	43.2	43.0	42.9
Non-OECD	41.0	43.2	44.5	44.9	45.7	46.2	47.4	46.1	47.7	49.4	51.3	53.1	55.1
Demand	85.6	88.3	89.1	89.4	88.4	90.2	91.8	89.9	91.1	92.7	94.4	96.2	98.0
y-o-y growth	*(1.0)*	*2.7*	*0.8*	*0.43*	*0.54*	*0.83*	*1.6*	*0.9*	*1.2*	*1.6*	*1.7*	*1.8*	*1.8*
y-o-y growth (adjusted for balancing iten	*(0.8)*	*3.0*	*1.5*	*0.7*	*1.2*	*0.8*	*1.6*	*1.1*	*1.2*	*1.6*	*1.7*	*1.8*	*1.8*
Supply:													
Non-OPEC	51.5	52.6	52.8	53.2	52.7	53.1	54.3	53.3	54.0	54.4	54.8	55.1	55.8
y-o-y growth	*(0.1)*	*1.1*	*0.2*	*0.5*	*0.5*	*0.6*	*0.6*	*0.6*	*0.7*	*0.4*	*0.4*	*0.3*	*0.7*
OPEC:													
Crude	29.1	29.5	30.6	30.2	29.6	31.2	31.5	30.6	30.9	32.0	33.1	34.3	35.3
NGLs	4.9	5.4	5.7	6.0	6.0	6.0	6.0	6.0	6.2	6.3	6.5	6.7	6.9
Total	34.1	34.8	36.3	36.1	35.6	37.2	37.5	36.6	37.1	38.3	39.6	41.0	42.2
Total	85.6	87.5	89.1	89.4	88.4	90.2	91.8	89.9	91.1	92.7	94.4	96.2	98.0
Inventory build (draw):													
Implied stock change from S/D model	**0.0**	**(0.8)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Less:													
Net underestimation of demand/oth	**(0.3)**	**(0.7)**	**(0.2)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Floating storage/oil in transit	**0.3**	**(0.2)**	**(0.0)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Government inventory build (draw)	**0.1**	**(0.0)**	**(0.1)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Total adjustments	**0.1**	**(0.9)**	**(0.3)**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Reported OECD inventory build (draw	***(0.1)***	***0.1***	***0.3***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
Demand growth (y-o-y):													
OECD	-4.2%	1.1%	-1.0%	-1.5%	-1.7%	-1.7%	-1.4%	-1.6%	-1.0%	-0.3%	-0.3%	-0.3%	-0.3%
Non-OECD	2.4%	5.4%	2.9%	2.5%	2.8%	3.6%	5.0%	3.5%	3.5%	3.7%	3.7%	3.7%	3.7%
Total	-1.2%	3.2%	0.9%	0.5%	0.6%	0.9%	1.8%	1.0%	1.3%	1.8%	1.8%	1.9%	1.9%
Supply growth (y-o-y):													
Non-OPEC	-0.1%	2.2%	0.3%	1.0%	0.9%	1.1%	1.2%	1.0%	1.3%	0.7%	0.8%	0.5%	1.2%
OPEC	-3.0%	2.2%	4.2%	1.1%	1.2%	4.0%	2.7%	0.9%	1.3%	3.4%	3.3%	3.7%	2.8%
Total	-1.3%	2.2%	1.9%	1.0%	1.0%	2.2%	1.8%	1.0%	1.3%	1.8%	1.8%	1.9%	1.9%
OPEC crude oil capacity	35.4	35.1	34.7	34.9	34.9	34.9	34.9	34.9	35.2	35.7	36.0	36.1	36.5
ex-Nigeria shut ins	33.1	33.6	33.1	33.3	33.3	33.3	33.3	33.3	33.4	33.8	34.1	34.3	34.6
ex-Nigeria shut-ins, Saudi over 10 mn b/	32.6	33.2	32.7	32.9	32.9	32.9	32.9	32.9	33.0	33.4	33.8	33.9	34.3
OPEC spare capacity	6.3	5.6	4.0	4.7	5.2	3.7	3.3	4.3	4.3	3.7	2.9	1.7	1.2
ex-Nigeria	3.9	4.1	2.5	3.1	3.7	2.1	1.8	2.7	2.5	1.8	1.0	(0.1)	(0.7)
ex-Nigeria, Saudi over 10 mnb/d	**3.5**	**3.7**	**2.1**	**2.8**	**3.3**	**1.8**	**1.4**	**2.3**	**2.1**	**1.4**	**0.7**	**(0.4)**	**(1.0)**

Source: IEA, BP Statistical Review of World Energy, Goldman Sachs Research estimates

Exhibit 28: Global refiners valuation comps table

As of February 01, 2012

	Ticker	Rating	Price Feb 1	Market cap (US$mn)	P/E (X)			EV/EBITDA (X)			ROE (%)			2011E P/BV (X)	2011E Dividend yield (%)	2011E Net debt/ equity (%)	EV/Complexity Capacity (b) (US$'000/b/d)	EV/Capacity (b) (US$'000/b/d)
					2010	2011E	2012E	2010	2011E	2012E	2010	2011E	2012E					
India (Rs) (a)																		
Bharat Petroleum	BPCL.BO	Neutral	560.00	4,120	13.1	31.7	13.0	7.9	11.0	7.5	11.4	4.5	10.4	1.4	1.0	73.0	2.3	12.7
Hindustan Petroleum	HPCL.BO	Buy*	288.05	1,987	6.3	22.4	6.9	7.1	9.5	6.2	12.8	3.4	10.6	0.8	1.4	146.9	3.8	21.0
Indian Oil Corporation	IOC.BO	Neutral	271.50	13,414	8.4	13.2	7.2	7.7	9.5	6.2	13.8	8.2	14.1	1.1	2.9	76.3	3.1	18.6
Taiwan (NT$)																		
Formosa Petrochemical	6505.TW	Neutral	89.90	28,966	20.9	39.2	20.0	14.9	20.9	14.6	17.2	8.9	17.0	3.4	2.0	71.4	10.1	68.6
Korea (W)																		
GS Holdings (Parent)	078930.KS	Buy	64,300	5,317	17.7	6.2	6.1	3.1	5.7	5.0	6.7	15.0	13.4	1.0	2.8	13.4	1.1	8.5
S-Oil	010950.KS	Buy*	120,500	12,074	19.2	10.5	7.8	15.2	8.0	5.6	16.6	26.7	31.4	2.7	5.5	36.5	3.4	24.9
SK Innovation	096770.KS	Buy	172,000	14,155	14.1	4.8	7.0	8.1	6.1	5.7	11.6	25.7	14.7	1.1	1.3	44.8	3.2	17.8
Thailand (Bt)																		
Thai Oil	TOP.BK	Buy	64.00	4,220	23.0	7.7	9.1	10.6	5.2	5.5	7.6	20.6	15.6	1.6	5.2	25.2	3.8	21.9
Asian median					**15.9**	**11.9**	**7.5**	**7.9**	**8.0**	**5.7**	**12.2**	**11.9**	**14.4**	**1.3**	**2.4**	**58.1**	**3.3**	**19.8**
US (US$)																		
Sunoco	SUN	Neutral	38.40	4,099	21.5	NM	30.8	5.4	12.1	9.8	7.7	(1.4)	13.7	3.2	1.6	153.0	1.1	8.9
Tesoro Corp.	TSO	Sell	24.84	3,505	NM	6.0	9.2	9.3	2.6	3.3	(1.5)	17.1	9.8	0.9	0.0	14.1	0.8	6.1
Valero Energy	VLO	Sell	23.98	13,654	15.7	6.6	6.1	5.7	3.8	3.5	5.8	13.0	12.1	0.8	0.8	34.5	0.6	7.1
CVR Energy	CVI	Buy	25.58	2,211	229.8	6.6	6.1	6.7	3.6	2.1	1.4	39.2	30.8	1.4	0.0	40.2	1.6	20.7
Western Refining	WNR	Buy*	16.73	1,483	NM	5.4	5.4	7.8	2.7	1.9	(1.2)	43.1	34.7	1.4	0.0	149.4	1.9	12.3
US median					**21.5**	**6.3**	**6.1**	**6.7**	**3.6**	**3.3**	**1.4**	**17.1**	**13.7**	**1.4**	**1.2**	**40.2**	**1.1**	**8.9**
Europe																		
ERG (EUR)	ERG.MI	Neutral	8.58	1,696	NM	NM	17.8	7.1	7.6	5.3	(1.0)	(1.0)	3.6	0.7	4.7	36.6	0.7	5.2
MOL (HuF)	MOLB.BU	Neutral	19,100	7,661	9.4	8.5	8.9	4.3	3.9	3.4	9.4	9.6	8.3	1.0	3.0	32.7	2.9	31.9
Neste Oil (EUR)	NES1V.HE	Sell	8.88	2,996	17.2	23.9	9.5	8.4	9.5	6.3	5.7	3.9	9.5	0.9	2.1	87.2	1.3	14.2
OMV (EUR)	OMVV.VI	Neutral	25.65	10,650	6.9	7.9	6.0	3.2	3.5	3.0	10.5	8.4	10.2	0.8	3.9	36.9	2.3	18.6
PKN (PLN)	PKNA.WA	Sell	37.75	5,070	12.5	12.5	12.1	5.8	5.1	4.7	5.7	5.2	5.1	0.7	5.6	18.2	1.3	11.7
Saras (EUR)	SRS.MI	Sell	1.10	774	NM	NM	46.6	17.2	12.6	9.5	(4.1)	(1.8)	1.8	0.8	0.0	51.0	0.8	6.6
Hellenic Petroleum (EUR)	HEPr.AT	Sell	5.72	1,329	10.9	11.8	7.2	8.0	12.8	8.4	6.4	5.8	9.4	0.7	7.9	105.6	1.4	9.5
Tupras (TL)	TUPRS.IS	Neutral	42.20	18,540	17.6	9.6	10.1	7.6	7.7	7.7	14.3	24.6	22.0	2.3	7.9	(15.8)	4.8	35.3
Motor Oil Hellas (EUR)	MORr.AT	Neutral	5.88	495	8.2	5.0	5.2	7.6	6.0	5.5	20.5	26.5	20.6	1.2	9.6	206.5	0.8	10.1
Europe median					**9.4**	**8.5**	**8.9**	**7.1**	**6.0**	**5.3**	**5.7**	**5.2**	**8.3**	**0.8**	**3.9**	**36.6**	**1.3**	**10.1**

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Source: Company data, Goldman Sachs Research estimates

Exhibit 29: Global Integrated oil valuation comps table

As of February 01, 2012

	Ticker	Rating	Price Feb 1	Mkt cap (US$mn)	EV/DACF (X)			P/E (X)			CROCI (%)			Yield (%)	Net Debt/ Equity (%)	Reserves US$/boe	2011E P/BV (X)	EV/PV-10 2009
					2010	2011E	2012E	2010	2011E	2012E	2010	2011E	2012E					
International majors																		
BP plc (US$)	BP	Neutral	45.55	143,756	10.5	6.5	5.9	7.0	6.9	6.6	6.3	10.5	10.7	3.7	33	15.4	1.3	2.4
Chevron (US$)	CVX	Neutral	102.79	204,523	6.3	5.0	4.7	11.0	7.8	7.1	15.5	17.3	16.2	3.0	(7)	17.4	1.7	2.7
Exxon Mobil (US$)	XOM	Buy*	83.97	389,075	9.0	6.8	6.3	13.5	9.8	8.8	13.6	15.8	15.2	2.2	6	17.7	2.5	3.4
Royal Dutch Shell (US$)	RDSa	Buy*	72.23	221,295	7.7	5.9	4.8	11.9	9.1	7.4	10.2	12.4	13.7	4.7	17	25.9	1.4	7.3
Total SA (EUR)	TOTF.PA	Sell	40.45	118,960	5.6	5.8	5.3	8.8	7.9	7.1	11.3	10.4	11.1	5.6	23	18.7	1.4	4.2
International majors median					**7.7**	**5.9**	**5.3**	**11.0**	**7.9**	**7.1**	**11.3**	**12.4**	**13.7**	**3.7**	**17**	**17.7**	**1.4**	**3.4**
Regional majors																		
ConocoPhillips (US$)	COP	Neutral	69.32	103,110	7.1	5.4	5.1	11.7	7.9	7.5	10.7	13.8	13.1	3.8	26	13.5	1.5	3.1
ENI (EUR)	ENI.MI	Buy	17.14	81,698	5.5	5.6	4.8	9.0	9.0	7.5	11.3	10.8	12.1	6.1	50	20.5	1.1	2.8
Occidental (US$)	OXY	Buy	99.30	81,698	9.2	7.0	5.5	17.4	11.8	9.9	15.9	18.5	20.2	1.8	4	25.5	2.1	3.3
Marathon (US$)	MRO	Neutral	31.58	19,677	4.8	4.1	4.1	8.7	8.9	7.7	10.7	14.2	14.5	2.5	30	18.2	1.2	4.6
Regional majors median					**6.3**	**5.5**	**4.9**	**10.4**	**8.9**	**7.6**	**11.0**	**14.0**	**13.8**	**3.2**	**28**	**19.4**	**1.4**	**3.2**
Russian/Lat Am oils																		
Gazprom (US$)	GAZPq.L	Buy	12.40	145,700	4.1	3.3	2.9	4.4	3.7	3.5	12.9	13.7	13.1	4.1	10	1.3	0.6	NA
Rosneft (US$)	ROSN.RTS	Buy	7.50	71,985	5.3	4.5	4.2	6.9	6.7	6.9	16.0	15.3	13.5	1.3	13	3.5	1.1	NA
Surgutneftegaz (US$)	SNGS.RTS	Buy	0.88	38,217	2.4	2.2	2.1	9.0	7.6	9.7	13.1	12.2	10.9	2.2	(46)	1.9	0.8	NA
Gazprom Neft (US$)	SIBN.RTS	Neutral	4.59	4,331	1.6	1.1	0.7	1.4	0.8	0.7	13.6	16.9	16.2	29.0	19	1.0	0.2	NA
Petrobras (US$)	PBR	Buy	31.16	136,700	5.0	6.9	NA	5.8	5.8	6.7	12.9	8.5	7.4	1.1	32	26.2	0.6	2.6
Russian median					**4.1**	**3.3**	**2.5**	**5.8**	**5.8**	**6.7**	**13.1**	**13.7**	**13.1**	**2.2**	**17**	**17.7**	**0.6**	**NA**
Asian oils																		
CNOOC (HK$)	0883.HK	Buy	15.98	92,029	7.1	5.4	5.5	10.7	8.4	8.5	26.9	27.8	23.6	4.6	(17)	32.0	2.2	2.5
ONGC (Rs) (a)	ONGC.BO	Buy*	272	47,435	6.6	5.6	4.5	10.7	8.0	6.7	12.7	13.2	14.2	3.2	(21)	6.4	1.7	NA
PetroChina 'H' share (HK$)	0857.HK	Neutral	11.40	269,063	6.8	7.8	6.2	12.1	12.1	9.3	15.2	12.1	13.5	3.7	25	14.8	1.7	1.5
PTT (Bt)	PTT.BK	Neutral	339	30,901	9.7	8.4	6.7	12.8	9.0	7.9	13.3	14.5	15.3	3.3	60	41.2	1.7	NA
Sinopec 'H' share (HK$)	0386.HK	Buy*	9.44	106,872	4.4	6.0	5.1	9.2	8.4	6.8	20.5	13.3	14.0	2.9	43	37.0	1.4	2.6
Reliance (Rs) (a)	RELI.BO	Buy	831	55,318	10.5	7.9	7.3	13.6	12.7	10.9	11.0	11.7	11.7	1.0	(5)	NA	1.4	NA
Asian oils median					**7.0**	**6.9**	**5.9**	**11.4**	**8.7**	**8.2**	**14.2**	**13.3**	**14.1**	**3.3**	**10**	**32.0**	**1.7**	**2.5**
PetroChina 'A' share (Rmb)	601857.SS	Neutral	10.18	295,384	7.4	8.4	6.7	13.3	13.3	10.2	15.2	12.1	13.5	3.4	25	16.0	1.8	1.9
Sinopec 'A' share (Rmb)	600028.SS	Buy	7.79	108,423	4.4	6.1	5.1	9.3	8.6	6.9	20.5	13.3	14.0	2.9	43	37.4	1.4	3.0
Emerging market median					**5.3**	**5.6**	**4.8**	**9.2**	**8.0**	**6.9**	**13.3**	**13.3**	**13.5**	**3.2**	**13**	**10.6**	**1.4**	**2.6**

** Conviction List*

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Reg AC

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