

11 March 2014 | 184 pages

Global



Global Oil Vision

Stand and Deliver - Global Energy Enters a New Cycle

- **Fixing a Costly Legacy** — We see Global Oils entering the next phase of their cycle, one which necessitates a greater emphasis on profitability, cost-control and careful portfolio development. The challenge for the industry is to undo the damage of the 2008-12 period, where the impact of poor project execution and poor acquisitions has pushed returns below 30-year averages (ROE has fallen from 24% to 10%), a cost that has had to be impaired through equity values.
- **Invest for Better Returns** — Consensus thought is that sharp reductions in capex in this industry will lead to shareholder value creation (ie a Mining Sector copycat). We disagree – we think truly marginal investment has already been cut and what is left has strong value potential (our proprietary 200 project cost-curve concludes the industry can deliver an average IRR of 17% on new investment). Can the industry now deliver on these project economics? We point to significant investment in delivery – more front-end engineering man-hours, greater supply chain capacity (a 7-fold increase in invested capital) and a shift to modularization (e.g. pre-salt Brazil, North American shale) as positive signs.
- **Winners** — With good project execution we think the industry can grow book value c. 7% CAGR to 2018 and see ROE improve to 12%. Trading at 1.1x end-2017 book the sector is perhaps not deep value, but it is certainly a more investible proposition than has been on offer in the last five years. We see a number of companies where we think the delivery outcome can be better than what the market currently views – we identify **BG, CVE, CHK, STO** and **TOT** as key names.
- **Enhancing Strategies** — In this cycle we expect corporates to deploy a number of tools to enhance the imbedded growth/returns outlook of the portfolios: (1) Self-help – even after a decade of wanton expansion only a handful of companies have formal programmes in place to cut cash costs; we think more need to follow. (2) Leverage – the industry finds itself well capitalized in an environment of cheap debt; embracing leverage could help meet market demands for higher ROE. (3) Cost-curve M&A – companies may become increasingly willing to arbitrage political, geological (exploration) or financial risks to lower the economic breakeven of their investment portfolios. We would argue that valuations on a number of low-cost/high returns growth assets are approaching levels where these arbitrages are now becoming possible (e.g. some names in Kurdistan, Johan Sverdrup, pre-salt Brazil).

Alastair R Syme
+44-20-7986-4030
alastair.syme@citi.com

Faisal Khan, CFA

Graham Cunningham

Robert S Morris

Dale Koenders

Michael J Alsford

Mohit Bhardwaj

Mukhtar Garadaghi

Pedro Medeiros

Ronald Paul Smith

Takashi Miyazaki

[Click to play](#)
Alastair Syme



See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Certain products (not inconsistent with the author's published research) are available only on Citi's portals.

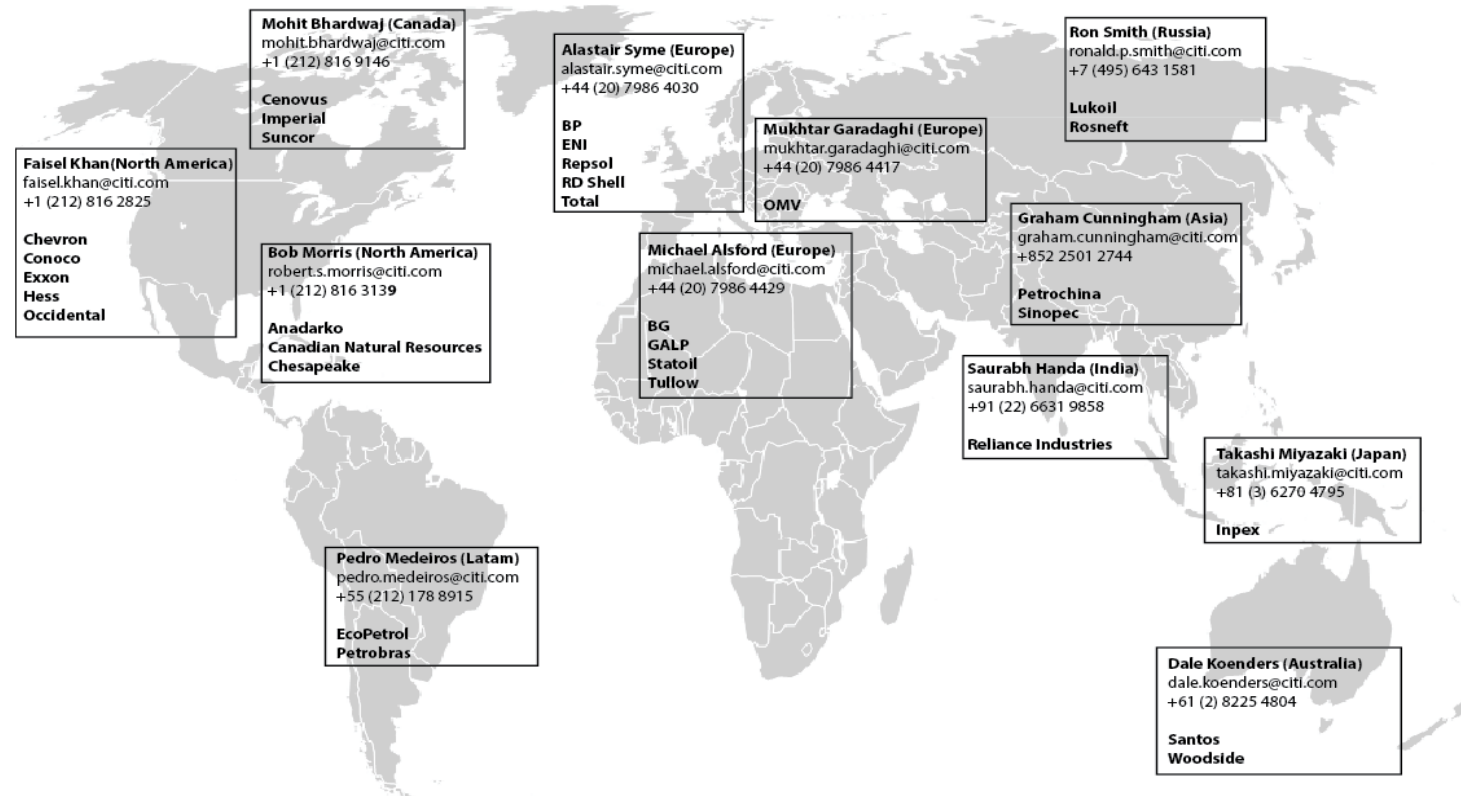
Contents

Making Money in the Cycles of Global Energy	4	Canadian Natural Resources – Buy, CAD\$42 price target	66
Our Five Global Key Picks	5	Cenovus Energy – Buy, CAD\$33 price target	70
Coverage Universe	6	Chesapeake Energy – Buy/High Risk, price target US\$32/share	74
Sector Cribsheet	7	Chevron – Buy, US\$141/share price target	78
Global Oil Faces the Efficiency Challenge	9	Conoco – Buy, US\$85/share price target	82
Return on Assets Below 30-Year Industry Average	10	Ecopetrol – Neutral, \$37.00/ADR price target	85
Where Has All the Money Gone?	12	Eni – Neutral, €17.8/share price target	90
The Next Wave of Investment – Citi’s Proprietary Cost-Curve	14	Exxon – Neutral, US\$108/share price target	94
Oil Investments, Oil Markets and the OPEC-Put	16	GALP – Buy, €14.6/share price target	98
Industry Remains Full-Speed on Oil Development	17	Hess – Neutral, US\$88/share price target	102
High-Cost Gas Carries More Risk	19	Imperial Oil – Buy, C\$53/share price target	106
Battle Lines....	20	Inpex – Buy, JPY1,570 Yen/share target price	110
Stand and Deliver	22	Lukoil – Buy, US\$92.90/share price target	114
The Industry Looks Better Prepared for Project Execution	23	Occidental – Neutral, US\$103/share price target	118
Brazil	24	OMV – Neutral, €35/share price target	122
Other Deepwater	25	Petrobras – Neutral, US\$19.0/ADR price target	126
Shale	26	PetroChina – Sell, HK\$6.9/share price target	130
LNG	27	RD Shell – RDSa.L/RDSb.L Neutral, 2250p/share price target	134
A Short Word on Downstream	28	Reliance Industries – Neutral, Rs979/share price target	138
The Industry’s Financial Outlook	30	Repsol – Buy, €23.0/share price target	142
Sector Valuation and Leveraging ROE	32	Rosneft – Buy, US\$11.3/share price target	146
Stock Valuations	34	Santos – Buy, A\$16.22/share price target	150
Benchmarking the Group	37	Sinopec – Buy, HK\$7.87/share price target	154
Valuations	47	Statoil – Neutral, NOK160/share price target	158
Company Analysis	53	Suncor Energy – Neutral, CAD\$40 price target	162
Anadarko – Neutral, US\$90/share price target	54	Total – Buy, €50.0/share price target	166
BG – Buy, price target 1,400p/share	58	Tullow – Neutral, 960p/share price target	170
BP – Neutral, 480p price target	62	Woodside – Buy, A\$43.86/share price target	174
		Appendix A-1	179

Welcome Back to Global Oil Vision

This is the 4th publication of Citi's Global Oil Vision, our franchise product that brings together analysis of 31 companies in global energy under a common, long-term valuation approach. As with previous editions we focus heavily on the themes of investment and capital efficiency, using our proprietary and updated c. 200 project cost-curve to differentiate the value of investment across the industry. In this edition, for the first time, we present Oil Vision as two separate reports. This report draws together the analysis and investment conclusions, as well as detailing the investment portfolios for each of the companies in the study. A companion report – Global Oil Vision Projects – is a reference document which provides summary analysis (NPV, breakeven, capex profile and description) for each of the projects that form our cost-curve.

Figure 1. Citi Global Oil Vision Coverage Universe

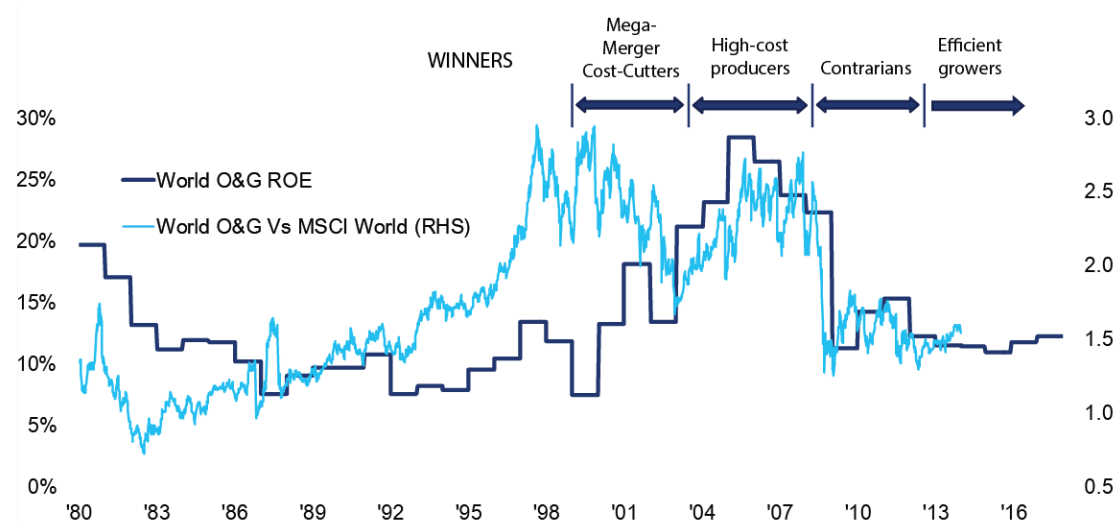


Source: Citi Research

Portfolio Manager Summary: Making Money in the Cycles of Global Energy

- 1999-2003 = mega-mergers, self-help, focus on profitability. Equity winners were the self-help delivery stories.
- 2005-2007 = rising oil prices and a shrinking addressable market (resource-holding countries raised taxes and took back control). Equity winners were high-cost players that were price-enabled by the steepening cost-curve (e.g. Canadian heavy oil).
- 2008-2012 = Industry responded to shrinking addressable market by a resource land-grab; >US\$350bn acquisitions, with economics explicitly/implicitly based on a view of further commodity price inflation. But oil prices ended flat (point to point), and for some of the acquisitions (e.g. US gas, Canadian heavy oil) pricing has actually proved deflationary. Projects sanctioned in the early part of the period ended up with poor execution (cost and timing) meaning that returns dropped below the hurdle rate expected. Industry returns drop below 30-year averages. Equity values get impaired to reflect lower returns. Equity winners: those that did not follow the herd.
- 2014-? = the industry enters a new cycle, facing the efficiency challenge by emphasising profitability, cost-control and careful portfolio development. Counter to consensus opinion we do not see the need for the industry to make significant reductions in industry capital investment; in reality to dilute the impact of poor returns on sunken capital the industry needs to push forward on good projects. Growth from the low-end of the cost-curve carries less commodity risk, especially important when it comes to natural gas. Equity winners will be those with organic portfolios capable of delivering profitable growth, who deliver to plan and where equity valuations do not reflect that delivery. Cost-curve M&A, cost-cutting/self-help and leverage are all tools to enhance for those companies that lack strong organic portfolios.

Figure 2. The Stages of the Global Energy Investor Cycle



Source: Company Reports, Citi Research using company data.

Our Five Global Key Picks

BG

Growth, returns expansion and the promise of rising shareholder distribution combine around a strong valuation opportunity (trading at 1.2x end-17 book for a 17% 2018E ROE). Key is the economic robustness of the underlying assets and what we think is an increasing ability to execute well (modularization, potential cost-deflation) in pre-salt Brazil. We believe the growth-delivery issues that have plagued BG's recent past are now largely behind it.

CENOVUS

Offers the highest ROE in our study group by 2018E (22%), driven by expansion of brownfield expansion of SAGD heavy oil assets in Canada and by the 1st-quartile competitive position of its small refining portfolio. Growth outpaces the sector and the valuation opportunity that exists today reflects market concerns on that delivery. Execution issues have been a problem over the last two years, but we think a better supplied supply-chain in Canada can help deliver a better outcome into this period.

CHESAPEAKE

Screens as one of the cheapest stocks in our coverage group if we are right on prices (Citi estimate >US\$5/MMBtu US gas by 2018) and the ability of the company to improve operating efficiencies to match that of peers. The growth story is largely driven by the emerging Utica along with the Eagle Ford and Marcellus shales, assets that we think are amongst the most economically robust within the US shale scene.

SANTOS

Santos is transitioning from a business with high cost, declining assets, to a business with underpinning LNG revenues and reinvigorated Cooper Basin asset given increasing domestic gas prices. The valuation discount that exists today looks to reflect market concerns on execution risk, particularly at GLNG, although we believe the project is now through critical points. We see a deep portfolio of competitive options to drive growth beyond 2018, and a strong exploration programme.

TOTAL

Our concerns around Total historically have centered on poor project execution and costly acquisitions, delivering a 2007-13 returns destruction that was crippling to equity value. But we argue that value destruction has now been priced. The future remains a promise of delivery, with a strong project pipeline that in our view looks diversified and well-managed enough to offer investors an attractive financial outcome (we see the business delivering >10% FCF yield by 2017E).

Coverage Universe

	Analyst	Rec	Price 10-Mar-14	TP (local)	DY (%) 2014E	%Chg (US\$-basis)				12M Rel*	Mkt Cap US\$ bn
						1M	3M	1YR	3YR		
Anadarko	Morris	Neutral	85.3	90.0	0.4	5.4	0.0	2.6	12.2	36	43.0
BG	Alsford	Buy	1092	1400	1.7	4.9	-10.3	4.7	-19.9	39	62.2
BP	Syme	Neutral	483	480	4.8	2.2	3.8	20.2	5.6	78	149.1
Canadian Nat Res	Morris	Buy	41.6	42.0	2.2	11.0	13.8	20.4	-18.5	100	40.7
Cenovus	Bhardwaj	Buy	29.4	33.0	3.6	0.6	-9.7	-16.3	-26.6	14	20.1
Chevron	Khan	Buy	115.1	141.0	3.6	3.0	-6.9	-2.9	16.1	30	219.7
Chesapeake	Morris	Buy (H)	25.9	32.0	1.4	4.7	-3.6	21.2	-19.5	71	17.2
Conoco	Khan	Buy	66.5	85.0	4.1	3.0	-5.4	13.9	16.1	55	81.5
EcoPetrol	Medeiros	Neutral	35.6	37.0	5.7	2.9	-16.8	-37.3	-15.2	10	73.3
ENI	Syme	Neutral	17.4	17.8	6.4	6.8	3.6	2.8	-0.4	78	87.9
Exxon	Khan	Neutral	95.0	108.0	2.8	6.1	-0.8	6.8	16.7	60	410.5
GALP	Alsford	Buy	12.2	14.6	2.6	10.0	6.0	7.2	-19.5	78	13.1
Hess	Khan	Neutral	81.9	88.0	1.2	6.3	2.4	17.8	4.0	90	26.6
Imperial	Bhardwaj	Buy	50.7	53.0	1.0	10.4	4.4	7.6	-10.6	91	38.8
Inpex	Miyazaki	Buy	1317	1570	1.4	3.8	5.7	-4.7	-23.5	66	18.6
Lukoil	Smith	Buy	53.9	92.9	5.7	-5.9	-11.9	-17.5	-22.3	24	41.7
Occidental	Khan	Neutral	97.1	103.0	3.0	7.1	5.0	17.9	-0.3	90	77.2
OMV	Garadaghi	Neutral	32.2	35.0	4.0	1.2	-8.9	-2.0	6.5	26	14.6
Petrobras (Ord)	Medeiros	Neutral	12.7	13.4	3.8	-4.0	-22.3	-36.8	-71.9	1	72.3
Petrochina	Cunningham	Sell	8.0	6.9	5.0	4.0	-11.3	-26.1	-26.8	18	188.2
RD Shell (A)	Syme	Neutral	2179	2250	5.2	5.4	6.5	10.1	6.1	89	237.0
Reliance	Handa	Neutral	886	979	1.1	10.2	0.2	-7.4	-33.5	66	46.9
Repsol	Syme	Restricted	18.1	23.0	5.1	4.7	0.5	10.6	-23.3	73	33.3
Rosneft	Smith	Buy	6.5	11.3	2.9	-8.7	-9.4	-19.4	-26.7	8	68.8
Santos	Koenders	Buy	14.1	16.2	2.8	2.9	-2.9	-6.8	-11.7	45	12.4
Sinopec	Cunningham	Buy	6.9	7.9	4.9	19.7	3.7	0.4	13.6	93	103.9
Statoil	Alsford	Neutral	162	160	4.5	6.9	16.7	9.6	4.0	98	86.4
Suncor	Bhardwaj	Neutral	36.9	40.0	2.5	1.9	-2.1	8.9	-22.0	66	49.1
Total	Syme	Buy	46.6	50.0	5.3	10.5	11.3	27.0	10.2	97	153.9
Tullow	Alsford	Neutral	803	960	1.4	-2.7	-4.5	-28.0	-38.2	12	12.2
Woodside	Koenders	Buy	38.7	43.9	7.5	4.0	2.2	-6.1	-15.5	48	28.9
Group					3.6	4.7	0.0	2.8	-15.2	66	2,529.1

Source: Company Reports, Citi Research DataCentral. *12M Rel is (Current price – 52 week low price)/(52 week high price – 52 week low price). A score of 100 would indicate the current price is trading at its 52 week high.

Sector Cribsheet

	Capitalisation		Operational			Financial			Distribution			
	end-14E net debt/equity	5-year bond Z-spread	E&P volume CAGR 2014-18E	E&P portfolio b/even (US\$/bbl)	E&P portfolio IRR @ US\$90/bbl real	CROCI 2014E	CROCI 2018E	Invested capital CAGR 2014-18E	2014-18E capex % of op. cash flow	2014-18E dividend as % of op. cash flow	Capex + dividend	2014E dividend as % gross invested capital
Anadarko	41.7%	75	5.9%	51.4	33.0%	10.7%	9.5%	10.6%	95%	2%	97%	0.2%
BG	34.9%	45	12.4%	52.4	22.2%	8.5%	12.4%	9.3%	84%	11%	95%	1.2%
BP	20.5%	30	2.9%	61.9	17.7%	10.0%	8.2%	7.7%	80%	24%	104%	2.5%
Canadian Natural	37.4%	45	8.4%	65.5	17.6%	8.7%	10.4%	6.6%	69%	11%	80%	0.8%
Cenovus	25.6%	45	8.9%	72.5	20.8%	8.7%	10.5%	7.2%	75%	19%	94%	1.9%
Chevron	5.1%	30	6.2%	63.4	17.0%	10.2%	10.0%	8.3%	79%	20%	99%	2.2%
Chesapeake	66.4%	395	6.7%	45.9	42.4%	6.9%	9.4%	6.4%	78%	3%	81%	0.3%
Conoco	27.4%	25	3.7%	62.3	26.6%	10.3%	8.4%	8.1%	89%	19%	108%	1.9%
EcoPetrol	14.2%	240	4.4%	47.7	36.0%	16.5%	9.0%	13.4%	109%	38%	147%	8.5%
ENI	25.2%	110	1.7%	57.8	20.6%	9.0%	8.8%	7.3%	76%	26%	101%	2.5%
Exxon	10.2%	10	1.8%	60.9	23.2%	10.1%	9.3%	5.7%	59%	21%	80%	2.2%
GALP	42.1%	180	51.4%	49.0	21.6%	8.4%	13.2%	11.7%	102%	21%	123%	2.0%
Hess	13.8%	100	6.6%	66.4	25.8%	8.9%	8.1%	8.9%	102%	5%	108%	0.6%
Imperial	30.8%	na	6.9%	77.9	12.4%	8.9%	10.9%	5.2%	60%	8%	69%	0.7%
Inpex	-11.7%	na	13.5%	65.3	14.1%	7.4%	10.6%	11.0%	167%	7%	174%	0.7%
Lukoil	11.2%	225	4.1%	57.1	16.0%	12.5%	10.6%	7.8%	67%	16%	83%	1.9%
Occidental	5.7%	40	4.9%	53.7	32.5%	11.1%	10.3%	7.7%	72%	20%	92%	2.3%
OMV	44.0%	25	5.1%	59.0	21.0%	11.9%	9.5%	10.8%	96%	16%	112%	1.9%
Petrobras	63.6%	220	11.3%	45.3	25.4%	7.6%	8.3%	9.2%	118%	11%	129%	1.1%
Petrochina	42.3%	100	3.8%	52.5	19.4%	10.8%	9.9%	7.0%	70%	14%	84%	1.7%
RD Shell	19.4%	10	2.6%	58.8	19.0%	10.7%	9.9%	7.7%	73%	26%	99%	3.0%
Reliance	15.3%	205	21.4%	37.0	29.5%	10.2%	13.7%	6.4%	63%	11%	74%	1.1%
Repsol	12.1%	50	9.2%	53.4	25.6%	7.2%	8.0%	6.0%	75%	32%	107%	1.9%
Rosneft	81.7%	240	1.0%	58.8	23.6%	19.2%	13.5%	11.5%	69%	12%	81%	2.9%
Santos	50.2%	130	11.8%	71.4	13.3%	4.8%	7.8%	4.9%	85%	9%	95%	0.5%
Sinopec	54.9%	95	2.0%	52.6	18.0%	10.6%	9.4%	6.6%	68%	16%	84%	1.7%
Statoil	16.3%	15	2.5%	62.3	19.3%	9.9%	8.5%	8.3%	88%	19%	107%	2.5%
Suncor	14.1%	65	4.0%	80.0	12.0%	9.4%	8.0%	7.0%	81%	15%	96%	1.2%
Total	25.5%	15	3.2%	66.7	16.3%	11.5%	10.8%	8.6%	74%	24%	98%	3.1%
Tullow	33.8%	380	13.9%	55.2	26.2%	12.1%	10.5%	16.7%	139%	10%	149%	1.5%
Woodside	10.1%	125	-2.6%	54.3	15.4%	14.1%	10.8%	8.0%	54%	47%	101%	6.2%
Group	25.5%		5.1%	58.8	20.8%	10.1%	9.9%	7.8%	78%	16%	94%	1.9%

Source: Company Reports, Citi Research DataCentral, Bloomberg for Z-spreads. * Eurobonds OMV and Repsol: Aussie bond for Santos.

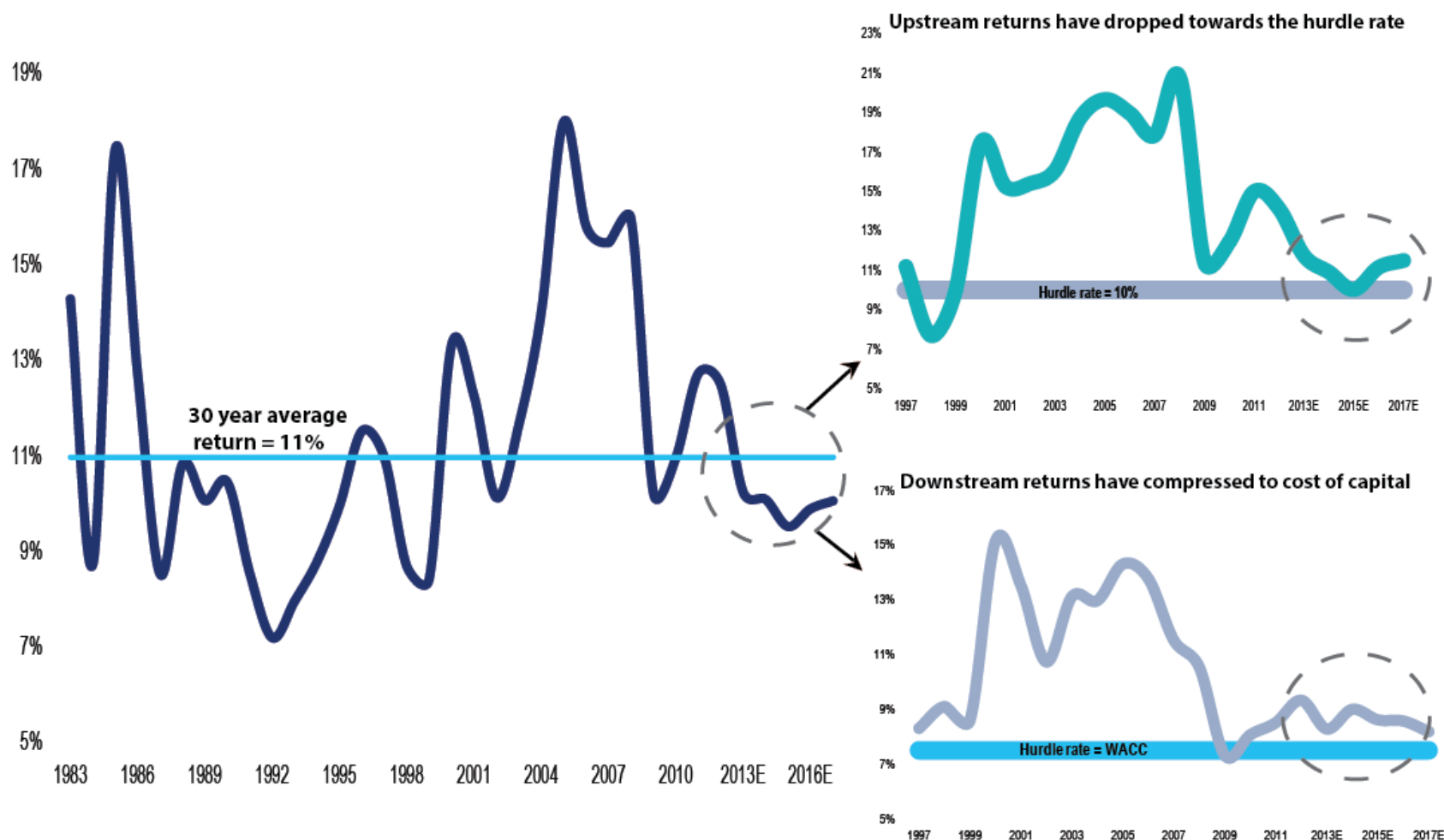


This page is intentionally left blank

Global Oil Faces the Efficiency Challenge

Return on Assets Below 30-Year Industry Average

Figure3. Global Oil Cash Return on Cash Invested (CROCI) – aggregate group, and split between Upstream and Downstream



Source: Company reports and Citi Research estimates.

Better Investment, Not Less Investment, is the Path to Better Returns

The global oil industry is facing the challenge of deteriorating profitability, with returns falling below the 30-year average in a period that is starting to draw distinct parallels with the late 1980s. The group's core Upstream activities (finding and developing oil and gas) lie at the heart of the problem, with returns dropping below the industry's long-run hurdle-rate of 12-13%, an outcome that the industry surely did not envisage five years ago. Downstream returns have also compressed, reflecting the weight of our study-group's capital towards low/ex-growth OECD markets.

Looking back, we think the compression in Upstream returns relates to two key factors, which we cover in more detail in the next section: (1) a period of extremely poor project execution, with cost overruns and delays seeing new projects generate IRRs c. 600 bps below what was anticipated at the point of sanction; (2) c. US\$360b in acquisitions, much of which was premised on building resource/backlog in a supply-constrained environment (i.e. that oil prices would carry on rising), with subsequent flat pricing pushing the development of those resources to the right – in other words, acquisitions made at the wrong price. The cost of poor project execution and the cost of poor acquisitions have been impaired through equity values.

Looking forward, we question the market's current obsession with this industry cutting capex. While we naturally expect some capex fade at this point in the cycle, in our view there does not look to be urgency from either a funding or project perspective for the industry to make drastic change. Our analysis, the core 'cost-curve' part of this study, suggests that the industry is now chasing few marginal projects. We see portfolios geared to deliver a weighted average IRR of 17%. The key for the industry is to maintain (or improve) the capital efficiency on this project delivery, a core failing of the last five years. We believe an improving trend on project cost and scheduling performance, including a benefit from greater in-built project contingency and from better developed oil field service capacity, bodes well for better delivery this time around.

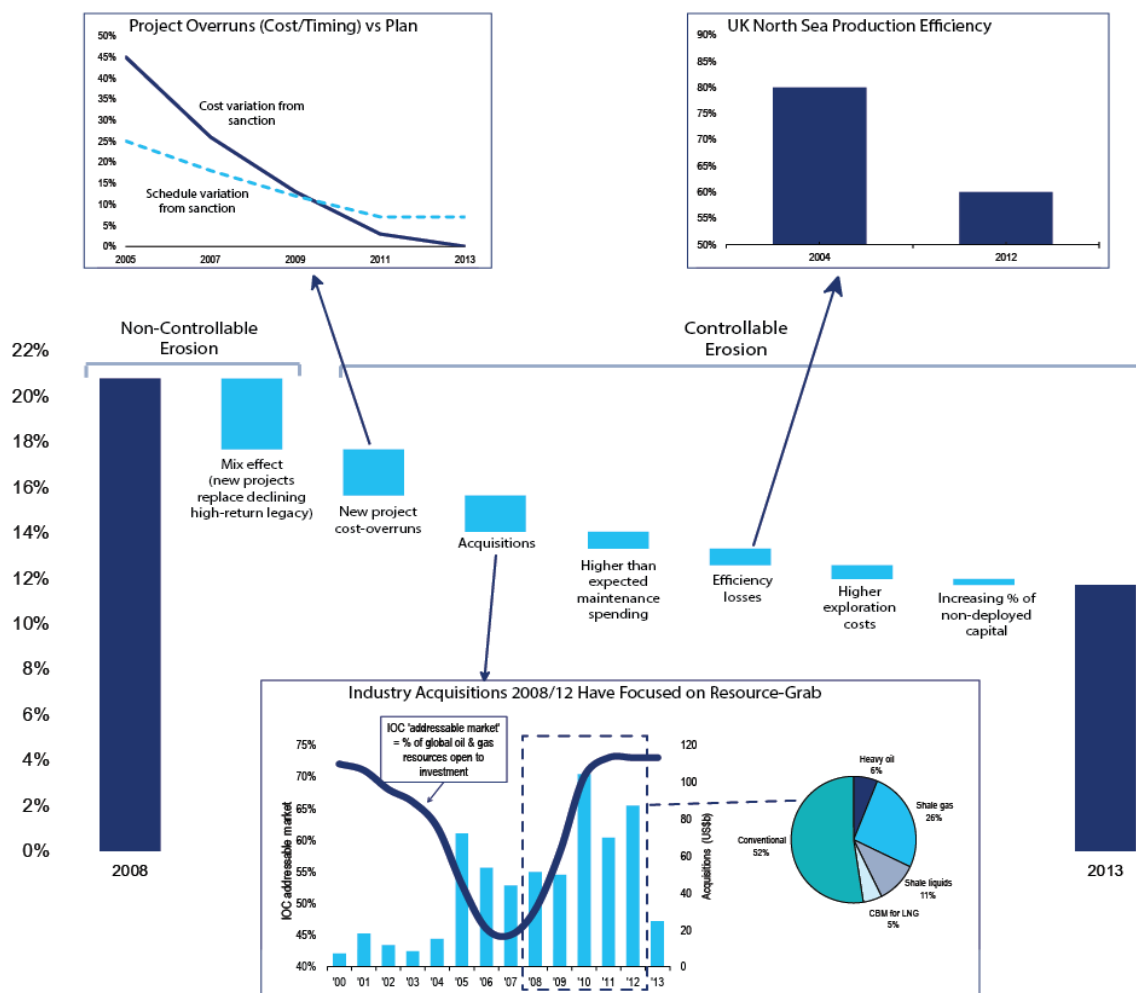
Pushing forward on investment in good projects will help dilute the impact of poor sunken capital, although not immediately – we forecast the inflection in cash returns is likely to be in 2015. Thereafter we see a modest pick-up/stability in returns at around 10% CROCI set against the backdrop of c. 8% CAGR growth in the capital base. It is not a period of super-normal profits, but is in our view a more investible proposition than the industry has offered over the last five years.

At an individual company level the capacity for greatest returns expansion should come from those with the lowest-cost asset positions, e.g. pre-salt Brazil sits at the bottom of our cost-curve, a position it has occupied for several years. But with current portfolios largely locked-in, this is perhaps a period where higher-cost players may look to deploy tools to enhance the imbedded growth/returns outlook of their portfolios:

- Cost-curve repositioning – valuations on some low-cost/high returns growth assets look to be approaching levels that may allow companies to lower the average breakeven of their portfolios. We think that this 'cost-curve driven' M&A will start to feature at this phase of the industry cycle and should be viewed differently than the 'resource-grab' M&A that was the feature of the 2007-11 period. Examples could include moves into Kurdistan (i.e. take on the discount-rate arbitrage that exists today), assets like Johan Sverdrup in Norway (where the market questions the balance sheet capability of some of the project partners), or pre-salt Brazil (where the market looks to remain skeptical on project execution – wrongly, we think). Some examples of cost-curve repositioning have already begun to emerge; for example RDS/TOT/Petrochina/CNOOC entry into the Libra pre-salt license in Brazil, taking on the exploration-risk to achieve the value-criteria.
- Self-help – noteworthy is that after a decade of expansion from the industry, that only a handful of players in global oil (OXY, Encana, PBR and STL) have formal programmes in place to cut cash costs. Other we think will follow. Cost-reduction/synergies may also be part of any justification around M&A.
- Leverage - the industry finds itself at a relative low point in financial gearing, to some extent we think a hangover from Macondo (the out-sized risk on exploration now needs to be borne by equity?). Leverage might help meet the market demands for higher ROE

Where Has All the Money Gone?

Figure4. Reconciliation of 2008-13 Industry Upstream Cash Returns



Source: Citi Research estimates for main chart, Project Overruns chart is data from Total, UK North Sea chart is from Petrofac (quoting underlying Schulmberger data), and Acquisitions chart is Citi Research estimates from company data.

The Industry Has a Poor Recent Track-Record on Capital Stewardship

In what has been a roughly flat oil price environment, average cash returns in the industry's core Upstream business have eroded from over 20% in 2008 to a little under 12% in 2013. While the industry always expected returns to fall in this period, simply from the mechanical effect of declining high-returns legacy assets (designed for a US\$20/bbl oil world, but generating profits in a \$100/bbl oil world) being replaced by new projects with mid-high teens returns, the outcome was worse than the 17-18% returns anticipated. Returns fell 600 bps below target to a level below the industry's long-run hurdle rate of 12-13%. We think there are a number of contributing factors – all within what we term the 'controllable' erosion – that can explain the delta:

Project execution

Instead of new projects generating the mid-high teens returns that had been anticipated, we estimate that actual returns from this new investment were close to 10% on average. That outcome reflects significant overruns on budgeted cost and time; for projects sanctioned in 2005 (and delivered post 2008) the cost-overruns were approaching 45% and the delays 25%. Consider for an Angolan PSC oil project that a one-year delay and 25% cost overrun would erode 450 bps versus a 15.5% anticipated post-tax IRR; for a concession tax regime such as a Gulf of Mexico deepwater development the shift would be even greater at c. 750bps lower than the 21% IRR target..

That poor execution reflects a period in the industry's history where the supply-chain was too poorly developed versus the level of activity, and that in retrospect the oil industry did not pass on enough risk onto the supply-chain. Arguably too the industry's focus on a land-grab of resources (see acquisitions below) meant that there was not enough focus paid to good project maturation and development. Has the situation now changed? We think the downward trend in overruns (cost and timing) speaks to a better developed supply-chain and a focus on fully maturing projects (more Front End Engineering) prior to sanction. Better scoping of projects enables companies to push more risk onto suppliers through turnkey projects, without then incurring the penalties of numerous change orders as projects get re-scoped mid construction.

Acquisitions

In the 2000-07 period the industry faced the challenge of a shrinking addressable market (Venezuela/Russia/Nigeria/Qatar all fully or partially closed for business). With an increasing perception that oil was a supply-constrained commodity, companies responded to the shrinking traditional market by making a land-grab for resource-long opportunities such as Canadian heavy oil, Australian coal-bed methane, and shale gas/oil in North America. In aggregate the industry made c. US\$360b of acquisitions in the 2008-12 period (equivalent to 17% of end-07 Uptream invested capital) of which almost half was in these resource opportunities. For much of this capital, development has subsequently proven to be slow or non-existent, or has come with additional costs to prove up the resource. We think the return on acquisition capital has been extremely poor, and that many acquisitions were made at the wrong price.

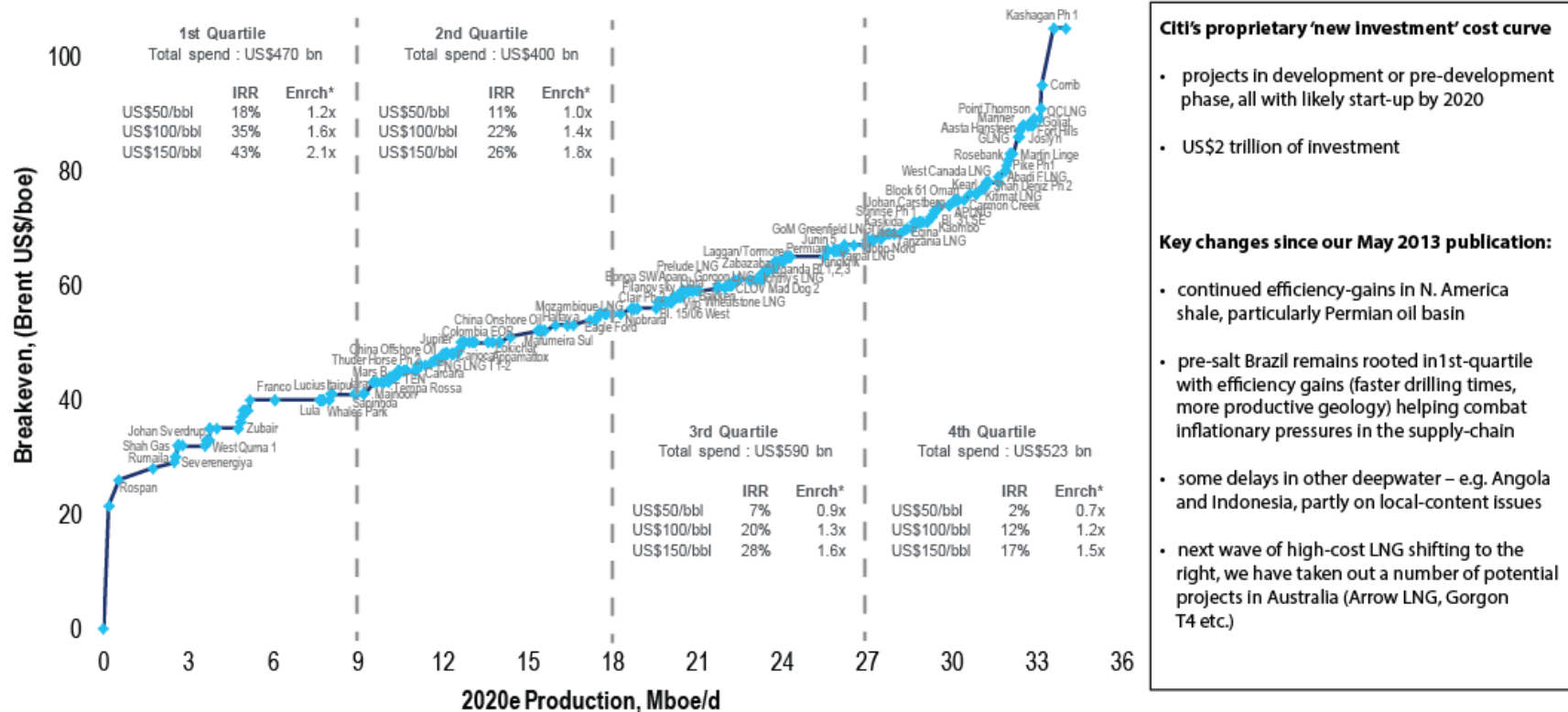
We believe there are numerous examples of poor acquisition capital. Total bought into Canadian heavy oil resource at Joslyn in 2005; the project will now not see first oil until after 2020. BG's QCLNG project in Australia is forecast to generate a 12% IRR, although this drops to 9% if the 2008 acquisition cost is included. The erosion is arguably worse for COP's entry into APLNG in Australia. RDS's land-grab for N. American shale came at questionable price and asset quality (the company recently sold its Utica position in Ohio for 30 cents on the dollar of the entry price that was paid just two years ago.)

Base Business Deterioration

We think poor production efficiency and higher than expected maintenance spending have eroded profitability of the base (pre-2008) business versus expectations. Asset age has been a contributing factor in places such as the UK North Sea and PBR's legacy Campos Basin position, although operational issues (e.g. Elgin blowout, Macondo drilling moratorium) have also played a significant role. Restoring the efficiency of invested capital has been identified by a number of corporates as a key target for the forecast period.

The Next Wave of Investment – Citi's (Updated) Proprietary Incentive Cost-Curve

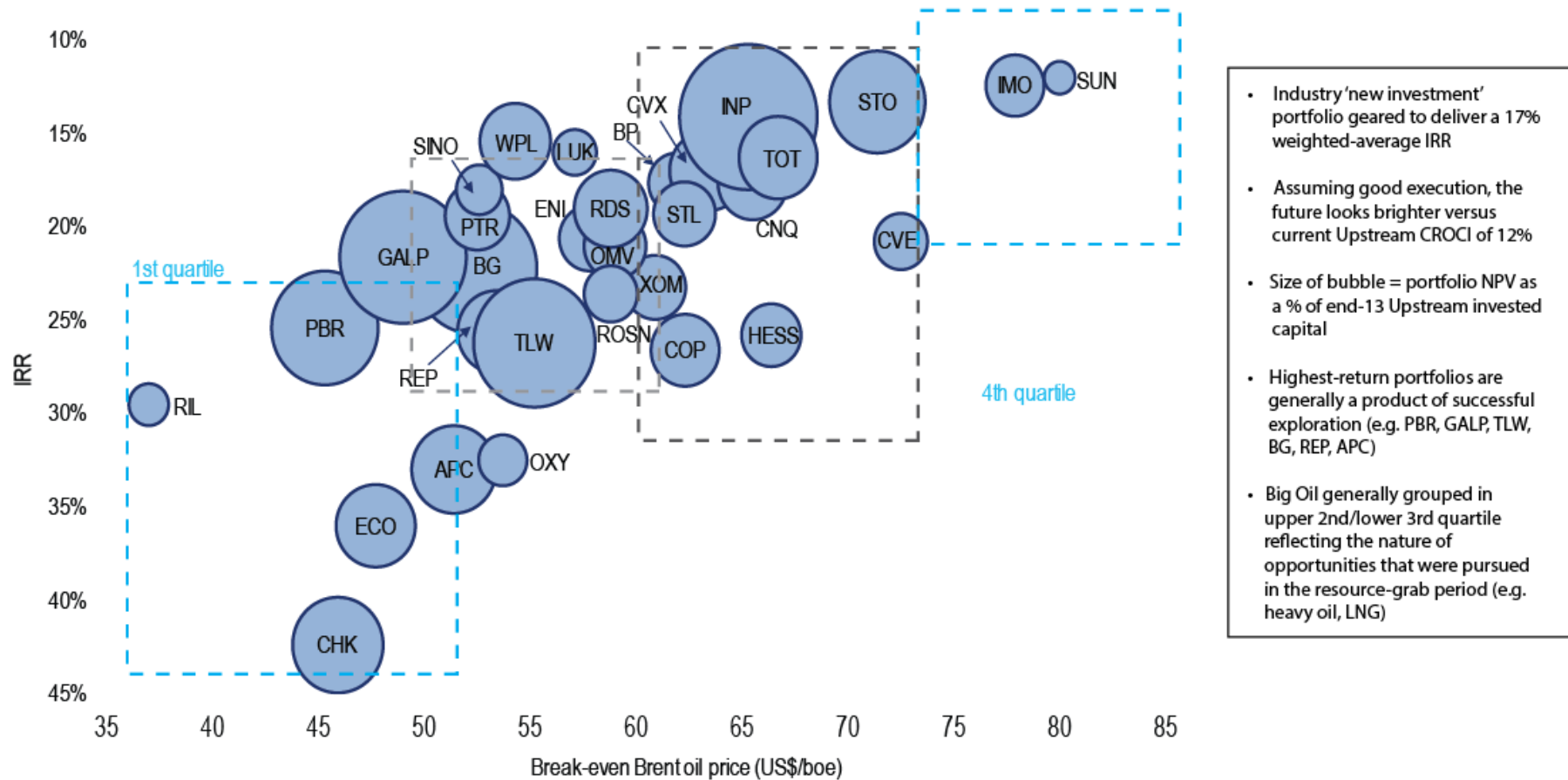
Figure5. Industry 'New Development Cost-Curve' to 2020



Source: Citi Research estimates. Breakevens reflect NPV zero (full-cycle, post-tax) using a 10% discount rate. Gas converted to an oil equivalence based on prevailing local price environment. *Enrichment = PV/capex.

In Theory, Current Industry Upstream Investment Offers a 17% Average Return

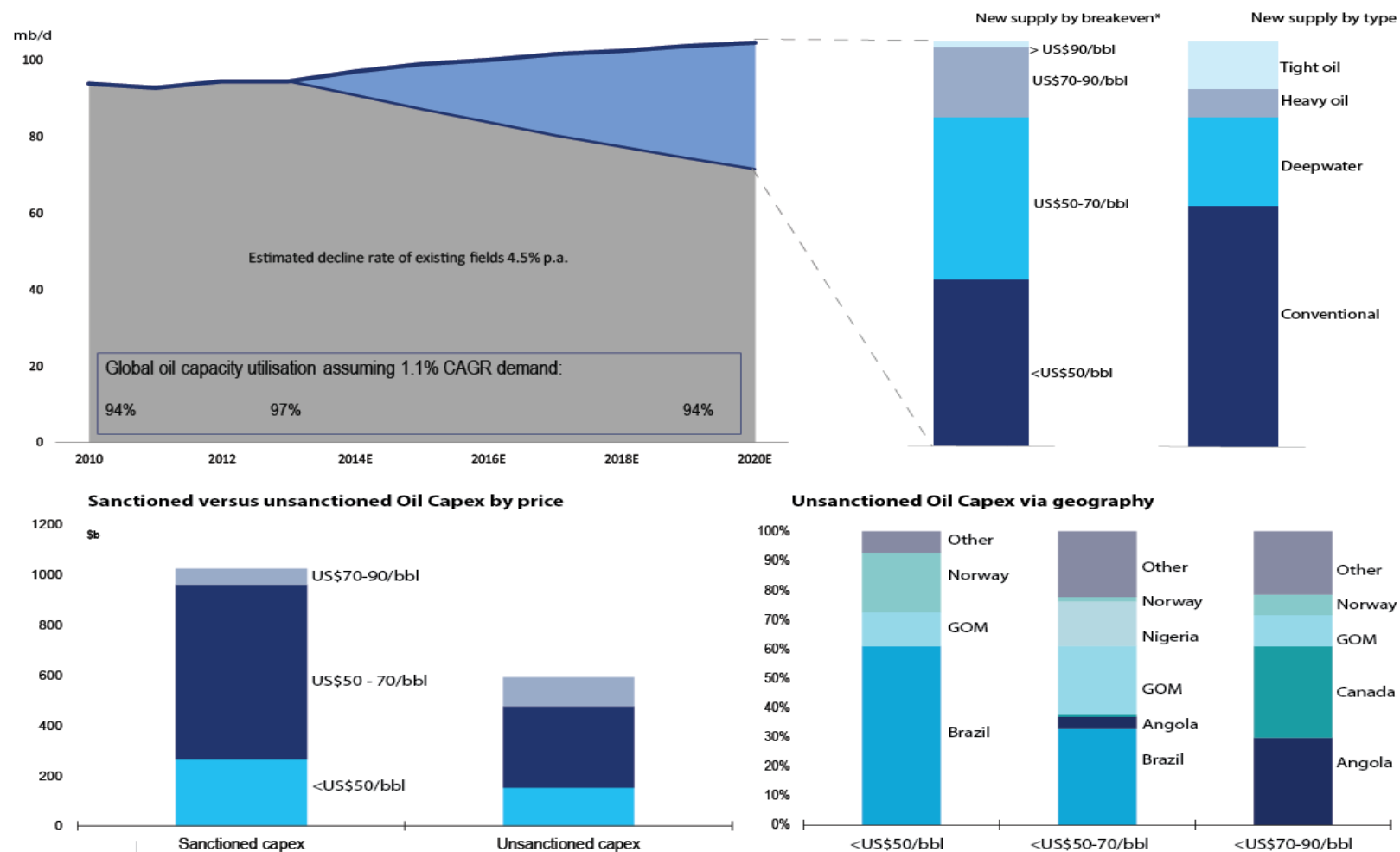
Figure6. Upstream 'New Investment' Portfolios to 2020 – Industry Average 17% IRR and US\$60/bbl Breakeven



Source: Citi Research estimates. Bubbles plot avg portfolio economics for development to 2020, with IRRs assuming US\$90/bbl Brent flat real. The size of bubble = portfolio NPV as % of end-13 E&P invested capital.

Oil Investments, Oil Markets and the OPEC-Put

Figure7. Oil Market Expected to See Capacity Growth of 1.5% p.a. to 2020, the Fastest Rate of Growth Since 1992-2002



Source: Company Reports, Citi Research estimates.

Industry Remains Full-Speed on Oil Development

Aggregating the projects in our cost-curve and an assessment of other broader industry investment (e.g. OPEC), we think the industry will bring on enough new supply to allow capacity of global oil markets to expand by 1.5% p.a. to 2020. This would represent the fastest rate of capacity growth in the market since the 1992-2002 period and, if demand remains at the 10-year historic trend of 1.1% p.a., would suggest that OPEC will need to enact some reduction in supply to protect price (an increase in spare capacity from 3% to 6% by 2020).

The expected growth in capacity is concentrated in three regions that together account of a little over 50% of incremental supply to 2020:

- North America shale – we see potential for 3 mbpd of incremental liquids growth taking overall output to 5 mbpd. Of the incremental volumes 40% is set to come from the Permian Basin in Texas, and the remainder split between Bakken, Eagle Ford and ‘other’ North America.
- Brazil – also around 3mbpd of incremental capacity to take overall output above 5mbpd. The majority of the incremental capacity is from the pre-salt Santos basin, much of it materializing in the 2H16 to 1H19 period.
- Iraq (incl Kurdistan) – we forecast 3.4 mbpd of incremental output taking overall output to 6mbpd, including 600 kbpd of growth from Kurdistan. Our output forecasts are below official Iraqi targets, reflecting our view that infrastructure constraints will act to limit growth. Note that Iraq is the only significant growth forecast to come from within OPEC over the period to 2020.

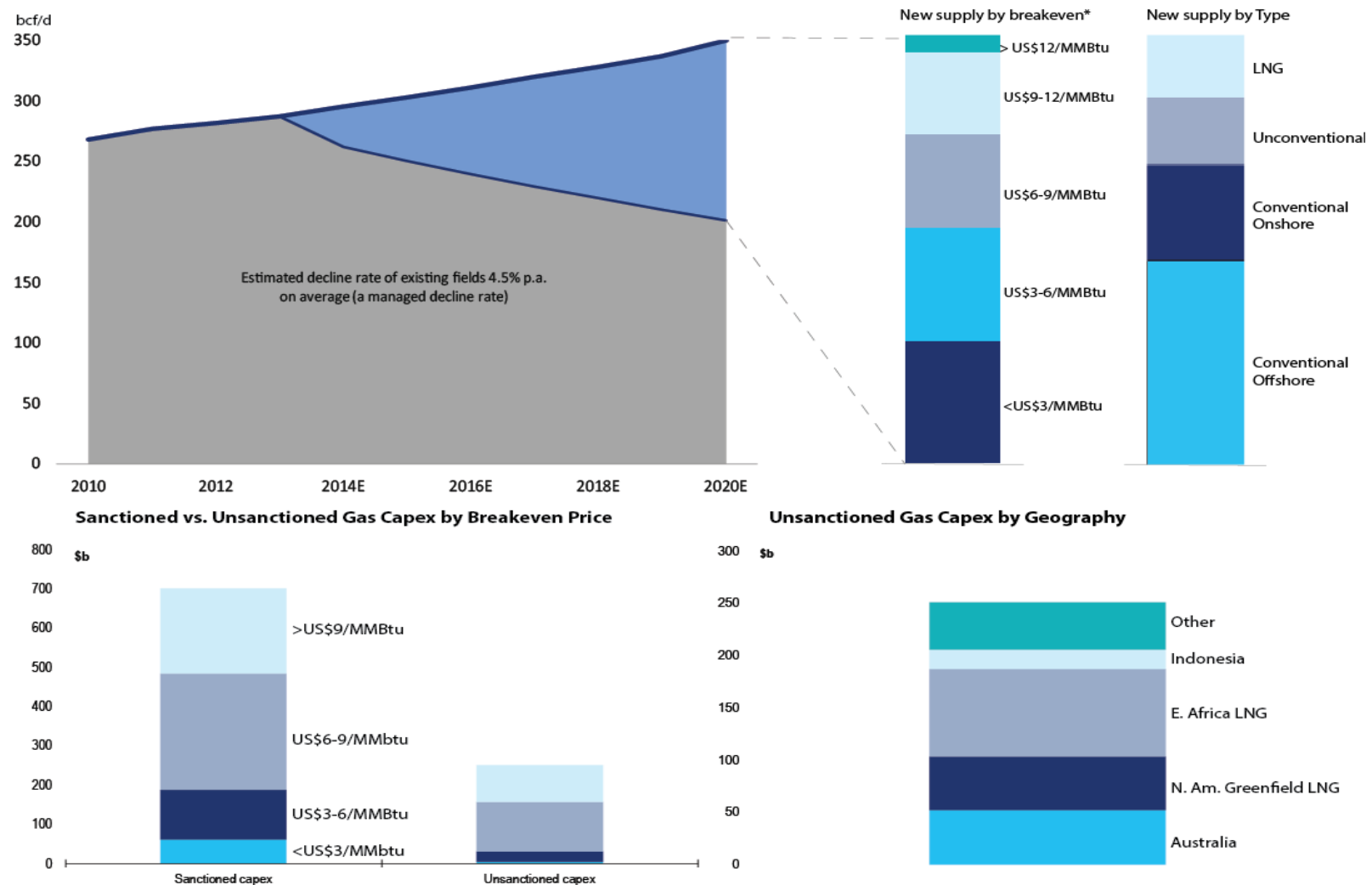
85% of the oil-related capital we think the industry is deploying has a breakeven below US\$70/bbl Brent (NPV zero, 10% discount rate). The remaining 15%, with a breakeven in the US\$70-90/bbl range, is predominantly Canada. Since our last update on the cost-curve we have seen little change in oil-related development spending; in fact Canadian heavy oil has surprised with the sanctioning of Fort Hills. Although current oil prices remain above the price threshold of the most marginal oil-related capital, the decision to invest in the top 15% would suggest willingness by the industry to believe in the OPEC-put; i.e. that OPEC countries will manage a price in-line with their own fiscal demands.

There have been a couple of specific examples of oil-related delays, but neither in our view is wholly economic. Deepwater Kaombo in Angola continues to await sanction, but our understanding is that the % of local market content (essentially a political demand) remains the stumbling block. The other project is BP’s Mad Dog II in Gulf of Mexico, where the original SPAR design was re-engineered as a semi-sub concept. In our view this change was more about re-scoping the project (adding more water handling capability) than it was around marginal economics.

The question in oil markets is how the industry would respond if prices were to fall. Although probably not the most marginal in terms of economics, we suspect that the most discretionary capital lies in North American shale oil, simply by virtue of its flexibility (spending can be dialed down quickly by drilling less wells). There is significant variability in the economics of North American shale, (see page 26) but the current marginal bucket of capital would likely see development plans impacted below US\$80-85/bbl Brent.

Gas and Energy Darwinism

Figure8. Gas Market Expected to See Capacity Growth of 2.7% p.a. to 2020, But What Future For High-Cost Gas?



Source: Company Reports, Citi Research estimates.

High-Cost Gas Carries More Risk

In gas markets we think industry will bring on enough capacity to deliver 2.7% CAGR growth; roughly in-line with historic demand. Demand is driven by the affordability of gas at low pricing points – US and Middle East – and from high-growth power generation markets in Asia. The latter supply, however, comes at a relatively high price point versus other energy sources and arguably faces a real threat from substitutes (see our [Energy Darwinism](#) thesis, October 2013). For instance, in some key markets we see solar becoming competitive with high cost gas by 2020. In our view, this implies risk around these high-cost gas projects considerably greater than that of oil.

The expected supply growth in gas comes from:

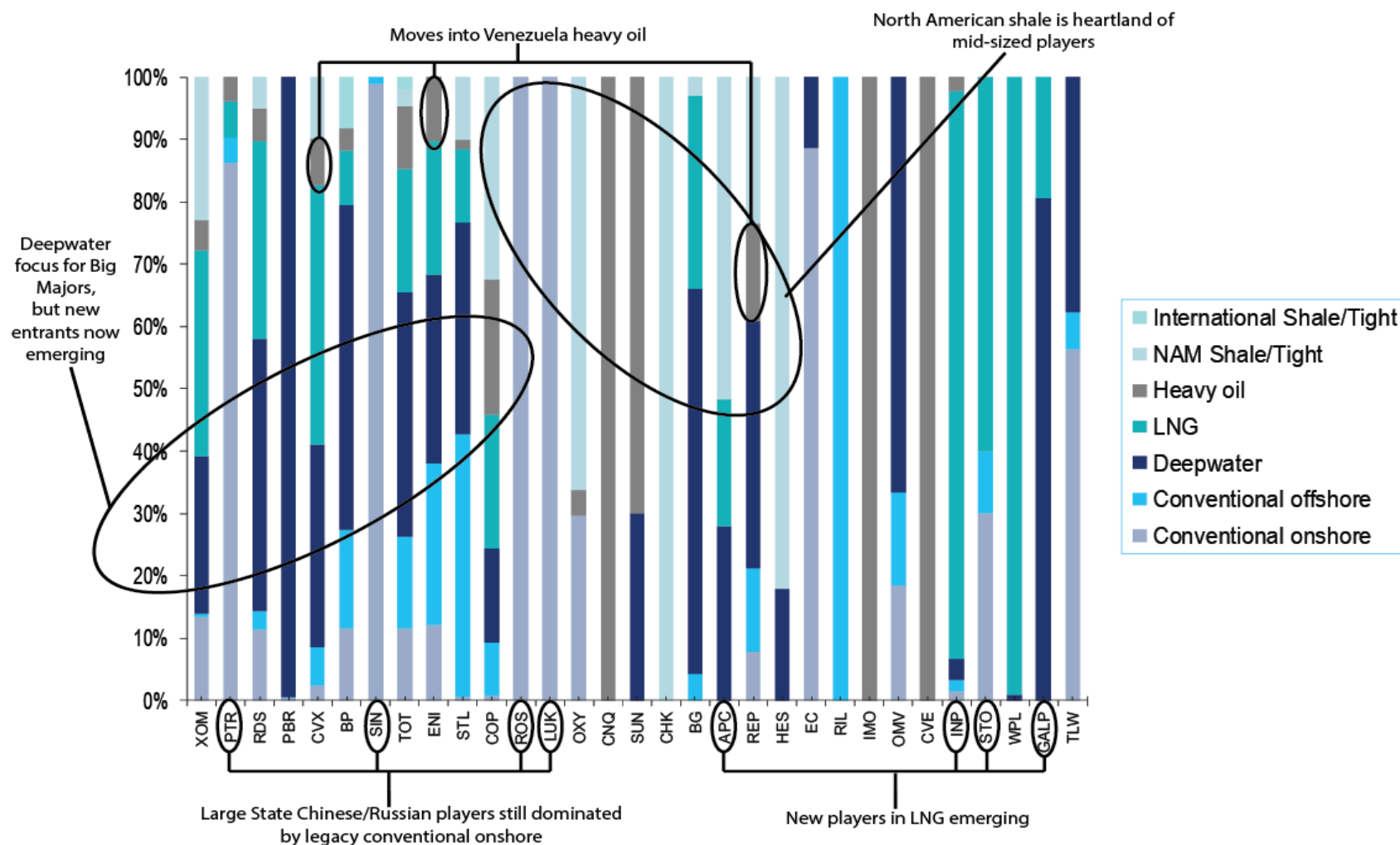
- Conventional – the bulk of breakevens are <\$6/mmBtu and supplies primarily serve domestic power generation markets or feed existing pipeline networks. Growth is led by production onshore China and Russia. New export dependent projects require major infrastructure investment (i.e. new pipelines), but still typically offer lower breakevens than LNG-alternatives. So despite demand uncertainty, we generally expect these projects to be developed.
- Unconventional (shale) – the bulk of Unconventional growth this decade comes from the US Marcellus and from gas associated with US liquids production, both of which sit low on the cost-curve. Sustained higher gas prices would likely see acceleration in dry gas production from other basins (i.e. Haynesville). We do not expect material shale gas production outside of the US this decade; early exploration in China has proven costly and challenging.
- LNG – the bulk of incremental LNG supply comes from eight projects in Australia (Gorgon, APLNG, Wheatstone, QCLNG, Ichthys, GLNG, Prelude and Browse). All but Browse are already under construction. The other two dominant sources of expected LNG are offshore E. Africa and N. America.

Our supply curve captures c. \$1T of gas-related growth capex, of which 25% is unsanctioned. The overwhelming majority of unsanctioned relates to LNG, where we see the greatest risk of delay/cancellation and a need to adjust to changing industry dynamics. Competition from renewables and hoped for growth in international shale gas production have tempered buyer appetite for long-term, oil-linked gas contracts. At the same time, deteriorating capital efficiency for LNG (liquefaction costs +10% CAGR since the mid-90s) has increased the required gas price and proportion of contracted capacity needed for operators to sanction projects. This tension shows little signs of abating, in our view.

We do see emerging signs of industry response. Since last publishing Oil Vision in May, several high-cost potential gas projects have been pushed back in the queue (e.g. Sunrise LNG, Scarborough FLNG). Floating LNG (FLNG) perhaps holds some promise for the industry to introduce cost-deflation in this space – an FLNG design increased IRR to 15% on Browse, up from 11% using an onshore option for LNG – although the success of RDS's Prelude development will be a key determinant of future appetite. In Mozambique, the government looks to be adopting a relatively flexible development approach (i.e. FLNG), reducing the time to first production and limiting some of the complexities which have plagued ongoing projects in Australia. Finally, we see a lengthening queue of brownfield projects in the US, where the more favourable economics on offer likely supplants investment on riskier greenfield projects.

Battle Lines....

Figure 9. Upstream Investment to 2020 Split by Development-Type (Companies Ordered Biggest to Smallest on 2013 Gross Invested Capital)



Source: Company Reports, Citi Research estimates.

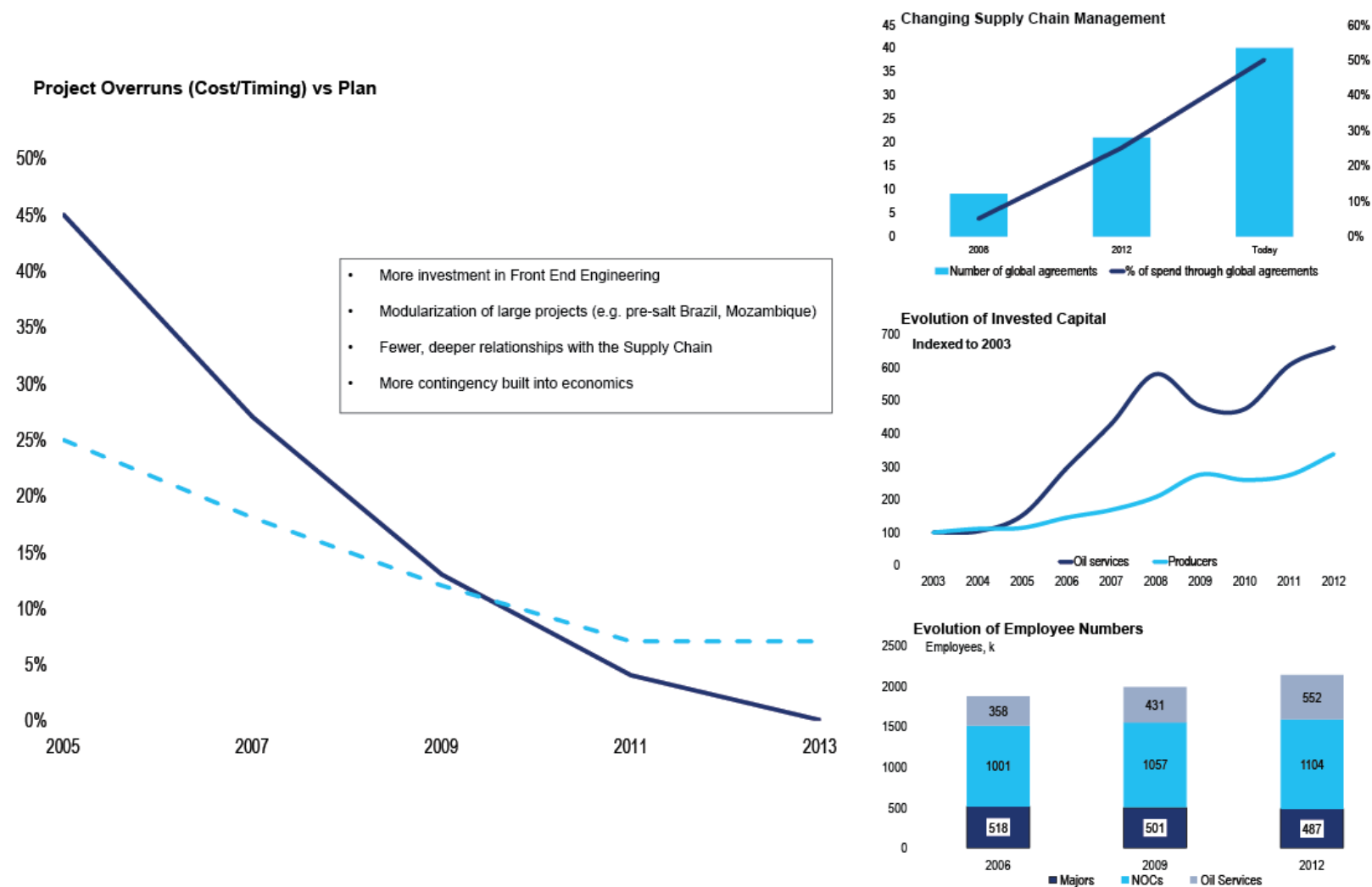
... and Breaking Barriers

Technological focus and legacy tends to act as the overwhelming driver behind the type of investment the industry players pursue. Interesting to note however is the proliferation of new entrants into some of the more technologically challenging environments of deepwater and LNG, illustrating that technological advantages do not look to be sustained long-term in the oil and gas industry. We identify a number of interlinked themes around investment:

- Deepwater development is dominated by the larger industry players, with XOM, RDS and CVX almost fully sacrificing conventional offshore investment for the bigger resources/potential returns available in the deepwater. What is also noticeable however is the raft of new entrants into this space – small/mid-sized players such as GALP, REP, APC, TLW and OMV all count deepwater development as key to their growth ambitions – suggesting that the technological and capital challenges of deepwater exploration and development are within the capabilities of many. Note that RDS and TOT include investment plans that relate to the Libra pre-salt auction in Brazil.
- Global LNG is similarly dominated by larger industry players (and BG and WPL) but here too we are seeing signs of increased competition, with major investment from Inpex and Santos in Asia Pacific and APC/GALP in Mozambique. RDS has pushed forward as a pioneer in Floating LNG development with the giant Prelude project in Australia, although here too the technological capabilities look to have quickly transferred with APC and ENI now both actively talking about extensive FLNG potential from Mozambique.
- Mid-sized E&P companies in North America have been the pioneers of shale gas/oil, reflecting perhaps a greater ability to move quickly, innovate, drive down costs and reduce cycle-times on development than their larger-peers. In our coverage universe the gearing of mid-sized players OXY, CHK, HES and APC is readily apparent. The move of larger companies into this space has met with mixed success, with capital build-outs from XOM, RDS and BP being either explicitly or implicitly impaired. BP have now acknowledged that shale does not fit well into the existing organizational structure of a large-cap International Oil Company, and have sought to partition their US shale business into a separate business with its own explicit management and targets.
- Heavy oil remains in the hands of the larger-cap Majors and Canadian producers. Within the Majors what is noteworthy is CVX and ENI focusing on development opportunities in Venezuela, versus XOM, RDS and TOT focused on the more politically stable Canadian play.
- Despite public listings over the last decade the large Chinese and Russian producers PTR, SIN, ROS and LUK have been slow to expand beyond their own country boundaries and expertise (onshore development). That contrasts perhaps with more dynamic national champion Statoil that has used greater access to capital markets to help diversify the business outside of Norway. PBR had followed a diversification strategy for several years, but has now reverted to focus on Brazil given the huge potential from the pre-salt opportunity.

Stand and Deliver

Figure 10. Signs of an Improving Trend in Project Execution Reflects Changes in Approach and a Better Supply Chain



Source: Main chart is data from Total. Supply Chain Management chart is data from BP. Evolution of Invested Capital and Employee Numbers are from reported company data.

The Industry Looks Better Prepared for Project Execution

Assuming oil prices hold relatively firm, we do not see the industry embarking on radical reductions in investment like that which has occurred in the Mining Sector, or indeed in the oil sector itself in 1999 and 2009. A key element on that outlook is an assertion that the industry is better able to deliver on project execution (and the target 17% IRR) than it was able to do over the last few years.

There are several elements that support our confidence in better execution:

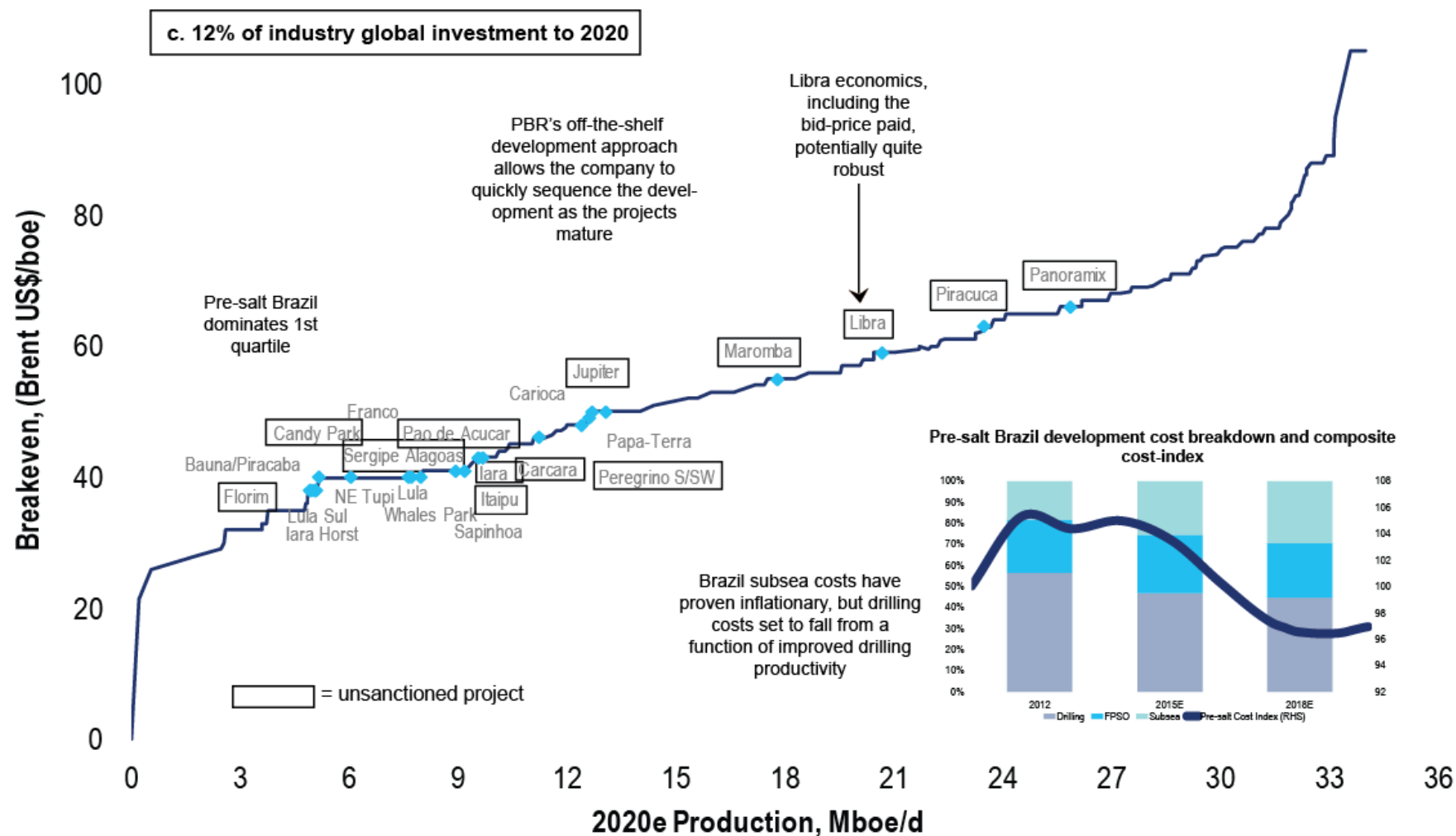
- **More Front-End Engineering** – some of the biggest problem projects of the last period (e.g. Pearl GtL and Kashagan) saw the bulk of their cost revisions actually very early in the development timetable, suggesting that it was project re-engineering and scope more so than poor construction productivity that led to the overrun issues. We note a general push by the industry to devote more investment into pre-sanction engineering, particularly for mega-projects – e.g. Novatek/Total's Yamal LNG project was close to two years of engineering pre-sanction (one year FEED and one year open-book estimate process post-EPC contract award), while Shell's Prelude FLNG went through a similar process.
- **Modularization** – the development of deepwater pre-salt Brazil is a massive undertaking (c. US\$300 billion of the \$2.3 trillion investment on our cost-curve). Petrobras have approached the development in a modularized fashion, developing the resource with what will ultimately be 25-30 separate FPSO production units, each smaller in size than some of the giant units in the US Gulf of Mexico deepwater. Undertaking in this fashion was done with the dual goal of: (1) allowing learning of the geology (reservoir management) and technology (effective drilling, development concepts and materials) to be incorporated into latter developments; (2) allowing the local supply-chain the visibility and time to scale-up to meet ultimate demand. As we illustrate on the following page this approach looks to be delivering the intended benefit.

Noteworthy is that one of the next industry hotspots – Mozambique – looks to be adopting some aspects of this approach, using smaller Floating LNG solutions to develop early phases of the gas resource (large amounts of which will be built outside of the country) rather than pushing for a large land-based LNG facility that could have proved ill-judged in an economy of only US\$15 billion GDP.

- **Better Developed Supply-Chain** – although we have not seen broad-based evidence of supply-chain cost-deflation outside of the North American pressure pumping, the supply-chain certainly looks much less inflationary than it was. Key to this has been a build-out in equipment and personnel, builds which have far outpaced the equivalent metrics from Producers over the same period.
- **Supply-Chain management** – we see plenty of signs of a changing, more symbiotic relationship between Producers and Oil Service providers. Large producers look to be shrinking the number of key vendors, gaining preferential access to key expertise and equipment and looking to seek efficiencies through scale. Vendors may have to accept lower margin, but the benefit likely comes through much less cyclical activity.
- **Greater contingency** – we believe many industry players now incorporate more contingency into project economics than they previously did. We believe that major players are now typically building-in 20% contingency in the early stages of a project and 15% at the point of project sanction (FID).

Brazil

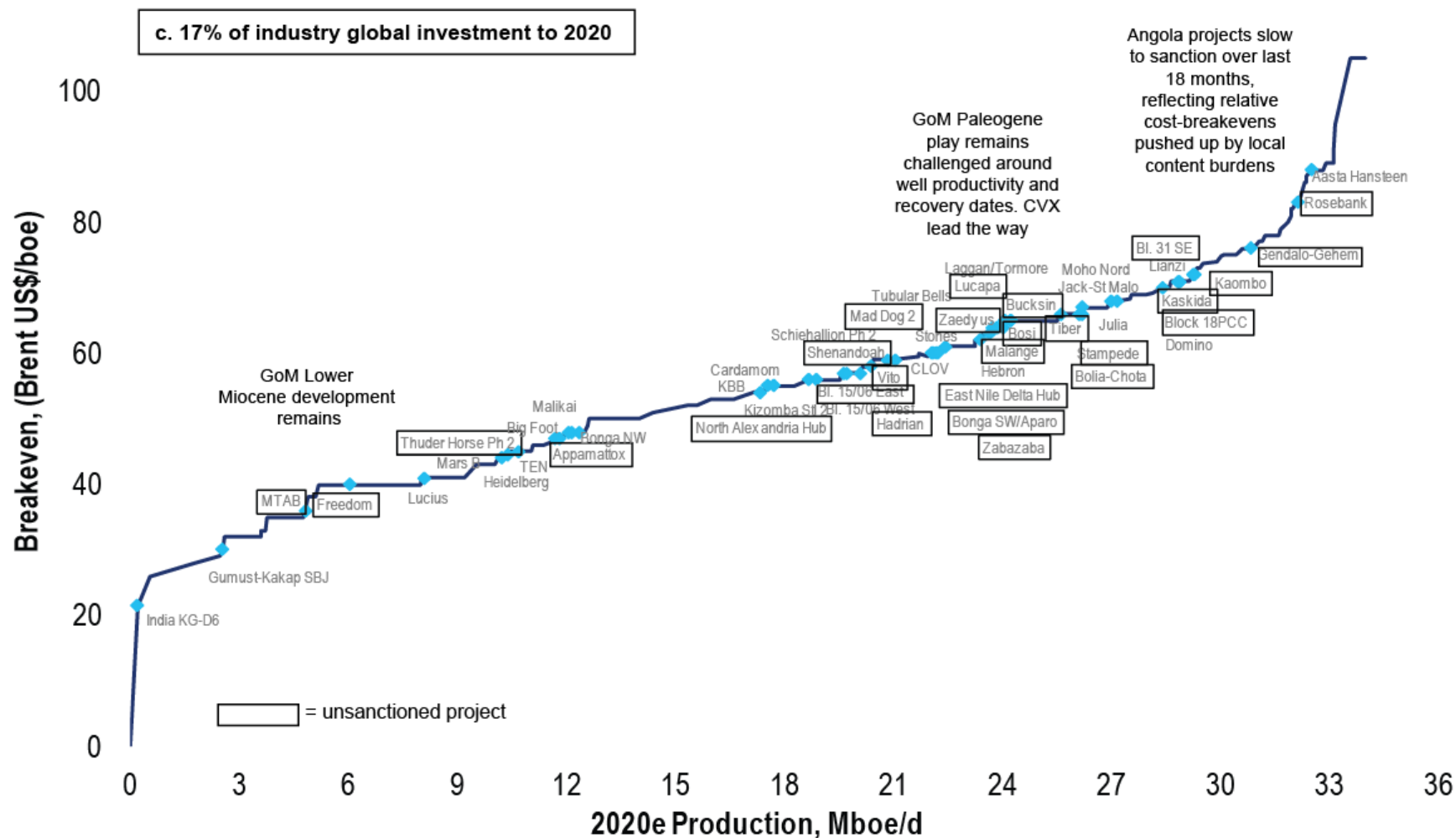
Figure 11. Brazil Pre-Salt Economics Remain Firmly Rooted in 1st-Quartile



Source: Company Reports, Citi Research estimates.

Other Deepwater

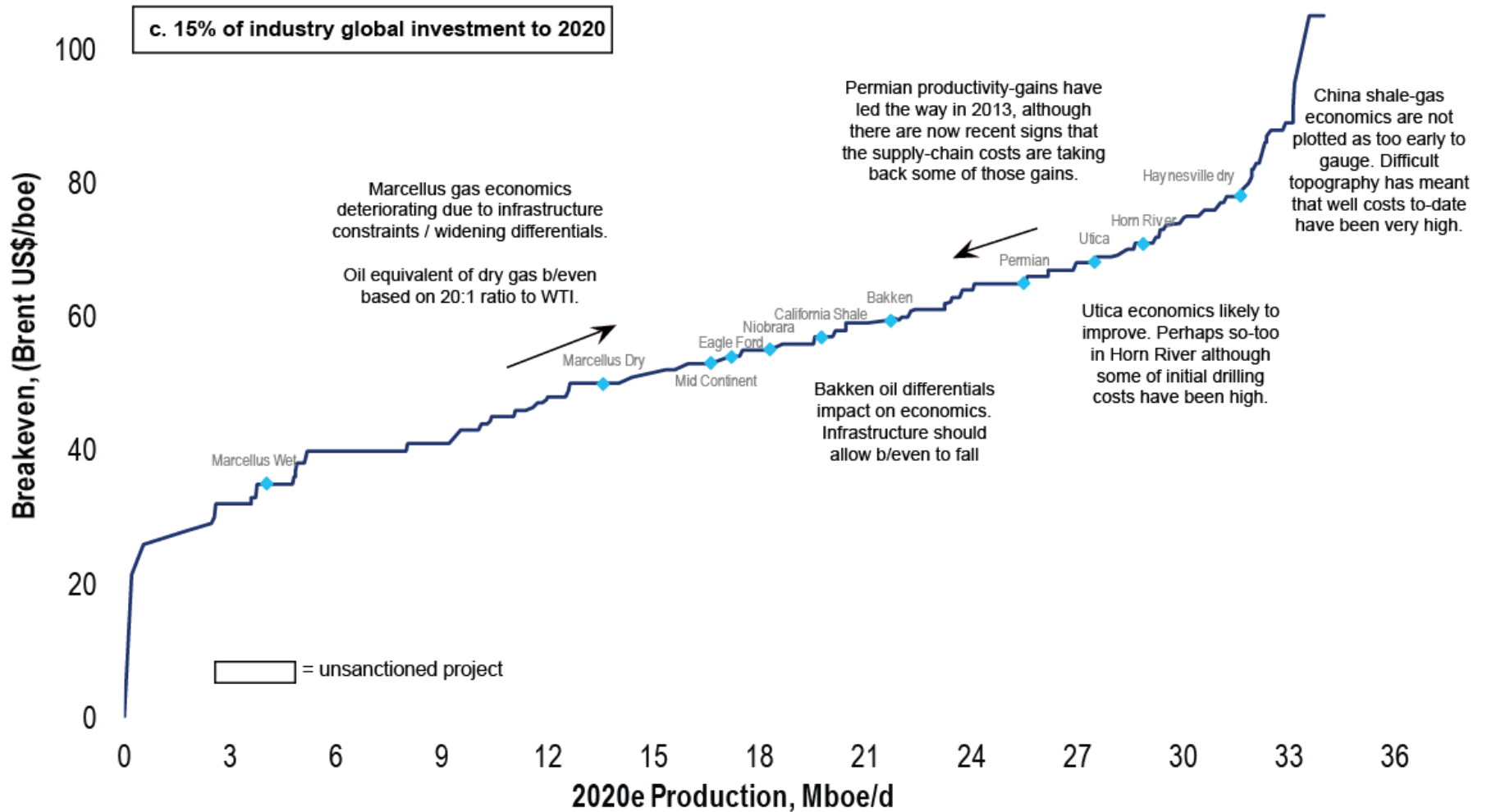
Figure 12. Economics of Other Deepwater (principally West Africa and Gulf of Mexico) Are Mixed; Pace of Development in High-End Angola and GoM Paleogene Has Slowed



Source: Company Reports, Citi Research estimates.

Shale

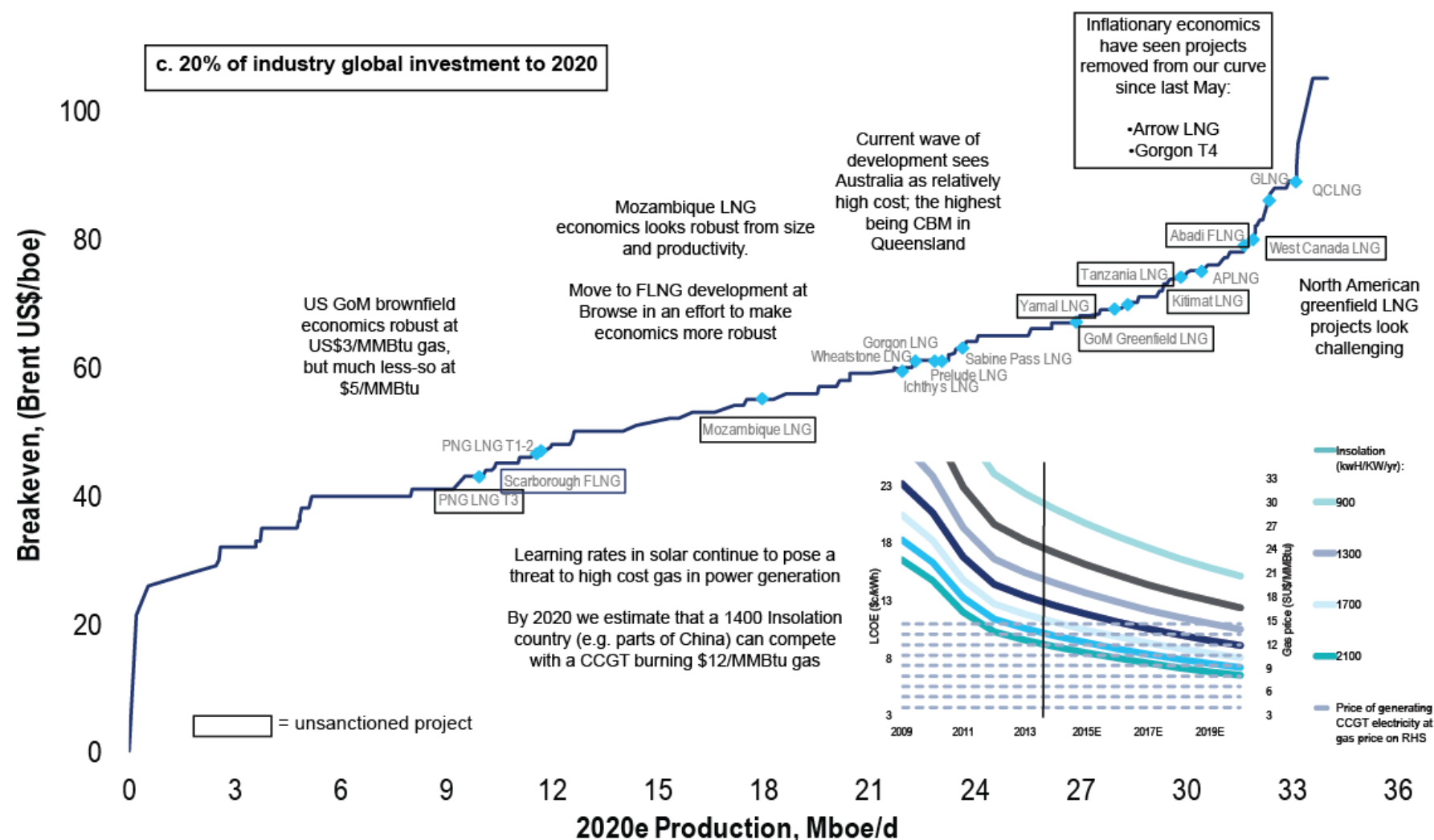
Figure 13. North American Shale Oil and Gas Is Seeing Numerous, Localised Cost-Curve Changes – Down Through Productivity/Efficiency Gains, Up Through Infrastructure Constraints



Source: Company Reports, Citi Research estimates.

LNG

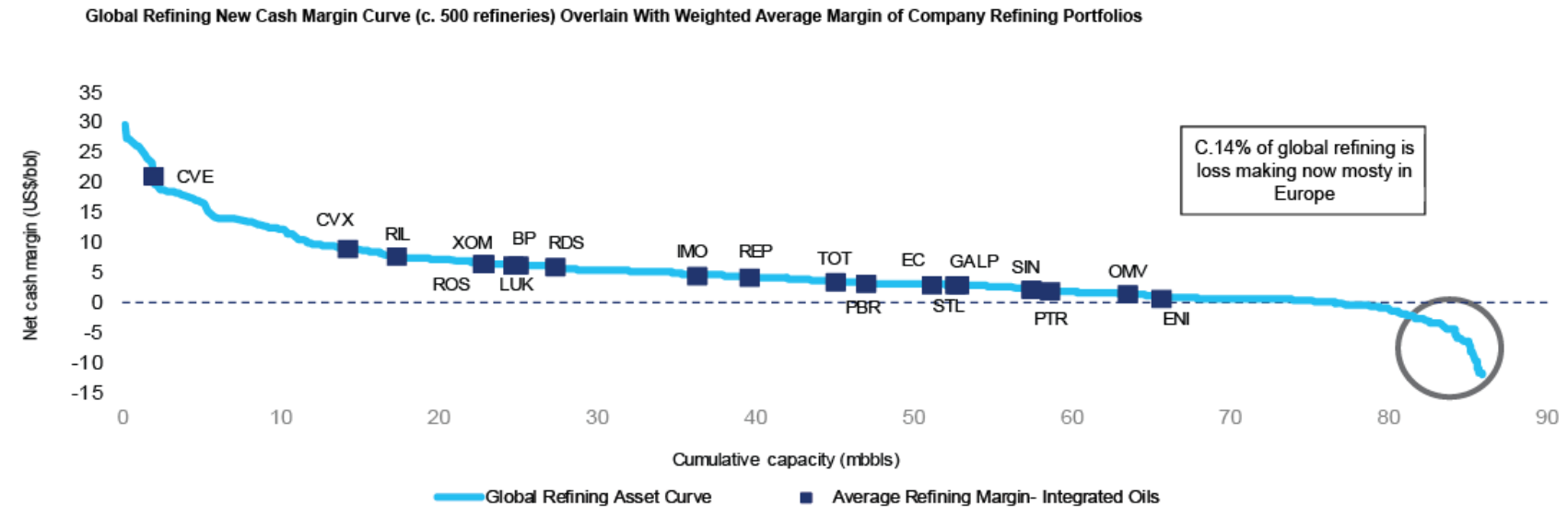
Figure 14. Shifting Dynamic in Global LNG Sees Emergence of Brownfield US GoM Projects and Slippage in Sanction of New High-Cost Greenfield



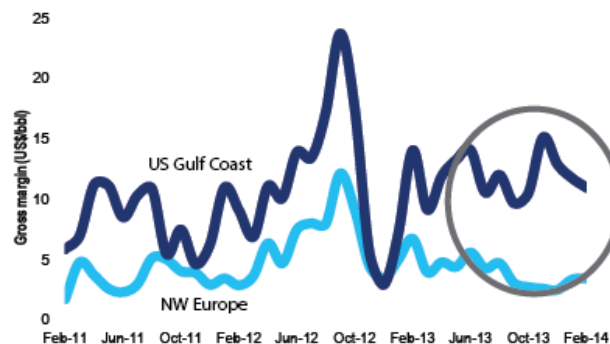
Source: Company Reports, Citi Research estimates.

A Short Word on Downstream

Figure 15. Structural Overcapacity in Global Refining (and Specifically Europe) is Slow to Be Addressed



Lagging European Margins to Force Capacity Closures



But Surprisingly European Rationalisation Has Invariably Ended in Sale/Restart

Refinery	Country	Company	Capacity	Timing	Comments
Gothenburg	Sweden	Shell	87	2010	Sold to ST1
Heide	Germany	Shell	90	2010	Sold to Kleisch Group
Stanlow	UK	Shell	270	2011	Sold to Essar Energy for \$350m in 2011
Pembroke	UK	Chevron	220	2011	Sold to Valero for \$730m in 2011
Antwerp	Belgium	Petroplus	108	2012	Sale to Gunvor, re-opened in mid-May
Ingolstadt	Germany	Petroplus	110	2012	Sale to Gunvor, to re-open 4Q12
Cressier	Switzerland	Petroplus	68	2012	Restarted in July under new ownership (Varo Holdings)
Gela	Italy	Eni	105	2012	Closed for 12 months in May 2012
Falconara	Italy	Api	84	2013	12 months closure from January 2013
Whitegate	Ireland	Phillips 66	71	2013	For sale since 2013
Bayemol	Germany	OMV	260	2013	Bought by Varo Energy in Dec 2013
Total			1473		

Source: Company Reports, Citi Research estimates

US and Euro Margins Diverging, Forcing Closures.... That Haven't Happened

Most of Global Oil Vision is dedicated to Upstream as this is where most industry re-investment is focused. Across our study group the Downstream remains challenged by high relative exposure to low-growth OECD markets and by unresolved structural overcapacity in global refining. However, there are still winners and losers in this environment.

Our global cost-curve on the refining side (strictly speaking a net cash margin curve) points to around 14% structural overcapacity in global refining. OECD is the battleground of this overcapacity, and there are signs that European refining is at the losing end of the battle. The growth in US shale is allowing US Gulf Coast and East Coast refiners to find ways to replace imported crude with cheaper domestic alternatives, often using complicated logistics to do so. In effect US refiners have moved to a stronger position on the cost-curve, at the expense of European refiners that compete into the same Atlantic Basin market. Winners are US refiners who are able to take advantage of the changing supply chain such as CVE's Mid-West refining portfolio, or BP's recently completed Whiting upgrade.

Europe finds itself not only having to contend with a changing US competitive position (US refiners are now exporting ultra-low sulphur diesel – ULSD – into the European market), but also increasing inflows of ULSD from Russia and Middle East. That 14% global overcapacity in refining potentially translates into around 25% overcapacity in the European market. European refining margins have begun to diverge sharply from those on the other side of the Atlantic, forcing marginal European refiners to reduce utilization in 2013 to some of the lowest levels seen in several years.

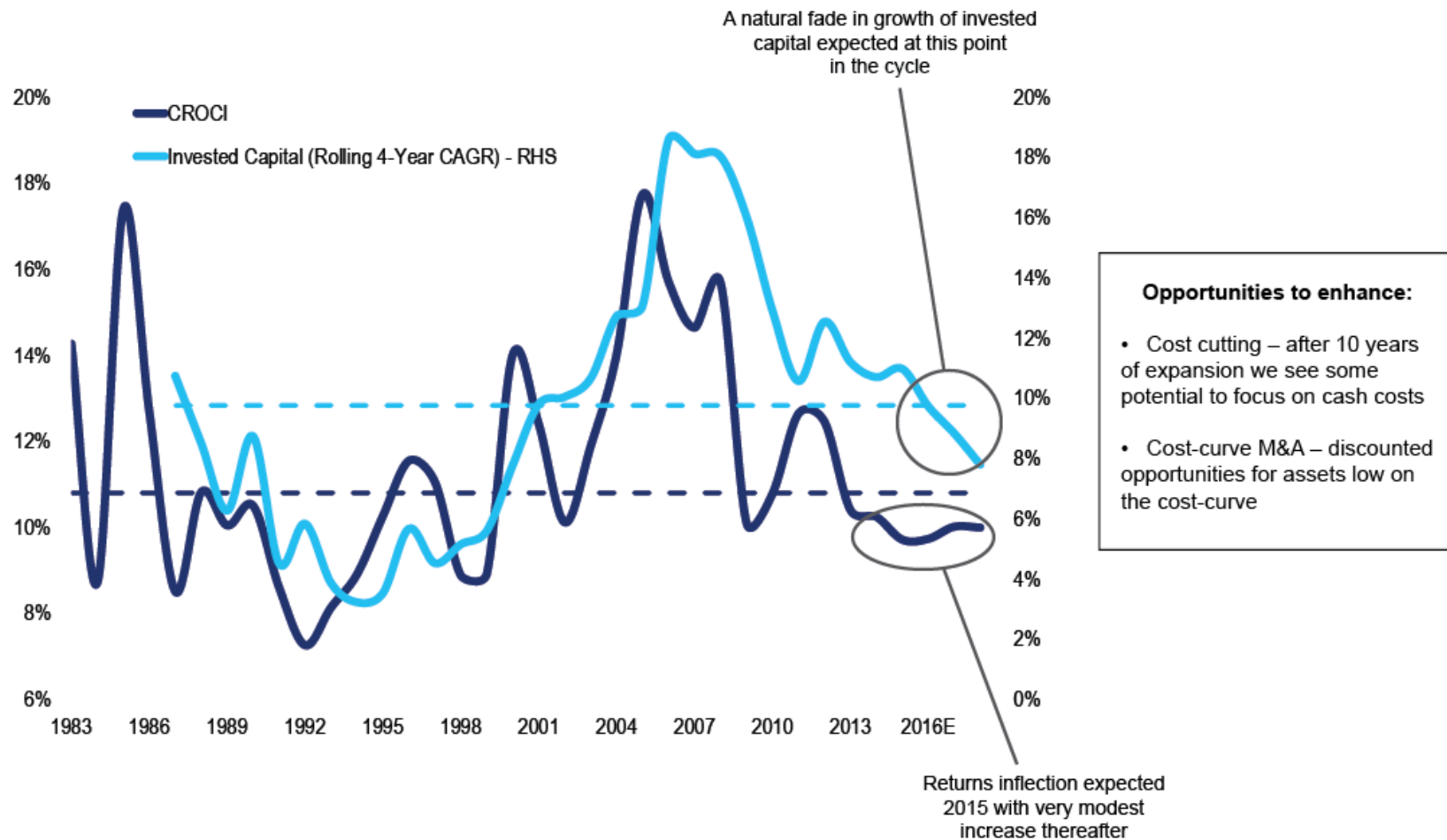
But run-cuts are a temporary measure. What remains surprising to us is that despite five years of declining product demand that the European refining community remains slow to close assets. Lack of closures can be attributed to two key factors: political considerations and asset acquisitions by new players. The former relates to primarily labor issues the European IOCs are facing in their home markets, where maintaining profitability has been the hardest. In France, Total was forced to pledge not to close any additional refineries in France before end-2015, after shutting down the Dunkirk refinery in 2010. In Italy, Eni is facing similar issues with local authorities, having taken a decision to reopen the Gela refinery after a 12 months shutdown in 2012/2013, despite negative cash margins in the Mediterranean.

The second factor limiting capacity reduction has been the acquisition of marginal assets by international players seeking a foothold in European markets for largely strategic reasons (e.g. Petrochina, Essar), oil traders looking to integrate up the value chain (e.g. Vitol, Gunvor), as well as private equity looking to take advantage of current valuations. As a result even the material events such as the bankruptcy of Petroplus (total refining capacity of 600kbd) have failed to rebalance the market. In total, we estimate that c. 1mbd of capacity (7.5% of Europe's total) was acquired and kept online over the past three years. We see capacity reduction as the only lasting solution for to Europe's product oversupply.

Although Total is Europe's biggest refiner, we do not see it as the company with the biggest problem. There are enough profitable assets in its refining portfolio – Gonfreville, Vlissingen, Schwedt, Antwerp and soon Jubail (in Saudi, but partly accessing the European market) – that it can absorb losses from the small refineries in France where political constraints force a go-slow on closure. Potentially much more exposed in our coverage group is Eni: although a much smaller player, its entire Italian refining portfolio looks to be unable to generate a profit.

The Industry's Financial Outlook

Figure 16. Financial Outlook Suggests 8% CAGR growth in Invested Capital and Low, But Broadly Flat Cash Returns to 2018



Source: Company data and Citi Research estimates.

Stable (Albeit Low) Returns and Some Growth

The overall picture on industry financials is that returns have pushed below 30-year averages, a result that means for most players that cash generation is not enough to support current investment and dividend needs. Behavioral changes are needed. The industry has spent the best part of the last decade in a world where 'capital is free', with company targets and management incentives increasingly aligned around growth rather than return on investment. Those targets and incentives now need to change.

For most industry players the financial outlook over the next five years is already set by the portfolio currently under development. In that outlook we expect cash returns for the group to reach lows in 2015 (c. 50-80 bps lower than where they are today) and then gradually improve to reflect the benefit of new, better investment (17% IRR average) on the portfolio mix. At the same time we expect growth in the capital base of c. 8% CAGR to 2018 reflecting the remaining spending on capital already in train. An outlook of 8% p.a. growth with a backdrop of stable (albeit low) returns is in reality a more investible proposition than the industry has offered over the last five years, especially since it should push the industry back into position of full dividend cover.

Cost-cutting might help deliver a better outcome

Targeted cost-efficiencies could be used to help boost profitability in cash returns. This is an industry that has seen a decade of almost unabated growth and yet, in the face of increasingly poor profitability, only a handful of global companies that we are aware of (OXY, Encana, ROS, PBR and STL) have formal programmes in place to cut cash costs. Perhaps this is indicative of a lack of pressure on management (interesting that both OXY and Encana have had activist shareholder pressure) and perhaps too it is a reflection on concerns around safety performance (e.g. will the US Courts decide that Macondo was partly caused by applying pressure on costs?). Whatever the reason, we think it is an aspect of business performance that management teams will be under increasing pressure to address.

'Cost-curve M&A' is also a tool in the armory

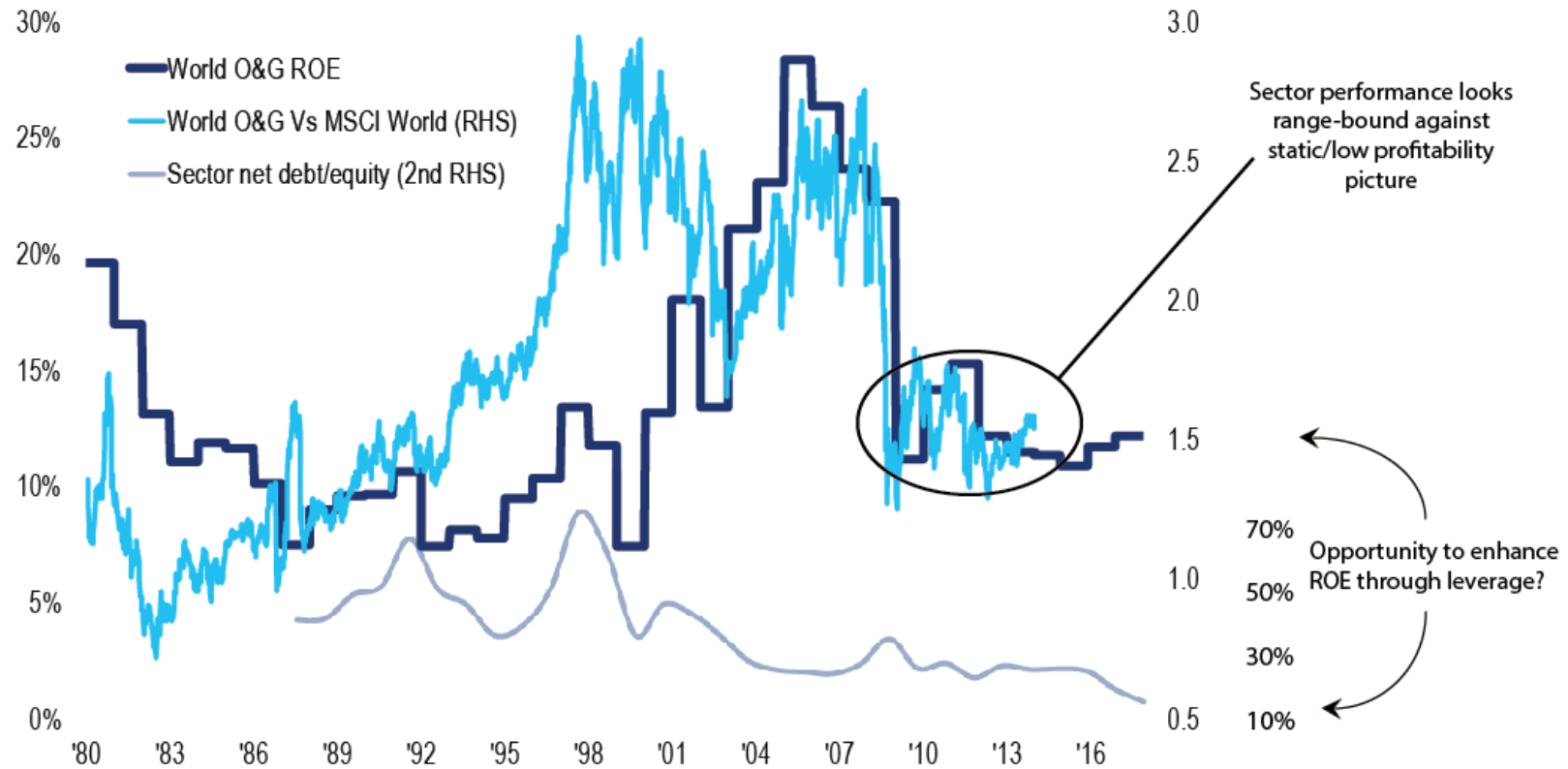
M&A in the last period was driven by accessing resource in a perceived environment of supply constraints. We think M&A in this part of the cycle will be different, driven by companies willing to arbitrage political, geological (exploration) or financial risks to lower the economic breakeven of their investment portfolios. We think this is something that is particularly relevant for companies with imbedded high-cost optionality in their post-2018 portfolios (e.g. RD/Shell with a lot of high-cost Australian/Western Canada LNG).

We would argue that valuations on some low-cost/high returns growth assets are approaching levels where these arbitrages are now becoming possible. For example:

- Political risk – our coverage names with exposure to Kurdistan look to be discounting 15-20% discount rates in current net asset values, perhaps right from the perspective of the standalone equity, but likely a higher rate than a global Major might employ. Taking on that political risk could be traded against low geological risk (Kurdistan is a vast petroleum resource) and low economic risk (1st-quartile assets assuming a 10% discount rate).
- Financial risk – some of the smaller players in Johan Sverdrup in Norway, a 1st-quartile asset, see current equity valuations carrying significant concerns around financing and execution; i.e. all of the spend for this huge project is to come; net debt for these smaller names will rise for a significant period.
- Execution risk – a poor track record of growth-delivery leaves the market to discount future growth delivery at BG. A low-cost growth position in Brazil is the cornerstone of that portfolio. Potential cost-cutting (corporate overlap, synergies) could also be used to help boost the economics.
- Exploration risk – RDS/TOT/PTR/CNOOC's bid on the Libra pre-salt auction in Brazil trades geological-risk (appraisal wells need to be drilled) for the gain of robust economics (a c. US\$60/bbl breakeven on our estimates).

Sector Valuation and Leveraging ROE

Figure 17. Relative Sector Performance Looks Constrained Around Industry Ability to Boost Profitability



Source: Company data and Citi Research estimates.

Sector Trading at 1.1x end-17E Book for a 12% RoE

In this note so far, focusing on industry trends and reinvestment, we have focused exclusively on cash returns. In this section on sector and stock valuation we switch to equity returns. Return on equity for the industry averaged 10.5% in 2013, less than half of what it did five years ago. Our expectation is for very modest erosion of RoE into 2015 (around 40 bps) before, like the trend on cash returns, inflecting back up to 12% by 2018. At the same time we expect a growth in book value of c. 7.4% CAGR median for the group. Again we make the comment that stable returns and high-single digit growth in book value is a more investible proposition than what the industry has offered over the last five years. That investment is also boosted by a c. 3.5% dividend yield across the group.

In absolute terms the sector trades at 1.3x P/end-13 book value which, given the rate in growth in book value, should compress to around 1.1x end-2017E. The debate on whether 1.1x book is cheap or expensive really depends on how one views a 12% RoE. While a 12% return is higher than the cost of equity for most of the industry players, there is arguably not enough headroom for equity to absorb commodity, operational or political risks that are inherent in the sector.

There is some potential for the group to enhance RoE through leverage. The median net debt/equity for the sector end-2013 stood at 28%, unchanged from end-2007 despite a wider spread in the cost of equity/cost of debt than existed back then. Only a handful of companies that have been willing to run counter to the group over that period:

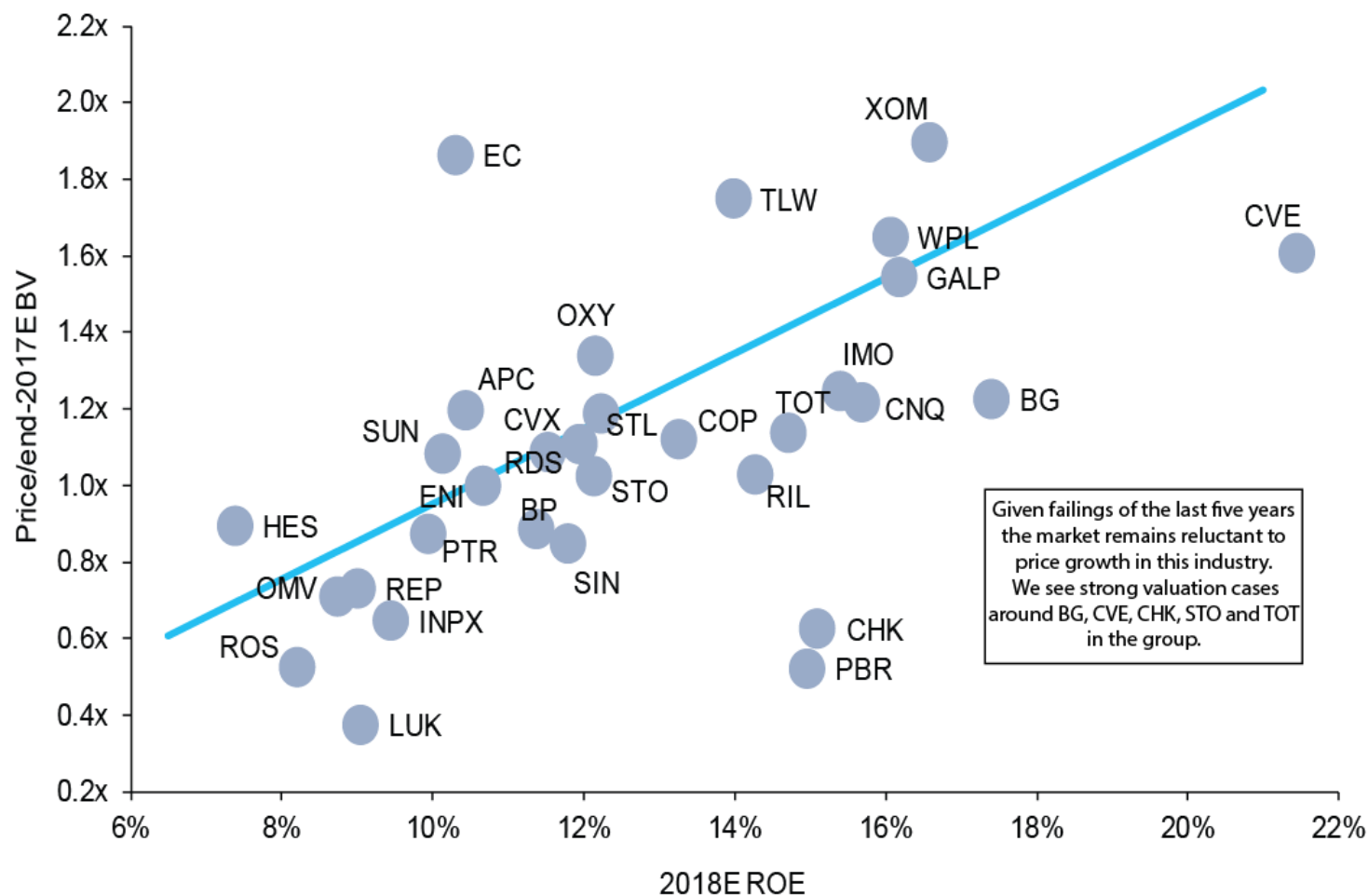
- Exxon and EcoPetrol have used gearing to fund higher shareholder returns (EC through dividends, XOM through dividends and buybacks). Both companies shifted from net cash to low double-digit gearing, and both delivered RoE at the top of the peer group range in 2013 (at close to 20% RoE);
- Rosneft, Petrobras and BG have all used gearing to fund substantial investment programmes, for Rosneft the purchase of TNK-BP (all for debt) and for Petrobras and BG to fund the investment in pre-salt Brazil. Although not in the same magnitude of gearing shift as in these three names, RD Shell has part debt-financed to fund its acquisition programme in US shale.

The reluctance of the wider industry to embrace higher gearing is often labelled, by managements, as conservatism around the future on oil prices, although we would argue that the expanding role of NAM shale into global oil markets could in fact allow the industry to be less conservative around gearing. The argument here is around the potential for shale to reduce downside volatility in prices given how quickly it can react to lower prices through drilling cuts and that wells have high 1st-year depletions.

We suspect that some of the real reason for balance sheet conservatism may lie in a post-Macondo world, where the outsized risk of industrial mishap now weighs on management psyches. Particularly as the industry continues to plug proportionality more capital into offshore exploration, Macondo has taught the industry that exploration risk needs to be equity-funded.

Stock Valuations

Figure 18. Four-Year Outlook Around Sector Profitability and Valuation



Source: Company Reports, Citi Research estimates.

Equity Market Unwilling to Pay for Growth in This Industry

Our valuation framework is built around growth, the profitability of that growth and the value that the market attributes to the capital base. We think this approach works well for any capital-intensive industry. Our key valuation screen looks out over a 4-year period, a period that we think balances the benefit of the current investment programme – c. 95% of the value we model to 2018 is from within projects that are already sanctioned – versus looking for a potential that is too far out to have much economic certainty. Our framework does not adjust for discount rate; we leave that as a discussion on what is an adequate ROE.

Our headline about the equity market being unwilling to pay for growth in this industry may be a slight generalization (e.g. growth potential of APC and CVX looks better rewarded), but at the same time is probably not a surprise in the context of an industry that has struggled to deliver in recent history. We think value emerges where the market over-risks the potential delivery on specific names.

Pre-salt Brazil is important – we prefer BG

The economic robustness of the underlying assets and what we think is an increasing ability to execute well (modularization, potential for cost deflation) sees pre-salt Brazil as an important exposure for investors, in our view. Value looks to exist in PBR and BG, although we argue that the value is needed in PBR to adjust for the increasing burden to equity of fuel price subsidies in Brazil. BG, which does not wear that burden, looks to offer better risk/reward around the pre-salt theme. We believe the growth-delivery issues that have plagued BG's recent past are now largely behind it.

North American onshore – we like CVE and CHK

Two very different plays on the North American domestic scene, although note that Citi has many other E&P stock picks that are not included in this Oil Vision analysis. CHK is arguably at the low end of the cost-curve and, post a period of financial restructuring, is well positioned to exploit that asset opportunity and deliver a strong growth trajectory at incremental profitability. Although Canadian heavy oil is much higher up the cost-curve, we argue that CVE's position is cost-competitive within the industry and has the advantage that it is pushing through the period of peak development spend to a period of operational yield. On our estimates CVE is set to deliver RoE at the high-end of the industry range.

Global Majors – we prefer TOT

Of the traditional Big Oil names it is only TOT and BP that screen for value, although BP it must be remembered carries Macondo litigation-risk in that valuation. Total we think offers a strong pipeline to delivery to 2018 – TOT and CVX match-up as the fastest growers in Big Oil – and arguably has been one of the first companies to adopt strategies for a better project execution outcome over this period. RDS, XOM, STL and ENI all look close to fairly valued around this 2018 valuation frame.

STO discount reflects execution concerns

There is some value in RIL and INPEX, although both are arguably highly exposed to growth from single-assets that warrants some level of discount. Russian producers ROS and LUK have apparent value, but the question of Russian discount rate has become relevant once again. Although with comparatively less to go for in valuation, we think the risk/reward around STO is interesting, with the company benefiting from growth from two large LNG projects that are pushing towards completion, as well as the potential for higher prices from its legacy Australian business.



Benchmarking the Group

Figure 19. Operating Cash Flow (Indexed) to 2014

	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	14-'18 CAGR
Anadarko	26	56	39	52	38	73	60	100	102	120	131	133	146	157	7.4%
BG	79	115	81	97	106	106	107	100	120	160	187	208	218	242	20.1%
BP	103	110	105	55	89	71	86	100	100	111	115	111	119	127	2.7%
Can. Natural Res	58	76	67	74	84	78	87	101	101	121	142	155	160	163	11.3%
Cenovus			79	74	105	116	111	102	101	118	134	164	187	206	12.5%
Chevron	68	87	60	87	106	113	99	103	108	124	133	138	143	147	7.6%
Chesapeake	85	90	78	112	66	37	64	104	112	135	148	156	161	177	10.7%
Conoco	120	127	70	81	107	76	85	100	90	98	104	111	118	123	2.7%
EcoPetrol	49	65	26	79	149	106	105	100	88	83	87	90	95	100	-2.6%
ENI	102	114	84	95	92	102	86	100	102	111	120	125	131	134	5.7%
Exxon	98	109	56	84	102	87	94	100	99	106	111	114	120	123	3.4%
GALP	81	17	68	53	74	70	68	100	114	142	184	246	303	359	25.2%
Hess	75	94	68	63	95	103	115	100	104	108	118	127	131	134	6.3%
Imperial	79	99	44	64	89	111	91	100	90	127	133	149	167	181	10.5%
Inpex	78	124	69	94	113	148	103	100	104	101	97	215	330	309	21.1%
Lukoil	69	76	70	81	98	95	101	100	93	109	112	114	117	120	3.4%
Occidental	69	100	65	81	109	110	111	100	105	114	120	125	130	134	5.8%
OMV	73	83	58	73	79	85	85	100	102	111	116	121	128	135	4.9%
Petrobras	81	93	91	110	138	102	102	100	110	122	126	157	181	187	11.9%
Petrochina	51	56	59	76	82	87	93	100	94	98	112	120	130	142	4.7%
RD Shell	94	82	54	74	96	96	86	100	99	109	119	124	130	132	5.6%
Reliance	67	109	82	102	132	121	106	100	109	125	150	172	200	215	14.5%
Repsol	135	161	105	122	108	98	115	100	106	121	132	140	151	158	8.8%
Rosneft	32	47	40	59	68	61	91	100	99	110	106	109	112	114	2.1%
Santos	66	85	70	57	97	93	115	100	144	162	184	198	197	200	18.6%
Sinopec	49	33	70	83	75	81	92	100	104	105	109	114	118	130	3.3%
Statoil	73	87	57	73	106	104	77	100	103	106	113	119	125	128	4.4%
Suncor	44	44	29	76	116	114	107	100	95	102	103	111	119	126	2.7%
Total	86	78	72	83	97	90	85	100	102	117	129	131	136	140	6.9%
Tullow	56	52	24	40	101	97	109	100	95	110	150	162	196	262	12.8%
Woodside	60	76	37	56	51	103	72	100	105	105	103	104	108	112	1.0%
Global	78	86	67	81	97	92	92	100	101	111	119	126	134	141	4.7%

Source: Company reports and Citi Research estimates.

Figure 20. Capex (ex-acquisitions and disposals) Indexed to 2014

Capex (Index 2014)	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	14-'18 CAGR
Anadarko	49	63	62	62	67	86	87	100	107	114	121	128	135	142	6.5%
BG	31	47	62	68	94	91	97	100	82	84	86	84	82	80	-4.4%
BP	78	91	81	76	78	97	100	100	103	106	107	103	102	103	0.8%
Can. Natural Res	83	97	38	49	76	86	96	101	98	96	93	87	91	94	-3.7%
Cenovus			74	83	109	134	123	102	116	118	110	120	118	121	4.1%
Chevron	49	58	58	58	78	91	113	103	95	99	102	105	109	112	0.4%
Chesapeake	133	181	103	99	171	228	130	104	107	112	117	123	129	135	4.3%
Conoco	71	115	65	59	80	85	90	100	94	99	102	105	109	112	1.2%
EcoPetrol	17	9	69	63	96	93	88	100	110	103	103	103	103	103	0.8%
ENI	81	116	96	99	104	105	105	100	110	120	123	125	117	108	5.7%
Exxon	47	59	68	81	94	104	102	100	90	95	99	102	107	110	0.5%
GALP	33	62	53	85	72	59	67	100	114	119	130	127	132	135	6.2%
Hess	62	76	50	95	121	134	102	100	94	99	103	106	110	113	1.4%
Imperial	17	25	41	75	80	110	123	100	63	55	58	54	55	56	-14.3%
Inpex	18	23	26	31	29	32	74	100	76	60	32	38	39	40	-21.3%
Lukoil	64	111	44	49	57	107	149	100	105	91	83	85	87	89	-4.0%
Occidental	34	46	35	41	73	100	88	100	80	83	89	84	88	90	-4.1%
OMV	69	72	53	53	59	49	77	100	103	101	105	108	110	113	1.8%
Petrobras	45	63	75	96	88	86	96	100	89	84	84	84	84	84	-4.3%
Petrochina	50	68	82	84	91	109	112	100	96	95	81	83	85	84	-4.6%
RD Shell	77	94	91	67	75	87	112	100	100	103	99	96	95	95	-0.9%
Reliance	93	61	261	26	78	43	78	100	92	58	32	21	18	14	-32.5%
Repsol	83	114	103	96	119	98	102	100	104	114	114	114	117	120	3.3%
Rosneft	30	42	35	42	64	74	85	100	104	112	83	83	83	83	-4.7%
Santos	29	37	30	44	85	93	114	100	67	33	43	47	45	47	-17.2%
Sinopec	54	59	62	54	82	94	105	100	90	66	85	71	72	70	-8.3%
Statoil	48	57	58	58	79	93	93	100	101	100	100	98	97	95	-0.4%
Suncor	71	105	50	83	99	99	93	100	101	101	100	100	101	102	-0.1%
Total	59	69	65	62	86	95	111	100	100	99	93	92	96	97	-2.1%
Tullow	37	43	56	56	71	84	91	100	104	123	123	116	110	106	3.9%
Woodside	239	368	431	331	325	174	64	100	112	142	293	418	489	351	43.0%
Global	58	74	74	72	86	96	104	100	95	94	92	92	93	94	-1.7%

Source: Company reports and Citi Research estimates.

Figure 21. Capex as a % of Operating Cash Flow

	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Anadarko	188%	110%	157%	117%	175%	115%	143%	98%	102%	93%	91%	95%	91%	88%
BG	60%	61%	114%	104%	132%	128%	136%	149%	103%	78%	69%	60%	56%	49%
BP	63%	68%	64%	115%	73%	112%	96%	83%	86%	79%	77%	77%	71%	67%
Can. Natural Res	130%	115%	51%	60%	81%	100%	99%	90%	87%	71%	59%	51%	51%	52%
Cenovus			76%	91%	85%	95%	91%	82%	94%	82%	67%	60%	52%	48%
Chevron	69%	63%	92%	63%	70%	76%	108%	95%	83%	76%	73%	72%	72%	72%
Chesapeake	143%	183%	121%	81%	237%	567%	187%	91%	87%	76%	72%	72%	73%	70%
Conoco	53%	81%	84%	65%	67%	101%	95%	90%	93%	90%	88%	84%	83%	82%
EcoPetrol	33%	12%	250%	75%	60%	82%	78%	94%	117%	116%	112%	107%	102%	96%
ENI	60%	76%	86%	79%	85%	77%	92%	75%	81%	81%	77%	75%	67%	61%
Exxon	30%	34%	77%	62%	59%	76%	69%	64%	58%	57%	57%	57%	57%	57%
GALP	56%	510%	107%	221%	133%	115%	134%	137%	136%	114%	97%	71%	59%	51%
Hess	93%	93%	84%	171%	145%	148%	101%	114%	103%	105%	99%	94%	95%	96%
Imperial	23%	27%	101%	128%	98%	108%	147%	109%	77%	48%	48%	40%	36%	34%
Inpex	78%	63%	129%	112%	86%	73%	243%	339%	247%	200%	112%	60%	40%	44%
Lukoil	71%	112%	48%	46%	45%	86%	113%	77%	86%	64%	57%	57%	57%	57%
Occidental	46%	42%	50%	48%	63%	85%	74%	93%	71%	68%	69%	63%	63%	62%
OMV	97%	89%	93%	74%	76%	59%	93%	103%	103%	93%	93%	91%	88%	86%
Petrobras	91%	112%	134%	142%	104%	138%	154%	164%	133%	113%	109%	88%	76%	74%
Petrochina	79%	98%	113%	90%	90%	101%	97%	81%	83%	79%	58%	56%	53%	48%
RD Shell	67%	92%	136%	73%	63%	73%	105%	81%	81%	76%	67%	63%	59%	58%
Reliance	190%	76%	431%	35%	80%	48%	100%	136%	115%	63%	29%	16%	12%	9%
Repsol	51%	58%	80%	64%	91%	82%	73%	82%	80%	77%	71%	67%	64%	62%
Rosneft	70%	68%	66%	54%	71%	91%	70%	75%	79%	77%	58%	57%	55%	54%
Santos	104%	101%	101%	179%	203%	231%	231%	232%	108%	48%	54%	55%	53%	54%
Sinopec	97%	156%	78%	58%	96%	101%	101%	88%	75%	55%	68%	54%	53%	47%
Statoil	62%	62%	96%	76%	71%	85%	114%	95%	93%	90%	84%	79%	73%	70%
Suncor	134%	198%	143%	90%	71%	71%	72%	83%	88%	81%	80%	74%	70%	67%
Total	60%	78%	80%	66%	78%	93%	115%	88%	87%	74%	64%	62%	62%	61%
Tullow	100%	124%	355%	210%	106%	131%	127%	152%	165%	169%	125%	109%	85%	62%
Woodside	106%	128%	311%	157%	168%	44%	24%	26%	28%	36%	75%	106%	120%	83%
Global	71%	85%	96%	79%	85%	93%	101%	91%	87%	78%	72%	67%	63%	61%

Source: Company reports and Citi Research estimates.

Figure 22. Dividend as a % of Operating Cash Flow

	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Anadarko	8%	4%	5%	4%	6%	3%	4%	2%	2%	2%	2%	2%	1%	1%
BG	10%	9%	12%	11%	12%	11%	12%	14%	13%	10%	10%	11%	12%	12%
BP	27%	33%	35%	18%	21%	30%	29%	25%	26%	23%	23%	24%	23%	23%
Can. Natural Res	6%	3%	5%	7%	6%	7%	8%	11%	12%	11%	10%	11%	13%	16%
Cenovus			6%	25%	18%	18%	20%	23%	23%	20%	18%	15%	14%	13%
Chevron	20%	16%	24%	18%	16%	17%	21%	21%	21%	19%	19%	19%	19%	20%
Chesapeake	3%	3%	4%	3%	6%	11%	6%	4%	4%	3%	3%	3%	3%	2%
Conoco	12%	12%	22%	21%	18%	23%	21%	18%	20%	19%	18%	18%	18%	19%
EcoPetrol	48%	71%	173%	27%	23%	47%	80%	57%	51%	41%	19%	19%	19%	19%
ENI	36%	38%	39%	31%	34%	28%	34%	30%	31%	29%	27%	27%	26%	26%
Exxon	15%	14%	27%	19%	17%	22%	22%	22%	22%	21%	21%	20%	20%	20%
GALP	39%	138%	19%	19%	16%	35%	31%	24%	24%	22%	20%	17%	16%	16%
Hess	3%	3%	4%	4%	3%	3%	4%	6%	6%	5%	5%	5%	4%	4%
Imperial	8%	7%	15%	12%	9%	8%	10%	8%	10%	8%	8%	8%	8%	8%
Inpex	4%	6%	9%	6%	6%	6%	11%	9%	8%	9%	9%	4%	3%	4%
Lukoil	11%	12%	12%	11%	11%	18%	15%	15%	16%	17%	16%	16%	16%	16%
Occidental	10%	9%	15%	13%	12%	18%	13%	21%	21%	20%	20%	20%	20%	20%
OMV	16%	18%	14%	11%	14%	18%	18%	16%	17%	16%	16%	15%	15%	14%
Petrobras	17%	18%	29%	17%	16%	11%	9%	15%	11%	11%	12%	10%	12%	14%
Petrochina	30%	24%	22%	19%	21%	19%	16%	17%	15%	12%	12%	14%	14%	15%
RD Shell	23%	28%	46%	33%	26%	27%	31%	28%	28%	26%	24%	24%	23%	23%
Reliance	11%	9%	11%	18%	8%	9%	10%	10%	10%	11%	11%	11%	12%	12%
Repsol	19%	23%	36%	24%	35%	39%	29%	36%	36%	32%	30%	29%	27%	27%
Rosneft	6%	4%	5%	4%	5%	14%	11%	15%	7%	14%	13%	13%	13%	13%
Santos	18%	16%	22%	33%	11%	11%	9%	10%	10%	9%	9%	9%	10%	10%
Sinopec	12%	18%	9%	10%	13%	16%	17%	16%	16%	16%	16%	16%	17%	10%
Statoil	28%	25%	29%	20%	15%	16%	22%	26%	17%	17%	17%	17%	16%	16%
Suncor	3%	5%	14%	9%	7%	8%	12%	14%	15%	15%	15%	14%	14%	13%
Total	25%	32%	34%	28%	25%	25%	28%	27%	27%	24%	22%	22%	21%	21%
Tullow	10%	11%	22%	13%	10%	14%	12%	12%	13%	11%	9%	8%	7%	5%
Woodside	11%	17%	19%	24%	31%	20%	58%	44%	50%	45%	48%	47%	43%	27%
Global	20%	20%	26%	19%	18%	19%	20%	20%	20%	18%	18%	18%	18%	17%

Source: Company reports and Citi Research estimates.

Figure 23. Capex + Dividend as a % of Operating Cash Flow

	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Anadarko	196%	114%	162%	121%	180%	118%	146%	100%	104%	95%	92%	96%	92%	90%
BG	70%	69%	126%	115%	144%	139%	147%	163%	115%	89%	79%	71%	68%	61%
BP	90%	101%	99%	133%	94%	142%	125%	108%	111%	103%	100%	100%	94%	90%
Can. Natural Res	136%	119%	56%	66%	87%	107%	107%	101%	99%	82%	70%	62%	65%	68%
Cenovus	0%	0%	82%	116%	104%	113%	111%	105%	118%	102%	86%	75%	65%	61%
Chevron	88%	79%	116%	81%	86%	93%	129%	116%	104%	95%	92%	91%	92%	92%
Chesapeake	145%	186%	125%	84%	243%	578%	193%	95%	91%	79%	75%	74%	75%	72%
Conoco	65%	93%	106%	86%	85%	124%	116%	108%	114%	109%	106%	102%	100%	100%
EcoPetrol	81%	84%	422%	102%	83%	130%	158%	151%	167%	157%	131%	127%	121%	115%
ENI	95%	114%	124%	110%	119%	105%	126%	106%	111%	110%	104%	102%	93%	87%
Exxon	45%	48%	104%	81%	76%	98%	91%	85%	81%	78%	77%	77%	77%	77%
GALP	95%	648%	126%	240%	149%	151%	164%	161%	160%	137%	117%	88%	75%	67%
Hess	97%	95%	88%	175%	148%	151%	105%	120%	108%	110%	104%	99%	100%	100%
Imperial	32%	34%	117%	140%	107%	116%	157%	118%	87%	56%	56%	48%	44%	42%
Inpex	82%	69%	139%	118%	92%	79%	254%	348%	255%	209%	121%	64%	43%	48%
Lukoil	82%	125%	60%	58%	56%	104%	128%	92%	103%	81%	73%	73%	73%	73%
Occidental	56%	51%	65%	61%	75%	102%	86%	114%	91%	88%	89%	83%	83%	82%
OMV	113%	107%	108%	85%	91%	77%	112%	119%	120%	109%	108%	107%	103%	100%
Petrobras	107%	130%	164%	159%	120%	150%	164%	179%	144%	124%	121%	98%	88%	88%
Petrochina	109%	122%	135%	109%	112%	120%	113%	98%	98%	91%	70%	70%	67%	64%
RD Shell	89%	120%	182%	105%	89%	100%	136%	108%	110%	102%	91%	86%	82%	81%
Reliance	201%	85%	441%	53%	89%	57%	110%	147%	126%	74%	40%	28%	24%	21%
Repsol	69%	81%	116%	88%	125%	121%	102%	118%	117%	109%	101%	96%	91%	89%
Rosneft	76%	72%	72%	58%	76%	105%	80%	90%	86%	91%	71%	69%	68%	67%
Santos	121%	117%	123%	212%	214%	243%	240%	242%	118%	57%	62%	64%	63%	64%
Sinopec	109%	174%	88%	67%	109%	117%	117%	103%	92%	71%	84%	71%	71%	57%
Statoil	89%	87%	125%	96%	86%	101%	136%	121%	110%	107%	101%	95%	90%	87%
Suncor	137%	203%	157%	99%	77%	79%	84%	97%	103%	96%	95%	88%	84%	79%
Total	85%	110%	114%	94%	103%	119%	143%	115%	114%	98%	85%	84%	84%	82%
Tullow	110%	134%	376%	224%	116%	145%	139%	164%	178%	181%	133%	117%	92%	67%
Woodside	117%	146%	330%	180%	199%	64%	82%	71%	78%	81%	122%	153%	163%	110%
Global	90%	105%	122%	98%	104%	113%	121%	112%	107%	97%	90%	84%	80%	79%

Source: Company reports and Citi Research estimates.

Figure 24. Cash Return on Cash Invested (CROCI)

	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	14-'18 CHG
Anadarko	4.9%	10.1%	6.5%	8.0%	-0.3%	9.7%	7.1%	10.7%	9.9%	10.5%	10.3%	9.5%	9.5%	9.4%	-1.2%
BG	21.8%	30.2%	16.6%	16.7%	14.3%	12.1%	10.4%	8.5%	9.2%	11.2%	12.0%	12.4%	12.1%	12.6%	3.9%
BP	14.8%	15.0%	13.3%	6.8%	10.6%	8.5%	9.4%	10.0%	9.2%	9.4%	9.1%	8.2%	8.3%	8.4%	-1.7%
Can. Natural Resources	11.8%	14.1%	9.5%	9.2%	9.0%	7.3%	8.1%	8.7%	8.1%	9.1%	10.1%	10.4%	10.2%	9.8%	1.6%
Cenovus	0.0%	0.0%	9.6%	9.2%	12.0%	11.5%	10.1%	8.6%	7.9%	8.6%	9.1%	10.5%	11.2%	11.7%	1.9%
Chevron	13.9%	15.9%	10.3%	13.6%	14.9%	14.1%	10.9%	10.2%	9.9%	10.4%	10.3%	10.0%	9.6%	9.2%	-0.3%
Chesapeake	13.0%	10.9%	8.3%	10.4%	5.5%	2.8%	4.5%	6.9%	7.0%	7.9%	9.1%	9.4%	7.8%	8.1%	2.5%
Conoco	14.3%	15.0%	7.3%	8.6%	11.0%	9.4%	9.6%	10.3%	8.5%	8.5%	8.4%	8.4%	8.3%	8.0%	-1.9%
EcoPetrol	0.0%	0.0%	11.9%	28.2%	43.3%	24.8%	20.5%	16.5%	12.5%	10.4%	9.6%	9.0%	8.7%	8.4%	-7.5%
ENI	15.7%	17.4%	10.1%	11.6%	11.6%	12.5%	6.6%	9.0%	8.9%	9.0%	9.0%	8.8%	8.7%	8.5%	-0.3%
Exxon	16.5%	18.9%	8.7%	10.7%	12.3%	10.1%	10.2%	10.1%	9.4%	9.6%	9.5%	9.3%	9.2%	8.9%	-0.9%
GALP	13.7%	2.5%	9.9%	7.1%	9.1%	7.3%	6.5%	8.4%	8.5%	9.4%	10.8%	13.2%	14.8%	16.1%	4.8%
Hess	15.4%	17.5%	11.6%	9.0%	12.2%	11.6%	11.4%	8.9%	8.4%	8.0%	8.1%	8.1%	7.7%	7.3%	-0.8%
Imperial	15.5%	22.6%	7.7%	9.4%	12.0%	12.6%	9.0%	8.9%	7.5%	10.1%	10.1%	10.8%	11.6%	12.1%	1.9%
Inpex	26.5%	34.7%	18.2%	20.4%	14.6%	19.6%	10.2%	7.4%	6.5%	5.6%	5.1%	10.6%	15.2%	13.4%	3.1%
Lukoil	20.2%	18.1%	15.1%	16.5%	18.8%	15.6%	14.0%	12.5%	10.6%	11.5%	11.0%	10.6%	10.3%	9.9%	-1.9%
Occidental	19.0%	22.6%	14.7%	15.5%	17.2%	15.1%	13.7%	11.1%	10.8%	10.8%	10.5%	10.3%	10.0%	9.7%	-0.8%
OMV	14.1%	16.1%	10.5%	12.4%	12.8%	12.9%	11.4%	11.9%	10.7%	10.5%	10.0%	9.5%	9.2%	9.0%	-2.3%
Petrobras	18.1%	21.2%	13.5%	13.2%	15.4%	10.3%	8.8%	7.6%	7.5%	7.6%	7.2%	8.3%	9.0%	8.7%	0.8%
Petrochina	16.3%	14.5%	12.9%	13.8%	12.6%	11.6%	11.0%	10.8%	9.3%	9.1%	9.8%	9.9%	10.2%	10.5%	-0.9%
RD Shell	17.0%	15.0%	8.5%	11.1%	13.9%	12.6%	10.1%	10.7%	9.8%	10.0%	10.1%	9.9%	9.8%	9.4%	-0.8%
Reliance	12.3%	15.3%	10.3%	10.7%	15.7%	16.5%	12.7%	10.2%	9.9%	10.6%	12.3%	13.7%	15.7%	16.6%	3.5%
Repsol	7.8%	8.9%	5.1%	5.7%	4.8%	11.3%	8.8%	7.2%	7.2%	7.7%	8.0%	8.0%	8.2%	8.1%	0.8%
Rosneft	13.5%	17.6%	15.3%	20.5%	21.5%	15.8%	20.4%	19.2%	16.4%	16.1%	14.3%	13.5%	12.8%	12.3%	-5.7%
Santos	9.0%	12.8%	7.7%	5.0%	7.2%	5.8%	6.1%	4.8%	6.4%	6.9%	7.6%	7.8%	7.4%	7.3%	3.0%
Sinopec	13.2%	7.1%	13.2%	14.0%	11.1%	10.7%	10.7%	10.6%	10.2%	9.8%	9.5%	9.4%	9.2%	9.7%	-1.2%
Statoil	13.1%	17.5%	9.1%	10.8%	14.5%	12.4%	8.4%	9.9%	9.3%	8.8%	8.7%	8.5%	8.4%	8.1%	-1.3%
Suncor	14.5%	13.0%	4.0%	10.1%	14.3%	12.5%	10.8%	9.3%	8.2%	8.2%	7.7%	7.9%	8.0%	8.0%	-1.4%
Total	17.3%	15.4%	12.4%	13.8%	15.2%	13.2%	10.9%	11.5%	10.7%	11.2%	11.5%	10.8%	10.5%	10.2%	-0.7%
Tullow	26.7%	26.4%	8.5%	11.3%	23.1%	18.1%	16.1%	12.1%	9.7%	9.4%	11.1%	10.5%	11.5%	14.1%	-1.6%
Woodside	22.7%	24.0%	7.6%	9.6%	7.7%	15.6%	10.6%	14.1%	14.2%	13.6%	12.1%	10.8%	9.9%	9.5%	-3.3%
Global	14.6%	15.7%	10.1%	10.8%	12.6%	12.4%	10.2%	10.1%	9.3%	9.4%	9.8%	9.9%	9.6%	9.4%	-0.2%

Source: Company reports and Citi Research estimates.

Figure 25. Return on Capital Employed (ROCE)

	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	14-'18 CHG
Anadarko	3.3%	7.3%	-0.2%	2.7%	1.7%	7.1%	6.1%	7.4%	7.2%	8.1%	8.2%	7.6%	7.7%	7.8%	0.2%
BG	20.7%	25.5%	11.8%	11.8%	10.4%	8.7%	8.7%	7.3%	7.7%	10.7%	12.2%	13.4%	13.4%	14.5%	6.2%
BP	12.4%	16.5%	9.4%	12.1%	11.8%	9.0%	7.1%	7.8%	7.0%	8.0%	8.3%	7.8%	8.0%	8.3%	-0.1%
Can. Natural Res	7.5%	15.8%	3.5%	5.0%	7.3%	4.9%	5.9%	7.3%	6.0%	8.0%	10.0%	11.6%	12.6%	13.2%	4.4%
Cenovus	0.0%	0.0%	0.0%	6.8%	9.8%	6.9%	6.8%	10.1%	8.7%	10.4%	11.5%	14.6%	16.7%	18.3%	4.5%
Chevron	18.6%	20.8%	8.3%	14.2%	18.2%	15.7%	11.1%	9.6%	8.6%	9.4%	9.5%	9.3%	8.9%	8.7%	-0.3%
Chesapeake	7.0%	3.2%	-18.2%	5.7%	5.4%	-3.8%	4.3%	5.7%	5.8%	7.2%	8.4%	8.7%	9.2%	9.7%	3.1%
Conoco	9.0%	-11.8%	4.9%	10.0%	11.2%	7.5%	9.1%	9.5%	8.0%	8.3%	8.3%	8.5%	8.5%	8.2%	-1.0%
EcoPetrol				21.1%	31.0%	23.4%	15.7%	16.7%	12.8%	11.2%	10.9%	10.9%	10.8%	10.7%	-5.8%
ENI	15.9%	14.1%	7.5%	8.9%	8.3%	8.3%	4.9%	5.3%	5.5%	6.0%	6.6%	7.5%	8.0%	8.2%	2.1%
Exxon	32.5%	36.0%	12.3%	15.1%	17.1%	17.7%	11.8%	11.6%	10.5%	11.0%	11.1%	10.9%	11.1%	10.8%	-0.7%
GALP	12.2%	17.4%	5.5%	6.3%	4.6%	5.9%	5.9%	5.7%	6.4%	7.5%	9.0%	11.3%	13.3%	15.0%	5.5%
Hess	13.3%	13.9%	5.6%	5.4%	5.7%	7.5%	12.8%	5.9%	6.5%	6.9%	7.3%	7.6%	6.9%	6.2%	1.6%
Imperial	38.0%	45.0%	13.0%	15.1%	19.5%	17.9%	10.3%	11.5%	8.6%	12.5%	12.5%	13.7%	15.2%	16.2%	2.3%
Inpex	14.3%	19.3%	15.5%	9.7%	9.3%	8.7%	7.3%	6.6%	5.1%	4.1%	3.3%	7.7%	12.7%	13.0%	1.1%
Lukoil	21.4%	18.8%	12.4%	13.6%	13.9%	14.4%	8.9%	11.2%	8.4%	9.5%	8.7%	8.7%	8.7%	8.8%	-2.5%
Occidental	20.2%	24.2%	8.7%	11.5%	15.4%	9.1%	10.2%	8.9%	9.2%	10.1%	10.5%	10.8%	11.0%	11.1%	1.8%
OMV	11.8%	16.2%	5.8%	9.4%	8.9%	10.6%	9.3%	7.6%	7.0%	7.4%	7.3%	7.1%	7.2%	7.3%	-0.5%
Petrobras	18.4%	16.8%	13.5%	9.3%	8.1%	4.7%	4.9%	4.6%	5.5%	6.5%	6.5%	8.6%	10.0%	10.1%	4.0%
Petrochina	21.2%	14.4%	10.6%	13.0%	11.4%	9.4%	9.2%	8.8%	6.2%	6.1%	7.8%	8.4%	9.6%	10.9%	-0.4%
RD Shell	15.2%	16.5%	6.0%	8.8%	10.9%	10.6%	7.8%	7.5%	6.7%	7.7%	8.4%	8.5%	8.9%	8.8%	1.0%
Reliance	16.6%	12.8%	9.8%	8.1%	9.3%	7.9%	7.5%	7.4%	7.9%	9.1%	10.3%	11.2%	12.6%	13.2%	3.8%
Repsol	9.8%	8.9%	6.9%	8.0%	7.2%	5.5%	6.7%	5.0%	5.1%	5.5%	5.7%	5.8%	5.9%	5.9%	0.8%
Rosneft	10.7%	16.0%	8.0%	11.5%	13.9%	10.5%	9.5%	7.2%	6.2%	7.0%	5.8%	6.0%	6.2%	6.3%	-1.2%
Santos	10.2%	9.7%	3.6%	4.5%	3.7%	4.3%	3.3%	3.2%	5.7%	8.2%	9.5%	9.9%	9.4%	9.3%	6.7%
Sinopec	12.6%	5.4%	11.3%	12.2%	11.1%	9.3%	8.9%	9.1%	8.8%	8.8%	9.0%	9.5%	9.9%	10.3%	0.4%
Statoil	13.0%	14.6%	9.1%	9.3%	9.9%	9.9%	7.9%	7.6%	6.8%	7.1%	7.3%	7.6%	7.8%	7.9%	-0.1%
Suncor	22.1%	12.4%	1.6%	6.7%	8.0%	4.6%	8.0%	8.5%	7.2%	7.6%	7.1%	7.6%	8.0%	8.3%	-0.8%
Total	13.9%	23.3%	7.9%	11.7%	11.0%	13.3%	11.3%	9.0%	8.4%	9.7%	10.5%	10.4%	10.3%	10.3%	1.4%
Tullow	8.7%	5.8%	2.9%	2.8%	9.4%	6.5%	2.9%	5.2%	4.7%	5.6%	7.6%	7.6%	8.5%	10.7%	2.5%
Woodside	15.3%	21.6%	8.4%	8.7%	8.5%	11.3%	10.5%	14.3%	13.6%	13.3%	12.8%	13.2%	11.7%	9.7%	-1.1%
Global	15.2%	14.6%	8.3%	9.3%	9.9%	9.1%	8.7%	7.6%	7.2%	8.1%	8.4%	8.7%	9.2%	9.3%	1.0%

Source: Company reports and Citi Research estimates.

Figure 26. Return on Equity (RoE)

ROE	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	14-'18 CHG
Anadarko	7.9%	18.8%	-0.7%	3.6%	-13.1%	10.3%	3.7%	10.5%	9.8%	11.4%	11.6%	10.4%	10.5%	10.5%	0.0%
BG	26.0%	36.4%	14.5%	13.6%	14.2%	14.5%	7.5%	11.4%	11.9%	16.0%	17.2%	17.4%	16.0%	16.1%	6.0%
BP	23.4%	22.9%	17.2%	-3.7%	24.8%	9.8%	20.2%	12.4%	11.0%	12.4%	12.6%	11.4%	11.5%	11.6%	-1.0%
Can. Natural Res	21.7%	31.5%	8.4%	8.4%	12.0%	8.0%	9.1%	12.5%	10.0%	13.1%	15.1%	15.7%	15.1%	14.3%	3.2%
Cenovus	0.0%	0.0%	0.0%	12.0%	16.6%	10.4%	6.7%	15.6%	13.1%	16.2%	17.7%	21.4%	22.0%	21.1%	5.8%
Chevron	25.6%	29.2%	11.7%	19.3%	23.2%	20.2%	15.3%	13.5%	12.0%	12.8%	12.6%	11.9%	11.1%	10.6%	-1.6%
Chesapeake	12.0%	4.5%	-41.2%	12.6%	11.6%	-6.2%	3.3%	10.9%	10.7%	13.9%	15.5%	15.1%	14.6%	14.2%	4.2%
Conoco	13.9%	-23.6%	8.3%	17.4%	18.6%	13.1%	16.1%	16.3%	13.2%	13.6%	13.3%	13.3%	12.9%	12.1%	-3.1%
EcoPetrol	21.7%	37.9%	15.3%	22.0%	32.2%	24.7%	19.3%	16.8%	12.7%	10.7%	10.6%	10.3%	10.2%	10.3%	-6.5%
ENI	25.2%	20.8%	9.6%	13.0%	12.7%	15.2%	7.2%	7.8%	7.6%	8.5%	9.5%	10.7%	11.1%	11.0%	2.9%
Exxon	34.5%	38.5%	17.3%	23.7%	25.7%	23.2%	19.1%	18.8%	16.9%	17.5%	17.2%	16.6%	16.4%	15.6%	-2.3%
GALP	33.0%	5.1%	15.2%	17.5%	15.6%	8.3%	3.6%	7.0%	8.2%	10.5%	12.9%	16.2%	18.2%	19.4%	9.1%
Hess	20.2%	21.4%	5.8%	6.1%	7.1%	10.2%	16.9%	6.2%	6.1%	6.4%	7.0%	7.4%	6.8%	6.1%	1.2%
Imperial	41.6%	45.7%	17.1%	21.4%	27.5%	25.4%	15.8%	18.3%	13.1%	17.5%	15.6%	15.4%	15.2%	14.5%	-2.9%
Inpex	15.8%	15.8%	11.9%	8.1%	7.6%	9.3%	7.9%	6.4%	6.6%	5.2%	4.4%	9.5%	14.0%	12.3%	3.0%
Lukoil	25.2%	19.6%	13.0%	15.2%	15.8%	15.2%	10.0%	12.7%	9.3%	10.4%	9.4%	9.0%	8.7%	8.4%	-3.7%
Occidental	25.7%	29.4%	10.3%	14.6%	19.3%	11.8%	13.5%	11.2%	11.3%	12.2%	12.3%	12.1%	11.9%	11.6%	0.9%
OMV	20.9%	17.7%	7.4%	10.7%	10.6%	11.9%	9.9%	10.4%	9.2%	9.5%	9.1%	8.7%	8.6%	8.6%	-1.7%
Petrobras	24.0%	29.7%	19.9%	13.9%	11.2%	6.4%	7.0%	6.4%	8.5%	10.9%	11.1%	15.0%	17.1%	16.5%	8.6%
Petrochina	22.1%	15.0%	12.6%	15.7%	13.7%	11.2%	11.4%	11.2%	7.4%	7.2%	9.4%	9.9%	11.1%	12.0%	-1.3%
RD Shell	27.3%	20.9%	9.5%	14.2%	19.5%	15.5%	10.5%	10.8%	9.7%	11.1%	11.8%	11.5%	11.5%	10.8%	0.7%
Reliance	25.8%	27.1%	15.2%	12.3%	13.2%	12.2%	11.9%	11.5%	11.6%	12.2%	13.8%	14.3%	15.0%	14.5%	2.8%
Repsol	16.7%	14.4%	6.0%	8.8%	8.1%	7.8%	6.8%	6.1%	6.2%	7.4%	8.1%	8.2%	8.6%	8.7%	2.1%
Rosneft	51.0%	32.9%	10.2%	16.4%	18.3%	18.0%	19.5%	8.1%	9.9%	12.7%	10.0%	9.6%	9.2%	8.8%	1.4%
Santos	17.4%	42.4%	7.6%	6.9%	9.1%	5.7%	5.3%	4.9%	7.7%	9.9%	11.8%	12.1%	11.1%	10.4%	7.2%
Sinopec	19.8%	9.4%	17.5%	18.1%	16.4%	13.0%	13.2%	13.5%	12.8%	11.5%	11.6%	11.8%	11.8%	11.6%	-1.7%
Statoil	25.6%	22.1%	9.2%	18.2%	31.6%	23.0%	11.8%	12.9%	11.5%	12.0%	12.0%	12.2%	12.2%	11.9%	-0.6%
Suncor	28.6%	16.2%	4.7%	11.1%	11.7%	7.2%	9.7%	11.6%	9.5%	10.2%	9.4%	10.1%	10.5%	10.7%	-1.5%
Total	30.9%	22.6%	16.6%	18.7%	19.1%	15.3%	11.7%	14.1%	13.0%	15.0%	15.6%	14.7%	14.0%	13.5%	0.6%
Tullow	7.1%	26.0%	1.2%	1.7%	15.3%	12.6%	3.2%	8.0%	7.4%	9.6%	14.2%	14.0%	15.1%	17.9%	6.0%
Woodside	22.5%	32.8%	20.8%	15.8%	12.7%	21.5%	11.5%	17.3%	16.0%	15.1%	14.5%	16.1%	14.7%	12.4%	-1.2%
Global	23.7%	22.3%	11.0%	13.9%	15.3%	12.2%	10.5%	11.4%	10.0%	11.5%	12.0%	12.1%	11.9%	11.9%	0.7%

Source: Company reports and Citi Research estimates.



This page is intentionally left blank

Valuations

Figure 27. PE Multiples

	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E
Anadarko	20.8x	16.5x	16.0x	12.4x	11.0x	11.0x	9.8x	8.9x
BG	14.3x	16.5x	14.5x	9.6x	7.8x	6.7x	6.3x	5.5x
BP	11.5x	9.1x	9.7x	8.0x	7.3x	7.5x	6.9x	6.4x
Canadian Nat Res	18.5x	13.3x	15.4x	10.8x	8.5x	7.3x	6.8x	6.5x
Cenovus	33.7x	13.8x	15.4x	11.6x	9.5x	6.9x	5.7x	5.0x
Chevron	10.3x	10.7x	11.1x	9.7x	9.1x	8.9x	9.0x	8.8x
Chesapeake	17.4x	11.8x	10.8x	7.6x	5.9x	5.3x	4.7x	4.2x
Conoco	11.5x	9.2x	10.4x	9.4x	8.8x	8.1x	7.7x	7.6x
EcoPetrol	11.4x	12.4x	16.1x	18.8x	18.2x	17.6x	16.6x	15.5x
ENI	14.1x	13.2x	13.4x	11.7x	10.3x	8.8x	8.1x	7.8x
Exxon	12.9x	12.1x	12.4x	11.1x	10.3x	9.8x	9.0x	8.6x
GALP	32.7x	27.5x	23.0x	17.3x	13.3x	9.8x	7.8x	6.5x
Hess	14.6x	17.1x	15.2x	13.9x	11.9x	10.6x	10.9x	11.4x
Imperial	14.0x	11.1x	13.5x	8.8x	8.5x	7.5x	6.6x	6.1x
Inpex	10.5x	11.7x	10.9x	13.0x	14.7x	6.5x	3.9x	3.9x
Lukoil	5.2x	3.7x	4.7x	3.9x	4.1x	4.0x	3.9x	3.8x
Occidental	13.9x	15.4x	14.4x	12.5x	11.5x	10.8x	10.2x	9.7x
OMV	9.5x	8.4x	8.9x	8.1x	7.9x	7.8x	7.5x	7.1x
Petrobras (Ord)	6.4x	7.7x	6.0x	4.8x	4.8x	3.4x	2.7x	2.6x
Petrochina	9.2x	8.9x	13.1x	13.1x	9.6x	8.7x	7.4x	6.5x
RD Shell (A)	11.8x	11.6x	12.3x	10.3x	9.2x	8.9x	8.4x	8.4x
Reliance	12.6x	12.0x	10.7x	9.2x	7.3x	6.3x	5.3x	4.8x
Repsol	18.1x	15.2x	14.9x	12.2x	10.9x	10.4x	9.5x	9.0x
Rosneft	4.1x	8.7x	6.7x	4.8x	5.6x	5.5x	5.3x	5.2x
Santos	27.1x	27.1x	16.7x	12.4x	9.7x	8.7x	8.8x	8.7x
Sinopec	9.5x	8.6x	8.4x	8.6x	8.0x	7.3x	6.8x	6.4x
Statoil	11.3x	11.1x	11.9x	10.8x	10.1x	9.3x	8.7x	8.4x
Suncor	14.2x	11.0x	12.5x	10.9x	11.0x	9.5x	8.5x	7.7x
Total	9.9x	10.0x	10.2x	8.3x	7.3x	7.1x	6.9x	6.6x
Tullow	87.9x	28.3x	29.3x	21.2x	13.1x	11.9x	9.8x	7.2x
Woodside	15.2x	10.7x	11.1x	11.5x	11.6x	10.1x	10.5x	11.8x
Group	12.7x	11.6x	12.4x	10.8x	9.3x	8.4x	7.6x	6.9x

Source: Company Reports, Citi Research estimates. Prices as of 10 March, 2014.

Figure 28. EV/DACF Multiples

	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E
Anadarko	9.7x	5.8x	5.4x	4.6x	4.1x	3.9x	3.5x	3.1x
BG	9.4x	10.3x	8.8x	6.6x	5.6x	4.8x	4.3x	3.5x
BP	6.7x	5.9x	6.1x	5.5x	5.4x	5.5x	5.1x	4.8x
Canadian Nat Res	7.4x	6.1x	6.3x	5.1x	4.2x	3.5x	3.0x	2.6x
Cenovus	6.5x	6.5x	6.7x	5.8x	5.2x	4.2x	3.4x	2.8x
Chevron	5.3x	5.3x	5.2x	4.5x	4.1x	3.9x	3.7x	3.5x
Chesapeake	9.0x	5.7x	5.3x	4.3x	3.8x	3.5x	3.2x	2.7x
Conoco	5.7x	4.9x	5.5x	5.2x	4.9x	4.6x	4.4x	4.2x
EcoPetrol	8.5x	8.7x	10.2x	11.0x	10.8x	10.4x	10.0x	9.6x
ENI	8.1x	5.8x	5.4x	5.0x	4.6x	4.4x	4.2x	3.9x
Exxon	7.7x	7.4x	7.6x	7.1x	6.8x	6.6x	6.2x	6.0x
GALP	15.4x	11.8x	11.0x	9.5x	7.8x	6.0x	4.9x	4.0x
Hess	5.1x	5.2x	4.4x	4.1x	3.8x	3.6x	3.5x	3.5x
Imperial	10.6x	9.6x	10.7x	7.3x	6.5x	5.3x	4.2x	3.3x
Inpex	0.9x	2.1x	3.7x	4.9x	5.5x	2.1x	0.8x	0.2x
Lukoil	2.5x	2.5x	2.7x	2.2x	1.9x	1.7x	1.4x	1.1x
Occidental	6.5x	7.0x	6.7x	6.1x	5.7x	5.3x	4.9x	4.6x
OMV	4.8x	4.7x	4.7x	4.5x	4.4x	4.3x	4.1x	3.9x
Petrobras (Ord)	4.9x	5.7x	5.6x	5.4x	5.4x	4.4x	3.8x	3.7x
Petrochina	4.6x	4.5x	4.9x	4.7x	4.0x	3.6x	3.2x	2.7x
RD Shell (A)	7.1x	6.3x	6.5x	5.9x	5.4x	5.0x	4.7x	4.4x
Reliance	8.4x	8.4x	8.0x	6.9x	5.3x	4.1x	2.9x	2.0x
Repsol	6.0x	6.6x	7.2x	6.4x	6.0x	5.6x	5.2x	4.9x
Rosneft	4.3x	5.0x	5.3x	4.7x	4.7x	4.2x	3.8x	3.4x
Santos	10.0x	12.0x	8.5x	7.1x	6.1x	5.5x	5.3x	4.9x
Sinopec	5.3x	5.0x	4.9x	4.7x	4.5x	4.1x	3.8x	3.2x
Statoil	6.2x	5.2x	5.3x	5.2x	4.9x	4.7x	4.4x	4.2x
Suncor	5.6x	5.8x	6.2x	5.9x	5.9x	5.5x	5.1x	4.8x
Total	6.6x	6.0x	6.0x	5.3x	4.7x	4.5x	4.2x	3.9x
Tullow	8.6x	10.4x	11.5x	10.7x	8.3x	8.0x	6.6x	4.8x
Woodside	10.4x	7.5x	7.1x	6.9x	7.1x	7.4x	7.6x	7.6x
Group	6.7x	5.9x	6.0x	5.3x	5.3x	4.5x	4.2x	3.8x

Source: Company Reports, Citi Research estimates. Prices as of 10 March, 2014.

Figure 29. Dividend Yield

	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E
Anadarko	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
BG	1.6%	1.7%	1.8%	2.1%	2.4%	2.8%	3.2%	3.7%
BP	4.6%	4.8%	4.8%	4.9%	4.9%	5.0%	5.3%	5.5%
Canadian Nat Res	1.2%	2.2%	2.4%	2.6%	2.9%	3.5%	4.2%	5.0%
Cenovus	3.3%	3.6%	3.7%	3.8%	3.8%	3.9%	4.0%	4.1%
Chevron	3.4%	3.6%	3.7%	3.9%	4.1%	4.3%	4.5%	4.8%
Chesapeake	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Conoco	4.1%	4.1%	4.1%	4.2%	4.3%	4.4%	4.7%	5.1%
EcoPetrol	7.2%	5.7%	4.3%	2.1%	2.2%	2.3%	2.4%	2.6%
ENI	6.3%	6.4%	6.6%	6.7%	6.8%	7.0%	7.1%	7.2%
Exxon	2.6%	2.8%	2.9%	3.0%	3.2%	3.3%	3.5%	3.7%
GALP	2.3%	2.6%	3.0%	3.4%	4.0%	4.6%	5.2%	6.0%
Hess	0.9%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Imperial	1.0%	1.0%	1.1%	1.2%	1.4%	1.5%	1.7%	1.9%
Inpex	1.3%	1.4%	1.4%	1.4%	1.4%	1.5%	1.9%	1.9%
Lukoil	5.2%	5.7%	5.7%	6.7%	6.6%	6.7%	6.9%	7.1%
Occidental	2.0%	3.0%	3.1%	3.2%	3.4%	3.6%	3.7%	3.7%
OMV	3.9%	4.0%	4.2%	4.3%	4.4%	4.5%	4.6%	4.7%
Petrobras (Ord)	4.6%	3.8%	4.9%	6.1%	6.2%	8.8%	10.9%	11.5%
Petrochina	4.9%	5.0%	3.4%	3.4%	4.7%	5.2%	6.1%	6.9%
RD Shell (A)	4.9%	5.2%	5.2%	5.3%	5.4%	5.5%	5.6%	5.7%
Reliance	1.0%	1.1%	1.2%	1.4%	1.8%	2.0%	2.4%	2.7%
Repsol	5.3%	5.3%	5.4%	5.5%	5.6%	5.7%	5.8%	5.9%
Rosneft	6.0%	2.9%	3.8%	6.3%	5.3%	5.5%	5.6%	5.7%
Santos	2.1%	2.8%	3.1%	3.3%	3.6%	4.0%	4.1%	4.1%
Sinopec	4.4%	4.9%	5.0%	4.9%	5.3%	5.7%	6.2%	6.6%
Statoil	4.3%	4.5%	4.6%	4.8%	4.9%	5.1%	5.2%	5.4%
Suncor	2.0%	2.5%	2.6%	2.7%	2.9%	3.0%	3.2%	3.2%
Total	5.1%	5.3%	5.3%	5.4%	5.5%	5.6%	5.7%	5.8%
Tullow	1.4%	1.4%	1.5%	1.5%	1.6%	1.6%	1.6%	1.7%
Woodside	7.1%	7.5%	7.2%	6.9%	6.9%	7.9%	4.8%	4.2%
Group	3.3%	3.3%	3.6%	3.4%	3.9%	4.2%	4.4%	4.5%

Source: Company Reports, Citi Research estimates. Prices as of 10 March, 2014.

Figure 30. Free Cash Flow Yield

	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E
Anadarko	-5.8%	3.1%	-0.4%	1.7%	5.1%	4.0%	6.7%	8.8%
BG	-5.1%	-5.8%	-0.4%	4.0%	6.9%	9.8%	11.3%	14.5%
BP	-2.5%	3.4%	2.8%	4.6%	5.1%	5.2%	7.0%	8.4%
Canadian Nat Res	-0.8%	1.9%	2.5%	6.8%	11.3%	17.9%	26.7%	25.8%
Cenovus	1.3%	2.9%	0.9%	3.1%	6.2%	9.7%	13.4%	16.2%
Chevron	-2.8%	1.3%	3.1%	5.0%	6.0%	6.4%	6.5%	6.7%
Chesapeake	-18.9%	5.5%	4.8%	15.2%	21.6%	24.5%	24.2%	31.3%
Conoco	0.6%	2.5%	1.4%	2.3%	2.9%	4.1%	4.8%	5.1%
EcoPetrol	2.8%	1.0%	-1.8%	-1.7%	-1.3%	-0.9%	-0.3%	0.4%
ENI	1.6%	5.6%	4.4%	4.7%	6.3%	6.9%	9.7%	11.8%
Exxon	2.5%	4.6%	5.0%	5.8%	6.1%	6.2%	6.5%	6.7%
GALP	-2.2%	-3.9%	-4.4%	-2.2%	0.7%	7.8%	13.2%	18.9%
Hess	3.3%	-3.3%	0.4%	-1.9%	-0.5%	0.9%	0.8%	1.0%
Imperial	-7.5%	-1.2%	2.1%	8.4%	8.3%	10.9%	12.8%	14.1%
Inpex	-22.2%	-38.5%	-23.5%	-15.7%	-1.5%	12.1%	29.2%	26.3%
Lukoil	-7.2%	8.7%	4.7%	13.6%	17.1%	11.8%	20.1%	20.6%
Occidental	4.7%	1.0%	4.4%	5.2%	5.3%	6.6%	6.9%	7.3%
OMV	8.2%	-0.9%	-1.3%	2.7%	3.1%	4.0%	5.5%	7.2%
Petrobras (Ord)	-26.1%	-28.5%	-14.2%	-8.1%	-5.6%	6.3%	15.9%	18.2%
Petrochina	0.5%	5.5%	5.3%	6.1%	13.4%	15.5%	18.0%	21.5%
RD Shell (A)	0.5%	3.5%	3.4%	4.9%	7.2%	8.5%	9.8%	10.1%
Reliance	2.2%	-8.8%	-3.5%	5.1%	13.6%	16.5%	19.9%	22.7%
Repsol	5.0%	2.8%	3.3%	4.4%	5.9%	7.2%	8.7%	9.2%
Rosneft	8.1%	-5.1%	9.1%	9.4%	17.3%	24.9%	19.2%	18.2%
Santos	-20.5%	-15.3%	-3.5%	10.0%	10.3%	10.5%	11.8%	11.6%
Sinopec	-0.2%	3.5%	7.4%	13.8%	10.6%	15.5%	16.3%	20.3%
Statoil	-2.3%	1.3%	1.8%	2.7%	4.4%	6.4%	8.4%	9.6%
Suncor	6.6%	3.8%	2.0%	2.9%	3.4%	4.7%	5.8%	7.1%
Total	-0.9%	2.3%	2.7%	5.9%	9.3%	9.8%	10.2%	10.7%
Tullow	-2.7%	-6.1%	-7.4%	-9.1%	-4.4%	-1.8%	3.4%	12.0%
Woodside	8.5%	9.9%	10.9%	9.7%	3.8%	-1.0%	-3.1%	2.5%
Group	-0.2%	1.9%	2.1%	4.7%	6.0%	7.2%	9.9%	11.4%

Source: Company Reports, Citi Research estimates. Prices as of 10 March, 2014.



This page is intentionally left blank

Company Analysis

Anadarko – Neutral, US\$90/share price target

‘Waiting To Exhale’... Post Tronox Resolution

The uncertainty regarding the Tronox settlement in light of the Judge’s recent opinion on the case that places the damages awardable in a range of \$5.15-14.2 billion remains a major overhang for the stock. Otherwise, Anadarko certainly has a high-quality asset base, solid financial position, strong operational track record and consistency of exploration delivery. With production growth coming from liquids and international gas, experience operating in both domestic and international markets and a strong liquidity position, Anadarko is well positioned to take advantage of opportunities in the U.S. and abroad.

- **Tronox Remains A Major Overhang For Equity** — U.S. Bankruptcy Judge, Allan Gropper, in December issued a 166-page opinion, not final judgment, in the case of Tronox versus Kerr-McGee Corp. wherein Anadarko is the Defendant. The Judge placed the damages awardable to the Plaintiffs in a range of \$5.15-14.2 billion, not including attorney’s fees and costs. The company remains adamant that it will likely appeal any final judgment to the District Court of Appeals and admitted that a final judgment could impact its credit rating. We would note that while Anadarko felt it had a strong gross negligence argument in the Macondo incident, it chose to settle with BP for \$4.0bn to put the case behind it which management was clear to point out during a recent meeting. Based on our findings, we believe that any appeal process could potentially extend for several years. This would perpetuate the substantial overhang on Anadarko’s stock price, in our opinion. It is difficult for us to handicap the possibility or magnitude of any settlement, however, a settlement is likely tax deductible given the opinion’s reference is to “damages.”
- **U.S. Assets Drive Near Term Growth** — Total 2014 production growth of ~50 MBOE/d (~6-7% yr/yr) is primarily driven by U.S. onshore *liquids* growth of 50 MBbls/d (w/ natural gas declining ~4%) from the Wattenberg Hz (+36 MBbls/d), Eagleford (+21), and liquids-rich Haynesville (+12). Also, the Lucius discovery is expected to startup in Sept/Oct of this year. It is noteworthy that Anadarko is one of the few E&P’s that achieving robust production growth while *also* generating positive free cash flow. Our estimated 2014 capital budget of \$8.3 billion is fully funded by projected after-tax operating cash flow of \$8.9 billion. The DJ Basin Wattenberg field continues to drive onshore growth while the company also builds out midstream and marketing solutions including the ~300 MMcf/d Lancaster cryogenic plant, as well as the Texas Express and Front Range NGL pipelines, all of which are expected to be in service in Q1’2014 and will provide additional access to premium Gulf Coast markets. The current Wattenberg net resource base stands at 1.0-1.5 BBOE with ~4,000 horizontal drilling locations while production will continue to grow from the already solid base of ~120 MBOE/d. In addition, Anadarko owns ~2/3s of its acreage in the play in perpetuity and full mineral rights enhance the returns for the company on wells drilled on its ‘Land Grant’ acreage.
- **While International Projects Underscore Strong Longer-Term Growth** — Longer term, we expect significant growth internationally with significant contributions from the TEN and MTA projects offshore Ghana, a full year of production at El Merk in Algeria and future Mozambique LNG projects, along with the development of deepwater Gulf of Mexico projects (Caesar/Tonga, Lucius, Heidleberg). Mozambique offers the biggest upside potential for the current share price. Offshore Mozambique Area 1 is estimated to have natural gas resource potential is 45-70 Tcf with first LNG deliveries expected in 2018. Meanwhile, Anadarko recently closed its sale of a 10% stake in Mozambique Offshore Area 1 to ONGC Videsh Ltd. for \$2.64bn cash with closing expected around year end. Anadarko will retain a 26.5% WI and remain the operator. Further, the Orca discovery offshore Area 1 announced earlier last year (3-6 Tcf of recoverable resources) will likely be developed as a FLNG project as its proximity to shore and estimated recoverable resource base provides development flexibility. A FLNG project could be brought online before the 2018 timeframe expected for an onshore LNG facility.
- **Catalysts** — With additional clarity on operations at the recent analyst day, upcoming catalysts in 2014 include additional Permian well results, the monetization of its offshore Brazil assets, and additional results regarding the Tronox proceedings. There is an upcoming hearing in April and a final judgment should be completed sometime this summer. In Brazil, the data room is open for the company’s offshore holdings and we expect the process, which has been hampered by unitization proceedings with the adjacent blocks, will likely take up until the end of this year.

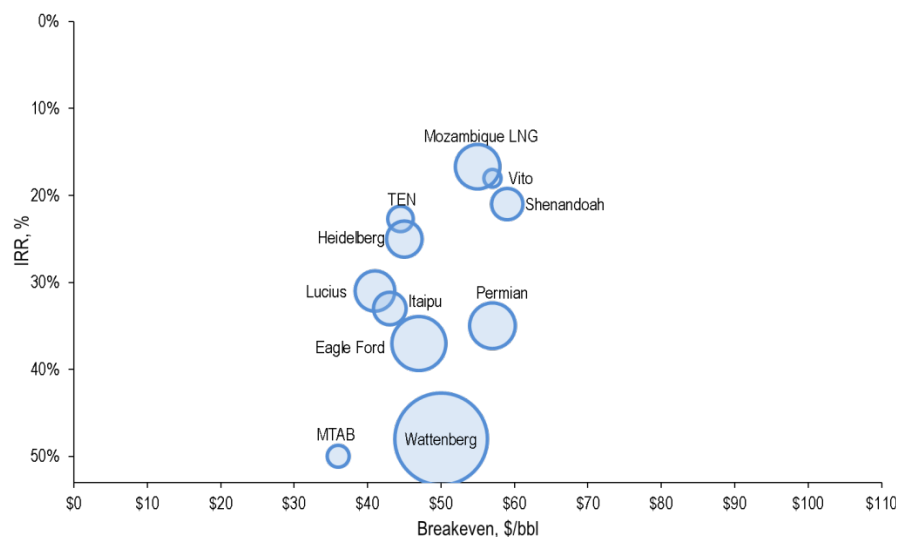
Figure 31. Anadarko Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
WTI (US\$/bbl)	72.2	99.7	61.8	79.5	94.9	94.5	98.0	94.3	89.0	92.0	95.0	98.0	102.0	105.0	1.0%
US gas (US\$/MMBtu)	6.6	8.4	3.8	4.3	4.0	2.7	3.7	4.8	4.4	5.0	5.3	5.3	5.3	5.3	2.3%
E&P volumes (mboepd)	0.58	0.56	0.60	0.64	0.68	0.73	0.78	0.80	0.86	0.92	0.97	1.01	1.09	1.15	5.9%
YoY growth	1.1%	-2.5%	7.2%	6.5%	5.6%	7.7%	6.8%	2.9%	6.9%	7.6%	4.5%	4.8%	7.9%	4.8%	
% oil	45%	39%	39%	41%	43%	43%	43%	47%	48%	48%	48%	43%	41%	42%	
E&P cash margins (US\$/bbl)	21.4	28.4	20.3	22.9	28.8	27.2	28.2	30.7	29.5	31.7	33.1	32.3	32.9	33.8	1.4%
Per share data:															
EPS (US\$)	2.82	5.15	(1.12)	1.82	3.38	3.54	4.09	5.16	5.33	6.87	7.78	7.76	8.67	9.60	10.7%
DPS (US\$)	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.0%
Valuation Ratios:															
P/E	30.2x	16.6x	(76.4x)	46.8x	25.3x	24.1x	20.8x	16.5x	16.0x	12.4x	11.0x	11.0x	9.8x	8.9x	
EV/DACF	24.8x	10.7x	15.4x	10.8x	nm	8.2x	9.7x	5.8x	5.4x	4.6x	4.1x	3.9x	3.5x	3.1x	
Dividend yield	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	
Free cash yield	-4.0%	2.8%	-4.6%	-0.4%	-15.2%	-2.2%	-5.8%	3.1%	-0.4%	1.7%	5.1%	4.0%	6.7%	8.8%	
Cash flow:															
Upstream	4.5	5.8	4.5	5.4	7.1	7.3	8.0	9.0	9.3	10.7	11.7	12.0	13.1	14.2	7.4%
Other and corporate	(2.4)	(1.1)	(1.2)	(1.0)	(7.3)	(1.1)	(3.0)	(0.5)	(0.6)	(0.5)	(0.6)	(0.7)	(0.8)	(0.9)	
Sources of funds	2.2	4.8	3.3	4.4	(0.2)	6.2	5.1	8.5	8.7	10.2	11.1	11.3	12.4	13.3	7.4%
Changes in working capital	0.3	1.6	(0.0)	0.6	(0.7)	0.0	(0.3)	1.2	-	-	1.2	1.1	1.7	2.2	
Cash flow from operations	2.5	6.4	3.2	5.0	(0.8)	6.2	4.7	9.6	8.7	10.2	12.3	12.4	14.1	15.6	
Capex	(4.1)	(5.3)	(5.1)	(5.2)	(5.6)	(7.1)	(7.2)	(8.3)	(8.9)	(9.5)	(10.1)	(10.7)	(11.2)	(11.8)	6.5%
Free cash flow	(1.6)	1.1	(1.9)	(0.2)	(6.4)	(0.9)	(2.5)	1.3	(0.2)	0.7	2.2	1.7	2.9	3.8	
Ordinary dividends	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	0.0%
as % of operating c/flow	7%	3%	5%	4%	-21%	3%	4%	2%	2%	1%	1%	1%	1%	1%	
Discretionary free cash flow	(1.8)	1.0	(2.1)	(0.3)	(6.6)	(1.1)	(2.7)	1.2	(0.4)	0.5	2.0	1.5	2.7	3.6	
Disposals/(Acquisitions)	-	-	-	-	0.6	(0.3)	-	-	-	-	-	-	-	-	
Equity change	0.1	(0.7)	1.3	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	(1.8)	1.0	(2.1)	(0.3)	(6.1)	(1.4)	(2.7)	1.2	(0.4)	0.5	2.0	1.5	2.7	3.6	
Balance sheet:															
Net debt	13.5	10.0	9.2	9.3	12.5	10.8	9.9	6.2	6.0	4.9	3.5	2.4	0.7	(1.6)	
Net debt/EBITDA	2.3x	1.2x	2.7x	1.6x	3.4x	1.3x	1.2x	0.6x	0.6x	0.4x	0.3x	0.2x	0.0x	(0.1x)	
Interest cover	5x	11x	5x	7x	4x	11x	12x	15x	15x	18x	19x	19x	21x	23x	
Net debt/equity	82%	53%	45%	44%	66%	49%	42%	24%	21%	16%	10%	6%	2%	-3%	
Capital employed:															
Upstream	43.4	42.5	42.8	44.1	44.4	46.1	46.9	47.4	51.4	55.6	60.2	65.1	70.1	75.4	8.3%
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Upstream	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	3.3%	7.3%	-0.2%	2.7%	1.7%	7.1%	6.1%	7.4%	7.2%	8.1%	8.2%	7.6%	7.7%	7.8%	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	3.3%	7.3%	-0.2%	2.7%	1.7%	7.1%	6.1%	7.4%	7.2%	8.1%	8.2%	7.6%	7.7%	7.8%	

Source: Company reports, Citi Research estimates.

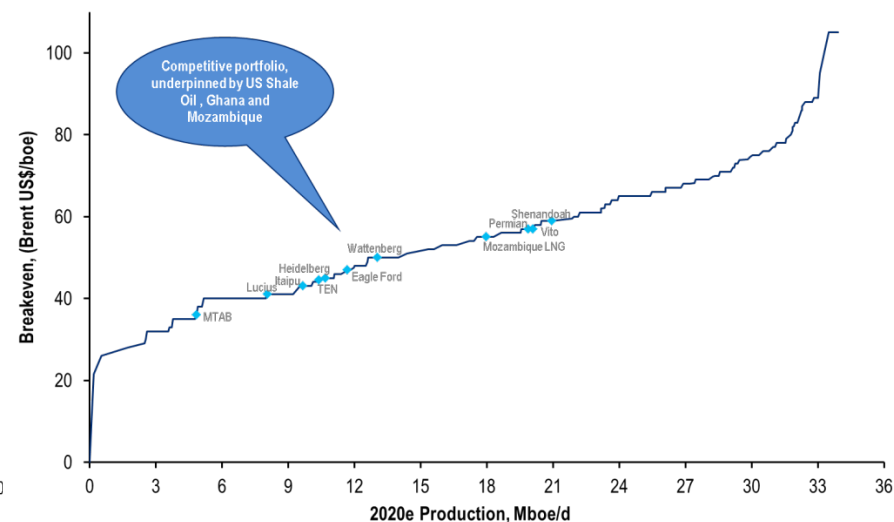
Anadarko - Upstream

Figure 32. Anadarko project portfolio (2013-2020 start-ups)



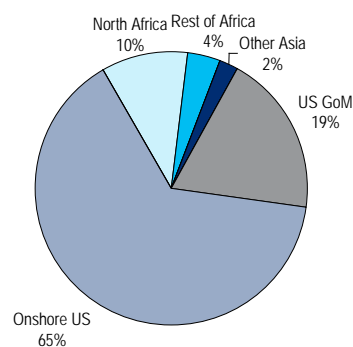
Source: Company reports, Citi Research

Figure 33. Anadarko project portfolio versus the industry cost-curve



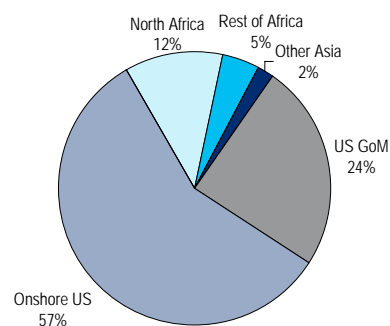
Source: Company reports, Citi Research

Figure 34. 2012 cash flow by region



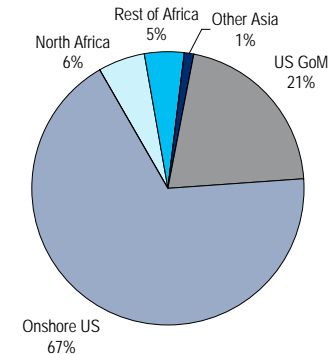
Source: Citi Research and company reports

Figure 35. 2016E cash flow by region



Source: Citi Research

Figure 36. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

BG – Buy, price target 1,400p/share

Brazil Ramp-up Helps Deliver Sector-leading Growth and Returns at an Attractive Valuation

We believe BG offers a differentiated story around growth, high returns and deep resource opportunity in a sector that is generally lacking all three. Growth is driven primarily by the ramp of high margin Brazil pre-salt production, which is likely to represent c. 60% of group cashflows by 2020 (from c. 11% in 2012). While there may well prove to be risks around the delivery of these growth plans, we believe the modular nature of the Brazil ramp up and its position on the cost curve help mitigates these risks.

- **High returns in E&P driven by Brazil** — We forecast upstream cashflows to increase by 15% CAGR 2013-20 above the sector average driven principally by the ramp-up of Brazil. We forecast Brazil will represent c. 33% of upstream cashflows by 2016, rising to c. 60% by 2020. Upstream returns remain high given strong economics from the Brazilian pre-salt projects. We estimate the breakeven of Brazil pre-salt at c. US\$40-45/boe and see these projects achieving IRRs of c. 25-30%. While there remain concerns around delivery of these projects, the modular nature of the development should help to mitigate this risk in our view.
- **LNG growth driven by volume uplift** — LNG accounted for 25% of group cashflows in 2012 and we see BG as one of the best-placed companies in global LNG with a number of competitive advantages over its peers (including global portfolio, flexible supply agreements and diverse supply sources). We forecast LNG supply volumes to rise from c. 12mtpa in 2012 to c. 25mtpa by the end of the decade driven primarily by the delivery of QC LNG Trains 1 and 2 in Australia and Sabine Pass in the US. We have also included risked volumes (1mtpa) from a two-train Tanzania LNG project given the need to de-risk further upstream volumes before the project can be sanctioned. We see additional projects within BG's current LNG portfolio (15mtpa Lake Charles export project, 4.25mtpa QC LNG Train 3 and 14mtpa Prince Rupert export project) that could deliver higher LNG supply volumes than currently forecast. We see a tightening LNG market over the next few years with the level of uncontracted volumes falling by 2015/16, which should support the margin outlook for BG's LNG business. Over the longer term there remains a large amount of potential new supply that could arrive on the market and loosen the supply/demand balance. However, we believe BG is well placed to react to market moves through its diversified LNG supply base and will allow BG to maintain its strong competitive position relative to peers.
- **Growth can be funded** — High investment requirements see BG continuing to raise borrowing levels until 2014/15. However, capitalisation and cashflow are strong and we do not anticipate net debt /EBITDA climbing above 1.4x. BG has made steps to extend the duration and size of its debt facilities and released capital of US\$8.2bn from its recent disposal programme. In a weakening oil price environment, BG retains the flexibility of high equity stakes in key assets (e.g. QC LNG and Brazil), which it could look to partially monetise in the medium-term.
- **Valuation** — We believe the valuation c. 1.25x end-2017E book fails to reflect the ability of this company to drive profitable medium-term growth (2018E ROE c. 17%). At its 2013 Strategy Day, BG committed to de-risking the E&P growth profile through solid execution and a more active approach to portfolio management within the core E&P business. We believe a more active divestments strategy could help narrow the wide valuation disconnect (c.30%) relative to our base NAV of 1,880p/share.

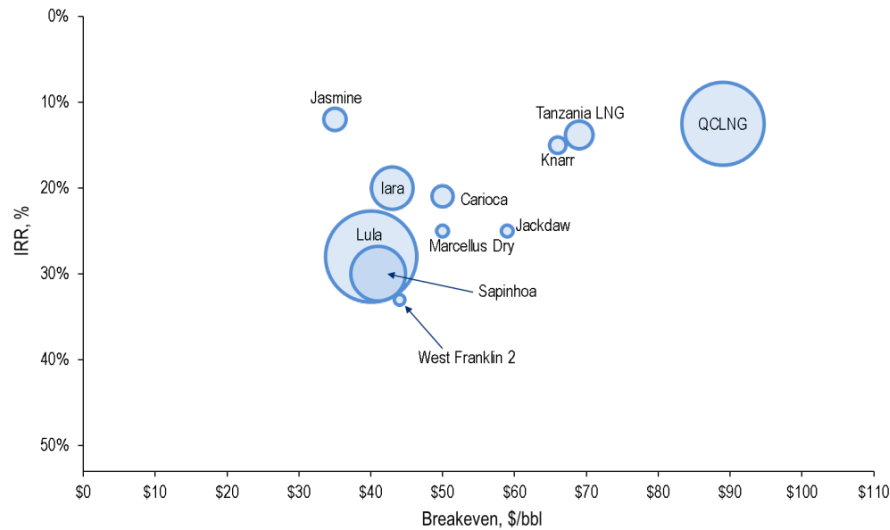
Figure 37. BG Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	73.2	98.1	61.8	80.0	110.2	111.1	108.5	102.8	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
GBP/USD	2.00	1.85	1.56	1.54	1.60	1.58	1.56	1.60	1.60	1.60	1.60	1.60	1.60	1.60	
E&P volumes (mboepd)	0.60	0.62	0.64	0.65	0.64	0.66	0.63	0.62	0.73	0.85	0.94	0.98	1.02	1.06	12.4%
YoY growth	1%	3%	4%	0%	-1%	2%	-4%	-3%	19%	16%	10%	5%	3%	5%	
% oil	29%	29%	28%	27%	26%	26%	30%	37%	39%	40%	46%	50%	53%	55%	
E&P cash margins (US\$/bbl)	20.2	24.8	18.1	20.6	22.5	23.4	25.7	26.1	29.0	31.9	33.4	34.9	34.1	35.2	7.6%
Per share data:															
EPS (cents)	105.6	170.2	93.4	119.1	127.6	128.7	127.9	110.9	126.0	190.4	234.4	273.4	288.4	330.2	25.3%
EPS (p)	52.8	91.8	59.7	77.1	79.6	81.2	81.8	69.3	78.8	119.0	146.5	170.8	180.2	206.4	25.3%
DPS (cents)	18.7	20.8	19.6	21.6	23.8	26.1	28.8	31.1	33.5	38.6	44.3	51.0	58.7	67.4	13.2%
DPS (p)	9.4	11.2	12.5	14.0	14.8	16.5	18.4	19.4	21.0	24.1	27.7	31.9	36.7	42.2	13.2%
Valuation ratios:															
P/E	20.5x	11.8x	18.2x	14.1x	13.6x	13.3x	14.3x	16.5x	14.5x	9.6x	7.8x	6.7x	6.3x	5.5x	
EV/DACF	10.5x	7.3x	10.6x	9.2x	9.0x	9.5x	10.3x	8.8x	6.6x	5.6x	4.8x	4.3x	3.5x		
Dividend yield	1.0%	1.2%	1.1%	1.2%	1.3%	1.4%	1.6%	1.7%	1.8%	2.1%	2.4%	2.8%	3.2%	3.7%	
Free cash yield	3.3%	5.6%	-2.4%	-1.7%	-5.0%	-3.8%	-5.1%	-5.8%	-0.4%	4.0%	6.9%	9.8%	11.3%	14.5%	
Cash flow:															
Upstream	4.4	5.6	4.2	4.9	5.3	5.6	5.9	5.9	7.8	10.0	11.4	12.6	12.7	13.7	18.7%
LNG	0.8	2.1	1.5	1.8	2.0	2.0	2.0	1.7	1.6	2.5	2.5	2.7	2.8	3.3	7.2%
Other and corporate	0.5	0.7	0.2	0.5	0.5	0.2	(0.1)	(0.3)	(0.6)	(0.7)	(0.3)	(0.0)	0.4	0.8	
Sources of funds	5.8	8.4	5.9	7.1	7.8	7.8	7.8	7.3	8.8	11.7	13.7	15.2	15.9	17.7	14.4%
Changes in working capital	(0.3)	0.1	(0.7)	(0.8)	(0.6)	(0.2)	(0.4)	-	-	-	-	-	-	-	
Cash flow from operations	5.5	8.5	5.3	6.4	7.2	7.6	7.4	7.3	8.8	11.7	13.7	15.2	15.9	17.7	
Capex	(3.4)	(5.1)	(6.8)	(7.4)	(10.3)	(10.0)	(10.6)	(10.9)	(9.0)	(9.2)	(9.4)	(9.1)	(8.9)	(8.7)	-4.7%
Free cash flow	2.1	3.4	(1.5)	(1.1)	(3.1)	(2.4)	(3.2)	(3.6)	(0.2)	2.5	4.3	6.1	7.0	9.0	
Ordinary dividends	(0.6)	(0.7)	(0.7)	(0.8)	(0.9)	(0.9)	(0.9)	(1.0)	(1.1)	(1.2)	(1.4)	(1.6)	(1.9)	(2.1)	8.7%
as % of operating c/f	11%	9%	13%	12%	13%	12%	12%	14%	13%	10%	10%	11%	12%	12%	
Discretionary free cash flow	1.5	2.7	(2.2)	(1.8)	(4.0)	(3.2)	(4.1)	(4.6)	(1.3)	1.3	2.9	4.5	5.2	6.9	
Acquisitions	(1.2)	(3.5)	(2.0)	(1.5)	(0.5)	-	-	-	-	-	-	-	-	-	
Disposals	0.9	0.0	0.0	0.9	0.2	2.9	4.6	-	-	-	-	-	-	-	
Equity change	(1.0)	(0.4)	0.1	0.1	0.0	0.0	(0.0)	-	-	-	-	-	-	-	
Surplus (deficit)	1.2	(0.8)	(4.2)	(2.5)	(4.3)	(0.3)	0.5	(4.6)	(1.3)	1.3	2.9	4.5	5.2	6.9	
Balance sheet:															
Net debt	0.1	1.6	5.1	7.2	11.5	11.1	11.1	15.8	17.1	15.8	12.9	8.4	3.3	(3.6)	
Net debt/EBITDA	0.0x	0.1x	0.6x	0.8x	1.1x	1.0x	1.1x	1.6x	1.5x	1.0x	0.7x	0.4x	0.1x	(0.1x)	
Interest cover	146.8x	nm	36.3x	53.8x	49.2x	83.1x	52.1x	36.5x	25.6x	29.3x	36.0x	42.7x	62.2x	135.4x	
Net debt/equity	1%	9%	22%	27%	39%	34%	35%	45%	45%	36%	26%	15%	5%	-5%	
Capital employed:															
Upstream	8.6	13.2	19.8	25.6	33.7	41.1	45.2	52.7	57.4	61.5	65.4	68.8	71.8	74.2	10.9%
LNG	3.4	3.9	4.8	6.1	6.2	10.2	10.0	9.9	9.8	9.6	9.5	9.4	9.2	9.1	-1.3%
% Upstream	72%	77%	81%	81%	84%	80%	82%	84%	85%	86%	87%	88%	89%	89%	
Return on capital employed:															
Upstream	30.2%	29.5%	9.8%	8.5%	8.1%	6.1%	5.1%	4.1%	3.8%	4.9%	6.3%	7.3%	6.9%	7.5%	
LNG	18.8%	45.9%	26.3%	27.6%	23.1%	17.5%	15.5%	13.3%	12.8%	20.8%	21.6%	23.7%	25.2%	29.9%	
Aggregate group	20.7%	25.5%	11.8%	11.8%	10.4%	8.7%	8.7%	7.3%	7.7%	10.7%	12.2%	13.4%	13.4%	14.5%	

Source: Company reports, Citi Research estimates.

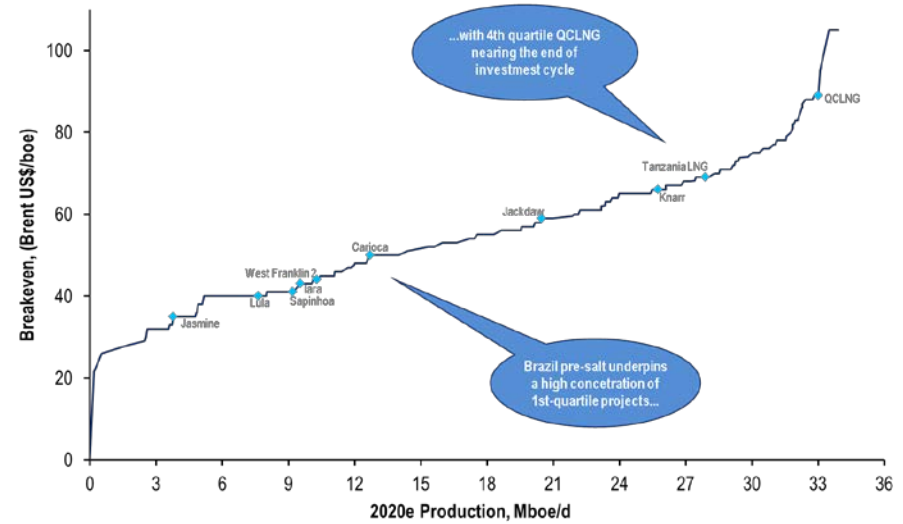
BG - Upstream

Figure 38. BG project portfolio (2013-2020 start-ups)



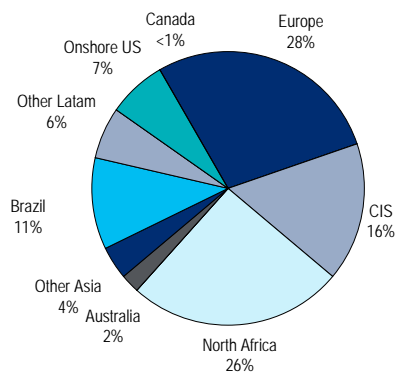
Source: Company reports, Citi Research

Figure 39. BG project portfolio versus the industry cost curve



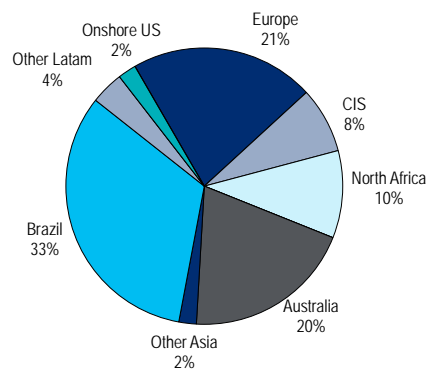
Source: Company reports, Citi Research

Figure 40. 2012 cash flow by region



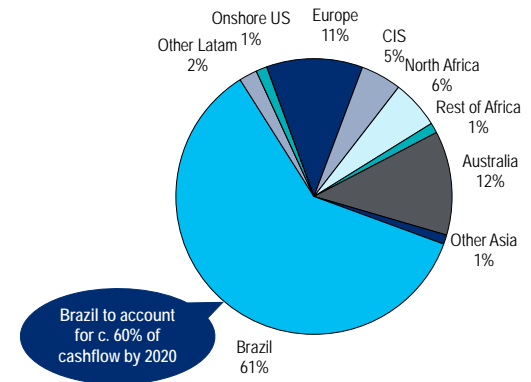
Source: Citi Research and company reports

Figure 41. 2016E cash flow by region



Source: Citi Research

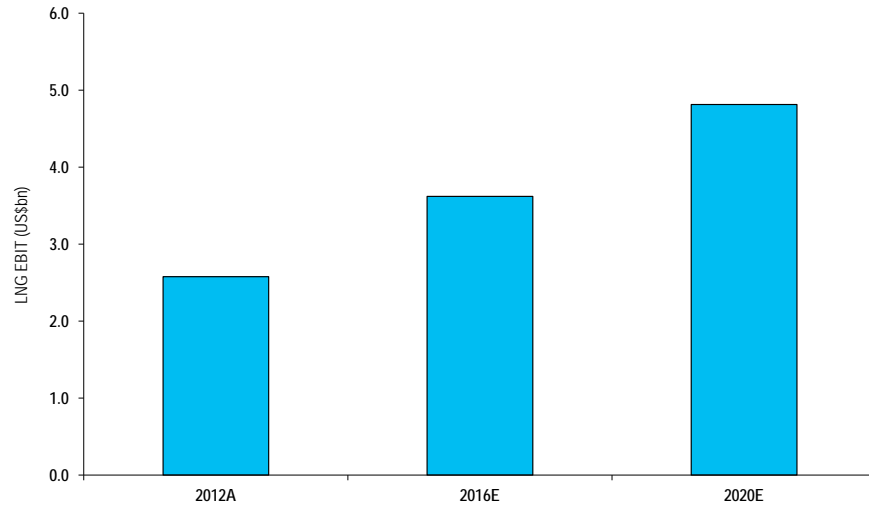
Figure 42. 2020E cash flow by region



Source: Citi Research

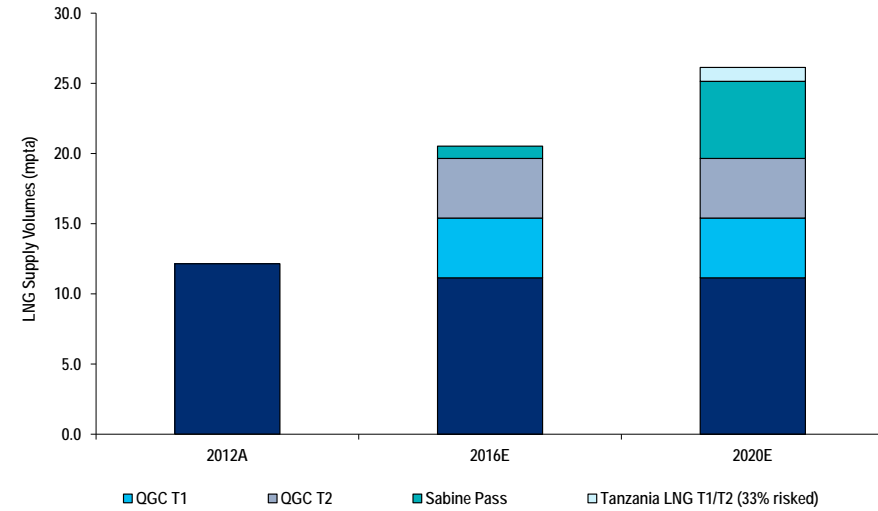
BG - LNG

Figure 43. LNG business EBIT out to 2020



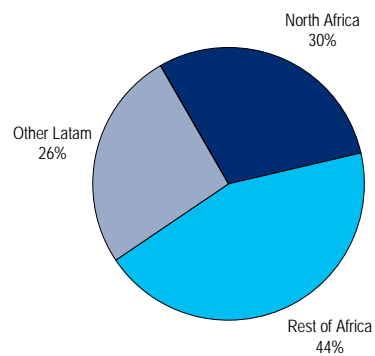
Source: Company reports, Citi Research

Figure 44. LNG supply Volumes out to 2020



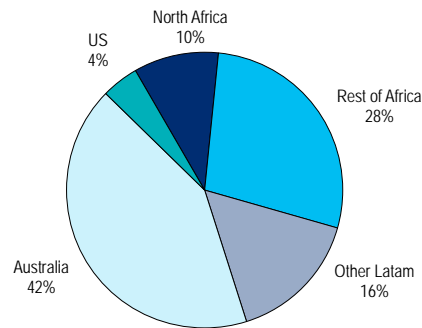
Source: Company reports, Citi Research

Figure 45. 2012 supply volumes by region



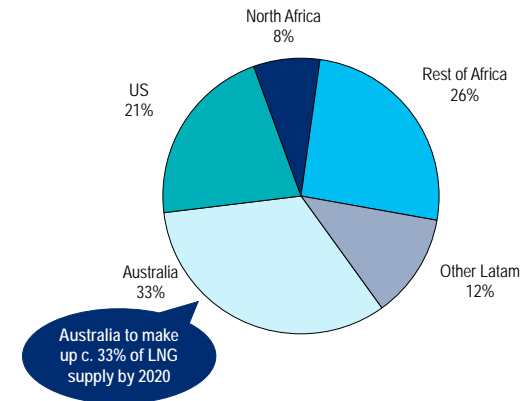
Source: Company reports, Citi Research

Figure 46. 2016E supply volumes by region



Source: Citi Research

Figure 47. 2020E supply volumes by region



Source: Citi Research

BP – Neutral, 480p price target

Energizing Growth Remains a Core Challenge

BP's 2014-18 financial ambitions frame the company around modest cash flow growth (c. 3% CAGR) and flat spending, helping the business to achieve full cash coverage of current dividends. The post-2018 picture remains a little in flux, hinging on a number of projects that look to have risk of slipping to the right and/or material success from the exploration programme to deliver more optionality into the business. In the background, Macondo still overhangs and will likely do so until mid-2014. Our assumption of another US\$13bn (post-tax) of Macondo liabilities is in-line with market expectations; although now probably a fat-tail risk, higher liabilities will eat into the ability to grow shareholder returns.

- **Reworking business models** — BP's recent investor update included some interesting comments about the role of International Major Oils and BP within that; interesting in that an IOC is now at last acknowledging some of the issues that have plagued the recent past (poor project execution, returns compression). One key change to emerge from this profiling is a realization that BP's US shale business – a cornerstone growth engine of investor updates in 2009/10 – is now uncompetitive versus mid-sized US E&P peers. The business, which we estimate generated c. \$1.5b cash flow in 2013, will be partitioned in terms of management, targets and financial disclosure with the aim of improving the cost structure, development cycle-times and innovation. There is no plan to sell the business; BP argues that it is valuable to have access to ongoing technological innovation in the development of US shale.
- **The framework to 2018** — Outside of this shift in the US onshore business, BP's core strategies remain centered around the concepts of delivering value, better execution and better exploration returns. In a practical, financial sense, good delivery on the current suite of projects in the portfolio should offer capacity for around 3% p.a. cash flow growth to 2018 on our estimates. With the company committed to a broadly flat spending budget, this growth delivery should enable the business to fully cover dividends through cash flow towards the back-end of the period.
- **Energizing growth remains a challenge** — Post 2018 the portfolio looks a little bit in a state of flux. A number of projects (e.g. Block 31 SE, Tangguh expansion, Kaskida, Pike) we think carry risk around timing, largely because of more challenging economics. Within an ambition to deliver flat spending, BP may also be happy to see some of this spending shift to the right. Faced with these challenges 'new BP' began a strategic shift to build out the portfolio and back the company's core competency in exploration. While exploration looks to have picked up well in 2013, the issue that investors face is that many of the big tests (e.g. Ceduna basin, Uruguay) are 3-4 years out. That is quite a long lead-time to judge whether the business can deliver on the promise of out-sized returns.
- **Macondo still lacks visibility** — Our financial expectations for Macondo assume another US\$17bn (pre-tax) / US\$13bn (post-tax) of remaining, unfunded liabilities. Roughly US\$12bn of this pre-tax sum is expected from the MDL 2179 trial (we expect a ruling mid-2014), split between Clean Water Act penalties, Natural Resource Damage penalties and economic claims from five US States under the Oil Pollution Act. The other US\$5bn comes from business economic claims that we expect to exceed the estimate BP has set aside. The NPV of this liability is likely lower – any ruling from MDL 2179 is expected to see BP post a bond to the Court and then appeal through the 5th Circuit and perhaps up to the Supreme Court over several years.

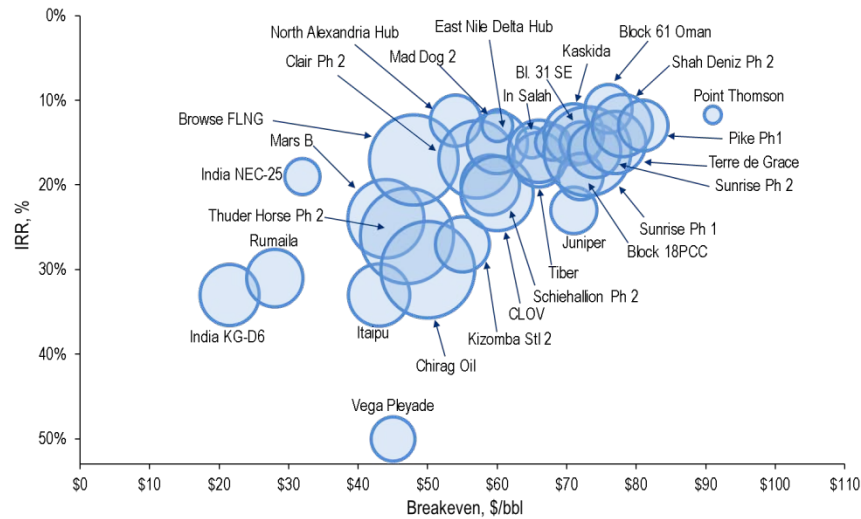
Figure 48. BP Summary Financial Model

US\$, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	97.4	62.3	80.0	110.8	111.9	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
GBP/USD	2.00	1.85	1.56	1.54	1.60	1.58	1.56	1.60	1.60	1.60	1.60	1.60	1.60	1.60	
E&P volumes (mboepd)	2.91	2.91	3.05	2.86	2.46	2.32	2.26	2.13	2.19	2.31	2.34	2.39	2.49	2.52	2.9%
YoY growth	-1.6%	0.2%	4.8%	-6.5%	-13.8%	-5.9%	-2.7%	-5.6%	2.8%	5.3%	1.3%	2.3%	4.2%	1.3%	
% oil	54%	54%	55%	53%	52%	51%	52%	48%	48%	50%	50%	48%	45%	44%	
E&P cash margins (US\$/boe)	22.4	29.4	19.3	23.1	27.3	25.4	28.1	32.2	30.0	32.4	34.2	32.1	33.3	35.1	-0.1%
Per share data:															
EPS (cents)	98.4	139.4	77.4	107.7	113.1	91.8	70.6	88.9	83.3	100.8	110.4	107.6	116.6	126.7	4.9%
EPS (p)	196.9	258.3	121.0	166.3	181.4	145.5	110.0	142.2	133.2	161.4	176.6	172.2	186.6	202.7	4.9%
DPS (cents)	42.3	55.1	42.0	7.0	29.0	34.0	37.0	38.4	38.9	39.3	39.7	40.5	42.5	44.5	1.3%
DPS (p)	84.7	102.0	65.7	10.8	46.5	53.9	57.7	61.4	62.2	62.9	63.5	64.8	68.0	71.2	1.3%
Valuation ratios:															
P/E	8.3x	5.9x	10.5x	7.6x	7.2x	8.9x	11.5x	9.1x	9.7x	8.0x	7.3x	7.5x	6.9x	6.4x	
EV/DACF	4.9x	4.5x	4.6x	9.1x	5.8x	7.3x	6.7x	5.9x	6.1x	5.5x	5.4x	5.5x	5.1x	4.8x	
Dividend yield	5.2%	6.8%	5.2%	0.9%	3.6%	4.2%	4.6%	4.8%	4.8%	4.9%	4.9%	5.0%	5.3%	5.5%	
Free cash yield	3.5%	10.3%	5.0%	-3.3%	1.9%	-2.2%	-2.5%	3.4%	2.8%	4.6%	5.1%	5.2%	7.0%	8.4%	
Cash flow:															
Upstream	23.8	31.3	21.2	24.1	24.6	21.5	23.1	25.0	24.0	27.3	29.2	28.0	30.2	32.3	2.9%
Downstream and chemicals	6.8	4.7	4.9	5.9	6.6	6.3	4.5	6.1	7.2	7.6	7.6	7.6	7.6	7.6	5.6%
Other and corporate	0.1	(3.2)	5.2	(13.7)	(4.8)	(6.7)	(2.1)	(1.4)	(1.6)	(1.9)	(2.7)	(2.5)	(2.4)	(2.2)	
Sources of funds	30.6	32.7	31.3	16.4	26.4	21.2	25.6	29.7	29.6	33.0	34.0	33.0	35.5	37.7	2.7%
Changes in working capital	(5.9)	5.3	(3.6)	(2.8)	(4.3)	(0.8)	(4.7)	-	-	-	-	-	-	-	
Cash flow from operations	24.7	38.1	27.7	13.6	22.2	20.4	20.8	29.7	29.6	33.0	34.0	33.0	35.5	37.7	
Capex	-19.2	-22.3	-20.0	-18.8	-19.2	-23.8	-24.6	-24.6	-25.4	-26.2	-26.3	-25.4	-25.1	-25.2	0.8%
Free cash flow	5.5	15.8	7.7	(5.1)	3.0	(3.4)	(3.8)	5.1	4.2	6.8	7.7	7.7	10.4	12.5	
Ordinary dividends	(8.3)	(10.8)	(10.9)	(2.9)	(5.6)	(6.2)	(7.4)	(7.5)	(7.6)	(7.7)	(7.7)	(7.8)	(8.2)	(8.6)	1.0%
as % of operating c/flow	34%	28%	39%	22%	25%	31%	36%	25%	26%	23%	23%	24%	23%	23%	
Minority dividends	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Discretionary free cash flow	(2.8)	5.0	(3.2)	(8.1)	(2.6)	(9.6)	(11.2)	(2.4)	(3.4)	(0.9)	(0.1)	(0.1)	2.2	3.9	
Acquisitions	(1.4)	(6.6)	(0.3)	(4.3)	(12.3)	(0.6)	(4.9)	-	-	-	-	-	-	-	
Disposals	4.3	3.5	2.7	13.4	6.1	11.4	22.0	-	-	-	-	-	-	-	
Equity change	(7.1)	-	-	-	1.3	1.0	(3.8)	(3.4)	-	-	-	-	-	-	
Surplus (deficit)	(7.1)	1.9	(0.8)	1.1	(7.5)	2.2	2.0	(5.8)	(3.4)	(0.9)	(0.1)	(0.1)	2.2	3.9	
Balance sheet:															
Net debt	27.5	25.0	26.3	26.8	30.1	29.2	26.5	32.4	35.7	36.6	36.7	36.8	34.7	30.8	3.3%
Net debt/EBITDA	0.7x	0.5x	0.8x	0.6x	0.7x	0.8x	0.7x	0.8x	0.9x	0.8x	0.7x	0.8x	0.7x	0.6x	
Cash interest cover	54.5x	56.2x	26.7x	39.2x	48.3x	43.0x	24.0x	53.3x	46.0x	49.4x	52.2x	50.0x	54.9x	63.1x	
Net debt/equity	29%	28%	26%	28%	27%	25%	21%	24%	25%	24%	22%	20%	18%	15%	
Capital employed:															
Upstream	75.8	83.8	92.0	96.3	106.7	104.9	110.8	116.8	123.0	129.0	134.8	140.2	144.4	148.5	4.7%
Downstream	47.9	41.2	46.5	48.4	51.1	50.3	48.0	50.0	52.0	53.9	55.8	57.5	59.2	60.7	3.6%
% Upstream	61%	67%	66%	67%	68%	68%	70%	70%	70%	71%	71%	71%	71%	71%	
Return on capital employed:															
E&P	18.7%	28.7%	11.7%	13.4%	10.6%	6.9%	8.2%	7.2%	7.6%	8.3%	8.3%	6.6%	6.9%	7.5%	
R&M	6.6%	5.6%	6.2%	7.7%	9.1%	8.7%	9.2%	10.7%	10.1%	9.3%	8.6%	8.0%	7.4%	6.9%	
Aggregate group	12.4%	16.5%	9.4%	12.1%	11.8%	9.0%	7.1%	7.8%	7.0%	8.0%	8.3%	7.8%	8.0%	8.3%	

Source: Company reports, Citi Research estimates.

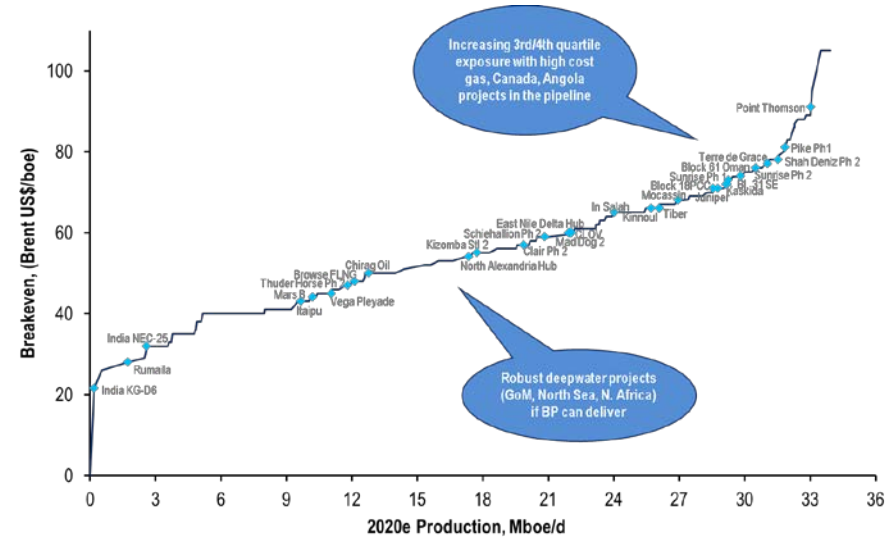
BP - Upstream

Figure 49. BP project portfolio (2013-2020 start-ups)



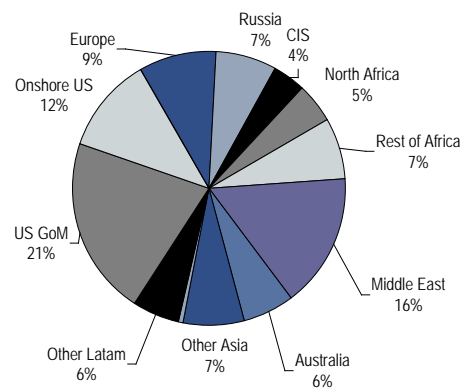
Source: Company reports, Citi Research

Figure 50. BP project portfolio versus the industry cost-curve



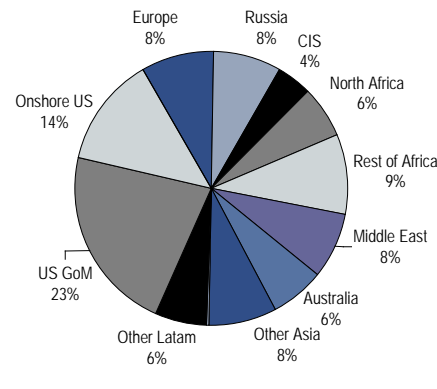
Source: Company reports, Citi Research

Figure 51. 2012 cash flow by region



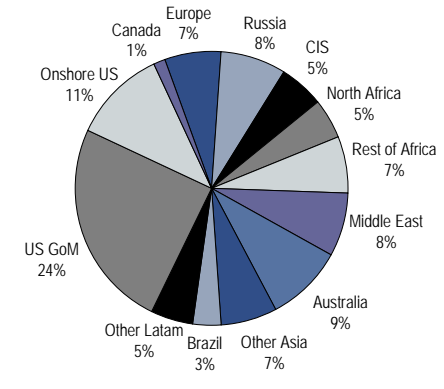
Source: Citi Research and company reports

Figure 52. 2016E cash flow by region



Source: Citi Research

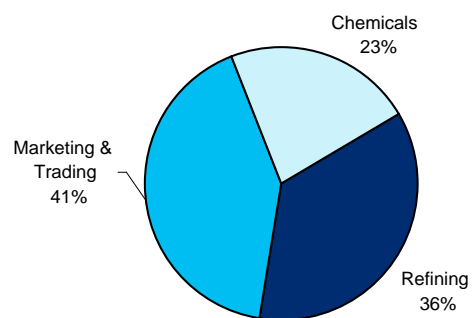
Figure 53. 2020E cash flow by region



Source: Citi Research

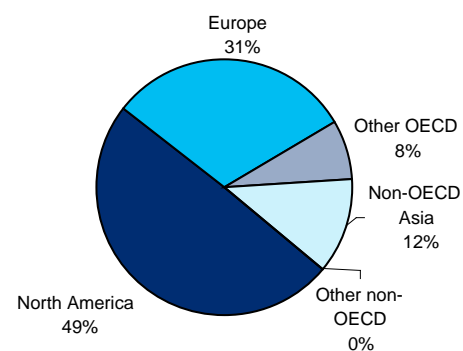
BP – Downstream

Figure 54. 2016E cash flow by segment



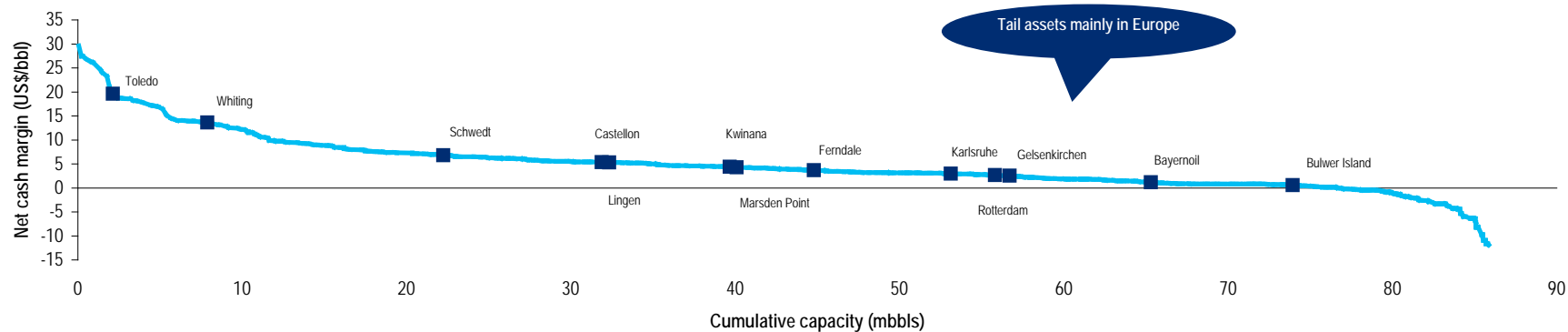
Source: Citi Research

Figure 55. 2016E cash flow by region



Source: Citi Research

Figure 56. BP refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Canadian Natural Resources – Buy, CAD\$42 price target

Long-Life Inventory of Canadian Oil Sands Projects Offer Production And Free Cash Flow Growth Through 2020

We believe CNQ's long-lived oil-oriented Canadian assets provide steady, visible growth, while the company maintains exposure to eventually higher natural gas prices. We view CNQ as strongly positioned to benefit from secularly higher long-term crude oil prices given its long reserve life resources and minimal geopolitical risk with over ~95% of its production located in Canada. Finally, we think there is little value in CNQ's current valuation to reflect what we believe will be higher natural gas prices in the medium-term.

- **Canadian Oil Sands Drive Near-Term Growth** — The one aspect of CNQ that stands out is the long line of sight on future development projects to drive strong production growth. In fact, no other company in our North America large cap E&P coverage universe has such an identified inventory near term much less through 2020. Primary heavy oil projects are at the forefront of the growth and also yield the highest ROCE in CNQ's portfolio. Most of the oil/liquids growth this year driven by an uptick in thermal oil output at Kirby South and reliability improvement at Horizon. Notably, Primary Heavy oil will be up only ~2% as production reaches plateau. Polymer-flood response at Pelican Lake has been outstanding and the company expects the production to eventually reach more than a 60 MBbl/d plateau in 2016 from the ~46-50 MBbl/d production base in 2013. In addition, thermal in-situ bitumen production including Primrose CSS, Kirby South and North SAGD is expected to grow at a ~21% annual rate through 2017 and should add 40-60 MBbl/d of production capacity every 2-3 years from now through 2030 until reaching full capacity of 510 MBbl/d.
- **Horizon** — The Horizon oil sands project (~15% of total output) should be the biggest contributor to production growth over the next 4 years. Phase 1, which had a number of operational issues in the past, continues to demonstrate stronger operational reliability and is expected to average near ~115 MBbl/d base capacity going forward. Horizon Phase 2/3 Expansion is projected to increase total production to 250 Mbbl/d in 2017. The project reached ~ 34% physical completion in Q4'13 with current costs continuing to trend more than 10% below sanctioned cost estimates. Synthetic crude oil project economics have been challenging for many industry players and CNQ has, for now, shelved its plans for Horizon Phase 4 expansion to 500 MBbl/d. Horizon's Phase 2/3 expansion economics, however, significantly benefit from capital cost synergies with Phase 1 as many of Horizon facilities have been designed for higher flow rates, as well as lower operating cost per barrel due to fixed nature of most of the costs. We estimate a combined value for Horizon of ~\$11bn or ~25% of our estimated sum-of-the-parts NAV for the company.
- **Domestic Natural Gas And International Assets Provide Large Upside Potential** — We think there is little value in CNQ's current valuation to reflect what we believe will be higher natural gas prices in the medium-term. Despite allocating just ~6% of its capital budget to natural gas this year, the company remains the 2nd largest (after EnCana) natural gas producer in Canada and the largest land holder in the Montney liquids-rich development area. After declining ~6% last year, total natural gas production is projected to increase 0-3% in 2014 as the result of the recent Septimus plant expansion. Unlike any of the past several years, CNQ has significant exploration potential teed up in 2014 with a 800 MMBOE to 1.4 BBOE prospect set to commence drilling offshore Cote d'Ivoire Block CI-514 (CNQ 36% WI) and its first ~1.0 BBOE prospect offshore South Africa (CNQ 50% WI) expected to begin drilling in Q3'14.
- **Lower WCS Oil Price Differentials Are Key To Unlocking The Value Medium Term** — The Canadian heavy oil (WCS) discount to WTI continues to be volatile. Some relief came with additional rail infrastructure, but longer term pipeline solutions are needed for differentials to tighten substantially. The projects will include export solutions to the west coast and east coast along with TransCanada's Keystone XL and Enbridge's Flanagan South project. The main long-term export option for CNQ continues to be the 830 MBbl/d Keystone XL project from Hardisty Alberta to Cushing Oklahoma, where it has ~120 MBbl/d of pipeline commitments. Management previously said that it has up to early 2015 to commit to rail capacity if Keystone XL is not expected to be online by 2017 at the completion of Horizon Phase 3. With Keystone XL, the cost to transport heavy crude to the Gulf Coast would be less than \$12/Bbl while via rail the tab would be around \$20/Bbl currently.

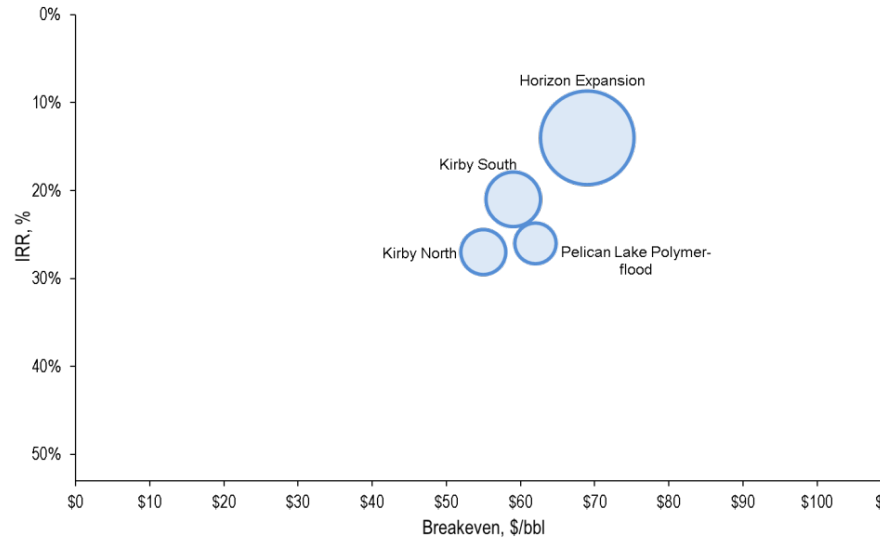
Figure 57. Canadian Natural Resources Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
WTI oil (US\$/bbl)	72.2	99.7	61.8	79.5	94.9	94.5	98.0	94.3	89.0	92.0	95.0	98.0	102.0	105.0	1.0%
US gas (US\$/MMBtu)	6.6	8.4	3.8	4.3	4.0	2.7	3.7	4.8	4.4	5.0	5.3	5.3	5.3	5.3	
E&P volumes (kboepd)	609	565	575	632	599	655	671	806	889	972	1,074	1,112	1,107	1,103	8.4%
YoY growth	1%	-7%	2%	10%	-5%	9%	3%	20%	10%	9%	10%	4%	0%	0%	
% oil	54%	56%	62%	67%	65%	69%	71%	69%	71%	73%	76%	76%	76%	76%	
E&P cash margins (US\$/bbl)	30.6	36.7	31.4	30.5	33.8	29.0	34.3	34.9	31.9	34.9	36.9	38.9	40.3	41.2	2.7%
Per share data:															
EPS (US\$)	2.11	3.26	2.30	2.36	2.30	1.47	2.24	3.11	2.70	3.82	4.89	5.69	6.14	6.42	16.3%
DPS (US\$)	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.9	1.0	1.1	1.2	1.4	1.7	2.1	12.4%
Valuation Ratios:															
P/E	19.4x	12.5x	17.8x	17.3x	17.8x	27.8x	18.5x	13.3x	15.4x	10.8x	8.5x	7.3x	6.8x	6.5x	
EV/DACF		8.8x	nm	8.4x	nm	8.2x	7.4x	6.1x	6.3x	5.1x	4.2x	3.5x	3.0x	2.6x	
Dividend yield	0.8%	1.0%	1.0%	0.9%	0.9%	1.0%	1.2%	2.2%	2.4%	2.6%	2.9%	3.5%	4.2%	5.0%	
Free cash yield	-1.4%	-1.5%	5.1%	3.8%	2.2%	1.0%	-0.8%	1.9%	2.5%	6.8%	11.3%	17.9%	26.7%	25.8%	
Cash flow:															
Upstream	5.8	6.5	6.0	6.3	6.5	6.2	7.5	9.1	9.1	11.0	12.8	13.9	14.4	14.7	11.2%
Other and corporate	(0.9)	0.0	0.1	(0.2)	0.1	(0.0)	(0.3)	(0.2)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	
Sources of funds	4.9	6.5	6.1	6.1	6.6	6.2	7.1	8.9	8.9	10.7	12.5	13.7	14.1	14.4	
Changes in working capital	0.9	0.3	(0.7)	(0.8)	(0.3)	0.4	(0.4)	-	-	-	-	1.4	5.2	4.8	
Cash flow from operations	5.8	6.8	5.4	5.3	6.4	6.6	6.8	8.9	8.9	10.7	12.5	15.0	19.3	19.2	13.9%
Capex	(6.4)	(7.5)	(3.1)	(3.6)	(5.4)	(6.2)	(7.1)	(8.1)	(7.8)	(7.6)	(7.4)	(7.0)	(7.2)	(7.5)	-3.6%
Free cash flow	(0.6)	(0.7)	2.3	1.7	1.0	0.5	(0.3)	0.8	1.1	3.1	5.1	8.1	12.0	11.6	
Ordinary dividends	(0.3)	(0.2)	(0.3)	(0.4)	(0.4)	(0.5)	(0.5)	(1.0)	(1.1)	(1.2)	(1.3)	(1.6)	(1.9)	(2.2)	12.3%
as % of operating cflow	5%	3%	5%	8%	6%	7%	8%	11%	12%	11%	10%	10%	10%	12%	
Discretionary free cash flow	(0.9)	(0.9)	2.0	1.3	0.6	0.0	(0.9)	(0.1)	0.0	1.9	3.8	6.5	10.2	9.4	
Disposals/(Acquisitions)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Equity change	1%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Surplus (deficit)	(0.9)	(0.9)	2.0	1.3	0.6	0.0	(0.9)	(0.1)	0.0	1.9	3.8	6.5	10.2	9.4	
Balance sheet:															
Net debt	12.5	13.0	9.6	8.5	8.5	8.7	9.6	12.0	11.8	9.8	5.8	0.5	(4.7)	(9.5)	
Net debt/EBITDA	2.4x	1.2x	2.2x	1.2x	1.1x	1.2x	1.2x	1.1x	1.2x	0.8x	0.4x	0.0x	(0.3x)	(0.6x)	
Interest cover	18.8x	82.9x	10.9x	16x	21x	20x	30x	36x	38x	49x	59x	68x	74x	79x	
Net debt/equity	94%	71%	50%	40%	37%	36%	37%	43%	39%	30%	16%	1%	-10%	-19%	
Capital employed:															
Upstream	34.1	39.6	38.6	39.5	43.6	45.8	47.9	52.7	54.4	55.3	55.3	54.6	54.2	54.1	0.9%
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Upstream	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	7.5%	15.8%	3.5%	5.0%	7.3%	4.9%	5.9%	7.3%	6.0%	8.0%	10.0%	11.6%	12.6%	13.2%	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	7.5%	15.8%	3.5%	5.0%	7.3%	4.9%	5.9%	7.3%	6.0%	8.0%	10.0%	11.6%	12.6%	13.2%	

Source: Company reports, Citi Research estimates.

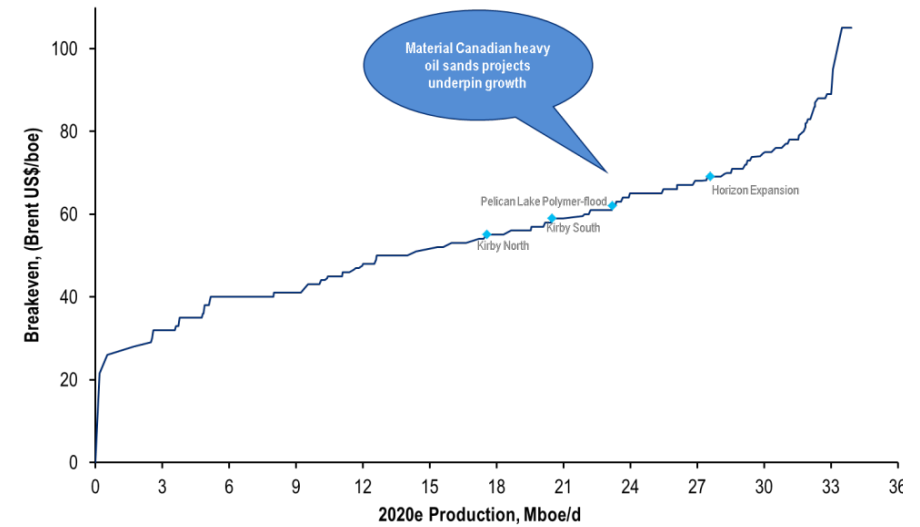
Canadian Natural Resources - Upstream

Figure 58. CNQ project portfolio (2013-2020 start-ups)



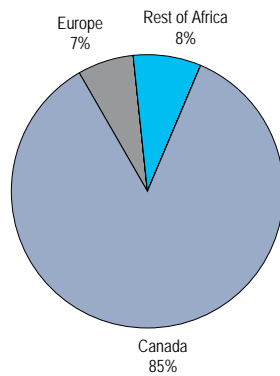
Source: Company reports, Citi Research

Figure 59. CNQ project portfolio versus the industry cost-curve



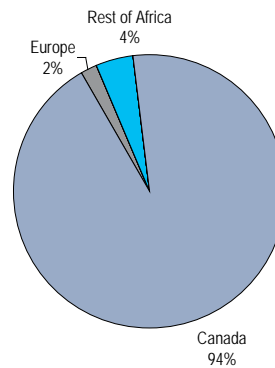
Source: Company reports, Citi Research

Figure 60. 2012 cash flow by region



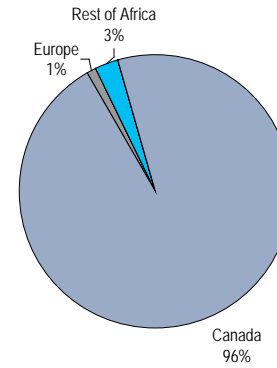
Source: Citi Research and company reports

Figure 61. 2016E cash flow by region



Source: Citi Research

Figure 62. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Cenovus Energy – Buy, CAD\$33 price target

Growing Production and Rising ROCE

We estimate CVE will grow its oil sands production 10% per annum through 2020 by mostly expanding its current SAGD producing assets, Foster Creek and Christina Lake. Separately, CVE has a strong downstream position through its interest in the Wood River and Borger refineries. These refineries are in the first quartile of our North American refining cost curve. Over the long-run, we estimate CVE's return on capital employed will almost double to 18% through the decade.

- **Oil Sands Growth** — We currently estimate CVE will grow its liquids production from ~180 mbpd in 2013 to ~245 mboed in 2016 at a CAGR of ~11%. Most of CVE's production growth will come from the FCCL project. We expect production from both Foster Creek and Christina Lake will double before the end of this decade. The majority of this growth is clearly defined with construction on ~45 mbpd of incremental production at Foster Creek by 2016 on track. Similarly, the construction on an additional ~51 mbpd of oil sands production by 2017 at Christina Lake is also in progress. The next phase of the oil sands growth for Cenovus also comes from the joint venture at Narrows Lake Phase A, which starts in 2017. The total capacity at Narrows Lake could go up to ~130 mbpd once Phase B and C come online. Phase B & Phase C still don't have partner approval. Narrows Lake is likely to become the first commercial SAGD project to use a Solvent Aided Process (SAP) to decrease SORs and operating costs through the lifetime of the project.
- **Downstream** — CVE also has interests in two refineries in the advantaged North American Midwest region. We estimate that Wood River and Borger remain top tier refineries from a cash margin perspective in our mid-cycle condition.
- **Market Access** — Like many of its peers CVE is also focused on getting oil sands crude to the markets. It has taken long term capacity on most of the new oil sands pipeline projects like Energy East & the TransMountain expansion. CVE also expects to use rail to increase its market access. CVE expects to use rail to place up to 10% of its production to end markets.
- **Free Cash Flow** — We estimate CVE can grow operating cash flow from \$3.2bn in 2014 to \$7.5bn by the end of this decade. A combination of volume growth and better long-term Western Canadian oil prices are fueling this growth. Under this scenario, CVE generates an average 8% free cash flow yield from 2014 to 2020.
- **Valuation & 2020 Vision** — CVE has underperformed its peers over the last two years because of underperformance at its Pelican Lake and Foster Creek reservoirs. We believe that CVE has already taken steps to control spending at Pelican Lake and is currently taking steps to optimize production at Pelican Lake. We think that the first half of 2014 will remain tough for Foster Creek as the measures that CVE management has taken to control SORs along with start-up of Phase F will continue to keep operating costs higher. However, the current problems provide investors with an opportunity to invest in a company that can grow production, dividends and returns all at the same time.

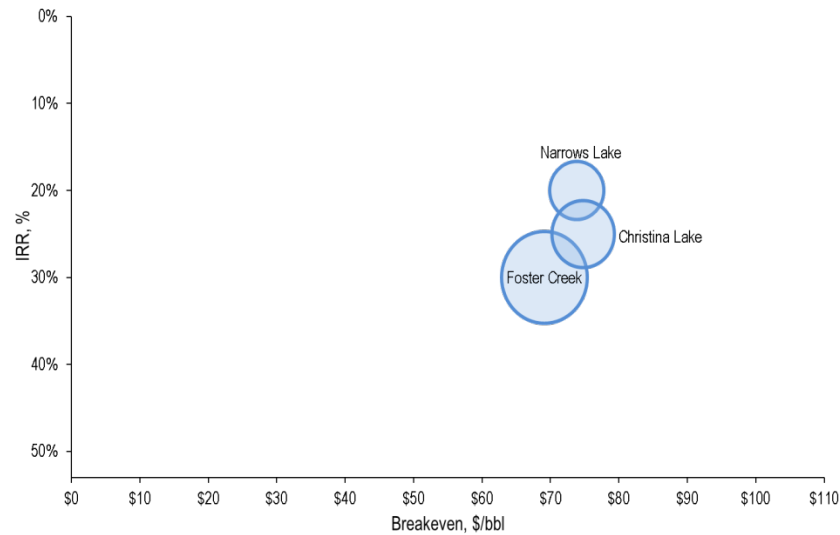
Figure 63. Cenovus Summary Financial Model

US\$B, unless stated	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:													
Brent oil (US\$/bbl)	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
WTI (US\$/bbl)	61.8	79.5	94.9	94.5	98.0	94.3	89.0	92.0	95.0	98.0	102.0	105.0	1.0%
US gas (US\$/MMBtu)	3.8	4.3	4.0	2.7	3.7	4.8	4.4	5.0	5.3	5.3	5.3	5.3	2.3%
E&P volumes (mboepd)	0.26	0.25	0.24	0.26	0.27	0.28	0.29	0.31	0.34	0.39	0.43	0.46	8.9%
YoY growth		-2.4%	-3.5%	8.6%	1.2%	3.0%	4.9%	6.1%	11.0%	14.1%	11.5%	6.2%	
% oil	46%	51%	55%	63%	67%	72%	76%	79%	82%	85%	88%	89%	
E&P cash margins (US\$/bbl)	27.5	29.0	31.7	29.5	32.5	38.2	35.7	39.3	38.2	41.8	43.2	45.0	2.3%
Per share data:													
EPS (US\$)	1.09	1.43	1.95	1.31	0.87	2.13	1.91	2.55	3.09	4.29	5.18	5.91	19.1%
DPS (US\$)	0.20	0.80	0.80	0.88	0.97	1.06	1.09	1.11	1.13	1.15	1.18	1.20	2.0%
Valuation Ratios:													
P/E	27.0x	20.5x	15.1x	22.5x	33.7x	13.8x	15.4x	11.6x	9.5x	6.9x	5.7x	5.0x	
EV/DACF		9.5x	7.3x	6.7x	6.5x	6.5x	6.7x	5.8x	5.2x	4.2x	3.4x	2.8x	
Dividend yield	0.7%	2.7%	2.7%	3.0%	3.3%	3.6%	3.7%	3.8%	3.8%	3.9%	4.0%	4.1%	
Free cash yield	4.0%	1.8%	2.2%	-0.1%	1.3%	2.9%	0.9%	3.1%	6.2%	9.7%	13.4%	16.2%	
Cash flow:													
Upstream	2.7	2.7	2.7	3.0	2.9	3.4	3.4	4.0	4.5	5.6	6.4	7.1	13.0%
Downstream	0.3	0.1	0.7	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	-4%
Other and corporate	(0.2)	(0.4)	(0.1)	(0.1)	(0.0)	(0.6)	(0.6)	(0.6)	(0.5)	(0.5)	(0.5)	(0.5)	
Sources of funds	2.8	2.4	3.3	3.6	3.6	3.6	3.5	4.1	4.7	5.7	6.5	7.2	12.6%
Changes in working capital	0.2	0.2	(0.0)	(0.2)	(0.1)	0.0	(0.0)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	
Cash flow from operations	3.0	2.6	3.3	3.4	3.5	3.6	3.5	4.1	4.5	5.6	6.4	7.1	
Capex	(2.2)	(2.2)	(2.8)	(3.4)	(3.3)	(2.9)	(3.3)	(3.4)	(3.1)	(3.4)	(3.4)	(3.5)	4.1%
Free cash flow	0.9	0.4	0.5	(0.0)	0.3	0.6	0.2	0.7	1.4	2.2	3.0	3.6	
Ordinary dividends	(0.2)	(0.6)	(0.6)	(0.7)	(0.7)	(0.8)	(0.8)	(0.8)	(0.9)	(0.9)	(0.9)	(0.9)	2.0%
as % of operating c/f flow	5%	23%	18%	19%	21%	23%	23%	21%	19%	16%	14%	13%	
Discretionary free cash flow	0.7	(0.2)	(0.1)	(0.7)	(0.5)	(0.2)	(0.6)	(0.2)	0.5	1.3	2.1	2.7	
Disposals/(Acquisitions)	0.2	0.3	0.1	0.1	1.7	-	-	-	-	-	-	-	
Equity change	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	
Surplus (deficit)	0.9	0.1	0.0	(0.6)	1.3	(0.2)	(0.6)	(0.2)	0.5	1.3	2.1	2.7	
Balance sheet:													
Net debt	3.5	3.1	3.0	3.5	2.5	2.7	3.3	3.5	3.0	1.7	(0.4)	(3.1)	
Net debt/EBITDA	1.1x	1.1x	0.8x	0.9x	0.7x	0.6x	0.7x	0.7x	0.5x	0.2x	(0.1x)	(0.3x)	
Interest cover	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	
Net debt/equity	36%	37%	32%	36%	26%	25%	29%	28%	21%	10%	-2%	-14%	
Capital employed:													
Upstream		3.8	3.8	10.3	11.4	12.2	12.8	13.6	14.6	16.0	18.0	20.6	9.5%
Downstream		2.7	2.7	2.8	2.9	2.9	2.9	2.9	3.1	3.3	3.7	4.1	3.7%
% Upstream		55%	53%	51%	50%	47%	45%	42%	39%	35%	30%	23%	
Return on capital employed:													
Upstream		13.5%	13.9%	8.6%	10.0%	13.5%	11.8%	14.7%	16.0%	19.8%	20.8%	20.6%	
Downstream		-0.5%	19.2%	24.5%	21.6%	19.0%	17.7%	16.6%	15.2%	12.6%	11.4%	10.3%	
Aggregate group		6.8%	9.8%	6.9%	6.8%	10.1%	8.7%	10.4%	11.5%	14.6%	16.7%	18.3%	

Source: Company reports, Citi Research estimates.

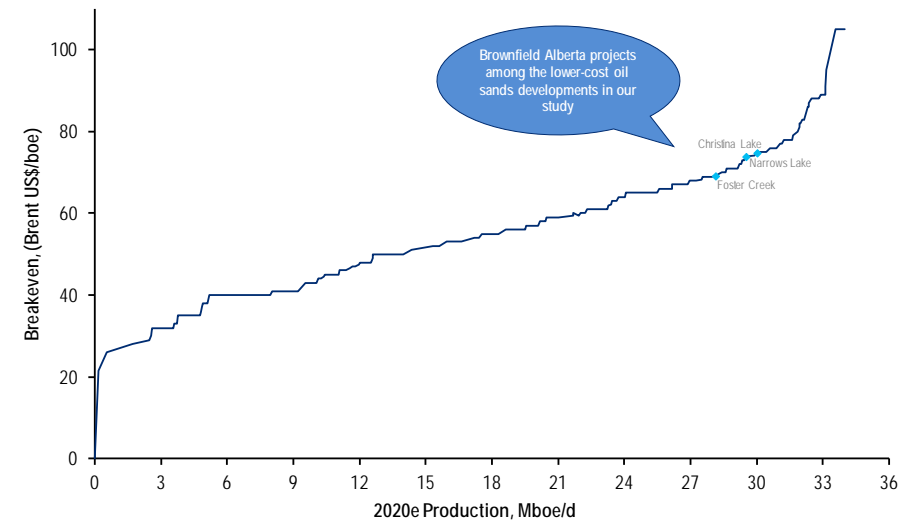
Cenovus - Upstream

Figure 64. Cenovus project portfolio (2013-2020 start-ups)



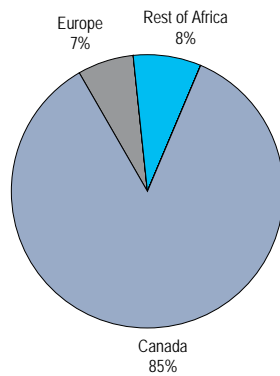
Source: Company reports, Citi Research

Figure 65. Cenovus project portfolio versus the industry cost-curve



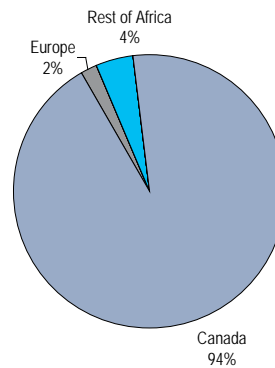
Source: Company reports, Citi Research

Figure 66. 2012 cash flow by region



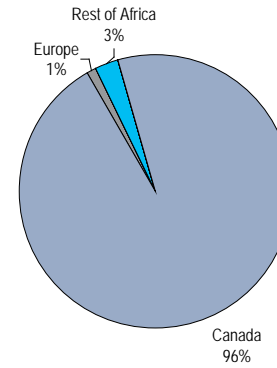
Source: Citi Research and company reports

Figure 67. 2016E cash flow by region



Source: Citi Research

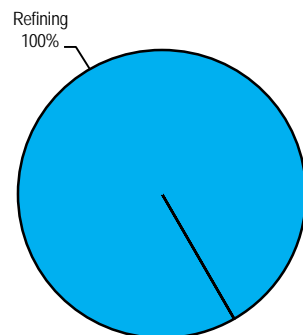
Figure 68. 2020E cash flow by region



Source: Citi Research

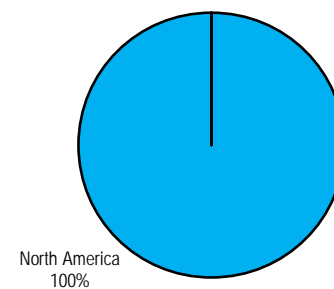
Cenovus – Downstream

Figure 69. 2016E cash flow by segment



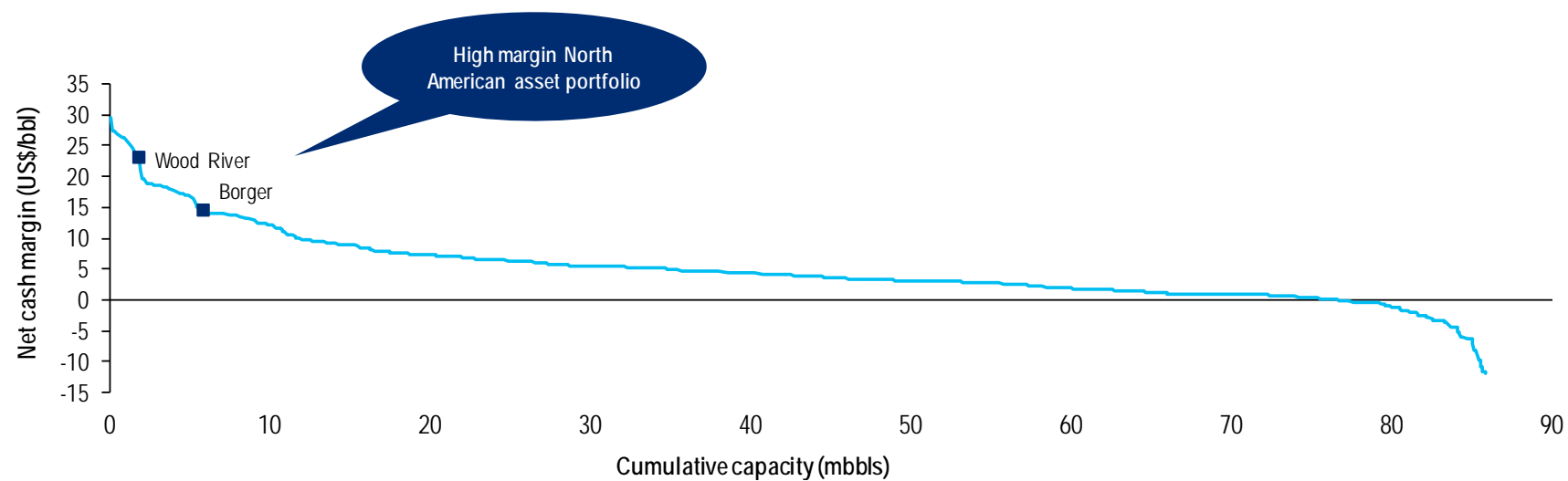
Source: Citi Research

Figure 70. 2016E cash flow by region



Source: Citi Research

Figure 71. Cenovus refining asset competitive position in a global context (based on mid-cycle conditions)



Chesapeake Energy – Buy/High Risk, price target US\$32/share

Production Growth Is Poised To Accelerate With Significantly Better Capital Efficiency

Chesapeake is the largest or second largest holder in most key U.S. onshore shale or unconventional plays. The company previously spent much of its capital on either acquisitions or drilling to hold acreage, which led to far less efficient operations than most of its peers. One of the major challenges for Chesapeake's new management has been to bring financial discipline to capital budgeting process along with an improvement in drilling efficiencies in order to catch up to its peers. We expect CHK will deliver a ~6.0% “organic” production CAGR through 2020, with most of this growth starting in 2015. We believe the new management will continue to execute an aggressive restructuring and cost reduction program while realizing significant efficiency improvements throughout its core regions.

- **Extensive Resource Base Should Drive Solid Growth...** – Chesapeake provided initial 2014 guidance wherein total “organic” production growth is projected at 8-10%, or above our prior 5% projection, but with oil production below expectations. Many investors question whether the company can maintain production growth concurrent with a sharp reduction in drilling activity. We believe that production growth is actually poised to accelerate from this point forward and is underappreciated by the market. This growth will be largely driven by the emerging Utica along with the Eagle Ford and Marcellus shale plays with the product mix transitioning from ~25%/75% to ~37%/63% liquids/gas in 2020, absent any major asset sales. Also, we project natural gas production growth to accelerate in 2015, primarily as a result of lower decline rates in more mature dry gas plays and the roll off of VPP volumes, which will also help to continue to drive lower overall per-unit operating costs.
- **...With Better Capital Discipline...** Part of Chesapeake's new discipline will be to keep E&D capital spending within operating cash flow. The company reduced drilling activity to 55-65 rigs this year, compared to average of 71 rigs last year. The total full-year capital budget is ~10% lower than in 2013 and ~50% lower than in 2012. Despite being one of the pioneers of the North American unconventional shale revolution, Chesapeake is still in the early innings when it comes to operating efficiency improvements. We envision ample opportunity to both reduce drilling cycle times and improve well productivity. In our opinion, the new management will continue to pursue an aggressive restructuring and cost reduction program while realizing significant efficiency improvements throughout its core regions. A key factor in our assessment, and which we believe much of the Street is overlooking, is the significant catch-up in drilling efficiencies and costs that Chesapeake should achieve as it moves beyond efforts largely aimed at holding acreage over the past few years. Another lever that Chesapeake has at its disposal to accelerate production growth is the reduction in its existing well backlog following midstream debottlenecking. The Utica, Marcellus, Eagle Ford and Niobrara plays have a very large inventory of drilled but uncompleted (DUC) or waiting on pipeline wells which have adversely affected returns. The Utica in particular stands out with 195 wells waiting on pipeline connection or in various stages of completion. This year, however, will entail major processing capacity additions in the Utica and we expect very strong growth with minimal capital spending due to the remaining carry under the Total JV.
- **...And More Manageable Balance Sheet** – Notably, we believe that Chesapeake will not need to issue equity in the foreseeable future. Based on our most recent estimates, Chesapeake will manage to close the funding gap with the announced ~\$200mm sale of a ~20% WI in Chaparral Energy and ~\$520mm sale of midstream compression assets. In our opinion the management will look to pare its extensive asset base and reduce its financial complexity over the next couple of years, but is under no pressure sell assets in a “fire sale”. The next big catalyst is the planned sale or spin of its oil field services (OFS) business, which we value at \$1.8bn, and potential other non-core E&P asset sales including real estate holdings. Among other potential divestitures are the sale/JV of its dry gas acreage in the Utica shale, its remaining 350k net acres in the Permian Midland Basin, its holdings in the Barnett shale, and some of its non-core acreage in the Mid-Continent. With regard to leverage, in our opinion, the management will target a net debt/EBITDA ratio of below 2.0x near term.
- **Valuation** – We continue to believe that investors are underestimating the significant catch-up in drilling efficiencies and costs that Chesapeake will achieve this year while attaining our current growth projections even with a reduced capital budget. Our \$32/share price target equates to 97% of our detailed sum-of-the-parts NAV (See our 10/24/13 [note](#)) and 2015/2015 EV/DACF multiples of 6.6x/5.9x.

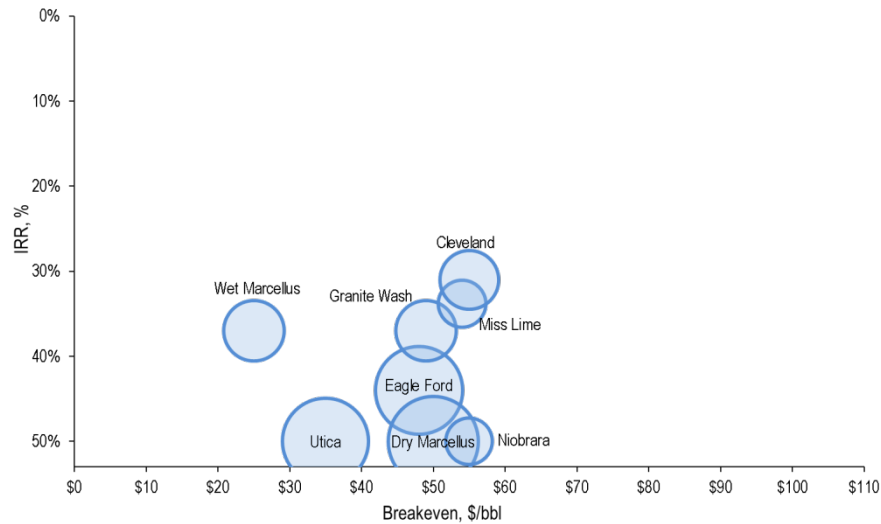
Figure 72. Chesapeake Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
WTI (US\$/bbl)	72.2	99.7	61.8	79.5	94.9	94.5	98.0	94.3	89.0	92.0	95.0	98.0	102.0	105.0	1.0%
US gas (US\$/MMBtu)	6.6	8.4	3.8	4.3	4.0	2.7	3.7	4.8	4.4	5.0	5.3	5.3	5.3	5.3	2.3%
E&P volumes (mboepd)	0.33	0.38	0.41	0.47	0.55	0.60	0.61	0.61	0.65	0.69	0.75	0.79	0.83	0.86	6.7%
YoY growth	1.2%	17.7%	7.8%	14.3%	15.3%	10.0%	1.9%	0.3%	6.5%	6.5%	7.5%	6.2%	4.0%	4.7%	
% oil	8%	8%	8%	11%	16%	14%	18%	19%	21%	22%	23%	23%	24%	24%	
E&P cash margins (US\$/bbl)	35.2	32.2	24.1	28.4	22.2	16.7	16.9	20.4	20.7	24.0	24.3	24.6	24.3	25.7	4.8%
Per share data:															
EPS (US\$)	3.40	3.67	2.56	2.95	2.81	0.55	1.49	2.19	2.39	3.42	4.34	4.90	5.45	6.09	22.2%
DPS (US\$)	0.26	0.29	0.30	0.30	0.34	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.0%
Valuation Ratios:															
P/E	7.6x	7.0x	10.1x	8.8x	9.2x	47.2x	17.4x	11.8x	10.8x	76x	5.9x	5.3x	4.7x	4.2x	
EV/DACF	5.6x	5.6x	6.5x	5.0x	8.6x	15.4x	9.0x	5.7x	5.3x	4.3x	3.8x	3.5x	3.2x	2.7x	
Dividend yield	1.0%	1.1%	1.2%	1.2%	1.3%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	
Free cash yield	-14.4%	-28.0%	-5.3%	1.2%	-31.9%	-51.4%	-18.9%	5.5%	4.8%	15.2%	21.6%	24.5%	24.2%	31.3%	
Cash flow:															
Upstream	4.2	4.5	3.6	4.9	4.4	4.0	4.1	5.2	5.6	7.0	7.7	8.4	8.7	9.6	12.8%
Other and corporate	0.5	0.5	0.7	1.3	(0.7)	(1.9)	(0.6)	0.6	0.6	0.5	0.5	0.3	0.3	0.2	
Sources of funds	4.7	5.0	4.3	6.2	3.7	2.0	3.5	5.8	6.2	7.5	8.2	8.7	9.0	9.9	10.7%
Changes in working capital	0.2	0.2	0.0	(1.0)	(1.2)	(0.5)	(0.2)	0.4	-	0.8	1.4	1.8	1.7	2.4	
Cash flow from operations	4.9	5.2	4.4	5.3	2.5	1.6	3.4	6.2	6.2	8.3	9.7	10.5	10.7	12.3	
Capex	(6.7)	(9.2)	(5.2)	(5.0)	(8.7)	(11.6)	(6.6)	(5.3)	(5.4)	(5.7)	(6.0)	(6.2)	(6.6)	(6.9)	4.3%
Free cash flow	(1.8)	(3.9)	(0.9)	0.2	(6.2)	(10.0)	(3.2)	0.9	0.8	2.6	3.7	4.2	4.2	5.4	
Ordinary dividends	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	0.0%
as % of operating c/flow	2%	3%	4%	4%	9%	14%	7%	4%	4%	3%	2%	2%	2%	2%	
Discretionary free cash flow	(1.9)	(4.1)	(1.1)	0.0	(6.4)	(10.2)	(3.5)	0.7	0.6	2.4	3.5	4.0	3.9	5.2	
Disposals/(Acquisitions)	(4.1)	(16.1)	(4.2)	(4.5)	3.3	7.9	3.8	0.9	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	
Equity change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	(6.0)	(20.2)	(5.3)	(4.5)	(3.2)	(2.4)	0.4	1.6	0.5	2.3	3.4	3.8	3.8	5.0	
Balance sheet:															
Net debt	10.9	11.4	12.0	12.5	10.3	11.9	12.0	11.2	11.3	10.3	8.9	7.1	5.4	3.0	
Net debt/EBITDA	2.4x	3.2x	(1.6x)	2.8x	2.1x	10.6x	2.4x	1.8x	1.7x	1.2x	0.9x	0.7x	0.5x	0.2x	
Interest cover	11x	11x	(65x)	233x	113x	15x	28x	28x	25x	36x	43x	68x	74x	107x	
Net debt/equity	90%	67%	97%	82%	57%	66%	66%	56%	52%	43%	33%	23%	16%	8%	
Capital employed:															
Upstream	28.0	33.2	26.9	32.6	34.4	35.1	35.4	37.5	40.4	43.1	45.7	48.0	50.2	52.3	6.3%
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Upstream	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	7.0%	3.2%	-18.2%	5.7%	5.4%	-3.8%	4.3%	5.7%	5.8%	7.2%	8.4%	8.7%	9.2%	9.7%	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	7.0%	3.2%	-18.2%	5.7%	5.4%	-3.8%	4.3%	5.7%	5.8%	7.2%	8.4%	8.7%	9.2%	9.7%	

Source: Company reports, Citi Research estimates.

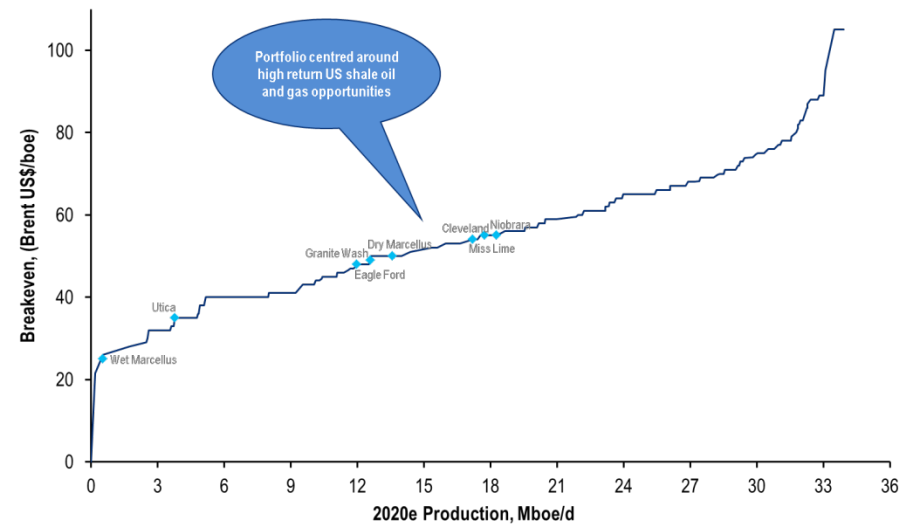
Chesapeake

Figure 73. Chesapeake project portfolio (2013-2020 start-ups)



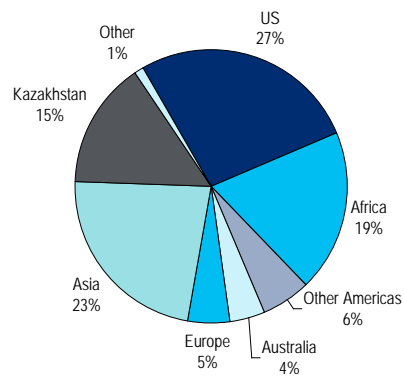
Source: Company reports, Citi Research

Figure 74. Chesapeake project portfolio versus the industry cost-curve



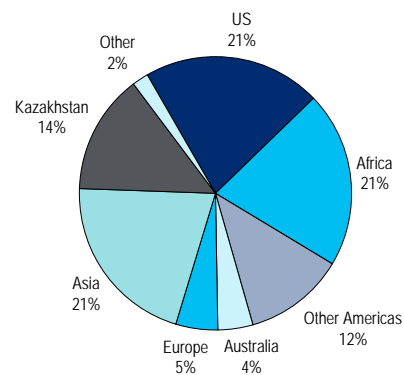
Source: Company reports, Citi Research

Figure 75. 2012 cash flow by region



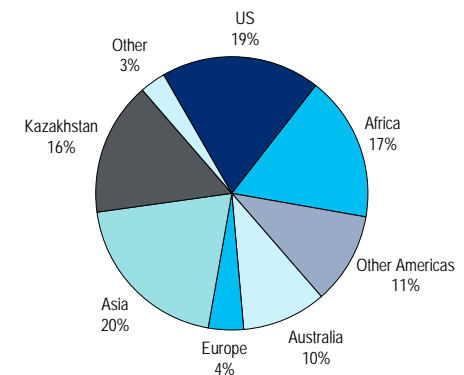
Source: Citi Research and company reports

Figure 76. 2016E cash flow by region



Source: Citi Research

Figure 77. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Chevron – Buy, US\$141/share price target

Continued Project Delays Raise Red Flag; NPV of New Projects Remain the Carrot on the Stick

CVX production has now disappointed two years in a row. The continued delays in project start-ups or for that matter the inability of new projects to reach design capacity is currently weighing on the stock. The stock reached an all-time high of \$128 last year only to pull back after continued cost overruns at Gorgon, delays in the ramp-up of Angola LNG and finally lackluster production guidance for 2014. Despite these issues, our NPV for the stock continues to grow as major capital spending moves behind the company. While many of CVX's projects are late and behind schedule, the oil and gas will eventually be produced.

- **Production Growth** — CVX production has exhibited a roller coaster ride over the last several years. After rising nearly 5% a year from 2008 to 2010, production began a slow decline of 2% per annum through 2013. We believe this is the nature of CVX's portfolio. Its deepwater projects have strong initial cash flows and production but also have higher declines than other long-lived LNG and oil sands projects. CVX had 26 major oil and gas projects under construction last year. Very little of this production has made it to revenues.
- **Delayed Projects** — Angola LNG has been operating below capacity after a tough commissioning phase last year. Gorgon has faced a number of delays and cost overruns pushing the start-up into 2015 instead of this year. The Chuandongbei gas project in China has yet to be completed. The Papa Terra project in Brazil is ramping up more slowly than we estimated. The Big Foot project in the GOM is 6-8 months behind schedule on what we believe are increased change orders with its contractors. The GTL project in Nigeria has yet to ramp-up.
- **Other Projects Under Construction** — The Jack/St. Malo and Tubular Bell projects in the GOM appear ready to ramp up this year. The massive Wheatstone project in Australia is under construction and expected to start-up in 2016. This target start-up should be achievable given the location of the facility compared to the more challenging site at Gorgon. Finally, CVX is devoting more efforts to its large unconventional position in the Duvernay (325K net acres) and Permian (1mm net acres in the Delaware Basin).
- **Downstream** — CVX has completed the vast majority of its downstream restructuring plan but appears open to selling more of its midstream assets given the relatively high multiples being paid for these assets. While the downstream unit only represents 15% of its operating cash flow, CVX firmly believes in the integrated model despite all the corporate separations we've observed in the US markets. The company is ramping up its 25kboed base oil plant this year and has sanctioned a new integrated chemicals facility in the US Gulf Coast for start-up in 2017.
- **Valuation & 2020 Vision** — Since our last Oil Vision note, CVX stock is down almost 10% and now trades at a discount versus many of its peers. In our last Oil Vision note, we outlined how critical it was for CVX to deliver on its growth plan. This lack of execution is likely to keep CVX trading at a relative discount to its peers until it brings new projects online and demonstrates that it can rationalize capital spending overtime. We continue to have strong conviction in the stock despite the companies execution issues mostly because we believe in the value of the projects currently under construction. We believe CVX should significantly reduce capital spending once Wheatstone comes online and then regroup and learn from its massive capital spending plan rather than move forward with major projects like Kitimat, Tengiz and Buckskin.

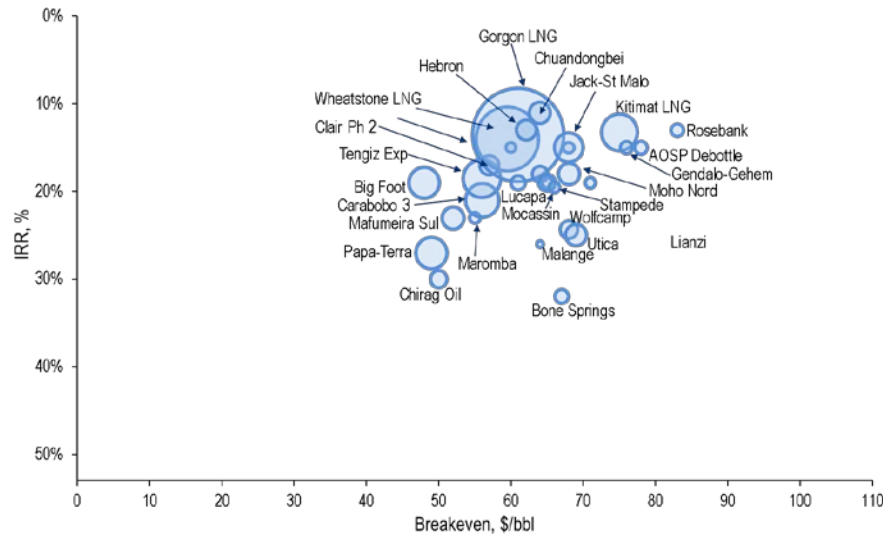
Figure 78. Chevron Summary Financial Model

US\$, unless stated	'07	'08	'09	'10	'11	'12	'13	'14	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	97.7	61.9	79.7	110.9	111.1	108.8	103.3	95.0	99.0	102.0	105.0	109.0	112.0	0.4%
WTI (US\$/bbl)	72.3	99.7	61.8	79.5	95.1	94.2	97.9	94.4	88.8	94.0	97.0	100.0	104.0	107.0	1.4%
US gas (US\$/MMBtu)	7.0	8.9	4.0	4.4	4.0	28	3.7	4.7	4.4	5.0	5.3	5.3	5.3	5.3	2.6%
E&P volumes (mboepd)	2.62	2.53	2.70	2.76	2.67	2.61	2.60	2.61	2.80	3.11	3.26	3.32	3.46	3.48	6.2%
YoY growth	1.0%	-3.2%	6.6%	2.3%	-3.3%	-2.4%	-0.3%	0.5%	7.3%	11.1%	4.9%	1.9%	4.0%	0.8%	
% oil	68%	66%	69%	70%	69%	68%	67%	66%	65%	61%	59%	59%	59%	60%	
E&P cash margins (US\$/bbl)	22.4	30.8	21.4	27.3	37.3	37.4	36.0	36.1	35.6	37.1	38.0	38.6	38.5	39.5	1.7%
Per share data:															
EPS (US\$)	8.77	11.68	5.24	9.48	13.16	13.24	11.17	10.76	10.33	11.83	12.65	12.89	12.85	13.05	4.6%
DPS (US\$)	2.26	2.53	2.66	2.84	3.09	3.51	3.90	4.10	4.31	4.52	4.75	4.98	5.23	5.49	5.0%
Valuation Ratios:															
P/E	13.1x	9.9x	22.0x	12.1x	8.7x	8.7x	10.3x	10.7x	11.1x	9.7x	9.1x	8.9x	9.0x	8.8x	
EV/DACF	8.0x	6.1x	8.9x	6.1x	4.8x	4.4x	5.3x	5.3x	5.2x	4.5x	4.1x	3.9x	3.7x	3.5x	
Dividend yield	2.0%	2.2%	2.3%	2.5%	2.7%	3.1%	3.4%	3.6%	3.7%	3.9%	4.1%	4.3%	4.5%	4.8%	
Free cash yield	3.4%	4.2%	-0.2%	5.0%	6.0%	4.4%	-2.8%	1.3%	3.1%	5.0%	6.0%	6.4%	6.5%	6.7%	
Cash flow:															
Upstream	21.4	28.5	21.1	27.5	36.4	35.5	34.1	34.4	36.4	42.1	45.2	46.8	48.6	50.2	8.0%
Downstream	10.4	8.3	2.9	3.5	3.5	4.5	4.3	4.8	4.9	4.9	5.0	5.2	5.3	5.3	2%
Other and corporate	(7.6)	(5.4)	(2.4)	0.2	(1.7)	0.5	(3.0)	(2.3)	(2.4)	(2.5)	(2.5)	(2.5)	(2.6)	(2.6)	
Sources of funds	24.3	31.3	21.6	31.2	38.1	40.6	35.5	36.9	38.9	44.5	47.7	49.6	51.3	52.9	7.6%
Changes in working capital	0.7	(1.7)	(2.3)	0.1	2.3	0.4	(3.2)	1.0	0.2	0.1	0.0	0.1	0.1	(0.0)	
Cash flow from operations	25.0	29.6	19.3	31.2	40.4	41.0	32.3	37.9	39.0	44.6	47.7	49.6	51.3	52.8	
Capex	(16.7)	(19.7)	(19.8)	(19.6)	(26.5)	(30.9)	(38.4)	(35.0)	(32.2)	(33.6)	(34.6)	(35.6)	(37.0)	(38.0)	0.4%
Free cash flow	8.3	10.0	(0.5)	11.6	13.9	10.0	(6.1)	2.9	6.8	11.0	13.1	14.0	14.3	14.8	
Ordinary dividends	(4.8)	(5.2)	(5.3)	(5.7)	(6.1)	(6.8)	(7.5)	(7.8)	(8.2)	(8.6)	(9.1)	(9.5)	(10.0)	(10.5)	5.0%
as % of operating cflow	19%	17%	27%	18%	15%	17%	23%	21%	21%	19%	19%	19%	19%	20%	
Discretionary free cash flow	3.5	4.8	(5.8)	6.0	7.8	3.2	(13.5)	(4.9)	(1.4)	2.4	4.0	4.5	4.4	4.3	
Disposals/(Acquisitions)	2.7	2.4	2.9	(1.6)	(1.3)	5.8	0.4	-	-	-	-	-	-	-	
Equity change	(6.4)	(6.8)	0.2	(0.3)	(3.2)	(4.1)	(4.6)	(1.3)	-	-	-	-	-	-	
Surplus (deficit)	6.2	7.2	(2.9)	4.3	6.4	9.0	(13.1)	(4.9)	(1.4)	2.4	4.0	4.5	4.4	4.3	
Balance sheet:															
Net debt	(0.9)	(0.7)	1.7	(5.6)	(9.9)	(9.7)	7.4	13.7	15.2	12.9	9.0	4.5	0.3	(4.0)	
Net debt/EBITDA	(0.0x)	(0.0x)	0.1x	(0.1x)	(0.2x)	(0.2x)	0.1x	0.3x	0.3x	0.2x	0.1x	0.1x	0.0x	(0.1x)	
Interest cover	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	
Net debt/equity	-1%	-1%	2%	-5%	-8%	-7%	5%	9%	9%	7%	5%	2%	0%	-2%	
Capital employed:															
Upstream	59.7	67.4	75.3	80.0	93.2	111.7	137.0	158.5	174.4	189.1	203.2	217.0	230.5	243.8	8.2%
Downstream	19.6	22.1	21.6	22.0	21.4	23.4	25.1	26.6	27.8	29.1	30.5	31.9	33.3	34.8	4.6%
% Upstream	75%	75%	78%	78%	81%	83%	85%	86%	86%	87%	87%	87%	87%	88%	
Return on capital employed:															
Upstream	26.1%	32.3%	15.0%	20.7%	28.7%	23.2%	16.8%	13.1%	11.1%	11.8%	11.7%	11.0%	10.3%	9.9%	
Downstream	24.7%	7.5%	7.9%	10.4%	10.7%	15.8%	11.6%	12.6%	12.0%	11.5%	11.2%	11.6%	11.0%	10.5%	
Aggregate group	18.6%	20.8%	8.3%	14.2%	18.2%	15.7%	11.1%	9.6%	8.6%	9.4%	9.5%	9.3%	8.9%	8.7%	

Source: Company reports, Citi Research estimates.

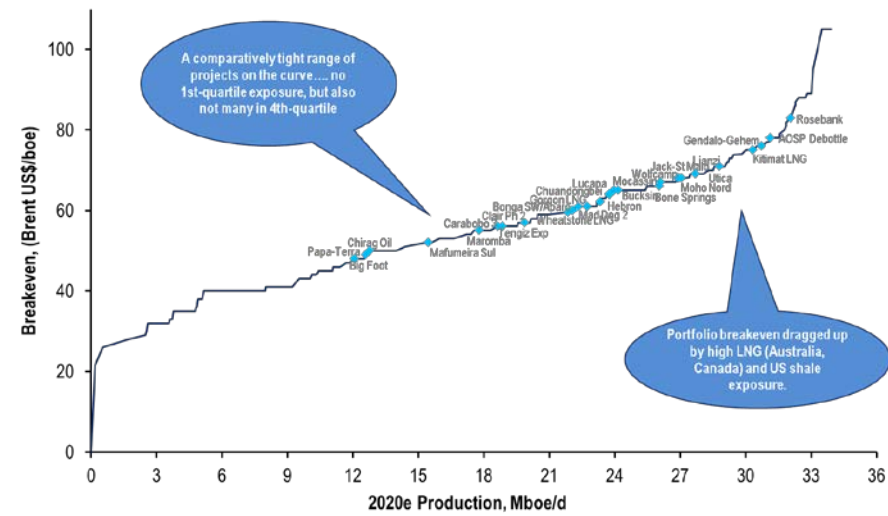
Chevron - Upstream

Figure 79. Chevron project portfolio (2013-2020 start-ups)



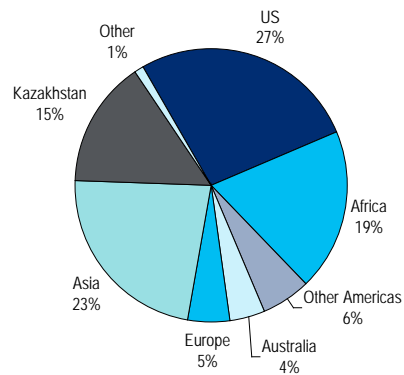
Source: Company reports, Citi Research

Figure 80. Chevron project portfolio versus the industry cost-curve



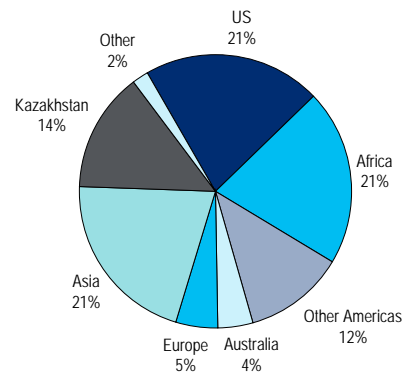
Source: Company reports, Citi Research

Figure 81. 2012 cash flow by region



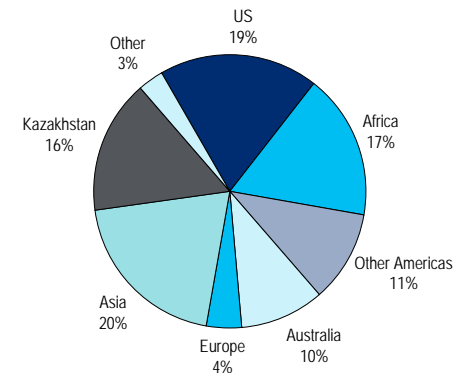
Source: Citi Research and company reports

Figure 82. 2016E cash flow by region



Source: Citi Research

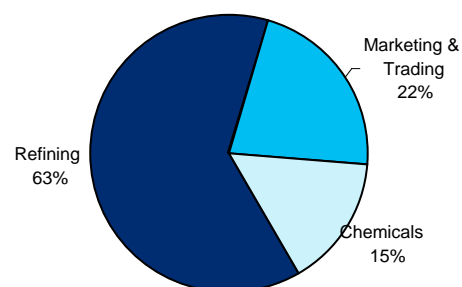
Figure 83. 2020E cash flow by region



Source: Citi Research

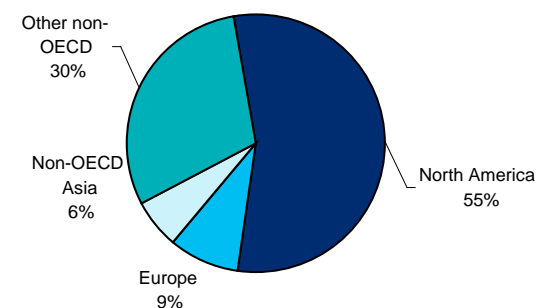
Chevron – Downstream

Figure 84. 2016E cash flow by segment



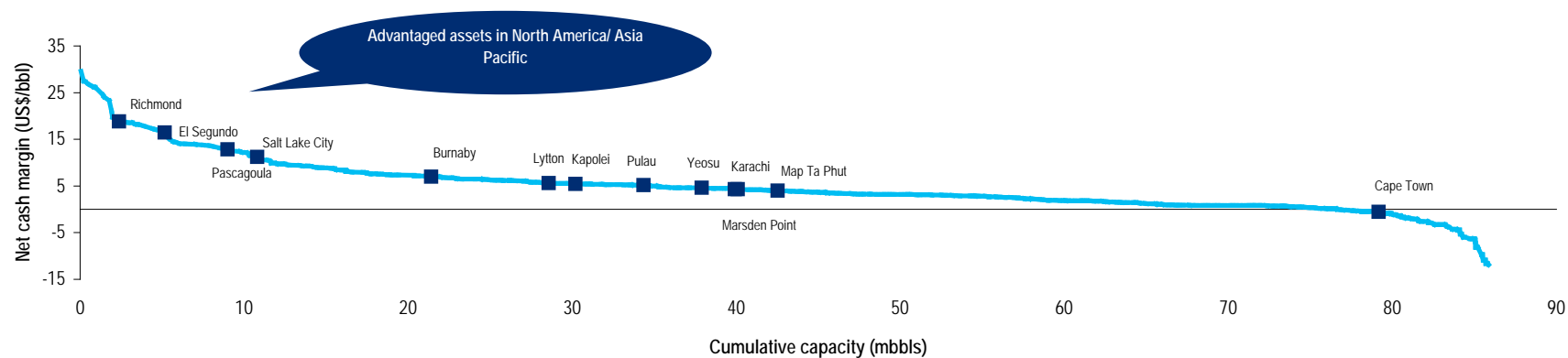
Source: Citi Research

Figure 85. 2016E cash flow by region



Source: Citi Research

Figure 86. Chevron refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Conoco – Buy, US\$85/share price target

Production Growth Begins to Deliver this Year

COP's strategy has been consistent since the spin-off of the downstream business last year. It plans to grow production organically through the development of North American unconventional and international projects that should enable it to grow production by 400mboed (net) by 2017. This growth is being delivered by a portfolio projects from the Eagle Ford, Oil Sands, the North Sea, Southeast Asia and Australia. COP plans to deliver this growth while continuing to grow its dividend.

- **Production Growth** — COP is poised to deliver what we estimate will be c. 4% CAGR volume growth through 2019. We estimate COP's US unconventional assets such as the Eagle Ford, Bakken, Permian and Niobrara will deliver half of this growth. The rest of COP's growth is being delivered by projects in the North Sea (Jasmine), Southeast Asia (Gumusut) and Australia (APLNG). All of these projects are under construction. Like many projects in Australia, COP's APLNG project has seen cost over runs because of currency and higher well costs. However, the project remains on schedule.
- **Strong Balance Sheet** — COP generated over \$10 billion from assets sales last year shoring up its balance sheet for a capital spending cycle that will deliver over \$6.0Bn in additional operating cash flow through the decade. We believe COP is still trying to sell down some of its interests in the Oil Sands and Australia. We believe COP's asset sale program represents a good picture of how management is looking at the cost curve. We believe COP's asset sale and reinvestment program will create shareholder value over the long-run as it sells assets at the high end of the curve (Oil Sands and LNG) and reinvests down the cost curve (Permian and GOM deepwater).
- **Discoveries & Exploration** — The company had a strong start to 2013 with two GOM deepwater discoveries in the non-operated positions in Shenandoah (35% wi) and Coronado (35% wi). COP has spent over five years building up its deepwater portfolio position, and we are now beginning to see the results of its efforts. COP is now the fourth-largest lease holder in the GOM. COP is a 50% participant in an operated deepwater rig in the GOM this year and is considering adding another operated rig. COP anticipates drilling 5-8 wells/year for the next 5 years to test its new deepwater GOM portfolio. COP will begin drilling four back-to-back wells in Angola this year (Blocks 36 & 37, adjacent to the Cameia discovery). This play may be an analogue to the Brazil pre-salt.
- **Valuation & 2020 Oil Vision** — Production growth in the Eagle Ford, two discoveries in the GOM, a large asset sale program and a higher dividend yield compared to the US integrated oil companies have all resulted in decent relative performance since our last Oil Vision note. COP stock is up 6% since our last Oil Vision note. Going forward, we believe 2014 catalysts be: 1) executing on production growth; and 2) exploration in Angola.

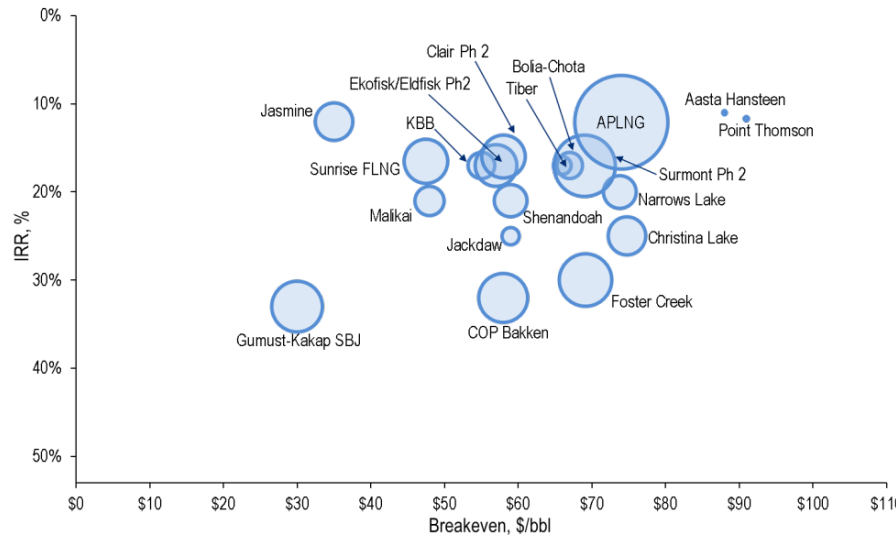
Figure 87. Conoco Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
WTI oil (US\$/bbl)	72.3	99.7	61.8	79.5	95.1	94.2	98.0	94.4	88.8	94.0	97.0	100.0	104.0	107.0	1.4%
US gas (US\$/MMBtu)	7.0	8.9	4.0	4.4	4.0	28	3.7	4.7	4.4	5.0	5.3	5.3	5.3	5.3	2.6%
E&P volumes (mboepd)	1.87	1.76	1.85	1.75	1.62	1.58	1.58	1.61	1.72	1.78	1.82	1.86	1.90	1.92	3.7%
YoY growth	1.0%	-5.6%	5.1%	-5.5%	-7.5%	-2.7%	0.4%	1.8%	6.6%	3.4%	2.4%	2.5%	2.2%	0.7%	
% oil	55%	54%	56%	56%	54%	55%	56%	58%	59%	60%	61%	62%	63%	63%	
E&P cash margins (US\$/bbl)	17.6	31.3	18.1	32.0	26.0	25.6	27.3	28.6	26.6	28.2	29.6	31.1	32.2	33.0	2.1%
Per share data:															
EPS (US\$)	7.22	(5.70)	3.61	5.96	8.64	5.85	5.76	7.21	6.38	7.11	7.55	8.17	8.62	8.76	3.2%
DPS (US\$)	1.64	1.88	1.88	2.10	2.64	2.64	2.70	2.76	2.76	2.78	2.84	2.94	3.10	3.40	1.6%
Valuation Ratios:															
P/E	9.2x	nm	18.4x	11.2x	7.7x	11.4x	11.5x	9.2x	10.4x	9.4x	8.8x	8.1x	7.7x	7.6x	
EV/DACF	4.1x	nm	6.9x	5.5x	4.1x	6.1x	5.7x	4.9x	5.5x	5.2x	4.9x	4.6x	4.4x	4.2x	
Dividend yield	2.5%	2.8%	2.8%	3.2%	4.0%	4.0%	4.1%	4.1%	4.1%	4.2%	4.3%	4.4%	4.7%	5.1%	
Free cash yield	11.3%	3.4%	1.6%	7.3%	6.8%	-1.6%	0.6%	2.5%	1.4%	2.3%	2.9%	4.1%	4.8%	5.1%	
Cash flow:															
Upstream	14.3	15.1	12.3	20.7	15.8	14.7	16.2	17.1	17.0	18.6	20.0	21.5	22.7	23.5	5.8%
Downstream	5.8	2.3	0.1	1.6	2.8	-	-	-	-	-	-	-	-	-	
Other and corporate	2.3	6.2	0.6	(7.2)	1.4	(0.7)	(0.3)	1.5	(0.1)	(0.4)	(0.7)	(0.7)	(0.7)	(0.7)	
Sources of funds	22.4	23.6	13.0	15.1	19.9	14.1	15.8	18.6	18.2	19.3	19.3	20.7	22.0	22.8	2.7%
Changes in working capital	1.8	(1.0)	(0.5)	1.9	(0.4)	(1.2)	(0.3)	0.1	(0.0)	0.1	0.1	0.1	0.1	0.0	
Cash flow from operations	24.1	22.6	12.4	17.0	19.6	12.8	15.6	18.7	16.8	18.4	19.4	20.8	22.1	22.8	
Capex	(11.8)	(19.1)	(10.9)	(9.8)	(13.3)	(14.2)	(15.0)	(16.7)	(15.7)	(16.5)	(17.0)	(17.5)	(18.2)	(18.7)	1.2%
Free cash flow	12.3	3.5	1.6	7.2	6.3	(1.3)	0.5	2.1	1.1	1.9	2.4	3.3	3.9	4.2	
Ordinary dividends	(2.7)	(2.9)	(2.8)	(3.2)	(3.6)	(3.3)	(3.3)	(3.4)	(3.4)	(3.5)	(3.5)	(3.6)	(3.8)	(4.2)	1.6%
as % of operating cflow	11%	13%	23%	19%	19%	26%	21%	18%	20%	19%	18%	18%	17%	18%	
Discretionary free cash flow	9.7	0.6	(1.3)	4.1	2.7	(4.6)	(2.8)	(1.4)	(2.3)	(1.6)	(1.1)	(0.3)	0.1	(0.0)	
Disposals/(Acquisitions)	3.2	1.5	0.9	15.2	7.5	2.8	10.5	1.3	-	-	-	-	-	-	
Equity change	(6.7)	(8.1)	0.0	(3.7)	(11.0)	(5.0)	-	-	-	-	-	-	-	-	
Surplus (deficit)	12.9	2.1	(0.3)	19.2	10.1	(1.8)	7.6	(0.1)	(2.3)	(1.6)	(1.1)	(0.3)	0.1	(0.0)	
Balance sheet:															
Net debt	20.2	26.7	28.1	14.1	16.3	17.4	14.3	14.3	16.6	18.2	19.3	19.6	19.6	19.6	
Net debt/EBITDA	0.6x	4.2x	1.4x	0.5x	0.5x	0.8x	0.6x	0.6x	0.7x	0.7x	0.7x	0.7x	0.6x	0.6x	
Interest cover	26.2x	6.8x	15.9x	25x	33x	32x	37x	48x	42x	41x	41x	42x	45x	47x	
Net debt/equity	23%	48%	45%	21%	25%	36%	27%	25%	27%	27%	26%	25%	23%	21%	
Capital employed:															
Upstream	89.6	78.0	69.5	73.9	48.1	54.5	61.7	69.0	74.8	80.5	86.0	91.3	96.6	101.6	7.2%
Downstream	19.1	17.7	16.3	16.3	9.8	-	-	-	-	-	-	-	-	-	
% Upstream	82%	82%	81%	82%	83%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	7.7%	7.7%	5.0%	16.3%	13.8%	7.5%	9.1%	9.5%	8.0%	8.3%	8.3%	8.5%	8.5%	8.2%	
Downstream	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	9.0%	-11.8%	4.9%	10.0%	11.2%	7.5%	9.1%	9.5%	8.0%	8.3%	8.3%	8.5%	8.5%	8.2%	

Source: Company reports, Citi Research estimates.

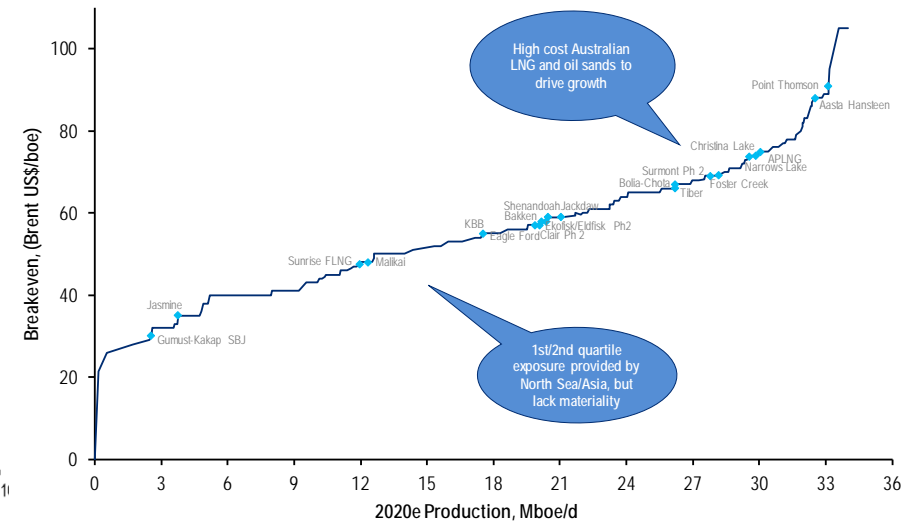
Conoco - Upstream

Figure 88. Conoco project portfolio (2013-2020 start-ups)



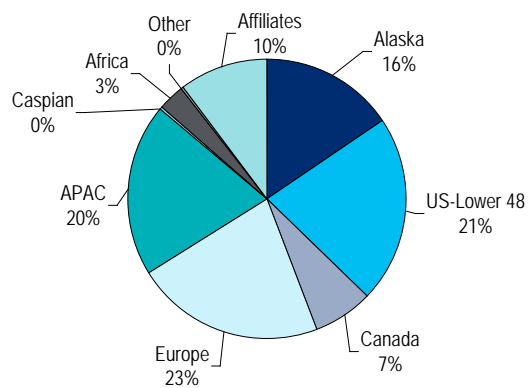
Source: Company reports, Citi Research

Figure 89. Conoco project portfolio versus the industry cost-curve



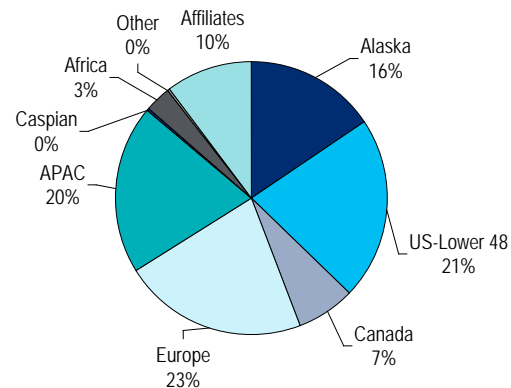
Source: Company reports, Citi Research

Figure 90. 2012 cash flow by region



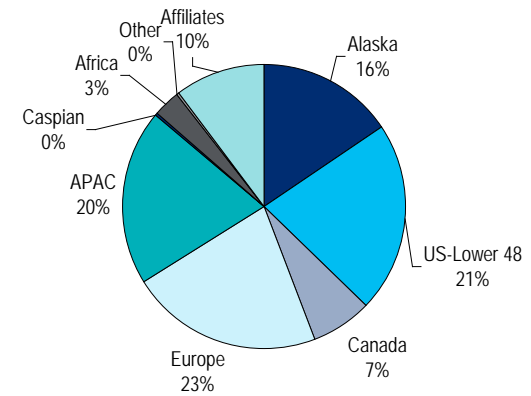
Source: Citi Research and company reports

Figure 91. 2016E cash flow by region



Source: Citi Research

Figure 92. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Ecopetrol – Neutral, \$37.00/ADR price target

Highly Leveraged to Short Term Oil Prices – Long Term Performance Depends on Production Growth, Exploration

Ecopetrol is down nearly -42% in the last 12 months compared to +16% for the XLE index. While the strength in Brent prices helped the company to sustain a high dividend payout, the lower production growth rate combined with disappointing reserves replacement while increasing capital spending program have led the underperformance. Under our forecast of weaker oil prices into 2014 forward, we fear a potential deterioration to the company's balance sheet will lead investors to question the sustainability of its dividend policy over time, the stock's main value pillar.

- **Dividend can support stock in the short-term** — Ecopetrol's announced 2014 dividend works out to a short-term dividend yield of 7.4%, significantly above Colombia's interest rate and EC's global peers. However, this is a 12% decrease YoY, reflecting the production guidance miss, and lower oil prices. In light of the company's low production growth guidance for 2014, and our expectations for a 5.5% decrease in oil prices, we estimate the 2015 dividend yield will fall to 6%.
- **Production growth decelerating quickly** — Ecopetrol's production grew 4.3% YoY in 2012 and a further 4.6% in 2013, led primarily by the non-operated Rubiales and Quifa fields. Management recently lowered its growth guidance for 2014 to a 3.2% growth YoY, significantly below 2009-13 annual growth average of 11%. This guidance also implies that EC would need to grow its production by 24% from 2014 to 2015 to reach its 1.0mboe/d target in 2015. This lack of production growth undermines the sustainability of the company's dividend payout, and could compromise EC's balance sheet if oil prices fall. Bottlenecks in environmental licensing and exploration in Colombia have been the main cause behind slow production growth in the past few years. While this is slowly being resolved, the long term outlook for production growth is a less safe, with much of the growth depending on unproven enhance oil recovery ("EOR") technology, and new exploration finds, which so far have disappointed.
- **How long can EC sustain its dividend payout?** — The company seems intent on maintaining its high dividend payout of circa 80% in the past two years, even in spite of growing leverage ratios, up 5x up YoY as of 4Q13. We expect the stock will continue to demand a yield above 6% p.a., and potentially even higher if oil prices continue to fall. In a scenario of low production growth, rising costs, and lower oil prices, this could lead to weak performance and increase concerns for liquidity, even if EC has a very low leverage level. We do not expect a capital increase or changes to EC's dividend payout in 2014, but this depends on smooth operations and oil prices north of US\$100/bbl. In the short term, EC can spin-off its midstream assets and raise debt to maintain its payout and investments, but ultimately the company will need to speed up production growth, or count with oil prices above US\$100/bbl to maintain its dividend and investment plans intact, at least without raising new equity.
- **Spin-off of midstream assets can provide alternative financing** — The creation of CENIT, Ecopetrol's wholly-owned transportation subsidiary, has changed the business model for Colombia's pipelines from a cost center into a profit center. We see chances that EC's management will look to attract third-party investments to CENIT as a way to help develop Colombia's O&G infrastructure, while also providing a source of financing for EC.
- **Higher visibility of enhanced recovery projects during 2014** — There are a plethora of secondary and tertiary recovery projects being tested in Colombia to improve recovery rates of the country's heavy oil onshore reserves. Ecopetrol expects EOR will be a significant portion of its reserve/production growth in the next decade, contributing nearly 27% of its 2020 target reserve additions. Of those EOR projects we highlight Pacific Rubiales' STAR in-situ combustion project, and Ecopetrol's gas and polymer injection at the Chichimene field. Both projects should have final results by the end of 2014. STAR will start commercial tests in Quifa still during 2014. EOR is key to sustain the company's valuation, already representing 32% of our target valuation for Ecopetrol, meaning upside is limited from current price levels.
- **Shale is a new frontier, but will take a while to monetize** — Colombia is taking its first steps in the exploration of unconventional plays after Ecopetrol made two finds in the La Luna shale. The country held an exploration round in 2013 focused on unconventional resources, with an improved terms to foster its development, and companies like Exxon, Conoco and Shell acquiring participation. Commercial development is still years away, EC forecasts 50kb/d production from unconventional by 2020.

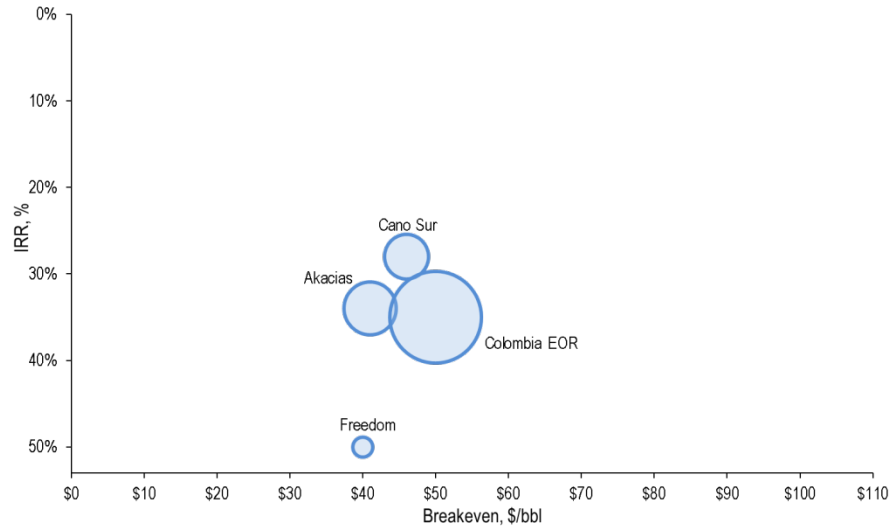
Figure 93. EcoPetrol Summary Financial Model

Colombian Pesos Trn, unless stated	'09	'10	'11	'12	'13	'14	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:													
Brent oil (US\$/bbl)	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
E&P volumes (mboepd)	521	580	668	701	741	754	789	823	859	896	936	977	4.4%
YoY growth		11.3%	15.2%	4.9%	5.7%	1.8%	4.7%	4.3%	4.3%	4.4%	4.4%	4.4%	
% oil	82%	83%	85%	84%	83%	85%	86%	87%	87%	88%	88%	89%	
E&P cash margins (US\$/bbl)	17.6	28.9	49.3	49.8	41.8	39.1	29.1	25.3	25.4	25.5	25.5	25.6	-10.2%
Per share data:													
EPS (pesos)	2.54	4.03	7.58	7.19	6.38	5.87	4.49	3.86	3.98	4.13	4.37	4.68	-8.4%
DPS (pesos)	1.78	2.83	6.01	5.82	5.20	4.11	3.15	1.54	1.59	1.65	1.75	1.87	-20.4%
Valuation ratios:													
P/E	28.7x	18.1x	9.6x	10.1x	11.4x	12.4x	16.1x	18.8x	18.2x	17.6x	16.6x	15.5x	
EV/DACF		10.9x	5.7x	8.4x	8.5x	8.7x	10.2x	11.0x	10.8x	10.4x	10.0x	9.6x	
Dividend yield	2.4%	3.9%	8.3%	8.0%	7.2%	5.7%	4.3%	2.1%	2.2%	2.3%	2.4%	2.6%	
Free cash yield	-2.3%	2.7%	5.4%	3.4%	2.8%	1.0%	-1.8%	-1.7%	-1.3%	-0.9%	-0.3%	0.4%	
Cash flow:													
Upstream	11.5	15.0	25.7	26.5	25.9	28.1	24.7	23.3	24.4	25.7	27.0	28.4	-2.2%
Downstream	-	0.8	(0.9)	2.3	(0.6)	1.3	0.7	0.7	0.6	0.8	0.8	0.8	
Other and corporate	(6.4)	(2.0)	0.8	(11.1)	(7.2)	(10.5)	(8.7)	(8.2)	(8.7)	(9.4)	(9.8)	(10.2)	
Sources of funds	5.1	13.8	25.5	17.7	18.2	18.8	16.7	15.7	16.3	17.0	17.9	19.0	-2.5%
Changes in working capital	4.3	0.5	(2.2)	1.9	(0.1)	0.3	0.1	0.1	(0.0)	(0.0)	(0.0)	(0.0)	
Cash flow from operations	9.4	14.4	23.4	19.6	18.1	19.1	16.8	15.8	16.3	16.9	17.9	18.9	
Capex	(12.9)	(10.3)	(15.3)	(14.5)	(14.2)	(17.6)	(19.4)	(18.3)	(18.3)	(18.3)	(18.3)	(18.3)	0.9%
Free cash flow	(3.4)	4.0	8.0	5.1	3.8	1.4	(2.7)	(2.5)	(2.0)	(1.3)	(0.4)	0.6	
Ordinary dividends	(8.9)	(3.8)	(5.9)	(8.4)	(14.6)	(10.7)	(8.4)	(6.5)	(3.2)	(3.3)	(3.4)	(3.6)	-23.7%
as % of operating c/flow	95%	26%	25%	43%	81%	56%	50%	41%	19%	19%	19%	19%	-23%
Discretionary free cash flow	(12.3)	0.2	2.2	(3.3)	(10.7)	(9.3)	(11.1)	(8.9)	(5.1)	(4.6)	(3.8)	(3.0)	
Disposals/(Acquisitions)	(1.1)	(1.2)	(0.9)	-	0.0	-	-	-	-	-	-	-	
Equity change	0.0	0.0	2.2	-	0.0	-	-	-	-	-	-	-	
Surplus (deficit)	(13.4)	(0.9)	1.3	(3.3)	(10.7)	(9.3)	(11.1)	(8.9)	(5.1)	(4.6)	(3.8)	(3.0)	
Balance sheet:													
Net debt	(1.6)	(0.3)	(4.8)	(1.4)	10.1	19.4	30.5	39.4	44.6	49.2	53.0	55.9	
Net debt/EBITDA	(0.0x)	(0.0x)	(0.0x)	(0.0x)	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	
Interest cover	nm	nm	34.9x	181.4x	83.4x	32.9x	21.8x	13.0x	10.8x	8.8x	8.4x	8.3x	
Net debt/equity	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Capital employed:													
Upstream	33.5	40.9	56.2	60.4	65.1	74.5	83.2	91.8	100.5	109.1	117.8	126.4	10.0%
Downstream	13.6	17.8	22.3	22.6	22.7	23.1	23.6	24.0	24.4	24.8	25.2	25.6	
% Upstream	71%	70%	72%	73%	74%	76%	78%	79%	80%	81%	82%	83%	
Return on capital employed:													
Upstream		25.1%	32.2%	27.7%	21.9%	23.1%	17.3%	14.7%	14.2%	13.8%	13.4%	13.2%	
Downstream		-0.2%	2.6%	-0.4%	-3.1%	2.1%	0.6%	0.6%	0.6%	1.2%	1.2%	1.2%	
Aggregate group		21.1%	31.0%	23.4%	15.7%	16.7%	12.8%	11.2%	10.9%	10.9%	10.8%	10.7%	

Source: Company reports, Citi Research estimates.

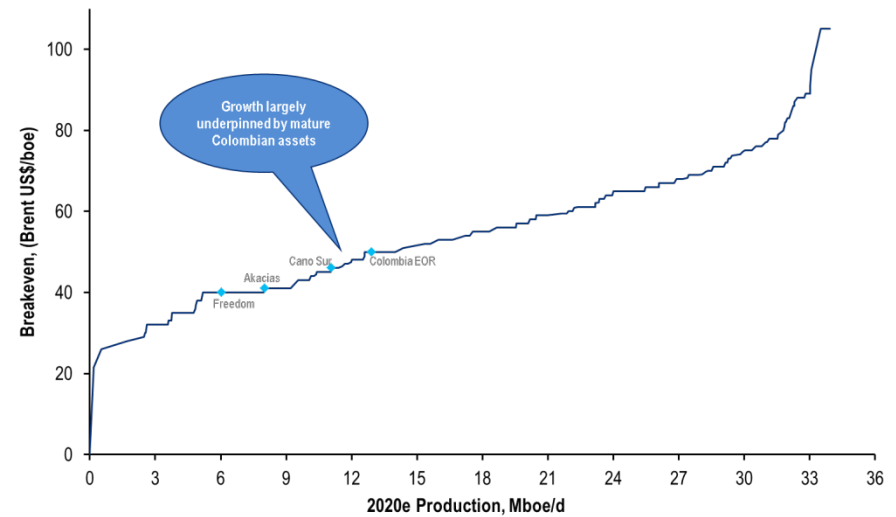
Ecopetrol - Upstream

Figure 94. Ecopetrol project portfolio (2013-2020 start-ups)



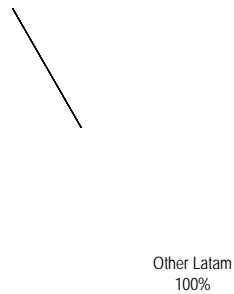
Source: Company reports, Citi Research

Figure 95. Ecopetrol project portfolio versus the industry cost-curve



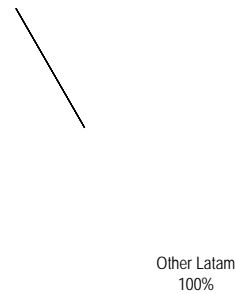
Source: Company reports, Citi Research

Figure 96. 2012 cash flow by region



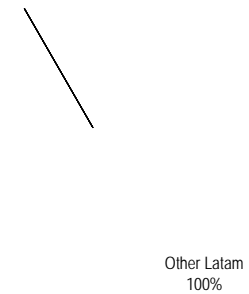
Source: Citi Research and company reports

Figure 97. 2016E cash flow by region



Source: Citi Research

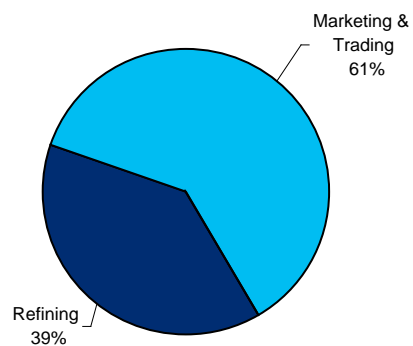
Figure 98. 2020E cash flow by region



Source: Citi Research

Ecopetrol – Downstream

Figure 99. 2016E cash flow by segment



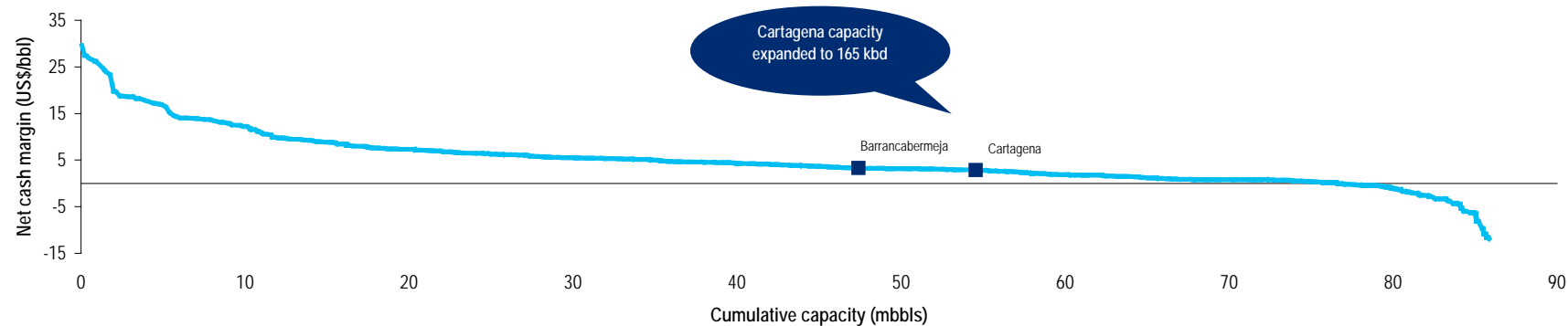
Source: Citi Research

Figure 100. 2016E cash flow by region

Other non-
OECD
100%

Source: Citi Research

Figure 101. Ecopetrol refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Eni – Neutral, €17.8/share price target

Non-E&P Earnings Drag is a Stiff Resistance Against Value

Eni remains a business of two parts. In the E&P business we would argue the company has played the cycle well (fewer poor acquisitions than peers) and has boosted optionality through world-class exploration success. The non-E&P businesses, some 20% of group capital employed, remain extremely problematic and we believe the market continues to be too aggressive in its expectations of recovery. While consensus estimates for 2014 have revised down 25% over recent weeks and now align with Citi expectations, we note that we are still 15% below consensus for 2015/16.

- **A differing E&P strategy to peers** — Eni's core Upstream business (70% of capital employed) has enjoyed a revaluation by the market in recent years. Against a backdrop of peers impairing growth-options in US shale gas, Canadian heavy oil and Russian/Australian LNG, Eni has been able to maintain credibility around its Upstream growth ambitions. Those ambitions have now been dialed down a little following the SeverEnergia sale in late 2013 (SeverEnergia was to provide c. 50% of Eni's E&P growth to 2016, albeit at a relatively low margin), a choice that Eni looks to have made given the changing ownership structure of SeverEnergia. We see the business around 4% p.a. cash flow growth, half from top-line and half from margin expansion. The re-start of Kashagan and operational uptime in Libya remain key uncertainties in that forecast.
- **Non-E&P drag** — Our challenge to consensus estimates lies not in the E&P, but in the non-E&P side of Eni, businesses that still comprise c.20% of capital employed at the company. 2013 continued the theme of negative profitability across Gas & Power and Refining & Marketing, and comes despite €2.9 bn of impairments across these businesses at end-2012. Both businesses are impacted by weak Italian demand for gas and oil products, an environment that is creating intense gas-on-gas competition in wholesale gas and competition in Downstream, both of which have been traditional cash-cows for Eni. We continue to believe the issues are structural, not cyclical, and that the market needs to move its perception of 'Eni non-E&P' from cost-of-capital to sub-cost-of-capital businesses (in aggregate). Fixing the profitability of Gas & Power in particular, we believe, will require multi-year price renegotiations with suppliers – even with the recent renegotiation MOU with Statoil we still expect Eni to lose money in Gas & Power in 2014.
- **Balance sheet strength** — Eni has been active in portfolio-management, with 2013 divestments of €10.9bn equating to 14% of end-2012 at-equity capital employed. Although we do not think the disposal programme has necessarily unlocked much hidden value, it has clearly boosted capitalization of the company and helped simplify the operating structure. The business is not generating a lot of free cash, nor is likely to in our view until Downstream and Gas recovery, that improved capitalisation has allowed the company to proceed with a modest buyback of equity.
- **Dividend covered in 2017/18** — The current payout puts distributions at around 28% of operating cash flow in 2014, a little higher than peers. We expect that ratio to fall, although we do not see Eni's dividend as fully-covered by free cash flow until 2017/18, a financial framework that compares similarly to that of BP. The yield on the dividend is now c. 100 bps above that of large-cap Euro peers, although investors should consider that Eni's debt also trades wider (US\$ 5-year at +115bps vs TOT +15bps, RDS +25bp, BP +30bps) to reflect a perception of either Italian risk or other political risk (e.g. North Africa) inherent in the portfolio.

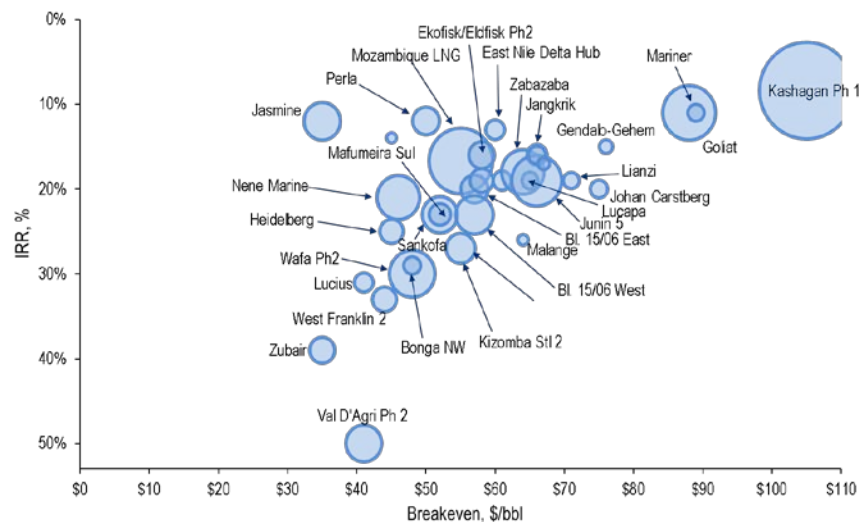
Figure 102. Eni Summary Financial Model

EUR B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	65.8	72.7	97.4	62.3	80.0	111.0	111.9	111.9	103.0	95.0	99.0	102.0	105.0	109.0	-2.3%
EUR/USD	1.37	1.46	1.39	1.32	1.39	1.29	1.29	1.35	1.35	1.35	1.35	1.35	1.35	1.35	
E&P volumes (kboepd)	1,675	1,735	1,706	1,735	1,503	1,632	1,644	1,708	1,759	1,804	1,814	1,840	1,904	1,967	1.9%
YoY growth		3.6%	-1.6%	1.7%	-13.4%	8.6%	0.8%	3.9%	3.0%	2.5%	0.5%	1.5%	3.5%	3.3%	
% oil	61%	59%	59%	57%	56%	54%	51%	49%	49%	49%	49%	49%	47%	45%	
E&P cash margins (US\$/boe)	24.2	28.6	22.6	24.7	30.7	32.3	29.4	32.5	31.3	33.5	35.5	36.3	37.9	38.8	2.8%
Per share data:															
EPS (EUR)	2.30	2.51	1.30	1.73	1.71	1.82	1.24	1.32	1.30	1.49	1.69	1.97	2.15	2.24	10.6%
DPS (EUR)	1.30	1.30	1.00	1.00	1.04	1.08	1.10	1.12	1.14	1.17	1.19	1.21	1.24	1.26	2.0%
Valuation ratios:															
P/E	7.5x	6.9x	13.3x	10.0x	10.1x	9.5x	14.1x	13.2x	13.4x	11.7x	10.3x	8.8x	8.1x	7.8x	
EV/DACF	4.4x	4.4x	6.8x	5.8x	5.9x	4.9x	8.1x	5.8x	5.4x	5.0x	4.6x	4.4x	4.2x	3.9x	
Dividend yield	7.9%	7.9%	6.1%	6.1%	6.3%	6.6%	6.3%	6.4%	6.6%	6.7%	6.8%	7.0%	7.1%	7.2%	
Free cash yield	9.7%	6.1%	2.7%	4.5%	2.7%	5.3%	1.6%	5.6%	4.4%	4.7%	6.3%	6.9%	9.7%	11.8%	
Cash flow:															
Upstream	11.6	13.6	10.8	12.6	12.9	15.8	13.7	14.5	14.4	15.6	16.6	17.2	18.1	18.6	0.4%
Gas & Power	2.5	2.1	2.1	1.6	0.6	0.9	0.0	0.1	0.4	0.4	0.6	0.6	0.6	0.7	
Downstream	0.7	0.4	(0.2)	0.1	(0.2)	(0.3)	(0.3)	(0.1)	0.0	0.2	0.3	0.2	0.2	0.2	
Other and corporate	(0.2)	(0.8)	(0.9)	(0.4)	(0.5)	(1.3)	(0.7)	(0.4)	(0.4)	(0.5)	(0.4)	(0.4)	(0.4)	(0.4)	
Cash flow from operations	14.6	15.3	11.9	13.9	12.8	15.1	12.7	14.2	14.4	15.8	17.1	17.7	18.5	19.0	5.7%
Capex	(8.5)	(11.3)	(9.9)	(10.8)	(10.8)	(11.7)	(11.7)	(10.6)	(11.7)	(12.8)	(13.1)	(13.3)	(12.4)	(11.5)	5.4%
Free cash flow	6.1	4.0	2.0	3.1	2.0	3.4	1.0	3.5	2.8	3.0	4.0	4.4	6.1	7.5	
Ordinary dividends	(4.6)	(5.4)	(4.2)	(3.6)	(3.7)	(3.8)	(3.9)	(4.0)	(4.1)	(4.2)	(4.3)	(4.3)	(4.4)	(4.5)	2.2%
as % of operating c/flow	31%	35%	35%	26%	29%	25%	31%	28%	28%	27%	25%	25%	24%	24%	
Discretionary free cash flow	1.5	(1.4)	(2.2)	(0.5)	(1.7)	(0.4)	(3.0)	(0.5)	(1.3)	(1.2)	(0.3)	0.0	1.7	2.9	
Acquisitions	(9.7)	(2.6)	(2.9)	-	-	(0.3)	-	-	-	-	-	-	-	-	
Disposals	0.7	1.0	8.4	1.1	3.0	3.8	8.1	2.2	-	1.1	-	-	-	-	
Surplus (deficit)	0.4	(7.2)	(7.6)	2.1	(2.2)	1.6	(2.4)	7.5	(0.7)	(0.7)	0.2	0.6	2.3	3.6	
Balance sheet:															
Net debt	8.8	10.1	9.9	12.5	13.6	11.2	10.6	7.6	8.7	9.7	9.0	9.0	8.2	9.4	
Net debt/EBITDA	1.4x	1.0x	1.8x	1.7x	2.0x	1.5x	2.0x	1.3x	1.6x	1.5x	1.3x	1.1x	0.9x	1.0x	
Interest cover	32.7x	29.2x	16.5x	16.9x	14.3x	19.3x	14.3x	22.4x	18.4x	17.4x	20.4x	23.6x	28.2x	26.8x	
Net debt/equity	23.4%	23.5%	23.3%	26.2%	25.9%	17.5%	17.0%	12.3%	14.0%	15.6%	14.5%	14.5%	13.1%	15.1%	
Capital employed:															
E&P	23.8	30.4	32.5	37.6	42.0	43.8	46.3	47.8	49.6	51.9	53.9	56.5	58.1	58.5	4.3%
Other businesses	22.2	20.3	17.7	20.1	20.5	20.5	20.3	19.2	18.1	17.0	15.9	14.9	13.8	12.7	-6.2%
Equity stakes	16.9	10.4	14.4	17.7	15.6	15.3	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	
% E&P	52%	60%	65%	65%	67%	68%	70%	71%	73%	75%	77%	79%	81%	82%	
Return on capital employed:															
Upstream	29.4%	29.1%	12.3%	16.0%	16.4%	17.0%	13.1%	13.5%	11.4%	12.0%	12.4%	13.7%	14.3%	14.5%	
Other businesses	12.3%	11.2%	9.1%	6.5%	-1.3%	-5.0%	-0.1%	0.2%	0.5%	0.6%	-0.2%	-0.1%	0.4%	0.9%	
Equity stakes	2.5%	3.5%	2.7%	2.3%	2.7%	2.0%	1.5%	1.0%	1.1%	1.1%	1.1%	1.1%	1.1%	1.2%	
Aggregate group	15.9%	14.1%	7.5%	8.9%	8.3%	8.3%	4.9%	5.3%	5.5%	6.0%	6.6%	7.5%	8.0%	8.2%	

Source: Company reports, Citi Research estimates.

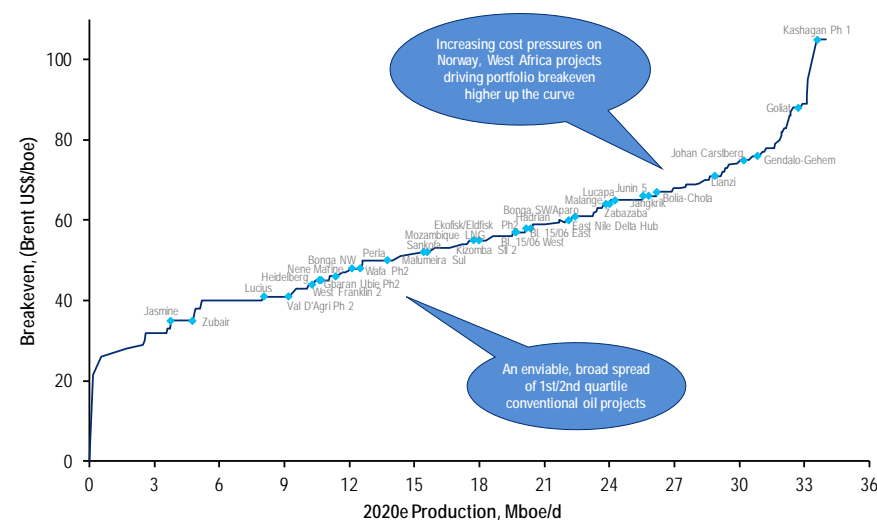
Eni - Upstream

Figure 103. Eni project portfolio (2013-2020 start-ups)



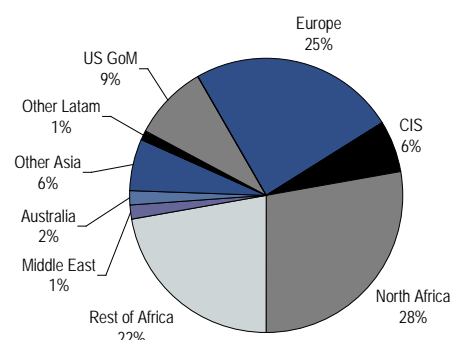
Source: Company reports, Citi Research

Figure 104. Eni project portfolio versus the industry cost-curve



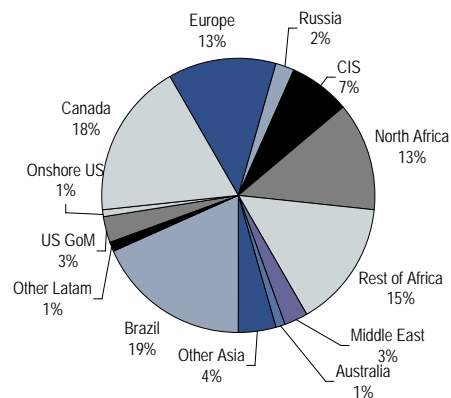
Source: Company reports, Citi Research

Figure 105. 2012 cash flow by region



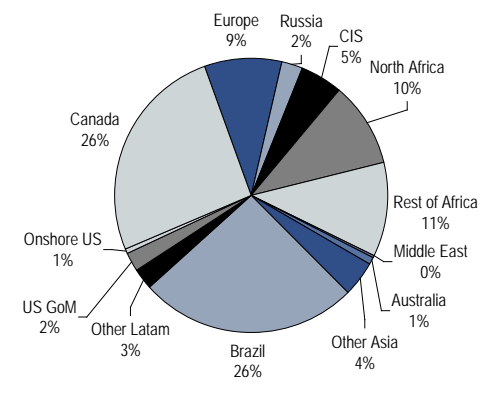
Source: Citi Research and company reports

Figure 106. 2016E cash flow by region



Source: Citi Research

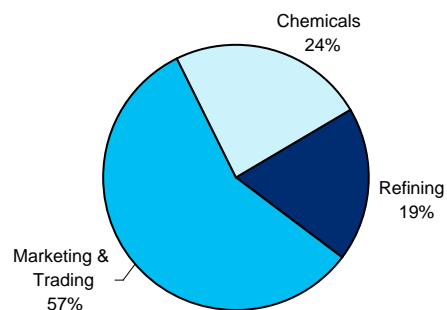
Figure 107. 2020E cash flow by region



Source: Citi Research

Eni – Downstream

Figure 108. 2016E cash flow by segment



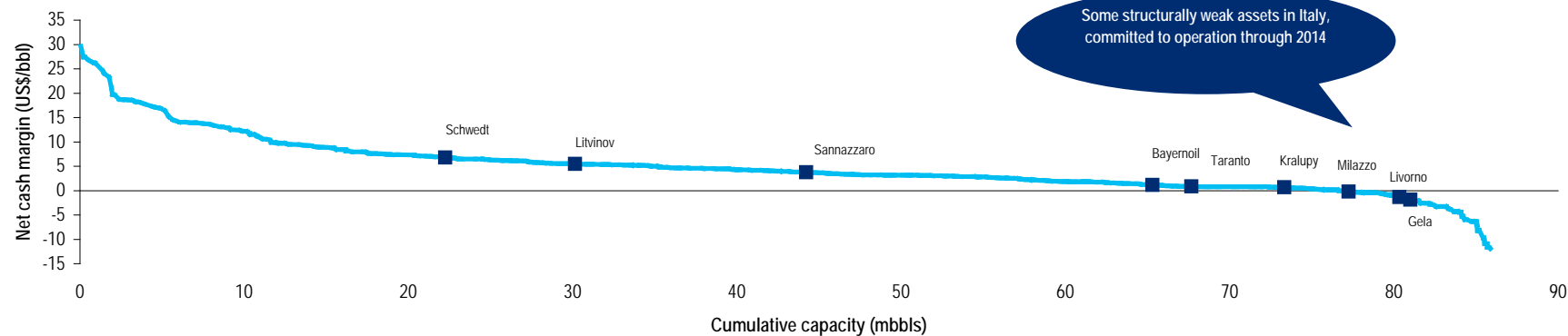
Source: Citi Research

Figure 109. 2016E cash flow by region

Europe
100%

Source: Citi Research

Figure 110. Eni refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Exxon – Neutral, US\$108/share price target

Continued Downgrades to Production Growth Keep Stock in a Holding Pattern

XOM has continued to disappoint the market with another downgrade to production growth. While XOM continues to be an example of a successful integrated model, a lack of visibility on upstream production growth is weighing on the stock. XOM continues to differentiate itself from the other major oil companies with its relatively low level of upstream capital intensity versus its peers and relatively well positioned downstream and chemical assets. This low level of capital spending results in a premium return on capital employed versus its peers, which we believe is defensible through the decade.

- **Production** — After hitting over 4.5mmboed of production in 2011 following a full year of the XTO acquisition, XOM has seen its production decline every year and now looks like it could reach a bottom of 4.0mmboed in 2014. Asset sales (+160mboed), Lower levels of investment in North American natural gas, production constraints in Europe (Groningen), the expiration of a major oil contract and the partial sale of its interest in Southern Iraq have all weighed on production. These declines are being partially offset by the Oil Sands and Lower 48 shale oil. As we move into 2015: Gorgon, PNG, Kashagan, the second phase of Kearl and a recovery in North American gas production (price driven) could move volumes higher. In either case, the lack of visibility on production growth is likely to weigh on the stock for 2014.
- **Financial Power** — Despite XOM's production growth issues, we continue to estimate growing cash flows through the decade. We estimate upstream cash margins will grow from nearly \$26 per barrel in 2013 to over \$32 per barrel at the end of the decade. This margin growth is a result of XOM's efforts to shift spending into the liquids rich areas of North America and grow production in regions with better fiscal terms. Based on XOM's capital spending plans, we estimate the company has the ability to grow the dividend between 5% and 10% per annum and repurchase between \$10Bn and \$20Bn in stock annually. We believe XOM's financial discipline should result in 10% total returns annually, which makes the stock modestly undervalued but not enough for a Buy rating in our view.
- **Downstream** — XOM is the largest refining company in the world with 5.4 mmb/day of distillation capacity. Furthermore, XOM has the largest exposure of advantaged refining capacity compared to its peers with 2.0mmbpd of refining capacity that takes advantage of lower priced oil in Canada, the US Midcontinent and the Gulf of Mexico. We currently expect mid-cycle operating cash flows for XOM's refining business to be roughly \$7.3Bn. However, cash flows have been as high as \$10Bn in the past (excluding asset sales).
- **Chemicals** — The chemicals business continues to be a growing source of cash flows for the company. Low natural gas liquids prices in the US are enabling XOM to expand its position in the US Gulf Coast through a large brownfield expansion of its facilities. We expect \$5.0bn in operating cash flow from the global chemicals business but admit that our estimate could prove conservative over the long-run.
- **Valuation and 2020 Vision** — Although our financial metrics suggest that XOM is not necessarily cheap relative to peers, we see the potential for returns (ROCE and ROE) to remain at a premium to the sector. We estimate XOM can defend its returns on capital employed at 15% through the decade. Since our last Oil Vision piece, XOM stock is up 2%.

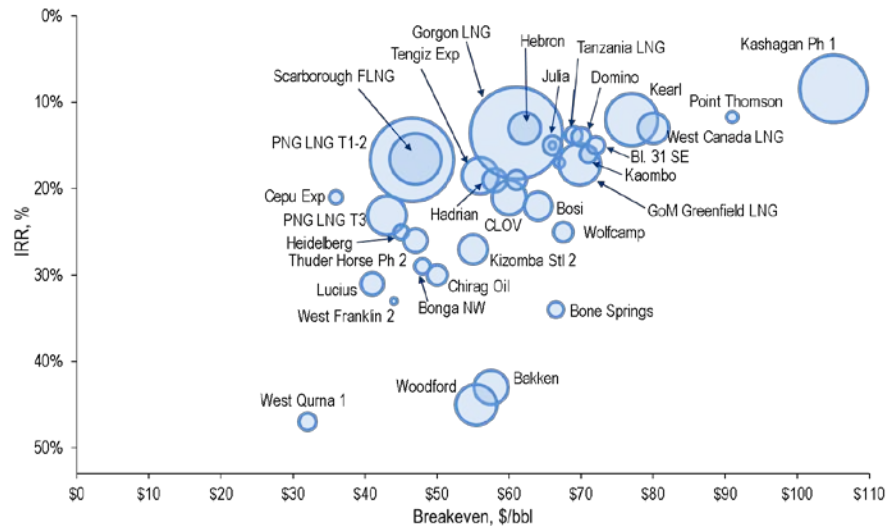
Figure 111. Exxon Summary Financial Model

US\$, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.6	97.7	61.8	79.7	110.6	112.0	108.8	103.3	95.0	99.0	102.0	105.0	109.0	112.0	0.4%
US gas (US\$/MMBtu)	7.0	8.9	3.9	4.4	4.0	2.8	3.7	4.7	4.4	5.0	5.3	5.3	5.3	5.3	
Gulf Coast refining margin (US\$/bbl)	13.4	10.1	6.7	7.6	9.9	9.6	8.0	7.6	7.7	7.7	7.7	7.7	7.7	7.8	
E&P volumes (mboepd)	4.18	3.93	3.94	4.45	4.51	4.24	4.16	4.05	4.14	4.25	4.32	4.34	4.38	4.36	1.8%
YoY growth	1.0%	0.9%	1.0%	1.1%	1.0%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
% oil	63%	61%	61%	55%	51%	52%	53%	52%	53%	55%	55%	55%	56%	56%	
E&P cash margins (US\$/bbl)	19.6	25.4	17.6	21.9	27.0	26.0	25.8	26.6	25.7	27.5	28.6	29.7	31.1	32.2	2.8%
Per share data:															
EPS (US\$)	7.28	8.68	3.98	6.23	7.95	8.04	7.37	7.88	7.64	8.57	9.21	9.70	10.50	11.00	5.3%
DPS (US\$)	1.37	1.55	1.66	1.74	1.85	2.18	2.46	2.61	2.75	2.88	3.03	3.18	3.34	3.50	5.0%
Valuation Ratios:															
P/E	12.9x	10.8x	23.6x	15.1x	11.8x	11.7x	12.9x	12.1x	12.4x	11.1x	10.3x	9.8x	9.0x	8.6x	
EV/DACF	6.5x	6.1x	12.1x	8.4x	6.9x	8.1x	7.7x	7.4x	7.6x	7.1x	6.8x	6.6x	6.2x	6.0x	
Dividend yield	1.5%	1.7%	1.8%	1.9%	2.0%	2.3%	2.6%	2.8%	2.9%	3.0%	3.2%	3.3%	3.5%	3.7%	
Free cash yield	7.0%	7.9%	1.2%	4.5%	4.6%	2.6%	2.5%	4.6%	5.0%	5.8%	6.1%	6.2%	6.5%	6.7%	
Cash flow:															
Upstream	29.9	36.4	25.3	35.5	44.4	40.3	39.5	39.6	39.5	43.6	46.3	48.4	51.1	52.7	5.2%
Downstream	15.4	14.9	7.3	11.4	11.8	14.0	10.4	12.2	12.1	12.2	12.2	12.2	12.3	12.3	0.0%
Other and corporate	7.8	5.4	(3.3)	(3.3)	(3.3)	(9.2)	(1.3)	(0.0)	(0.6)	(0.9)	(1.2)	(1.5)	(1.5)	(1.6)	
Sources of funds	53.1	56.6	29.2	43.6	52.9	45.1	48.7	51.8	51.0	54.8	57.4	59.1	61.9	63.5	3.4%
Changes in working capital	(1.1)	1.4	(1.2)	3.8	(1.0)	0.6	(4.7)	0.1	(0.6)	0.1	0.1	0.0	0.1	0.3	
Cash flow from operations	52.0	58.1	28.1	47.5	51.9	45.7	44.0	51.9	50.4	55.0	57.4	59.1	62.0	63.7	
Capex	(15.4)	(19.3)	(22.5)	(26.9)	(31.0)	(34.3)	(33.7)	(33.0)	(29.8)	(31.4)	(32.5)	(33.7)	(35.2)	(36.4)	0.5%
Free cash flow	36.6	38.8	5.6	20.6	20.9	11.4	10.3	18.9	20.6	23.6	24.9	25.5	26.8	27.4	
Ordinary dividends	(7.6)	(8.1)	(8.0)	(8.5)	(9.0)	(10.1)	(10.9)	(11.2)	(11.4)	(11.6)	(11.9)	(12.1)	(12.3)	(12.5)	1.9%
as % of operating c/f flow	15%	14%	29%	18%	17%	22%	25%	22%	23%	21%	21%	20%	20%	20%	
Discretionary free cash flow	29.0	30.7	(2.5)	12.1	11.9	1.3	(0.6)	7.7	9.2	12.0	13.0	13.4	14.5	14.9	
Disposals/(Acquisitions)	4.2	6.0	1.5	3.3	7.5	7.7	(1.7)	-	-	-	-	-	-	-	
Equity change	(30.7)	(35.0)	(19.0)	(12.1)	(21.1)	(20.9)	(16.0)	(12.0)	(12.0)	(12.0)	(12.0)	(12.0)	(12.0)	(12.0)	
Surplus (deficit)	33.2	36.7	(0.9)	15.4	19.4	9.0	(2.2)	7.7	9.2	12.0	13.0	13.4	14.5	14.9	
Balance sheet:															
Net debt	(24.9)	(22.6)	(1.3)	6.6	4.0	1.7	17.8	22.5	25.7	26.1	25.5	24.6	22.5	20.0	
Net debt/EBITDA	(0.3x)	(0.2x)	(0.0x)	0.1x	0.0x	0.0x	0.2x	0.3x	0.4x	0.4x	0.3x	0.3x	0.3x	0.2x	
Interest cover	207.8x	140.9x	85.5x	258.8x	356.0x	281.8x	nm	204.2x	137.2x	139.1x	144.3x	150.7x	171.9x	221.3x	
Net debt/equity	-20%	-20%	-1%	4%	3%	1%	10%	12%	13%	13%	12%	11%	9%	8%	
Capital employed:															
Upstream	63.6	66.1	73.2	103.3	129.8	139.4	153.0	166.7	177.1	187.6	197.9	208.1	218.3	228.4	5.7%
Downstream	38.7	40.2	41.7	42.8	43.2	44.2	45.1	46.8	48.0	49.3	50.7	52.2	53.7	55.4	2.8%
% Upstream	62%	62%	64%	71%	75%	76%	77%	78%	79%	79%	80%	80%	80%	80%	
Return on capital employed:															
Upstream	35.3%	42.8%	23.8%	27.0%	27.3%	20.1%	17.8%	15.9%	14.0%	14.9%	15.0%	14.8%	14.9%	14.5%	
Downstream	31.5%	29.7%	10.0%	19.7%	20.3%	25.7%	16.6%	19.8%	18.9%	18.4%	17.9%	17.2%	16.7%	16.2%	
Aggregate group (incl. goodwill)	28.2%	30.5%	12.3%	15.1%	17.1%	17.7%	11.8%	11.6%	10.5%	11.0%	11.1%	10.9%	11.1%	10.8%	

Source: Company reports, Citi Research estimates.

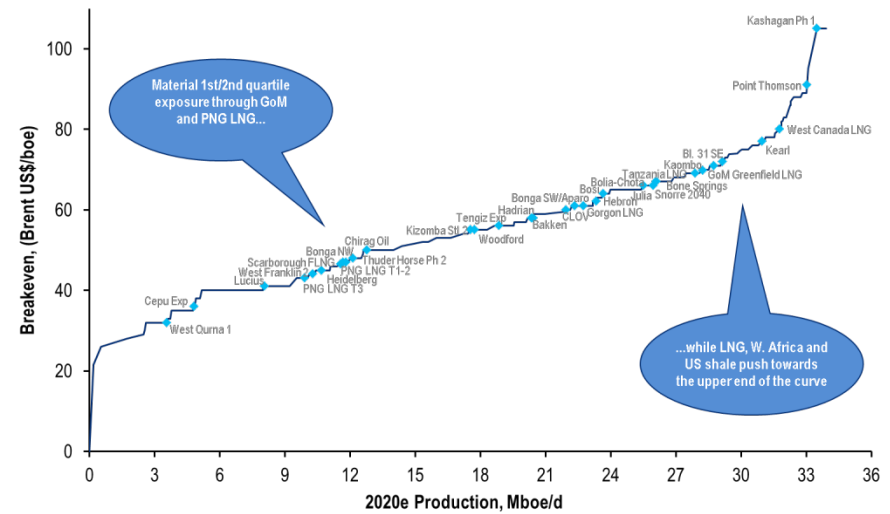
Exxon - Upstream

Figure 112. ExxonMobil project portfolio (2013-2020 start-ups)



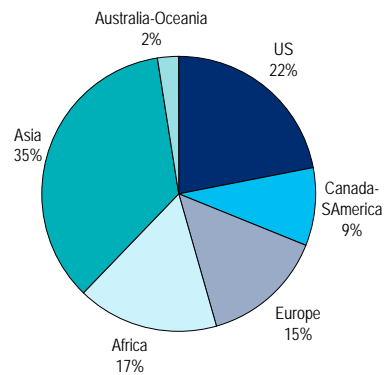
Source: Company reports, Citi Research

Figure 113. ExxonMobil project portfolio versus the industry cost-curve



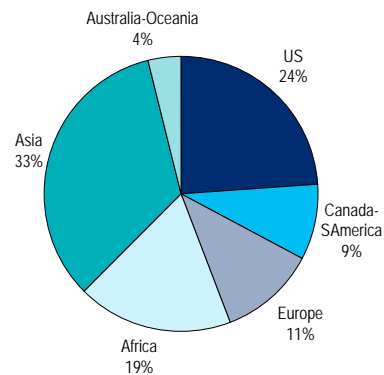
Source: Company reports, Citi Research

Figure 114. 2012 cash flow by region



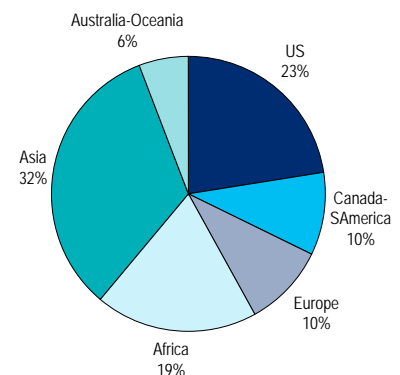
Source: Citi Research and company reports

Figure 115. 2016E cash flow by region



Source: Citi Research

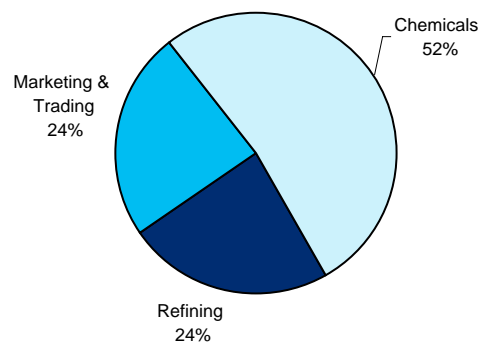
Figure 116. 2020E cash flow by region



Source: Citi Research

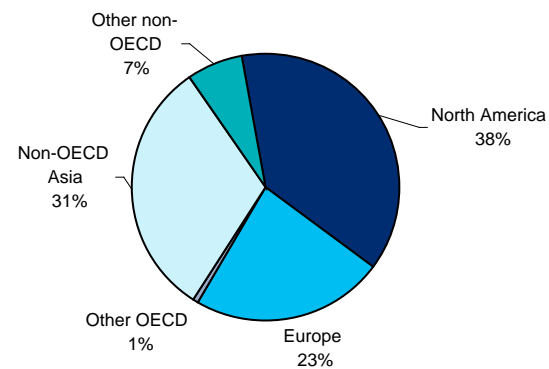
Exxon – Downstream

Figure 117. 2016E cash flow by segment



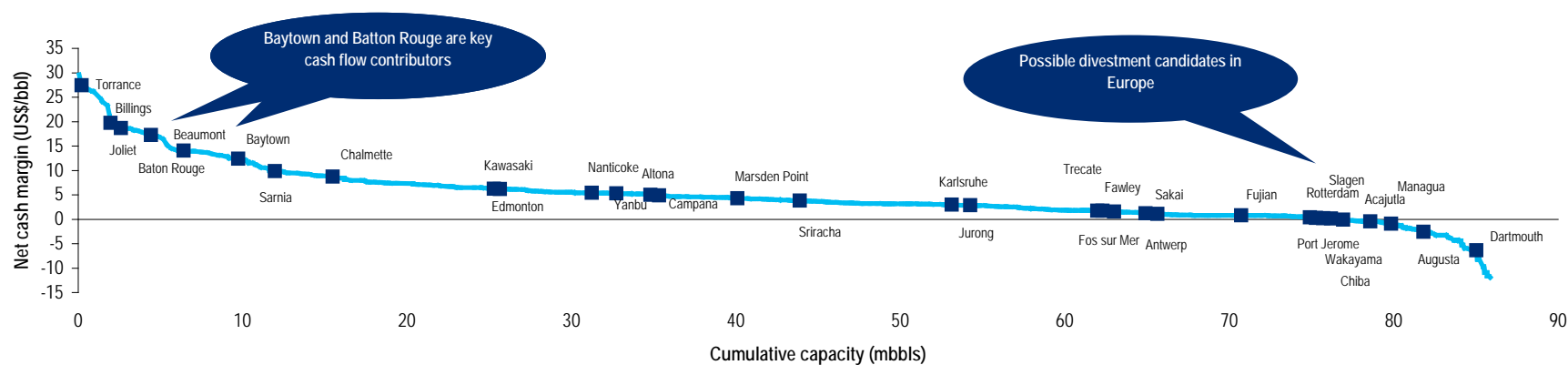
Source: Citi Research

Figure 118. 2016E cash flow by region



Source: Citi Research

Figure 119. Exxon refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

GALP – Buy, €14.6/share price target

Focus on Delivery of Upstream Growth Plans

GALP offers a transformational growth story, driven by the ramp-up of E&P output in Brazil and expected margin benefit from its refinery upgrade project in Portugal. We think there are strong signs that Brazil is starting to see efficiency gains, a function of shorter drill times and higher well productivity, which enables Brazil to maintain its defensive cost curve positioning. GALP's valuation is ultimately dependent on good execution and we believe investors will be rewarded with strong multiple compression over the 2013-2017 period. Our relative valuation metrics start to put GALP at a significant discount to fair value beyond 2016.

- **Upstream growth driven by Brazil** — Upstream growth from Brazil drives sector-leading upstream growth of c. 34% CAGR 2013-2016E and 41% CAGR 2013-2020E, admittedly from a low base. This growth is high-margin and should drive a significant uplift in group returns from 6% ROCE in 2012 to 15% in 2020E. The majority of this growth comes from BM-S-11 (Lula, Cernambi, Iara) but we do see the need for contribution from BM-S-8 (Carcara) and BM-S-24 (Jupiter) to deliver GALP's 300k boe/d production target by 2020. We forecast Mozambique LNG achieves first gas in 2020 and makes some contribution (c. 8%) towards GALP's 2020 production target.
- **Upstream portfolio still offers leverage to exploration** — GALP delivered some exploration success in Brazil in both BM-S-24 (Bracuhy and Jupiter) and in the Potiguar basin (Pitu) in Brazil, but the 3-well campaign offshore Namibia proved disappointing. While the 2014 exploration campaign is unlikely to be as big as 2013, GALP will drill its first well in Morocco (Trident) and plans a 3-well follow-up exploration campaign in Area 4 offshore Mozambique following the Agulha well, which proved the existence of a new play. In addition to finding c. 7TCF of gas-in-place, wet gas was discovered in the Cretaceous-interval and provides some encouragement of finding oil in the area. In Brazil, GALP will target a possible extension to the Carcara discovery in BM-S-8.
- **Downstream portfolio re-positioned towards middle distillates** — The Matosinhos/Sines refinery upgrade project completed in 1Q13 and will see GALP's refinery yield shift towards middle distillates, provide increased flexibility to process heavier crudes, and deliver operational efficiencies. The upgrade project should establish GALP in the upper second quartile of our global mid-cycle net cash margin curve. We also expect GALP's stronghold over logistical infrastructure for oil products in Iberia and a regional deficit in middle distillates will provide some protection to a weak European refining market and tough marketing environment in Iberia due to the ongoing austerity measures. We forecast cashflow growth of c. 10% CAGR 2013-16 from the downstream business.
- **Capital structure significantly improved following the completion of the GALP Brazil capital increase** — GALP's gearing has fallen significantly to 35% at the end of 4Q13 (from c. 119% in 4Q11) following the sale of a 30% stake in GALP Brazil. While we expect gearing to rise again (up to 55% in 2017) driven by the investment in Brazil, we now see GALP well funded to deliver on its upstream development plans.
- **Completion of the ENI divestment plan remains a near-term uncertainty** — Eni now holds a 16.3% stake in GALP split between the EUR1bn exchangeable bond (8%) and an additional equity stake (8.34%). However, the expiry of Amorim Energia call option over 5% of Eni's remaining equity stake at the end of 2013 creates a potential overhang in the near-term on GALP shares.
- **Valuation** — GALP offers sector-leading growth and a strong uplift in returns with the ramp-up of its Brazil E&P business. GALP's valuation is ultimately dependent on good execution and we believe investors will be rewarded with strong multiple compression over the 2013-2017 period. Our relative valuation metrics start to put GALP at a significant discount to fair value beyond 2016.

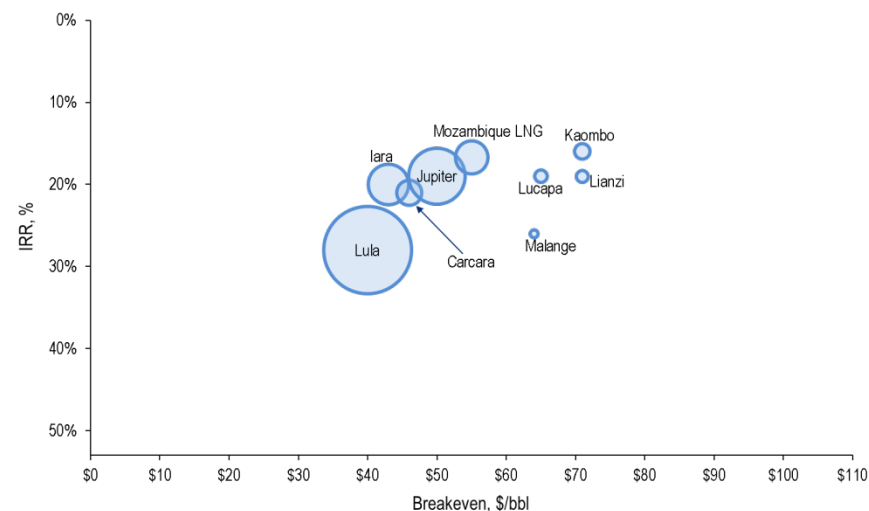
Figure 120. GALP Summary Financial Model

EUR m, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	97.4	62.3	80.3	110.8	111.9	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
EUR/USD	1.37	1.46	1.39	1.32	1.39	1.29	1.33	1.35	1.35	1.35	1.35	1.35	1.35	1.35	
E&P volumes (kboepd)	12.50	9.99	9.70	11.86	12.15	18.10	20.83	26.26	44.49	67.76	99.70	145.98	183.81	227.51	53.5%
YoY growth	73.1%	-20.1%	-2.9%	22.2%	2.5%	49.0%	15.1%	26.1%	69.4%	52.3%	47.1%	46.4%	25.9%	23.8%	
% oil	100%	100%	100%	100%	100%	100%	93%	91%	91%	89%	89%	89%	89%	84%	
E&P cash margins (US\$/boe)	44.4	60.0	37.4	34.2	65.2	54.0	51.2	51.3	42.5	41.7	43.2	44.6	46.8	45.3	-3.4%
Per share data:															
EPS (EUR)	0.50	0.58	0.26	0.37	0.30	0.43	0.37	0.44	0.53	0.71	0.92	1.25	1.56	1.87	29.5%
DPS (EUR)	0.32	0.32	0.20	0.20	0.20	0.24	0.28	0.32	0.37	0.42	0.48	0.56	0.64	0.73	15.0%
Valuation ratios:															
P/E	23.5x	20.6x	46.2x	32.2x	39.0x	27.3x	32.7x	27.5x	23.0x	17.3x	13.3x	9.8x	7.8x	6.5x	
EV/DACF	11.4x	52.8x	14.6x	17.9x	14.4x	14.8x	15.4x	11.8x	11.0x	9.5x	7.8x	6.0x	4.9x	4.0x	
Dividend yield	2.7%	2.7%	1.7%	1.7%	1.7%	2.0%	2.3%	2.6%	3.0%	3.4%	4.0%	4.6%	5.2%	6.0%	
Free cash yield	4.0%	-2.1%	1.3%	-6.6%	-6.5%	-6.0%	-2.2%	-3.9%	-4.4%	-2.2%	0.7%	7.8%	13.2%	18.9%	
Cash flow:															
Upstream	144	170	132	125	252	284	382	364	511	764	1,165	1,760	2,327	2,783	48.3%
Downstream	343	334	196	262	107	258	289	355	370	418	412	406	397	391	3.4%
Other and corporate	449	(346)	353	171	385	223	51	294	274	257	277	317	338	457	
Sources of funds	935	158	681	558	744	766	721	1,013	1,155	1,438	1,854	2,483	3,062	3,631	25.1%
Changes in working capital	29	446	181	28	(392)	(474)	30	-	-	-	-	-	-	-	
Cash flow from operations	964	605	862	586	352	292	751	1,013	1,155	1,438	1,854	2,483	3,062	3,631	
Capex	(466)	(807)	(730)	(1,233)	(989)	(883)	(963)	(1,383)	(1,568)	(1,642)	(1,790)	(1,753)	(1,820)	(1,855)	6.1%
Free cash flow	498	(203)	132	(647)	(638)	(591)	(212)	(370)	(413)	(204)	64	730	1,242	1,776	
Ordinary dividends	(326)	(218)	(127)	(107)	(119)	(270)	(222)	(244)	(280)	(322)	(371)	(426)	(490)	(564)	15.0%
as % of operating c/flow	34%	36%	15%	18%	34%	92%	30%	24%	24%	22%	20%	17%	16%	16%	
Discretionary free cash flow	173	(420)	5	(754)	(757)	(861)	(434)	(614)	(693)	(526)	(307)	303	751	1,212	
Acquisitions	-	(752)	(35)	(126)	-	-	-	-	-	-	-	-	-	-	
Disposals	-	-	-	-	-	-	111	-	-	-	-	-	-	-	
Equity change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	173	(1,172)	(30)	(880)	(757)	(861)	(323)	(614)	(693)	(526)	(307)	303	751	1,212	
Balance sheet:															
Net debt	734	1,864	1,927	2,840	3,504	1,697	2,173	2,787	3,481	4,007	4,314	4,011	3,259	2,047	
Net debt/EBITDA	0.8x	2.0x	3.5x	3.6x	4.4x	1.7x	1.8x	2.1x	2.1x	1.9x	1.5x	1.0x	0.7x	0.4x	
Cash interest cover	20.4x	15.3x	7.2x	7.9x	6.5x	14.4x	8.2x	8.3x	9.0x	12.4x	15.4x	20.9x	28.2x	38.3x	
Net debt/equity	31%	85%	82%	106%	121%	31%	42%	53%	64%	70%	71%	60%	43%	24%	
Capital employed:															
Upstream	570	693	914	1,219	1,399	1,919	2,478	3,449	4,580	5,709	6,826	7,662	8,364	8,859	
Downstream	2,231	2,811	2,859	3,885	4,330	4,314	4,200	4,017	3,826	3,629	3,424	3,212	2,993	2,767	
% Upstream	20%	20%	24%	24%	24%	31%	37%	46%	54%	61%	67%	70%	74%	76%	
Return on capital employed:															
Upstream	18.5%	14.1%	6.8%	1.4%	7.6%	9.0%	5.9%	5.8%	7.3%	9.1%	11.4%	14.7%	17.8%	19.1%	
Downstream	7.9%	6.8%	0.2%	1.7%	-2.6%	0.6%	-0.6%	0.3%	0.5%	1.7%	1.4%	1.1%	0.6%	0.2%	
Aggregate group	12.2%	17.4%	5.5%	6.3%	4.6%	5.9%	5.9%	5.7%	6.4%	7.5%	9.0%	11.3%	13.3%	15.0%	

Source: Company reports, Citi Research estimates.

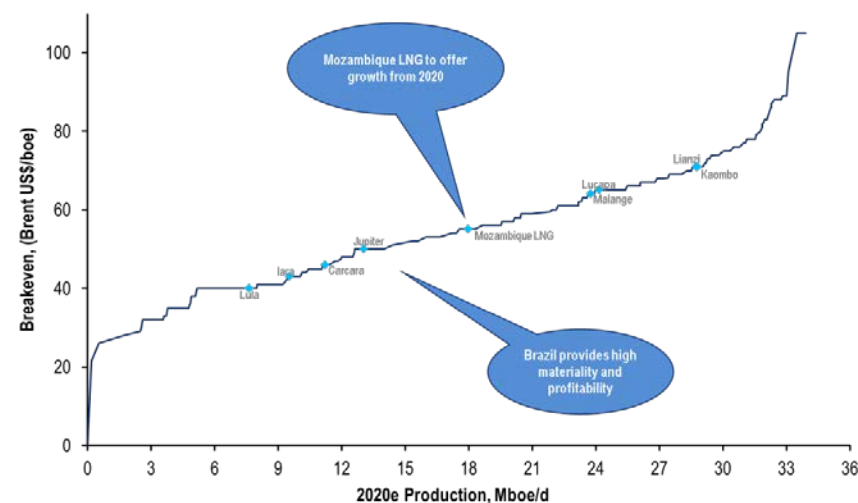
GALP - Upstream

Figure 121. GALP project portfolio (2013-2020 start-ups)



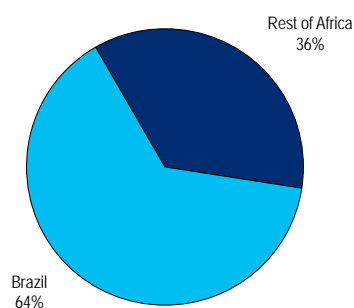
Source: Company reports, Citi Research

Figure 122. GALP project portfolio versus the industry cost-curve



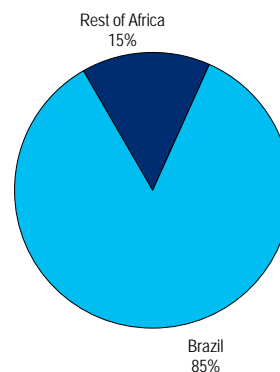
Source: Company reports, Citi Research

Figure 123. 2012 cash flow by region



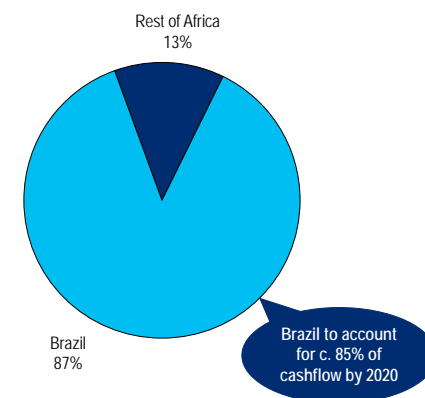
Source: Citi Research and company reports

Figure 124. 2016E cash flow by region



Source: Citi Research

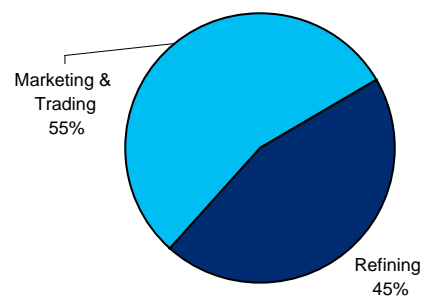
Figure 125. 2020E cash flow by region



Source: Citi Research

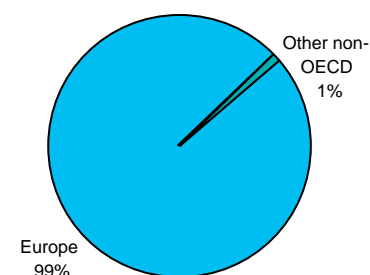
GALP – Downstream

Figure 126. 2016E cash flow by segment



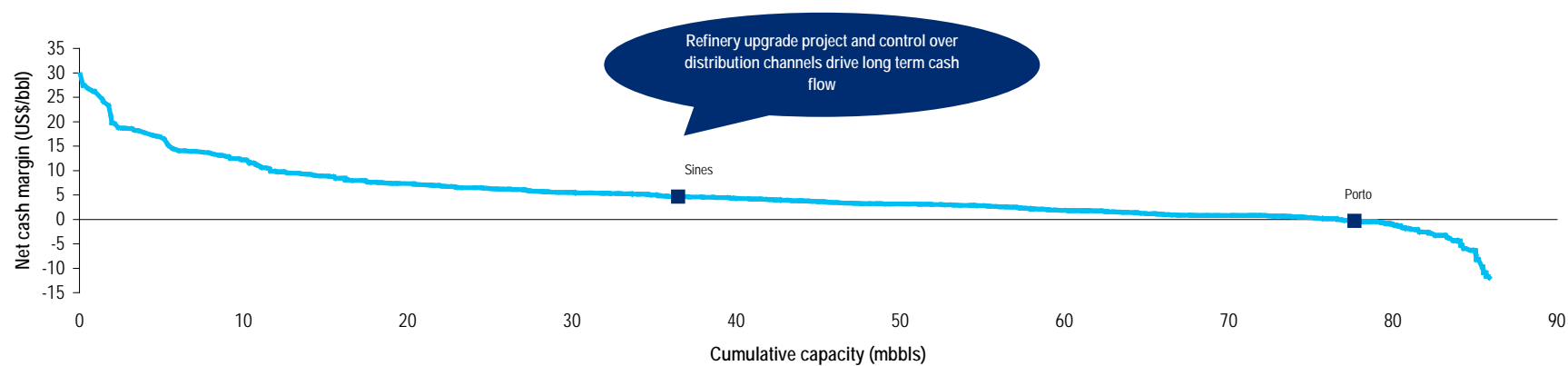
Source: Citi Research

Figure 127. 2016E cash flow by region



Source: Citi Research

Figure 128. GALP refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Hess – Neutral, US\$88/share price target

Improved Corporate Governance and Asset Sale Program Driving Value

After a highly contested proxy fight last year, HES has improved its corporate governance and is in the final rounds of stream lining its portfolio. The sale of almost all its downstream assets, a number of upstream asset sales, an increased dividend and a robust share repurchase program have resulted in a substantial improvement in shareholder returns since 2012. Going forward, we believe much of the benefits of restructuring are priced in; however, further improvements HES's lower 48 unconventional position could represent upside to our valuation.

- **Production** — Production has been in flux with an aggressive asset sale program designed to reduce debt and return capital back to shareholders. We estimate production will reach a bottom this year 338mboed and could grow 15% next year on continued production growth out of the Bakken and a ramp up of production in Europe and Southeast Asia.
- **The Bakken** — Hess has 640k net acres in the Bakken, with a 70% average wi. HES completed HBP drilling in 2013 and in 4Q'13 had driven D&C costs down to \$7.8mm/well and spud to spud time down to 28 days. HES plans to run 17 rigs in 2014, with net production expected to average 80-90mboe/d this year. HES intends to increase its rig count to 20 in 2015 and targets production of 125mboe/d in 2016 and a peak of 150mboe/d in 2018. EURs in 2013 were ~600Mboe and total estimated recoverable resources are estimated to be between 1.0-1.2Bn Boe. However this estimate is based on 260acre spacing in the play. This year HES intends to test the Middle Bakken down to 142 acre spacing, and the Three Forks down 160 acre spacing. We do anticipate the company will meet with some success in these efforts, which we believe will translate to further production and resource increases in the future.
- **Downstream** — HES has divested most of its downstream assets. The company filed a Form 10 for a potential spin-off of its retail business. We would not rule out an outright sale of these assets to a strategic buyer. The next remaining downstream monetization is HES's midstream assets in the Bakken, which could be put into a master limited partnership (MLP).
- **Valuation & 2020 Vision** — Hess stock is up 18% since our last Oil Vision note. The asset sale program, increased dividend and share repurchase plan have all bolstered the stock since our last note. Our model currently adjusts for the rest of HES's asset sales and takes into account production growth from the Bakken. Based on our forecasts, HES appears modestly undervalued on our 2020 forecasts. In order for us to get more positive on the stock, we would need further granularity on production growth and unit economics in the Bakken.

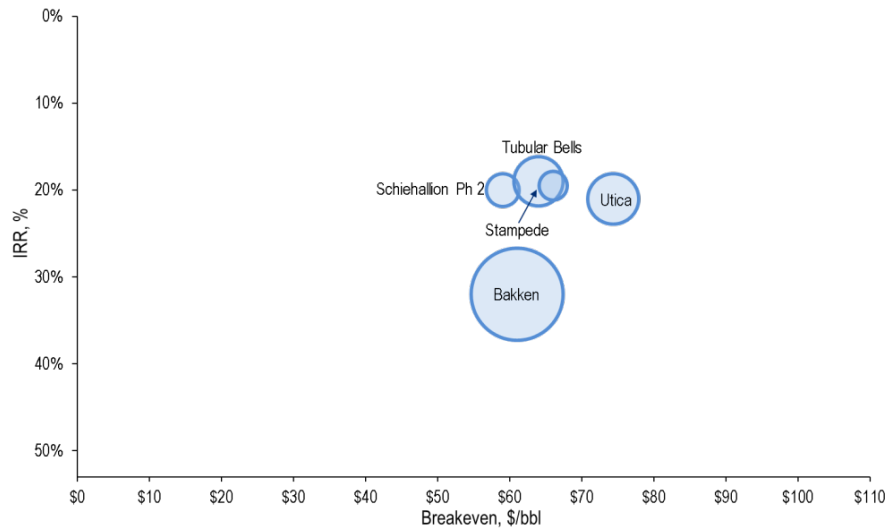
Figure 129. Hess Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
E&P volumes (mboepd)	0.38	0.38	0.41	0.42	0.37	0.41	0.34	0.34	0.39	0.40	0.43	0.44	0.43	0.43	6.6%
YoY growth	1.1%	1.0%	7.1%	25%	-11.7%	9.5%	-16.8%	0.2%	15.9%	2.8%	6.2%	1.9%	-1.2%	-1.2%	
% oil	73%	70%	72%	73%	72%	75%	72%	75%	78%	76%	75%	75%	74%	74%	
E&P cash margins (US\$/bbl)	24.1	31.4	20.0	23.2	33.5	30.5	34.8	37.8	35.2	36.9	38.2	40.4	41.9	43.3	1.6%
Per share data:															
EPS (US\$)	5.71	6.96	2.38	6.08	4.80	5.98	5.61	4.79	5.37	5.90	6.89	7.69	7.50	7.18	12.6%
DPS (US\$)	0.40	0.40	0.40	0.40	0.40	0.40	0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.0%
Valuation Ratios:															
P/E	14.3x	11.8x	34.4x	13.5x	17.0x	13.7x	14.6x	17.1x	15.2x	13.9x	11.9x	10.6x	10.9x	11.4x	
EV/DACF	7.3x	5.8x	7.9x	8.8x	6.1x	6.0x	5.1x	5.2x	4.4x	4.1x	3.8x	3.6x	3.5x	3.5x	
Dividend yield	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.9%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	
Free cash yield	0.1%	0.9%	0.5%	-8.1%	-8.9%	-7.7%	3.3%	-3.3%	0.4%	-1.9%	-0.5%	0.9%	0.8%	1.0%	
Cash flow:															
Upstream	3.3	4.4	3.0	3.6	4.5	4.5	4.3	4.7	5.0	5.4	6.0	6.4	6.6	6.7	8.3%
Downstream	0.6	0.5	0.1	0.1	0.2	0.2	0.0	0.0	-	-	-	-	-	-	
Other and corporate	(0.1)	(0.1)	0.4	(0.5)	0.1	0.5	1.6	0.4	0.3	0.1	0.1	0.1	0.1	0.1	
Sources of funds	3.8	4.8	3.5	3.2	4.8	5.3	5.9	5.1	5.3	5.5	6.0	6.5	6.7	6.8	6.3%
Changes in working capital	(0.2)	(0.1)	(0.4)	0.1	(0.3)	0.4	0.9	(0.2)	0.3	(0.2)	(0.2)	(0.1)	(0.1)	(0.0)	
Cash flow from operations	3.6	4.7	3.0	3.3	4.5	5.7	6.8	4.9	5.6	5.3	5.8	6.4	6.6	6.8	
Capex	(3.6)	(4.4)	(2.9)	(5.5)	(7.0)	(7.8)	(5.9)	(5.8)	(5.5)	(5.8)	(6.0)	(6.1)	(6.4)	(6.6)	1.4%
Free cash flow	0.0	0.3	0.1	(2.2)	(2.5)	(2.1)	0.9	(0.9)	0.1	(0.5)	(0.1)	0.2	0.2	0.3	
Ordinary dividends	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	-1.9%
as % of operating c/f	4%	3%	4%	4%	3%	3%	3%	6%	5%	6%	5%	5%	4%	4%	
Discretionary free cash flow	(0.1)	0.1	(0.0)	(2.3)	(2.6)	(2.3)	0.6	(1.2)	(0.2)	(0.8)	(0.4)	(0.1)	(0.1)	(0.0)	
Disposals/(Acquisitions)	0.1	-	-	0.2	0.5	0.8	7.4	5.2	3.0	-	-	-	-	-	
Equity change	(0.0)	(0.1)	(0.7)	(0.2)	(0.1)	(0.4)	(1.0)	(2.0)	(1.0)	-	-	-	-	-	
Surplus (deficit)	(0.0)	0.1	(0.0)	(2.1)	(2.1)	(1.5)	8.0	4.0	2.8	(0.8)	(0.4)	(0.1)	(0.1)	(0.0)	
Balance sheet:															
Net debt	3.4	3.0	3.1	4.0	5.7	7.5	3.3	(0.6)	(3.5)	(2.7)	(2.2)	(2.2)	(2.1)	(2.1)	
Net debt/EBITDA	0.6x	0.4x	0.8x	0.8x	1.2x	1.1x	0.4x	(0.1x)	(0.5x)	(0.4x)	(0.3x)	(0.2x)	(0.2x)	(0.2x)	
Interest cover	22.0x	26.2x	11.5x	13x	13x	17x	20x	16x	18x	20x	22x	23x	27x	31x	
Net debt/equity	35%	25%	23%	24%	31%	35%	14%	-3%	-13%	-10%	-8%	-7%	-6%	-6%	
Capital employed:															
Upstream	11.3	12.9	14.2	19.8	22.7	26.3	23.6	23.1	24.7	26.4	28.0	29.6	31.1	32.6	6.4%
Downstream	2.5	3.4	3.8	-	2.0	3.0	1.1	-	-	-	-	-	-	-	
% Upstream	82%	79%	79%	100%	92%	90%	96%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	17.7%	20.4%	6.5%	7.9%	10.5%	6.8%	6.5%	7.2%	7.4%	7.6%	8.3%	8.6%	8.0%	7.3%	
Downstream	13.9%	10.9%	-5.2%	-4.1%	-1.0%	1.9%	0.9%	-	-	-	-	-	-	-	
Aggregate group	13.3%	13.9%	5.6%	5.4%	5.7%	7.5%	12.8%	5.9%	6.5%	6.9%	7.3%	7.6%	6.9%	6.2%	

Source: Company reports, Citi Research estimates.

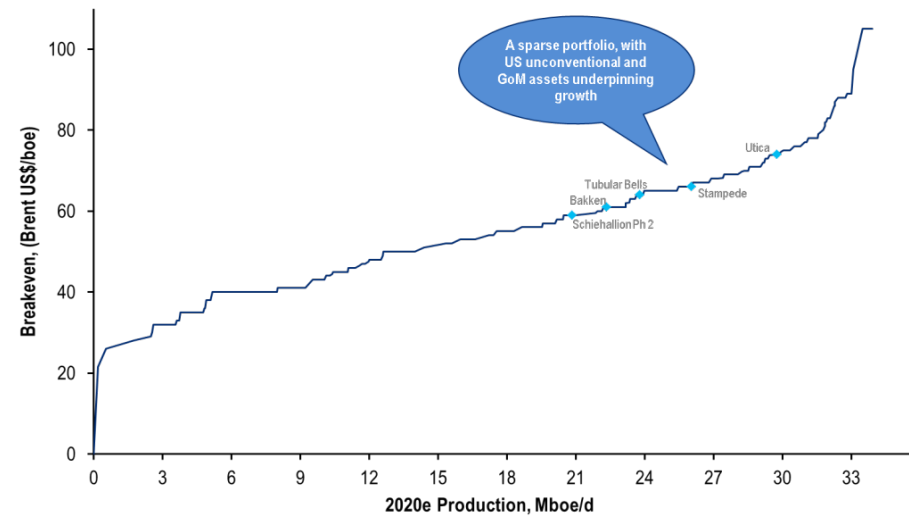
Hess - Upstream

Figure 130. Hess project portfolio (2013-2020 start-ups)



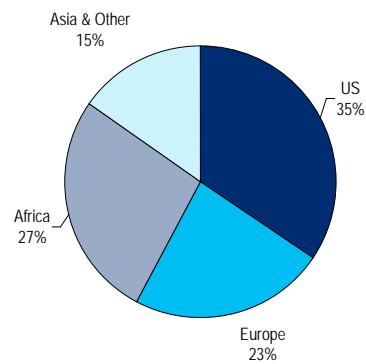
Source: Company reports, Citi Research

Figure 131. Hess project portfolio versus the industry cost-curve



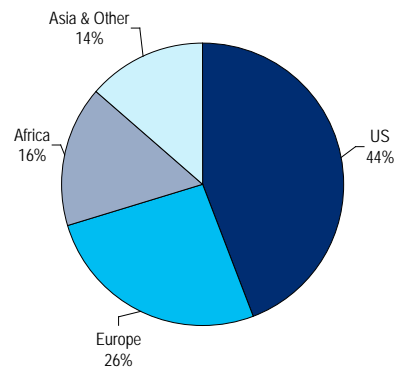
Source: Company reports, Citi Research

Figure 132. 2012 cash flow by region



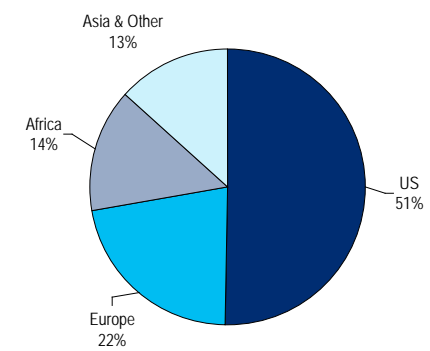
Source: Citi Research and company reports

Figure 133. 2016E cash flow by region



Source: Citi Research

Figure 134. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Imperial Oil – Buy, C\$53/share price target

Double Digit Production & Cash Flow Growth through the End of the Decade; 2014: An Inflection Year

Imperial Oil, 69% owned by ExxonMobil, has the highest production growth rate of the North American integrated oil companies through the end of the decade. IMO's Kearl Initial Development (KID) has now fully ramped up and is expected to be a significant contributor to cash flows in 2014. The Kearl Phase II and Cold Lake Expansions are also nearing completion. Both of these projects are now 60% complete and are the key projects that will enable IMO to generate "high teens" returns on capital employed. IMO will also benefit throughout this decade with its integrated refining assets. Its three refineries in Edmonton, Sarnia and Nanticoke will have 100% access to discounted Western Canadian crude barrels in 2014.

- **Oil Sands Growth** — We currently estimate IMO will grow production from ~298 mboed in 2013 to ~471 mboed in 2016. Most of IMO's production growth will come from the Kearl project. KID has ramped up with all three PFT trains tested at different times and sales made to at least six XOM refineries and eight third party refineries. The Phase II development is now 75% complete and continues to be on track for a late-2015 completion. The final debottlenecking will eventually take production to 345 mbd (gross). So far the PFT technology has taken time to ramp up properly but we expect the learning from KID would translate to the Kearl Expansion Project and allow for a faster ramp-up time. IMO is also on track to complete the Nabiye Expansion of its in-situ operations at Cold Lake in late-2014. The project is more than 60% complete and is likely to add ~40 mbpd to Cold Lake production.
- **Downstream Leader** — IMO's downstream assets include roughly ~400 mbd of refining capacity in the advantaged North American Midwest region. We currently estimate IMO has one of the most profitable refining networks of the integrated oil companies with great access to discounted Western Canadian crudes. After converting the Dartmouth refinery into a terminal and with the start-up of rail and the line 9A pipeline reversal, IMO will have access to 100% western Canadian crude in 2014. IMO also looks set to start incremental cash flows from its Chemicals business as it starts using Ethane from the Mariner West project in its crackers in 2014.
- **Asset Optimization & Market Access** — IMO is looking to sell a package of three conventional assets in 1Q'2014 to monetize some of its upstream position as well maintain focus on its core Western Canadian development program. IMO is also looking to increase market access for its rising oil sands production. IMO is building a rail loading facility in partnership with Kinder Morgan near its Edmonton refinery. The facility could have an ultimate capacity of ~250 kbd. The facility is expected to come-online in late 2014.
- **Free Cash Flow** — We estimate IMO can grow operating cash flow from \$4.3bn in 2014 to \$9.0bn through the decade. A combination of volume growth and better long-term Western Canadian oil prices are fueling this growth. Under this scenario, IMO generates a 13% free cash flow yield.
- **Valuation & 2020 Vision** — IMO looks to trade at premium on near-term financial forecasts but on a go-forward basis it continues to screens cheap on our 2016 forecasts. In our view, the market is not fully pricing in the upstream growth and value of the downstream business. We believe this year (2014) is a critical year for IMO as Kearl production adds to cash flow on a consistent basis. We estimate IMO will raise its dividend this year and will be in a position to announce a share repurchase program towards the end of this year which we believe is also a key catalyst for the stock.

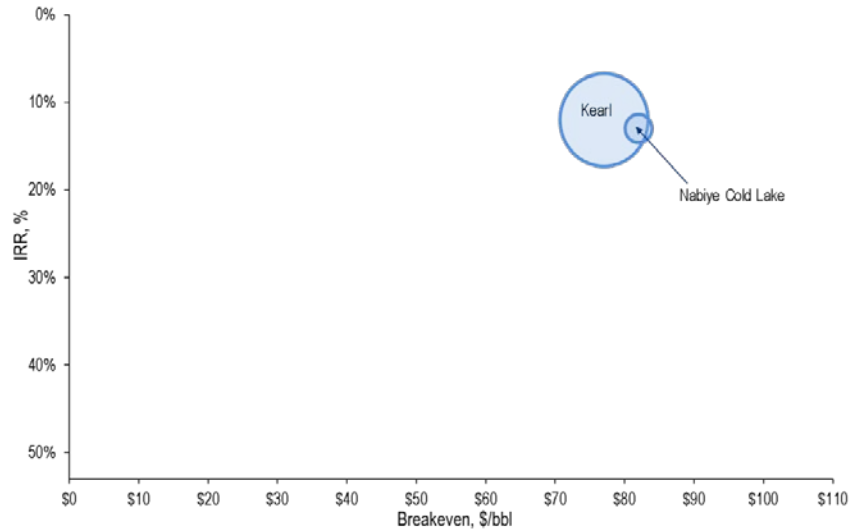
Figure 135. Imperial Summary Financial Model

C\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.6%
WTI (US\$/bbl)	72.3	99.7	61.8	79.5	95.1	94.2	98.0	94.4	88.8	94.0	97.0	100.0	104.0	107.0	1.9%
E&P volumes (mboepd)	0.30	0.26	0.26	0.25	0.24	0.24	0.26	0.33	0.34	0.40	0.42	0.43	0.45	0.45	9.3%
YoY growth					-1.6%	0.3%	6.3%	27.5%	3.7%	18.3%	4.2%	2.0%	4.7%	0.9%	
% oil	77%	84%	82%	83%	84%	87%	88%	91%	91%	91%	90%	89%	89%	89%	
E&P cash margins (US\$/bbl)	39.3	51.8	27.3	34.7	47.7	56.0	45.1	44.3	37.1	44.7	43.9	47.5	50.7	54.7	2.3%
Per share data:															
EPS (US\$)	3.26	4.36	1.84	2.59	3.95	4.42	3.63	4.58	3.75	5.76	5.96	6.75	7.66	8.32	13.8%
DPS (US\$)	0.35	0.38	0.40	0.41	0.44	0.48	0.49	0.52	0.58	0.63	0.70	0.78	0.86	0.94	14.5%
Valuation Ratios:															
P/E	15.6x	11.6x	27.6x	19.6x	12.8x	11.5x	14.0x	11.1x	13.5x	8.8x	8.5x	7.5x	6.6x	6.1x	
EV/DACF		8.6x	18.2x	14.0x	10.6x	8.4x	10.6x	9.6x	10.7x	7.3x	6.5x	5.3x	4.2x	3.3x	
Dividend yield	0.7%	0.7%	0.8%	0.8%	0.9%	0.9%	1.0%	1.0%	1.1%	1.2%	1.4%	1.5%	1.7%	1.9%	
Free cash yield	5.8%	6.7%	-1.6%	-1.5%	1.3%	-1.8%	-7.5%	-1.2%	2.1%	8.4%	8.3%	10.9%	12.8%	14.1%	
Cash flow:															
Upstream	2.4	2.9	1.3	1.8	2.5	1.9	1.7	3.1	2.4	4.1	4.3	5.1	5.9	6.5	18.4%
Downstream	0.9	0.7	0.3	0.4	0.9	1.8	1.1	0.7	0.7	0.7	0.7	0.6	0.6	0.6	-7%
Other and corporate	0.5	1.1	0.7	0.8	0.7	1.4	1.5	1.2	1.4	1.5	1.7	1.8	1.9	2.1	
Sources of funds	3.8	4.8	2.3	3.0	4.0	5.1	4.3	5.0	4.5	6.4	6.7	7.5	8.4	9.1	14.2%
Changes in working capital	(0.2)	(0.4)	(0.7)	0.2	0.5	(0.4)	(1.0)	(0.1)	(0.1)	0.3	0.1	0.1	0.1	0.0	
Cash flow from operations	3.6	4.3	1.6	3.2	4.5	4.7	3.3	5.0	4.4	6.6	6.7	7.6	8.5	9.1	
Capex	(0.9)	(1.3)	(2.3)	(3.9)	(3.9)	(5.5)	(6.3)	(5.5)	(3.5)	(3.0)	(3.2)	(3.0)	(3.0)	(3.1)	-18.5%
Free cash flow	2.7	3.0	(0.7)	(0.6)	0.6	(0.8)	(3.0)	(0.5)	0.9	3.6	3.6	4.7	5.5	6.1	
Ordinary dividends	(0.3)	(0.3)	(0.3)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.5)	(0.5)	(0.6)	(0.7)	(0.7)	12.6%
as % of operating c/flow	9%	8%	21%	11%	8%	9%	12%	8%	10%	7%	8%	8%	8%	8%	
Discretionary free cash flow	2.4	2.7	(1.0)	(1.0)	0.2	(1.2)	(3.4)	(0.9)	0.5	3.1	3.0	4.1	4.8	5.3	
Disposals/(Acquisitions)	0.3	0.3	0.1	0.1	0.3	0.2	(1.4)	-	-	-	-	-	-	-	
Equity change	(2.3)	(2.2)	(0.5)	(0.0)	(0.0)	(0.1)	-	-	-	-	-	-	-	-	
Surplus (deficit)	2.7	3.0	(1.0)	(0.9)	0.5	(1.0)	(4.9)	(0.9)	0.5	3.1	3.0	4.1	4.8	5.3	
Balance sheet:															
Net debt	(1.1)	(1.8)	(0.4)	0.5	0.0	1.2	6.0	7.0	6.5	3.4	0.4	(3.7)	(8.5)	(13.9)	
Net debt/EBITDA	(0.2x)	(0.3x)	(0.1x)	0.1x	0.0x	0.2x	1.2x	1.1x	1.2x	0.4x	0.0x	(0.4x)	(0.8x)	(1.3x)	
Interest cover	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	
Net debt/equity	-13%	-20%	-4%	4%	0%	7%	31%	30%	25%	11%	1%	-9%	-19%	-27%	
Capital employed:															
Upstream	4.0	4.5	5.8	8.4	11.2	15.0	18.7	21.5	25.2	30.6	35.7	38.4	39.7	40.8	21.3%
Downstream	3.3	3.5	3.6	3.4	3.0	2.8	3.0	2.9	2.8	2.8	2.9	2.9	2.9	2.9	0.7%
% Upstream	55%	57%	62%	71%	79%	84%	86%	88%	90%	92%	93%	93%	93%	93%	
Return on capital employed:															
Upstream	55.6%	64.6%	22.8%	20.9%	21.9%	12.7%	9.2%	14.5%	9.8%	13.6%	12.2%	13.4%	14.9%	15.9%	
Downstream	28.3%	23.0%	7.7%	13.2%	29.1%	63.1%	35.1%	26.4%	24.5%	25.8%	24.9%	20.8%	20.7%	20.8%	
Aggregate group	43.3%	46.7%	17.2%	19.0%	23.9%	21.3%	13.4%	16.3%	11.7%	14.9%	13.4%	14.1%	15.5%	16.4%	

Source: Company reports, Citi Research estimates.

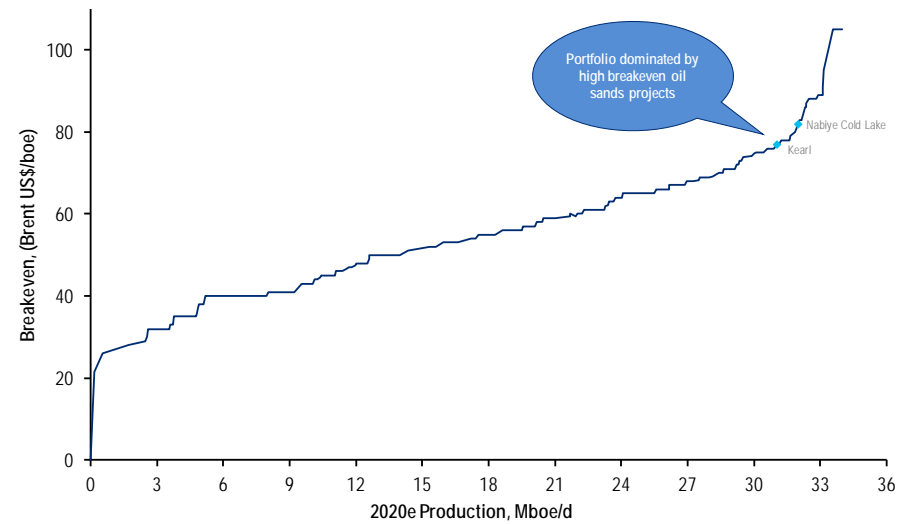
Imperial Oil – Upstream

Figure 136. Imperial Oil project portfolio (2013-2020 start-ups)



Source: Company reports, Citi Research

Figure 137. Imperial Oil project portfolio versus the industry cost-curve



Source: Company reports, Citi Research

Figure 138. 2012 cash flow by region



Canada
100%

Source: Citi Research and company reports

Figure 139. 2016E cash flow by region



Canada
100%

Source: Citi Research

Figure 140. 2020E cash flow by region

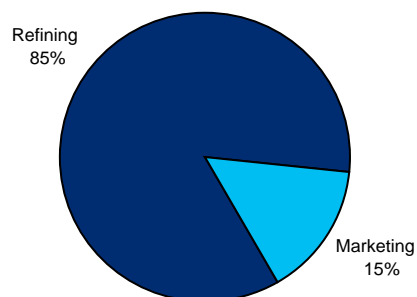


Canada
100%

Source: Citi Research

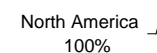
Imperial Oil – Downstream

Figure 141. 2016E cash flow by segment



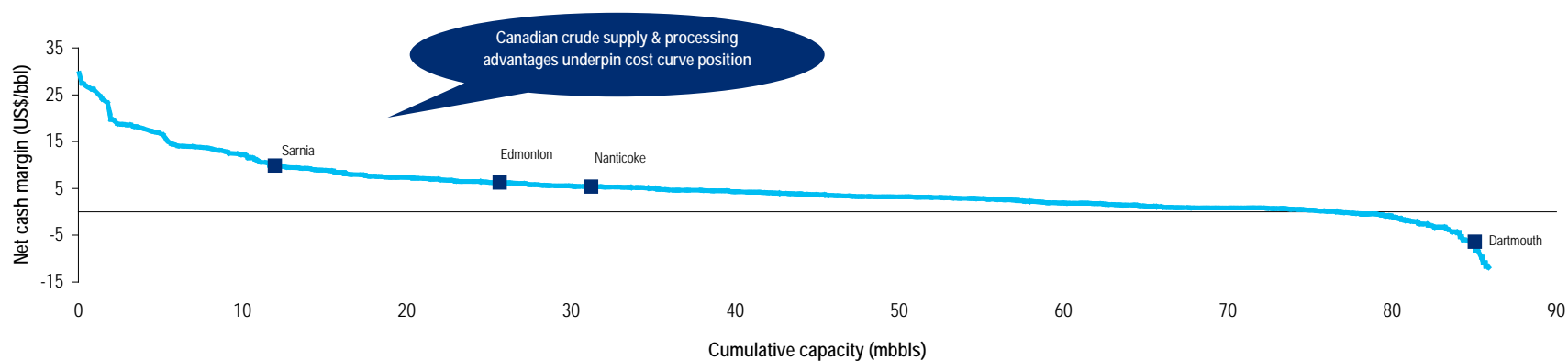
Source: Citi Research

Figure 142. 2016E cash flow by region



Source: Citi Research

Figure 143. Imperial refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Inpex – Buy, JPY1,570 Yen/share target price

FID Assumptions For Ichthys Project Look Conservative; We Expect Cash Flows to Double by 2021

We expect cash flows at Inpex will more than double by 2021 (CAGR of 9.6%), mainly as a result of earnings from the Ichthys project in Australia and contributions from the Kashagan oil field. We think the economics for the key Ichthys project were based on conservative assumptions, and that project execution remains on-schedule. We also take a positive view of the exposure to Japanese utilities customers such as Chubu Electric and Tokyo Gas. On the other hand, we do not feel that future cash flows are adequately reflected in the share price, as current production and profit levels are low compared to their potential. If the company can realize part of future cash flows through measures such as sales of a portion of Ichthys interests, we think the potential would be more widely recognized and the shares would appreciate.

- **Ichthys (earnings impact)** — We expect production to start in 2017 and will generate operating cash flow of about ¥430bn and net profit of about ¥330bn in FY3/21 net to Inpex. The scale of the project is underscored by comparison with FY3/13 actual operating cash flow of just over ¥250bn and net profit of just over ¥180bn (which includes gains on the sale of stakes of c¥50bn). The FID was reached in January 2012, and with customers set to be lined up on the sales front and lump-sum contracts accounting for three-quarters of capex. In addition, the AUD has depreciated since the FID, so dollar-based costs should decline while growth labor costs in Australia has tapered. We therefore see little risk from cost overruns, etc. Furthermore, at the time of the FID, it was also announced that land sufficient for expansion of up to four additional LNG trains had been set aside. If the presence of gas is confirmed in the surrounding exploration areas where Inpex is involved, the project could be expanded using existing facilities.
- **Ichthys (reserves, sales of interests)** — Of more than 1.8bn bbl of estimated reserves, Inpex added about 1.1bn to its proven reserves at FY3/12 results. In FY3/13, it sold stakes of just under 7% and booked gains on the sale of around ¥50bn (after tax: our estimate). For the Ichthys project, we assume an IRR of 11.3% and NAV of approximately ¥610bn.
- **Abadi (Indonesia)** — The Abadi project is smaller than Ichthys, and its profitability is likely to be lower. This is a floating LNG project with expected output of 2.5mn MT/year. FEED is currently underway, and production is slated to begin around 2020. Assuming a total investment of \$9bn, condensate production around 8kbpd, an LNG price around \$12.90/mmbtu, we estimate NP of ¥20bn–¥25bn in the late 2020s, annual operating cash flow of just over ¥60bn for a few years once production starts, and close to ¥25bn after that..
- **Existing projects** — The largest contribution to FY3/13 profits came from interests in the Mahakam project in Indonesia, which accounted for nearly 50% of net profit. About 40% of production volume is accounted for by the UAE and other parts of the Middle East. One risk for Inpex is that contracts in both regions are due to expire in 2015–2020, but given the declining production volumes at the Mahakam project we think the impact on Inpex's share price will be limited even if the terms of any new contract are unfavorable. The Middle East is not providing a large proportion of profits.
- **Valuations** — We derive our target price of ¥1,570 from a DCF model and earnings forecasts for each project over the coming 15 years. For the Kashagan and Ichthys projects, where FIDs have been made, we conservatively factor in cash flows at 80% and 75% respectively. For Abadi, we factor in 0%. If we were to factor in 100% of cash flows for all three projects, we would derive a theoretical share price of ¥1,740. Based on our FY3/14 forecasts, our target price equates to a PER around 14x, an EV/DACF multiple around 5.1x, and RoACE around 9%. Based on our FY3/21 forecasts, the corresponding figures are a PER of about 5x, an EV/DACF multiple below 1x, and RoACE of just over 15%, respectively.

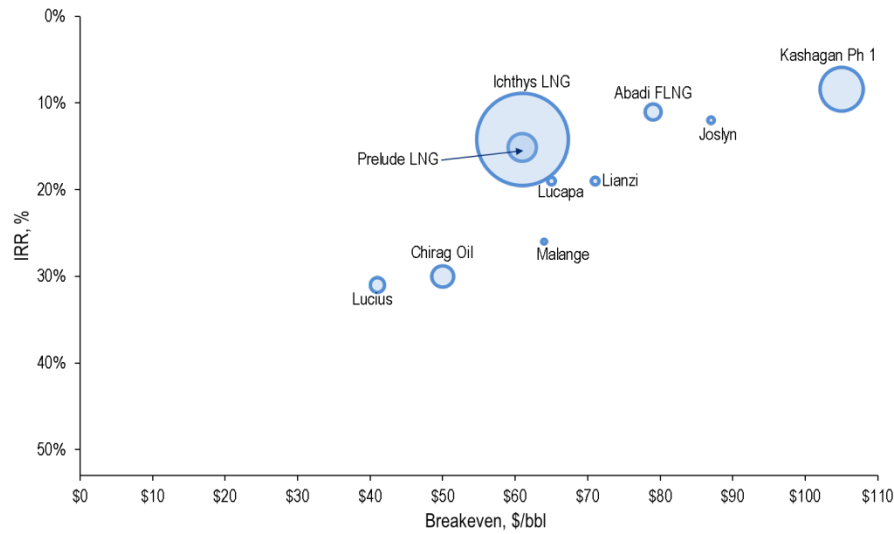
Figure 144. Inpx Summary Financial Model

US\$ b, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
Yen/USD	116.6	113.6	103.2	92.9	86.0	79.1	83.0	100.6	100.0	100.0	100.0	100.0	100.0	100.0	
E&P volumes (kboepd)	418	423	406	405	430	425	408	403	436	467	495	668	673	675	13.5%
YoY growth		1.2%	-4.0%	-0.2%	6.2%	-1.2%	-4.0%	-1.3%	8.1%	7.3%	6.0%	34.8%	0.8%	0.3%	
% oil	51%	49%	46%	46%	51%	53%	56%	57%	61%	62%	59%	44%	45%	45%	
E&P cash margins (US\$/bbl)	18.9	20.9	18.8	16.8	19.8	26.9	27.8	22.4	21.7	19.0	17.4	27.3	41.1	38.4	5.1%
Per share data:															
EPS (JPY)	176	184	154	114	88	133	125	112	121	101	90	203	336	333	15.9%
DPS (JPY)	17	19	20	14	15	18	18	18	18	18	18	20	25	25	2.7%
Valuation ratios:															
P/E	6.3x	6.0x	7.2x	9.7x	14.7x	9.8x	10.5x	11.7x	10.9x	13.0x	14.7x	6.5x	3.9x	3.9x	
EV/DACF	nm	2.3x	4.2x	3.0x	2.5x	0.8x	0.9x	2.1x	3.7x	4.9x	5.5x	2.1x	0.8x	0.2x	
Dividend yield	1.6%	1.7%	1.8%	1.2%	1.2%	1.3%	1.3%	1.4%	1.4%	1.4%	1.4%	1.5%	1.9%	1.9%	
Free cash yield	3.7%	10.8%	-2.1%	-3.2%	1.9%	4.0%	-22.2%	-38.5%	-23.5%	-15.7%	-1.5%	12.1%	29.2%	26.3%	
Cash flow:															
Upstream		2.4	2.6	2.0	2.6	3.7	3.9	2.8	2.6	2.7	2.6	6.1	9.5	10.0	22.1%
Other and corporate		1.2	(0.6)	0.7	0.7	0.6	(0.9)	0.1	0.4	0.2	0.2	0.1	0.1	(1.0)	
Sources of funds	2.3	3.6	2.0	2.7	3.3	4.3	3.0	2.9	3.0	2.9	2.8	6.2	9.6	9.0	21.1%
Changes in working capital	(0.2)	(0.4)	0.4	(0.0)	(0.1)	(0.2)	0.1	(0.2)	0.0	0.0	0.0	(0.2)	(0.3)	(0.1)	
Cash flow from operations	2.1	3.2	2.4	2.7	3.2	4.1	3.1	2.7	3.1	2.9	2.9	6.0	9.3	8.9	
Capex	(1.8)	(2.3)	(2.6)	(3.0)	(2.8)	(3.1)	(7.2)	(9.8)	(7.4)	(5.9)	(3.1)	(3.8)	(3.9)	(4.0)	-21.3%
Free cash flow	0.3	1.0	(0.2)	(0.4)	0.4	1.0	(4.1)	(7.2)	(4.4)	(2.9)	(0.3)	2.3	5.4	4.9	
Ordinary dividends	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.4)	-0.8%
as % of operating c/flow	4%	7%	8%	6%	7%	7%	11%	10%	8%	9%	9%	4%	3%	4%	
Discretionary free cash flow	0.2	0.8	(0.4)	(0.5)	0.2	0.7	(4.5)	(7.4)	(4.6)	(3.2)	(0.5)	2.0	5.2	4.5	
Acquisitions	-	(0.2)	-	-	(0.2)	-	(1.5)	(4.5)	-	-	-	-	-	-	
Disposals	0.1	0.3	-	-	0.1	0.6	0.5	-	-	-	-	-	-	-	
Equity change	-	-	-	-	4.5	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	0.3	0.9	(0.4)	(0.5)	4.6	1.3	(5.5)	(11.9)	(4.6)	(3.2)	(0.5)	2.0	5.2	4.5	
Balance sheet:															
Net debt	(0.0)	(1.3)	(1.0)	(1.0)	(0.6)	(4.3)	(3.1)	1.2	4.1	6.7	6.5	4.3	(1.0)	(5.8)	
Net debt/EBITDA	0.0x	-0.2x	-0.1x	-0.2x	-0.1x	-0.4x	-0.3x	0.1x	0.5x	0.8x	0.9x	0.4x	-0.1x	-0.4x	
Net debt/equity	0%	-11%	-8%	-7%	-2%	-16%	-12%	5%	15%	24%	22%	14%	-3%	-14%	
Interest cover	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	
Capital employed:															
Upstream	4.6	9.6	11.9	13.0	12.7	14.2	17.2	18.8	23.2	27.3	29.7	30.3	30.1	29.5	12.7%
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Upstream	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	31.9%	17.6%	11.9%	9.4%	12.7%	20.2%	13.0%	9.0%	7.6%	5.4%	4.4%	9.5%	15.7%	15.9%	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	31.9%	19.3%	15.5%	9.7%	9.3%	8.7%	7.3%	6.6%	5.1%	4.1%	3.3%	7.7%	12.7%	13.0%	

Source: Company reports and Citi Research estimates.

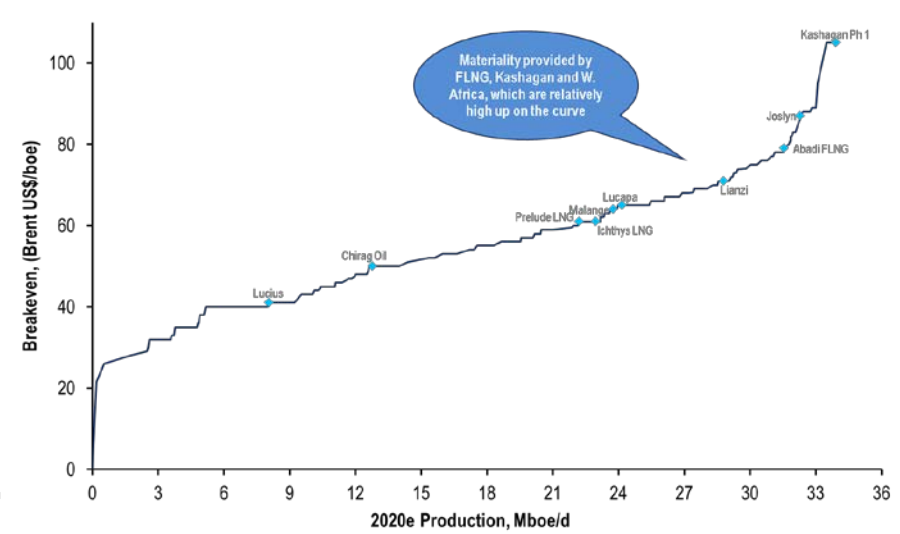
Inpex - Upstream

Figure 145. Inpex project portfolio (2013-2020 start-ups)



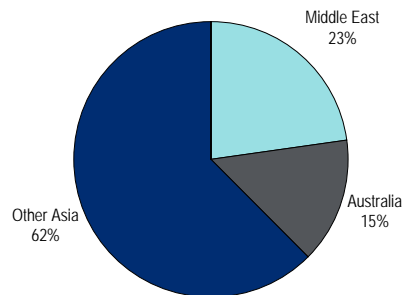
Source: Company reports, Citi Research

Figure 146. Inpex project portfolio versus the industry cost-curve



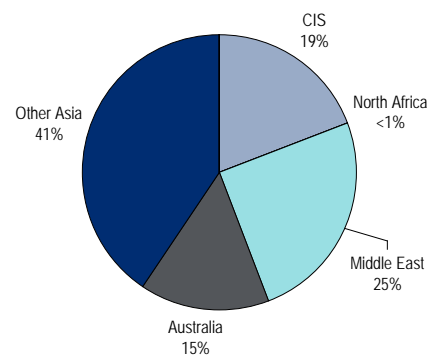
Source: Company reports, Citi Research

Figure 147. 2012 cash flow by region



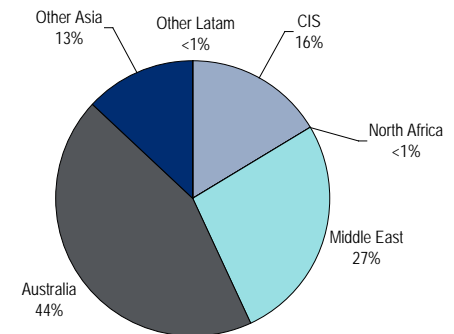
Source: Citi Research and company reports

Figure 148. 2016E cash flow by region



Source: Citi Research

Figure 149. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Lukoil – Buy, US\$92.90/share price target

Stabilizing Oil Production, Gas Driving Hydrocarbon Growth, Modernizing the Downstream

Lukoil is Russia's second-largest oil producer and refiner. The company has a strong balance sheet and substantial reserves. However, its upstream assets are, by and large, relatively old, meaning that replacement costs are relatively high in the Russian context, limiting returns on capital reinvested to sustain current production levels. Greenfield projects are relatively few, but include two in the Caspian Sea with tax breaks sufficient to ensure adequate returns on investment.

- **Production stabilized, growth may be returning, but replacement costs remain relatively high** — Lukoil has over 13bn bbl of proved oil reserves and a 20-year reserve life on 1.8mmbpd of production, 93% of which is in Russia. Although now stabilized, production had been falling in recent years under the combined effects of a period of parsimonious capex in legacy West Siberian assets and some misfortune with a key field (Yuzhnaya Khylichuya) in the Timan Pechora region, where production has been declining at c8% per *month* since 2010. In 2011 Lukoil sharply raised upstream investment and stabilized West Siberian production, while production at Yuzhnaya Khylichuya dropped enough that declines there have had an increasingly small impact on overall output. Materially large greenfields are few, but include the Filanovsky and Yuri Korchagin fields in the Caspian Sea, a 25% stake in Bashneft's Trebs & Titov fields, and the recently won rights to develop the Imilorskoye group of fields in West Siberia, one of the last large greenfields in the government's portfolio. In recent years Lukoil has required \$10-11 of capex per produced barrel to keep Russian oil production stable, an unacceptably high level given Russia's heavy oil taxation regime. However, a move to adapt the horizontal drilling revolution to the Russian oilfield – in particularly using the technology to economically develop smaller, marginal fields – may materially reduce that number.
- **Gas opportunities substantial** — Lukoil has over 4bn boe of proved gas reserves, giving it an R/P ratio in excess of 30 years. Much of those reserves are resident in the company's main dry gas asset, the Bolshetaskaya depression. Fully utilizing those reserves is dependent upon gaining market share from Gazprom, but that has become progressively more realistic in recent years. We see Lukoil's Russian dry gas production roughly doubling by 2017 to c15bcm, although still short of the capacity of the company's assets. A move into Central Asia in the middle of the last decade is now paying dividends for Lukoil, as it is effectively selling gas to China via the recently opened pipeline in the region (albeit through its local government partners). Central Asian gas accounted for 6.2bcm of Lukoil's sales in 2012, up from 4.4bcm in 2011, and we think margins were substantially above those earned on Russian gas. We see the growth potential in that region as equal to or greater than that in Russia.
- **Downstream a valuable asset, attracting substantial investment** — Due to the nature of the Russian export duty regime, which provides a large implicit subsidy for refiners, Lukoil earns substantial margins on its Russian refining assets, accounting for over 1/3 of its total cash flow generation. As with other Russian integrated oil companies, and motivated by the carrot implicit in the current export duty regime and the stick implicit in the sharp increases in export duties on fuel oil scheduled for 2015, Lukoil is dedicating a substantial portion of its capex budget to upgrading its Russian refineries to complexities comparable with international refineries.
- **Dividend policy may improve, but timetable not certain** — Over the last decade Lukoil has paid a steady 15-20% of net income as dividends. However, with the state-owned companies now being required to move to 25% payouts on Russian accounts, and with Rosneft making a voluntary move to paying 25% of IFRS, Lukoil's dividend policy is looking a bit tired. Lukoil's management and key shareholders have indicated that dividends will be pushed to first 30% and then 40% of net income in the medium term, but we think the market is unlikely to give the company credit for this until a concrete move is made in that direction.
- **Cheap on multiples, but DCF indicates modest upside** — Lukoil currently trades at about 4.2x P/E and 2.8x EV/DACF (2013). The upside signal inherent in those multiples is supported by our DCF valuation of \$83.2/share.

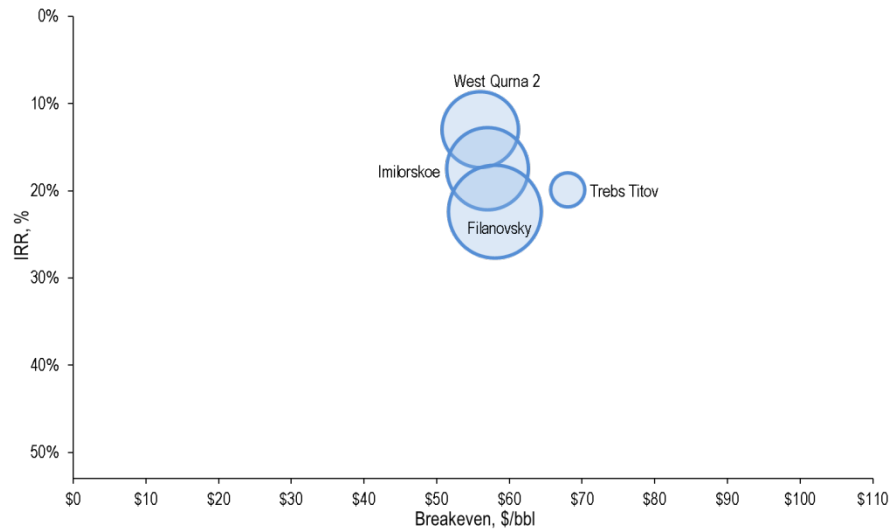
Figure 150. Lukoil Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
E&P volumes (mboepd)	1.97	1.95	1.99	1.97	1.87	1.85	1.87	1.90	2.00	2.16	2.22	2.23	2.23	2.23	4.1%
YoY growth	1.0%	-1.3%	2.4%	-1.1%	-5.1%	-1.2%	1.4%	1.3%	5.7%	7.8%	2.6%	0.6%	0.2%	0.0%	
% oil	98%	98%	98%	97%	97%	97%	97%	97%	96%	96%	95%	95%	95%	95%	
E&P cash margins (US\$/bbl)	16.4	7.9	12.8	11.7	15.2	14.9	12.2	11.6	11.2	10.7	10.3	10.6	10.8	11.1	-2.3%
Per share data:															
EPS (US\$)	11.2	11.2	9.0	11.8	13.7	14.6	10.4	14.4	11.4	13.6	13.3	13.6	13.9	14.3	-1.5%
DPS (US\$)	1.6	2.0	1.6	1.9	2.5	2.4	2.8	3.1	3.0	3.6	3.5	3.6	3.7	3.8	4.2%
Valuation Ratios:															
P/E	4.5x	4.5x	5.6x	4.3x	3.7x	3.5x	5.2x	3.7x	4.7x	3.9x	4.1x	4.0x	3.9x	3.8x	
EV/DACF	3.6x	3.3x	3.4x	2.9x	2.2x	2.3x	2.5x	2.5x	2.7x	2.2x	1.9x	1.7x	1.4x	1.1x	
Dividend yield	3.2%	4.0%	3.2%	3.8%	5.0%	4.8%	5.2%	5.7%	5.7%	6.7%	6.6%	6.7%	6.9%	7.1%	
Free cash yield	4.0%	-0.6%	8.0%	18.4%	21.1%	13.3%	-7.2%	8.7%	4.7%	13.6%	17.1%	11.8%	20.1%	20.6%	
Cash flow:															
Upstream	7.7	6.1	6.7	8.4	9.1	12.6	10.6	10.6	9.9	10.9	11.1	9.8	12.2	12.4	-1.9%
Downstream	2.4	8.2	2.1	5.1	6.4	6.4	5.8	6.0	5.8	6.6	6.9	6.1	7.6	7.8	0.4%
Other and corporate	1.7	(1.4)	3.0	0.3	1.2	(2.9)	0.7	0.4	0.2	1.0	1.1	3.5	0.2	0.3	
Sources of funds	11.8	12.9	11.8	13.9	16.7	16.1	17.2	17.0	15.9	18.5	19.0	19.5	20.0	20.5	3.4%
Changes in working capital	(1.7)	1.4	(3.0)	(0.3)	(1.2)	2.9	(0.7)	(0.4)	(0.2)	(1.0)	(1.1)	(3.5)	(0.2)	(0.3)	
Cash flow from operations	10.1	14.3	8.9	13.5	15.5	19.0	16.4	16.7	15.6	17.5	17.9	16.0	19.7	20.2	
Capex	(8.4)	(14.5)	(5.7)	(6.4)	(7.5)	(13.9)	(19.4)	(13.0)	(13.7)	(11.9)	(10.8)	(11.1)	(11.4)	(11.6)	-4.0%
Free cash flow	1.7	(0.2)	3.1	7.1	8.0	5.1	(3.0)	3.6	2.0	5.7	7.1	4.9	8.4	8.6	
Ordinary dividends	(1.3)	(1.6)	(1.4)	(1.6)	(1.8)	(2.9)	(2.5)	(2.6)	(2.6)	(3.1)	(3.0)	(3.1)	(3.2)	(3.2)	4.2%
as % of operating cflow	13%	11%	16%	11%	12%	15%	15%	16%	17%	18%	17%	19%	16%	16%	
Discretionary free cash flow	0.4	(1.8)	1.7	5.6	6.2	2.1	(5.5)	1.0	(0.6)	2.6	4.1	1.8	5.2	5.3	
Disposals/(Acquisitions)	0.2	(1.1)	(2.3)	1.4	0.1	2.0	0.2	2.1	1.9	0.6	0.5	0.6	0.6	0.6	
Equity change	(0.6)	(0.2)	-	(3.7)	(0.4)	(0.1)	-	-	-	-	-	-	-	-	
Surplus (deficit)	0.6	(2.9)	(0.6)	6.9	6.3	4.2	(5.3)	3.1	1.3	3.1	4.7	2.4	5.8	5.9	
Balance sheet:															
Net debt	6.2	7.6	9.0	8.8	6.3	3.7	9.1	6.0	4.7	1.6	(3.1)	(5.5)	(11.3)	(17.3)	
Net debt/EBITDA	0.4x	0.5x	0.7x	0.6x	0.4x	0.2x	0.6x	0.3x	0.3x	0.1x	(0.2x)	(0.3x)	(0.5x)	(0.8x)	
Interest cover	77.0x	73.1x	25.7x	29x	36x	67x	64x	44x	55x	112x	nm	nm	nm	nm	
Net debt/equity	15%	15%	16%	14%	9%	5%	11%	7%	5%	2%	-3%	-5%	-9%	-13%	
Capital employed:															
Upstream	36.4	43.4	49.2	51.9	56.5	58.0	67.5	71.2	74.5	77.5	81.6	88.9	94.3	99.6	5.7%
Downstream	12.0	14.0	15.2	15.8	17.2	19.1	19.9	21.0	21.9	22.0	21.8	32.1	33.3	34.5	11.2%
% Upstream	75%	76%	76%	77%	77%	75%	77%	77%	77%	78%	79%	73%	74%	74%	
Return on capital employed:															
Upstream	19.9%	8.9%	10.8%	10.8%	10.8%	12.6%	7.5%	9.8%	7.3%	8.3%	7.6%	7.1%	6.9%	6.7%	
Downstream	18.7%	37.6%	11.1%	21.6%	24.8%	19.3%	14.0%	18.8%	14.6%	17.6%	17.7%	12.3%	12.1%	12.0%	
Aggregate group	21.4%	18.8%	12.4%	13.6%	13.9%	14.4%	8.9%	11.2%	8.4%	9.5%	8.7%	8.7%	8.7%	8.8%	

Source: Company reports and Citi Research estimates.

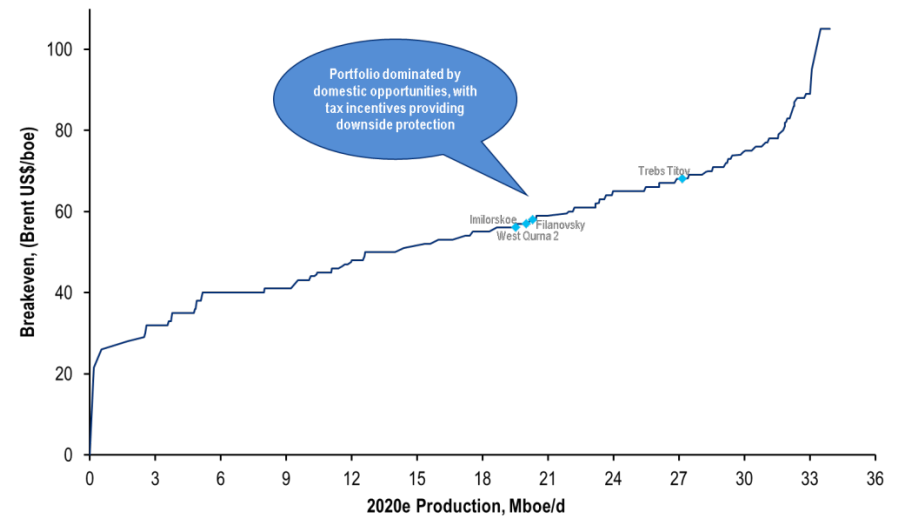
Lukoil - Upstream

Figure 151. Lukoil project portfolio (2013-2020 start-ups)



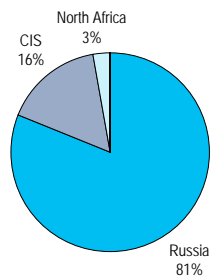
Source: Company reports, Citi Research

Figure 152. Lukoil project portfolio versus the industry cost-curve



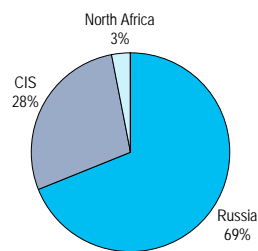
Source: Company reports, Citi Research

Figure 153. 2012 cash flow by region



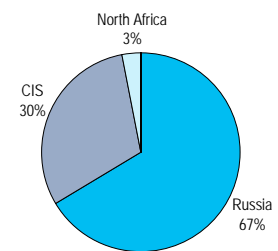
Source: Citi Research and company reports

Figure 154. 2016E cash flow by region



Source: Citi Research

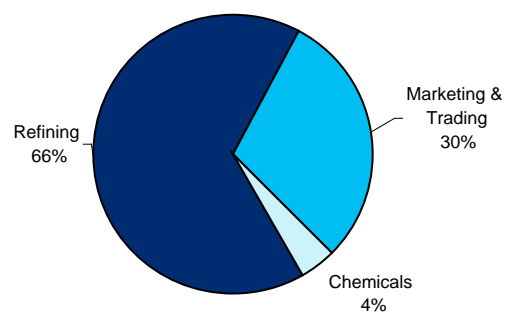
Figure 155. 2020E cash flow by region



Source: Citi Research

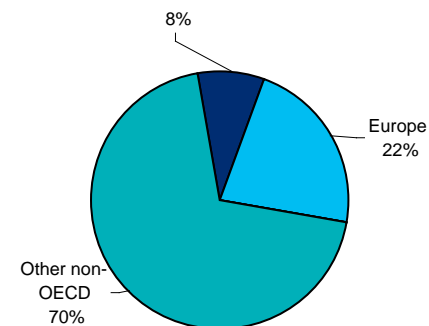
Lukoil – Downstream

Figure 156. 2016E cash flow by segment



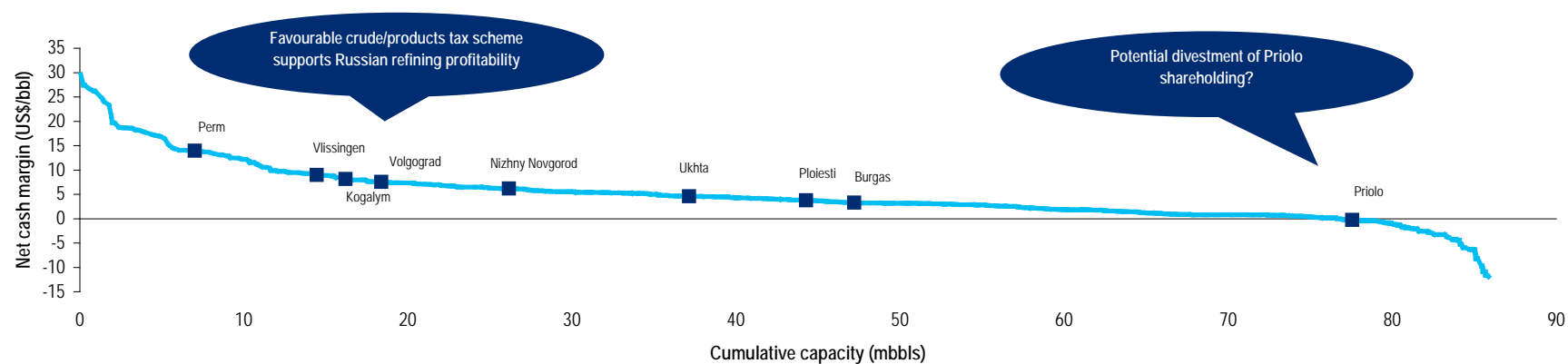
Source: Citi Research

Figure 157. 2016E cash flow by region



Source: Citi Research

Figure 158. Lukoil refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Occidental – Neutral, US\$103/share price target

Asset Sales Provide Solid Downside Protection

OXY has embarked on a major restructuring of the company. After cutting costs last year and improving overall returns on capital employed, OXY plans to sell many of its assets across the Midcontinent, sell a minority interest in its Middle East business, wind down some of its marketing activities and spin-off its assets in California. The net result is potentially over \$15Bn in proceeds that could be used to repurchase shares or reinvest in the business.

- **North American Upstream** — OXY plans to spin off its assets in California. The assets generated \$2.6Bn in EBITDA in 2013. Based on the trading multiple of other E&P companies, California could be valued at between \$15Bn and \$20Bn in enterprise value. OXY plans to raise \$4Bn-\$5Bn of debt on the California assets and take these proceeds back in the form of a dividend. OXY also announced the sale of its Hugoton Field for \$1.4Bn. We expect the sale of other assets in the Midcontinent before year-end. After the restructuring is complete, almost all of OXY's US production will be in the Permian where it plans to grow production 10% per annum through 2016.
- **International Upstream** — OXY's international assets are generating some of the highest returns on capital in the industry. The Al Hosn gas project is expected to come online late this year representing a substantial increase in free cash flow for OXY. OXY plans to sell a minority interest in its MENA assets. Based on our estimates, we believe OXY could generate up to \$10Bn in proceeds from a 40% sale of its interest. We believe a sale to a strategic partner (s) would help to strengthen OXY's portfolio in the Middle East. We believe this sale represents a key catalyst for the stock in 2014. An unsuccessful sale of the MENA assets would be negative for the stock.
- **Downstream** — OXY's chemicals business has been generating consistent returns on invested capital and the segment returns look as if they may surpass the overall returns of the upstream business. A joint venture investment for an ethylene plant has been sanctioned. Given OXY's position as a major ethylene consumer for its PVC business, we believe an investment in an ethylene cracker could materially lower OXY's feedstock costs. Further investments by OXY in midstream also look to debottleneck the crude glut in the Permian. OXY has enough assets to form an MLP; however, it is unclear if forming an MLP would create any material value given the assets would be relatively small compared to the overall enterprise value of OXY.
- **Valuation & 2020 Vision** — OXY stock is up 2% since our last Oil Vision note. The stock currently trades at a premium to the group and does so all the way through the decade. We believe the asset sale program combined with a growing share repurchase program provides good downside protection for holders of the stock. We believe the upside will be determined by the price OXY obtains for its MENA and Midcontinent asset as well a successful spin-off of its assets in California.

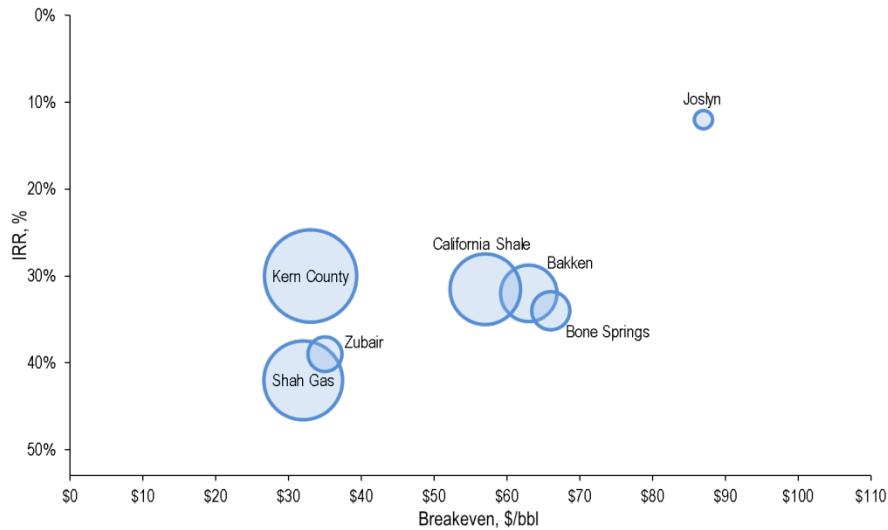
Figure 159. Occidental Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.6	97.7	61.9	79.7	110.9	112.0	108.8	103.3	95.0	99.0	102.0	105.0	109.0	112.0	0.4%
WTI (US\$/bbl)	72.2	99.7	61.8	79.5	95.1	94.2	97.9	94.4	88.8	94.0	97.0	100.0	104.0	107.0	1.4%
US gas (US\$/MMBtu)	7.0	8.9	3.9	4.4	4.0	2.8	3.7	4.7	4.4	5.0	5.3	5.3	5.3	5.3	2.6%
E&P volumes (mboepd)	0.57	0.60	0.71	0.69	0.72	0.77	0.77	0.79	0.86	0.90	0.93	0.96	0.98	1.00	4.9%
YoY growth	1.0%	5.6%	19.6%	-2.9%	4.4%	5.8%	-0.2%	3.0%	9.3%	3.9%	3.5%	3.2%	2.4%	2.0%	
% oil	79%	77%	77%	72%	72%	72%	73%	73%	72%	71%	69%	68%	68%	67%	
E&P cash margins (US\$/bbl)	37.5	50.4	21.9	31.5	35.8	28.9	35.8	35.5	33.9	35.3	35.7	36.1	36.6	37.1	0.5%
Per share data:															
EPS (US\$)	5.55	8.33	3.78	5.63	8.39	7.23	7.01	6.29	6.73	7.78	8.46	9.01	9.49	9.99	9.4%
DPS (US\$)	0.94	1.14	1.31	1.47	1.76	2.62	1.92	2.88	2.99	3.14	3.29	3.46	3.57	3.62	4.7%
Valuation Ratios:															
P/E	17.5x	11.7x	25.7x	17.3x	11.6x	13.4x	13.9x	15.4x	14.4x	12.5x	11.5x	10.8x	10.2x	9.7x	
EV/DACF	9.9x	6.9x	10.6x	8.6x	6.4x	6.5x	6.5x	7.0x	6.7x	6.1x	5.7x	5.3x	4.9x	4.6x	
Dividend yield	1.0%	1.2%	1.3%	1.5%	1.8%	2.7%	2.0%	3.0%	3.1%	3.2%	3.4%	3.6%	3.7%	3.7%	
Free cash yield	4.2%	7.5%	2.8%	6.5%	6.0%	1.4%	4.7%	1.0%	4.4%	5.2%	5.3%	6.6%	6.9%	7.3%	
Cash flow:															
Upstream	7.8	11.0	5.7	8.0	9.5	8.1	10.0	10.2	10.7	11.6	12.1	12.6	13.1	13.6	5.4%
Downstream	0.9	1.2	0.8	1.1	1.6	1.3	1.3	1.3	1.4	1.5	1.6	1.6	1.6	1.7	4.7%
Other and corporate	(1.1)	(1.1)	0.6	(0.2)	0.9	2.6	0.8	(0.6)	(0.6)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	
Sources of funds	7.6	11.0	7.2	8.9	11.9	12.1	12.2	11.0	11.6	12.5	13.2	13.8	14.3	14.8	5.8%
Changes in working capital	(0.7)	(0.4)	(1.4)	0.5	0.3	(0.8)	0.4	-	-	-	-	-	-	-	
Cash flow from operations	6.9	10.7	5.8	9.4	12.3	11.3	12.6	11.0	11.6	12.5	13.2	13.8	14.3	14.8	
Capex	(3.5)	(4.7)	(3.6)	(4.2)	(7.5)	(10.2)	(9.0)	(10.2)	(8.2)	(8.5)	(9.1)	(8.6)	(9.0)	(9.2)	-4.1%
Free cash flow	3.4	6.0	2.2	5.2	4.8	1.1	3.7	0.8	3.4	4.0	4.1	5.1	5.3	5.6	
Ordinary dividends	(0.8)	(0.9)	(1.1)	(1.2)	(1.4)	(2.1)	(1.5)	(2.3)	(2.4)	(2.5)	(2.6)	(2.8)	(2.9)	(2.9)	4.7%
as % of operating c/flow	11%	9%	18%	12%	12%	19%	12%	21%	21%	20%	20%	20%	20%	20%	
Discretionary free cash flow	2.7	5.0	1.2	4.0	3.3	(1.0)	2.1	(1.5)	1.0	1.5	1.4	2.4	2.5	2.7	
Disposals/(Acquisitions)	(0.9)	(4.7)	(1.7)	(4.9)	(4.9)	(2.5)	1.3	1.4	-	-	-	-	-	-	
Equity change	(1.2)	(1.5)	(0.0)	(0.1)	(0.3)	(0.5)	0.1	-	-	-	-	-	-	-	
Surplus (deficit)	1.8	0.4	(0.6)	(0.9)	(1.5)	(3.5)	3.4	(0.1)	1.0	1.5	1.4	2.4	2.5	2.7	
Balance sheet:															
Net debt	(0.2)	1.0	1.6	2.5	2.1	6.0	2.5	2.6	1.6	0.1	(1.3)	(3.7)	(6.1)	(8.8)	
Net debt/EBITDA	(0.0x)	0.1x	0.2x	0.2x	0.1x	0.5x	0.2x	0.2x	0.1x	0.0x	(0.1x)	(0.2x)	(0.3x)	(0.5x)	
Interest cover	33.5x	115.2x	56.6x	91.6x	48.8x	92.5x	136.6x	80.1x	86.4x	107.8x	152.3x	214.9x	262.0x	328.6x	
Net debt/equity	-1%	4%	5%	8%	6%	15%	6%	6%	3%	0%	-2%	-6%	-9%	-12%	
Capital employed:															
Upstream	23.4	23.0	23.5	30.3	35.1	37.7	38.6	41.0	41.3	41.7	42.9	43.5	44.2	44.9	1.5%
Downstream	10.4	4.7	6.8	7.0	8.1	9.5	10.7	11.4	11.9	12.5	12.8	13.1	13.3	13.6	
% Upstream	69%	83%	78%	81%	81%	80%	78%	78%	78%	77%	77%	77%	77%	77%	
Return on capital employed:															
Upstream	24.6%	37.7%	12.8%	17.5%	18.3%	11.1%	13.8%	12.3%	12.6%	14.4%	15.1%	15.7%	16.3%	16.9%	
Downstream	7.1%	10.4%	7.3%	9.9%	13.9%	8.6%	7.7%	6.8%	7.0%	6.8%	7.4%	7.3%	7.3%	7.3%	
Aggregate group	20.2%	24.2%	8.7%	11.5%	15.4%	9.1%	10.2%	8.9%	9.2%	10.1%	10.5%	10.8%	11.0%	11.1%	

Source: Company reports and Citi Research estimates.

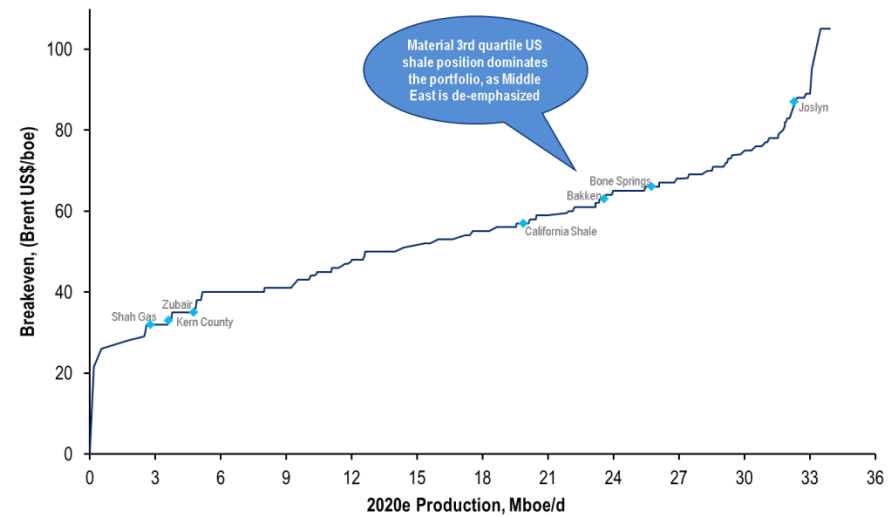
Occidental – Upstream

Figure 160. Occidental project portfolio (2013-2020 start-ups)



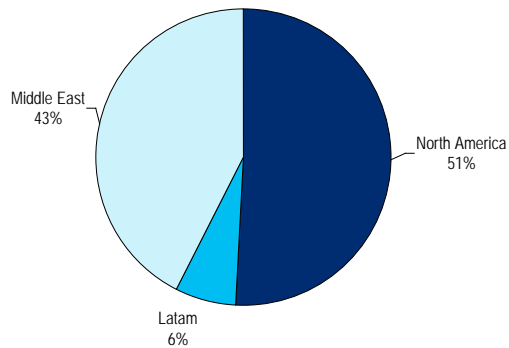
Source: Company reports, Citi Research

Figure 161. Occidental project portfolio versus the industry cost-curve



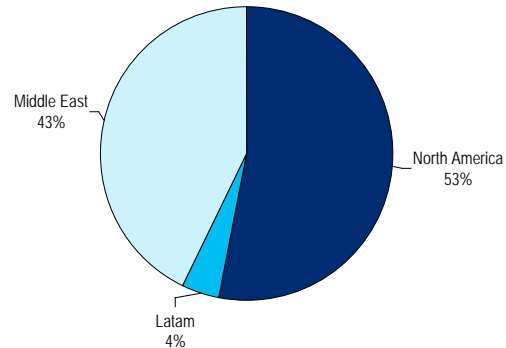
Source: Company reports, Citi Research

Figure 162. 2012 cash flow by region



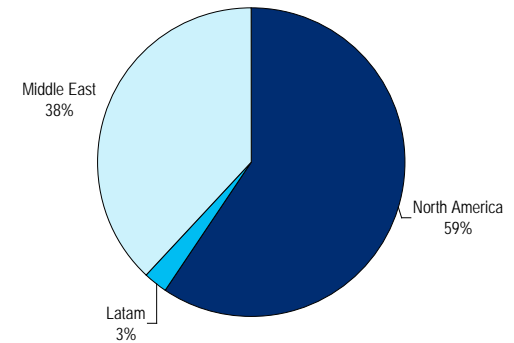
Source: Citi Research and company reports

Figure 163. 2016E cash flow by region



Source: Citi Research

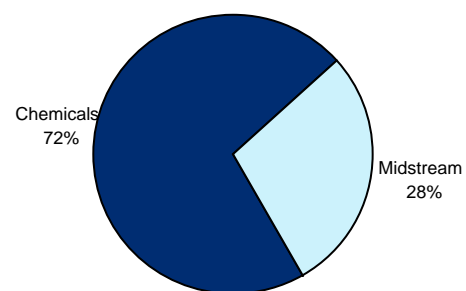
Figure 164. 2020E cash flow by region



Source: Citi Research

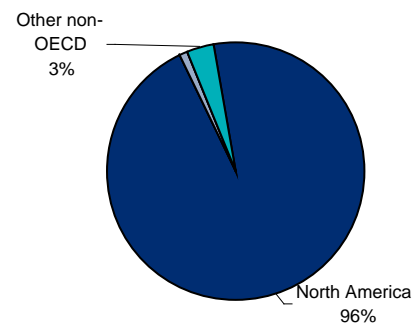
Occidental – Downstream

Figure 165. 2016E cash flow by segment



Source: Citi Research

Figure 166. 2016E cash flow by region



Source: Citi Research

OMV – Neutral, €35/share price target

Upstream Strategy Revitalized – Delivery, Downstream/Gas Pressures Remain

OMV is a company in transition. A revitalized strategy sees Upstream as the growth engine for the company, with exploration and M&A used to re-invent the portfolio. A number of high impact wells are planned for 2014 (Romania, Gabon) and recent asset deal with Statoil materially improves visibility around medium-term production growth objectives. However, it sees the company move away from its differentiated, return oriented targets. The promise of 13% CAGR production growth to 2016 needs to be balanced out against the company's challenges, particularly from sub-par returns in Gas and Downstream businesses – which are still c. 50% of capital employed in the company. In the Core Upstream business the key uncertainty lies in the need to negotiate new fiscal treatment with a cash-strapped Romanian Government at end-2014.

- **Upstream build** – Acquisitions (Norway, Tunisia) and exploration success (Domino – offshore Romania, Whisting – Barents Sea) have transformed the OMV Upstream portfolio from what it was barely three years ago. The current portfolio is set to deliver c. 30% of production growth by 2016, principally from North Sea (Gudrun, Edvard Grieg) and MENA assets. We also see the company's increased leverage to exploration with high impact wells planned offshore Romania, Barents Sea and pre-salt Gabon. However, the situation in a number of key areas (Libya, Tunisia and Yemen) remains volatile and may put upstream growth targets at risk. The overall growth portfolio looks to have profitability/breakeven metrics towards the middle of the peer group average, as increased exposure to complex offshore developments is set to dilute the return of the highly profitable legacy portfolio.
- **Romania renegotiation** – Although some of the growth assets look to offer good returns, we see the profitability of the upstream portfolio as a whole depending heavily on the construct of the Romanian business (>50% of production) the coming years. On the one hand Romania gas reform is progressing (industrial user full liberalization by end-2014, domestic by 2018), on the other is the expectation that E&P taxes will rise from 1 January 2015 when the current 10-year fiscal stability clause ends. The Government will need to balance OMV's promise of investment potential, against the desire to stop the company benefitting too greatly from pricing reform.
- **Downstream refocus** – OMV's downstream has also undergone a material transformation with working capital reduction and divestments among the key drivers of ROCE gains over the past two years. However, the core downstream business remains Europe facing, with negative cash margins in current environment reflecting the poor competitive position of the assets. OMV's refining business is likely to struggle in the medium term as margins are set to remain weak, with some relief offered by improving performance in marketing and petrochemicals. Natural Gas business is facing similar structural challenges in the European markets, and should remain a drag on returns despite successful renegotiations with Statoil and Gazprom. With easy downstream gains behind us, further material improvement in returns will be challenging to achieve without an improvement in macro.
- **Financial framework** – Downstream uncertainties and continued pressure in wholesale gas trading act as key near-term issues around OMV's financial management. The company is also bracing for increasing spend in the upstream (c. €4bn pa to 2016) as more capital intensive projects enter the pipeline. As a result, we think the current 13% ROACE target will be very difficult to achieve before the end of the decade, with a number of offshore developments likely to deliver marginal returns (e.g. Aasta Hansteen). In the near term, we expect a continued conservative approach to the balance sheet, with capex matching available cash flow and divestment proceeds, with gearing unlikely to fall below 30%. Whilst production growth will drive cash flows to 2016, the proceeds will likely be reinvested in the next wave of projects, with little scope for material dividend increases in the medium term.

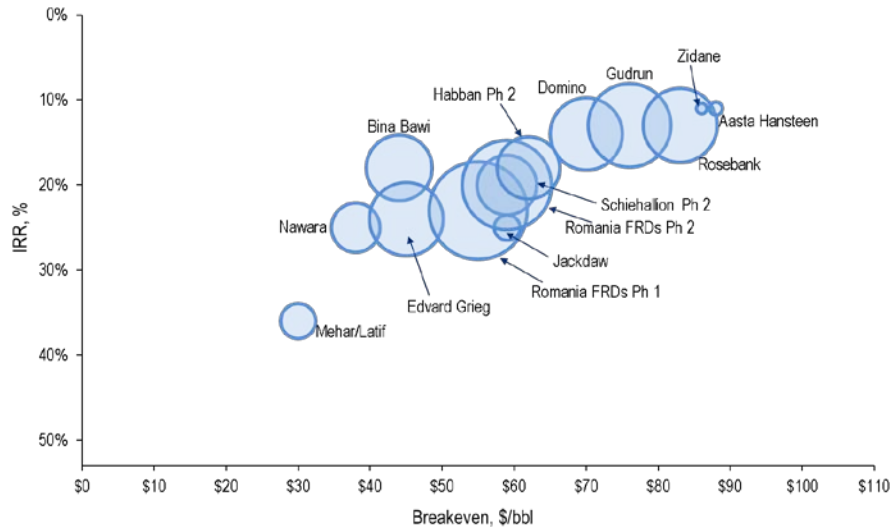
Figure 167.OMV Summary Financial Model

EUR B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	97.4	62.3	80.0	110.8	111.9	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
EUR/USD	1.37	1.46	1.39	1.32	1.39	1.29	1.33	1.35	1.35	1.35	1.35	1.35	1.35	1.35	
E&P volumes (kboepd)	322	317	317	318	288	304	288	331	357	382	394	404	414	426	5.1%
YoY growth	-1.1%	-1.6%	0.1%	0.3%	-9.4%	5.5%	-5.2%	14.9%	7.9%	7.1%	3.0%	2.7%	2.4%	2.9%	
% oil	51%	53%	54%	55%	50%	53%	53%	54%	56%	59%	57%	52%	49%	48%	
E&P cash margins (US\$/boe)	24	33	22	26	36	40	36	36	34	35	36	37	38	39	0.4%
Per share data:															
EPS (Euros)	5.31	6.39	1.99	3.72	3.33	4.72	3.39	3.84	3.62	3.96	4.06	4.10	4.30	4.52	1.7%
DPS (Euros)	1.25	1.00	1.00	1.00	1.10	1.20	1.25	1.30	1.35	1.40	1.43	1.46	1.49	1.52	2.9%
Valuation ratios:															
P/E	6.1x	5.1x	16.3x	8.7x	9.7x	6.9x	9.5x	8.4x	8.9x	8.1x	7.9x	7.8x	7.5x	7.1x	
EV/DACF	3.7x	3.5x	5.2x	4.3x	4.7x	4.1x	4.8x	4.7x	4.7x	4.5x	4.4x	4.3x	4.1x	3.9x	
Dividend yield	3.9%	3.1%	3.1%	3.1%	3.4%	3.7%	3.9%	4.0%	4.2%	4.3%	4.4%	4.5%	4.6%	4.7%	
Free cash yield	-5.5%	8.6%	-0.1%	7.1%	5.2%	16.0%	8.2%	-0.9%	-1.3%	2.7%	3.1%	4.0%	5.5%	7.2%	
Cash flow:															
Upstream	2.1	2.6	1.8	2.3	2.7	3.4	2.8	3.2	3.3	3.6	3.8	4.0	4.2	4.5	5.5%
Downstream and chemicals	0.5	0.8	0.4	0.6	0.8	1.0	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8%
Other and corporate	0.3	(0.3)	0.1	0.1	(0.4)	(0.9)	(0.2)	(0.2)	(0.1)	(0.2)	(0.2)	(0.2)	(0.1)	(0.1)	
Sources of funds	2.9	3.1	2.2	3.0	3.1	3.6	3.4	3.9	4.0	4.3	4.5	4.7	5.0	5.3	4.8%
Changes in working capital	(0.6)	0.5	(0.2)	(0.1)	(0.2)	0.2	0.7	-	-	-	-	-	-	-	
Cash flow from operations	2.3	3.5	2.1	2.9	2.9	3.8	4.1	3.9	4.0	4.3	4.5	4.7	5.0	5.3	
Capex	-2.8	-2.7	-2.1	-2.2	-2.4	-2.1	-3.2	-4.0	-4.1	-4.0	-4.2	-4.3	-4.4	-4.5	1.8%
Free cash flow	(0.5)	0.8	(0.0)	0.7	0.5	1.7	0.9	(0.1)	(0.1)	0.3	0.3	0.4	0.6	0.8	
Ordinary dividends	(0.5)	(0.5)	(0.3)	(0.3)	(0.4)	(0.6)	(0.6)	(0.6)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.8)	3.2%
as % of operating c/f flow	21%	15%	15%	11%	15%	16%	15%	16%	17%	16%	16%	15%	15%	14%	
Minority dividends	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Discretionary free cash flow	(1.0)	0.3	(0.3)	0.4	0.1	1.1	0.3	(0.7)	(0.8)	(0.4)	(0.4)	(0.3)	(0.2)	(0.0)	
Acquisitions	(1.3)	(0.8)	(0.3)	(1.0)	(0.8)	(0.3)	(2.0)	-	-	-	-	-	-	-	
Disposals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	(2.3)	(0.5)	(0.6)	(0.6)	(0.7)	0.8	(1.7)	(0.7)	(0.8)	(0.4)	(0.4)	(0.3)	(0.2)	(0.0)	
Balance sheet:															
Net debt	2.5	3.4	3.3	5.2	5.3	4.5	5.1	5.7	6.4	6.8	7.2	7.5	7.7	7.7	
Net debt/EBITDA	76%	73%	121%	128%	129%	82%	104%	123%	135%	130%	129%	130%	125%	118%	
Cash interest cover	nm	153.9x	17.0x	10.8x	15.1x	21.3x	10.0x	23.8x	19.5x	18.2x	17.7x	17.0x	17.1x	17.8x	
Net debt/equity	30%	47%	41%	57%	49%	38%	44%	45%	49%	49%	48%	48%	46%	43%	
Capital employed:															
Upstream	3.7	6.1	6.7	7.1	8.2	8.7	12.0	14.0	15.9	17.7	19.4	21.2	22.8	24.4	
Downstream	9.8	7.9	7.1	9.5	9.7	9.2	7.3	6.8	6.9	6.4	5.9	5.4	4.8	4.3	
% Upstream	27%	44%	49%	43%	46%	48%	62%	67%	70%	73%	77%	80%	82%	85%	
Return on capital employed:															
Upstream	27.5%	26.9%	11.6%	15.0%	16.2%	18.1%	10.3%	9.7%	8.2%	8.4%	8.0%	7.4%	7.2%	7.2%	
Downstream	2.0%	5.1%	-1.1%	2.8%	3.5%	5.2%	5.5%	5.8%	6.0%	6.2%	6.6%	7.1%	8.0%	8.7%	
Aggregate group	11.8%	16.2%	5.8%	9.4%	8.9%	10.6%	9.3%	7.6%	7.0%	7.4%	7.3%	7.1%	7.2%	7.3%	

Source: Company reports and Citi Research estimates.

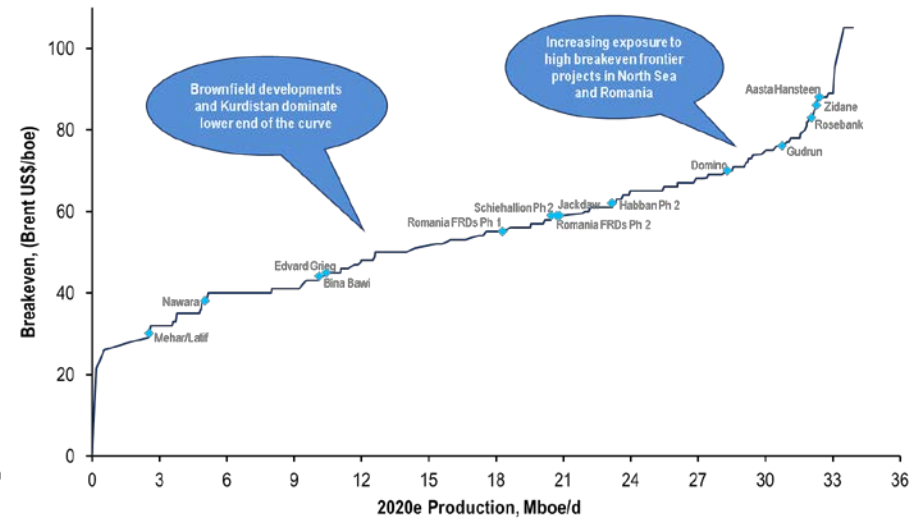
OMV - Upstream

Figure 168. OMV project portfolio (2013-2020 start-ups)



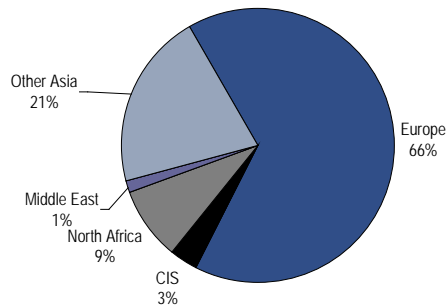
Source: Company reports, Citi Research

Figure 169. OMV project portfolio versus the industry cost-curve



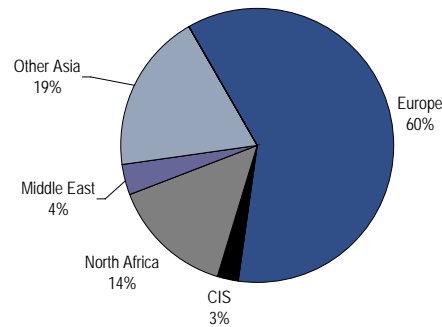
Source: Company reports, Citi Research

Figure 170. 2012 cash flow by region



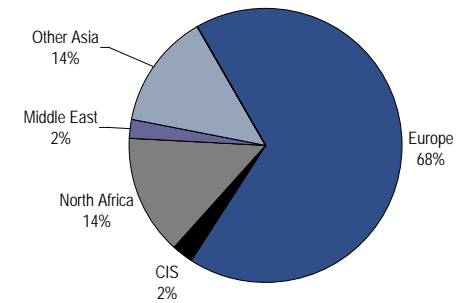
Source: Citi Research and company reports

Figure 171. 2016E cash flow by region



Source: Citi Research

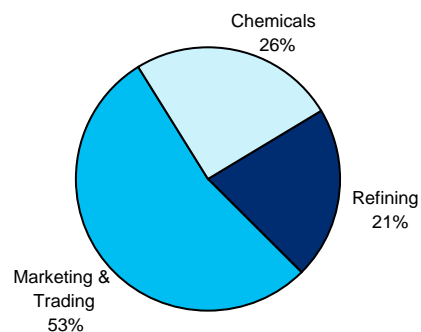
Figure 172. 2020E cash flow by region



Source: Citi Research

OMV – Downstream

Figure 173. 2016E cash flow by segment



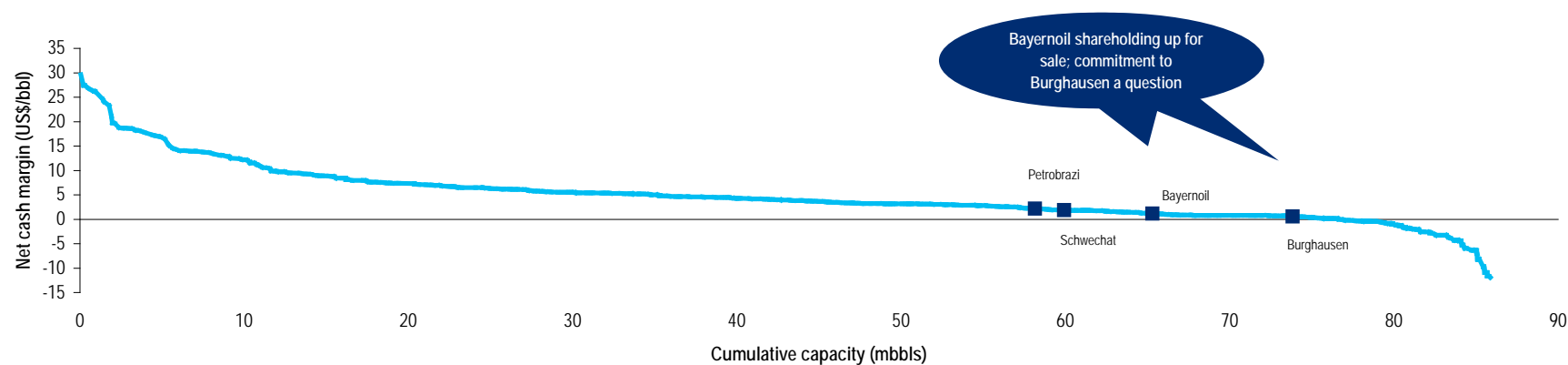
Source: Citi Research

Figure 174. 2016E cash flow by region



Source: Citi Research

Figure 175. OMV refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Petrobras – Neutral, US\$19.0/ADR price target & US\$13.4/share Ordinary

Gearing Up Production, But Balance Sheet Concerns Remain the Key Issue

Petrobras is undertaking a massive campaign of gross 1.4mboed capacity additions in 2013-2014, with nearly 5 production units accounting for 556kb/d net capacity to be installed in 2014. Since 2010, oil production struggled due to delays of platforms and an increase in maintenance of legacy oil fields. We expect 2014 to bring a structural turnaround of Petrobras' production slump that should improve the outlook for the company's potential returns and valuation. However, the promising production outlook is offset by the company's strained balance sheet, which will continue to impact the stock's performance. The company's five year investment plan, the BRL depreciation, and the lack of fuel price increases in 2014 have increased concerns for Petrobras' funding.

- **Production turnaround on full steam in 2014** — Production growth is one of the key drivers for Petrobras stock's performance. Following a slow start to the year due to heavy maintenance and efficiency levels still recovering, we expect production to resume growing as new platforms ramp-up production, and maintenance work subsides. We estimate 2014 production will average 2.027mboe/d, a 5% growth YoY (vs. management guidance of 7.5% +/-1% of error margin). The company's upcoming production platforms are mostly on, or ahead of schedule and should benefit from PBR's initiative of pre-drilling wells to ensure a faster ramp-up.
- **Fuel prices upgrades remain the key driver for the stock** — While we expect PBR to gradually adjust fuel prices towards international parity, the lack of details in the announcement of its fuel price policy, and the smaller than expected Q4 price increase have lowered chances of relevant price hikes in 2014, a year of federal elections in Brazil. We estimate the company will increase fuel prices twice, first Q2 by 4%, and a further 4% in Q4, adding R\$6bn to EBITDA in 2014. The current discount to parity is 15.5% and 14% respectively for gasoline and diesel. Parity pricing would increase EBITDA annually by R\$23.5bn, +38% vs. 2013.
- **Stock performance in 2014 leveraged to Brazil's main macro drivers** — We believe PBR's 2014 stock performance will increasingly be linked to Brazil's macro drivers, especially FX, inflation, and at some point presidential election poll results. The new fuel price formula can change PBR's FX lever, but the company's large USD debt would still present a challenge. We fear PBR could trade at a larger discount to its historical and to global peers' multiples if the BRL depreciates further. Similarly, a stronger domestic currency could mean a re-rating, as it improves the company's balance sheet, and margins for its domestic fuel sales.
- **Pre-salt growing within Petrobras' production base** — Production from the Pre-salt reached 400kb/d, nearly 21% of Petrobras' total domestic oil production. We expect Pre-salt production will continue rising to an estimated 40% of domestic oil production by 2017 and 58% by 2020. Production data points have so far surprised for the better, with productivity estimates rising from 15kb/d to being on average higher than 25kb/d, with recent data from the Sapinhoá and Lula NE pilots have eclipsing 30kb/d per well. 2014 should bring initial results of new technologies being tested that can materially improve the Pre-salt's cost profile and recovery rates. The main projects are Lula's alternated water and gas injection, and horizontal wells.
- **Production rights transaction raises risk and could create long-term overhang** — We expect the company will complete the re-negotiation of prices for the first two areas under the production rights licenses, Búzios (ex-Franco) and Lula South. Chances of a multi-billion dollar upward price review are very high, and we do see risks to the company's fundamentals as regardless of PBR having the right to relinquish part of its volumes back to Brazil's government, the incentives from a corporate and government point of view may be low to do so. We do see little risks of a short-term cash outflow for PBR, but see good chances that future cash flow forecasts may have to be lowered to sustain the extra payment.
- **Upside can come by restoring confidence on balance sheet strength and downstream profitability** — While we see the stock trading at 6.8x 2014E P/E, a 39% discount to the Majors, the stock trades at a premium under EV multiples, which arguably properly reflects the size of its debt. 2014 6.4x EV/EBITDA and 7.6x EV/DACF, a 48% premium to Majors, while it would trade at 5.4x and 6.6x respectively considering fuel prices at parity from 2Q14, still a relevant 25% premium. Parity and production growth per se are not enough alone to generate FCF yet, and would need more capital discipline in order to see EV multiples expansion in 2014-16.

Figure 176. Petrobras Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
E&P volumes (mboepd)	2.29	2.39	2.52	2.58	2.61	2.59	2.53	2.62	2.74	2.87	3.21	3.92	4.33	4.33	10.6%
YoY growth	1.0%	4.4%	5.4%	2.3%	1.3%	-0.6%	-2.6%	3.7%	4.5%	4.7%	12.1%	22.1%	10.3%	0.0%	
% oil	83%	82%	84%	83%	83%	82%	81%	81%	82%	82%	82%	84%	87%	88%	
E&P cash margins (US\$/bbl)	32.7	44.0	24.5	36.9	49.9	51.1	48.6	40.1	35.9	35.4	34.0	36.5	37.9	38.8	-2.3%
Per share data:															
EPS (US\$)	2.99	4.30	3.53	2.94	3.07	1.69	1.65	2.01	2.16	2.34	2.24	3.13	3.86	4.03	11.6%
DPS (US\$)	0.77	0.87	0.95	1.05	1.10	0.49	0.49	0.59	0.64	0.69	0.66	0.92	1.14	1.18	11.6%
Valuation Ratios:															
P/E	4.3x	3.0x	3.7x	4.4x	4.2x	7.7x	6.4x	7.7x	6.0x	4.8x	4.8x	3.4x	2.7x	2.6x	
EV/DACF	3.8x	3.4x	3.8x	3.4x	2.8x	4.3x	4.9x	5.7x	5.6x	5.4x	5.4x	4.4x	3.8x	3.7x	
Dividend yield	7.0%	8.0%	8.7%	9.6%	10.1%	4.4%	4.6%	3.8%	4.9%	6.1%	6.2%	8.8%	10.9%	11.5%	
Free cash yield	3.5%	-3.4%	-21.3%	-23.2%	-10.6%	-17.9%	-26.1%	-28.5%	-14.2%	-8.1%	-5.6%	6.3%	15.9%	18.2%	
Cash flow:															
Upstream	27.3	38.4	22.5	34.6	47.5	48.5	44.8	38.3	35.8	37.2	39.9	52.3	59.8	61.4	8.1%
Downstream	4.9	(0.5)	9.6	0.1	(13.1)	(17.9)	(12.5)	(1.5)	5.7	3.9	4.3	4.3	4.7	5.1	
Other and corporate	(9.0)	(11.3)	(5.8)	(3.1)	5.2	(1.2)	1.1	(6.1)	(10.4)	(8.0)	(10.2)	(14.1)	(15.3)	(15.7)	
Sources of funds	23.2	26.6	26.2	31.6	39.7	29.4	33.4	30.7	31.1	33.1	34.0	42.5	49.2	50.8	8.4%
Changes in working capital	(0.5)	1.6	(1.3)	(3.2)	(6.0)	(1.5)	(4.0)	0.2	0.7	(0.6)	(0.4)	(0.8)	(0.8)	(0.8)	
Cash flow from operations	22.7	28.2	24.9	28.5	33.7	27.9	29.4	31.0	31.8	32.4	33.6	41.7	48.4	50.0	
Capex	(21.0)	(29.9)	(35.1)	(45.1)	(41.3)	(40.7)	(45.1)	(43.1)	(41.5)	(39.5)	(38.5)	(38.5)	(38.5)	(38.5)	-2.8%
Free cash flow	1.7	(1.7)	(10.2)	(16.6)	(7.6)	(12.8)	(15.8)	(12.1)	(9.6)	(7.0)	(4.9)	3.2	10.0	11.6	
Ordinary dividends	(3.9)	(4.7)	(7.7)	(5.3)	(6.4)	(3.3)	(3.3)	(4.0)	(4.3)	(4.5)	(4.6)	(4.5)	(5.9)	(7.3)	2.8%
as % of operating c/flow	17%	17%	31%	19%	19%	12%	11%	13%	14%	14%	14%	11%	12%	15%	
Discretionary free cash flow	(2.2)	(6.4)	(17.9)	(21.9)	(14.0)	(16.1)	(19.1)	(16.1)	(13.9)	(11.5)	(9.5)	(1.2)	4.0	4.2	
Disposals/(Acquisitions)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Equity change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	(2.2)	(6.4)	(17.9)	(21.9)	(14.0)	(16.1)	(19.1)	(16.1)	(13.9)	(11.5)	(9.5)	(1.2)	4.0	4.2	
Balance sheet:															
Net debt	12.7	19.0	38.2	33.3	51.8	71.9	86.9	106.4	118.2	129.6	138.8	139.6	135.3	131.0	
Net debt/EBITDA	0.5x	0.6x	1.3x	1.0x	1.4x	2.6x	2.8x	3.2x	3.3x	3.4x	3.5x	2.7x	2.2x	2.1x	
Interest cover	nm	nm	nm	nm	nm	nm	66x	25x	24x	21x	13x	12x	14x	15x	
Net debt/equity	20%	31%	41%	18%	29%	43%	61%	73%	76%	80%	83%	78%	70%	64%	
Capital employed:															
Upstream	39.9	53.0	75.5	137.0	141.2	146.8	155.7	173.6	193.0	211.6	228.9	243.3	256.0	268.4	8.8%
Downstream	14.6	20.8	56.5	78.2	92.3	99.2	101.9	113.3	121.5	127.7	132.8	137.7	142.6	147.5	5.0%
% Upstream	73%	72%	57%	64%	60%	60%	60%	61%	61%	62%	63%	64%	64%	65%	
Return on capital employed:															
Upstream	39.6%	39.5%	15.6%	14.0%	21.0%	20.1%	15.4%	12.7%	9.9%	9.3%	9.1%	11.8%	12.8%	12.5%	
Downstream	24.7%	-7.4%	14.3%	3.1%	-6.0%	-12.8%	-7.0%	-1.9%	2.4%	1.9%	1.8%	1.8%	1.8%	1.9%	
Aggregate group	18.4%	16.8%	13.5%	9.3%	8.1%	4.7%	4.8%	5.3%	5.4%	5.6%	5.5%	7.2%	8.3%	8.4%	

Source: Company reports and Citi Research estimates.

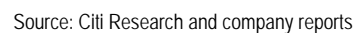
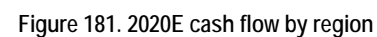
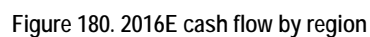
(PBRa.N; US\$11.13; 1)

Figure 177. Petrobras project portfolio (2013-2020 start-ups)



Source: Company reports, Citi Research

Figure 179. 2012 cash flow by region

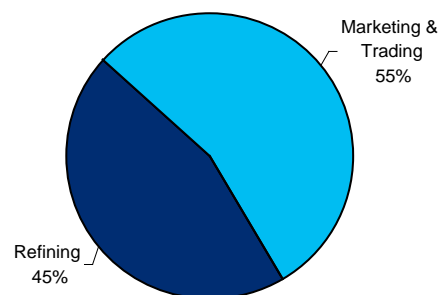


Source: Citi Research

Source: Citi Research

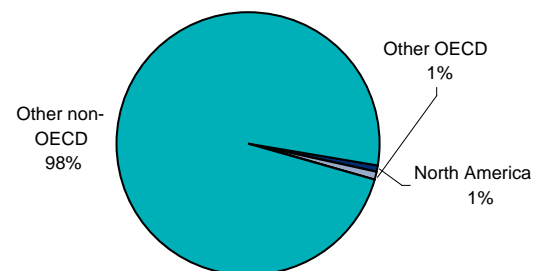
Petrobras – Downstream

Figure 182. 2016E cash flow by segment



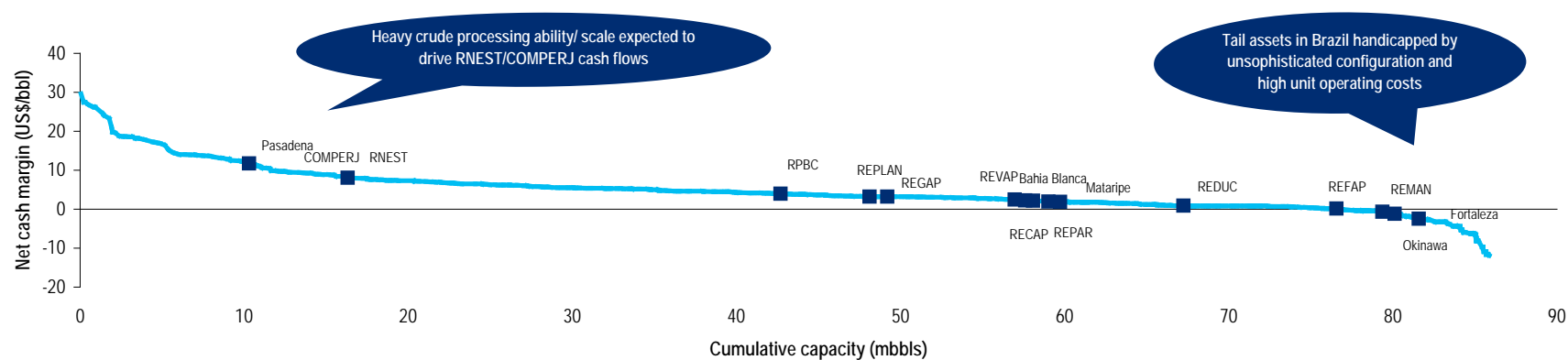
Source: Citi Research

Figure 183. 2016E cash flow by region



Source: Citi Research

Figure 184. Petrobras refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

PetroChina – Sell, HK\$6.9/share price target

Earnings Growth From Gas Will Not Be Enough

PetroChina's RoIC has declined dramatically since 2005 on rising upstream costs, lack of capex discipline and a rising national service burden placed on the company from the government. While the market has high hopes that rising natural gas production and higher domestic natural gas prices will reverse this trend, we believe gas driven earning growth will not be enough to prevent further deterioration of returns.

- **Rising upstream costs leaves the company vulnerable to oil price declines** — PetroChina's E&P division will post an EBIT margin of US\$23/boe in FY13 we estimate, down from US\$26/boe in FY06 despite the average Brent price rising from US\$65/bbl to US\$109/bbl on cost growth. The company's relatively thin upstream margin leaves the company very vulnerable to any decline in global oil prices. Also with continued appreciation in the Rmb, we expect cost growth to remain high. Upstream costs, excluding taxes and royalties, rose US\$4.4/boe/year over the past three years.
- **Losses on imported gas will continue** — We estimate PetroChina lost about Rmb 42bn in FY13 on importing natural gas and selling it below cost. While rising domestic natural gas prices should reduce the loss per unit in coming years, import volume is set to rise substantially. We expect import losses to fall only slightly to Rmb 39bn by FY16. After new natural gas pricing mechanism announced by the government in 2013 is fully rolled out, a process which we expect to take around 4 years, the average city gate gas price in the country will be ~Rmb 2.6/m3 (US\$12/mcf), significantly lower than the cost of LNG imports which the company is committed to. Therefore natural gas import losses will be an ongoing problem, we expect.
- **Gas import volume will rise rapidly** — Imports from Central Asia should continue to rise with the completion of Line C of the Central Asia pipeline in late 2013, raising capacity to 55bcm/year, and we expect the ramp up of the 12bcm/year Myanmar pipeline to continue. We expect LNG imports to be roughly stable at 6-7bcm/year until volume from Gorgon begins to ramp up in 2016. However, we see the potential for more LNG spot purchases as a key downside risk for PetroChina. While we forecast only 6.2 bcm/yr of LNG imports in FY14/15 we expect LNG import (re-gas) capacity is currently 14 bcm/yr rising to at least 22 bcm/yr in 2015 and company has plans for a further 29bcm/yr. Therefore the company could increase imports of loss making LNG if domestic gas shortages or environmental concerns compel the company to do so for social responsibility reasons.
- **Domestic gas EBIT to drive gas earnings** — Rising earnings from domestic gas production is the company's bright spot. We expect domestic gas to drive EBIT growth of Rmb 16-19bn/year over the next three years. We expect domestic gas production to grow from ~76.6bcm in 2013 to ~96.1bcm in 2015, from both conventional and unconventional sources. Most of the company's unconventional production through 2015 will be driven by tight gas, and we expect shale to account for only ~2bcm/year of production by 2015. However recent drilling in Sichuan province have been encouraging with strong sustained flow rates, showing strong long-term potential for shale in China. While rising upstream gas production volume will be positive, the bulk of gas earnings growth over the next few years will come from risings domestic prices as the government rolls out the new natural gas pricing mechanism. We expect PetroChina's average gas sale price to rise from US\$7.6/mcf in 2013 to US\$10.4/mcf in 2016.
- **We prefer Sinopec** — We estimate FY14 earnings at Rmb 0.71/share, but Rmb 0.16/share of this would come from non-recurring gains on the sale of pipeline assets like the one they did last year. On a recurring earnings basis, the stock is trading at 11.7x FY14 earnings and 4.7x FY13 EV/DACF. We believe the market remains overly optimistic as to the potential for gas driven earnings growth, and underestimates the magnitude of losses on imported gas.

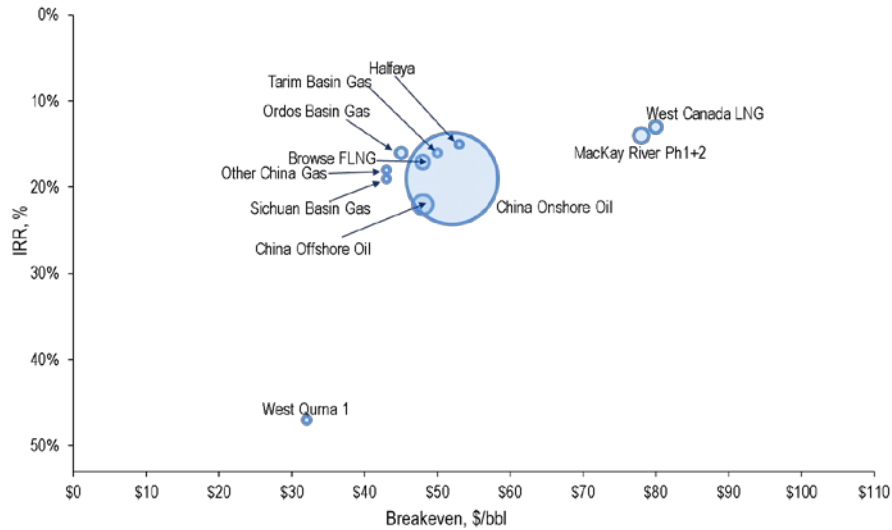
Figure 185. Petrochina Summary Financial Model

CNYB, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
PTR Refining margin (US\$/bbl)															
CNY/USD	7.6	6.9	6.8	6.8	6.5	6.3	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	
E&P volumes (mboepd)	3.04	3.23	3.28	3.36	3.52	3.68	3.87	4.07	4.28	4.43	4.57	4.73	4.83	4.94	3.8%
YoY growth	4.8%	6.1%	1.5%	2.7%	4.7%	4.4%	5.2%	5.4%	4.9%	3.7%	3.2%	3.3%	2.2%	2.2%	
% oil	76%	74%	71%	70%	69%	68%	66%	64%	62%	60%	58%	56%	55%	54%	
E&P cash margins (US\$/bbl)	28.8	35.5	19.8	26.8	36.1	36.6	34.8	32.4	29.0	28.5	31.6	32.7	34.7	36.9	0.2%
Per share data:															
EPS (CNY)	0.81	0.63	0.56	0.76	0.73	0.63	0.68	0.70	0.48	0.48	0.66	0.72	0.85	0.97	0.7%
EPS (US\$)	0.11	0.09	0.08	0.11	0.11	0.10	0.11	0.12	0.08	0.08	0.11	0.12	0.14	0.16	0.7%
DPS (CNY)	0.36	0.28	0.25	0.34	0.33	0.28	0.31	0.32	0.22	0.22	0.30	0.33	0.38	0.44	0.7%
DPS (US\$)	0.05	0.04	0.04	0.05	0.05	0.04	0.05	0.05	0.04	0.04	0.05	0.05	0.06	0.07	0.7%
Valuation ratios (B shares):															
P/E	10.0x	11.8x	12.9x	9.4x	9.5x	10.6x	9.2x	8.9x	13.1x	13.1x	9.6x	8.7x	7.4x	6.5x	
EV/DACF	5.4x	5.6x	5.7x	4.6x	4.6x	4.7x	4.6x	4.5x	4.9x	4.7x	4.0x	3.6x	3.2x	2.7x	
Dividend yield	5.6%	4.3%	3.9%	5.3%	5.0%	4.3%	4.9%	5.0%	3.4%	3.4%	4.7%	5.2%	6.1%	6.9%	
Free cash yield	3.1%	-3.2%	0.8%	5.0%	2.6%	-5.4%	0.5%	5.5%	5.3%	6.1%	13.4%	15.5%	18.0%	21.5%	
Cash flow:															
Upstream	193.3	238.8	136.9	191.1	254.4	262.8	258.7	252.9	240.3	246.4	279.4	299.6	324.4	353.6	4.3%
Downstream	(6.5)	(59.2)	24.7	21.1	(32.9)	(17.8)	(2.5)	6.3	16.4	24.0	32.8	35.2	37.9	41.2	
Other and corporate	29.2	39.8	63.3	73.7	74.8	62.4	64.5	83.0	64.0	64.9	71.8	76.4	84.2	90.8	
Sources of funds	216.0	219.4	224.9	286.0	296.3	307.5	320.7	342.2	320.7	335.3	384.0	411.2	446.5	485.5	4.7%
Changes in working capital	(8.6)	(43.2)	37.8	31.7	1.4	(61.0)	(2.3)	(0.8)	6.9	(0.1)	(5.3)	(1.5)	(3.2)	(3.2)	
Cash flow from operations	207.4	176.2	262.8	317.8	297.7	246.4	318.4	341.4	327.6	335.2	378.7	409.7	443.3	482.4	
Capex	(171.5)	(215.0)	(253.5)	(258.4)	(267.2)	(311.3)	(312.7)	(277.6)	(266.1)	(264.5)	(224.1)	(230.7)	(235.3)	(234.2)	-4.5%
Free cash flow	35.9	(38.8)	9.2	59.4	30.5	(64.8)	5.7	63.8	61.5	70.7	154.6	179.0	208.1	248.1	
Ordinary dividends	(64.5)	(52.8)	(50.1)	(53.2)	(63.3)	(58.0)	(50.2)	(57.0)	(49.5)	(39.7)	(46.4)	(56.6)	(64.4)	(74.6)	-0.2%
as % of operating c/flow	31%	30%	19%	17%	21%	24%	16%	17%	15%	12%	12%	14%	15%	15%	
Discretionary free cash flow	(28.6)	(91.6)	(40.8)	6.2	(32.8)	(122.9)	(44.5)	6.8	12.0	31.0	108.2	122.4	143.7	173.5	
Acquisitions	(4.4)	(3.4)	(3.6)	(3.0)	(5.2)	(7.2)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	
Disposals	1.0	0.1	0.1	0.1	0.0	-	-	-	-	-	-	-	-	-	
Equity change	66.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	34.3	(94.9)	(44.3)	3.3	(38.0)	(130.1)	(45.0)	6.3	11.5	30.5	107.7	121.9	143.2	173.0	
Balance sheet:															
Net debt	(12.9)	82.2	147.4	184.9	256.8	398.8	475.2	500.2	522.8	527.6	459.2	375.0	268.3	129.7	
Net debt/EBITDA	(0.0x)	0.3x	0.6x	0.6x	0.8x	1.2x	1.4x	1.3x	1.6x	1.5x	1.1x	0.8x	0.5x	0.2x	
Net debt/equity	-2%	10%	17%	20%	26%	37%	42%	42%	43%	42%	35%	27%	19%	9%	
Interest cover	166.0x	368.5x	61.8x	69.4x	39.0x	20.3x	15.9x	17.4x	14.9x	15.1x	17.6x	21.7x	29.2x	44.8x	
Capital employed:															
Upstream	366.7	414.2	487.5	550.8	578.5	658.7	766.6	841.0	888.7	924.3	937.8	932.4	918.8	894.7	2.6%
Downstream	296.8	382.6	446.4	508.4	613.2	702.4	763.6	796.6	814.6	826.1	829.6	818.6	803.2	782.1	0.7%
% Upstream	55%	52%	52%	52%	49%	48%	50%	51%	52%	53%	53%	53%	53%	53%	
Return on capital employed:															
Upstream	41.0%	41.7%	15.5%	20.8%	27.7%	21.6%	17.0%	13.7%	10.0%	8.9%	11.0%	12.0%	13.7%	15.5%	
Downstream	-1.7%	-15.2%	6.2%	5.0%	-4.4%	-3.8%	-0.7%	1.7%	-0.1%	0.7%	2.0%	2.5%	3.6%	5.1%	
Aggregate group	21.2%	14.4%	10.6%	13.0%	11.4%	9.4%	9.2%	8.8%	6.2%	6.1%	7.8%	8.4%	9.6%	10.9%	

Source: Company reports and Citi Research estimates.

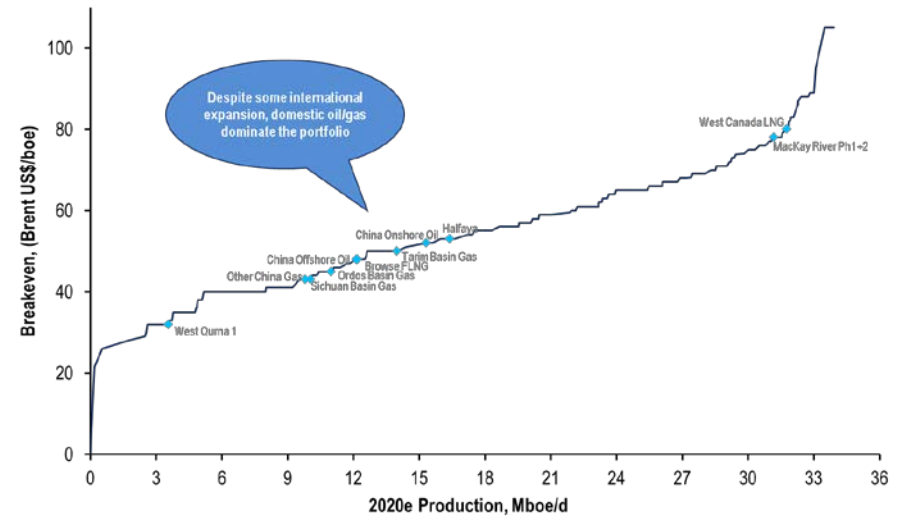
Petrochina - Upstream

Figure 186. Petrochina project portfolio (2013-2020 start-ups)



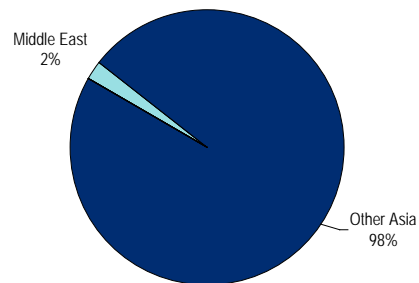
Source: Company reports, Citi Research

Figure 187. Petrochina project portfolio versus the industry cost-curve



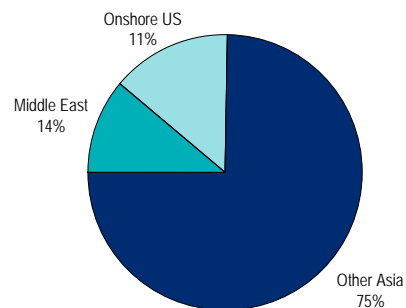
Source: Company reports, Citi Research

Figure 188. 2012 cash flow by region



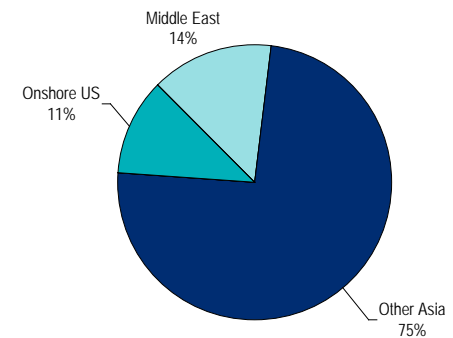
Source: Citi Research and company reports

Figure 189. 2016E cash flow by region



Source: Citi Research

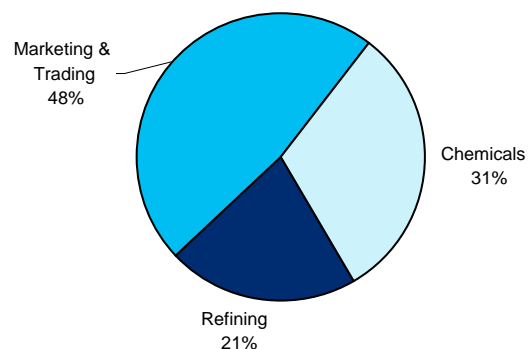
Figure 190. 2020E cash flow by region



Source: Citi Research

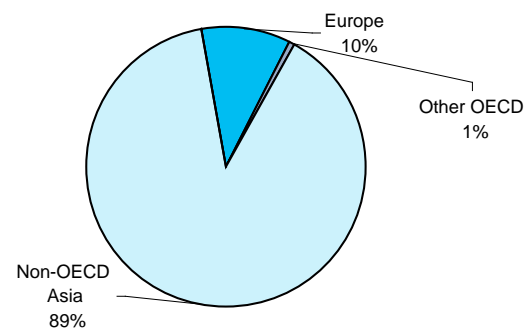
Petrochina – Downstream

Figure 191. 2016E cash flow by segment



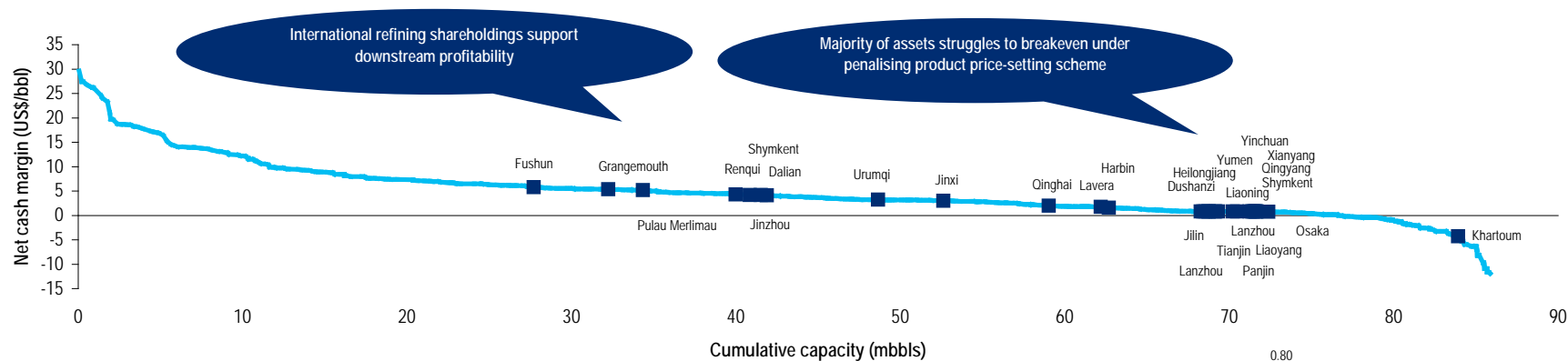
Source: Citi Research

Figure 192. 2016E cash flow by region



Source: Citi Research

Figure 193. Petrochina refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

RD Shell – RDSa.L/RDSb.L Neutral, 2250p/share price target

Strategy Re-Set; Consensus Prices Too Fast a Recovery

Shell's new CEO Ben van Beurden has acknowledged the problems of Shell's former strategy, and has set out a new one, notable by its absence of any financial targets. Instead the market is promised improvements in returns and cash flow at a faster pace than Major Oil peers, with management incentives now better aligned around those goals. Versus that narrow peer group we think look those goals look achievable against all but Total to 2018, but we caution that much of the improvement comes through delivery of a post-2015 growth portfolio. Near-term, the earnings and cash flow profiles look light versus market expectations (Citi is 14% below consensus EPS 2014/15). Over recent months the market has viewed new management as a positive to Shell's outlook. We don't disagree. We just question the valuation multiple that investors are now willing to place on a post-2015 turnaround.

- **2013 Exposes Earnings Power** — 2013 saw a 25% under-delivery of cash flow versus Shell's now-abandoned former financial framework. The culprits are clear – the 17% of capital employed in Upstream Americas and 25% in Downstream – but we think it is less clear to the market that the shortfall is chiefly down to incorrect assumptions (prices, margins, growth potential) used to set the target rather than underperformance of the assets themselves. In that regard it looks aggressive to us that consensus for 2014 bakes-in 12%+ growth in both earnings and cash flow when there are few new growth assets contributing.
- **Build-out continues....** — Shell remains in a heavy investment mode, looking to bring on-line new projects in a portfolio that is bias towards post-2015 delivery. Five projects deliver almost half the new cash generation, four of them Shell-operated and which Shell claim remain on-track and on-budget. Ultimately, coverage of a currently uncovered dividend comes through delivery of this growth, achieved in 2016/17 on our forecasts. The contribution of these new projects we think will allow management to deliver on medium-term goals of improving cash flow and profitability at a faster rate than all Major peers except Total.
- **.... Delivering an Improving Financial Outlook** — Last 12 months RDS has generated US\$37bn operating cash flow (pre-WC) in a US\$110/bbl Brent world. Against that the company has invested US\$39bn (ex-acquisitions) and returned c. US\$11bn to shareholders. The current portfolio looks to be capable of delivering low 50s cash flow by 2018 which we expect capex to remain in the mid-30s range over the period. Implied 2018 free cash flow cover of dividend is around 1.5x, offering capacity for some growth in distribution over the period
- **What next?** — While Shell's framework to 2018 remains well defined to 2018, the piece thereafter looks increasingly uncertain, in our view. The build-out into US Shale has now shown with hindsight to be poorly timed, and in many places in poor assets, leaving the portfolio heavily reliant deepwater Gulf of Mexico, more Australian gas and into West Canadian LNG. The Australia/Canada LNG piece is problematic in that the next wave of projects look to carry a high cost – the risks of slippage on unsanctioned projects like Gorgon T4, Sunrise FLNG, Arrow LNG, Abadi, or BC LNG project all look substantial, in our view. Acquisitions might be needed to plug the gap; the company's keenness to enter Libra in Brazil can likely be seen in this context.
- **Downstream still a problem child** — Downstream as a whole (including Oil Products) has delivered US\$8.5 bn of cash flow over the last 12 months, a performance that has been relatively stable over the last 2 years, although we believe still some 20% below management's view of that the business can deliver. Better cost and operating performance are offered as solutions to a better financial outcome.

Figure 194. RDS Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
RDS Refining margin (US\$/bbl)	7.9	9.1	3.8	5.9	7.9	8.1	6.2	6.3	5.9	7.0	8.0	8.2	8.7	8.7	6.9%
GBP/USD	2.00	1.85	1.56	1.54	1.60	1.58	1.56	1.60	1.60	1.60	1.60	1.60	1.60	1.60	
E&P volumes (mboepd)	3.32	3.25	3.16	3.31	3.22	3.26	3.20	3.08	3.15	3.27	3.41	3.41	3.48	3.51	2.6%
YoY growth	1%	-2%	-3%	5%	-3%	1%	-2%	-4%	2%	4%	4%	0%	2%	1%	
% oil	57%	55%	53%	52%	52%	50%	48%	46%	49%	50%	50%	50%	49%	49%	
E&P cash margins (US\$/bbl)	23.4	29.4	17.1	21.6	27.0	29.1	29.6	31.0	30.1	32.3	34.1	35.7	36.9	37.2	3.6%
Per share data:															
EPS (US\$)	3.96	4.57	1.88	2.94	3.97	4.03	3.10	3.15	2.95	3.52	3.98	4.11	4.35	4.35	6.9%
EPS (p)	198.1	246.8	120.1	190.5	247.3	254.2	198.7	197.0	184.3	220.1	248.4	256.8	271.9	271.9	6.9%
DPS (US\$)	1.44	1.60	1.68	1.68	1.68	1.72	1.80	1.88	1.88	1.92	1.96	2.00	2.04	2.08	1.6%
DPS (p)	72.0	86.3	107.4	108.8	104.7	108.5	115.5	117.5	117.5	120.0	122.5	125.0	127.5	130.0	1.6%
Valuation ratios (B shares):															
P/E	11.1x	8.9x	18.3x	11.5x	8.9x	8.6x	11.8x	11.6x	12.3x	10.3x	9.2x	8.9x	8.4x	8.4x	
EV/DACF	5.5x	6.1x	9.7x	7.2x	5.5x	5.3x	7.1x	6.3x	6.5x	5.9x	5.4x	5.0x	4.7x	4.4x	
Dividend yield	3.9%	4.4%	4.6%	4.6%	4.6%	4.7%	4.9%	5.2%	5.2%	5.3%	5.4%	5.5%	5.6%	5.7%	
Free cash yield	3.2%	4.7%	4.8%	1.3%	4.0%	6.3%	0.5%	3.5%	3.4%	4.9%	7.2%	8.5%	9.8%	10.1%	
Cash flow:															
Upstream	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3%
Downstream	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3%
Other and corporate	40.6	35.6	23.3	32.1	41.7	41.5	37.3	43.3	42.9	47.3	51.6	53.8	56.4	57.2	
Sources of funds	40.7	35.6	23.3	32.1	41.8	41.5	37.3	43.3	42.9	47.4	51.6	53.8	56.5	57.3	5.6%
Changes in working capital	(6.2)	7.9	(2.3)	(5.9)	(6.5)	3.4	3.0	-	-	-	-	-	-	-	
Cash flow from operations	34.5	43.6	21.0	26.2	35.3	44.9	40.3	43.3	42.9	47.4	51.6	53.8	56.5	57.3	
Capex	(27.1)	(32.9)	(31.7)	(23.3)	(26.2)	(30.5)	(39.2)	(35.0)	(34.9)	(35.9)	(34.6)	(33.7)	(33.2)	(33.3)	-0.9%
Free cash flow	7.4	10.6	(10.8)	2.9	9.1	14.4	1.1	8.4	8.0	11.5	17.0	20.2	23.3	24.0	
Ordinary dividends	(9.2)	(9.8)	(10.7)	(10.6)	(10.9)	(11.0)	(11.5)	(12.0)	(12.1)	(12.3)	(12.5)	(12.8)	(13.0)	(13.3)	1.7%
as % of operating cflow	27%	23%	51%	40%	31%	25%	28%	28%	28%	26%	24%	24%	23%	23%	
Discretionary free cash flow	(1.8)	0.8	(21.5)	(7.7)	(1.8)	3.4	(10.3)	(3.6)	(4.1)	(0.8)	4.5	7.4	10.2	10.7	
Acquisitions	(7.1)	(5.5)	(0.9)	(7.3)	(4.7)	(6.9)	(6.8)	(0.4)	-	-	-	-	-	-	
Disposals	9.9	7.2	2.7	6.9	7.5	7.0	1.7	2.1	-	-	-	-	-	-	
Equity change	(4.4)	(3.6)	-	0.6	2.5	1.8	(1.0)	-	-	-	-	-	-	-	
Surplus (deficit)	1.0	2.5	(19.7)	(8.1)	1.0	3.4	(15.4)	(1.8)	(4.1)	(0.8)	4.5	7.4	10.2	10.7	
Balance sheet:															
Net debt	8.4	8.1	25.3	30.9	25.9	19.2	34.9	36.7	40.8	41.6	37.1	29.7	19.5	8.8	
Net debt/EBITDA	0.1x	0.1x	0.7x	0.6x	0.4x	0.3x	0.6x	0.6x	0.7x	0.7x	0.5x	0.4x	0.3x	0.1x	
Interest cover	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm	
Net debt/equity	7%	6%	19%	21%	15%	11%	19%	20%	21%	20%	17%	13%	8%	3%	
Capital employed:															
Upstream	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4.1%
Downstream	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.8%
% Upstream	52%	61%	61%	63%	64%	68%	70%	71%	72%	73%	73%	73%	73%	73%	
Return on capital employed:															
Upstream	23.2%	29.6%	9.3%	13.6%	17.2%	15.4%	10.5%	9.5%	8.4%	9.8%	10.8%	10.8%	11.3%	11.2%	
Downstream	14.6%	9.3%	3.3%	6.0%	6.1%	8.0%	7.0%	7.5%	6.9%	7.2%	7.6%	7.8%	7.9%	7.8%	
Aggregate group	15.2%	16.5%	6.0%	8.8%	10.9%	10.6%	7.8%	7.5%	6.7%	7.7%	8.4%	8.5%	8.9%	8.8%	

Source: Company reports and Citi Research estimates.

(RDSb.L; £23.36; 2)

Figure 195. RDS project portfolio (2013-2020 start-ups)

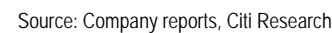
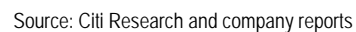
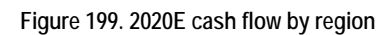
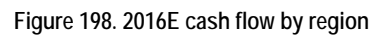
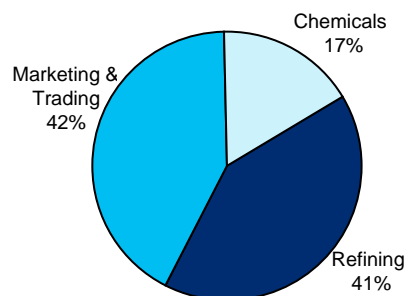


Figure 197. 2012 cash flow by region



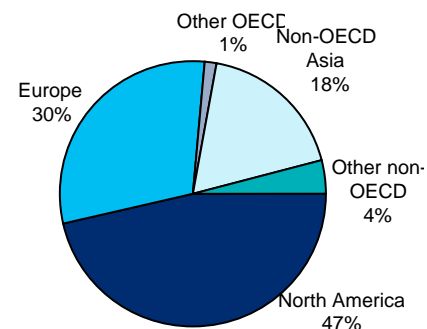
RD Shell - Downstream

Figure 200. 2016E cash flow by segment



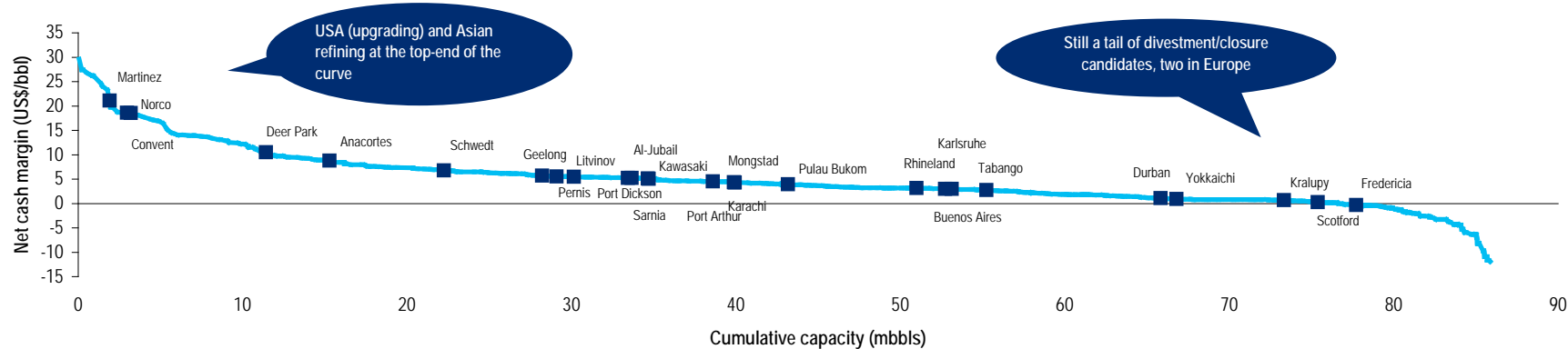
Source: Citi Research

Figure 201. 2016E cash flow by region



Source: Citi Research

Figure 202. RD Shell refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Reliance Industries – Neutral, Rs979/share price target

Risk-Reward Balanced

RIL is India's largest integrated oil & gas company, with its substantial downstream presence (runs the world's largest refining complex, is amongst the world's largest petrochemical producers), as well as its ownership of India's largest offshore gas block (KG-D6). The latter has faced headwinds in terms of flagging output and reserve downgrades, while RIL itself has struggled in an adverse regulatory environment, driving a rationalization of its E&P strategy. While refining performance has stabilised, petrochemicals are showing signs of a recovery, and an increase in gas prices is now a reality, a tendency to invest in capital intensive non-core businesses will continue to keep return ratios subdued and meaningful earnings growth will tend to be back-ended, led by new projects in its core refining and petchem businesses.

- **E&P: Long road to recovery** – Production ramp-up will be gradual and back-ended as new fields (satellite, R-series, etc) in the KG-D6 block will have a long gestation period despite extant infrastructure. While the recent gas price notification is a positive, ~US\$8-8.5 gas price is largely priced in and may not be a game-changer as it may not be sufficient to encourage high-risk exploration unless a road map for long-term gas pricing is provided in our view.
- **Refining: Lack of upside catalysts** – While we expect regional refining margins to stay balanced in 2014 supported by delays in new capacities and permanent closures, catalysts for a meaningful recovery in margins are elusive. Our GRM assumptions for RIL stand at US\$8.3/8.7/8.4 over FY14/15/16E vs. US\$9.2 in FY13. We are more positive on the petrochemicals segment over the next 2-3 years with an improvement in spreads led by the olefins chain.
- **Core expansions: Further clarity and comfort needed** – While the core refining and petchem expansions (petcoke gasifier and ROGC) could drive significant earnings growth in FY17E (core EBITDA could be >60% higher than FY14E levels), the market may await further clarity on timelines and seek greater comfort around operational issues before awarding premium multiples to the resultant earnings streams.
- **Valuations: Reasonable, but not compelling** – Valuations at ~11-12x P/E and ~1.2-1.3x P/B with ROEs of ~12% are reasonable but not compelling in our view. The 2007-08 valuation premium was driven by visibility on upcoming projects (SEZ refinery, KG-D6) as well as a spurt in GRMs combined with a slew of discoveries driving exploration upsides, and is hence unlikely to return.
- **New ventures: Telecom to drag** – RIL's telecom business faces challenges on spectral inefficiency, entry costs, and technology, raising questions on its ability to generate positive NPV from this segment. While both retail and shale gas are in relatively better shape, the contribution from these businesses will still be overall returns-dilutive (retail 1H EBITDA stood at Rs1.65bn on capital employed of Rs92bn; shale 1H EBITDA stood at US\$292m on capital employed of US\$6.5bn).
- **Prefer Cairn India and ONGC** – For exposure to the Indian oil companies, we prefer Cairn India (CAIL.BO; Rs329.45; 1) led by a combination of strong production growth (3-yr CAGR of ~8%), likely exploration upsides, signs of a more benign regulatory environment, and buyback support; and ONGC (ONGC.BO; Rs315.45; 1) given reasonable valuations (~7.5x P/E) which we believe are not adequately factoring in the benefits from higher gas prices as well as lower fuel subsidies on account of gradual diesel deregulation.

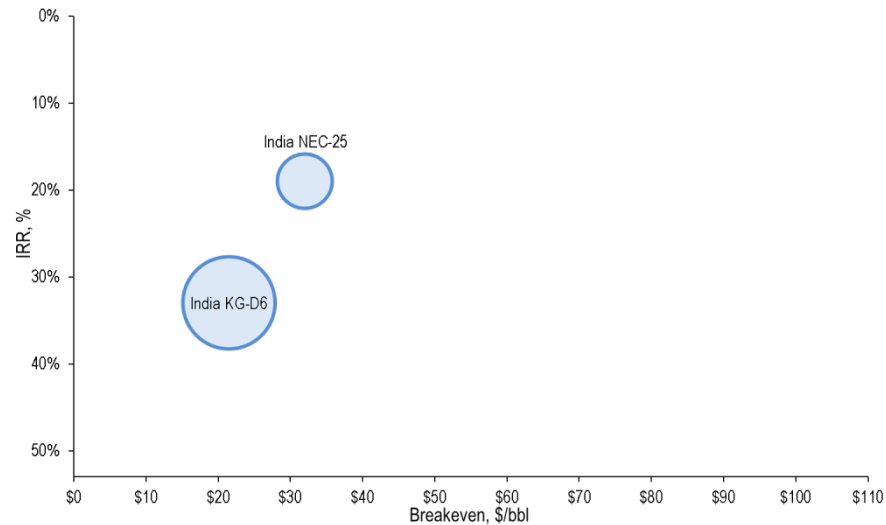
Figure 203. Reliance Industries Summary Financial Model

Rs B unless stated; year-end March	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:												
Brent oil (US\$/bbl)	69.7	86.6	115.0	110.6	108.3	105.6	102.5	98.6	101.8	105.1	108.6	-1.5%
Gross refining margin (US\$/bbl)	6.6	8.4	8.6	9.2	8.3	8.7	8.4	8.3	8.4	8.5	8.6	
INR/US\$ rate	47.5	45.6	47.9	54.4	61.0	62.0	59.0	58.0	58.0	58.0	58.0	
E&P volumes (kboepd)	264	347	255	171	148	178	241	256	321	385	402	21.3%
YoY growth		32%	-27%	-33%	-13%	20%	35%	6%	26%	20%	4%	
E&P cash margins (US\$/boe)	20.9	21.8	21.7	21.2	23.0	25.4	23.5	22.4	22.3	25.5	25.6	-0.8%
Per share data:												
EPS (Rs)	50	65	66	71	75	83	97	122	142	169	185	17.5%
DPS (Rs)	7	8	8	9	10	11	13	16	18	22	24	17.5%
Valuation ratios:												
P/E	17.8x	13.7x	13.4x	12.5x	11.9x	10.6x	9.1x	7.2x	6.2x	5.2x	4.8x	
EV/DACF	10.9x	8.8x	8.8x	8.4x	8.3x	8.0x	6.9x	5.3x	4.0x	2.8x	2.0x	
Dividend yield	0.8%	0.9%	1.0%	1.0%	1.1%	1.2%	1.4%	1.8%	2.0%	2.4%	2.7%	
Free cash yield	1.4%	-0.7%	-0.7%	2.2%	-9.6%	-3.8%	5.6%	15.0%	18.1%	21.9%	25.0%	
Cash Flow:												
Upstream	95	126	96	72	76	102	122	121	151	208	217	18.9%
Downstream	80	112	113	139	142	153	156	166	170	172	174	4.6%
Chemicals	88	96	86	75	86	98	142	193	209	218	227	24.7%
Other	4	65	5	35	30	15	5	29	52	81	110	
Sources of funds	267	399	300	321	334	368	425	509	582	679	728	14.9%
Changes in working capital	(133)	(204)	(186)	57	(128)	(43)	(9)	28	(15)	(28)	(15)	
Cash flow from operations	135	194	113	377	206	326	416	537	567	651	713	
Capex	(233)	(339)	(254)	(551)	(455)	(425)	(269)	(147)	(96)	(82)	(63)	-32.3%
Operational free c/flow	(98)	(144)	(141)	(173)	(249)	(99)	146	390	471	569	650	
Ordinary dividends	(49)	157	224	(31)	(35)	(39)	(46)	(57)	(67)	(79)	(87)	17.5%
as % of operating c/flow	(1)	1	2	(0)	(0)	(0)	0	0	0	0	0	
Discretionary free c/flow	(147)	13	83	(204)	(284)	(138)	100	333	405	490	563	
Divestments	-	-	90	230	-	-	-	-	-	-	-	
Share buybacks/sale	84	-	-	(30)	-	-	-	-	-	-	-	
Surplus (deficit)	(63)	13	173	(5)	(284)	(138)	100	333	405	490	563	
Balance sheet:												
Net debt	485	393	245	279	553	681	558	195	(230)	(756)	(1,302)	
Net debt/EBITDA	1.6x	1.0x	0.7x	0.8x	1.5x	1.6x	1.1x	0.3x	(0.4)	(1.0)	(1.7)	
Cash interest cover	13.4x	16.5x	10.4x	9.3x	8.4x	7.8x	7.2x	6.9x	8.0x	9.4x	10.3x	
Net debt/equity	35%	25%	14%	15%	27%	31%	23%	7%	-7%	-21%	-33%	
Capital employed:												
Upstream	589	649	430	475	520	557	617	657	674	665	638	6.7%
Downstream/Chemicals	1,474	1,512	1,520	1,587	1,775	1,961	1,985	1,904	1,818	1,725	1,631	0.6%
% Upstream	23%	21%	13%	14%	14%	13%	14%	14%	14%	13%	11%	
Return on capital employed:												
Upstream	8.2%	8.1%	9.8%	7.1%	6.8%	10.5%	11.7%	11.2%	14.2%	21.5%	24.0%	
Downstream/Chem	7.5%	9.6%	8.7%	9.3%	9.1%	9.1%	10.9%	14.0%	15.5%	16.6%	18.1%	
Aggregate group	7.0%	8.0%	7.6%	7.1%	6.8%	7.5%	8.8%	10.4%	11.7%	13.8%	15.0%	

Source: Company reports and Citi Research estimates.

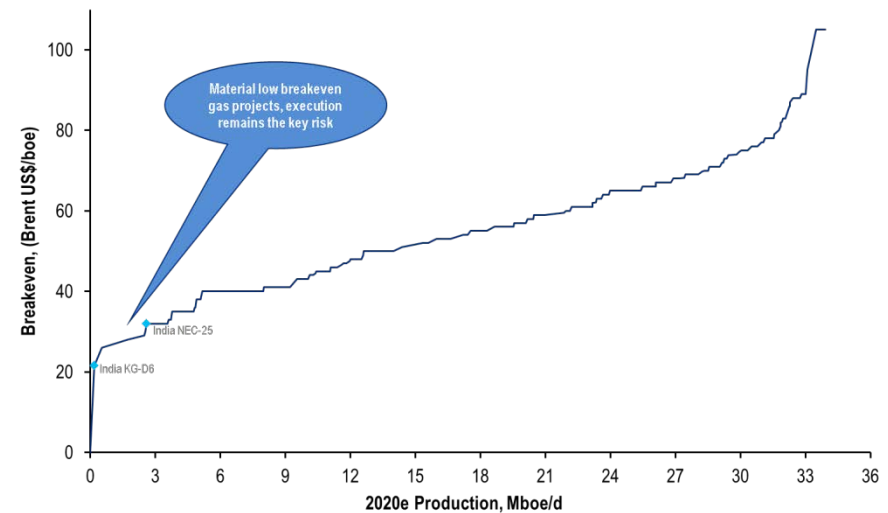
Reliance Industries – Upstream

Figure 204. Reliance Industries project portfolio (2013-2020 start-ups)



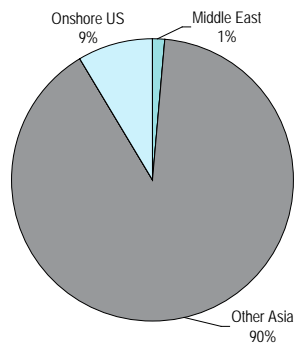
Source: Company reports, Citi Research

Figure 205. Reliance Industries project portfolio versus the industry cost-curve



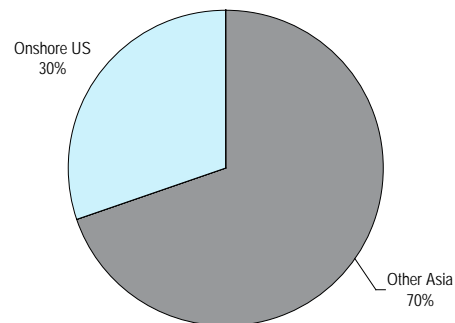
Source: Company reports, Citi Research

Figure 206. 2012 cash flow by region



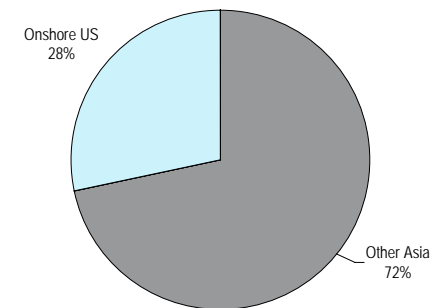
Source: Citi Research and company reports

Figure 207. 2016E cash flow by region



Source: Citi Research

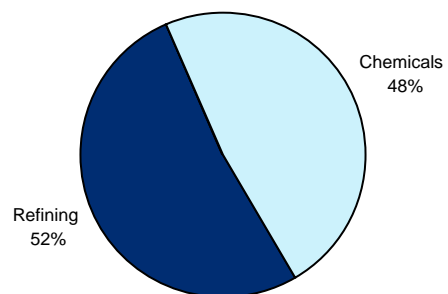
Figure 208. 2020E cash flow by region



Source: Citi Research

Reliance Industries – Downstream

Figure 209. 2016E cash flow by segment



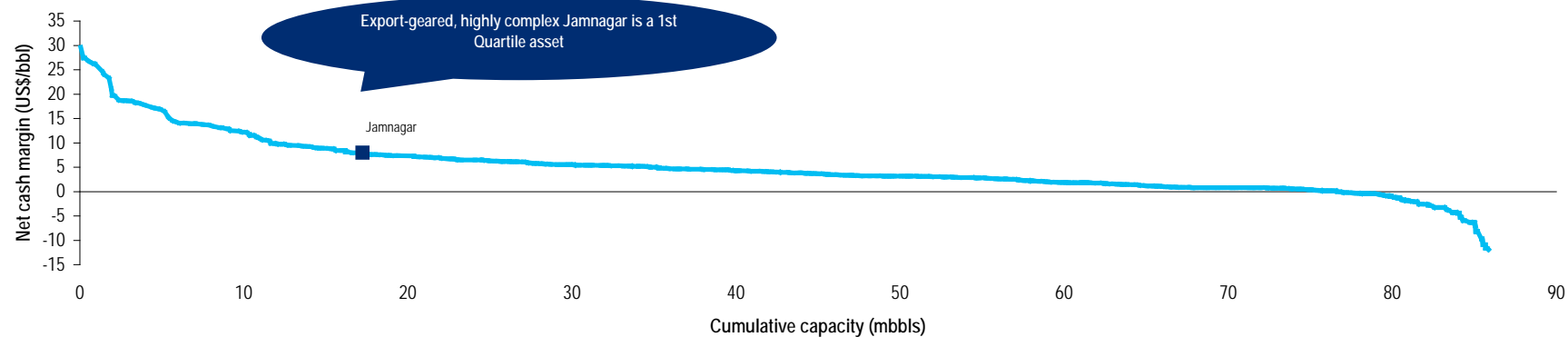
Source: Citi Research

Figure 210. 2016E cash flow by region

Other non-
OECD
100%

Source: Citi Research

Figure 211. Reliance Industries refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Repsol – Buy, €23.0/share price target

Low-Cost Growth Trajectory, Supported by a Strong Balance Sheet

Repsol offers strong growth potential, built around a portfolio of world-class exploration success over the last seven years. Pre-salt Brazil is the engine of growth (from both a volume and profitability standpoint), but management have sought in the last two years to broaden the base by adding in strategic positions in US unconventional oil and in established petroleum provinces such as Alaska, Russia and Venezuela. The growth in Upstream acts to slowly dilute the relevance of Repsol's legacy as a Spanish downstream company, although downstream still remains an important source of free cash flow (positive even in tricky market conditions in 2013) to fund a relatively high dividend payout for a company that is targeting growth ambitions.

- **Growth emphasis** — We see Repsol around a framework of 9% p.a. CFPS growth and improving returns over the next five years. This framework reflects a modest recovery in Downstream earnings and substantial growth Upstream business, the later driven by the monetization of Repsol's strong exploration success since 2007. The Upstream investment portfolio maps to an average US\$53/bbl breakeven and 26% IRR, metrics that compare favorably to the peer group average and are also modestly incremental to Repsol's existing Upstream business that is heavily influenced by low-return Trinidad.
- **Portfolio visibility** — A strong 6-year track record in exploration (especially Brazil, Venezuela and to some extent Gulf of Mexico) provides Repsol with the building blocks for post-2020, long-term visibility that few peers look to have. Brazil in particular looks to offer strong growth option, driven by better deliverability/reserves at Saphinoa and from the emerging potential of the Pao de Azucar complex.
- **Downstream and Spain** — Repsol Spanish Downstream business re-touched profitability lows in 2013 (ROCE of c. 3%), a reflection of compressed margins for European refining and for Spanish petrochemicals. That said, the business was still free cash positive in 2013, with earnings very much protected, we think, by the oligopolistic market structure of Spanish retail marketing (three companies including Repsol have c. 70% market share). Looking forward, despite our concerns on structural overcapacity in the European refining, Repsol's portfolio looks well enough competitively positioned on the cost-curve to remain at the profitable end of the industry. Key here has been the Cartagena/Bilbao upgrades which have repositioned these as advantaged assets within the European market, benefitting in particular from what we see as sustained wide fuel oil – diesel spreads. Repsol have also put in place operating/cost plans to restore chemicals back to breakeven levels of profitability for 2014.
- **Financial restoration** — An 18-month disposal and financial restructuring plan has successfully protected Repsol's investment-grade debt, with the US\$6.7bn sale of the LNG business. Spreads on debt have tightened; the Z-spread on company's 5-year BBB Eurobonds has dropped from c. 220 bps in late 2012 to now around 55 bps. Part of the financial restructuring has seen the introduction of a scrip dividend which, with high uptake has acted to dilute growth-per share. With a stronger financial position now in place, Repsol are now committed to buyback part of that scrip dilution (around two-thirds in 2014 on our estimates).
- **Upstream M&A** — In recent months Repsol have talked openly about a desire to build-out further in Upstream through acquisitions, wholly or partly funded by a sell-down in the company's 30.3% stake in Gas Natural (the strategic rationale of holding that stake has diminished following the sale of the LNG business). Management has talked openly about a desire to improve Upstream portfolio diversity, especially gaining a greater OECD presence, and have singled out North America as a key area of focus. At recent FY13 results management also commented that corporate/asset valuations in Canada look more favourable than those in US. Arguably one of Repsol's key areas of value-add since 2007 has been through assessing exploration risk well (e.g. Shenzi acquisition, Brazil pre-salt); we think likely that management will continue to exploit this apparent competitive strength in the M&A market.

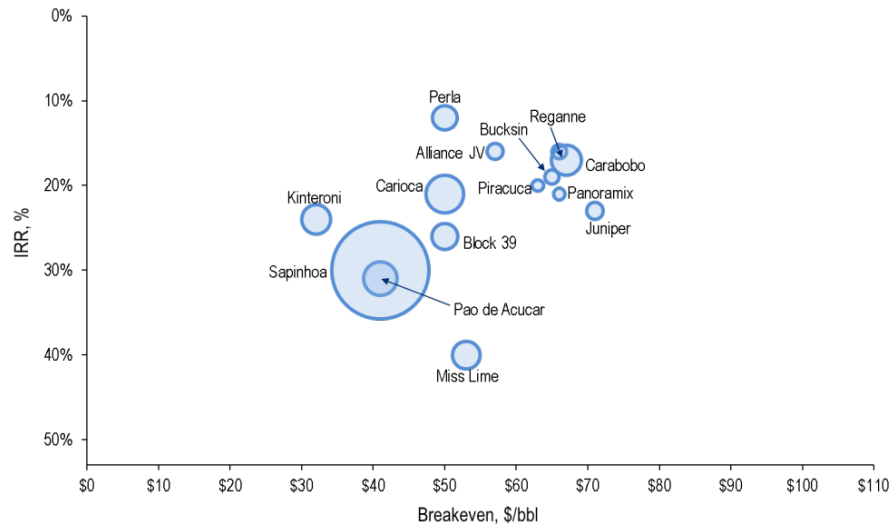
Figure 212. Repsol Summary Financial Model

€ B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.9	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
Realised refining margin (US\$/bbl)	6.38	7.38	1.34	2.45	1.65	5.11	3.30	3.92	3.82	4.52	4.33	4.15	3.90	3.72	1.4%
EUR/US\$ rate	1.37	1.46	1.39	1.32	1.39	1.29	1.33	1.35	1.35	1.35	1.35	1.35	1.35	1.35	
E&P volumes (mboepd)	390	332	333	344	298	330	347	373	412	462	493	531	562	576	9.2%
YoY growth	-16.7%	-14.8%	0.1%	3.5%	-13.3%	10.7%	4.9%	7.7%	10.4%	12.1%	6.7%	7.7%	5.9%	2.4%	
% oil	39%	39%	40%	42%	37%	43%	40%	42%	44%	44%	46%	44%	42%	43%	
E&P cash margins (US\$/boe)	16.0	18.2	19.4	20.8	27.4	29.5	33.5	25.1	24.4	24.9	26.1	26.0	26.9	27.4	0.8%
Per share data:															
EPS adjusted (at-equity)	1.65	1.42	0.46	1.48	1.37	0.85	1.01	1.21	1.23	1.51	1.69	1.77	1.94	2.04	10.1%
DPS	1.00	1.05	0.85	1.05	1.16	0.97	0.97	0.97	0.99	1.01	1.03	1.05	1.07	1.09	2.0%
Valuation ratios (at equity):															
P/E	11.0x	12.7x	39.2x	12.2x	13.2x	21.4x	18.1x	15.2x	14.9x	12.2x	10.9x	10.4x	9.5x	9.0x	
EV/DACF	5.8x	4.9x	7.7x	5.9x	7.6x	7.3x	6.0x	6.6x	7.2x	6.4x	6.0x	5.6x	5.2x	4.9x	
Dividend yield	5.5%	5.8%	4.7%	5.8%	6.4%	5.4%	5.3%	5.3%	5.4%	5.5%	5.6%	5.7%	5.8%	5.9%	
Free cash yield	10.5%	9.9%	3.2%	6.9%	1.6%	3.0%	5.0%	2.8%	3.3%	4.4%	5.9%	7.2%	8.7%	9.2%	
Cash flow:															
Upstream	1.7	1.5	1.7	2.0	2.1	2.8	3.2	2.5	2.7	3.1	3.5	3.7	4.1	4.3	10%
Downstream	2.7	2.2	1.2	1.6	1.2	1.4	1.1	1.2	1.2	1.4	1.4	1.4	1.4	1.3	3%
Other	0.4	1.5	0.6	0.8	0.4	(0.5)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)	(0.1)	
Cash flow	4.7	5.2	3.6	4.3	3.7	3.6	4.1	3.5	3.7	4.3	4.7	4.9	5.3	5.6	9%
Capex	(2.4)	(3.0)	(2.9)	(2.8)	(3.3)	(3.0)	(3.0)	(2.9)	(3.0)	(3.3)	(3.3)	(3.3)	(3.4)	(3.5)	3%
Free cash flow	2.3	2.2	0.7	1.5	0.3	0.7	1.1	0.6	0.7	1.0	1.4	1.6	1.9	2.1	
Ordinary dividends	(0.9)	(1.2)	(1.3)	(1.0)	(1.3)	(1.4)	(1.2)	(1.3)	(1.3)	(1.4)	(1.4)	(1.4)	(1.5)	(1.5)	3%
as % of operating c/flow	19%	23%	36%	24%	35%	39%	29%	36%	36%	32%	30%	29%	27%	27%	
Discretionary free cash flow	1.4	1.0	(0.6)	0.5	(0.9)	(0.7)	(0.1)	(0.6)	(0.6)	(0.4)	(0.0)	0.2	0.5	0.6	
Disposals	1.3	1.0	0.2	5.1	4.2	2.5	4.1	-	-	-	-	-	-	-	
Acquisitions	(0.3)	(0.2)	(1.6)	-	(0.2)	(0.5)	-	-	-	-	-	-	-	-	
Equity change	-	-	-	-	-	0.5	0.7	-	-	-	-	-	-	-	
Surplus (deficit)	2.4	1.8	(1.9)	5.6	3.0	1.8	4.8	(0.6)	(0.6)	(0.4)	(0.0)	0.2	0.5	0.6	
Balance sheet:															
Core Repsol net debt	5.7	4.6	7.4	3.9	7.5	7.2	2.5	3.2	3.8	4.2	4.2	4.0	3.5	2.9	
Net debt/EBITDA	1.1x	0.9x	2.2x	0.9x	1.8x	1.3x	0.5x	0.7x	0.8x	0.7x	0.7x	0.6x	0.5x	0.4x	
Cash interest cover	27.4x	21.1x	9.2x	39.0x	15.4x	10.7x	12.6x	10.0x	10.2x	11.2x	13.1x	14.4x	17.2x	19.2x	
Net debt/equity	50%	32%	52%	21%	38%	31%	11%	12%	14%	15%	15%	14%	11%	9%	
Capital employed:															
Upstream	7.0	7.7	7.7	8.1	9.4	10.4	11.0	11.4	12.2	13.0	13.8	14.4	15.0	15.6	6%
Downstream	9.0	8.9	9.8	10.8	12.0	12.0	12.0	11.9	11.8	11.8	11.8	11.7	11.7	11.7	0%
% Upstream	20%	24%	26%	25%	31%	40%	39%	40%	41%	43%	45%	46%	47%	48%	
Return on capital employed:															
Upstream	10.4%	11.8%	6.8%	7.7%	10.7%	15.0%	15.0%	9.6%	9.4%	10.6%	11.8%	12.0%	13.0%	13.3%	
Downstream	22.9%	17.3%	6.0%	8.9%	5.7%	6.3%	3.4%	4.8%	4.8%	6.1%	6.0%	5.9%	5.7%	5.5%	
Aggregate group	9.8%	8.9%	6.9%	8.0%	7.2%	5.5%	6.7%	5.0%	5.1%	5.5%	5.7%	5.8%	5.9%	5.9%	

Source: Company reports, Citi Research estimates.

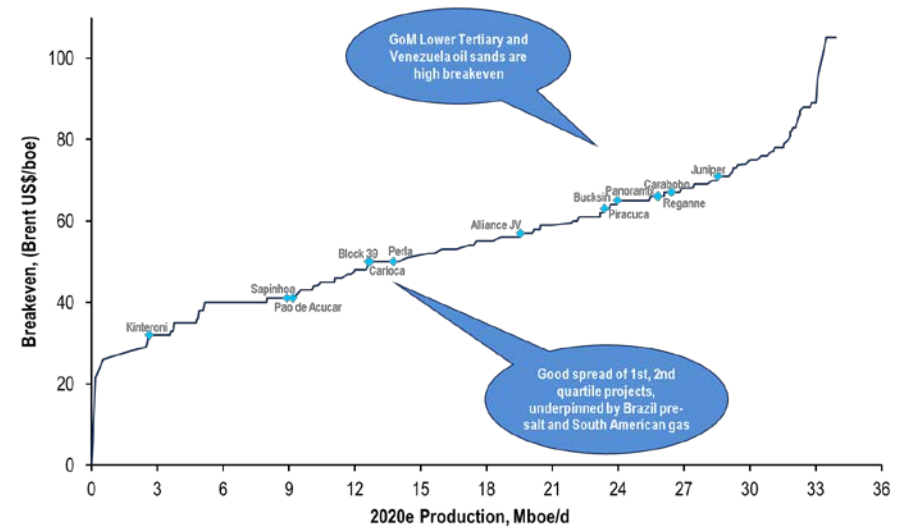
Repsol – Upstream

Figure 213. Repsol project portfolio (2013-2020 start-ups)



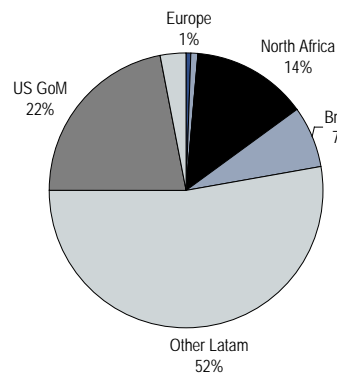
Source: Company reports, Citi Research

Figure 214. Repsol project portfolio versus the industry cost-curve



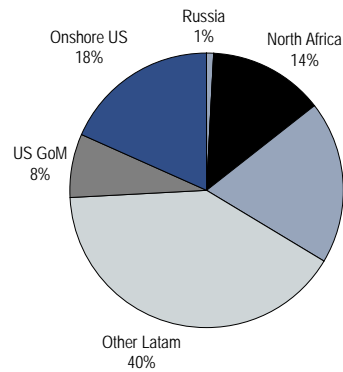
Source: Company reports, Citi Research

Figure 215. 2012 cash flow by region



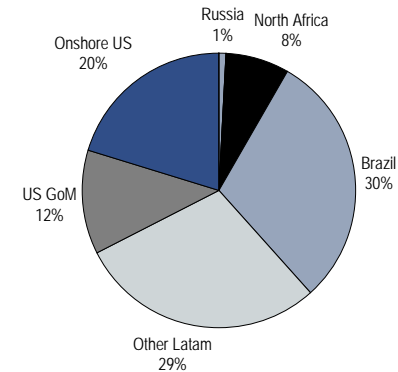
Source: Citi Research and company reports

Figure 216. 2016E cash flow by region



Source: Citi Research

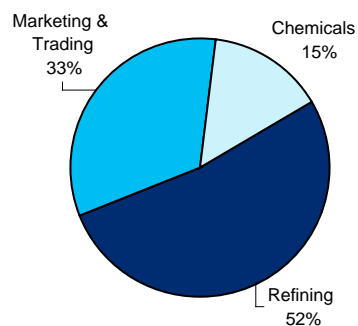
Figure 217. 2020E cash flow by region



Source: Citi Research

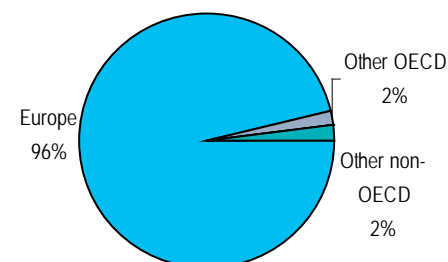
Repsol – Downstream

Figure 218. 2016E cash flow by segment



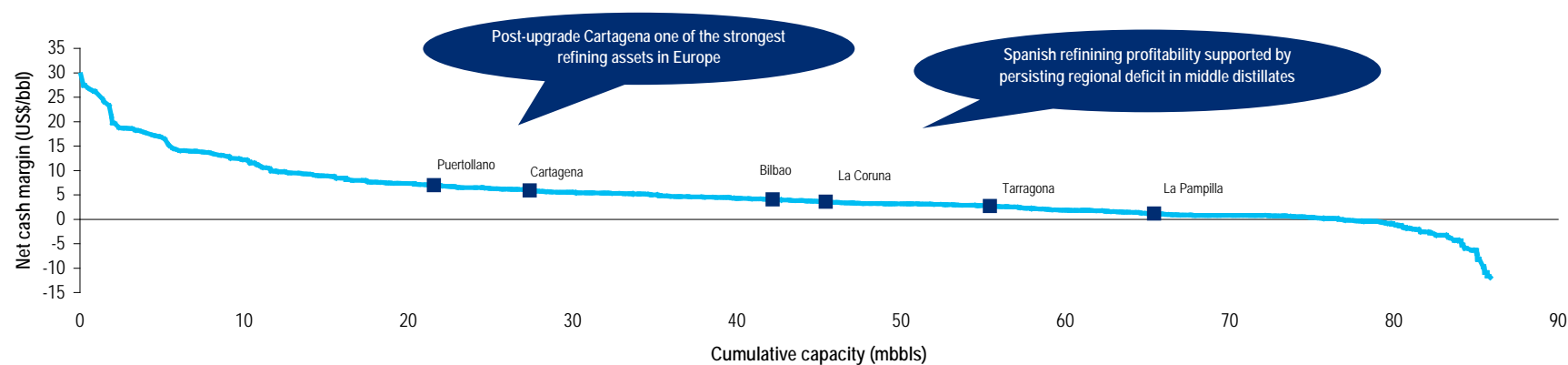
Source: Citi Research

Figure 219. 2016E cash flow by region



Source: Citi Research

Figure 220. Repsol refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Rosneft – Buy, US\$11.3/share price target

TNK-BP Deal Done, Time To Look Forward

Rosneft is Russia's largest oil producer and refiner. While the company's balance sheet is somewhat stretched following the TNK-BP acquisition in 1Q13, the high quality and youth of its key upstream assets mean it is quite efficient at replacing reserves. Rosneft's greenfield portfolio is the most promising in the country, including further exploration opportunities in the immediate vicinity of the Vankor field, numerous East Siberian exploration licenses, and the lion's share of offshore exploration licenses (recently signed deals with ExxonMobil, Statoil, and Total) to test and develop. Downstream the company is in the middle of a \$25bn upgrade program of its refineries, constraining available CF through the end of 2015. The company is pushing for LNG export rights to help monetize its offshore licenses, which are likely to uncover significant gas reserves in addition to oil.

- **Production large, growing, and with good long-term prospects** — The New Rosneft has c29.5bn barrels of proved oil reserves, giving it a reserve life of 19 years on production of c4.2mmbpd. Output is likely stable to growing slowly for the near term, with the next step-up likely only when the Yurubcheno-Tokhomskeye field in East Siberia and TNK-BP licenses in the Vankor cluster are ramped up in a few years. Significant growth will likely have to wait for the development of Rosneft's promising offshore blocks in Russia's Kara and Black Seas, among others. Offshore deposits are to be developed via already-concluded agreements with the likes of ExxonMobil, Statoil, and Total. Rosneft's replacement costs have typically run around \$6-\$7/bbl, substantially lower than Lukoil's \$10+/bbl, and are likely to stay in that attractive range for the medium term on the strength of initial well flow rates at the key Vankor and Priobskoye fields.
- **Gas business the more immediate growth driver** — New CEO Igor Sechin quickly expanded Rosneft's gas ambitions upon joining the company in 2012, announcing in October of that year that gas sales would rise to 77bcm by 2017, a more than 50bcm uptick. Although greeted with skepticism by investors initially, confirmation came a few weeks later when it emerged that utility holding Inter RAO – long chaired by Mr Sechin – would be one of the major purchasers. Additionally, Rosneft is now pushing aggressively to gain LNG export rights – currently a legal monopoly held by Gazprom – to help it monetize any gas found in its numerous offshore licenses.
- **Downstream shows promise, but absorbing CF through 2015** — Rosneft is Russia's largest refiner. The company has an aggressive plan to upgrade all 7 of its key legacy refineries, and has inherited more modest plans for its TNK-BP refineries. The plans include a substantial increase in primary distillation capacity at its export-oriented Tuapse plant on the Black Sea and, more importantly, higher light product output at all refineries. However, the whole program will run \$25/bn across the 2010-2015 period, with \$5-\$6bn needed annually for the next 3 years, keeping available FCF minimal and limiting Rosneft's ability to de-lever its balance sheet in the interim. However, with a highly favorable export duty regime, we think the returns on downstream investments are likely to remain comfortably above the company's cost of capital.
- **Investor communications markedly improved under new management** — For a period starting with the release of 3Q11 results, when management failed to host a conference call, Rosneft's investor communications effort went into hibernation. The 4Q11 call was similarly skipped. However, once a new management team was installed, including the highly influential CEO Igor Sechin, communication resumed, including two separate non-deal road shows to London and New York.
- **Multiple premium justified, DCF indicates more upside** — Rosneft currently trades at about 5.4x P/E and 4.6x EV/DACF. While a premium to Lukoil's multiples, we think this is justified by the company's lower reserve replacement costs, which underlie our DCF valuation of \$9.4/share, and the company's much more aggressive use of historic low interest rates to buy high-quality assets (Rosneft has reportedly financed most of its debt for the TNK-BP deal at or below 4%).

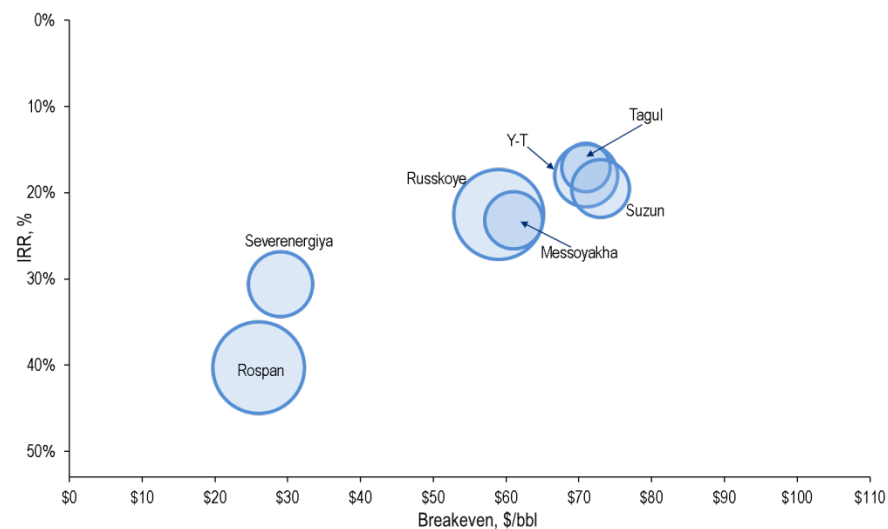
Figure 221. Rosneft Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	97.7	61.9	79.9	111.2	111.7	108.9	103.0	95.0	98.6	101.8	101.8	101.8	101.8	-0.4%
E&P volumes (mboepd)	2.08	2.16	2.23	2.37	2.42	2.50	3.95	4.08	4.11	4.19	4.25	4.25	4.25	4.25	1.4%
YoY growth	1.3%	4.1%	2.9%	6.3%	2.5%	3.2%	57.8%	3.4%	0.6%	2.0%	1.5%	0.0%	0.0%	0.0%	
% oil	98%	98%	98%	99%	99%	98%	97%	97%	97%	97%	96%	96%	96%	96%	
E&P cash margins (US\$/bbl)	16.3	7.8	12.7	12.4	16.8	17.0	18.0	16.8	16.2	16.3	15.9	16.3	16.7	17.2	-0.9%
Per share data:															
EPS (US\$)	1.30	1.16	0.47	0.92	1.16	1.25	1.57	0.75	0.98	1.36	1.16	1.19	1.21	1.25	16.5%
DPS (US\$)	0.06	0.08	0.07	0.09	0.26	0.26	0.39	0.19	0.24	0.41	0.35	0.36	0.36	0.37	23.8%
Valuation Ratios:															
P/E	5.1x	5.7x	14.0x	7.2x	5.7x	5.3x	4.1x	8.7x	6.7x	4.8x	5.6x	5.5x	5.3x	5.2x	
EV/DACF	9.0x	6.8x	8.1x	5.5x	4.7x	5.3x	4.3x	5.0x	5.3x	4.7x	4.2x	4.2x	3.8x	3.4x	
Dividend yield	0.9%	1.2%	1.1%	1.4%	3.9%	3.9%	6.0%	2.9%	3.8%	6.3%	5.3%	5.5%	5.6%	5.7%	
Free cash yield	16.4%	8.6%	5.6%	10.4%	4.5%	1.2%	8.1%	-5.1%	9.1%	9.4%	17.3%	24.9%	19.2%	18.2%	
Cash flow:															
Upstream	13.8	7.0	8.9	10.6	10.7	12.0	16.5	12.3	19.4	20.8	19.9	23.4	20.8	20.4	24.0%
Downstream	3.4	7.4	2.2	5.1	5.9	4.7	7.1	5.5	8.9	9.8	9.7	11.5	10.2	10.0	27.9%
Other and corporate	(8.2)	(1.5)	(0.2)	0.4	2.1	(0.0)	1.5	9.8	(1.2)	(0.3)	(0.3)	(4.9)	(0.3)	1.2	
Sources of funds	8.9	12.9	10.9	16.2	18.6	16.7	25.1	27.6	27.2	30.3	29.3	30.0	30.8	31.5	2.9%
Changes in working capital	8.1	1.3	(0.1)	(0.9)	(2.5)	(0.7)	(2.0)	(10.4)	0.5	(0.6)	(0.4)	4.2	(0.5)	(1.9)	
Cash flow from operations	16.9	14.1	10.8	15.3	16.1	16.0	23.1	17.1	27.6	29.7	28.9	34.2	30.3	29.6	
Capex	(6.2)	(8.7)	(7.3)	(8.7)	(13.3)	(15.2)	(17.6)	(20.6)	(21.4)	(23.2)	(17.0)	(17.0)	(17.0)	(17.1)	-6.2%
Free cash flow	10.7	5.4	3.6	6.6	2.8	0.8	5.6	(3.5)	6.3	6.5	11.9	17.2	13.2	12.5	
Ordinary dividends	(0.5)	(0.5)	(0.6)	(0.7)	(0.9)	(2.3)	(2.7)	(4.2)	(2.0)	(4.3)	(3.7)	(3.8)	(3.9)	(4.0)	-3.3%
as % of operating c/f	3%	4%	6%	5%	6%	14%	12%	24%	7%	15%	13%	11%	13%	13%	
Discretionary free cash flow	10.2	4.9	3.0	5.9	1.9	(1.5)	2.9	(7.6)	4.3	2.1	8.2	13.4	9.4	8.6	
Disposals/(Acquisitions)	1.7	-	-	-	-	-	14.2	-	-	-	-	-	-	-	
Equity change	(7.5)	-	-	-	(0.4)	(0.1)	-	-	-	-	-	-	-	-	
Surplus (deficit)	11.8	4.9	3.0	5.9	1.9	(1.5)	17.2	(7.6)	4.3	2.1	8.2	13.4	9.4	8.6	
Balance sheet:															
Net debt	26.3	22.8	21.5	19.3	18.5	22.4	78.1	90.4	86.6	84.5	76.2	64.2	56.0	47.9	
Net debt/EBITDA	1.9x	1.3x	1.6x	1.0x	0.8x	1.2x	2.7x	3.0x	2.9x	2.5x	2.4x	1.9x	1.7x	1.4x	
Interest cover	11.3x	22.7x	52.8x	58.2x	nm	nm	27x	26x	25x	30x	31x	31x	31x	31x	
Net debt/equity	92%	59%	43%	33%	29%	30%	82%	90%	80%	71%	60%	47%	39%	31%	
Capital employed:															
Upstream	42.4	49.3	57.6	63.8	68.0	79.9	121.2	119.4	122.2	130.5	131.8	136.6	141.4	146.5	4.6%
Downstream	13.3	13.7	15.4	17.5	20.0	27.6	46.4	50.1	50.9	50.6	49.4	51.2	53.0	54.9	0.7%
% Upstream	76%	78%	79%	78%	77%	74%	72%	70%	71%	72%	73%	73%	73%	73%	
Return on capital employed:															
Upstream	24.3%	10.9%	6.3%	9.4%	10.6%	11.3%	9.6%	4.6%	5.8%	7.5%	6.2%	6.2%	6.1%	6.1%	
Downstream	19.0%	41.6%	5.8%	16.4%	19.7%	12.9%	10.8%	4.9%	6.4%	9.2%	8.1%	8.1%	8.0%	7.9%	
Aggregate group	10.7%	16.0%	8.0%	11.5%	13.9%	10.5%	9.5%	7.2%	6.2%	7.0%	5.8%	6.0%	6.2%	6.3%	

Source: Company reports, Citi Research.

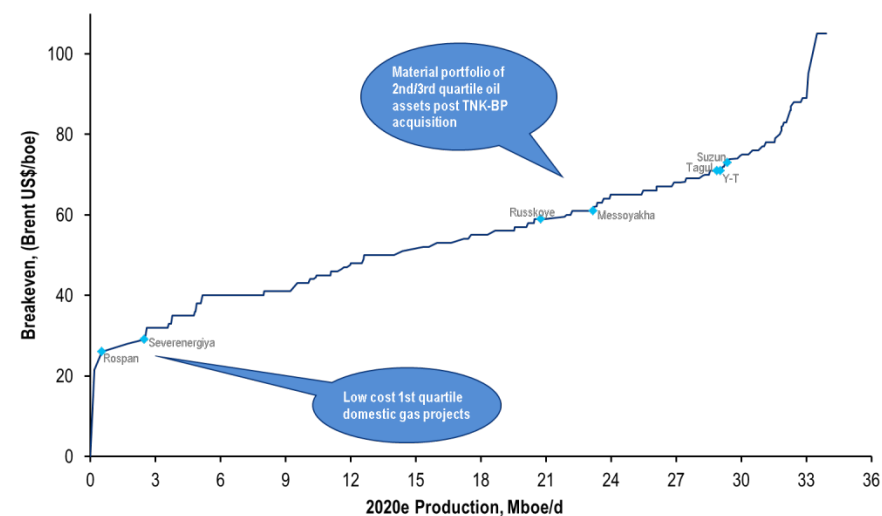
Rosneft – Upstream

Figure 222. Rosneft project portfolio (2013-2020 start-ups)



Source: Company reports, Citi Research

Figure 223. Rosneft project portfolio versus the industry cost-curve



Source: Company reports, Citi Research

Figure 224. 2012 cash flow by region



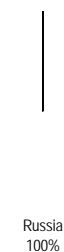
Source: Citi Research and company reports

Figure 225. 2016E cash flow by region



Source: Citi Research

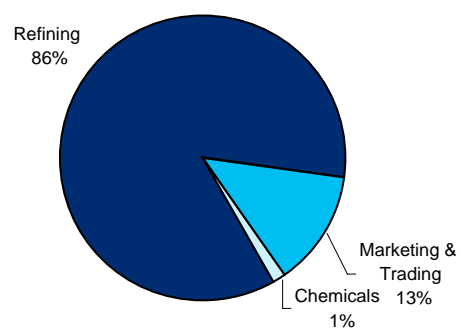
Figure 226. 2020E cash flow by region



Source: Citi Research

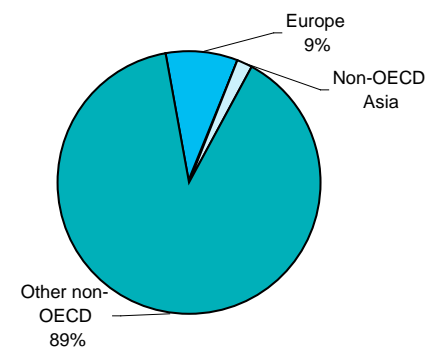
Rosneft – Downstream

Figure 227. 2016E cash flow by segment



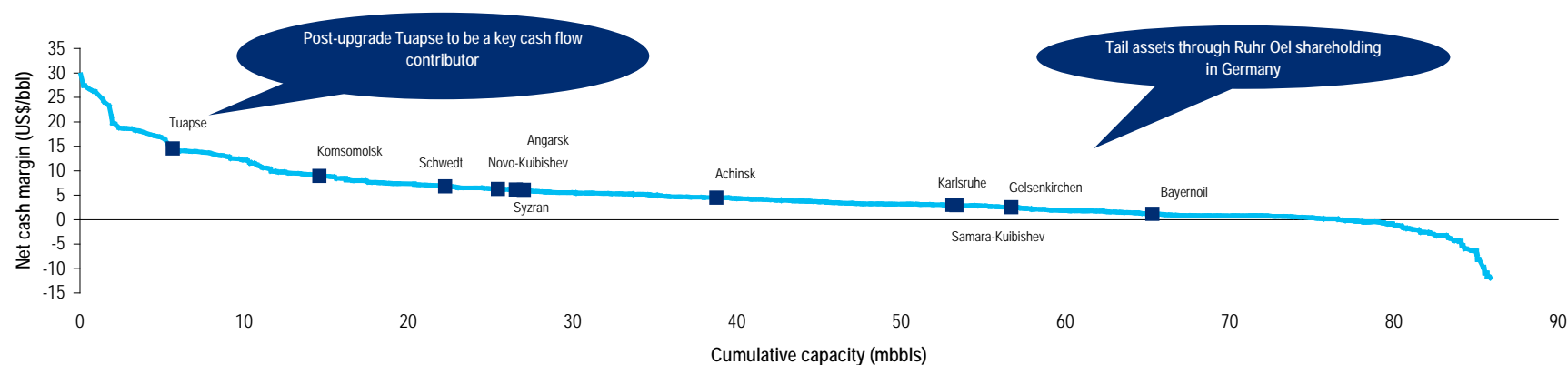
Source: Citi Research

Figure 228. 2016E cash flow by region



Source: Citi Research

Figure 229. Rosneft refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Santos – Buy, A\$16.22/share price target

LNG Growth Being Delivered, Plus Tailwind From Rising Domgas Prices, Doubling Operating Cash Flows by 2016

Santos is in the process of delivering transformational growth — transitioning from a business with high cost, declining assets, to a business with underpinning LNG revenues and a reinvigorated Cooper Basin asset given increasing domestic gas prices. The stock is discounted currently given investor concern about execution risk, particularly for its CSG LNG project, GLNG. There are a myriad of other growth opportunities for Santos, including further growth from the Cooper Basin (infill drilling, unconventional), potential for PNG LNG Train 3, Gunnedah Basin CSG, Bonaparte LNG, and an exciting exploration program.

- **CSG-LNG projects driving domgas prices higher, increasing value of East Coast domestic gas business** — In 2007 STO launched its plans for the GLNG project, which would not only provide a growth element for Santos, but also tighten up East Coast gas supply/demand, and increase gas prices from a historical ~A\$3-4/GJ towards an LNG net-back parity of >A\$8/GJ. Santos took FID on GLNG in January 2011, with first production anticipated in 2015. Santos' strategy is working — we think domgas prices for long term contracts are now up at ~A\$8+/GJ. Our DCF does not attribute any value to the unconventional prospects in the Cooper basin, which could be significant longer term.
- **Santos expects to double op cashflows from CY13-CY16**— STO has stated that it expects operating cashflows will more than double from CY13 to CY16. If we look at EBITDAX forecasts as a proxy for operating cashflows, we do model EBITDAX more than doubling from CY13 to CY16. The three main growth drivers from CY13 to CY16 are GLNG (+A\$963m), PNG LNG (+A\$786m), plus volume growth and a repricing of Cooper gas (+A\$420m). Other contributors will be the newly acquired Ande Ande Lumut oil project (+A\$196m) in Indonesia, expected growth in Carnarvon gas driven by volume and price (+A\$138m), and the long awaited Kipper gas project (+A\$93m).
- **LNG growth projects showing strong progress** — GLNG is now over 75% complete with construction well advanced on Curtis Island and promising progress being made on the surface facilities. PNG LNG is over 90% complete with commissioning operations commencing at both Train 1 and the Hides Gas Conditioning Plant. We expect first LNG from GLNG in 1Q CY15 and from PNG LNG in June CY14.
- **Progressive dividend policy, initial lift flagged for 2H14**— Santos confirmed it would adopt a progressive dividend policy and flagged that it would initially lift the dividend in 2H14 once PNG LNG commences production. Santos did not indicate the level of increase likely for the dividend but we expect the 1H14 div will remain at 15Acps, lift in 2H14 to ~18Acps, then increase in CY15 to ~22Acps per half. We think Santos is unlikely to pay a significantly higher dividend in the medium term given STO has stretched the balance sheet to fund PNG LNG & GLNG (we forecast gearing (ND:ND+E) of ~42% by mid CY-15), and we think it will want to strengthen its balance sheet to ensure it can fund growth aspirations. We see significant opportunity for STO to generate value by developing assets such as Gunnedah, PNG expansion, BLNG, Zola, Winchester, Browse Basin gas resources (Crown), Caldita Barossa etc.
- **Valuation** — STO continues to make positive progress on delivering growth projects which we think together underpins a value of A\$12.35/sh (PNG LNG, GLNG, Kipper, AAL). Importantly we think STO remains on track to more than double operating cash flows from CY13 to CY16, driven by PNG LNG, GLNG, and also growth/repricing of Cooper gas. We also see potential for a second leg of growth beyond CY15 via options such as PNG T3, Ichthys T3 in Browse, Winchester, Zola, Cooper unconventional, & Gunnedah. Our price target of A\$16.22/share is DCF based and inclusive of the base business, Chim Sao, Kipper, Reindeer, PNG LNG, GLNG, 40% risk weighting to PNG LNG Train 3, 35% risk weighting to BLNG, 50% weighting to Zola, 35% to Crown LNG.

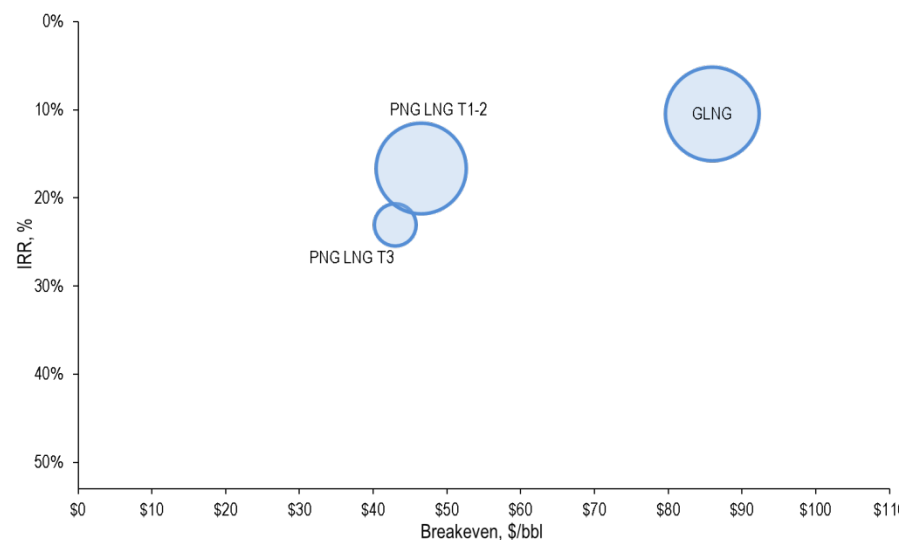
Figure 230. Santos Summary Financial Model

A\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.9	97.9	62.1	80.2	111.8	112.8	109.2	103.0	95.0	99.9	103.1	106.5	110.0	113.7	0.8%
USD/AUD	0.84	0.85	0.79	0.92	1.03	1.04	0.97	0.91	0.92	0.92	0.92	0.90	0.90	0.90	
E&P volumes (kboepd)	162	149	149	137	129	143	140	149	193	224	230	232	229	221	11.8%
YoY growth		-7.9%	0.0%	-8.0%	-5.6%	10.5%	-2.3%	6.5%	29.5%	16.5%	2.4%	1.0%	-1.1%	-3.7%	
% oil	30%	27%	25%	22%	25%	27%	28%	29%	24%	21%	20%	20%	16%	16%	
E&P cash margins (US\$/bbl)	20.7	21.9	15.7	20.3	27.6	30.7	30.1	28.7	32.2	31.2	34.6	36.0	35.8	37.0	5.9%
Per share data:															
EPS (AUD)	0.92	0.82	0.32	0.45	0.51	0.63	0.52	0.52	0.84	1.14	1.46	1.62	1.60	1.61	33.0%
DPC (AUD)	0.40	0.42	0.42	0.37	0.30	0.30	0.30	0.40	0.44	0.46	0.51	0.57	0.57	0.57	9.2%
Valuation ratios:															
P/E	15.1x	16.9x	43.7x	30.8x	27.2x	21.7x	27.1x	27.1x	16.7x	12.4x	9.7x	8.7x	8.8x	8.7x	
EV/DACF	12.8x	9.7x	10.4x	13.9x	9.6x	11.4x	10.0x	12.0x	8.5x	7.1x	6.1x	5.5x	5.3x	4.9x	
Dividend yield	2.9%	3.0%	3.0%	2.7%	2.2%	2.2%	2.1%	2.8%	3.1%	3.3%	3.6%	4.0%	4.1%	4.1%	
Free cash yield	-0.2%	-1.1%	-2.1%	-3.8%	-14.0%	-12.0%	-20.5%	-15.3%	-3.5%	10.0%	10.3%	10.5%	11.8%	11.6%	
Cash flow:															
Upstream	1.21	1.5	1.2	1.3	1.3	1.6	1.6	1.9	2.2	2.7	3.1	3.3	3.4	3.4	15.0%
Other and corporate	-	0.1	0.2	(0.3)	0.2	(0.2)	0.2	(0.2)	0.3	0.1	0.1	0.1	(0.0)	(0.0)	
Sources of funds	1.2	1.6	1.4	1.0	1.5	1.4	1.8	1.7	2.5	2.8	3.2	3.4	3.4	3.4	18.5%
Changes in working capital	0.0	(0.1)	(0.2)	0.3	(0.2)	0.2	(0.2)	0.2	(0.3)	(0.1)	(0.1)	(0.1)	0.0	0.0	
Cash flow from operations	1.2	1.5	1.2	1.3	1.3	1.6	1.6	1.9	2.2	2.7	3.1	3.3	3.4	3.4	
Capex	(1.3)	(1.6)	(1.4)	(1.7)	(3.0)	(3.2)	(4.3)	(4.0)	(2.7)	(1.3)	(1.7)	(1.9)	(1.8)	(1.9)	-17.2%
Free cash flow	(0.0)	(0.1)	(0.2)	(0.4)	(1.7)	(1.6)	(2.6)	(2.1)	(0.5)	1.4	1.4	1.4	1.6	1.6	
Ordinary dividends	(0.2)	(0.3)	(0.3)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	15.2%
as % of operating c/flow	18%	17%	26%	25%	12%	10%	10%	10%	11%	9%	9%	10%	10%	10%	
Discretionary free cash flow	(0.2)	(0.3)	(0.5)	(0.8)	(1.9)	(1.7)	(2.8)	(2.3)	(0.7)	1.1	1.1	1.1	1.3	1.2	
Acquisitions	(0.1)	(0.0)	(0.9)	(0.0)	(0.0)	(0.1)	(0.2)	-	-	-	-	-	-	-	
Disposals	0.0	2.1	0.0	0.8	0.9	0.2	0.0	-	-	-	-	-	-	-	
Equity change	(0.2)	(0.1)	3.0	0.5	0.1	0.1	0.0	-	-	-	-	-	-	-	
Surplus (deficit)	(0.3)	1.7	(1.4)	(0.0)	(1.0)	(1.7)	(2.9)	(2.3)	(0.7)	1.1	1.1	1.1	1.3	1.2	
Balance sheet:															
Net debt	1.9	0.9	(0.4)	(1.2)	(0.1)	1.6	5.1	7.4	8.1	7.0	5.9	4.7	3.5	2.2	
Net debt/EBITDA	1.2x	0.5x	(0.4x)	(0.9x)	(0.1x)	0.9x	2.9x	3.7x	2.5x	1.7x	1.3x	1.0x	0.7x	0.5x	
Interest cover	nm	19.7x	88.6x	nm	nm	nm	nm	16x	8x	6x	8x	9x	11x	14x	
Net debt/equity	57%	20%	-6%	-15%	-1%	17%	50%	70%	73%	58%	44%	32%	22%	13%	
Capital employed:															
Upstream	5.2	5.4	6.5	6.4	8.9	10.9	15.3	17.9	19.3	19.0	19.1	19.4	19.4	19.6	1.9%
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Upstream	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	10.2%	9.7%	3.6%	4.5%	3.7%	4.3%	3.3%	3.2%	5.7%	8.2%	9.5%	9.9%	9.4%	9.3%	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	10.2%	9.7%	3.6%	4.5%	3.7%	4.3%	3.3%	3.2%	5.7%	8.2%	9.5%	9.9%	9.4%	9.3%	

Source: Company reports, Citi Research.

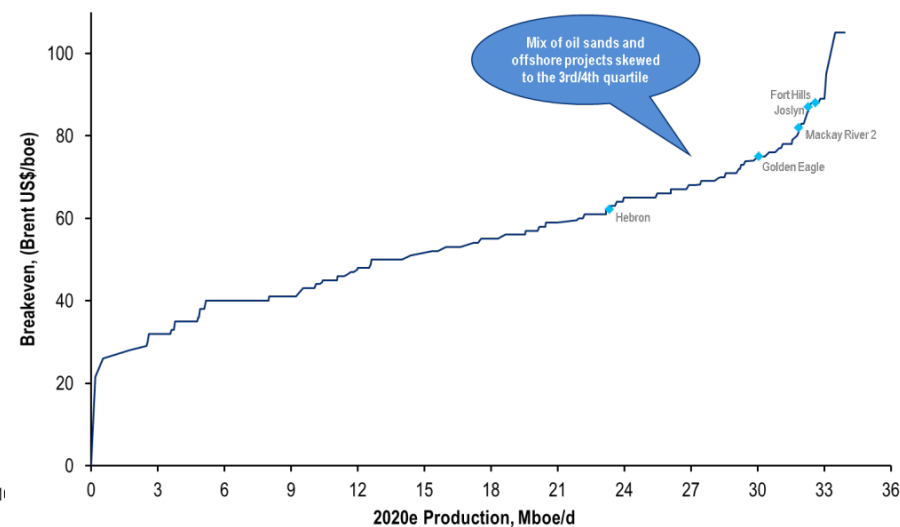
Santos – Upstream

Figure 231. Santos project portfolio (2013-2020 start-ups)



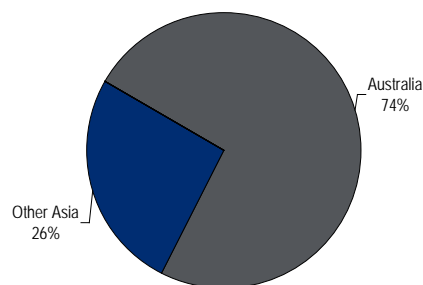
Source: Company reports, Citi Research

Figure 232. Santos project portfolio versus the industry cost-curve



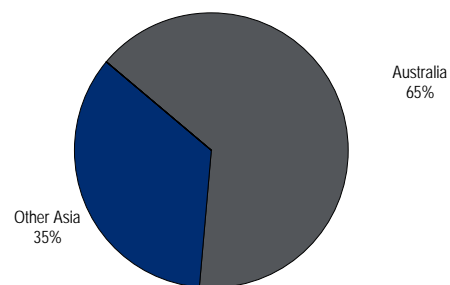
Source: Company reports, Citi Research

Figure 233. 2012 cash flow by region



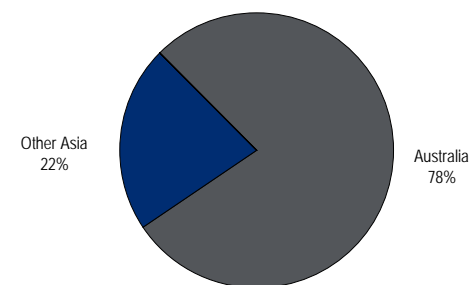
Source: Citi Research and company reports

Figure 234. 2016E cash flow by region



Source: Citi Research

Figure 235. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Sinopec – Buy, HK\$7.87/share price target

SOE Reform to Unlock Value of Marketing

Sinopec announced on Feb 19 that the Company is planning to sell up to 30% of its marketing division to outside investors. This is positive in unlocking the value of Sinopec's marketing business which should trade at a significantly higher multiple as a stand-alone company. Sinopec is our top pick in the China O&G sector.

- **Potential to unlock value in substantial** – While Sinopec trades at 8.0x FY14E earnings, we believe the marketing division would trade at a significantly higher multiple as a stand-alone company. Our DCF model values the division at Rmb419bn, or 13.4x FY14E earnings, compared to Sinopec's current market cap of Rmb623bn. We estimate if the marketing division were to be valued at our DCF estimated value, the remainder of the company (E&P, Refining, Chemicals, Corporate and associates) would currently trade at 4.4x FY14E earnings. Our DCF model values the marketing assets at 1.5x book value. Therefore we estimate a sale of 30% of the division would result in an Rmb42bn (Rmb0.36/share) pretax gain.
- **National Standard (NS) IV to drive refining margin improvement** – The NS IV gasoline standard (equivalent to Euro IV) is implemented nationwide from 1 Jan 2014. Sinopec is getting a higher price for the higher spec fuel. We estimate this will increase Sinopec's refining margin by US\$0.7/bbl in 2014 and drive earnings growth of 7%.
- **We expect chemicals to rebound** – We also expect Sinopec's chemical business to rebound in 2014/15 from only small profits in 2012/13. We expect resilient demand growth and limited capacity increase will drive chemical margins higher.

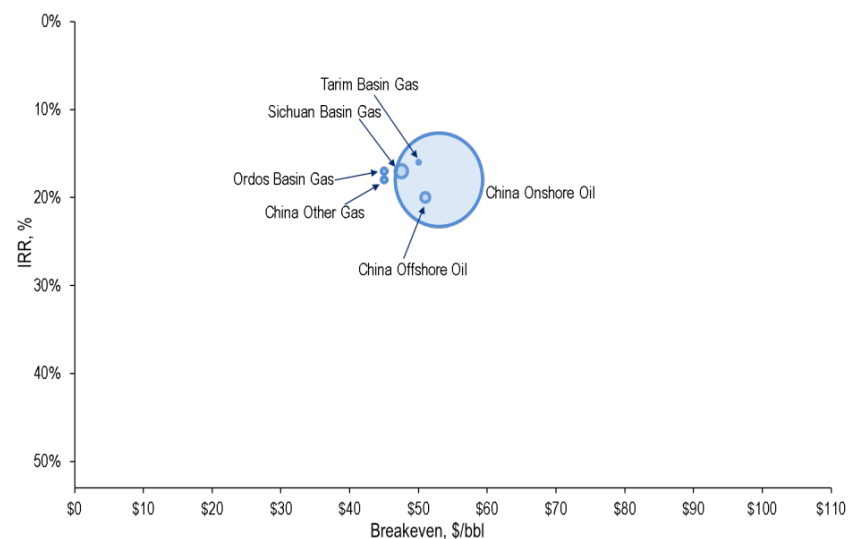
Figure 236. Sinopec Summary Financial Model

CNY B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
USD/CNY	7.6	6.9	6.8	6.8	6.5	6.3	6.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1	
E&P volumes (mboepd)	0.93	0.94	0.96	1.10	1.12	1.17	1.20	1.24	1.27	1.30	1.33	1.34	1.35	1.37	2.0%
YoY growth	3.3%	1.8%	1.8%	14.4%	1.6%	4.9%	2.4%	3.2%	2.6%	2.1%	2.3%	0.9%	1.0%	1.1%	
% oil	86%	86%	86%	82%	79%	77%	76%	74%	72%	70%	68%	66%	64%	64%	
E&P cash margins (US\$/bbl)	26.0	37.0	18.5	29.0	40.6	40.5	37.7	34.6	30.5	30.0	31.7	33.6	34.9	36.1	-0.7%
Per share data:															
EPS (CNY)	0.50	0.26	0.54	0.63	0.63	0.54	0.58	0.64	0.65	0.64	0.69	0.75	0.81	0.86	4.1%
EPS (US\$)	0.07	0.04	0.08	0.09	0.10	0.09	0.09	0.10	0.11	0.10	0.11	0.12	0.13	0.14	4.1%
DPS (CNY)	0.13	0.09	0.14	0.16	0.23	0.23	0.24	0.27	0.27	0.27	0.29	0.31	0.34	0.36	4.1%
DPS (US\$)	0.02	0.01	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.06	4.1%
Valuation ratios:															
P/E	13.5x	23.7x	11.2x	9.6x	9.2x	10.4x	9.5x	8.6x	8.4x	8.6x	8.0x	7.3x	6.8x	6.4x	
EV/DACF	6.9x	10.4x	5.7x	4.8x	5.6x	5.5x	5.3x	5.0x	4.9x	4.7x	4.5x	4.1x	3.8x	3.2x	
Dividend yield	2.3%	1.7%	2.5%	3.0%	4.2%	4.2%	4.4%	4.9%	5.0%	4.9%	5.3%	5.7%	6.2%	6.6%	
Free cash yield	2.7%	-4.7%	7.5%	11.7%	1.5%	-2.2%	-0.2%	3.5%	7.4%	13.8%	10.6%	15.5%	13.3%	20.3%	
Cash flow:															
Upstream	52.5	93.8	40.4	67.0	89.2	90.9	86.9	82.6	76.5	77.4	82.6	87.5	91.1	95.3	1.5%
Downstream	62.6	(13.5)	91.9	88.3	62.8	62.3	82.1	104.9	121.2	126.6	128.7	134.0	139.4	157.9	6.3%
Other and corporate	(2.0)	(11.3)	11.6	14.0	(5.0)	2.1	1.3	(2.6)	(5.1)	(9.2)	(9.6)	(10.5)	(11.8)	(13.1)	
Sources of funds	113.1	69.0	143.9	169.3	147.0	155.4	170.4	184.9	192.7	194.8	201.7	211.0	218.7	240.1	3.4%
Changes in working capital	13.0	9.4	15.6	1.0	3.6	(13.0)	(0.3)	(0.8)	(0.4)	0.4	2.9	2.3	2.3	2.2	
Cash flow from operations	126.2	78.3	159.4	170.3	150.6	142.4	170.1	184.2	192.2	195.2	204.6	213.3	221.0	242.3	
Capex	(109.4)	(107.8)	(112.9)	(97.6)	(141.0)	(156.7)	(171.7)	(161.9)	(145.3)	(107.5)	(137.2)	(114.5)	(117.0)	(112.8)	-8.3%
Free cash flow	16.7	(29.4)	46.6	72.7	9.6	(14.4)	(1.6)	22.2	47.0	87.7	67.3	98.8	104.0	129.5	
Ordinary dividends	(13.9)	(12.6)	(13.6)	(16.4)	(19.5)	(25.5)	(28.4)	(29.2)	(31.4)	(31.6)	(32.0)	(34.6)	(37.7)	(24.7)	4.3%
as % of operating c/flow	11%	16%	9%	10%	13%	18%	17%	16%	16%	16%	16%	16%	17%	10%	
Discretionary free cash flow	2.8	(42.0)	33.0	56.3	(9.9)	(39.8)	(30.0)	(7.0)	15.6	56.2	35.4	64.2	66.4	104.8	
Acquisitions	(5.5)	(3.7)	(3.5)	(11.3)	(7.5)	(10.4)	-	-	-	-	-	-	-	-	
Disposals	1.4	1.4	0.5	1.7	3.0	1.4	-	-	-	-	-	-	-	-	
Equity change	11.4	29.9	-	0.0	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	10.1	(14.5)	30.1	46.7	(14.4)	(48.9)	(30.0)	(7.0)	15.6	56.2	35.4	64.2	66.4	104.8	
Balance sheet:															
Net debt	172.4	217.9	208.4	191.8	209.6	267.2	303.5	320.5	319.0	276.8	253.8	201.3	144.5	47.2	
Net debt/EBITDA	1.3x	2.9x	1.5x	1.2x	1.2x	1.6x	1.7x	1.6x	1.6x	1.3x	1.2x	0.9x	0.6x	0.2x	
Net debt/equity	56%	66%	55%	46%	44%	52%	55%	53%	49%	40%	34%	25%	17%	5%	
Interest cover	18.7x	6.8x	19.0x	22.5x	22.1x	17.0x	17.4x	16.7x	16.0x	16.5x	19.8x	22.8x	30.0x	45.9x	
Capital employed:															
Upstream	132.9	172.5	181.7	199.8	201.7	230.7	265.4	294.0	317.1	320.4	315.2	315.9	313.0	310.1	1.8%
Downstream	295.2	317.9	341.9	357.8	397.0	448.7	497.3	537.0	566.8	585.8	605.8	619.0	624.3	618.5	3.6%
% Upstream	31%	35%	35%	36%	34%	34%	35%	35%	36%	35%	34%	34%	33%	33%	
Return on capital employed:															
Upstream	24.2%	40.8%	7.9%	16.1%	24.6%	19.7%	15.0%	11.4%	8.1%	7.4%	9.0%	10.5%	11.9%	12.8%	
Downstream	8.6%	-12.1%	14.3%	11.8%	6.2%	4.7%	6.6%	8.7%	9.9%	9.6%	9.5%	9.8%	10.3%	10.9%	
Aggregate group	12.6%	5.4%	11.3%	12.2%	11.1%	9.3%	8.9%	9.1%	8.8%	8.8%	9.0%	9.5%	9.9%	10.3%	

Source: Company reports, Citi Research.

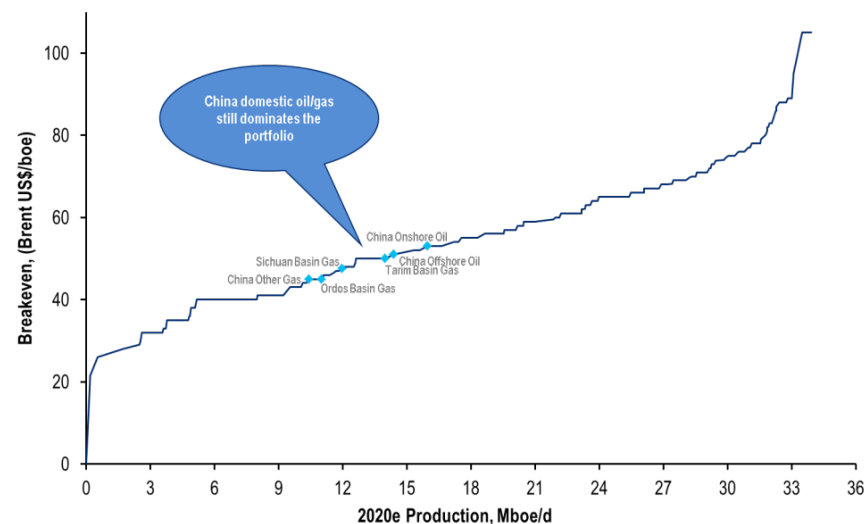
Sinopec – Upstream

Figure 237. Sinopec project portfolio (2013-2020 start-ups)



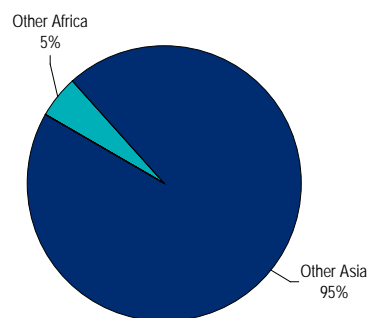
Source: Company reports, Citi Research

Figure 238. Sinopec project portfolio versus the industry cost-curve



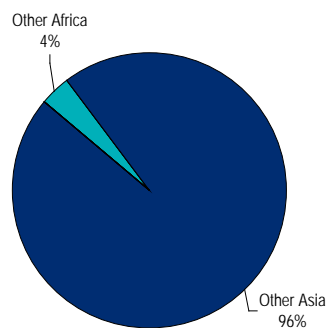
Source: Company reports, Citi Research

Figure 239. 2012 cash flow by region



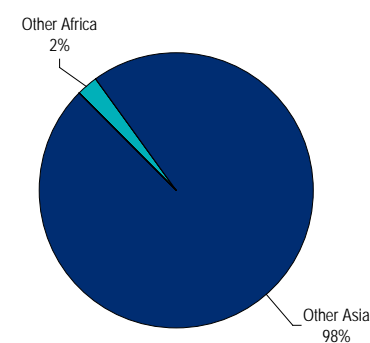
Source: Citi Research and company reports

Figure 240. 2016E cash flow by region



Source: Citi Research

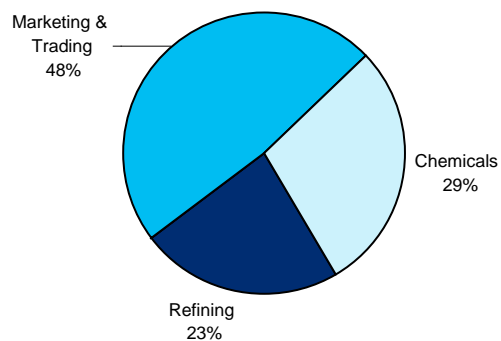
Figure 241. 2020E cash flow by region



Source: Citi Research

Sinopec – Downstream

Figure 242. 2016E cash flow by segment



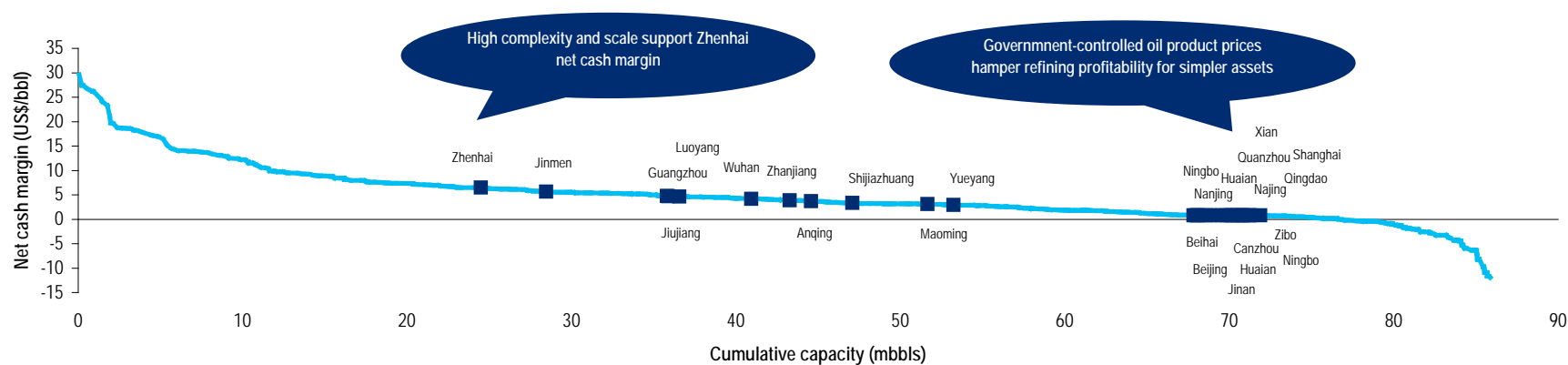
Source: Citi Research

Figure 243. 2016E cash flow by region

Non-OECD
Asia
100%

Source: Citi Research

Figure 244. Sinopec refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Statoil – Neutral, NOK160/share price target

Improving Visibility Around Medium-Term Growth

In our view, Statoil has changed significantly over the last two or three years. A combination of acquisitions and some exploration success provides the portfolio with much more genuine depth than it once had. Targets for growth that once looked purely driven by top-down ambitions now look to have some asset visibility behind them. Importantly the company looks, for a period of time at least, to be able to grow in a way that is not totally damaging to profitability; the average IRR of the growth portfolio is in line with that of other large-cap peers. Beyond 2016 the visibility diminishes and profitability looks to deteriorate as higher cost curve capital (Asta Hansteen, Ivar Aasen, Mariner) is committed.

- **Medium-term E&P growth profile looks robust** — We see scope for around 2-3% p.a growth in top-line E&P to 2016, delivered by a modest contraction in the core Norway business and extensive growth in the International portfolio (Angola, Gulf of Mexico, US unconventional and offshore Brazil). Delivery on growth targets has been a key issue for this company in the past, a criticism that we would level at top-down ambitions that never looked broadly supported by assets. We think that basis may have now changed given what has been a strong portfolio build-out in recent years.
- **Growth beyond still needs definition** — Beyond 2016 the growth targets look to take on a bit more of a top-down feel again (2.5 mboepd of equity production by 2020), although material exploration successes on the Norwegian Continental Shelf (Johan Sverdrup and Skrugard/Havis) certainly start to improve the confidence. The two main building blocks look to be US unconventional and Azerbaijan gas, although there is also an expectation that the core legacy business in Norway can still grow. Maintaining profitability in this legacy business will be one of the key challenges that the company faces.
- **Deterioration in profitability post 2016 as higher cost-curve capital committed** — We see the E&P growth as fairly well positioned on the cost-curve, with an average oil price breakeven of US\$62/bbl over the decade and IRR that is in line with than sector peers. Profitability looks strong to 2016, but then looks to deteriorate a little as higher cost-curve capital (Asta Hansteen, Ivar Aasen, Mariner) is committed.
- **Downstream business poorly positioned, but small part of group capital employed** — Statoil has a total refining capacity of 307kb/d, composed of company-operated Mongstad and Kalundborg refineries and a 10% share in the Shell-operated supersite Pernis. Despite a largely competitive configuration, Mongstad sits at the lower-end of 2nd quartile/upper 3rd quartile in our global mid-cycle net cash margin curve, restricted by a limited location premium and low-sulphur crude diet. Kalundborg's simple configuration and relatively small scale position it in the fourth quartile of our refining curve.
- **Strong balance sheet supports investment** — We estimate that Statoil needs c. US\$110-115/bbl in 2014-15 to cover both capex and current dividends, so we gearing peaking in 2016 on our current assumptions. However, the company looks well-capitalised (15% net debt/equity forecast at end 2013) and, given the growth outlook, is projected to move into a stronger free cash position by 2018.
- **Valuation in context** — Our valuation screens suggest the market is building in around a c. 10% valuation discount on Statoil to sector peers in the period to 2016. Beyond that the discount looks to narrow, largely a reflection of our view that the company may struggle to sustain both growth and profitability towards the back-end of the decade. We also note that a valuation discount is not inconsistent with this company's past; the high State shareholding is one reason why we believe some level of discount will always remain.

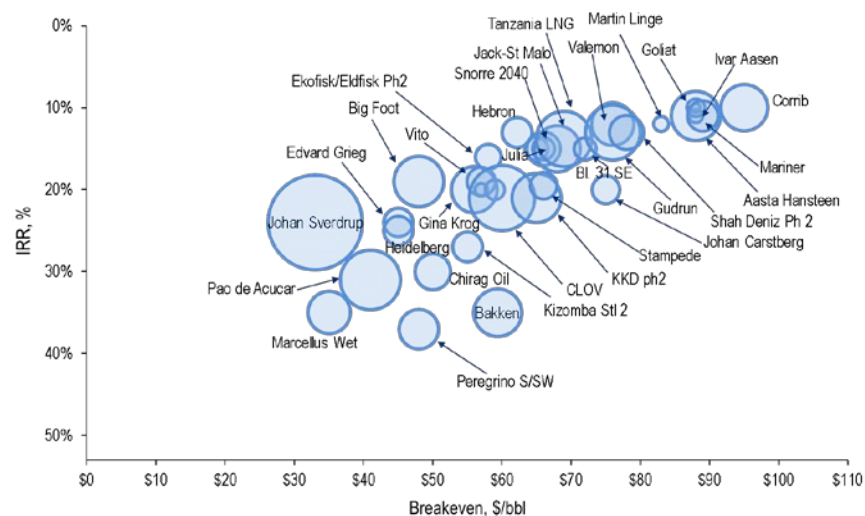
Figure 245. Statoil Summary Financial model

NOK Bn, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.8	97.4	62.3	80.0	110.8	111.9	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
NOK/USD	5.86	5.65	6.30	6.05	5.61	5.82	5.88	6.00	6.00	6.00	6.00	6.00	6.00	6.00	
E&P volumes (mboepd)	1.72	1.75	1.81	1.71	1.65	1.81	1.76	1.74	1.83	1.86	1.89	1.92	1.99	2.00	2.5%
YoY growth		1.5%	3.2%	-5.5%	-3.3%	9.4%	-2.7%	-1.1%	5.3%	1.9%	1.4%	1.5%	3.5%	0.6%	
% oil	62%	60%	59%	57%	57%	54%	55%	58%	58%	58%	59%	58%	58%	58%	
E&P cash margins (US\$/boe)	25.1	28.6	22.0	25.9	33.0	34.1	34.1	34.3	33.0	33.7	35.3	36.9	37.4	38.0	1.8%
Per share data:															
EPS (NOK)	13.3	18.8	11.9	13.0	14.8	16.6	14.3	14.6	13.7	15.1	16.1	17.4	18.6	19.4	4.5%
DPS (NOK)	8.5	7.3	6.0	6.3	6.5	6.8	7.0	7.3	7.5	7.8	8.0	8.3	8.5	8.8	3.3%
Valuation ratios:															
P/E	12.2x	8.7x	13.7x	12.5x	11.0x	9.8x	11.3x	11.1x	11.9x	10.8x	10.1x	9.3x	8.7x	8.4x	
EV/DACF	5.7x	5.1x	7.1x	5.9x	4.3x	4.2x	6.2x	5.2x	5.3x	5.2x	4.9x	4.7x	4.4x	4.2x	
Dividend yield	5.2%	4.5%	3.7%	3.8%	4.0%	4.1%	4.3%	4.5%	4.6%	4.8%	4.9%	5.1%	5.2%	5.4%	
Free cash yield	6.9%	7.1%	0.4%	1.5%	3.7%	3.0%	-2.3%	1.3%	1.8%	2.7%	4.4%	6.4%	8.4%	9.6%	
Cash flow:															
Upstream	85.4	79.4	85.4	92.0	106.6	123.4	121.6	122.6	124.5	129.4	136.6	143.9	151.0	154.4	4.1%
Downstream	2.8	2.9	3.0	3.7	2.5	0.5	-	-	-	-	-	-	-	-	
Other and corporate	5.2	24.1	-9.7	0.5	21.5	8.1	-22.3	9.0	10.6	9.2	11.2	11.7	12.6	13.5	
Sources of funds	93.4	106.3	78.7	96.2	130.6	132.0	99.3	131.6	135.1	138.7	147.8	155.5	163.6	167.9	4.3%
Changes in working capital	0.5	(3.8)	(5.7)	(15.4)	(19.1)	(4.0)	2.1	-	-	-	-	-	-	-	
Cash flow from operations	93.9	102.5	73.0	80.8	111.5	128.0	101.4	131.6	135.1	138.7	147.8	155.5	163.6	167.9	
Capex	(57.9)	(65.8)	(75.2)	(73.2)	(92.2)	(112.4)	(113.3)	(125.1)	(125.6)	(124.7)	(124.9)	(122.5)	(120.2)	(118.0)	-0.5%
Free cash flow	36.0	36.7	(2.1)	7.6	19.2	15.6	(11.9)	6.6	9.5	13.9	23.0	33.0	43.4	49.9	
Ordinary dividends	(25.7)	(27.1)	(23.1)	(19.1)	(19.9)	(20.7)	(21.5)	(33.8)	(23.4)	(24.2)	(25.0)	(25.8)	(26.6)	(27.4)	-6.5%
as % of operating c/flow	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	
Minority dividends	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Discretionary free cash flow	10.3	9.6	(25.2)	(11.5)	(0.7)	(5.1)	(33.4)	(27.2)	(14.0)	(10.3)	(2.1)	7.2	16.7	22.5	
(Disposals)/acquisitions	(16.6)	(18.1)	1.4	0.9	4.1	29.8	27.1	-	-	-	-	-	-	-	
Equity change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	(6.2)	(8.5)	(23.8)	(10.5)	3.5	24.8	(6.3)	(27.2)	(14.0)	(10.3)	(2.1)	7.2	16.7	22.5	
Balance sheet:															
Net debt	32.3	56.7	79.4	69.7	71.0	39.3	58.1	85.2	99.2	109.5	111.6	104.3	87.6	65.1	
Net debt/EBITDA	0.2x	0.2x	0.4x	0.4x	0.3x	0.2x	0.2x	0.4x	0.4x	0.5x	0.4x	0.4x	0.3x	0.2x	
Cash interest cover	436.2x	nm	134.4x	211.9x	62.5x	128.2x	165.8x	183.5x	133.9x	124.1x	122.4x	132.2x	157.8x	208.4x	
Net debt/equity	18%	26%	40%	32%	25%	12%	16%	23%	26%	27%	25%	22%	18%	12%	
Capital employed:															
Upstream	293.4	361.6	361.5	390.3	480.3	488.3	541.6	583.6	621.4	657.6	689.4	714.8	733.9	749.4	
Downstream	48.3	59.2	72.9	77.2	76.6	71.0	69.6	68.2	66.8	65.5	64.2	62.9	61.6	60.4	
% Upstream	86%	86%	83%	83%	86%	87%	89%	90%	90%	91%	91%	92%	92%	93%	
Return on capital employed:															
E&P	13.8%	15.4%	9.3%	9.6%	10.7%	11.1%	8.8%	7.9%	7.0%	7.3%	7.6%	8.0%	8.3%	8.4%	
Other	7.8%	9.7%	7.9%	7.6%	4.8%	2.1%	0.8%	5.3%	5.3%	5.1%	4.2%	3.0%	2.2%	1.5%	
Aggregate group	10.8%	12.6%	8.6%	8.6%	7.7%	6.6%	4.8%	6.6%	6.1%	6.2%	5.9%	5.5%	5.3%	5.0%	

Source: Company reports, Citi Research.

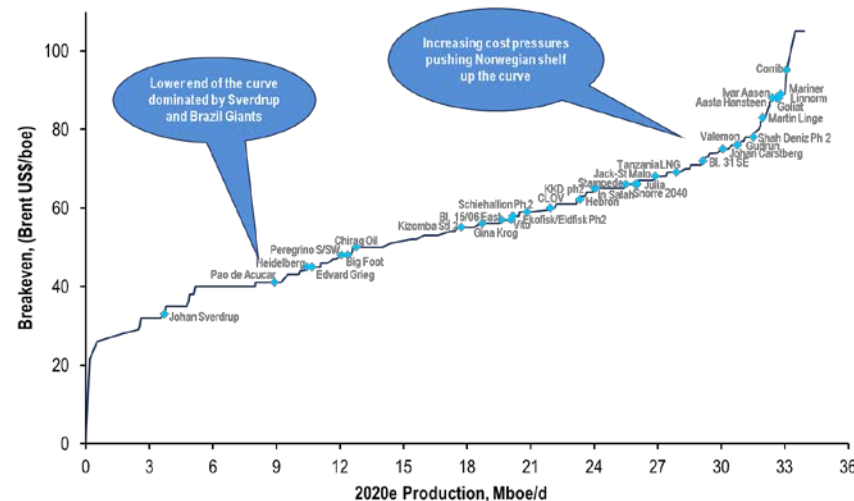
Statoil - Upstream

Figure 246. Statoil project portfolio (2013-2020 start-ups)



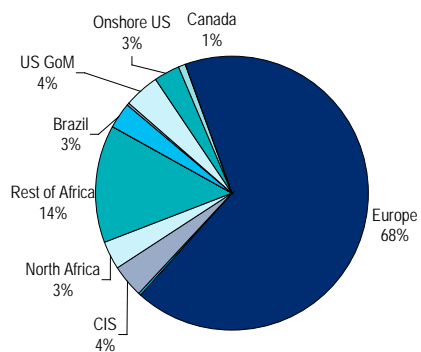
Source: Company reports, Citi Research

Figure 247. Statoil project portfolio versus the industry cost-curve



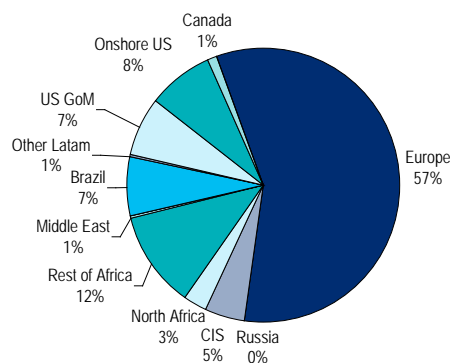
Source: Company reports, Citi Research

Figure 248. 2012 cash flow by region



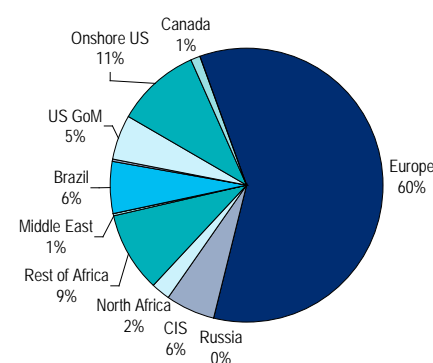
Source: Citi Research and company reports

Figure 249. 2016E cash flow by region



Source: Citi Research

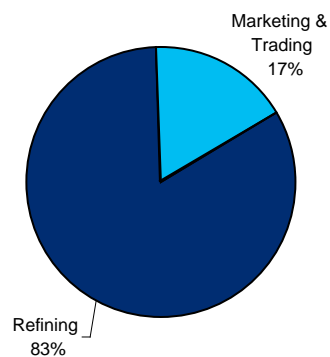
Figure 250. 2020E cash flow by region



Source: Citi Research

Statoil – Downstream

Figure 251. 2016E cash flow by segment



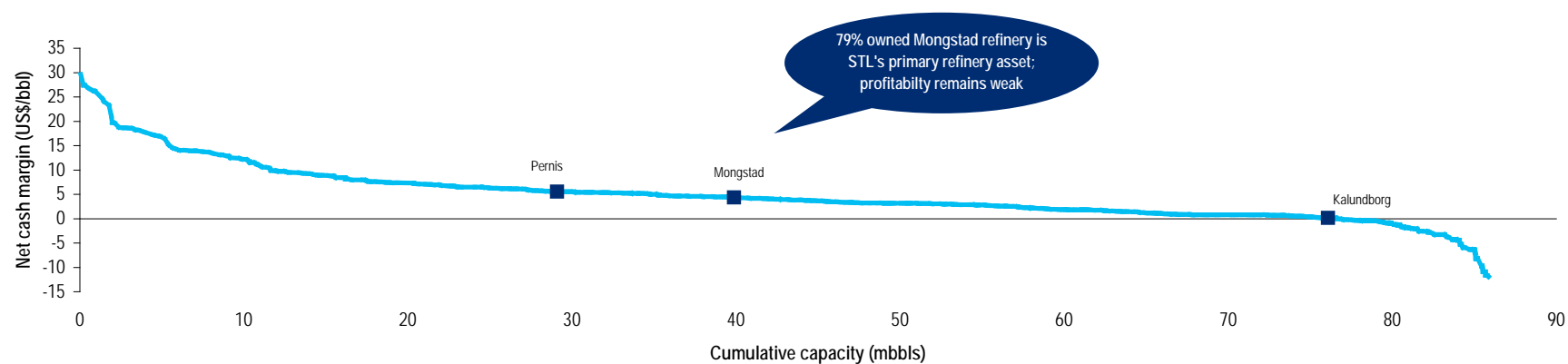
Source: Citi Research

Figure 252. 2016E cash flow by region



Source: Citi Research

Figure 253. Statoil refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Suncor Energy – Neutral, CAD\$40 price target

Cash Flow Distributions Balanced by Lower Returns on Capital

Suncor Energy is the largest oil and gas company in Canada. The company operates one of the largest oil sands mining operations in the world. Suncor's mining operations produced ~270 mbpd of bitumen over the last five years. Suncor has made incremental investments to increase the mined bitumen by 25-30 mbpd through logistics. Suncor's near term strategy is to grow production by ~100 mbpd through de-bottlenecking of its current portfolio. Suncor remains well integrated with its upgrading capacity at the mine and its ownership in refineries at Edmonton, Sarnia, Colorado and Montreal.

- **Oil Sands Growth** — We currently estimate SU will grow its oil sands production from ~392 mboed in 2013 to ~496 mboed (CAGR:8.2%) in 2016 and ~590 mboed (CAGR:6.0%) in 2020. The majority of this growth will come from debottlenecking initiatives currently pursued by the company. These initiatives include improved logistics to maximize mining production, the Mackay River debottleneck and the improvement in Upgrader Reliability. Towards the end of the decade (2017-2018), Suncor's next mining project, Fort Hills, is likely to come online. Suncor and its partners sanctioned the project in 2013.
- **E&P Growth** — SU will grow its E&P production from ~56 mboed in 2013 to ~70 mboed in 2020. The majority of this growth will come from SU's E&P operations on the East Coast of Canada as the Hebron project comes online in 2017. Suncor is also participating in the Golden Eagle project which should help offset some of the declines in the Buzzard field.
- **Downstream** — SU's downstream assets include roughly ~460 mbd of refining capacity largely in the advantaged North American Midwest region, its retail and marketing operations and its integrated Lubricants business. Three of Suncor's four refineries currently have access to advantaged North American crudes through pipelines. Suncor is also trying to increase access of advantaged crudes to its Montreal refinery. Suncor has started a ~40 mbpd rail offloading facility at the refinery.
- **Free Cash Flow** — We estimate SU can grow operating cash flow from \$10.1bn in 2013 to \$11.9bn by 2020. We expect SU to generate an average 5.0% free cash flow yield through 2020.
- **Valuation & 2020 Vision** — SU stock has done extremely well through positive initiatives by its management. Suncor increased its dividend by 54% in 2013 and has actively been acquiring its stock. However, we estimate that as the company continues to invest ~\$7-\$8 bn each year through the decade, the company's return on capital employed will continue to remain less than 10%, which limits how far SU can close its relative value versus its other oil sands peers.

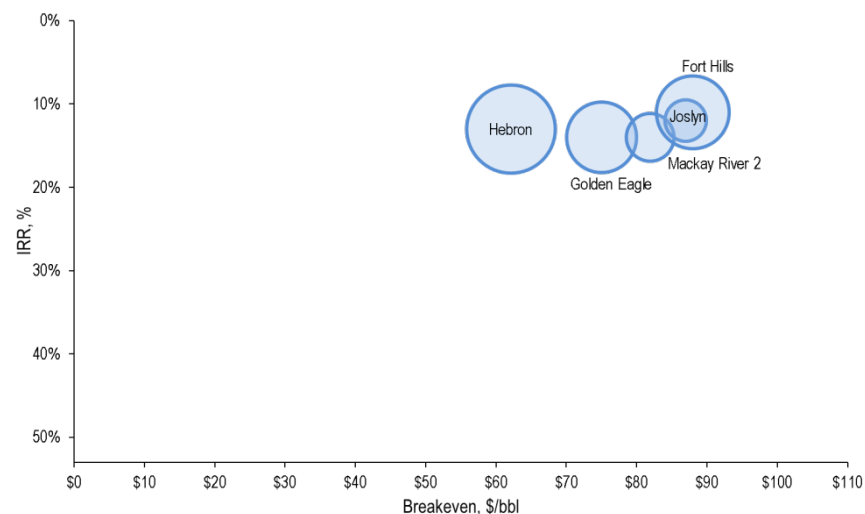
Figure 254. Suncor Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.6%
WTI (US\$/bbl)	72.3	99.7	61.8	79.5	95.1	94.2	98.0	92.0	87.5	94.0	97.0	100.0	104.0	107.0	2.8%
E&P volumes (mboepd)	0.27	0.26	0.46	0.65	0.62	0.55	0.56	0.62	0.65	0.66	0.69	0.72	0.75	0.78	5.4%
YoY growth		-25%	72.3%	43.5%	-4.8%	-11.9%	2.4%	9.9%	5.0%	1.9%	4.7%	4.4%	4.0%	3.3%	
% oil	87%	86%	85%	87%	90%	91%	94%	100%	100%	99%	99%	99%	99%	99%	
E&P cash margins (US\$/bbl)	35.8	50.8	11.0	28.1	27.9	31.8	35.4	37.2	33.5	36.4	34.9	37.0	38.1	39.3	-0.2%
Per share data:															
EPS (US\$)	3.61	2.25	0.95	2.40	2.63	1.80	2.60	3.36	2.96	3.40	3.35	3.88	4.34	4.82	4.9%
DPS (US\$)	0.23	0.20	0.30	0.40	0.44	0.50	0.73	0.92	0.97	1.01	1.07	1.12	1.17	1.17	6.7%
Valuation Ratios:															
P/E	10.2x	16.4x	38.9x	15.4x	14.1x	20.5x	14.2x	11.0x	12.5x	10.9x	11.0x	9.5x	8.5x	7.7x	
EV/DACF		13.0x	26.7x	9.5x	5.9x	5.8x	5.6x	5.8x	6.2x	5.9x	5.9x	5.5x	5.1x	4.8x	
Dividend yield	0.6%	0.5%	0.8%	1.1%	1.2%	1.4%	2.0%	2.5%	2.6%	2.7%	2.9%	3.0%	3.2%	3.2%	
Free cash yield	-4.8%	-9.6%	-3.3%	-0.9%	5.3%	3.3%	6.6%	3.8%	2.0%	2.9%	3.4%	4.7%	5.8%	7.1%	
Cash flow:															
Upstream	3.2	3.7	2.2	6.6	6.4	6.4	7.1	7.6	7.1	7.9	7.9	8.8	9.4	10.0	5.1%
Downstream	0.7	0.2	0.8	1.2	2.2	2.6	2.5	1.8	1.8	1.7	1.7	1.6	1.6	1.6	-4%
Other and corporate	(0.1)	(0.2)	(0.6)	(1.3)	1.3	0.7	(0.4)	(0.8)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	
Sources of funds	3.8	3.7	2.5	6.5	9.9	9.8	9.1	8.5	8.1	8.7	8.7	9.5	10.1	10.8	3.6%
Changes in working capital	(0.1)	0.5	(0.2)	(1.1)	0.2	(0.9)	0.7	0.4	0.0	(0.2)	(0.0)	(0.1)	(0.2)	(0.1)	
Cash flow from operations	3.6	4.2	2.3	5.3	10.1	8.9	9.8	8.9	8.1	8.5	8.7	9.3	10.0	10.6	
Capex	(5.0)	(7.4)	(3.5)	(5.8)	(7.0)	(7.0)	(6.6)	(7.0)	(7.1)	(7.1)	(7.0)	(7.0)	(7.1)	(7.2)	-0.1%
Free cash flow	(1.4)	(3.2)	(1.3)	(0.5)	3.1	1.9	3.2	1.9	1.0	1.4	1.7	2.3	2.9	3.5	
Ordinary dividends	(0.2)	(0.2)	(0.4)	(0.6)	(0.7)	(0.8)	(1.1)	(1.2)	(1.3)	(1.3)	(1.3)	(1.4)	(1.4)	(1.4)	3.6%
as % of operating c/flow	4%	4%	16%	11%	7%	9%	11%	14%	15%	15%	15%	15%	14%	13%	
Discretionary free cash flow	(1.5)	(3.3)	(1.6)	(1.1)	2.5	1.1	2.2	0.7	(0.2)	0.2	0.4	1.0	1.5	2.1	
Disposals/(Acquisitions)	-	-	0.2	-	-	-	(0.5)	-	-	-	-	-	-	-	
Equity change	0.1	0.2	0.0	0.1	(0.3)	(1.3)	(1.5)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	
Surplus (deficit)	(1.5)	(3.3)	(1.4)	(1.1)	2.5	1.1	1.6	0.7	(0.2)	0.2	0.4	1.0	1.5	2.1	
Balance sheet:															
Net debt	3.3	7.2	13.4	10.7	7.0	6.3	5.8	6.1	7.3	8.2	8.8	8.7	8.1	6.7	
Net debt/EBITDA	0.8x	1.5x	5.4x	1.1x	0.6x	0.5x	0.5x	0.5x	0.7x	0.7x	0.7x	0.7x	0.6x	0.5x	
Interest cover	nm	5.6x	nm	52.2x	24.4x	175.1x	10.7x	22.6x	20.7x	21.5x	20.9x	22.4x	24.1x	26.4x	
Net debt/equity	27%	60%	41%	30%	18%	16%	15%	15%	18%	19%	19%	18%	16%	13%	
Capital employed:															
Upstream	9.9	14.8	25.0	39.2	40.2	39.7	39.0	37.9	40.2	42.7	45.1	47.2	49.2	51.1	7.6%
Downstream	2.4	2.5	4.6	6.1	6.1	5.9	5.9	5.8	6.2	6.5	6.8	7.2	7.5	7.8	7.1%
% Upstream	80%	86%	84%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	
Return on capital employed:															
Upstream	25.6%	20.9%	-1.5%	8.8%	7.7%	1.9%	8.0%	11.2%	8.8%	9.7%	9.0%	10.1%	10.6%	11.1%	
Downstream	17.4%	1.8%	7.5%	13.2%	29.1%	36.4%	33.4%	22.0%	20.5%	17.6%	16.3%	13.6%	12.7%	12.0%	
Aggregate group		12.4%	1.6%	6.7%	8.0%	4.6%	8.0%	8.5%	7.2%	7.6%	7.1%	7.6%	8.0%	8.3%	

Source: Company reports, Citi Research.

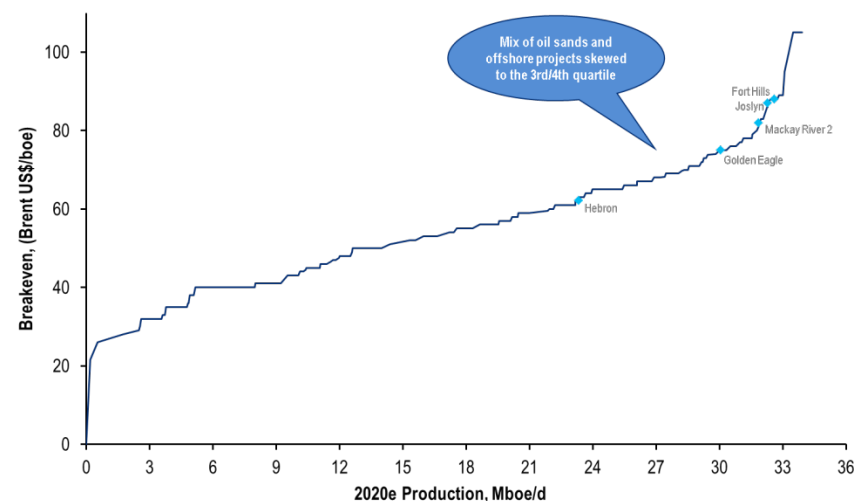
Suncor - Upstream

Figure 255. Suncor project portfolio (2013-2020 start-ups)



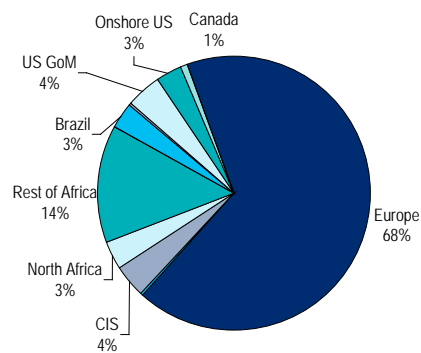
Source: Company reports, Citi Research

Figure 256. Suncor project portfolio versus the industry cost-curve



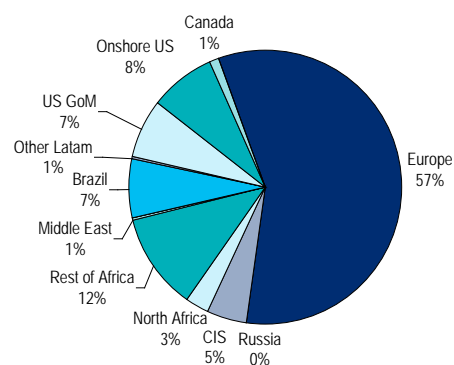
Source: Company reports, Citi Research

Figure 257. 2012 cash flow by region



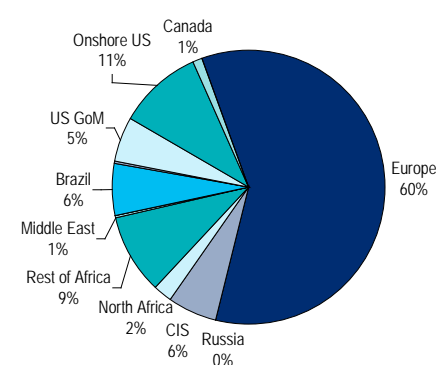
Source: Citi Research and company reports

Figure 258. 2016E cash flow by region



Source: Citi Research

Figure 259. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Total – Buy, €50.0/share price target

Look What's Coming Down the Pipeline

Our concerns around Total historically have centered on poor project execution and costly acquisitions, delivering a 2007-13 returns destruction that was crippling to equity value. But we argue that value destruction has now been priced. The future remains a promise of delivery, with a strong project pipeline that in our view looks diversified and well-managed enough to offer investors a strong financial outcome. We see the business delivering >10% FCF yield by 2017E, capacity that should allow Total to differentiate within a sector that struggles to deliver real growth.

- **The dark years** — In the past we have been critical on Total's strategy. From 2007 to 2013 RoE went from one of the highest in the sector at 31% to a sector average 11.7%. In this period Total was front and centre of many of the issues we highlighted at the beginning of this note. Acquisitions such as in Canadian heavy oil (where development has subsequently slipped to the right) or the move into Shtokman in Russia (one of the highest cost projects in the world) were all premised on a belief in a supply-driven oil price. Equity has had to impair the capital devoted to these strategic moves.
- **The shift** — from 2012 Total looked to shift strategy and began to subtly pull-back in approach, although investment levels remained high given the projects in-train. The upstream portfolio is still heavily populated by 2nd/3rd-quartile projects — Total is almost devoid of anything at the low-end of the curve on our analysis — nevertheless the portfolio average breakeven (US\$65/bbl), profitability (c. 16% at US\$90/bbl oil) and materiality does not look any different to sector peers such as RDS and CVX. That portfolio now offers growth through the 2018 period. We see Upstream top-line growth of 3% CAGR and bottom line of 8% CAGR.
- **Potential for better execution** — Good project execution is paramount for any company seeking to be valued around growth and execution is something that Big Oil has clearly struggled with over recent years. Two elements we think help to de-risk Total's growth. Firstly, project and geographical spread – there are broad spread of projects, with only Ichthys in Australia accounting for more than 10% of pipeline spend to 2020. Secondly, except for perhaps Australia, most of the pipeline sanctions have been taken at a time of relative available capacity in the supply chain (e.g. CLOV, Laggan Tormore, Fort Hills, Egina, Yamal).
- **Downstream portfolio protects the underperformers** — Current targets to increase underlying profitability by 4% to 2015 (from 8% in 2010) remain a stretch, in our view, for a business that has so much capital deployed in mature and competitive European markets. Nevertheless, we also think this business is less of a problem than is often perceived given. Total is Europe's biggest refiner and European refining remains a challenging business; Total's portfolio of small French refineries will continue to need rationalization as political will/labour relations allow. Overall, however, the portfolio is still relatively protected by some good quality assets (Port Arthur, Vlissingen, Gonfreville and Antwerp), to be further supplemented this year by the steady ramp-up of Jubail in Saudi Arabia. By 2017 Jubail will be the company's single-most important asset in Downstream, contributing some US\$0.8bn within a business that across refining, petrochemicals and marketing we expect can generate US\$6.5bn/year of cash flow.
- **Financial Outlook and Valuation** — Overall we see ROE rising to 15% on a business that will grow book value 7% CAGR to 2017. Current equity value is at 1.09x end-2017E book. In cash flow terms we think the company can come close to delivering 2x free cash flow versus current dividends, offering substantial scope for higher distribution to shareholders and an outlook that well exceeds what we think large-cap peers offer over that period.

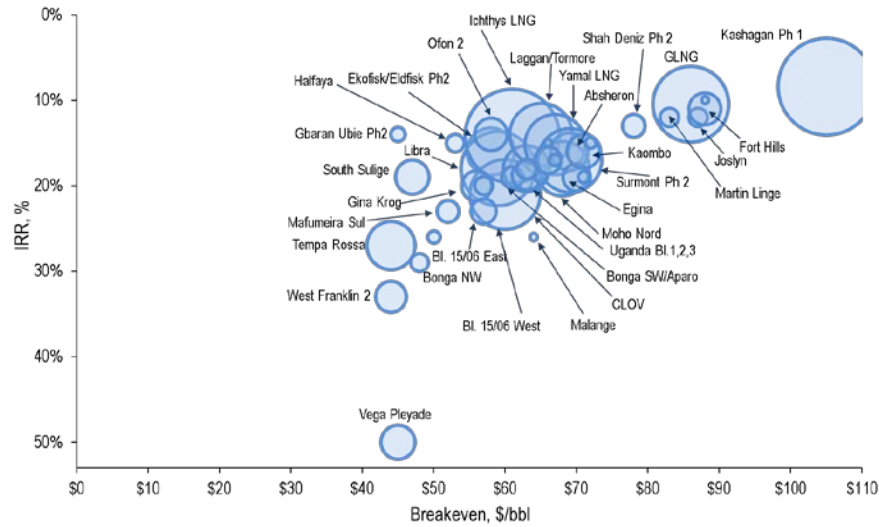
Figure 260. Total Summary Financial Model

US\$ B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.8	97.4	62.3	80.0	110.8	111.9	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
EUR/USD	1.37	1.46	1.39	1.32	1.39	1.29	1.33	1.35	1.35	1.35	1.35	1.35	1.35	1.35	
E&P volumes (mboepd)	2.1	1.9	1.9	1.9	1.8	1.7	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	2.9%
YoY growth	0.2%	-6.7%	0.1%	-0.5%	-8.2%	-4.7%	-3.5%	2.7%	5.3%	4.2%	5.8%	-3.3%	2.8%	0.0%	
% oil	73%	75%	71%	69%	69%	72%	72%	64%	63%	63%	63%	66%	64%	64%	
E&P cash margins (US\$/boe)	22.4	24.9	19.0	22.3	26.5	29.2	27.6	29.2	27.5	31.2	33.6	34.7	35.8	36.6	4.4%
Per share data:															
EPS (€)	5.37	6.19	3.48	4.59	5.06	5.46	4.73	4.66	4.56	5.63	6.38	6.56	6.80	7.08	8.9%
EPADR (US\$)	7.36	9.06	4.82	6.07	7.05	7.02	6.27	6.29	6.15	7.60	8.61	8.85	9.17	9.56	8.9%
DPS (€)	2.07	2.28	2.28	2.28	2.28	2.34	2.38	2.45	2.49	2.53	2.57	2.61	2.65	2.69	1.6%
Valuation ratios:															
P/E	8.6x	7.5x	13.3x	10.1x	9.1x	8.5x	9.9x	10.0x	10.2x	8.3x	7.3x	7.1x	6.9x	6.6x	
EV/DACF	5.7x	6.6x	6.9x	5.8x	5.2x	5.3x	6.6x	6.0x	6.0x	5.3x	4.7x	4.5x	4.2x	3.9x	
Dividend yield	4.5%	4.9%	4.9%	4.9%	4.9%	5.1%	5.1%	5.3%	5.3%	5.4%	5.5%	5.6%	5.7%	5.8%	
Free cash yield	5.8%	5.8%	-0.2%	5.7%	2.8%	2.4%	-0.9%	2.3%	2.7%	5.9%	9.3%	9.8%	10.2%	10.7%	
Cash flow:															
Upstream	17.2	21.0	15.7	20.6	24.6	23.5	23.2	23.9	23.6	28.2	31.8	32.1	33.7	34.5	7.7%
Downstream	6.0	7.5	2.8	3.1	3.7	5.4	5.6	6.2	7.0	7.0	6.9	6.9	6.8	7.2	2.8%
Other and corporate	3.1	(4.9)	3.2	1.4	1.3	(1.4)	(2.9)	(0.3)	(0.3)	(0.4)	(0.4)	(0.3)	(0.1)	0.0	
Sources of funds	26.3	23.6	21.7	25.1	29.6	27.5	25.9	29.7	30.3	34.8	38.4	38.8	40.3	41.6	6.8%
Changes in working capital	(2.0)	3.8	(4.6)	(0.7)	(2.4)	1.4	2.6	-	-	-	-	-	-	-	
Cash flow from operations	24.2	27.3	17.1	24.5	27.2	28.9	28.5	29.7	30.3	34.8	38.4	38.8	40.3	41.6	
Capex	(15.8)	(18.5)	(17.5)	(16.6)	(23.1)	(25.7)	(29.9)	(26.3)	(26.3)	(25.9)	(24.4)	(24.1)	(25.1)	(25.6)	-2.2%
Free cash flow	8.4	8.9	(0.3)	7.9	4.1	3.2	(1.4)	3.4	4.0	8.9	14.0	14.7	15.2	16.1	
Ordinary dividends	(6.2)	(7.2)	(7.1)	(6.8)	(7.2)	(6.8)	(7.1)	(7.8)	(8.0)	(8.1)	(8.2)	(8.4)	(8.5)	(8.6)	1.6%
as % of operating c/flow	25%	25%	34%	29%	24%	22%	24%	26%	26%	23%	21%	22%	21%	21%	
Discretionary free cash flow	2.4	3.5	(3.6)	0.2	(0.8)	(1.2)	(7.9)	(4.4)	(4.0)	0.8	5.7	6.3	6.7	7.5	
Acquisitions	(0.2)	(1.5)	(1.0)	(4.9)	(11.4)	(4.0)	(4.5)	-	-	-	-	-	-	-	
Disposals	2.1	3.8	4.3	5.7	11.9	7.6	5.9	0.8	-	-	-	-	-	-	
Share buybacks	(2.1)	(1.7)	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus (deficit)	2.2	4.1	(0.3)	1.1	(0.3)	2.3	(6.4)	(3.7)	(4.0)	0.8	5.7	6.3	6.7	7.5	
Balance sheet:															
Net debt	16.2	15.6	18.8	17.3	21.9	20.0	22.7	26.9	31.0	30.4	24.8	18.6	12.0	4.7	-8.2%
Net debt/EBITDA	0.4x	0.3x	0.6x	0.5x	0.5x	0.4x	0.5x	0.7x	0.8x	0.7x	0.5x	0.4x	0.2x	0.1x	
Cash interest cover	10.0x	20.0x	28.5x	38.3x	29.7x	36.2x	32.8x	16.2x	15.1x	16.5x	19.1x	21.9x	26.6x	33.5x	
Net debt/equity	26%	21%	25%	21%	23%	21%	23%	25%	27%	25%	18%	13%	7%	3%	
Capital employed:															
Upstream	37.1	47.8	51.8	58.2	79.8	82.1	91.9	104.1	115.8	126.9	135.4	144.0	153.0	162.2	8.4%
Downstream	26.4	30.8	30.8	30.3	29.6	38.0	36.9	37.1	36.9	35.8	34.6	33.2	31.7	30.1	-4.0%
% Upstream	58%	61%	63%	66%	73%	68%	71%	74%	76%	78%	80%	81%	83%	84%	
Return on capital employed:															
Upstream	33.6%	35.9%	18.2%	21.1%	20.5%	18.2%	14.4%	10.8%	10.4%	10.3%	10.3%	10.2%	9.8%	9.4%	
Downstream	20.6%	19.9%	6.6%	7.6%	7.4%	13.0%	8.9%	10.3%	9.2%	8.5%	8.2%	7.9%	7.5%	7.1%	
Aggregate group	13.9%	23.3%	7.9%	11.7%	11.0%	13.3%	11.3%	9.0%	8.4%	9.7%	10.5%	10.4%	10.3%	10.3%	

Source: Company reports, Citi Research.

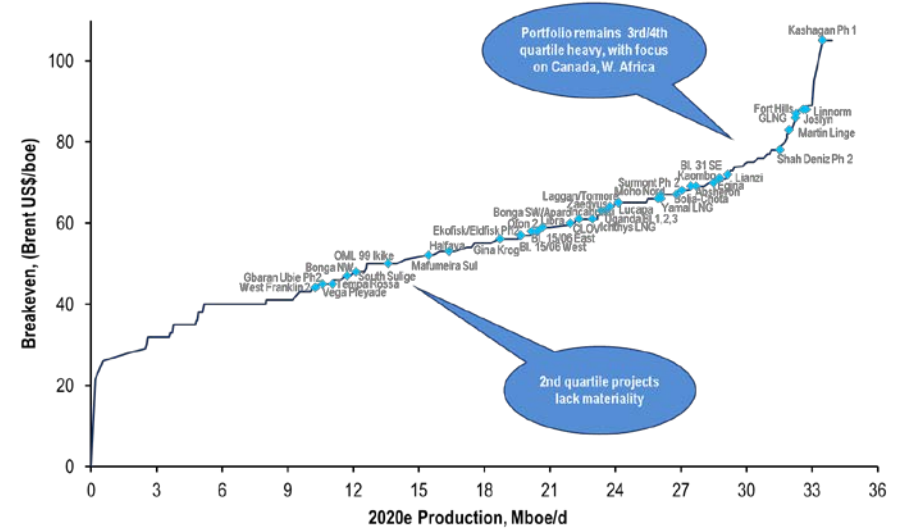
Total - Upstream

Figure 261. Total project portfolio (2013-2020 start-ups)



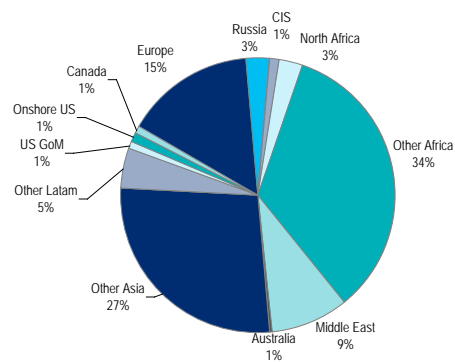
Source: Company reports, Citi Research

Figure 262. Total project portfolio versus the industry cost-curve



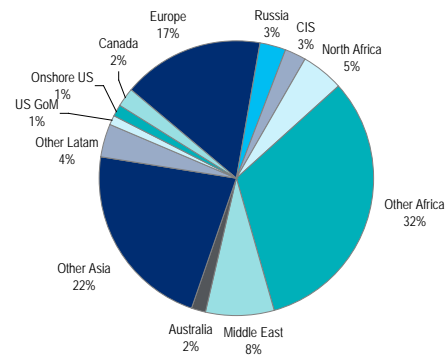
Source: Company reports, Citi Research

Figure 263. 2012 cash flow by region



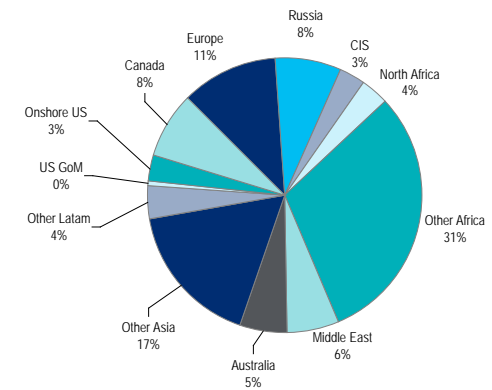
Source: Citi Research and company reports

Figure 264. 2016E cash flow by region



Source: Citi Research

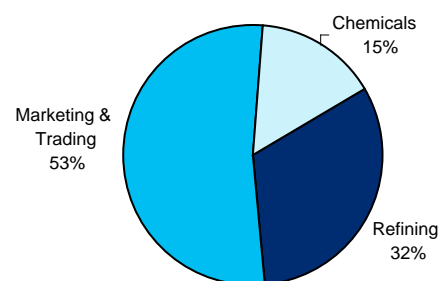
Figure 265. 2020E cash flow by region



Source: Citi Research

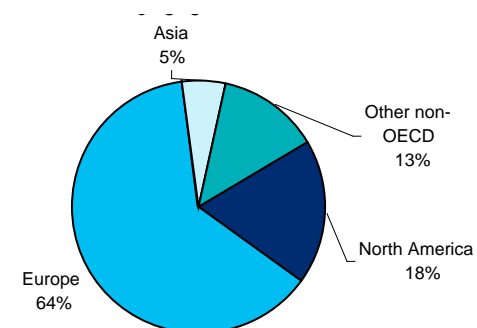
Total – Downstream

Figure 266. 2016E cash flow by segment



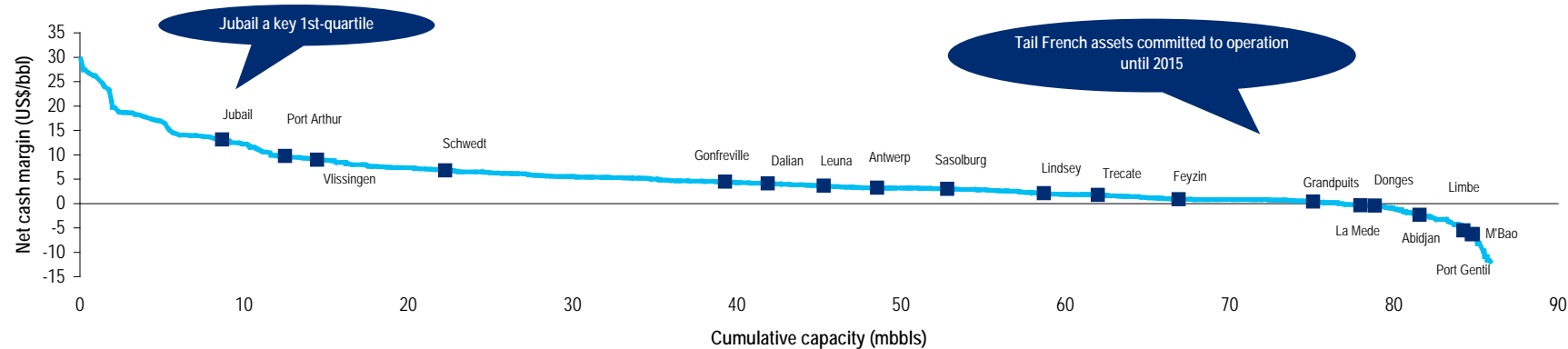
Source: Citi Research

Figure 267. 2016E cash flow by region



Source: Citi Research

Figure 268. Total refining asset competitive position in a global context (based on mid-cycle conditions)



Source: Citi Research

Tullow – Neutral, 960p/share price target

High-Quality Portfolio Despite Recent Exploration Disappointments

We believe Tullow has a high-quality portfolio that delivers attractive growth and high returns. Near-term growth is driven by the ramp-up of Jubilee and the delivery of the TEN development in Ghana, while an export development from both Uganda and Kenya could be onstream by the back end of the decade. Tullow continues to offer leverage to exploration with core campaigns focused across the East African rift basins (Kenya and Ethiopia), Central Atlantic Margin (Mauritania), North Atlantic Margin (Norway) and West Africa Transform Margin (Guinea). However, despite the recent de-rating, we believe this potential is largely reflected in valuation with Tullow trading at a material premium to our core NAV of 561p/share.

- **Medium-term E&P growth driven by Ghana** — We forecast E&P entitlement production to rise from c. 77k boe/d in 2013 to 115k boe/d in 2017 (10% CAGR) driven primarily by the ramp up to plateau of the Jubilee field and the delivery of the TEN development in Ghana. However, the delay to the gas compression project onshore Ghana has resulted in a delay to plateau production (120k b/d) from the Jubilee field. Tullow has guided to 2014 production from the Jubilee at 100k b/d (in line with 2013) until the gas compression project is completed in 2H14. Tullow is moving forwards with the TEN development in Ghana and is targeting first oil in mid-2016. In addition, Tullow recently received approval for the development plan at the Banda gas field in Mauritania, which plans to supply a lower power station.
- **Growth beyond still needs definition** — Beyond 2016 further production growth will be driven by the delivery of a Ugandan export development, which we believe could be achieved by 2019. In addition, recent exploration success in the Lokichar Basin onshore Kenya, has already discovered sufficient resources to underpin a commercial development. Further exploration and appraisal activity is planned in 2014 to fully delineate the resource potential in the Lokichar Basin, but Tullow and its partner Africa Oil are already working on the pre-FEED studies for an export pipeline. We assume first oil from Kenya in late 2019. Tullow's current portfolio also includes a possible Zaedyus development (French Guiana), but this potential project requires additional exploration and appraisal success to de-risk sufficient upstream volumes to reach commerciality.
- **Growth looks well-positioned on the cost-curve** — We see the E&P growth as well positioned on the cost-curve, with average oil price breakeven of US\$55/bbl over the decade and an IRR of 26%.
- **Upstream portfolio continues to offer leverage to exploration** — Despite a poor recent run of exploration results, Tullow is highlighting an active 2014 drilling programme. The key wells are Emong, Etom and Kiboko wells (Kenya), 3 well drilling programme in Mauritania in 1H14 (Fregate results expected end of January), Sputnik East (Gabon) in 2Q14, Fatala (Guinea) in 2Q14 and Lupus (Norway) in 2Q14. We have included 230p/share risked in our base NAV of 1063p/share for the 2014 drilling campaign but unrisked could be worth up to 852p/share.
- **Capital structure** — High investment requirements see Tullow continuing to raise borrowing levels through to the end of the decade. However, Tullow has announced plans to farm down its current stake in the TEN development offshore Ghana to fund its share of development costs and reduce its capital commitments. We believe this strategy could also be employed in Kenya given the high equity stakes that it has across the East African Rift basins. Assuming no farm-outs/asset sales, we forecast net debt/EBITDA climbing to 2.8x in 2016 on our oil price deck (US\$90/bbl real).
- **Valuation** — Despite recent underperformance following exploration drilling disappointments, Tullow continues to trade at a significant premium to our core NAV of 577p/share with the current valuation reflecting Tullow's attractive growth and returns outlook from its upstream portfolio.

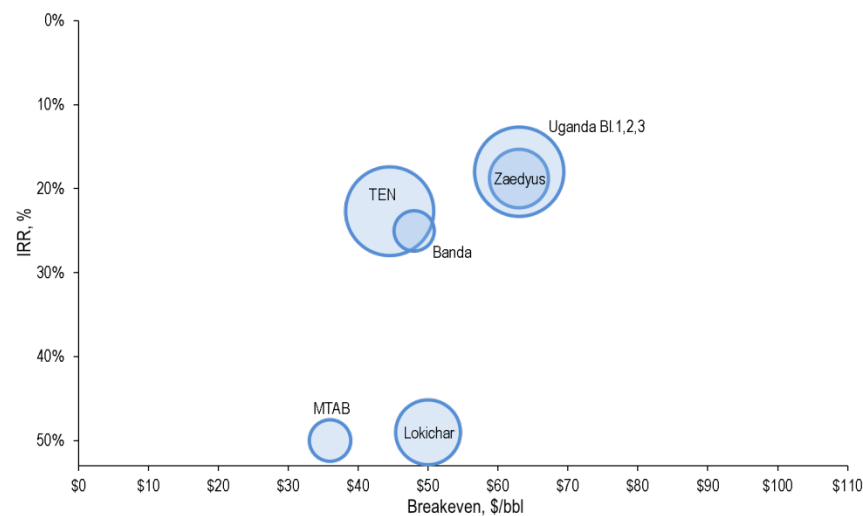
Figure 269. Tullow Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.3	110.8	111.9	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
GBP/USD	2.00	1.85	1.56	1.54	1.60	1.58	1.56	1.60	1.60	1.60	1.60	1.60	1.60	1.60	
E&P volumes (mboepd)	32.1	29.6	30.3	31.4	49.5	51.5	59.6	62.0	66.4	77.3	100.3	104.4	119.7	156.7	13.9%
YoY growth	19.3%	-7.9%	2.4%	3.6%	57.5%	4.0%	15.9%	4.0%	7.1%	16.3%	29.7%	4.0%	14.7%	30.9%	
% oil	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Per share data:															
EPS (US cents)	19.3	14.4	5.4	9.1	68.7	49.8	15.3	47.4	45.8	63.1	102.0	112.4	136.7	187.2	24.1%
EPS (p)	966	779	343	592	4,284	3,144	976	2,961	2,860	3,945	6,375	7,023	8,544	11,699	24.1%
DPS (US cents)	12.1	10.9	9.5	9.3	19.2	19.1	18.9	19.3	19.8	20.3	20.8	21.3	21.9	22.4	2.5%
DPS (p)	603	587	609	603	1,197	1,202	1,205	1,208	1,238	1,269	1,300	1,333	1,366	1,400	2.5%
Valuation ratios:															
P/E	69.4x	92.9x	250.1x	146.5x	19.5x	26.9x	87.9x	28.3x	29.3x	21.2x	13.1x	11.9x	9.8x	7.2x	
EV/DACF	15.0x	16.1x	33.0x	22.1x	9.7x	9.7x	8.6x	10.4x	11.5x	10.7x	8.3x	8.0x	6.6x	4.8x	
Dividend yield	0.9%	0.8%	0.7%	0.7%	1.4%	1.4%	1.4%	1.4%	1.5%	1.5%	1.6%	1.6%	1.6%	1.7%	
Free cash yield	-0.6%	-0.5%	-9.4%	-5.0%	-0.2%	-3.5%	-2.7%	-6.1%	-7.4%	-9.1%	-4.4%	-1.8%	3.4%	12.0%	
Cash flow:															
Upstream	0.7	0.8	0.3	0.5	1.5	1.5	0.7	1.2	1.2	1.5	2.1	2.3	2.8	3.7	17.0%
Downstream	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other and corporate	0.1	(0.0)	0.0	0.1	(0.0)	(0.1)	0.9	0.2	0.2	0.1	0.1	0.1	0.1	0.1	
Sources of funds	0.8	0.8	0.4	0.6	1.5	1.4	1.6	1.5	1.4	1.6	2.2	2.3	2.8	3.8	12.8%
Changes in working capital	(0.1)	0.1	(0.1)	0.1	0.1	0.0	0.1	-	-	-	-	-	-	-	
Cash flow from operations	0.8	0.9	0.2	0.6	1.5	1.4	1.7	1.5	1.4	1.6	2.2	2.3	2.8	3.8	
Capex	(0.8)	(0.9)	(1.2)	(2.6)	(1.6)	(1.8)	(2.0)	(2.2)	(2.3)	(2.7)	(2.7)	(2.6)	(2.4)	(2.3)	3.9%
Free cash flow	(0.1)	(0.0)	(1.0)	(2.0)	(0.0)	(0.4)	(0.3)	(0.7)	(0.9)	(1.1)	(0.5)	(0.2)	0.4	1.5	
Ordinary dividends	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	2.6%
as % of operating c/flow	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Discretionary free cash flow	(0.0)	(0.0)	(1.1)	(2.0)	(0.2)	(0.6)	(0.5)	(0.9)	(1.1)	(1.3)	(0.7)	(0.4)	0.2	1.3	
Acquisitions	(0.7)	-	(0.0)	(1.5)	(0.5)	-	(0.4)	-	-	-	-	-	-	-	
Disposals	(0.0)	0.5	0.0	0.0	-	2.6	0.1	-	-	-	-	-	-	-	
Equity change	0.0	(0.0)	0.6	1.5	0.1	0.0	0.0	-	-	-	-	-	-	-	
Surplus (deficit)	(0.7)	0.5	(0.5)	(2.0)	(0.6)	2.0	(0.8)	(0.9)	(1.1)	(1.3)	(0.7)	(0.4)	0.2	1.3	
Balance sheet:															
Net debt	0.9	0.6	1.1	1.9	2.8	0.8	1.8	2.7	3.8	5.1	5.8	6.2	6.0	4.8	
Net debt/EBITDA	1.2x	0.8x	2.2x	3.1x	1.7x	0.6x	1.9x	1.6x	2.3x	2.5x	2.1x	2.0x	1.6x	1.0x	
Net debt/equity	67%	30%	44%	49%	59%	16%	34%	49%	65%	82%	84%	80%	68%	46%	
Capital employed:															
Upstream	3.0	3.3	3.7	5.6	7.9	8.4	8.9	10.5	11.8	13.4	15.0	16.4	17.5	18.1	11.8%
Downstream	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Upstream	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	8.7%	5.8%	2.9%	2.8%	9.4%	6.5%	2.9%	5.2%	4.7%	5.6%	7.6%	7.6%	8.5%	10.7%	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	8.7%	5.8%	2.9%	2.8%	9.4%	6.5%	2.9%	5.2%	4.7%	5.6%	7.6%	7.6%	8.5%	10.7%	

Source: Company reports, Citi Research.

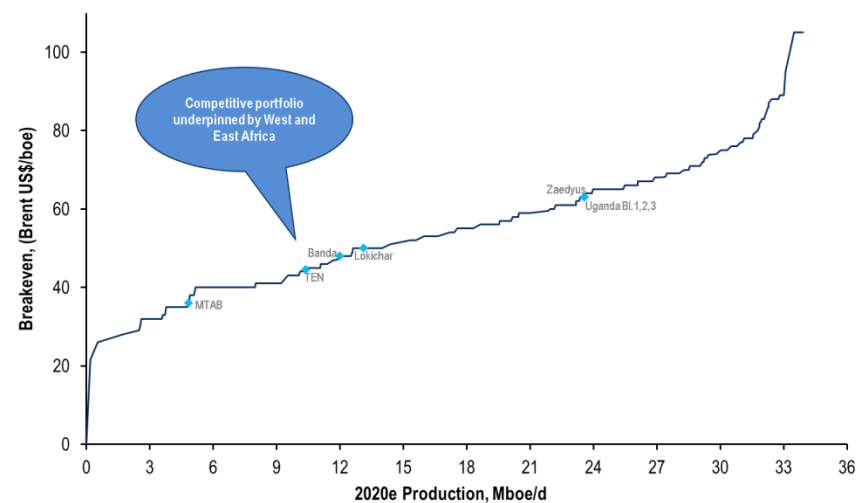
Tullow – Upstream

Figure 270. Tullow project portfolio (2013-2020 start-ups)



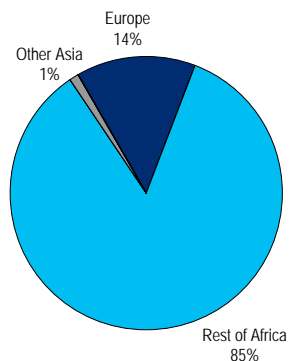
Source: Company reports, Citi Research

Figure 271. Tullow project portfolio versus the industry cost-curve



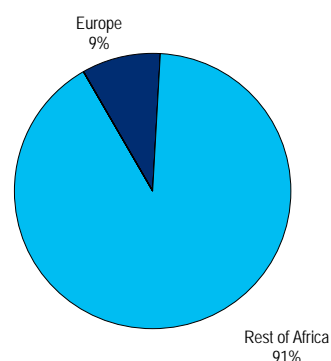
Source: Company reports, Citi Research

Figure 272. 2012 cash flow by region



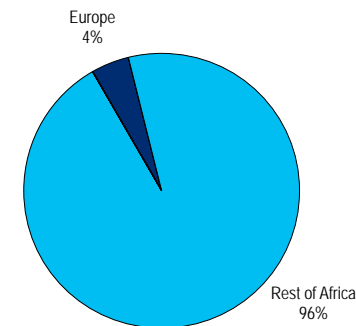
Source: Citi Research and company reports

Figure 273. 2016E cash flow by region



Source: Citi Research

Figure 274. 2020E cash flow by region



Source: Citi Research



This page is intentionally left blank

Woodside – Buy, A\$43.86/share price target

Cash Cow and Low Gearing Supports Stronger Dividend Yield for Longer

Woodside's current valuation is largely underpinned by its producing asset base, the NW Shelf, its oil assets, and Pluto LNG. Woodside has three main growth options, the Browse LNG project, Sunrise LNG, Leviathan. The timing of these projects is long dated and uncertain. We think the next major LNG investment decision is unlikely before 2015 at best. We cannot see Browse, Leviathan, Sunrise, or Pluto expansion taking FID any sooner. We think the decision to return capital to shareholders, rather than pursue low-returning growth projects demonstrates disciplined and prudent capital management, a tick in the box for management. To us the increased dividend payout ratio is a smart decision as it provides WPL with the opportunity to reassess the dividend policy periodically, and adjust for new project capex or M&A opportunities as required. While WPL has discussed this higher payout ratio as sustainable for "several years", we think it is sustainable to 2020+ in the absence of parallel investments in Browse/Sunrise/Leviathan.

- **WPL provides best dividend yield now, and longer term** — We understand that WPL's view of the 80% dividend payout ratio being sustained for "several years" took into account the scenario where it made timely FIDs on Browse, Sunrise, and Leviathan LNG, all by the end of CY16. In this best-case growth scenario WPL could have maintained the 80% payout ratio during the initial phase of construction until 2016, when gearing would have grown to >20%, before it would cut the payout ratio to ensure that gearing (ND:ND+E) peaked at <35% and credit metrics like FFO/debt were maintained at acceptable levels. However, since announcing the higher payout ratio in April-13, WPL's growth projects have been delayed and WPL's proposed interest in Leviathan has reduced from 30% to 25%. We think these delays to growth capex further strengthens WPL's balance sheet, and we believe means an 80% payout ratio is sustainable until 2020+.
- **Browse has strong economics, FID targeted for mid CY15** — We estimate Browse FLNG has a strong IRR of 14.9% (post-tax, nominal) which is more competitive than North American LNG options. Citi estimates Browse FLNG upfront capex US\$43b, lifecycle US\$52b - based on detailed benchmarking to Shell's Prelude FLNG project using details from WPL's Browse Dec-13 EIS including wellcount, number of manifolds, pipeline length, and FLNG capacity. Capex remains competitive compared to JPP at >US\$80b life cycle. We think Browse FLNG is highly likely to reach a Final Investment Decision by 2H15 as targeted by the JV. In Dec-13, Coleman flagged an HOA for Browse offtake may be achieved prior to FEED commencing in mid CY14, which would be de-risk the project significantly in our view.
- **Production hole from CY16, but not an issue for WPL** — We think that some investors are concerned by the outlook for declining production, and believe that there may be a risk of WPL management buying growth assets (at any price) for the sake of growth. We do not see this as a risk, given WPL has historically demonstrated prudent management of capital, delaying a FID on a Browse-JPP development (11% IRR) to refocus on FLNG which provided a greater return (we estimate ~15% IRR). If WPL wanted growth at any cost it could have pushed ahead with a JPP development. WPL has placed a greater interest in growing exploration/appraisal assets (Leviathan, Myanmar/Ireland/NZ exploration etc) and it is looking to be the first entrant to new basins as a "Basin Master", entering assets at low cost and with low level of commitments. By doing so it can create value for shareholders through the drill bit, rather than buying fully-priced developed assets.
- **Valuation** — WPL's producing assets alone underpin a DCF of A\$37.80/shr, bolstered by a strong LNG price outcome for Pluto/NW Shelf re-openers. We are also confident in Browse FLNG (14.9% IRR, bottom quartile of cost curve, unrisks DCF of A\$6.43/shr net), and FID on FLNG1 is likely in CY15. Our analysis suggests the 80% payout ratio is sustainable throughout execution of Browse FLNG, absent of parallel investment in Sunrise/Leviathan LNG which is unlikely, this scenario providing an 7% dividend yield to 2020. Our target price of A\$43.86/share is based on our DCF valuation, and attributes full value for assets in operation, 80% risk weighting to Browse FLNG, 15% risk weighting to Sunrise FLNG and 25% risk weighting to a 100mmbbl gross Laverda oil development.

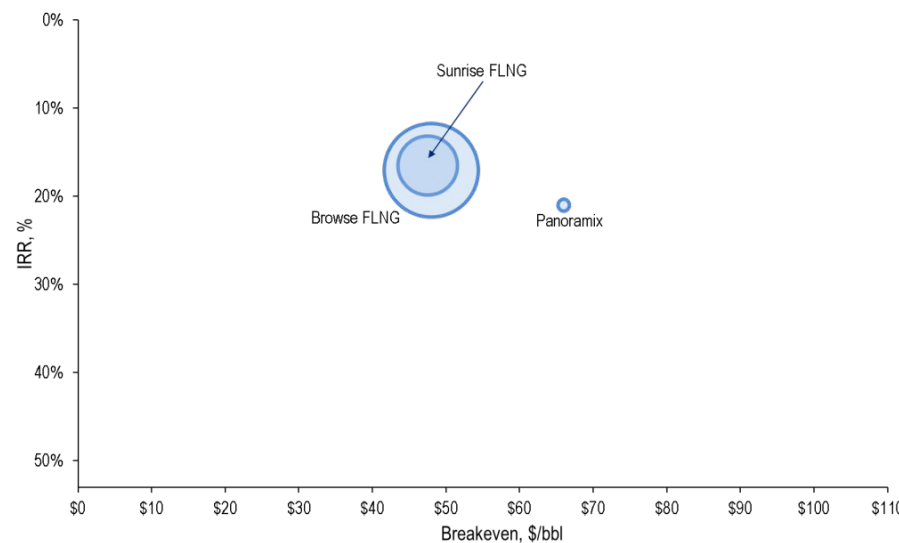
Figure 275. Woodside Summary Financial Model

US\$B, unless stated	'07	'08	'09	'10	'11	'12	'13	'14E	'15E	'16E	'17E	'18E	'19E	'20E	CAGR 14-18
Key assumptions:															
Brent oil (US\$/bbl)	72.7	98.1	62.3	80.0	110.8	111.8	108.8	103.0	95.0	99.0	102.0	105.0	109.0	112.0	0.5%
USD/AUD	0.84	0.85	0.79	0.92	1.03	1.04	0.97	0.91	0.92	0.92	0.92	0.90	0.90	0.90	
E&P volumes (kboepd)	193	223	222	199	177	233	238	249	254	245	229	224	229	227	-2.6%
YoY growth		15.3%	-0.6%	-10.2%	-11.1%	31.4%	2.4%	4.4%	2.0%	-3.4%	-6.6%	-2.1%	2.1%	-0.9%	
% oil	0%	53%	49%	46%	43%	33%	25%	24%	22%	29%	26%	24%	21%	17%	
E&P cash margins (US\$/bbl)	28.6	33.6	25.1	34.8	43.8	44.6	40.3	48.1	47.6	47.7	50.1	57.1	55.1	51.7	4.4%
Per share data:															
EPS (US\$)	1.47	2.46	1.41	1.88	2.04	2.64	2.31	3.28	3.16	3.06	3.03	3.48	3.34	2.97	1.5%
EPS (Acps)	1.23	2.10	1.11	1.73	2.11	2.73	2.24	2.97	2.89	2.81	2.79	3.13	3.00	2.67	1.4%
DPS (US\$)	0.91	1.02	0.97	1.05	1.10	1.30	2.49	2.62	2.53	2.44	2.43	2.78	1.67	1.49	1.5%
DPS (Acps)	0.76	0.87	0.77	0.97	1.14	1.35	2.41	2.37	2.32	2.24	2.24	2.50	1.50	1.34	1.3%
Valuation ratios:															
P/E	31.0x	18.2x	34.2x	22.1x	18.1x	14.0x	15.2x	10.7x	11.1x	11.5x	11.6x	10.1x	10.5x	11.8x	
EV/DACF	11.8x	9.5x	20.8x	14.3x	15.8x	7.5x	10.4x	7.5x	7.1x	6.9x	7.1x	7.4x	7.6x	7.6x	
Dividend yield	2.7%	3.0%	2.8%	3.1%	3.2%	3.8%	7.1%	7.5%	7.2%	6.9%	6.9%	7.9%	4.8%	4.2%	
Free cash yield	-0.1%	-3.5%	-14.4%	-4.3%	-6.7%	9.4%	8.5%	9.9%	10.9%	9.7%	3.8%	-1.0%	-3.1%	2.5%	
Cash flow:															
Upstream	2.5	3.2	1.5	2.1	2.2	3.5	3.3	3.9	4.3	4.3	4.3	4.2	4.4	4.5	2.1%
Other and corporate	(0.0)	(0.0)	0.0	0.2	(0.1)	0.9	(0.3)	0.3	0.1	0.1	0.0	0.1	0.1	0.2	
Sources of funds	2.5	3.2	1.5	2.3	2.1	4.3	3.0	4.2	4.4	4.4	4.3	4.4	4.5	4.7	1.0%
Changes in working capital	0.1	0.1	(0.2)	0.2	(0.4)	0.2	0.2	(0.2)	(0.0)	(0.0)	0.0	(0.0)	(0.0)	(0.1)	
Cash flow from operations	2.6	3.2	1.3	2.5	1.8	4.5	3.2	4.0	4.4	4.4	4.3	4.3	4.5	4.6	
Capex	(2.6)	(4.1)	(4.8)	(3.6)	(3.6)	(1.9)	(0.7)	(1.1)	(1.2)	(1.6)	(3.2)	(4.6)	(5.4)	(3.9)	43.0%
Free cash flow	(0.0)	(0.8)	(3.5)	(1.1)	(1.8)	2.6	2.5	2.9	3.1	2.8	1.1	(0.3)	(0.9)	0.7	
Ordinary dividends	(0.3)	(0.5)	(0.3)	(0.5)	(0.7)	(0.9)	(1.7)	(1.8)	(2.2)	(2.0)	(2.1)	(2.0)	(1.9)	(1.3)	2.5%
as % of operating cflow	11%	17%	23%	22%	37%	19%	55%	46%	51%	46%	47%	47%	43%	28%	
Discretionary free cash flow	(0.3)	(1.4)	(3.8)	(1.7)	(2.5)	1.7	0.7	1.0	0.9	0.8	(0.9)	(2.3)	(2.8)	(0.5)	
Acquisitions	-	-	-	-	-	-	-	(0.9)	(0.0)	-	-	-	-	-	
Disposals	0.1	0.1	0.0	0.7	0.1	2.1	0.1	-	-	-	-	-	-	-	
Equity change	0.3	0.2	1.4	1.2	0.8	0.4	-	-	-	-	-	-	-	-	
Surplus (deficit)	(0.2)	(1.3)	(3.7)	(1.0)	(2.4)	3.8	0.8	0.1	0.9	0.8	(0.9)	(2.3)	(2.8)	(0.5)	
Balance sheet:															
Net debt	0.8	2.0	3.8	4.0	5.1	1.9	1.5	1.5	0.7	(0.0)	1.0	3.4	6.3	7.0	
Net debt/EBITDA	0.4x	0.5x	1.6x	1.4x	1.6x	0.4x	0.4x	0.3x	0.1x	(0.0x)	0.2x	0.6x	1.1x	1.2x	
Interest cover	232.4x	193.1x	188.9x	nm	118x	32x	23x	33x	38x	43x	37x	36x	20x	16x	
Net debt/equity	18%	42%	42%	36%	40%	13%	10%	10%	4%	0%	6%	19%	33%	34%	
Capital employed:															
Upstream	5.3	6.9	13.1	15.6	18.3	17.7	17.5	18.4	17.9	17.7	19.2	22.4	26.2	28.0	5.1%
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Upstream	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Return on capital employed:															
Upstream	15.3%	21.6%	8.4%	8.7%	8.5%	11.3%	10.5%	14.3%	13.6%	13.3%	12.8%	13.2%	11.7%	9.7%	
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aggregate group	15.3%	21.6%	8.4%	8.7%	8.5%	11.3%	10.5%	14.3%	13.6%	13.3%	12.8%	13.2%	11.7%	9.7%	

Source: Company reports, Citi Research.

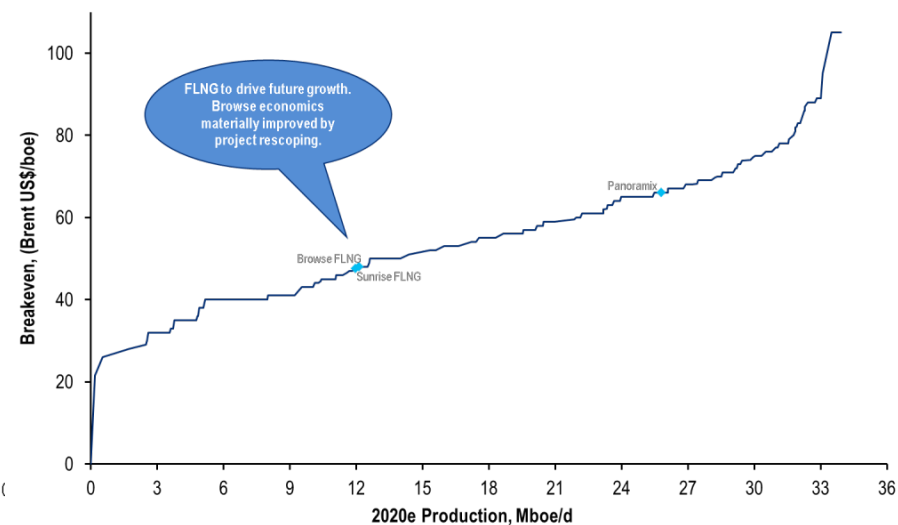
Woodside – Upstream

Figure 276. Woodside project portfolio (2013-2020 start-ups)



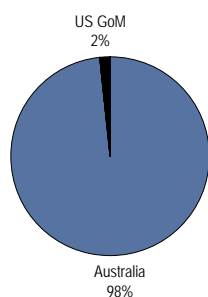
Source: Company reports, Citi Research

Figure 277. Woodside project portfolio versus the industry cost-curve



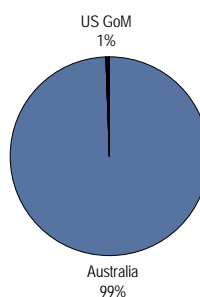
Source: Company reports, Citi Research

Figure 278. 2012 cash flow by region



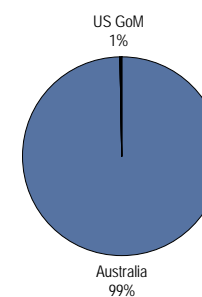
Source: Citi Research and company reports

Figure 279. 2016E cash flow by region



Source: Citi Research

Figure 280. 2020E cash flow by region



Source: Citi Research



Notes

Citi Research



Notes

Citi Research

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Hess Corp
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Cenovus Energy Inc
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Anadarko Petroleum Corp
Thelma M Bardouille, Research Assistant, holds a long position in the shares of Chevron Corp. Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Chevron Corp
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Occidental Petroleum Corp
Citi Global Markets India Private Limited beneficially owns -300000 of the equity securities of Company Reliance Industries Ltd. This position reflects information as at close of 07 Mar 2014.
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Exxon Mobil Corp
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Suncor Energy Inc
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Ecopetrol SA
Citi is acting as financial advisor to China Petroleum & Chemical Corp and ENN Energy Holdings in the proposed takeover of China Gas Holdings.
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Chesapeake Energy Corp
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Statoil ASA
Citigroup Global Markets Limited has provided certain financial advisory services to Repsol SA.
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of ConocoPhillips
Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Canadian Natural Resources Ltd
Robert S Morris, Analyst, holds a long position in the securities of Chesapeake Energy Corp, Canadian Natural Resources Ltd.
Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Petrobras, Lukoil, Cairn India, PetroChina, Anadarko Petroleum Corp, Chevron, Exxon Mobil Corp, Total, Sinopec, BP, Chesapeake Energy Corp, Oil & Natural Gas, Imperial Oil Limited.
Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Petrobras, Lukoil, Hess Corp, Woodside Petroleum Ltd, Cairn India, PetroChina, Anadarko Petroleum Corp, Chevron, Occidental Petroleum Corp, Reliance Industries, Exxon Mobil Corp, Suncor Energy Inc, Total, Eni, Ecopetrol, Sinopec, BP, OMV AG, Chesapeake Energy Corp, Oil & Natural Gas, BG Group, Imperial Oil Limited, Statoil, Rosneft, Repsol, Royal Dutch Shell, ConocoPhillips, Canadian Natural Resources Ltd.
Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Petrobras, Lukoil, Woodside Petroleum Ltd, PetroChina, Anadarko Petroleum Corp, Chevron, Eni, Ecopetrol, Sinopec, Oil & Natural Gas, BG Group, Rosneft, Repsol, ConocoPhillips.
Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Petrobras, Lukoil, Hess Corp, Cenovus Energy, Galp Energia, Woodside Petroleum Ltd, Cairn India, PetroChina, Santos Ltd, Anadarko Petroleum Corp, Chevron, Occidental Petroleum Corp, Reliance Industries, Exxon Mobil Corp, Suncor Energy Inc, Total, Eni, Ecopetrol, Sinopec, BP,

Tullow Oil, Inpex, OMV AG, Chesapeake Energy Corp, Oil & Natural Gas, BG Group, Imperial Oil Limited, Statoil, Rosneft, Repsol, Royal Dutch Shell, ConocoPhillips, Canadian Natural Resources Ltd in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Sinopec, Petrobras, Lukoil, Hess Corp, Woodside Petroleum Ltd, Cairn India, PetroChina, Anadarko Petroleum Corp, Chevron, Occidental Petroleum Corp, Reliance Industries, Exxon Mobil Corp, Suncor Energy Inc, Total, Eni, Ecopetrol, BP, OMV AG, Chesapeake Energy Corp, Oil & Natural Gas, BG Group, Imperial Oil Limited, Statoil, Rosneft, Repsol, Royal Dutch Shell, ConocoPhillips, Canadian Natural Resources Ltd.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Petrobras, Lukoil, Hess Corp, Cenovus Energy, Galp Energia, Woodside Petroleum Ltd, Cairn India, PetroChina, Santos Ltd, Anadarko Petroleum Corp, Chevron, Occidental Petroleum Corp, Reliance Industries, Exxon Mobil Corp, Suncor Energy Inc, Total, Eni, Ecopetrol, Sinopec, BP, Tullow Oil, Inpex, OMV AG, Chesapeake Energy Corp, Oil & Natural Gas, BG Group, Imperial Oil Limited, Statoil, Rosneft, Repsol, Royal Dutch Shell, ConocoPhillips, Canadian Natural Resources Ltd.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Petrobras, Lukoil, Hess Corp, Cenovus Energy, Galp Energia, Woodside Petroleum Ltd, Cairn India, PetroChina, Santos Ltd, Anadarko Petroleum Corp, Chevron, Occidental Petroleum Corp, Reliance Industries, Exxon Mobil Corp, Suncor Energy Inc, Total, Eni, Ecopetrol, Sinopec, BP, Tullow Oil, Inpex, OMV AG, Chesapeake Energy Corp, Oil & Natural Gas, BG Group, Imperial Oil Limited, Statoil, Rosneft, Repsol, Royal Dutch Shell, ConocoPhillips, Canadian Natural Resources Ltd.

Citigroup Global Markets Inc. or an affiliate received compensation in the past 12 months from Sinopec.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

The Firm is a market maker in the publicly traded equity securities of Lukoil, Woodside Petroleum Ltd, PetroChina, Suncor Energy Inc, Sinopec, Tullow Oil, BG Group, Statoil, Repsol.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/epublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Research Equity Ratings Distribution

<i>Data current as of 31 Dec 2013</i>	<i>12 Month Rating</i>			<i>Relative Rating</i>		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage	49%	40%	12%	6%	88%	6%
<i>% of companies in each rating category that are investment banking clients</i>	55%	52%	44%	62%	52%	49%

Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

Investment Ratings: Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.

Relative three-month ratings: Citi Research may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least

preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings**, which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of the Citi Research expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Ltd	Alastair R Syme; Michael J Alsford; Mukhtar Garadaghi
Citigroup Global Markets Inc	Faisel Khan, CFA; Robert S Morris; Mohit Bhardwaj
Citigroup Global Markets Asia	Graham Cunningham
Citigroup Global Markets Australia Pty Limited	Dale Koenders
Citigroup Global Markets Brazil	Pedro Medeiros
ZAO Citibank	Ronald Paul Smith
Citigroup Global Markets Japan Inc.	Takashi Miyazaki
Citigroup Global Markets India Private Limited	Saurabh Handa

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Hess Corp, Galp Energia, Anadarko Petroleum Corp, Chevron, Occidental Petroleum Corp, Reliance Industries, Exxon Mobil Corp, Suncor Energy Inc, Total, Eni, Ecopetrol, Tullow Oil, OMV AG, Imperial Oil Limited, Statoil, Repsol, ConocoPhillips, Canadian Natural Resources Ltd. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citiVelocity.com.)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the

Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Bell Potter Customers: Bell Potter is making this Product available to its clients pursuant to an agreement with Citigroup Global Markets Australia Pty Limited. Neither Citigroup Global Markets Australia Pty Limited nor any of its affiliates has made any determination as to the suitability of the information provided herein and clients should consult with their Bell Potter financial advisor before making any investment decision.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Limited. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by

Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. de C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comisión Nacional Bancaria y de Valores, Reforma 398, Col. Juárez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul. Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Büyükdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E.**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA. This material may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the PRA nor regulated by the FCA and the PRA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA. Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at https://www.citivelocity.com/cvr/epublic/citi_research_disclosures. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.



The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

Citi Research generally disseminates its research to the Firm's global institutional and retail clients via both proprietary (e.g., Citi Velocity and Citi Personal Wealth Management) and non-proprietary electronic distribution platforms. Certain research may be disseminated only via Citi's proprietary distribution platforms; however such research will not contain changes to earnings forecasts, target price, investment or risk rating or investment thesis or be otherwise inconsistent with the author's previously published research. Certain research is made available only to institutional investors to satisfy regulatory requirements. Individual Citi Research analysts may also opt to circulate published research to one or more clients by email; such email distribution is discretionary and is done only after the research has been disseminated. The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints.

Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Thomson Reuters.

© 2014 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
