



Asia
Hong Kong
Energy
Oil & Gas

Industry
Asia Oil & Gas

Date
27 November 2013

Industry Update

Positioning for 2014

David Hurd, CFA John Hirjee
Research Analyst Research Analyst
(+852) 2203 6242 (+61) 3 9270-4318
david.hurd@db.com john.hirjee@db.com

2014 looking similar to 2013

We continue to look for soft to down oil prices (2014-16e) and as a result special situations in the Asia oil and gas space for 2014 and beyond. Recently DB Analyst Shawn Park upgraded the Asia Chemical space looking for higher margins on lower naphtha feedstock costs and tightening supplies. The Fed's "tapering" noise has put the kabosh on SE Asia currencies which feed through to soft product demand and lower refining margins. Many of our 2014 top picks mirror those of 2013: Oil Search, Reliance, Sinopec and LG Chemicals.

Developed vs. Demerging – Big Cap vs. Small Cap

Our Asia small cap picks for 2013 got smashed; our large cap picks all did well (Figure 1). Our best performers both came from developed market – Australia: Oil Search (+20%) and Woodside (+19%). While our worst performers were all small cap picks from developing markets: China, India, and Taiwan. What surprised / changed during 2013: 1) China implemented its GDP slowdown, 2) the US Fed put tapering on the agenda, and 3) Iran started negotiations with the West. Looking into 2014e, DB Economists see Fed tapering 1Q14e and a China growth recovery. From this analyst's perspective, 2014e looks similar to 2013: subpar global growth; Fed tightening / tapering; USD strength; commodity prices weakness; and a China that could surprise - either way.

Around the region - Our Top Picks:

DB Analyst John Hirjee sees no reason for change as his top pick for 2014 Oil Search was our best performer in 2013. John expects significant production and EPS growth (2014-15) due to the commissioning (2H14e) of the PNG-LNG project. DB Analyst Harshad Katkar similarly sees no reason to change as his top pick for 2014 Reliance Industries was also his top pick in 2013. Harshad is looking for an improving upstream gas business on KGD6 and chemical capacity expansions (FY14-16e) to drive ~15% EPS growth over the coming few years. DB Analyst Shawn Park has our call on Asia Chemicals and recently (01 Nov) upgraded the sector to overweight on the back of flat to down naphtha prices, tighter product supplies and higher spreads. Shawn's top pick for 2014 is LG Chemicals given its material exposure to ABS (25% revenues) and an improving EV battery business. DB Analyst, David Hurd continues to like Sinopec (SNP) as a top pick for 2014. David notes that soft to down oil prices support SNP's refining business and that there is material operating leverage in the company's chemical business.

Valuation and risks

We value our Asia oil and gas companies on discounted cash flow models. The DCF allows us to incorporate changing oil and gas price forecasts over future years. We value our petrochemical and refining companies from a sum-of-the-parts valuation, in which we apply a mid-cycle EV/ EBITDA ratio. We also look at Price-to-Book and ROEs on our downstream companies. The risks to our oil and gas companies are: 1) higher / lower global GDP growth; 2) higher / lower oil and gas price(s) / volatility; and 3) political / regulatory risk.

Harshad Katkar

Research Analyst
(+91) 22 7180 4029
harshad.katkar@db.com

Shawn Park

Research Analyst
(+82) 2 316 8977
shawn.park@db.com

Top picks

Reliance Industries (RELI.BO),INR842.05	Buy
Sinopec (0386.HK),HKD6.65	Buy
Oil Search (OSH.AX),AUD8.38	Buy
LG Chem (051910.KS),KRW287,500.00	Buy

Source: Deutsche Bank

Companies Featured

Reliance Industries (RELI.BO),INR842.05	Buy
	2013A 2014E 2015E
P/E (x)	12.3 11.4 10.0
EV/EBITDA (x)	9.5 8.7 8.1
Price/book (x)	1.4 1.4 1.2

Sinopec (0386.HK),HKD6.65	Buy
	2012A 2013E 2014E
P/E (x)	8.5 8.7 7.9
EV/EBITDA (x)	4.8 4.1 4.0
Price/book (x)	1.2 1.1 1.0

Oil Search (OSH.AX),AUD8.38	Buy
	2012A 2013E 2014E
P/E (x)	61.5 54.1 38.6
Div yield (%)	0.6 0.5 0.5
Price/book (x)	3.0 3.0 2.8

LG Chem (051910.KS),KRW287,500.00	Buy
	2012A 2013E 2014E
P/E (x)	16.5 15.4 13.3
EV/EBITDA (x)	9.1 7.8 7.1
Price/book (x)	2.27 1.79 1.60

Source: Deutsche Bank



Positioning for 2014

Big caps with a chemical twist

We have simplified our top picks for 2014. We are sticking with oil and gas names only; we are focusing on big cap names only (Asia x-Japan); and we are taking only one "top pick" from each DB Oil & Gas analyst: quality over quantity. We have taken input from DB Oil & Gas Analysts in Korea, Thailand, India, China / Hong Kong and Australia to come up with our top picks for 2014.

Figure 1: Top picks for 2014 and how we fared in 2013

11/26/2013							
Ticker	Company	Country	Analyst Rating	Current Market Cap (US\$ millions)	Current Price (Local / shr)	Target Price (Local / shr)	Dividend Yld 2014e (%)
TOP PICKS ASIA 2014							
OSH AU	OIL SEARCH LTD	AU	BUY	10,273	8.4	10.0	0.52
386 HK	CHINA PETROLEUM & CHEMICAL-H	CH	BUY	92,404	6.7	7.2	4.41
051910 KS	LG CHEM LTD	SK	BUY	17,954	287,500	370,000	1.74
RIL IN	RELIANCE INDUSTRIES LTD	IN	BUY	43,496	841	1,125	1.09

11/26/2013							
Ticker	Company	Country	Current Price (Local / shr)	Current Market Cap (US\$ millions)	1-Year Change (%)	Dividend Yld 2013 (%)	Total Return 2013 (%)
Review: TOP PICKS ASIA 2013							
OSH AU	OIL SEARCH LTD	AU	8.4	10,273	19.5	0.52	20.06
WPL AU	WOODSIDE PETROLEUM LTD	AU	38.4	28,873	15.4	3.70	19.06
RIL IN	RELIANCE INDUSTRIES LTD	IN	841	43,496	8.7	1.14	9.88
386 HK	CHINA PETROLEUM & CHEMICAL-H	CH	6.65	92,404	4.4	4.14	8.55
069260 KS	HUCHEMS FINE CHEMICAL CORP	SK	24,100	928	-7.5	2.90	-4.58
297 HK	SINOFERT HOLDINGS LTD	HK	1.32	1,196	-21.9	1.85	-20.05
PLNG IN	PETRONET LNG LTD	IN	122	1,463	-22.1	1.85	-20.29
1555 HK	MIE HOLDINGS CORPORATION	HK	1.73	591	-24.1	1.88	-22.24
2103 TT	TSRC CORP	TA	43.0	1,141	-24.6	4.41	-20.24

Source: Deutsche Bank

Over-weight (Asia) chemicals

Our Asia chemical analyst, Shawn Park published his views recently in a sector note titled: "Asia Petrochemical: Sector - Becoming Attractive", dated 01 Nov 2013. In summary:

- Although we expect weighted average chemical spreads to expand by 22% over the next two years, we only expect a 3% increase in weighted average chemical prices." (Figures 2 & 3)
- "Our revised global supply-demand model indicates that utilization rates (ethylene) should bottom in 2013 and rise through 2016. From 84.2% in 2013, we estimate a utilization rate of 86.2% for 2016 but

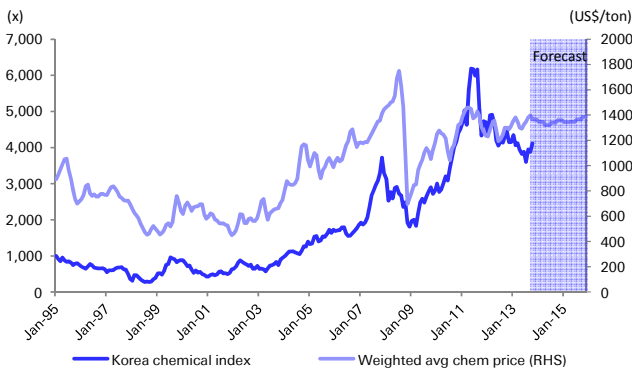


falling back to 85.4% in 2017 as US ethane crackers start to come onstream.

- Among the petrochemical products: 1) “we are particularly positive on MEG and ABS, while bearish on PX; 2) we are long term positive on synthetic rubbers; and 3) neutral on polyethylene(s).”

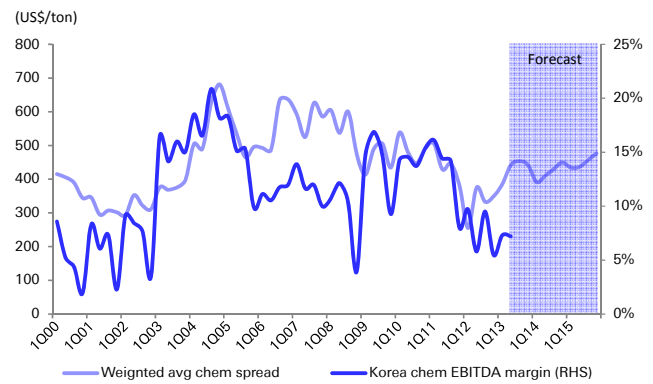
Our global ethylene incremental supply / demand and utilization rates are presented below in Figure 4.

Figure 2: Expecting chem. prices to inch up



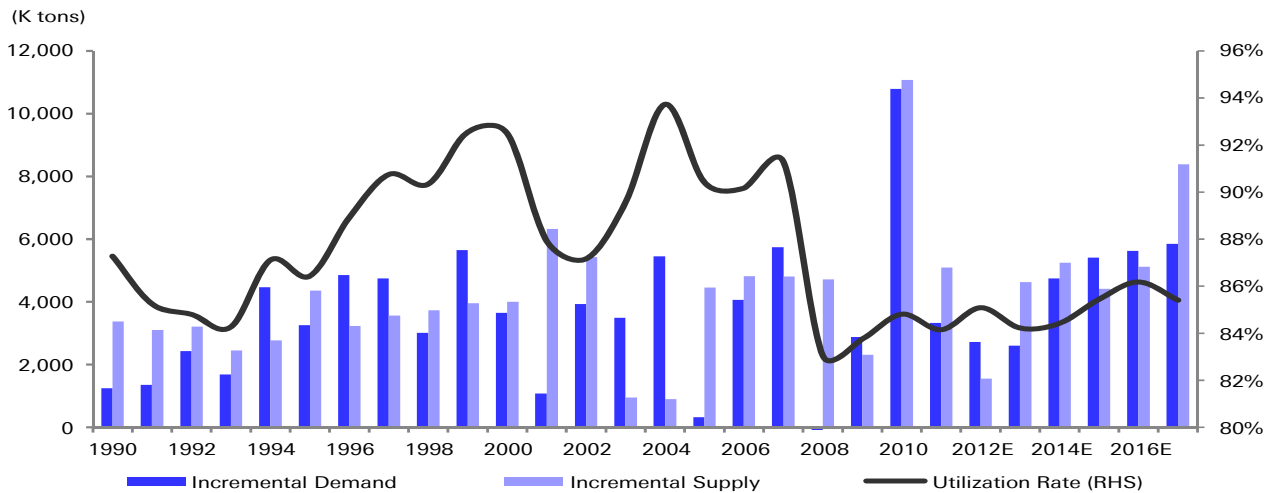
Source: Deutsche Bank; DataStream, IHS Chemicals; ICIS

Figure 3: Expecting chem. spreads to expand



Source: Deutsche Bank; DataStream; IHS Chemicals; ICIS

Figure 4: Global ethylene incremental supply-demand vs. utilization rate



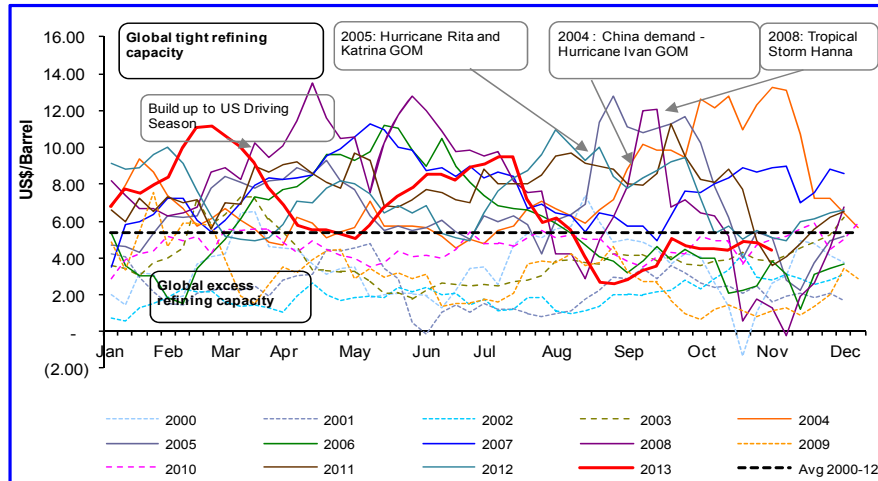
Source: Deutsche Bank; IHS Chemicals



Underweight (Asia) refineries

We have seen Asia / Singapore refining margins collapse (Figure 5) ever since the US Fed started to signal a move towards tapering.

Figure 5: Singapore complex refining margin (2000-2013)



Source: Deutsche Bank; Bloomberg Finance LP

As a result of the Fed’s tapering talk, SE Asia currencies started to fall (Figures 6-8) and demand for petroleum products, diesel in particular (India / Indonesia) started to slow. With actual Fed tapering just around the corner (DB /1Q14e), we don’t see much relief for the soft currencies of SE Asia and as a result Sing refining margins in 2014e.

Figure 6: Indian Rupee (spot)



Source: Bloomberg Finance LP; Deutsche Bank

Although we saw a bit of a recovery in SE Asian currencies September and October (Figures 6-8), the reversal seems to have been short lived as most SE Asia currencies have already begun to soften-up once again – in anticipation of Fed tapering, we suspect. Northeast Asia has dodged this “soft currency” bullet (China, S. Korea, Taiwan, even Thailand) so far, although China’s engineered GDP slowdown has added to pressure on Sing refining margins.



Figure 7: Indonesian Rupiah (spot)



Source: Bloomberg Finance LP; Deutsche Bank

Let's not overlook Australia and the weakening A\$ - which is a bit of a different issue than US Fed tapering. We suspect that the A\$ has softened due to a slow-down in China and global demand for commodities rather than Fed tapering talk. Australia has been closing refining capacity and therefore becoming a larger importer of oil products. In 2013, Shell closed its Clyde (3.2 mln tpa) refinery in New South Wales. Shell is currently considering options on its Geelong (6.0 mln tpa) refinery located just south-west of Melbourne. Over 2014-15e, Caltex will close its Kurnell (6.4 mln tpa) refinery which is located just south of Sydney. Australia is becoming a major importer of crude products into Asia. A soft A\$ will not be supportive of Asia refining margins.

Figure 8: Australian dollar (spot)

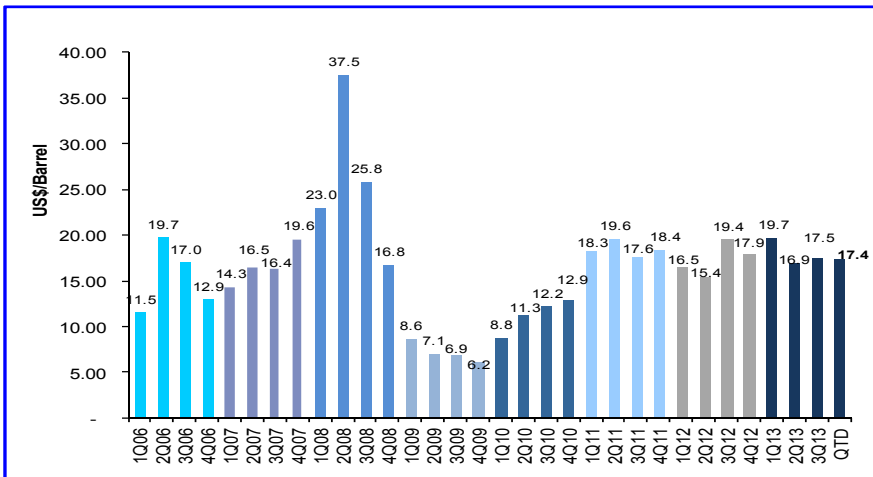


Source: Bloomberg Finance LP; Deutsche Bank

On average diesel represents 40% of Asia's oil product consumption. The largest consumers of diesel in Asia are China (43% of demand), India (19%) and Japan, Indonesia and S. Korea collectively (19%). The largest importers of diesel into Asia are Indonesia (26% of total imports) and Australia (15%). This does not include Singapore (21.5%) which is Asia's trading hub for petroleum products. Sing diesel spreads (Figure 9) have actually held up well in light of weak SE Asia currencies and feeble demand (2013) out of both China (+0.5%Ytd) and India (-1% Ytd).



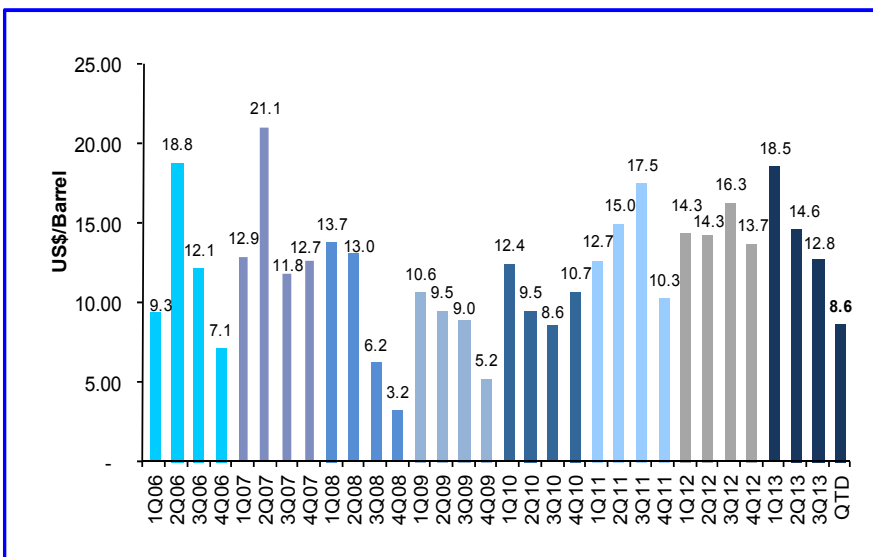
Figure 9: Singapore Diesel – Dubai Fateh (quarterly spread)



Source: Deutsche Bank, Bloomberg Finance LP, Reuters Eikon

On average gasoline represents 20% of Asia’s oil product consumption. The largest consumers of gasoline in Asia are China (40% of demand), Japan (20%) and India, Indonesia and Australia (23%). The largest importers of gasoline into Asia are Indonesia (30% of total imports) and Malaysia (16%). This does not include Singapore (35%) which is Asia’s trading hub for petroleum products. Sing gasoline spreads have collapsed despite strong China gasoline demand (+9.7% Ytd) and surging imports (+96%) off of a very low (non-existent) base.

Figure 10: Singapore Gasoline – Dubai Fateh (quarterly spread)



Source: Deutsche Bank, Bloomberg Finance LP, Reuters Eikon

In addition to the currency devaluations noted above, the wholesale diesel price in India was deregulated (Jan 2013) after a 1-off (+20%) price increase. Since deregulating its diesel price, the government has also implemented monthly diesel price increases of INR 0.5/ liter in attempt to eventually eliminate government subsidies to the diesel market. Assuming current oil prices and that the INR/USD remain at current levels, we estimate that it will



take about 2-years for India to eliminate its diesel subsidy. These measures have taken India's demand for diesel down to -1% growth April-Oct FY14/ 13 from an average annual growth rate of 7.6% (FY2008-13). Although the Indian Rupee has recouped some of its earlier losses (Figure 6), we suspect that continued diesel price increases will keep a lid on Indian diesel demand.

On 22 June 2013, the Indonesian government cut fuel subsidies for the first time since 2008, effectively raising gasoline and diesel prices by 44 and 22% respectively. Notwithstanding the June price increases, USD diesel prices in Indonesia (US\$ ~0.6/ liter) remain half those of more open petrol markets such as S. Korea, Japan and Australia. The government of Indonesia does not publish monthly consumption data on petrol. We suspect however that demand growth for petrol from Indonesia has all but dried-up and is leading to soft refining margins throughout Asia.

Weak currencies and the on-going reduction of government petrol subsidies throughout SE Asia make it difficult to be constructive Asia Refining 2014e.

Underweight oil (prices)

Our most recent DB oil and gas price forecasts can be seen in Figure 11 below. We last reset our oil and gas price forecasts 25 September 2013:

Figure 11: DB oil and gas price forecasts

Last Adjusted : 25/Sept/2013	DB FORECASTS				Bbrg Median Consensus (Nov 2013)		
	WTI (US\$ / bbl)	BRENT (US\$ / bbl)	DB Nymex Gas (US\$ / mmBtu)	WTI - Brent (US\$ / bbl)	WTI (US\$ / bbl)	BRENT (US\$ / bbl)	BRENT DB - Consensus (US\$ / bbl)
Q1 2012	102.9	118.4	2.51	-15.4			
Q2 2012	94.2	110.2	2.35	-15.9			
Q3 2012	92.2	109.5	2.90	-17.3			
Q4 2012	88.2	110.1	3.54	-21.9			
2012	94.4	112.0	2.82	-17.6			
Q1 2013	94.4	112.6	3.48	-18.3			
Q2 2013	94.0	103.4	4.00	-9.3			
Q3 2013	106.1	109.8	3.80	-3.6			
Q4 2013E	105.0	110.0	4.00	-5.0			
2013E	99.9	108.9	3.82	-9.07	95.0	108.0	0.9
Q1 2014E	105.0	110.0	4.30	-5.0			
Q2 2014E	100.0	105.0	4.15	-5.0			
Q3 2014E	95.0	105.0	4.20	-10.0			
Q4 2014E	95.0	105.0	4.35	-10.0			
2014E	98.75	106.25	4.25	-7.50	98.3	105	1.3
2015E	95.0	105.0	4.50	-10.00	105.5	105	0.0
2016E	85.0	100.0	4.75	-15.00	108.0	102	-2.0
2017E	92.0	102.0	5.00	-10.0		94	8.0
2018E	99.0	104.0	5.25	-5.0			
2019E	102.0	106.0	5.50	-4.0			

Source: Deutsche Bank; Bloomberg Finance LP

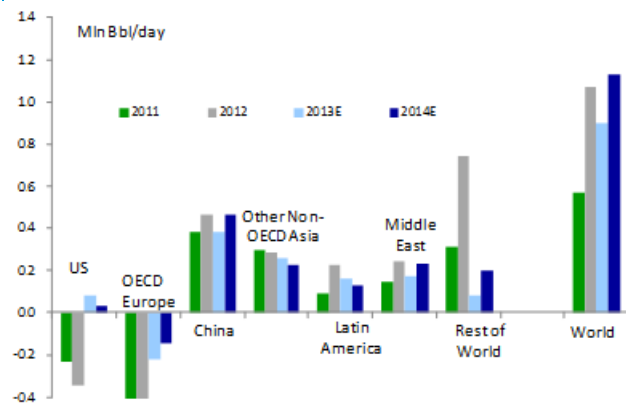
In her 25 September note on "Crude Oil: Supply in the spotlight", DB oil analyst, Soozhana Choi noted two issues that most caught our attention:

- 1) Global oil demand risk is skewed to the downside given weak currencies, notably in Asia; and



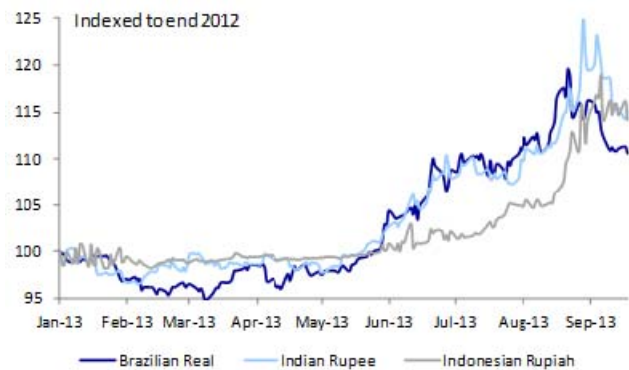
- “Demand-side risk remains as the potential for economic and financial market weakness across a number of emerging market countries, notably Asia. This reflects the importance of the region to oil demand growth. For example, combined Brazil, Indonesia and India contribute about a quarter of the rise in global oil demand growth. This is noteworthy given the significant depreciation of these countries’ currencies over the past few months (Figures 12-13). Indeed, we find that outside China the heaviest FX losses against the US dollar have occurred in countries where global oil demand growth is expected to be strongest.”

Figure 12: Global oil demand growth by major country / region



Source: IEA, Deutsche Bank

Figure 13: Risk to EM demand – currency depreciation

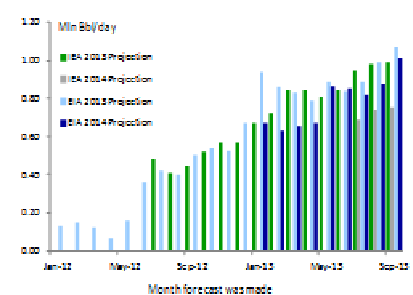


Source: Bloomberg Finance LP, Deutsche Bank

2) Upward revisions for US oil supply growth continue to surprise.

- “The upward revisions for US oil supply growth continue (Figure 14). The US Energy Dept/EIA raised its US oil supply growth forecast for next year to just over 1 mln bbl/day, marking a 50% increase in expectations since its initial projection at the start of this year, Figure 6. The IEA’s forecast is more modest than that of the EIA, though the upward trajectory for forecast revisions is the same. Ultimately, both benchmark forecasters are calling for a third year of very robust US oil supply growth. We estimate that US oil supply growth will contribute more than 60% of total non-OPEC supply growth in 2014 and will hold at roughly that rate over the next two years. North Dakota, a bellwether for US shale oil, posted a strong production growth figure for July, the most recent data point. The state’s production rose by 53k b/d on the month to hit 874k b/d, making it the strongest growth rate on record. YTD production is up nearly 200k b/d or over 30% YoY.”

Figure 14: US oil supply growth projection evolution



Source: IEA; US DOE / EIA; Deutsche Bank



Stock picks for 2014

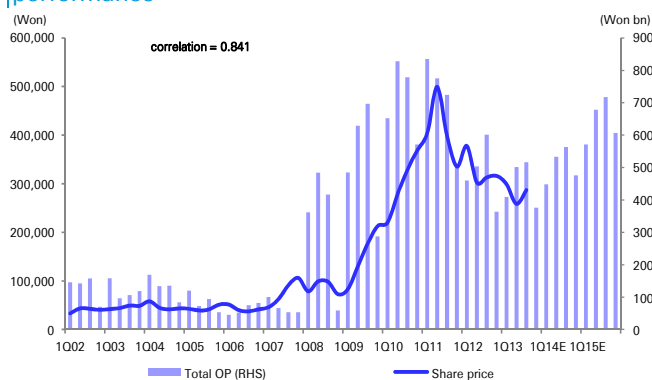
Big caps with a chemical twist

LG Chem (Shawn Park / +822 316 8977)

We like LG Chem's diversified product mix, long-term growth potential and earnings-driven share price. Going into 2014, we expect LG Chem's operating profit to grow by 12%, driven mainly by growth in petrochemical earnings. Within its petrochemical division, ABS (25% of sales) should show margin expansion, as we expect incremental demand to outpace supply. Furthermore, we expect its new businesses – EV (electric vehicle) battery and display glass – to finally break even, and contribute small portions of earnings.

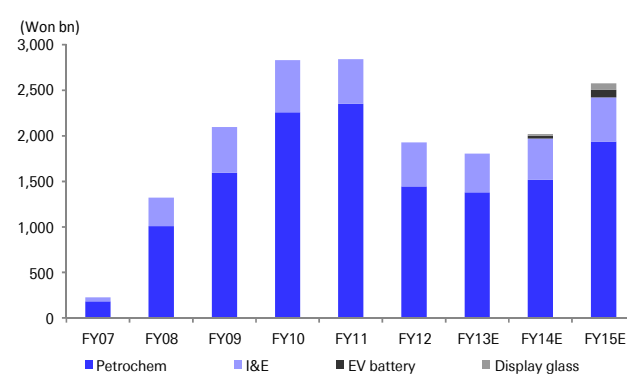
We expect LG Chem's long term growth to accelerate as ABS and synthetic rubber product chains' supply demand tightens, while new businesses generate additional profits into 2015. While we only assume a single digit growth from its I&E (information & electronic) materials division, we forecast 27% operating profit growth for 2015.

Figure 15: LG Chem: Operating profit drives share performance



Source: Deutsche Bank estimates; Data Stream

Figure 16: LH Chem operating profit breakdown



Source: Deutsche Bank estimates; LG Chem company data

Our target price is based on a sum-of-the-parts valuation, where we separately value LG Chem's traditional business divisions and its new EV battery and display glass businesses. Downside risks include: 1) slower-than-expected recovery in petrochemical demand and 2) any sudden spike in oil prices.

Figure 17: LG Chem – sum of the parts give us Won 370,000 target price

Business (Won bn)	Methodology	Multiple	FY14E EBITDA	Value
Petrochemical	EV/EBITDA	7	2,233	15,629
I&E Materials	EV/EBITDA	8	763	6,107
EV Batteries	DCF		2,996	4,204
Display glass	DCF			1,847
Net Debt				793
Total Value				26,994
No Shares (mil)				74
Fair Value per Share (Won)				370,000

Source: Deutsche Bank estimates



Figure 18: LG Chemicals

Model updated: 03 November 2013

Running the Numbers

Asia

Korea

Chemicals

LG Chem

Reuters: 05910.KS Bloomberg: 05910 KS

Buy

Price as of 25 November Won 290,500

Target price Won 370,000

Company website

http://www.lgchem.co.kr

Company description

LG Chem is a major petrochemical player in Asia, in which products include olefin, polyolefin, ABS, synthetic rubber, and PVC. The company also has electronic materials division, in which polarizer films for LCDs and lithium-ion batteries for electronic appliances are major products. LG Corp is the major shareholder with a 30% stake.

Research Team

Shawn Park

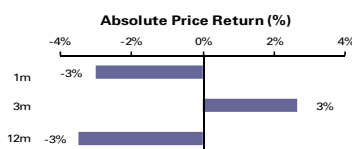
+82-2-316 8977

shawn.park@db.com

Dianna Kang

+82 2 3168901

dianna.kang@db.com



52-week Range: Won 233,500 - 342,500

Market Cap (bn) KRW 21,468bn

USD 20bn

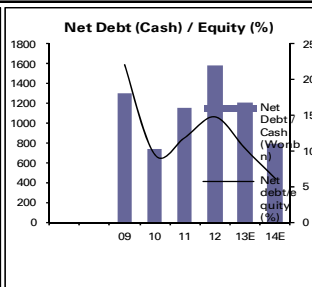
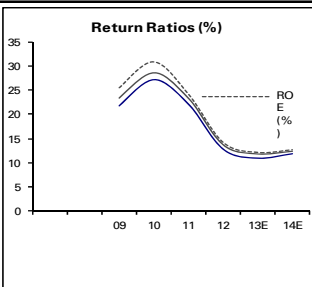
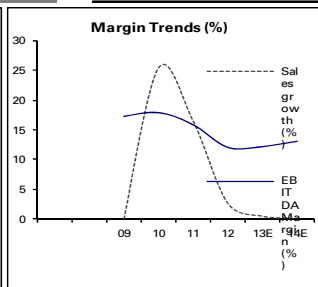
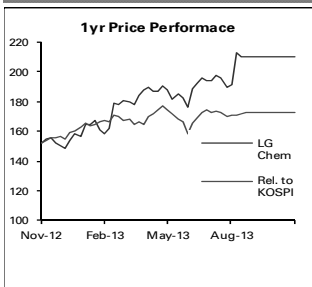
Company identifiers

Cusip Y52758 102

SEDOL 6346913

Year Ending 31 December

	2009	2010	2011	2012	2013E	2014E
SUMMARY						
DB EPS (Won)	19,825	28,787	28,768	19,805	18,718	21,691
P/E (x)	8.1	10.4	14.2	16.5	15.5	13.4
DB EPS growth (%)	na	45.2	-0.1	-31.2	-5.5	15.9
Reported EPS (Won)	19,825	28,787	28,768	19,805	18,718	21,691
P/E (Reported) (x)	8.1	10.4	14.2	16.5	15.5	13.4
CFPS (Won)	31,386	31,284	31,406	24,681	33,171	36,527
P/CFPS (x)	5.1	9.6	13.0	13.2	8.8	8.0
Free CFPS (Won)	17,525	9,471	1,764	-977	8,814	9,464
DPS (Won)	3,500	4,000	4,000	4,000	4,000	5,000
Dividend Yield (%)	2.2	1.3	1.0	1.2	1.4	1.7
BV/Share (Won)	80,199	106,141	131,362	145,675	160,956	179,369
Price/BV (x)	2.85	3.68	2.42	2.27	1.80	1.62
Weighted average shares (m)	76.4	73.9	73.9	73.9	73.9	73.9
Average market cap (Wonbn)	12,330	22,138	30,283	24,167	21,468	21,468
Enterprise value (Wonbn)	13,392	22,653	31,095	25,321	22,251	21,831
EV/Sales	0.86	1.16	1.37	1.09	0.95	0.93
EV/EBITDA	5.0	6.5	8.7	9.1	7.9	7.2
EV/EBIT	6.4	8.0	11.0	13.3	12.3	10.8
EV/Operating Capital	1.9	2.7	3.0	2.1	1.8	1.6
INCOME STATEMENT (Wonbn)						
Sales revenue	15,521	19,471	22,676	23,263	23,360	23,374
Operating EBITDA	2,683	3,493	3,594	2,784	2,827	3,043
Depreciation	568	654	741	855	1,000	1,000
Amortisation	17	18	16	19	25	25
EBIT	2,098	2,821	2,838	1,910	1,802	2,017
Net interest income(expense)	-85	-35	-40	-43	-27	-26
Associates/affiliates	55	55	15	12	0	0
Investment/other income(expense)	-53	-24	2	1	3	73
Exceptionals/extraordinaries	0	0	0	0	0	0
Income tax expense	443	619	627	374	356	413
Minorities/preference dividends	58	72	63	43	39	48
Net income	1,514	2,127	2,126	1,464	1,383	1,603
CASH FLOW (Wonbn)						
Cash flow from operations	2,398	2,312	2,321	1,824	2,451	2,699
Movement in net working capital	280	-528	-656	-519	-15	-2
Capex	-1,099	-1,617	-2,195	-1,907	-1,800	-2,000
Free cash flow	1,339	700	130	-72	651	699
Other investing activities	40	-5	-85	-747	-4	-2
Equity raised(bought back)	0	0	0	0	0	0
Dividends paid	-211	-280	-319	-316	-293	-293
Net inc(dec) in borrowings	-158	-348	389	562	-210	1
Other financing cash flows	33	3	-7	0	13	14
Total cash flows from financing	-335	-624	63	246	-490	-278
Net cash flow	780	66	103	-585	157	419
Movement in net debt(cash)	-937	-414	286	1,147	-367	-418
BALANCE SHEET (Wonbn)						
Cash and other liquid assets	1,107	1,368	1,379	1,366	1,525	1,944
Tangible fixed assets	4,775	5,872	7,376	8,348	9,148	10,149
Goodwill	0	0	0	0	0	0
Other intangible assets	162	180	207	234	209	184
Associates/investments	242	219	335	427	429	431
Other assets	4,245	5,035	5,988	6,206	6,244	6,260
Total assets	10,531	12,673	15,286	16,581	17,555	18,968
Interest bearing debt	2,411	2,101	2,527	2,947	2,737	2,738
Other liabilities	2,193	2,729	3,010	2,854	2,924	2,975
Total liabilities	4,604	4,830	5,537	5,801	5,661	5,712
Shareholders' equity	5,927	7,844	9,708	10,765	11,895	13,255
Minorities	0	0	0	0	0	0
Total shareholders' equity	5,927	7,844	9,708	10,765	11,895	13,255
Net working capital	2,096	2,267	2,991	3,501	3,516	3,518
Net debt(cash)	1,304	733	1,147	1,581	1,212	793
Capital	7,231	8,577	10,855	12,347	13,106	14,049
RATIO ANALYSIS						
Sales growth (%)	na	25.5	16.5	2.6	0.4	0.1
EBITDA Margin (%)	17.3	17.9	15.9	12.0	12.1	13.0
EBIT Margin (%)	13.5	14.5	12.5	8.2	7.7	8.6
Payout ratio (%)	17.7	13.9	13.9	20.2	21.4	23.1
ROE (%)	25.6	30.9	24.2	14.3	12.2	12.7
Return on Capital (%)	21.9	27.3	22.2	12.9	11.0	12.0
Operating Return on Capital (%)	23.4	28.7	23.4	13.6	11.7	12.3
Capex/sales (%)	7.1	8.3	9.7	8.2	7.7	8.6
Capex/depreciation (x)	1.9	2.4	2.9	2.2	1.8	1.9
Net debt/equity (%)	22.0	9.3	11.8	14.7	10.2	6.0
Net interest cover (x)	24.7	81.6	71.4	44.5	67.1	77.8



Source: Company data, Deutsche Bank estimates

Source: Deutsche Bank



Reliance Industries (Harshad Katkar / +91 22 7180 4029)

We like Reliance Industries (RIL) on its improving upstream business and implementation of its high RoE (over 20%) capex into Petrochemicals and Refining. Investors are concerned about RIL's growing US\$15bn cash hoard and delays in government / policy approvals for its upstream business.

During 2014 we expect 1) almost a 2x of gas prices from April 2014; 2) a rise in gas production – after 3 years of falling output – from RIL's KGD6 block and 3) continuation of the ongoing (2013-2015) US\$12bn capex to expand RIL's petrochemical capacity and improve refining margins. Over FY14-17e, we expect RIL's USD12bn investment in its downstream businesses (off-gas cracker and petcoke regasification) to be a key driver of earnings and valuation. We estimate these investments to add c.USD3.5-4bn p.a. to its EBITDA from FY17, which is about 60% of its FY14e EBITDA.

Figure 19: Petchem capacity expansion plan

Chemicals	Existing Capacity	Planned expansion	Expanded capacity	Timeline
	TMT	TMT	TMT	
Purified Terephthalic Acid (PTA)	2,050	2,296	4,346	2HFY14/1HFY15
Polyethylene Terephthalate (PET)	290	648	938	2HFY14/1HFY15
Polyester Filament Yarn (PFY)	670	395	1,065	FY14
Polyester Terephthalate Yarn	153	140	293	FY14
PBR	74	40	114	FY14
SBR		150	150	FY14
Ethylene	1,883	1,365	3,248	FY16
Propylene	759	154	913	FY16
LDPE	190	400	590	FY16
LLDPE/HDPE	928	550	1,478	FY16
Paraxylene (PX)	1,856	1,800	3,656	FY16
Mono Ethylene Glycol (MEG)	733	733	1,466	FY16
Butyl Rubber (JV with SIBUR)	0	100	100	FY16

Source: Company data, Deutsche Bank

In terms of RIL's business split - refining contributes 54%, chemicals 39% and E&P.6% to its operating profits. We estimate EPS Growth rate of 14% in FY15e and 14% CAGR in FY14-16e. RIL carries an estimated dividend yield of 1%. We show the stock trading at 10x our FY15 earnings estimates vs a subset of global petrochemical peers trading at 12.5x DB 2014 earnings estimates and a subset of global refining peers trading at 9x DB 2014 earnings estimates. We value Reliance Industries on sum of the parts with refining and petrochemicals at 6.5x FY15e EV/EBITDA. We value E&P on DCF (WACC 10.7%). We believe a downturn in global commodity prices/ margins due to weaker global demand is the biggest risk for Reliance Industries. Exploration and production activities face risks such as volatility in oil and natural gas prices, and operational, financial, geological and meteorological issues. Further delay in regulatory approvals and any adverse government policy are added risks.

Figure 20: SOTP based valuation for RIL

	INR/sh	Methodology
Refining and petrochemicals	685	6.5x FY15E EBITDA
E&P	230	DCF, WACC of 10.7%
Of which KG D6	84	
Of which US shale gas	57	
Net cash and investments (including CWIP)	210	FY15E
Target price	1125	

Source: Deutsche Bank Gross pay



Figure 21: Reliance Industries

Model updated: 23 October 2013

Running the Numbers

Asia

India

Oil & Gas

Reliance Industries

Reuters: RELI.BO Bloomberg: RIL IN

Buy

Price as of 25 November Rs 851.35

Target price Rs 1125.00

Company website

http://www.ril.com

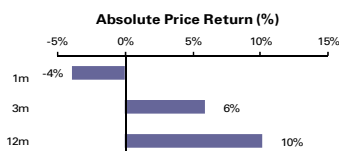
Company description

RIL is India's largest private sector enterprise, with businesses in the energy and materials value chain. Its activities span exploration and production of oil and gas, petroleum refining and marketing, petrochemicals (polyester, fibre intermediates, plastics and chemicals), textiles and retailing. At 1.3m bpd, RIL operates the largest refinery in the world at a single location. RIL is also the largest polyester yarn and fibre producer in the world and among the top five to ten producers globally in major petrochemical products.

Research Team

Harshad Katkar
+91 22 7158 4029 harshad.katkar@db.com

Amit Murarka
+9122 7180 4069 amit.murarka@db.com

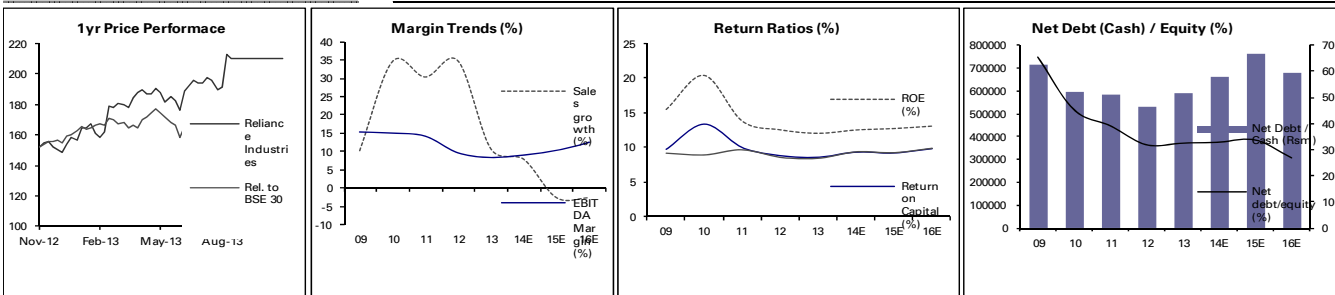


52-week Range: Rs 766.75 - 923.40

Market Cap (m) INR 2,748,722m USD 43,913m

Company identifiers
Cusip Y72596102
SEDOL 6099626

Year Ending 31 March	2009	2010	2011	2012	2013	2014E	2015E	2016E
SUMMARY								
DB EPS (Rs)	47.55	48.49	58.97	60.28	64.25	73.97	84.02	96.66
P/E (x)	18.9	21.1	17.3	13.9	12.3	11.5	10.1	8.8
DB EPS growth (%)	-6.1	2.0	21.6	2.2	6.6	15.1	13.6	15.0
Reported EPS (Rs)	46.54	74.74	58.97	60.28	64.25	73.97	84.02	96.66
P/E (Reported) (x)	19.3	13.7	17.3	13.9	12.3	11.5	10.1	8.8
CFPS (Rs)	72.96	85.33	98.88	72.26	123.71	107.32	114.44	139.50
P/CFPS (x)	12.3	12.0	10.3	11.6	6.4	7.9	7.4	6.1
Free CFPS (Rs)	-17.00	45.84	-3.83	93.46	35.74	-22.06	-29.02	28.01
DPS (Rs)	6.50	7.00	8.00	8.50	9.00	9.25	9.50	11.00
Dividend Yield (%)	0.7	0.7	0.8	1.0	1.1	1.1	1.1	1.3
BV/Share (Rs)	331.77	402.36	452.15	508.46	558.73	622.85	696.76	781.72
Price/BV (x)	2.30	2.67	2.32	1.47	1.38	1.37	1.22	1.09
Weighted average shares (m)	3,097	3,278	3,272	3,272	3,250	3,229	3,229	3,229
Average market cap (Rsm)	2,780,121	3,353,775	3,347,249	2,742,420	2,567,734	2,748,722	2,748,722	2,748,722
Enterprise value (Rsm)	3,493,391	3,950,699	3,928,464	3,273,330	3,155,534	3,410,858	3,508,537	3,427,214
EV/Sales	2.31	1.94	1.48	0.91	0.79	0.80	0.84	0.84
EV/EBITDA	14.9	12.8	10.3	9.5	9.5	8.8	8.2	6.7
EV/EBIT	19.7	19.8	16.4	14.8	14.5	12.3	11.3	9.5
EV/Operating Capital	1.9	2.0	2.0	1.7	1.5	1.4	1.3	1.2
INCOME STATEMENT (Rsm)								
Sales revenue	1,512,240	2,037,397	2,658,106	3,585,010	3,970,620	4,284,670	4,171,411	4,060,237
Operating EBITDA	234,222	308,939	380,436	345,080	330,450	388,175	428,772	512,105
Depreciation	56,510	109,458	141,208	124,010	112,320	110,535	118,704	150,070
Amortisation	0	0	0	0	0	0	0	0
EBIT	177,712	199,481	239,228	221,070	218,130	277,640	310,068	362,035
Net interest income(expense)	-3,602	-3,437	-6,691	12,740	15,370	3,847	13,570	9,393
Associates/affiliates	0	0	0	70	-70	0	0	0
Investment/other income(expense)	4,582	4,699	8,012	20,270	28,670	28,670	28,670	28,670
Exceptionals/extraordinaries	0	86,056	0	0	0	0	0	0
Income tax expense	29,188	42,563	47,834	56,910	53,310	71,336	81,031	88,022
Minorities/preference dividends	-184	-796	-222	0	0	0	0	0
Net income	149,687	245,031	192,937	197,240	208,790	238,821	271,277	312,077
CASH FLOW (Rsm)								
Cash flow from operations	225,931	279,747	323,520	236,460	402,040	346,507	369,492	450,398
Movement in net working capital	-57,726	66,625	-10,390	-67,480	73,720	25,821	8,181	16,922
Capex	-278,567	-129,467	-338,650	-163,810	-307,260	-417,732	-463,201	-359,953
Free cash flow	-52,636	150,281	-12,520	305,820	116,160	-71,225	-93,709	90,445
Other investing activities	30,873	-66,767	-7,100	73,320	-48,360	28,670	28,670	28,670
Equity raised(bought back)	15,1648	15,638	1,960	-1,850	-26,850	0	0	0
Dividends paid	-22,195	-24,309	-24,310	-27,720	-29,490	-31,781	-32,640	-37,793
Net inc(dec) in borrowings	433,731	-204,859	207,020	-10,480	106,540	51,013	140,981	-122,114
Other financing cash flows	0	0	0	0	0	0	0	0
Total cash flows from financing	563,184	-213,530	184,670	-40,050	50,200	19,233	108,341	-159,908
Net cash flow	541,421	-130,017	162,440	105,920	96,620	-23,322	43,302	-40,793
Movement in net debt(cash)	-107,691	-74,842	44,580	-116,400	9,920	74,336	97,679	-81,321
BALANCE SHEET (Rsm)								
Cash and other liquid assets	227,421	138,908	301,390	407,310	504,560	481,238	524,540	483,748
Tangible fixed assets	1,686,604	1,678,113	1,817,560	1,610,510	1,817,780	2,124,977	2,469,474	2,679,357
Goodwill	0	0	0	0	0	0	0	0
Other intangible assets	0	0	0	0	0	0	0	0
Associates/investments	64,355	131,123	215,962	385,960	428,480	428,480	428,480	428,480
Other assets	360,040	552,149	679,406	836,860	856,140	952,571	926,635	894,466
Total assets	2,338,420	2,500,292	3,014,317	3,240,640	3,606,960	3,987,266	4,349,129	4,486,051
Interest bearing debt	940,691	735,833	882,605	938,220	1,092,360	1,143,373	1,284,354	1,462,240
Other liabilities	306,108	442,854	643,633	631,250	701,170	823,423	805,667	790,420
Total liabilities	1,246,799	1,178,687	1,526,238	1,569,470	1,793,530	1,966,796	2,090,022	1,952,660
Shareholders' equity	1,090,232	1,315,870	1,480,057	1,663,180	1,803,940	2,010,980	2,249,618	2,523,901
Minorities	1,389	5,735	8,022	7,990	9,490	9,490	9,490	9,490
Total shareholders' equity	1,091,621	1,321,605	1,488,079	1,671,170	1,813,430	2,020,470	2,259,108	2,533,391
Net working capital	180,595	253,020	193,784	369,520	321,730	279,070	271,624	259,106
Net debt(cash)	713,270	596,924	581,215	530,910	587,800	662,136	759,814	678,492
Capital	1,804,891	1,918,529	2,069,294	2,202,080	2,401,230	2,682,606	3,018,922	3,211,883
RATIO ANALYSIS								
Sales growth (%)	10.3	34.7	30.5	34.9	10.8	7.9	-2.6	-2.7
EBITDA Margin (%)	15.5	15.2	14.3	9.6	8.3	9.1	10.3	12.6
EBIT Margin (%)	11.8	9.8	9.0	6.2	5.5	6.5	7.4	8.9
Payout ratio (%)	13.4	9.4	13.6	14.1	14.0	12.5	11.3	11.4
ROE (%)	15.5	20.4	13.8	12.6	12.0	12.5	12.7	13.1
Return on Capital (%)	9.7	13.3	9.9	8.8	8.5	9.3	9.1	9.8
Operating Return on Capital (%)	9.2	8.9	9.7	8.6	8.4	9.4	9.3	9.9
Capex/sales (%)	18.4	6.4	12.7	4.6	7.7	9.7	11.1	8.9
Capex/depreciation (x)	4.9	1.2	2.4	1.3	2.7	3.8	3.9	2.4
Net debt/equity (%)	65.3	45.2	39.1	31.8	32.4	32.8	33.6	26.8
Net interest cover (x)	49.3	58.0	35.8	nm	nm	nm	nm	nm



Source: Company data, Deutsche Bank estimates

Source: Deutsche Bank

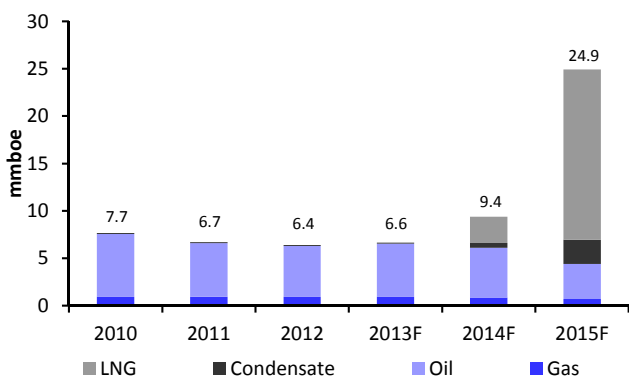


Oil Search (John Hirjee / +613 9270 4318)

Oil Search (Buy, \$10.00/sh PT) is our top pick in the Australian Energy Sector. The company's transformative PNG LNG project is currently commissioning, with first cargoes due in 2H14 from the ExxonMobil-led development. We estimate a project IRR of 19%, the highest of any new-build LNG project in the region given a high liquids yield, favorable fiscal regime and lower cost construction environment.

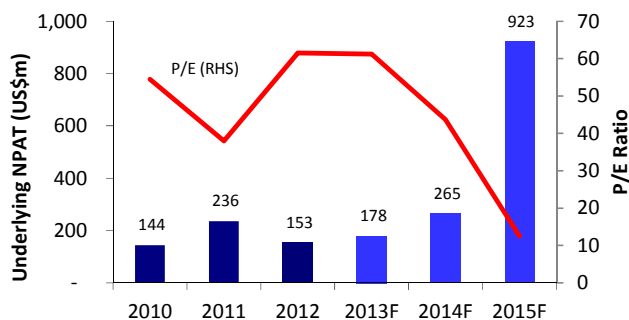
Given Oil Search's leverage to the project, we forecast significant production and earnings growth, commencing in 2014. We forecast production will grow by nearly 4 times 2012 levels by 2015 and estimate 2015 earnings at 4.8x 2012 levels.

Figure 22: Oil Search production forecasts



Source: Company data, Deutsche Bank

Figure 23: Oil Search NPAT and P/E forecasts



Source: Company data, Deutsche Bank

In addition, the PNG LNG project offers material growth upside. The resource upside potential at Hides and P'nyang underpins a third train development, while ongoing negotiations with PNG resource owner InterOil could see the Elk/Antelope discovery enter the project.

We value Oil Search using a DCF approach. Our NAV is \$9.86/sh using DB commodity assumptions. Using the Brent forward curve as at 17 Sep 13, our NAV is \$8.77/sh. Our price target of \$10.00/sh is derived from the midpoint of the two NAVs and adding a risked exploration potential of 66cps. Key risks to Oil Search include delays to PNG LNG, production costs and exploration failures.



Figure 24: Oil Search

Model updated: 22 October 2013

Running the Numbers	
Asia Pacific	
Australia	
Energy	
Oil Search	
Reuters: OSH.AX	Bloomberg: OSH.AU
Buy	
Price as of 26 November	A\$ 8.38
Target price	A\$ 10.00

Company website

<http://www.oilsearch.com.au>

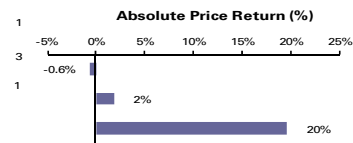
Company description

Oil Search Limited explores for and produces gas and oil through operations in Papua New Guinea. The Company's activities are located in the Papuan Highlands which include the Kutubu, Hides, and Gobe oil and gas projects.

Research Team

John Hirjee
+613 9270 4318 john.hirjee@db.com

Hugh Morgan
+613 9270-4385 hugh.morgan@db.com

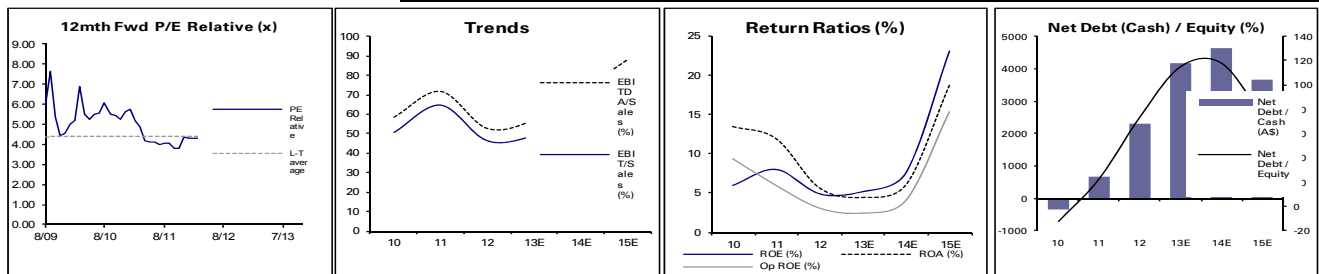


52-week Range: A\$ 8.86 - 6.86
Market Cap (m) A\$11,257
USD\$10,315

DCF VALUATION (A\$)	
Beta (MRP - 6.00)	1.20
Debt/mkt value ratio (%)	####
WACC (6.25% bond yield)	11.0
Net value per share (\$)	9.86
Price/NPV (x)	0.85

Source: Company data, Deutsche Bank estimates

Year Ending 31 December	2009	2010	2011	2012	2013E	2014E	2015E
SUMMARY							
Normalised EPS (A\$)	0.103	0.119	0.173	0.114	0.146	0.216	0.772
P/E Ratio normalised (A\$)	53.4	50.1	38.1	61.7	57.4	38.8	10.9
Normalised EPS growth (A\$)		16.0	44.9	-34.2	28.5	48.1	257.2
EPS FD (A\$)	0.138	0.153	0.148	0.127	0.138	0.216	0.772
PE Ratio FD (A\$)	39.8	38.9	44.3	55.1	60.8	38.8	10.9
Operating CFPS (A\$)	0.293	0.329	0.283	0.142	0.249	0.412	1.196
P/CFPS (x)	18.7	18.1	23.2	49.3	33.6	20.3	7.0
DPS (A\$)	0.050	0.043	0.039	0.039	0.041	0.043	0.036
Dividend Yield (%)	0.9	0.7	0.6	0.5	0.5	0.5	3.8
Price/BV (A\$)	2.47	2.83	2.93	2.98	3.06	2.81	2.28
Enterprise value (A\$m)	5,700	6,941	8,804	10,818	13,296	14,359	13,940
EV/EBITDA (A\$m)	16.4	18.8	17.3	29.5	32.0	21.0	6.2
EV/EBIT (A\$m)	25.8	21.6	19.2	33.4	37.1	25.0	7.4
DIVISIONAL REVENUE (US\$m)							
Oil	560	579	611	601	628	608	435
LNG	0	0	0	0	0	265	1,801
Domgas	16	16	17	24	17	17	14
Condensate	10	12	14	13	13	63	318
Other	14	27	68	61	72	0	0
INCOME STATEMENT (A\$m)							
Sales revenue	646	634	710	698	730	952	2,568
EBITDA (incl significant items)	434	350	476	382	416	683	2,257
Depreciation/amortisation	-127	-49	-50	-42	-57	-109	-369
EBIT (incl significant items)	307	302	427	339	359	574	1,888
Net interest income (expense)	-4	-1	-1	-4	-11	-97	-331
Income tax expense	134	99	230	165	165	189	529
Associates/affiliates	0	0	0	0	0	0	0
Minorities/preference dividends	0	0	0	0	0	0	0
Reported profit	169	202	196	169	183	288	1,028
Significant items	43	45	-32	22	0	0	0
Net profit (excl significant items)	126	157	228	147	183	288	1,028
EBIT (excl significant items)	221	321	459	324	359	574	1,888
CASH FLOW (A\$m)							
Cash flow from operations	358	433	374	189	332	549	1,593
Movement in net working capital	19	39	177	-139	45	-42	-168
Capex	-184	-995	-1,157	-1,431	-1,495	-693	-263
Free cash flow	175	-562	-783	-1,242	-1,164	-144	1,330
Other investing activities	-299	-481	-118	-258	-297	-174	-22
Equity raised (bought back)	945	33	36	31	16	0	0
Dividends paid	-63	-37	-36	-31	-43	-58	-215
Net inc (dec) in borrowings	0	1,010	686	965	1,070	342	0
Other financing cash flows	191	10	6	-4	0	0	0
Total cash flows from financing	1,074	1,016	692	961	1,043	283	-215
Net cash flow	950	-27	-209	-539	-417	-35	1,092
Movement in net debt (cash)	-950	1,036	895	1,504	1,488	376	-1,092
BALANCE SHEET (A\$m)							
Cash and other liquid assets	1,435	1,237	1,024	470	88	55	1,162
Tangible fixed assets	796	2,333	3,761	5,224	7,347	8,123	8,210
Goodwill	0	0	0	0	0	0	0
Other intangible assets	0	0	0	0	0	0	0
Associates/investments	0	0	0	0	0	0	0
Other assets	1,198	628	790	1,147	1,564	1,922	2,560
Total assets	3,429	4,197	5,575	6,842	8,999	10,101	11,932
Interest bearing debt	0	0	919	1,709	2,761	4,257	4,823
Other liabilities	540	549	916	991	1,136	1,461	2,264
Total liabilities	540	1,459	2,625	3,751	5,397	6,171	7,086
Shareholders' equity	2,890	2,739	2,950	3,091	3,606	3,930	4,845
Minorities/others	0	0	0	0	0	0	0
Total shareholders' equity	2,890	2,739	2,950	3,091	3,606	3,930	4,845
Net working capital	-40	-70	-248	-106	-165	-126	41
Net debt (cash)	-1,435	-327	685	2,290	4,168	4,654	3,661
RATIO ANALYSIS							
Sales growth (%)	#VALUE!	-1.9	12.0	-1.7	4.6	30.4	169.6
EBITDA Margin (%)	53.8	58.3	71.6	52.5	56.9	71.7	87.9
EBIT Margin (%)	34.2	50.7	64.6	46.4	49.1	60.2	73.5
Payout ratio (%)	67.6	36.2	22.3	34.6	29.9	20.2	21.0
ROA (%)	19.5	13.4	11.9	5.6	4.4	6.0	18.7
ROE (%)	6.1	6.0	8.0	4.9	5.2	7.6	23.1
Operating Return on Capital (%)	#VALUE!	9.4	6.0	3.1	2.4	4.1	15.3
Tax Rate	44.3	33.0	54.0	49.4	47.3	39.7	34.0
Capex/sales (%)	28.4	156.9	163.0	205.0	204.8	72.8	10.2
Capex/depreciation (x)	1.4	20.5	23.3	33.7	26.2	6.3	0.7
Net debt/equity (%)	-49.7	-11.9	23.2	74.1	115.6	118.4	75.5
Net interest cover (x)	52.6	358.2	720.0	73.8	33.6	5.9	5.7



Source: Deutsche Bank



Sinopec (David Hurd / +852 6472 7486)

Sinopec (HK\$ 7.23/ share PT) is our top pick in the China Oil & Gas sector. Half of Sinopec's earnings come from its downstream operations in refining, marketing and chemicals. We have recently upgraded our views on the Asia Chemical space. In 2011, Sinopec's chemical division made EBIT of RMB 26.7bn vs. break-even in both 2012 and 2013e. With improving chemical markets, there is lots of earnings leverage in SNP's chemical division. SNP's principal chemical products and DB spread estimates are noted in Figure 25.

Figure 25: Operating leverage in the chemical division

	2011	2012	2013e	2014e	2015e	2016e
SINOPEC						
- EBIT (Rmb blns)	26.7	1.2	(0.4)	2.5	3.8	5.5
- Ethylene capacity (Mlns tons pa)	8.7	8.7	9.5	9.5	9.5	9.5
- PE spread (US\$ / ton)	629	360	540	500	500	450
- PX spreads (US\$ / ton)	616	569	570	450	500	400
- PTA spreads (US\$ / ton)	350	125	195	195	220	250
- PET spreads (US\$ / ton)	700	400	500	550	600	650
- MEG spreads (US\$ / ton)	244	76	150	250	280	300
Notes:						
- Above spreads are all against Naphtha						
- Sinopec is China's largest producer of polyethylene (PE), ethylene glycol (MEG), synthetic fibers (PTA) polyester (PET), and paraxylene (PX)						

Source: Deutsche Bank; Company data

Flat to down oil prices support Sinopec's refining profitability. Over the past decade rising oil prices have led to losses in the Chinese refineries as the government was hesitant to pass on higher oil prices to refined product prices. Beginning 26 March 2013, the government agreed to allow the NDRC to adjust product prices every 10-working days given a + / - 4% change in the price of a basket of crude oils. Since 26-March China's product prices have been linked to oil prices and SNP's refining losses of Rmb 35.37bn and 11.4bn (2011 / 2012) should show growing profits in 2013e (Rmb 9.5bn), 2014e (Rmb 11.96bn) and beyond.

In March 2013, Sinopec Chairman, FU Chengyu announced the first of what we hope will be many E&P asset injections from Sinopec Group into Sinopec Corp (386.HK). Assets to be injected include an oil field from Russia (Udmurtneft), a handful of oil fields from Kazakhstan and a small oil field in Colombia. The price tag for the injections was US\$ 3.0bn which was equivalent to US\$ 11.6 EV/ BOE of proven (1P) reserves and / or US\$ 9.67 EV / BOE of 2P reserves. At the time of the injection, global E&P companies were trading at US\$ 16.3 EV / BOE of 1P reserves.

We value Sinopec from a DCF model. Our fair value price target is HK\$ 7.23/ share. Our WACC is 6.1% consisting of a cost of equity of 8.1% and an after tax cost of debt of 2.3%. We use a TG rate of 2.5% which is a reasonable assumption for SNP's long term BOE production growth. We show SNP trading at 2014e PE of 8.2x vs. a global peer group trading at 9.6x. SNP is trading at a 15% PE discount to global peers. Our 2015e / 12 earnings CAGR for SNP is a reasonable 7.9%. The stock carries a 4.6% dividend yield.

27 November 2013

Oil & Gas

Asia Oil & Gas



The principal risks include: 1) materially higher than anticipated oil prices which would risk the refining turnaround; 2) materially lower than anticipated oil prices that would risk our SNP E&P estimates; 3) softer than anticipated global GDP growth (2014-15) which would jeopardize our hope for higher chemical profits 2014-15e; and 4) the absence of 2014-15 E&P asset injections from Sinopec Group to Sinopec Corp, which would cause the market to turn away from the shares



Figure 26: Sinopec

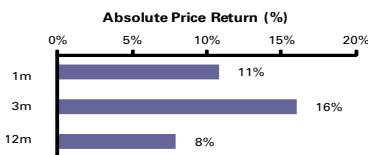
Model updated: 30 October 2013

Running the Numbers

Asia
China
Oil & Gas
Sinopec-H
Reuters: 0386.HK
Bloomberg: 386 HK
Buy
Price as of 26 November
Target price
Company website
Company description
NAME?

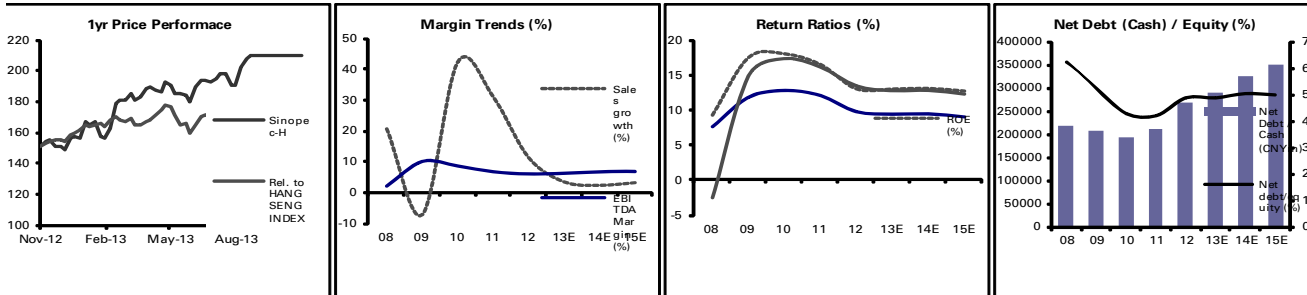
Research Team

David Hurd, CFA
+852 2203 6242 david.hurd@db.com



52-week Range:	HK\$ 5.08 - 7.02
Market Cap (m)	HKD 576,571m
	USD 74,370m
Company identifiers	
Cusip	Y 150 10 104
SEDOL	629 18 19

Year Ending 31December	2008	2009	2010	2011	2012	2013E	2014E	2015E	
SUMMARY									
DB EPS (CNY)	0.26	0.53	0.62	0.63	0.55	0.60	0.66	0.69	
P/E (x)	15.9	6.4	6.2	7.1	8.5	8.7	7.9	7.5	
DB EPS growth (%)	-47.3	107.5	16.3	2.0	-12.8	8.8	9.5	5.6	
Reported EPS (CNY)	0.26	0.53	0.62	0.63	0.55	0.60	0.66	0.69	
P/E (Reported) (x)	15.9	6.4	6.2	7.1	8.5	8.7	7.9	7.5	
CFPS (CNY)	0.25	1.17	1.55	0.71	0.56	1.53	1.38	1.49	
P/CFPS (x)	16.1	2.9	2.5	6.3	8.4	3.4	3.8	3.5	
Free CFPS (CNY)	-0.59	0.30	0.56	-0.43	-0.70	0.06	-0.09	0.02	
DPS (CNY)	0.12	0.18	0.21	0.30	0.23	0.22	0.23	0.24	
Dividend Yield (%)	2.9	5.2	5.5	6.7	4.8	4.1	4.4	4.7	
BV/Share (CNY)	2.84	3.25	3.62	4.03	4.42	4.78	5.21	5.67	
Price/BV (x)	0.94	1.25	1.20	1.17	1.19	1.09	1.00	0.92	
Weighted average shares (m)	115,640	115,640	115,640	115,640	115,640	115,640	115,640	115,640	
Average market cap (CNY m)	472,856	398,018	445,439	516,621	542,688	453,095	453,095	604,318	
Enterprise value (CNY m)	694,358	609,257	643,633	733,121	815,832	748,757	786,526	963,660	
EV/Sales	0.48	0.45	0.34	0.29	0.29	0.26	0.27	0.32	
EV/EBITDA	2.14	4.5	3.9	4.3	4.8	4.1	4.0	4.7	
EV/EBIT	nm	7.2	6.1	6.9	8.3	7.2	6.9	8.0	
EV/Operating Capital	1.3	1.0	1.0	1.1	1.0	0.9	0.8	0.9	
INCOME STATEMENT (CNY m)									
Sales revenue	1,452,101	1,345,052	1,913,182	2,505,683	2,786,045	2,878,072	2,940,521	3,029,585	
Operating EBITDA	32,410	134,918	164,227	169,346	169,118	180,796	197,013	207,185	
Depreciation	45,823	50,487	59,223	63,816	70,456	76,223	82,242	87,100	
Amortisation	0	0	0	0	0	0	0	0	
EBIT	-13,413	84,431	105,004	105,530	98,662	104,573	114,771	120,085	
Net interest income(expense)	-10,881	-7,105	-7,312	-7,657	-9,963	-9,707	-10,757	-10,188	
Associates/affiliates	580	2,997	5,390	4,152	1626	1626	1626	1626	
Investment/other income(expense)	6,495	2,957	611	2,540	317	3,035	3,035	3,035	
Exceptionals/extraordinaries	41,536	0	0	0	0	0	0	0	
Income tax expense	-1,883	16,084	25,689	26,120	23,846	27,100	29,687	31,334	
Minorities/preference dividends	-3,569	2,724	6,204	5,220	2,917	2,917	2,917	2,917	
Net income	29,769	61,760	71,800	73,225	63,879	69,500	76,071	80,307	
CASHFLOW (CNY m)									
Cash flow from operations	29,335	135,802	178,967	82,229	64,407	177,140	159,594	172,682	
Movement in net working capital	-35,278	24,013	45,380	-46,151	-71,998	30,126	-10	3,983	
Capex	-97,739	-100,840	-113,651	-13,737	-145,663	-170,000	-170,000	-170,000	
Free cash flow	-68,404	34,962	65,316	-49,508	-81,256	7,140	-10,406	2,682	
Other investing activities	35,409	-12,058	-26,620	59,445	55,520	0	0	0	
Equity raised (bought back)	0	0	0	0	118	0	0	0	
Dividends paid	-12,572	-18,502	-21,972	-26,597	-32,071	-28,367	-26,071	-27,303	
Net inc(dec) in borrowings	6,830	18,684	28,247	-19,618	7,659	50,000	50,000	30,000	
Other financing cash flows	37,989	-25,942	-36,713	44,545	35,609	0	0	0	
Total cash flows from financing	32,247	-25,760	-30,438	-1,670	11,315	21,633	23,929	2,697	
Net cash flow	-748	-2,856	8,258	8,267	-14,421	28,773	13,523	5,379	
Movement in net debt(cash)	7,578	2,1540	19,989	-27,885	22,080	2,1227	36,477	24,621	
BALANCE SHEET (CNY m)									
Cash and other liquid assets	7,700	9,986	18,140	25,826	11,263	40,035	53,558	58,938	
Tangible fixed assets	525,151	584,968	630,299	669,966	757,946	851,723	939,481	1,022,381	
Goodwill	0	0	0	0	0	0	0	0	
Other intangible assets	0	0	0	0	0	0	0	0	
Associates/investments	17,078	20,336	24,890	27,521	30,813	32,439	34,065	35,691	
Other assets	217,898	262,552	321,825	414,563	467,070	486,352	492,710	503,717	
Total assets	767,827	877,842	995,154	1,137,875	1,267,091	1,410,550	1,519,815	1,620,726	
Interest bearing debt	225,627	218,369	209,903	234,850	278,098	328,098	378,098	408,098	
Other liabilities	192,878	260,620	334,883	402,354	440,559	489,968	496,316	511,306	
Total liabilities	418,505	478,989	544,786	637,184	718,657	818,066	874,414	919,404	
Shareholders' equity	328,669	375,661	419,047	465,675	511,312	552,445	602,444	655,449	
Minorities	20,653	23,192	31,321	35,016	37,122	40,039	42,956	45,873	
Total shareholders' equity	349,322	398,853	450,368	500,691	548,434	592,484	645,400	701,322	
Net working capital	-19,427	-46,838	-47,735	-42,255	-37,195	-61,258	-61,433	-62,955	
Net debt(cash)	217,927	208,383	191,763	209,004	266,835	288,063	324,540	349,160	
Capital	567,249	607,236	642,131	709,695	815,269	880,546	969,940	1,050,482	
RATIO ANALYSIS									
Sales growth (%)	20.5	-7.4	42.2	31.0	11.2	3.3	2.2	3.0	
EBITDA Margin (%)	2.2	10.0	8.6	6.8	6.1	6.3	6.7	6.8	
EBIT Margin (%)	-0.9	6.3	5.5	4.2	3.5	3.6	3.9	4.0	
Payout ratio (%)	46.6	33.7	33.8	47.4	41.0	36.0	35.0	35.0	
ROE (%)	9.4	17.5	18.1	16.6	13.1	13.1	13.2	12.8	
Return on Capital (%)	7.6	11.7	12.7	12.0	9.7	9.3	9.4	9.0	
Operating Return on Capital (%)	-2.6	14.8	17.2	16.0	13.3	12.7	12.7	12.2	
Capex/sales (%)	6.7	7.5	5.9	5.3	5.2	5.9	5.8	5.6	
Capex/depreciation (x)	2.1	2.0	1.9	2.1	2.1	2.2	2.1	2.0	
Net debt/equity (%)	62.4	52.2	42.6	41.7	48.7	48.6	50.3	49.8	
Net interest cover (x)	nm	11.9	14.4	13.8	9.9	10.8	10.7	11.8	



Source: Company data, Deutsche Bank estimates

Source: Deutsche Bank



Valuations and risks

The oil and gas space in Asia encompasses a wide variety of companies and therefore valuations. From the traditional vertically integrated oil and gas companies to the pure play chemical companies and stand alone refineries, to the upstream exploration and production (E&P) companies to the exotic LNG companies.

We use a variety of valuation tools for the variety of oil and gas companies that we cover. We use DCF models for most vertically integrated and upstream E&P companies including Sinopec and Oil Search. We use a sum of the parts valuation for many of our downstream chemical & refining companies. In addition to these primary valuation tools we also look at more traditional P/E and EV/EBITDA metrics for the upstream companies and PB-to-ROE for the downstream companies.

The principal risk for all of our oil and oil derivative companies is global economic growth. Lower / higher than anticipated global growth should lead to lower / higher than anticipated oil prices and in many cases feedstock costs. A principal risk to our chemical stocks is oil price volatility which leads to inventory gains / losses and destocking / restocking of product. Given the importance of oil and its derivatives in the global economy, politics plays a risk in valuing these stocks.

Figure 27: LG Chem traditional valuations vs. global chemical companies

Company	25-Nov-13			Rating	Price Target	% to target price	Mkt. Cap US\$bn	P/E (x)		EV/EBITDA (x)		P/BV (x)		RoE %		Net Debt / Equity (%)
	Ticker	Trading Currency	Price					13F	14F	13F	14F	13F	14F	13F	14F	
Asia																
Reliance Industries	RELI.BO	INR	851.4	Buy	1,125	32.1	43.5	11.5	10.1	8.8	8.2	1.4	1.2	12.5	12.7	32.8
LG Chem	051910.KS	KRW	287,500	Buy	370,000	28.7	18.0	15.5	13.4	7.9	7.2	1.8	1.6	12.2	12.7	10.2
Lotte Chemical	011170.KS	KRW	223,000	Buy	270,000	21.1	7.2	18.4	11.7	8.4	6.4	1.2	1.1	6.5	9.5	14.6
Hanwha Chemical	009830.KS	KRW	21,800	Hold	25,000	14.7	2.9	29.2	14.3	12.4	8.8	0.7	0.7	2.3	4.7	97.0
PTT Global Chemical	PTTGC.BK	THB	75	Hold	84	12.8	10.6	10.3	9.2	7.2	6.6	1.4	1.3	14.1	14.5	43.1
Huchems	069260.KS	KRW	24,100	Buy	27,000	12.0	0.9	19.2	15.7	10.8	9.9	2.1	1.9	11.1	12.8	(2.4)
Petronas Chemicals Group	PCGB.KL	MYR	7	Hold	7	3.7	16.4	14.9	13.9	7.6	7.0	2.4	2.2	16.9	16.6	(41.6)
Middle East																
SABIC	2010.SE	SAR	108.8	Buy	121	11.3	87.4	13.1	10.7	7.1	5.8	2.1	1.9	16.4	18.8	7.7
Saudi Kayan	2350.SE	SAR	13.7	Sell	10	(26.7)	5.5	13.4	11.4	11.7	9.9	1.3	1.2	10.1	10.6	173.3
Yansab	2290.SE	SAR	66.0	Hold	56	(15.2)	10.0	14.1	12.8	9.8	8.3	2.5	2.1	18.8	17.6	19.0
Industries Qatar	IQCD.QA	QAR	168.0	Hold	153	(8.9)	27.7	11.7	11.6	48.9	55.2	3.0	2.7	26.9	24.4	(11.8)
North America																
Westlake Chemical	WLK.N	USD	112.7	Hold	55	(51.2)	7.5	20.5	NA	9.4	NA	3.1	NA	16.4	NA	(12.6)
Celanese Corp	CE.N	USD	54.9	Buy	65	18.4	8.7	12.1	10.8	7.6	6.9	4.0	3.2	36.8	32.8	86.9
Dow Chemical	DOW.N	USD	39.0	Hold	43	10.2	47.3	17.5	14.2	7.0	6.3	2.0	1.9	11.8	13.8	70.2
PPG Industries	PPG.N	USD	184.2	Buy	195	5.9	26.2	22.6	20.0	12.0	12.0	6.5	8.5	29.3	36.2	66.9
Europe																
BASF	BASFn.DE	EUR	77.7	Buy	85	9.4	96.6	13.7	11.9	8.6	7.8	2.7	2.4	18.0	18.9	39.3
Arkema	AKE.PA	EUR	83.2	Buy	92	10.6	7.2	13.4	11.3	8.7	6.2	2.2	1.9	8.8	18.2	37.1
Lanxess	LXSG.DE	EUR	47.0	Buy	58	23.3	5.3	28.1	11.8	9.9	6.9	1.7	1.6	3.2	11.6	70.6
Solvay	SOLB.BR	EUR	112.8	Hold	103	(8.7)	13.0	15.9	14.5	10.0	8.2	1.5	1.5	5.7	8.1	41.7
Fertilizers																
Yara International ASA	YAR.OL	NOK	265.0	Sell	220	(17.0)	12.0	10.4	11.9	6.0	6.6	1.5	1.4	13.1	12.0	6.1
SAFCO	2020.SE	SAR	155.0	Buy	177	14.2	13.8	19.0	16.9	16.8	14.7	4.9	5.3	27.9	30.2	(33.8)
Potash Corp.	POT.N	USD	31.0	Hold	45	45.1	26.8	7.9	NA	4.1	NA	2.0	NA	28.6	NA	(0.3)
Mosaic	MOS.N	USD	47.2	Hold	48	1.8	20.1	14.0	13.9	7.4	7.5	1.9	1.6	13.7	11.1	(19.5)
Mean								15.9	12.9	10.8	10.3	2.3	2.2	15.7	16.6	30.2
Asia Mean								17.0	12.6	9.0	7.7	1.6	1.4	10.8	11.9	22.0
Middle East Mean								13.1	11.6	19.4	19.8	2.2	2.0	18.1	17.9	47.1
N. America Mean								18.2	15.0	9.0	8.4	3.9	4.5	23.6	27.6	52.8
Europe Mean								17.8	12.4	9.3	7.3	2.0	1.9	8.9	14.2	39.0
Fertilizers								12.8	14.2	8.6	9.6	2.6	2.8	20.8	17.8	(11.9)

Source: Deutsche Bank; Bloomberg Finance LP



Figure 28: Oil Search traditional valuations vs. global E&P companies

Company	Prices close on		25-Nov-13		Price Target	% to target	Mkt. Cap US\$bn	P/E (x)		EV/EBITDA (x)		P/BV (x)		RoE %		Net Debt / Equity
	Ticker	Currency	Price	Rating				13F	14F	13F	14F	13F	14F	13F	14F	
E&P Global :																
CNOOC Ltd	0883.HK	HKD	15.6	Hold	14.57	(6.5)	89.7	8.2	8.0	4.2	4.0	1.6	1.4	20.2	18.2	11.2
Cairn India	CAIL.BO	INR	330.9	Hold	345	4.3	9.9	5.2	5.5	4.3	3.7	1.1	1.1	25.1	22.1	(12.0)
ConocoPhillips	COP.N	USD	72.8	Hold	62	(14.8)	89.2	12.4	11.4	3.9	4.2	1.7	1.6	17.4	14.0	31.2
Anadarko Petroleum	APC.N	USD	90.5	Buy	115	27.0	45.6	20.4	16.4	6.6	5.3	2.0	1.8	9.8	11.5	27.8
Marathon Oil	MRO.N	USD	37.0	Buy	40	8.3	25.7	11.5	11.6	3.8	3.4	1.4	1.2	10.5	10.9	24.9
Canadian Natural	CNQ.TO	CAD	34.5	Hold	32	(7.3)	35.6	16.1	11.6	5.3	4.6	1.4	1.3	10.2	11.9	35.2
PTTEP	PTTE.BK	THB	156.5	Buy	182	16.3	19.6	9.9	9.8	4.2	3.5	1.7	1.5	18.2	16.5	8.9
Noble Energy	NBL.N	USD	72.9	Buy	82	12.4	26.2	21.8	14.0	8.8	5.7	2.5	2.5	11.6	19.0	37.6
Devon Energy	DVN.N	USD	61.6	Hold	80	29.9	25.0	13.6	7.7	8.2	4.4	1.2	1.0	8.7	14.5	29.6
Apache	APA.N	USD	93.2	Buy	105	12.6	37.2	13.4	10.8	3.9	4.5	1.1	1.0	8.4	9.8	24.2
Encana	ECA.TO	CAD	20.2	Hold	22	9.2	14.1	19.1	21.8	7.3	6.4	2.5	2.4	13.3	11.3	83.7
Chesapeake Energy	CHK.N	USD	26.3	Hold	24	(8.6)	17.5	14.4	10.4	5.5	5.1	1.3	1.2	11.9	14.7	72.2
Oil Search	OSH.AX	USD	8.4	Buy	10	19.3	10.3	54.1	38.6	32.6	22.7	3.0	2.8	5.4	7.7	115.6
Woodside Petroleum	WPL.AX	AUD	38.4	Hold	38	(0.3)	28.9	14.3	11.4	7.6	6.2	1.9	1.8	13.4	16.1	14.0
Mean								17.4	13.9	7.8	6.1	1.8	1.6	12.6	13.9	37.9
Median								14.3	11.4	5.5	4.6	1.7	1.5	11.6	14.0	29.6
More Oil than Gas (Mean)								13.1	11.3	4.8	4.2	1.5	1.4	14.6	14.1	21.4
More Gas than Oil (Mean)								20.1	15.6	10.1	7.3	1.9	1.8	11.4	13.7	48.2
More Shale Gas than Oil (Mean)								15.2	12.7	5.9	5.1	1.5	1.4	10.6	12.6	52.4

Source: Deutsche Bank; Bloomberg Finance LP



Figure 29: Sinopec traditional valuations vs. global peers

Priced on		25-Nov-13						P/E (x)		EV/EBITDA (x)		P/BV (x)		RoE %		Net Debt / Equity
Company	Trading Ticker	Currency	Price	Rating	Price Target	% to TP	Mkt. Cap US\$bn	13F	14F	13F	14F	13F	14F	13F	14F	2013F
Integrated Global																
Royal Dutch Shell plc	RDSa.L	GBP	2,097	Hold	2,400	14.4	219.0	10.0	8.7	3.0	2.6	1.1	1.0	10.0	14.2	15.4
BP	BP.L	GBP	490.1	Buy	520	6.1	147.3	10.4	7.9	3.4	3.9	1.2	1.0	20.9	13.8	17.3
ENI	ENI.MI	EUR	17.9	Buy	20	11.9	87.5	13.2	10.2	3.3	2.7	1.1	1.0	12.8	10.1	24.7
Total SA	TOTF.PA	EUR	44.8	Buy	45	0.5	144.2	9.0	8.1	3.1	3.0	1.3	1.2	16.3	16.5	23.2
Repsol	REP.MC	EUR	18.5	Hold	16	(13.3)	33.7	11.9	12.3	5.3	4.6	0.8	0.8	6.2	6.7	41.1
Statoil	STL.OL	NOK	139.2	Hold	150	7.8	72.3	8.9	9.2	2.0	2.0	1.2	1.2	11.0	13.2	27.3
ExxonMobil	XOM.N	USD	95.1	Hold	96	1.0	415.4	12.7	11.6	8.3	8.1	2.4	2.2	19.5	19.8	4.7
Occidental Petroleum	OXY.N	USD	97.5	Buy	109	11.8	78.6	13.9	14.4	5.6	5.8	1.8	1.9	13.4	12.2	7.9
Chevron	CVX.N	USD	123.7	Buy	140	13.1	238.0	10.6	10.0	5.4	5.2	1.6	1.5	15.7	15.3	0.9
ONGC	ONGC.BO	INR	288.5	Buy	370	28.3	57.2	11.0	7.3	4.4	3.2	1.5	1.3	14.2	19.4	4.4
Petrobras	PBR.N	USD	17.0	Hold	22	29.3	113.2	11.0	7.0	6.8	5.3	0.7	0.7	6.4	10.5	60.4
PTT	PTT.BK	THB	293.0	Hold	358	22.2	25.9	8.1	7.7	5.2	4.5	1.2	1.1	16.2	15.2	41.1
PetroChina	0857.HK	HKD	9.2	Hold	9.42	2.1	235.6	10.1	9.6	5.0	4.9	1.2	1.1	11.9	11.7	34.2
Sinopec	0386.HK	HKD	6.7	Buy	7.23	8.7	92.4	8.7	7.9	4.1	4.0	1.1	1.0	13.1	13.2	48.6
Mean								10.9	9.5	4.7	4.2	1.3	1.2	13.6	13.9	22.4
Median								10.8	9.0	4.8	4.2	1.2	1.1	13.8	14.0	20.2
Europe Mean								10.6	9.4	3.4	3.1	1.1	1.0	12.9	12.4	24.9
N. America Mean								12.1	10.8	5.9	5.6	1.8	1.7	15.7	16.7	4.5
Others Mean								9.5	8.1	5.3	4.7	1.1	1.0	11.9	12.7	46.1

Source: Deutsche Bank; Bloomberg Finance LP





Appendix 1

Important Disclosures

Additional information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
Reliance Industries	RELI.BO	842.05 (INR) 26 Nov 13	1,7,8,14,17

*Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies

Important Disclosures Required by U.S. Regulators

Disclosures marked with an asterisk may also be required by at least one jurisdiction in addition to the United States. See Important Disclosures Required by Non-US Regulators and Explanatory Notes.

1. Within the past year, Deutsche Bank and/or its affiliate(s) has managed or co-managed a public or private offering for this company, for which it received fees.
7. Deutsche Bank and/or its affiliate(s) has received compensation from this company for the provision of investment banking or financial advisory services within the past year.
8. Deutsche Bank and/or its affiliate(s) expects to receive, or intends to seek, compensation for investment banking services from this company in the next three months.
14. Deutsche Bank and/or its affiliate(s) has received non-investment banking related compensation from this company within the past year.

Important Disclosures Required by Non-U.S. Regulators

Please also refer to disclosures in the Important Disclosures Required by US Regulators and the Explanatory Notes.

1. Within the past year, Deutsche Bank and/or its affiliate(s) has managed or co-managed a public or private offering for this company, for which it received fees.
7. Deutsche Bank and/or its affiliate(s) has received compensation from this company for the provision of investment banking or financial advisory services within the past year.
17. Deutsche Bank and or/its affiliate(s) has a significant Non-Equity financial interest (this can include Bonds, Convertible Bonds, Credit Derivatives and Traded Loans) where the aggregate net exposure to the following issuer(s), or issuer(s) group, is more than 25m Euros.

For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr>

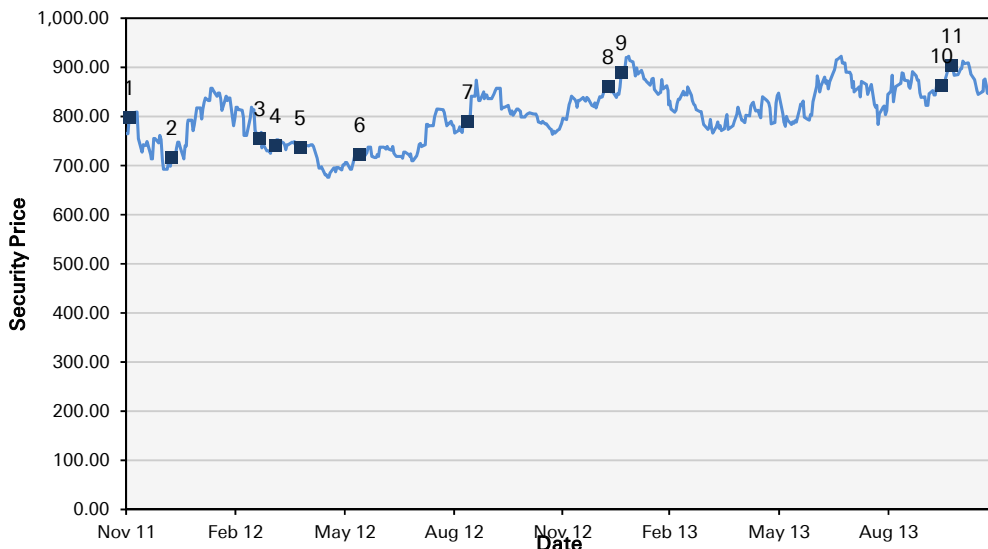
Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst about the subject issuers and the securities of those issuers. In addition, the undersigned lead analyst has not and will not receive any compensation for providing a specific recommendation or view in this report. David Hurd



Historical recommendations and target price: Reliance Industries (RELI.BO)

(as of 11/26/2013)



Previous Recommendations

- Strong Buy
- Buy
- Market Perform
- Underperform
- Not Rated
- Suspended Rating

Current Recommendations

- Buy
- Hold
- Sell
- Not Rated
- Suspended Rating

*New Recommendation Structure as of September 9,2002

1.	01/12/2011:	Buy, Target Price Change INR1,050.00	7.	11/09/2012:	Buy, Target Price Change INR900.00
2.	06/01/2012:	Buy, Target Price Change INR970.00	8.	07/01/2013:	Buy, Target Price Change INR1,010.00
3.	20/03/2012:	Buy, Target Price Change INR960.00	9.	18/01/2013:	Buy, Target Price Change INR1,040.00
4.	02/04/2012:	Buy, Target Price Change INR900.00	10.	14/10/2013:	Buy, Target Price Change INR1,060.00
5.	23/04/2012:	Buy, Target Price Change INR870.00	11.	23/10/2013:	Buy, Target Price Change INR1,125.00
6.	12/06/2012:	Buy, Target Price Change INR840.00			

Equity rating key

Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus projected dividend yield) , we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock

Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Notes:

1. Newly issued research recommendations and target prices always supersede previously published research.

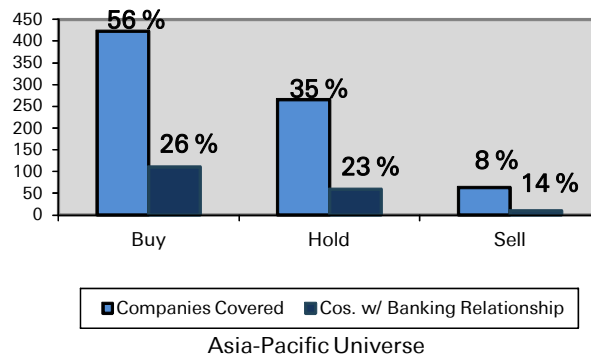
2. Ratings definitions prior to 27 January, 2007 were:

Buy: Expected total return (including dividends) of 10% or more over a 12-month period

Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period

Sell: Expected total return (including dividends) of -10% or worse over a 12-month period

Equity rating dispersion and banking relationships





Regulatory Disclosures

1. Important Additional Conflict Disclosures

Aside from within this report, important conflict disclosures can also be found at <https://gm.db.com/equities> under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

2. Short-Term Trade Ideas

Deutsche Bank equity research analysts sometimes have shorter-term trade ideas (known as SOLAR ideas) that are consistent or inconsistent with Deutsche Bank's existing longer term ratings. These trade ideas can be found at the SOLAR link at <http://gm.db.com>.

3. Country-Specific Disclosures

Australia and New Zealand: This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act respectively.

Brazil: The views expressed above accurately reflect personal views of the authors about the subject company(ies) and its(their) securities, including in relation to Deutsche Bank. The compensation of the equity research analyst(s) is indirectly affected by revenues deriving from the business and financial transactions of Deutsche Bank. In cases where at least one Brazil based analyst (identified by a phone number starting with +55 country code) has taken part in the preparation of this research report, the Brazil based analyst whose name appears first assumes primary responsibility for its content from a Brazilian regulatory perspective and for its compliance with CVM Instruction # 483.

EU countries: Disclosures relating to our obligations under MiFiD can be found at <http://www.globalmarkets.db.com/riskdisclosures>.

Japan: Disclosures under the Financial Instruments and Exchange Law: Company name - Deutsche Securities Inc. Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association, The Financial Futures Association of Japan, Japan Investment Advisers Association. Commissions and risks involved in stock transactions - for stock transactions, we charge stock commissions and consumption tax by multiplying the transaction amount by the commission rate agreed with each customer. Stock transactions can lead to losses as a result of share price fluctuations and other factors. Transactions in foreign stocks can lead to additional losses stemming from foreign exchange fluctuations. "Moody's", "Standard & Poor's", and "Fitch" mentioned in this report are not registered credit rating agencies in Japan unless "Japan" or "Nippon" is specifically designated in the name of the entity. Reports on Japanese listed companies not written by analysts of Deutsche Securities Inc. (DSI) are written by Deutsche Bank Group's analysts with the coverage companies specified by DSI.

Russia: This information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.



David Folkerts-Landau
Group Chief Economist
Member of the Group Executive Committee

Guy Ashton
Global Chief Operating Officer
Research

Marcel Cassard
Global Head
FICC Research & Global Macro Economics

Richard Smith and Steve Pollard
Co-Global Heads
Equity Research

Michael Spencer
Regional Head
Asia Pacific Research

Ralf Hoffmann
Regional Head
Deutsche Bank Research, Germany

Andreas Neubauer
Regional Head
Equity Research, Germany

Steve Pollard
Regional Head
Americas Research

International locations

Deutsche Bank AG

Deutsche Bank Place
Level 16
Corner of Hunter & Phillip Streets
Sydney, NSW 2000
Australia
Tel: (61) 2 8258 1234

Deutsche Bank AG

Große Gallusstraße 10-14
60272 Frankfurt am Main
Germany
Tel: (49) 69 910 00

Deutsche Bank AG

Filiale Hongkong
International Commerce Centre,
1 Austin Road West, Kowloon,
Hong Kong
Tel: (852) 2203 8888

Deutsche Securities Inc.

2-11-1 Nagatacho
Sanno Park Tower
Chiyoda-ku, Tokyo 100-6171
Japan
Tel: (81) 3 5156 6770

Deutsche Bank AG London

1 Great Winchester Street
London EC2N 2EQ
United Kingdom
Tel: (44) 20 7545 8000

Deutsche Bank Securities Inc.

60 Wall Street
New York, NY 10005
United States of America
Tel: (1) 212 250 2500

Global Disclaimer

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively "Deutsche Bank"). The information herein is believed to be reliable and has been obtained from public sources believed to be reliable. Deutsche Bank makes no representation as to the accuracy or completeness of such information.

Deutsche Bank may engage in securities transactions, on a proprietary basis or otherwise, in a manner inconsistent with the view taken in this research report. In addition, others within Deutsche Bank, including strategists and sales staff, may take a view that is inconsistent with that taken in this research report.

Opinions, estimates and projections in this report constitute the current judgement of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof in the event that any opinion, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Prices and availability of financial instruments are subject to change without notice. This report is provided for informational purposes only. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst judgement.

As a result of Deutsche Bank's March 2010 acquisition of BHF-Bank AG, a security may be covered by more than one analyst within the Deutsche Bank group. Each of these analysts may use differing methodologies to value the security; as a result, the recommendations may differ and the price targets and estimates of each may vary widely.

In August 2009, Deutsche Bank instituted a new policy whereby analysts may choose not to set or maintain a target price of certain issuers under coverage with a Hold rating. In particular, this will typically occur for "Hold" rated stocks having a market cap smaller than most other companies in its sector or region. We believe that such policy will allow us to make best use of our resources. Please visit our website at <http://gm.db.com> to determine the target price of any stock.

The financial instruments discussed in this report may not be suitable for all investors and investors must make their own informed investment decisions. Stock transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Deutsche Bank may with respect to securities covered by this report, sell to or buy from customers on a principal basis, and consider this report in deciding to trade on a proprietary basis.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. In the U.S. this report is approved and/or distributed by Deutsche Bank Securities Inc., a member of the NYSE, the NASD, NFA and SIPC. In Germany this report is approved and/or communicated by Deutsche Bank AG Frankfurt authorized by the BaFin. In the United Kingdom this report is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange and regulated by the Financial Conduct Authority for the conduct of investment business in the UK and authorized by the BaFin. This report is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. This report is distributed in Singapore by Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, +65 6423 8001), and recipients in Singapore of this report are to contact Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch accepts legal responsibility to such person for the contents of this report. In Japan this report is approved and/or distributed by Deutsche Securities Inc. The information contained in this report does not constitute the provision of investment advice. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product. Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10). Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published by any person for any purpose without Deutsche Bank's prior written consent. Please cite source when quoting.

Copyright © 2013 Deutsche Bank AG