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Big Oil Production Is Still Growing Despite Capex Cuts

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Since mid-2014, the harsh cyclical downturn in oil prices has tested, and proved, the resilience of international oil majors' integrated business models. S&P Global Ratings recognizes the majors' downstream refining and petrochemical assets provided them with a cushion as cash flows from the upstream businesses, especially straight exploration and production businesses, plunged. Those downstream businesses have since taken a backseat as higher oil prices, lower costs, and capital expenditure (capex) help upstream performance recover.

Nonetheless, one of the concerns arising from the industry downturn has been whether the largest oil companies have been underinvesting, as a result of the huge capex cuts since 2014. In our view, this is not the case for the majors. Despite cutting investments by nearly 50% and postponing final investment decisions on major developments, activity levels did not drop as much as dollar capex. Indeed, production--both actual and projected--is growing for the majors in aggregate. This production growth is the result of decisions and investments four or more years ago. We recognize that more-recent cuts could still have a future impact, depending on the effectiveness of ongoing development spending.

Key Takeaways

- Despite cutting capital expenditure since 2014, concerns that the big oil companies would suffer from underinvesting have proved unfounded, in our view.
- At some companies, proved reports took a hit as the fall in prices affected the economics of some projects. Nevertheless, projected and actual production at the major oil companies has risen.
- Credit metrics for the companies are recovering to rating commensurate levels, but aggregate debt remains well above 2013 levels.

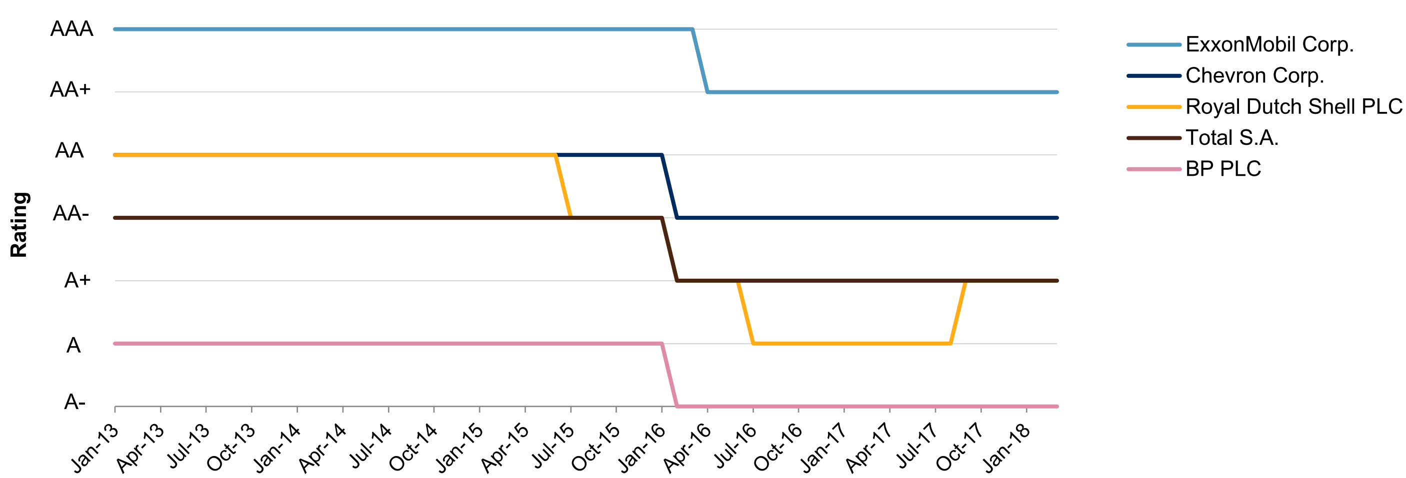
In the charts below, we present performance data for the oil and gas supermajors for 2013-2017. Our ratings analysis included a review of the mix and evolution of the supermajors' production and the reserves that support this production. We also examine the resilience, longevity, competitiveness, and risks of these assets.

Some of the supermajors' significant upstream and downstream group assets are held in affiliates. An oil company's production and reserve metrics typically include its share in affiliates, while its cash flow statements and credit metrics show only the dividends received from affiliates or investments made into them.

Our rating analysis of an oil major considers its upstream businesses and how the financial credit metrics for the whole group measure up against our rating thresholds as well as other factors. From 2014 to 2016, as oil and gas companies struggled with weak oil prices, we took several negative rating actions. Our actions were in response to our expectation that those companies would see persistently weaker performance as well high debt and leverage, and negative cash flows after shareholder distributions. The recovery in credit metrics is well underway, but S&P Global Ratings-adjusted debt in 2017 remained up 35% on 2013, on a combined basis.

Chart 1

Rating History



Source: S&P Global Ratings.

Production Through The Downturn

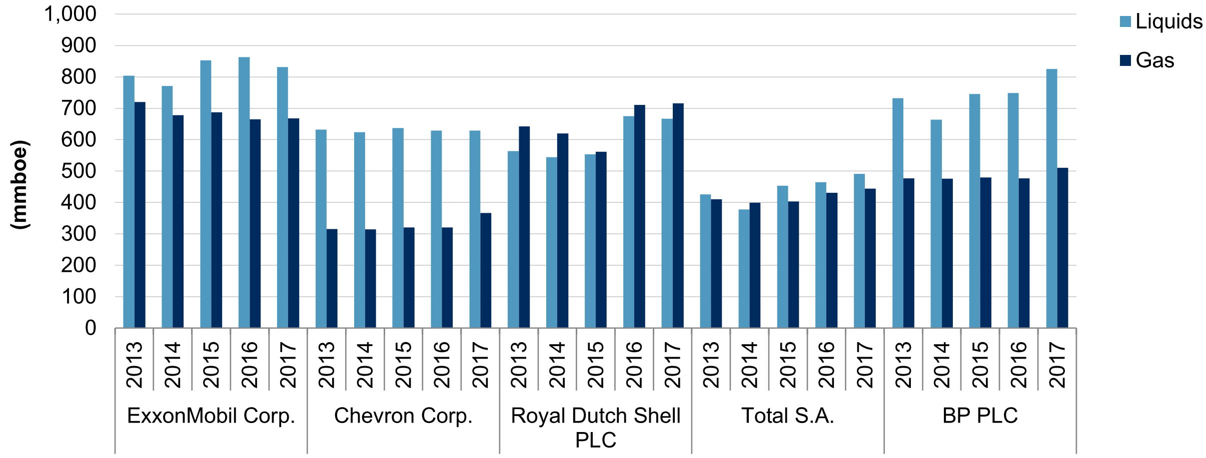
Oil production profiles showed only modest changes in 2013-2017. The liquid and gas production mix remained relatively stable across the five supermajors, although Shell, which had acquired BG Group in 2015, saw a step up in its production profile in 2016. Aggregate production is likely to continue growing, although the profiles differ by company.

We generally consider liquids production more profitable than gas. Across all majors, about 55% of the production profile consisted of liquids, on average. Chevron is still the most liquids-focused player, at about 65% of its production profile. By contrast, only about 45% of Shell's production is liquids.

Across all majors, about 55% of the production profile consisted of the more-profitable liquids, on average.

Chart 2

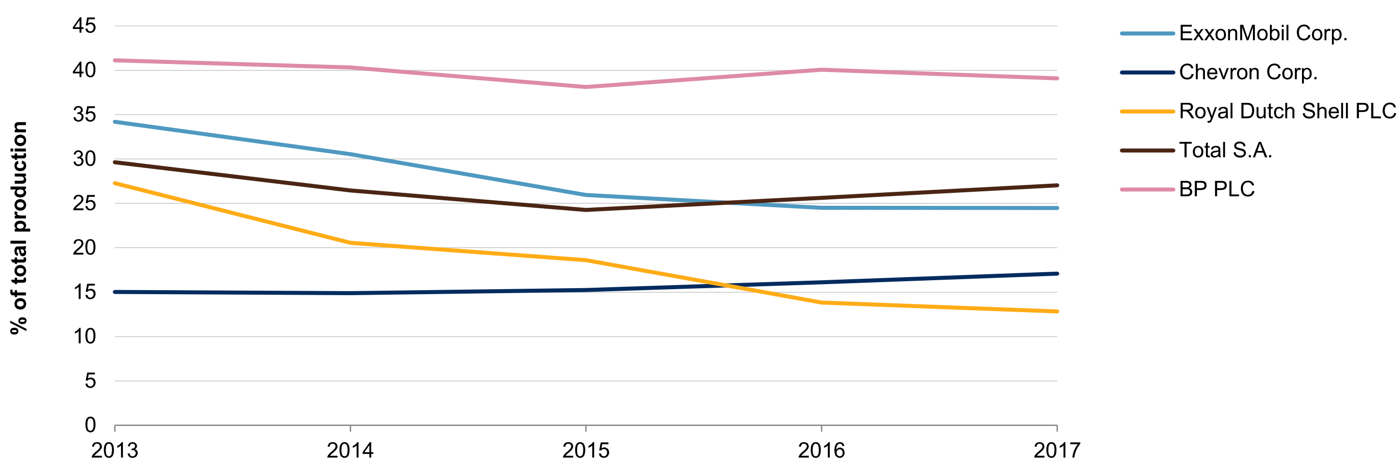
Total Production



Source: Company Reports, S&P Global Ratings. mmboe--Million barrels of oil equivalent.

Chart 3

Affiliates Production



Source: Company Reports, S&P Global Ratings.

Proved Reserves Were Hit By Falling Prices

Under the Securities and Exchange Commission's rules, net proved reserves incorporate only those reserves that can be produced economically, as specified. Accordingly, Exxon Mobil took a particular hit in 2016, as lower prices affected the economics of its project in Canada. The company subsequently removed 3.5 billion barrels of bitumen from its proved reserves.

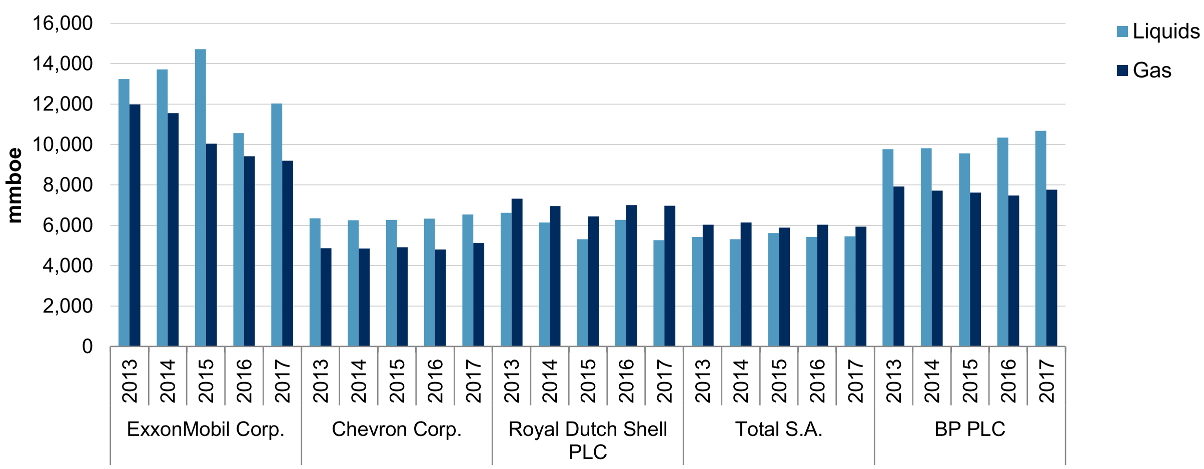
Shell's proved reserves also declined in 2015, but its acquisition of BG helped it increase its proved reserves to above 13 billion barrels of oil equivalent (boe) in 2016.

Nearly 50% of BP's proved reserves come from affiliates, highlighting its reliance on affiliates. Rosneft continues to increase its contribution, while BP's reserves have recently been depleted.

Several projects have been excluded from net proved reserves under the SEC rules.

Chart 4

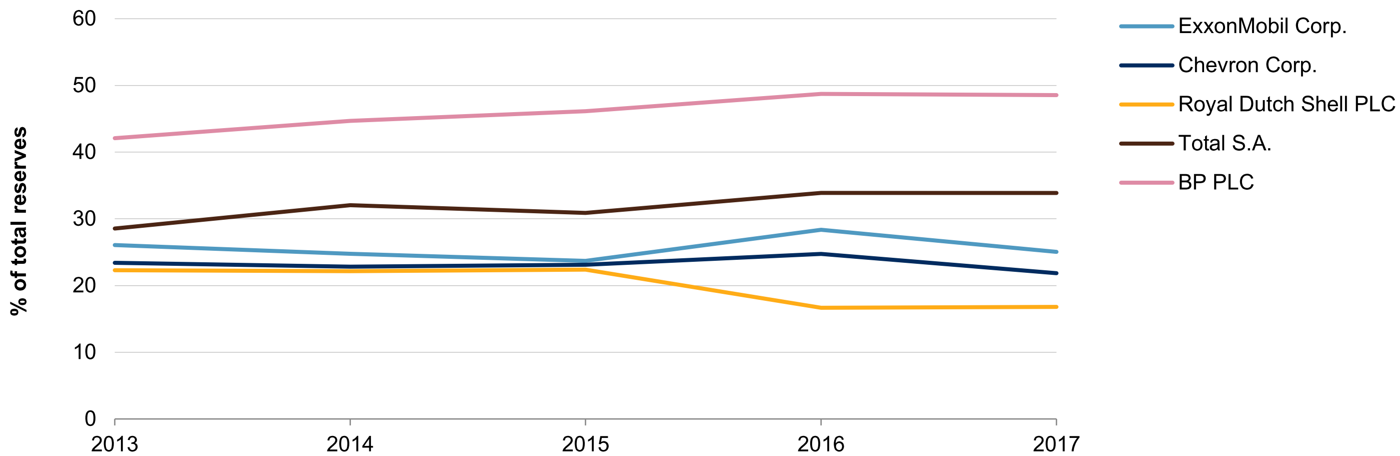
Total Reserves



Source: Company Reports, S&P Global Ratings.

Chart 5

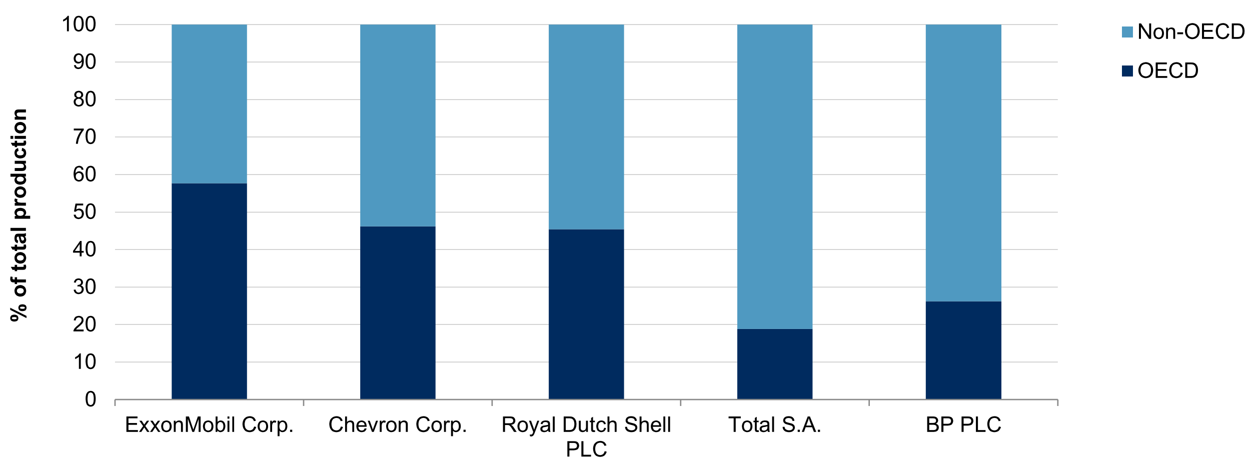
Affiliates Reserves



Source: Company Reports, S&P Global Ratings.

Chart 6

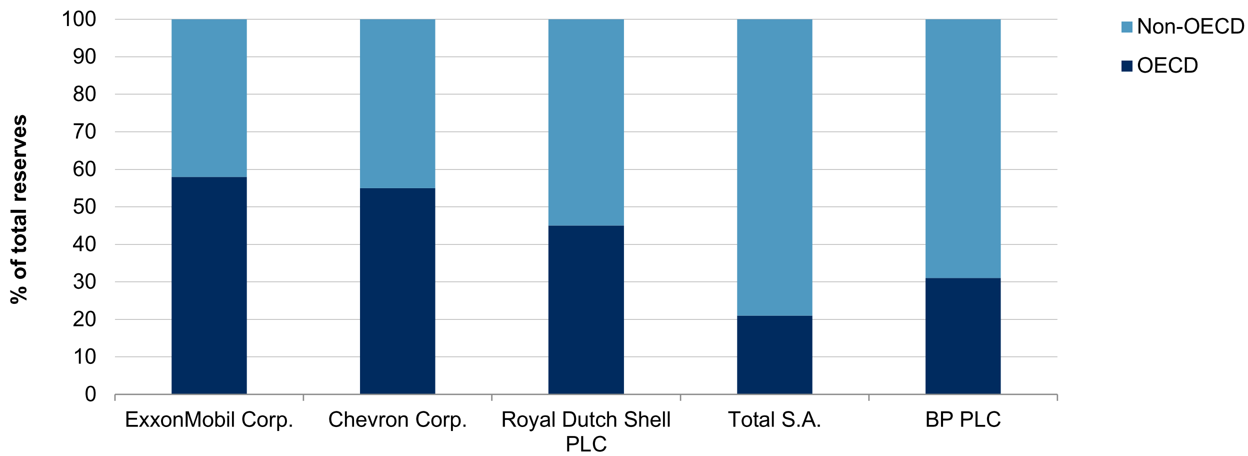
2017 Production Geography



OECD--The Organisation for Economic Co-operation and Development; Source: Company Reports, S&P Global Ratings.

Chart 7

2017 Reserves Geography



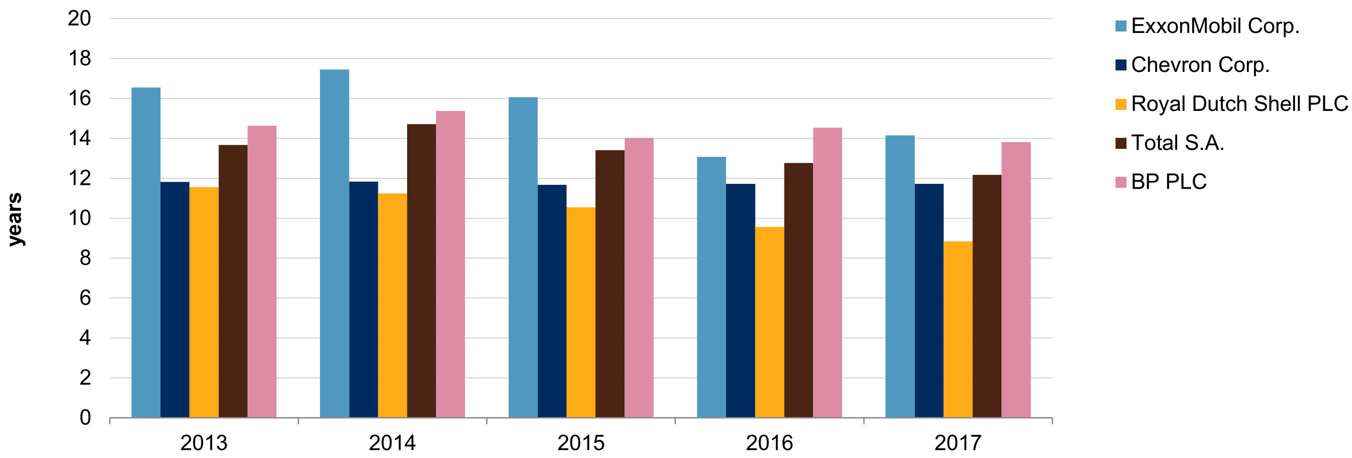
OECD--The Organisation for Economic Co-operation and Development; Source: Company Reports, S&P Global Ratings.

A key measure for oil companies is their reserve life index (RLI), which indicates the number of years it would take to use up their reserves, assuming a constant production rate and no portfolio changes. There is a continuing need to replenish depleting reserves, even if this is typically a lumpy, rather than a smooth process. Since 2013, the average RLI on a one-year production basis has reduced by one year to 13 years--we still consider this sufficient on a proved reserve basis. Shell is an outlier--in 2017, its RLI declined below 10 years. We consider 10 years as an indicative threshold for highly rated entities. We'll therefore continue to review how rapidly this metric can recover.

Although the average reserve life index has reduced, we still consider the current 13 years sufficient, on a proved reserve basis.

Chart 8

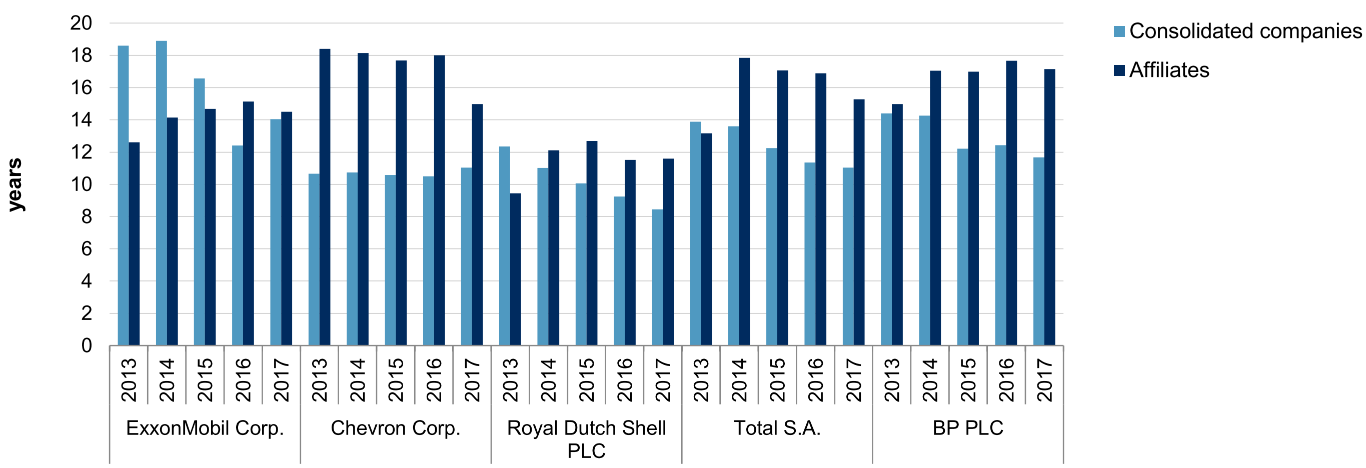
Reserve Life Index



Source: Company Reports, S&P Global Ratings.

Chart 9

Reserve Life Index Comparison

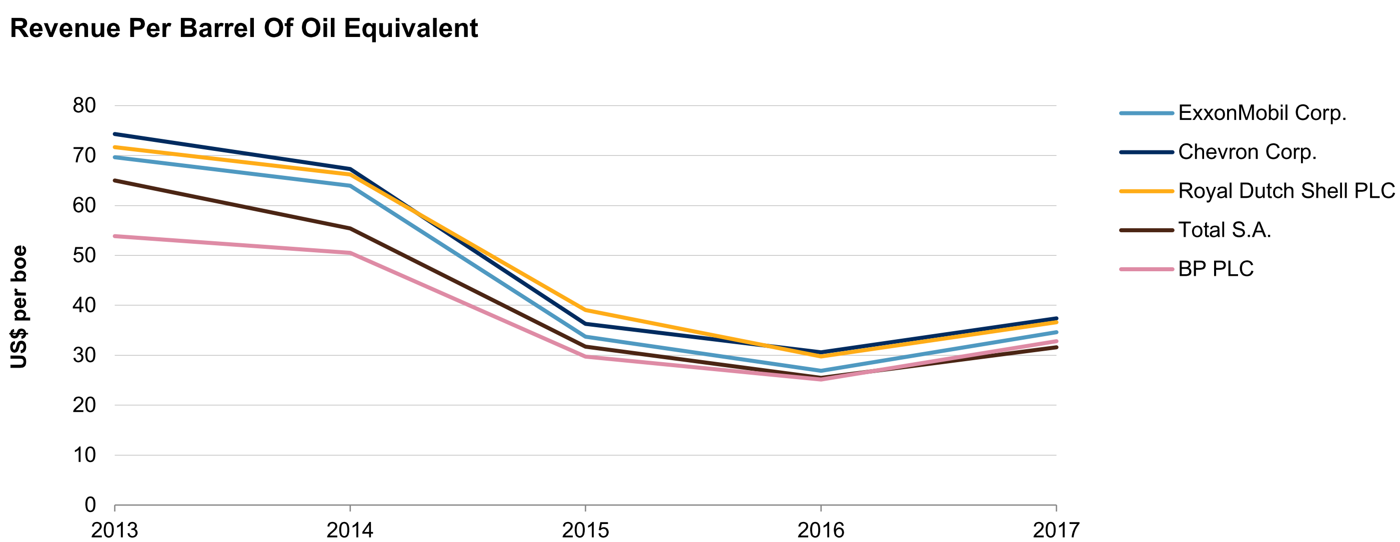


Source: Company Reports, S&P Global Ratings.

Cost Cutting Softened The Blow

As oil prices plummeted, all the major companies saw combined oil and gas revenue per boe fall by more than half. Material and continuing cost cutting initiatives helped to soften the impact of this plunge in revenue. Gas sales acted as a hedge, but their mitigating effect was reduced because some gas and LNG contracts were linked to oil prices. That said, we also saw the difference between the highest and lowest revenue per boe among the majors narrow; in 2017 it was just $5, compared with $20 in 2013.

Chart 10



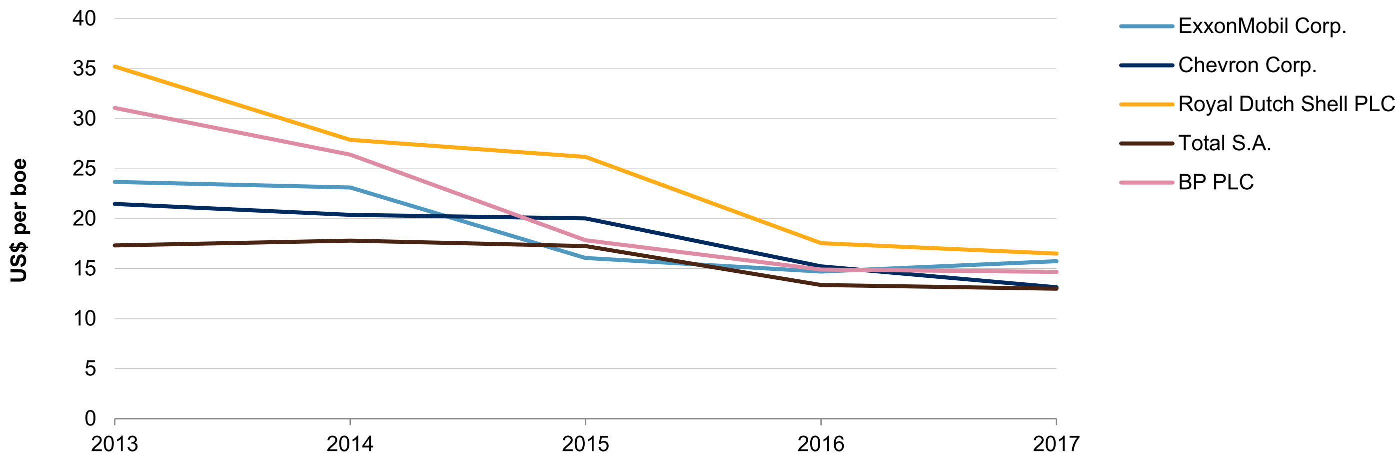
Source: Company Reports, S&P Global Ratings. boe--Barrel of oil equivalent.

Total remains the most operating-cost-efficient major. In part, this indicates that it operates in emerging markets, similar to Eni SpA. But other oil majors have also cut costs markedly--Royal Dutch Shell slashed its unit costs by more than 50%.

Even at affiliates, costs have significantly reduced. Some of the reduction stems from cuts, operating efficiencies, and logistics improvements. But costs also fell because foreign currency movements have favored subsidiaries that do not operate in U.S. dollars.

Chart 11

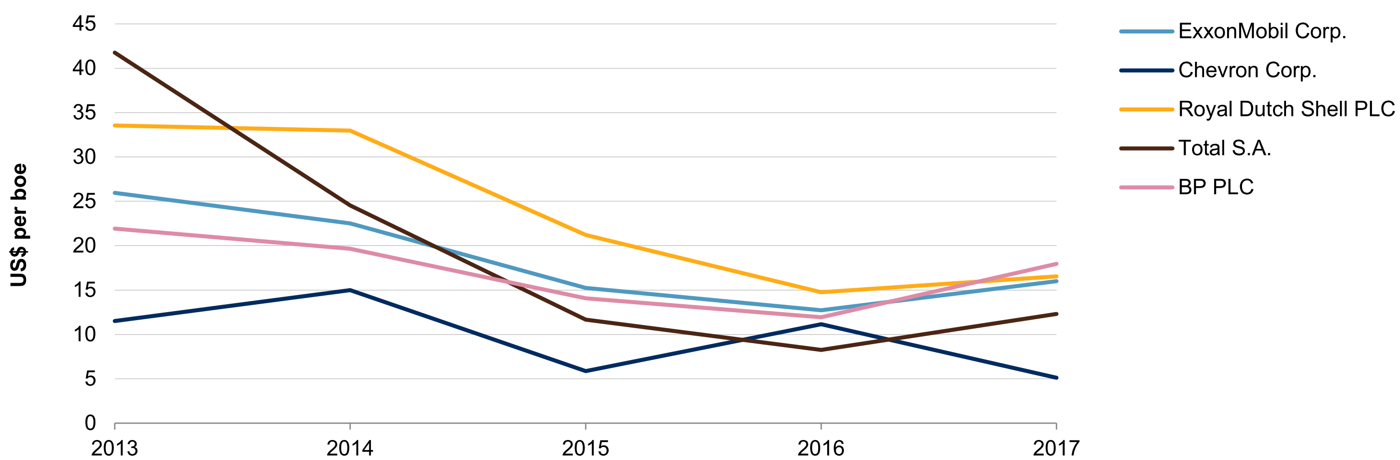
Cash Costs Per Barrel Of Oil Equivalent: Consolidated Subsidiaries



Source: Company Reports, S&P Global Ratings. boe--Barrel of oil equivalent.

Chart 12

Cash Costs Per Barrel Of Oil Equivalent: Equity Affiliates



Source: Company Reports, S&P Global Ratings. boe--Barrel of oil equivalent.

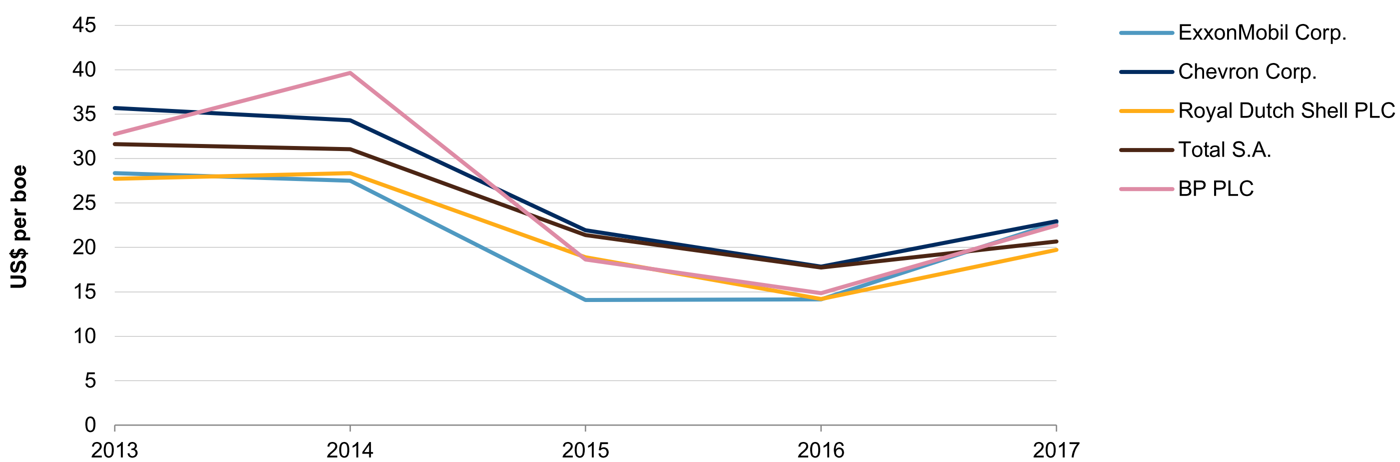
Stronger prices, combined with cost-cutting measures, caused operating cash flow trends to turn positive in 2017 at both consolidated subsidiaries and equity-accounted affiliates. Nevertheless, on average, oil majors' affiliates' cash flow per boe in 2017 was on a par with 2015 levels. At $54 per barrel (/bbl), average oil prices in 2017 were roughly the same as in 2015 ($52/bbl). Although costs per barrel had dipped in 2016, affiliates saw them rise again in 2017.

Chevron's results from equity-accounted companies saw a boost in 2017, primarily because of a more-favorable tax position at its Kazakhstan-based Tengizchevroil (TCO) affiliate compared with 2016. It also benefitted from increasing production at its TCO and LNG projects. Historically, TCO has also enjoyed relatively low-cost positions, which have supported strong cash flow generation.

BP saw a similar boost to unit cash flows when its production tax position became more favorable in 2014, compared with 2013.

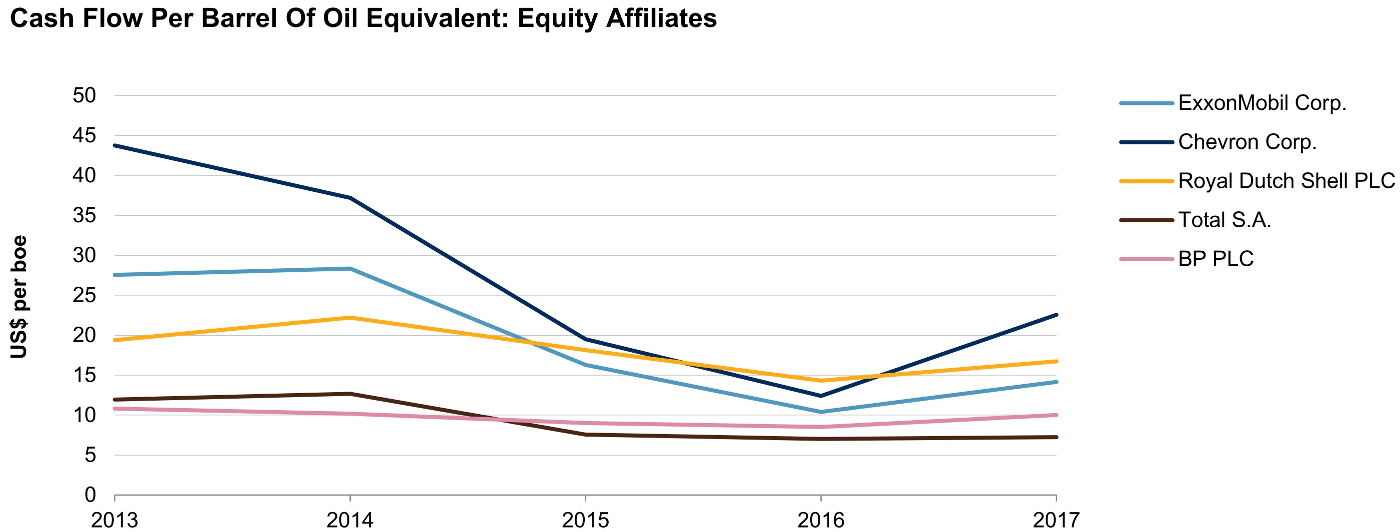
Chart 13

Cash Flow Per Barrel Of Oil Equivalent: Consolidated Subsidiaries



Source: Company Reports, S&P Global Ratings. boe--Barrel of oil equivalent.

Chart 14



Source: Company Reports, S&P Global Ratings. boe--Barrel of oil equivalent.

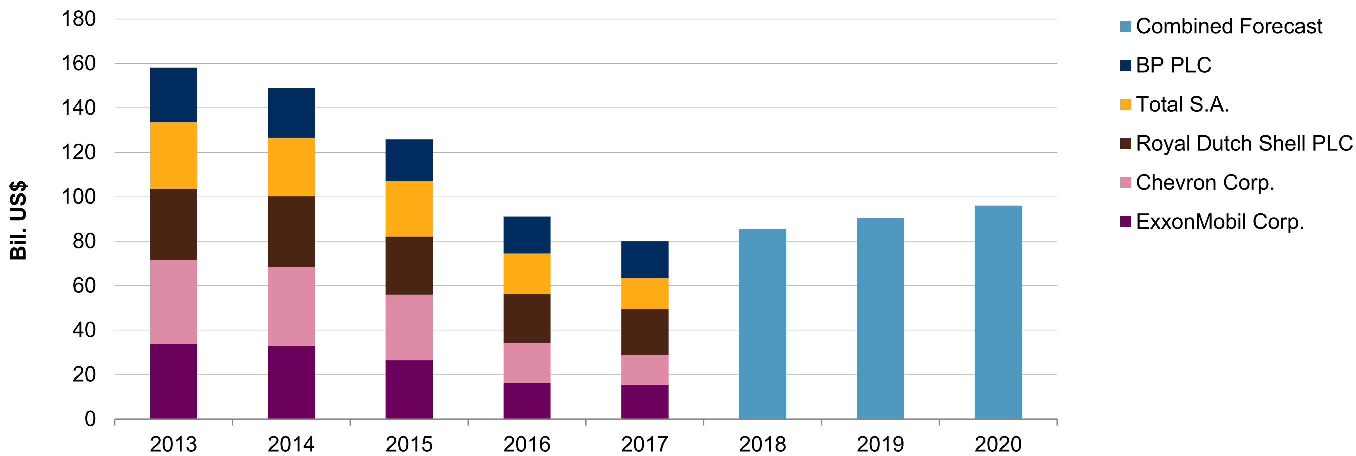
Overall Group Leverage And Cash Flow

Group financial metrics are recovering toward rating thresholds

To support free operating cash flow generation, the majors have cut aggregate capex by almost half since 2013. We project a modest reversal of that trend in the next few years, but the significant efficiency improvements in the industry suggests that capex is unlikely to approach the high levels of 2013. Activity levels have not fallen nearly as far as dollar-denominated investment levels, which have declined in aggregate by nearly 50% since 2013.

Chart 15

Historical And Expected Capital Expenditure



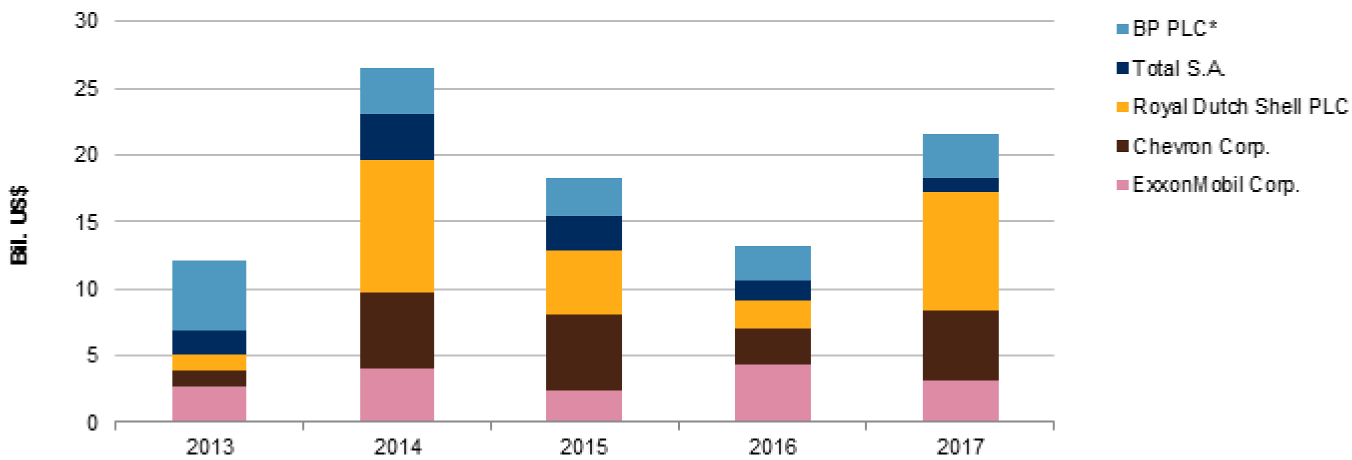
Source: Company Reports, S&P Global Ratings.

Leverage rose, but by less than expected

Leverage increased significantly through the downturn, exacerbated by a fall in dividends from equity-accounted joint ventures and affiliates. An upsurge in the level of fixed-asset disposals compared with 2013 provided companies with additional cash to help them meet their financial obligations and prevent an aggressive rise in leverage to fund capex and dividends. Funds from operations (FFO) to debt was roughly 35% on average at the end of 2017, compared with almost 85% in 2013.

Chart 16

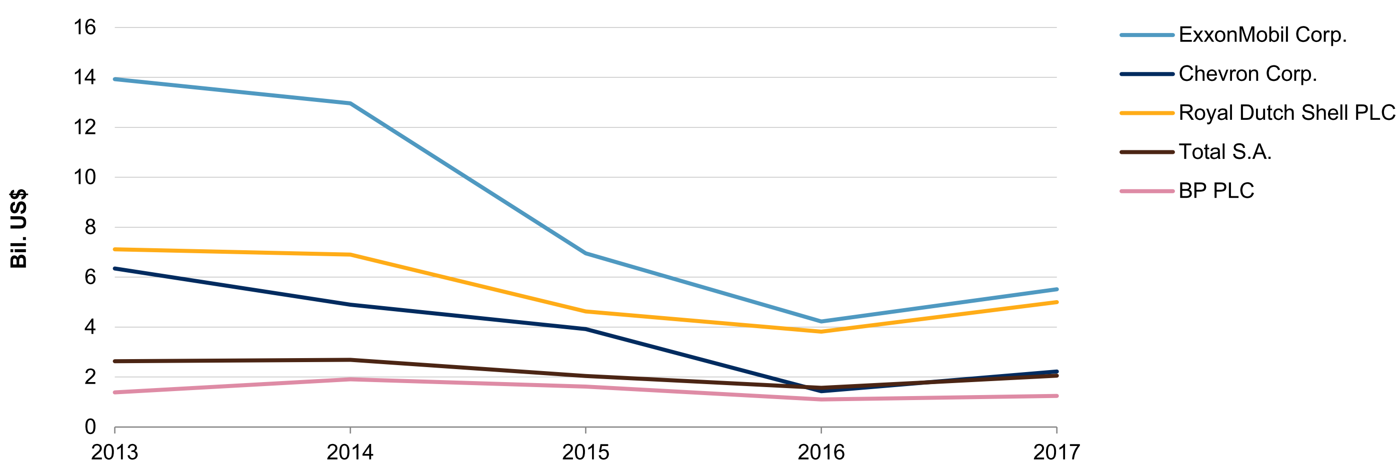
Sales Of Fixed Assets



*Adjusted for the sale of TNK-BP in 2013. Source: Company Reports, S&P Global Ratings.

Chart 17

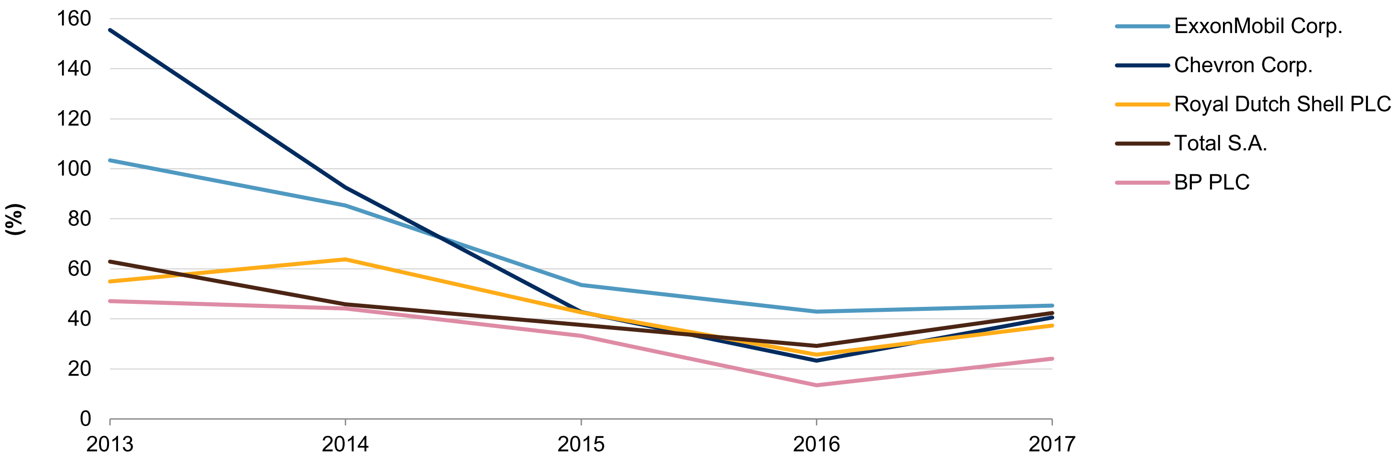
Dividends From Joint Ventures And Associates



Source: Company Reports, S&P Global Ratings.

Chart 18

Historical Funds From Operations To Debt



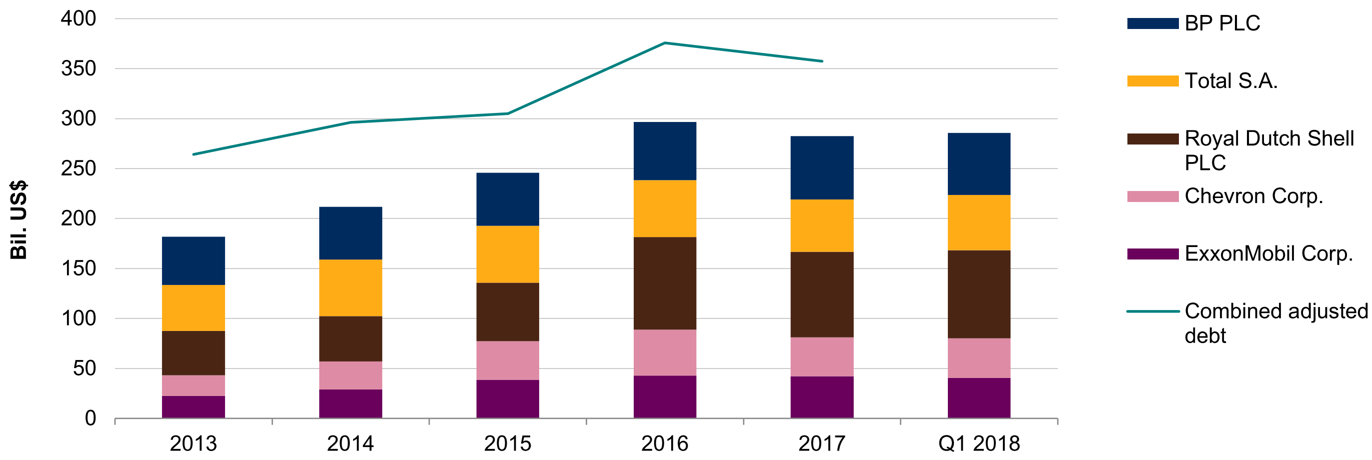
Source: S&P Global Ratings.

That said, the variance is quite high. Exxon Mobil's FFO to debt stood at 45% at the end of 2017, much stronger than BP's 24% (which included the impact of additional Gulf of Mexico payments). Chevron saw the biggest drop in FFO to debt, in part because it had a strong starting point, but also because it used debt funding for capex and dividend payouts. We reflect these differences, as well as our future expectations for these companies, in our assessment of their financial risk profiles.

Looking forward to the 2018-2020 period, we expect average FFO to debt for the majors to rise above 50% by 2020. We base our forecast on our expectation that they will continue to maintain rigorous cost controls amid improving upstream market conditions. This growth in operating cash flow is likely to be more significant than debt reduction for deleveraging. Aggregate gross and adjusted (net) debt remain 135% above the levels of 2013 and before. Depending on companies' financial policy choices, some might be better prepared than others to weather another future period of low oil prices (see "Beyond The Oil Price: Financial Policies And Cost Savings Are Critical For Oil Majors' Ratings," published on July 11, 2017.

Chart 19

Reported And Adjusted Debt



Source: Company Reports, S&P Global Ratings.

Table 1

2017 Oil & Gas Majors Peer Comparison

	Exxon Mobil Corp.	Chevron Corp.	Royal Dutch Shell PLC	Total S.A.	BP PLC
Current rating	AA+/Negative/A-1+	AA-/Stable/A-1+	A+/Positive/A-1	A+/Stable/A-1	A-/Stable/A-2
Operational data					
Production, kboepd	4,107	2,728	3,664	2,566	3,659
of which:					
Liquids (%)	55	63	48	53	62
Gas (%)	45	37	52	47	38
Subsidiaries (%)	76	86	85	80	59
Affiliates (%)	24	14	15	20	41
OECD (%)	58	46	45	19	26
Non-OECD (%)	42	54	55	81	74
Reserves, mboe	21,221	11,665	12,233	11,382	18,440
of which:					
Liquids (%)	57	56	43	48	58
Gas (%)	43	44	57	52	42
Subsidiaries (%)	75	78	83	67	51
Affiliates (%)	25	22	17	33	49
OECD (%)	58	55	45	21	31
Non-OECD (%)	42	45	55	79	69

Table 1

2017 Oil & Gas Majors Peer Comparison (cont.)

	Exxon Mobil Corp.	Chevron Corp.	Royal Dutch Shell PLC	Total S.A.	BP PLC
Reserve Life Index, years	14	12	9	12	14
Financials (mil. $)					
Revenues	237,162	127,485	305,179	149,099	240,208
EBITDA	43,418	27,248	52,898	28,571	25,151
Funds from operations (FFO)	31,229	21,159	40,785	21,792	18,274
Net income from cont. oper.	19,710	9,195	12,977	8,631	3,389
Cash flow from operations	30,764	21,479	36,704	19,894	21,444
Capital expenditures	14,653	12,809	20,845	13,935	16,562
Free operating cash flow	16,111	8,670	15,859	5,959	4,882
Dividends paid	13,001	8,132	11,283	2,633	6,294
Discretionary cash flow	3,110	538	4,576	3,326	-1,412
Cash and short-term investments	3,177	4,822	20,312	36,155	24,098
Debt	68,970	52,240	109,087	51,499	75,773
Equity	203,032	151,878	197,812	108,896	100,404
Adjusted ratios					
EBITDA margin (%)	18.3	21.4	17.3	19.2	10.5
Return on capital (%)	8.1	4.0	6.6	6.1	5.0
EBITDA interest coverage (x)	14.1	13.9	8.7	10.0	9.0
FFO cash int. cov. (x)	18.2	26.9	13.2	12.9	13.4
Debt/EBITDA (x)	1.6	1.9	2.1	1.8	3.0
FFO/debt (%)	45.3	40.5	37.4	42.3	24.1
Cash flow from operations/debt (%)	44.6	41.1	33.6	38.6	28.3
Free operating cash flow/debt (%)	23.4	16.6	14.5	11.6	6.4
Discretionary cash flow/debt (%)	4.5	1.0	4.2	6.5	(1.9)

Source: Company Reports, S&P Global Ratings. OECD--Organisation for Economic Co-operation and Development.

Table 2

Year-End 2017 Credit Metrics And Implied Improvement To Meet Our Multi-Year Rating Thresholds

	Exxon Mobil Corp.	Chevron Corp.	Royal Dutch Shell PLC	Total S.A.	BP PLC
Rating	AA+/Negative/A-1+	AA-/Stable/A-1+	A+/Positive/A-1	A+/Stable/A-1	A-/Stable/A-2

Table 2

Year-End 2017 Credit Metrics And Implied Improvement To Meet Our Multi-Year Rating Thresholds (cont.)

	Exxon Mobil Corp.	Chevron Corp.	Royal Dutch Shell PLC	Total S.A.	BP PLC
Financial Risk Profile	Modest	Intermediate	Intermediate	Intermediate	Significant
S&P Threshold for FFO/Debt (%)	60	45	45	45	30
FFO/Debt in 2017 (%)	45	41	37	42	24
To reach the threshold if 2017 FFO remains unchanged, the debt has to decrease by	17	5	18	3	15
% of 2017 adjusted debt	25	10	17	6	20
To reach the threshold if 2017 debt remains unchanged, the FFO has to increase by	10	2	8	1	4
% of 2017 FFO	33	11	20	6	24
Basis of company's gearing	TD/C	TD/C	ND/C	ND/C	ND/C
Company's gearing range (%)	--	20	20	0-20	20-30
Company's gearing (%) at March 31, 2018 (Dec. 31, 2017)	17.2% (17.9%)	20.9% (20.7%)	24.7% (25.0%)	15.1% (11.9%)	28.1% (27.4%)

FFO--Funds from operations. ND/C--Net debt to capital (debt plus equity). TD/C--Total debt to capital. Source: Company Reports, S&P Global Ratings.

Related Criteria And Research

Related Criteria

- Key Credit Factors For The Oil And Gas Exploration And Production Industry, Dec. 12, 2013

Related Research

- S&P Global Ratings Raises 2018 Brent And WTI Oil Price Assumptions And 2019 Brent Price Assumptions, May 7, 2018
- There And Back Again: Evolving LNG Markets Bring Higher Volatility To Spot Prices, April 19, 2018
- Have Oil Prices Risen Enough To Lift Emerging Market Oil Company Ratings?, Jan. 30, 2018

- EMEA Oil & Gas: A Mixed Picture In 2017, July 19, 2017
- Beyond The Oil Price: Financial Policies And Cost Savings Are Critical For Oil Majors' Ratings, July 11, 2017
- International Oil Majors Test The Limits Of Integration In 2016, Sept. 15, 2016