

OIL & GAS
EXPLORATION & PRODUCTION



Is Management Compensation Rewarding the Right Behavior?

MANAGING DISRUPTION
AND THE TRANSITION
TO A LOWER CARBON
ECONOMY



The Exploration & Production (E&P) industry is facing disruption risks from a number of factors. First and foremost is the impact on future oil and gas demand from the ongoing transition to a lower carbon economy.

Investors have concerns regarding carbon taxation, market access, electric vehicle adoption and stranded asset possibilities to name a few. They are also becoming increasingly focused on the long-term efficacy of the E&P business model and ensuring that all relevant stakeholders benefit from the industry implementing best practices in sustainability.

With this in mind, we examined 45 large and mid-cap North American E&P companies with a total enterprise value of over \$US 600 billion. We looked at their performance and incentive structures through the most recent energy business cycle (2012-2017) and came to some key conclusions.

The E&P business model is facing challenges

Since 2012 E&Ps have underperformed the broader market by over 160%

As of the beginning of 2012, this E&P universe returned a cumulative -21% to shareholders relative to returns of over 140% to the broader market.

In both high and low oil prices, E&Ps have earned below market returns

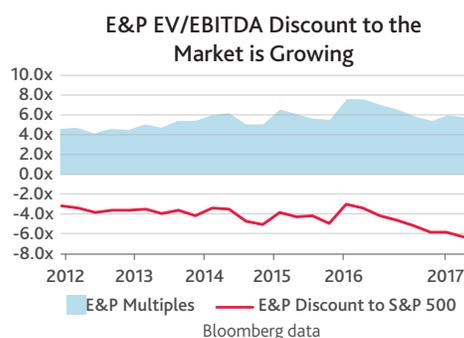
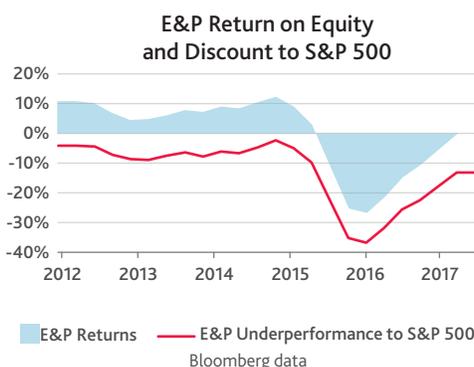
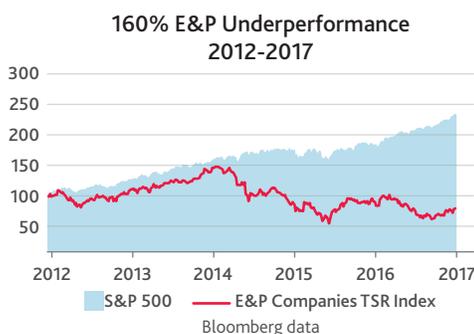
While it is easy to attribute the underperformance to low oil prices, E&Ps have been underperforming the market in

both high (2012-2014) and low (2015-2017) oil price environments.

Furthermore, during peak market conditions, the E&Ps reported returns on equity (ROE) between 4-11%, underperforming the S&P by over 500 basis points (bps). Once in the down-cycle the ROE gap widened to 4000 bps before recovering now to negative 1400 bps. For our latest data period in Q317, E&Ps on average were not generating a positive return.

E&Ps are trading at a growing discount to the broader market

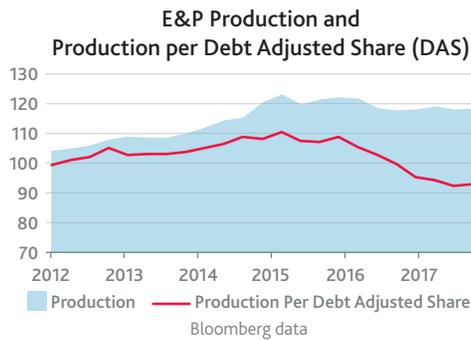
The underperformance is also visible in company valuations. On one-year forward consensus EV/EBITDA estimates, the 45 E&Ps trade at a six multiple point discount to the S&P 500, with considerable de-rating occurring in 2017.



On a per share basis, production and reserves are declining

In addition to economic returns, investors expect meaningful improvements in E&P operations over time.

This is generally reflected in changes to production and reserves. While E&Ps have continued to grow production, since 2012, shareholders are entitled to almost 10% less on a per share basis.



The same is true for proven reserves, which are down over 20% on a per share basis as new debt and equity invested in the downturn failed to earn an economic return on capital. As expected, debt adjusted, per share operating metrics, and total shareholder returns are correlated.

E&P Proved Reserves and Proved Reserves Per DAS (Index = 100)

	2011	2012	2013	2014	2015	2016
Proved Reserves Per DAS	100.00	96.96	101.84	102.75	83.82	79.54
Proved Reserves	100.00	103.39	111.53	119.43	106.20	104.67
Total Shareholder Returns	100.00	91.61	128.37	103.16	71.44	95.24

Bloomberg data

Is management compensation rewarding the right behaviour?

Why is this underperformance occurring?

Our analysis suggests that management compensation is not rewarding the right behaviour, for three main reasons:

1. Management pay and company performance often diverge

Management compensation is not highly correlated with total shareholder return performance. Since 2012, management compensation for the 45 E&Ps fluctuated between \$0.8 and \$1 billion annually, averaging \$0.9 billion, with annual changes typically under 10%. Shareholder returns in comparison often fluctuated by 20-50% or more in any year.

2. Management compensation is often tied to absolute growth targets in the short term

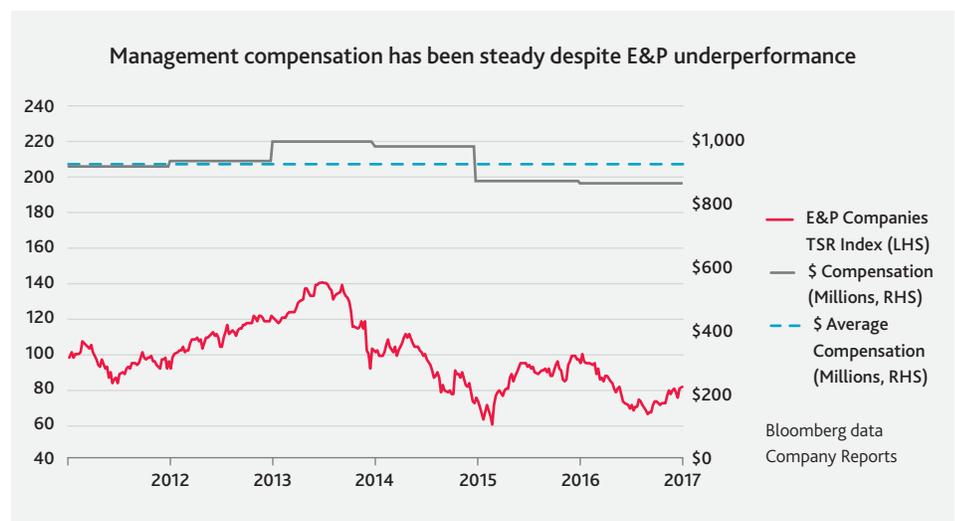
Of the 45 E&Ps we examined, we found 31 had absolute production targets and 19 had absolute reserve targets. This creates a potential alignment issue with shareholders as management is incentivized to deploy incremental equity and debt capital, or engage in acquisitions

irrespective of economic cost. This may lead to sub optimal capital allocation, low economic returns, discounted valuations and negative total shareholder returns through the cycle.

3. Management long-term compensation is often tied to relative performance and not absolute returns

Our final observation is that 38 of the 45 E&Ps we studied had management

long term compensation tied to relative total share price returns. With this framework management is rewarded not for enriching shareholders, but for outperforming its peers, regardless of absolute share price performance. This incentive structure can lead to large management rewards even when shareholders don't earn a positive return.





“In addition to improving the alignment of management compensation with shareholder interests, we believe all stakeholders would benefit from an E&P industry focused on adopting best practices in long-term sustainability.” — Ron Mock, President & CEO, Ontario Teachers' Pension Plan

What E&P compensation metrics reward the right behaviour?

Companies outperform when management is aligned with shareholders

This change starts with reforming E&P management compensation metrics.

We suggest that Boards of Directors:

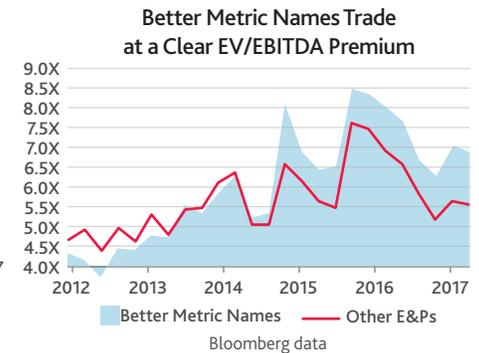
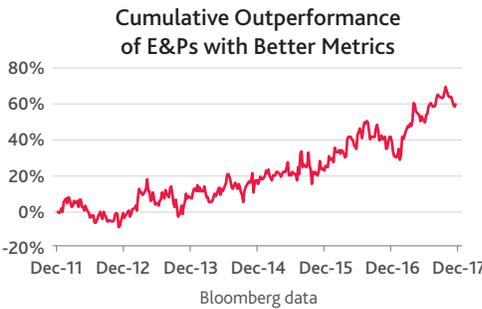
- Change short-term growth incentives to include production and reserve metrics that are per share and debt adjusted
- Focus management on achieving company wide, ROE or ROCE financial targets

- Replace Relative TSR with Absolute TSR for long-term compensation targets
- Include a GHG or closely related emission target to highlight management of disruption risks

Companies with better compensation metrics trade at a premium

When we screened our 45 E&Ps we found just 10 names that had incorporated one or more of the above four recommended

metrics. That said we found it interesting that those 10 names had materially outperformed the remaining 35 names by over 60% during the 2012-2017 evaluation period. Furthermore, these 10 names now trade at a 24% EV/EBITDA multiple premium to the other group.



Conclusion: E&Ps face disruption risks as the world moves to a lower carbon economy. In order to compensate investors for an uncertain future, and to improve operating and financial performance, our study suggests that E&Ps should shift their business model to focus more on corporate returns and per share volume growth.

Ontario Teachers' further recommends that the E&P industry increasingly strive to adopt best practices in sustainability for the benefit of stakeholders. Visit www.otpp.com/responsibleinvesting to learn about our philosophy on responsible investing.

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