101 Investment Analysis National Oilwell Varco (NOV)

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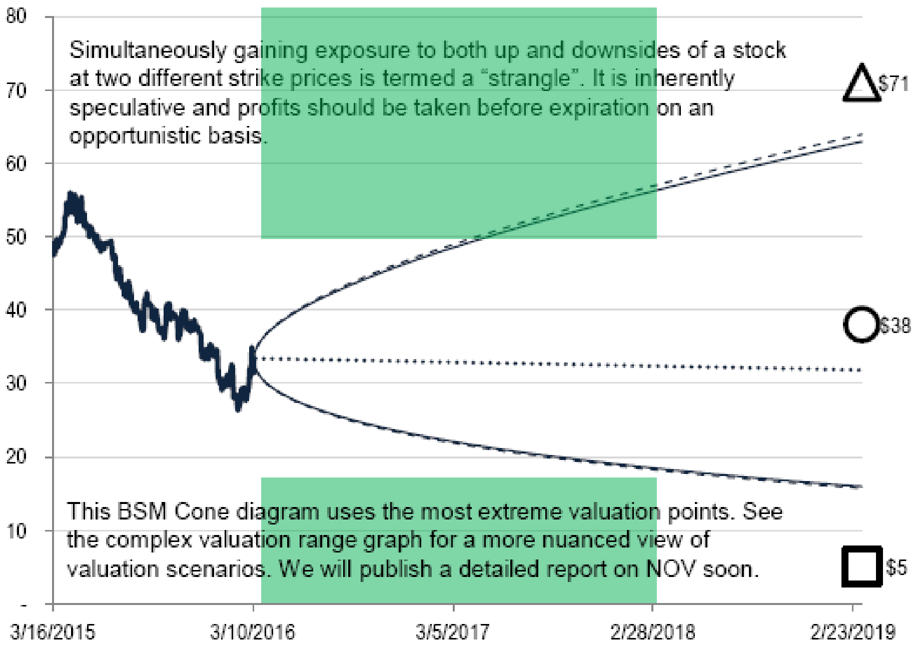
B / S	P / C / S	Strike	Exp.	Premium
Buy	Call	50.00	JAN '18	($1.71)
Buy	Put	17.50	JAN '18	($1.83)
Long Strangle			JAN '18	($3.54)

IOI Tear Sheet : Nat'l Oilwell Varco (NOV)

Speculative "Strangle" (Low Conviction)

Data as of 13 March, 2016



IOI's Take

NOV has built the world's premier business for supplying equipment to offshore rigs. Too bad that the offshore market is dead to new drilling until expectations for oil prices are sustained at a much higher level. The company has been a vigorous acquirer, and there are efficiencies to be gained from consolidating these acquisitions, but if oil prices remain low, NOV's business will look very different in 5 years. Three segments' revenues follow rig count more closely, and there is some good news over the next two years re: bounceback demand. A large range of revenue, profitability, and medium growth mean that this is a highly uncertain valuation and a spec. investment.

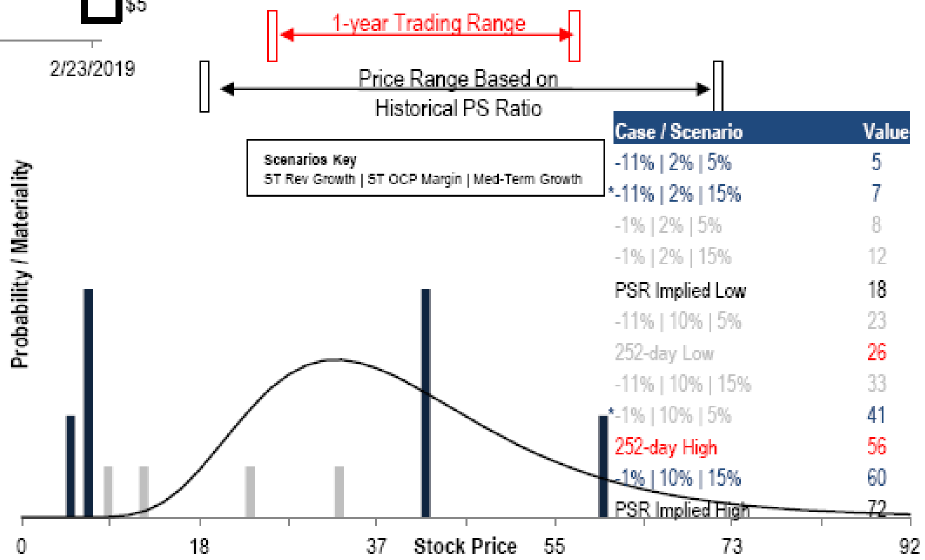
Drivers

Revenues	"Best" revenue comes from building offshore rig equipment, a mkt that will be bad to terrible for two years at least.
Profitability	Low teens OCP margin in boom years. Close to zero now. Room for cost cutting acquisitions. High operating leverage.
Investment Level / Eff.	Grew by acquiring a lot of high-priced assets during the boom. Likely need to acquire more onshore, but are pressed for cash. Efficacy looks bad now, but prob. OK normalized.
Balance Sheet	Carbon regulation could kill terminal value of business. Political will re: Global warming is increasing.

Valuation & Return

Valuation Uncertainty: High

	Low	Likely	High
Stock Fair Value ($)	5	38	71
Stock Return (%)	-85	14	113
Option Period Return (%)	453	-100	693
Option Annual Return (%)	97	-100	161



Case / Scenario	Value
-11% | 2% | 5%	5
*-11% | 2% | 15%	7
-1% | 2% | 5%	8
-1% | 2% | 15%	12
PSR Implied Low	18
-11% | 10% | 5%	23
252-day Low	26
-11% | 10% | 15%	33
*-1% | 10% | 5%	41
252-day High	56
-1% | 10% | 15%	60
PSR Implied High	72

Historical Metrics

	Historical Median	
	5-year	10-year
Revenue Growth (%)	12	12
Profit Margin (%)	9	10
Med-term Growth	Neg.	High

Market Risk

NOV's exposure to oil prices is complex, but the market treats it as simple. R^2 of 82% and a "beta" to oil of around 1.3 (i.e., oil px inc of 1% implies NOV px. inc of 1.3%. PSR range represents 15th and 85th percentile hist PSR.

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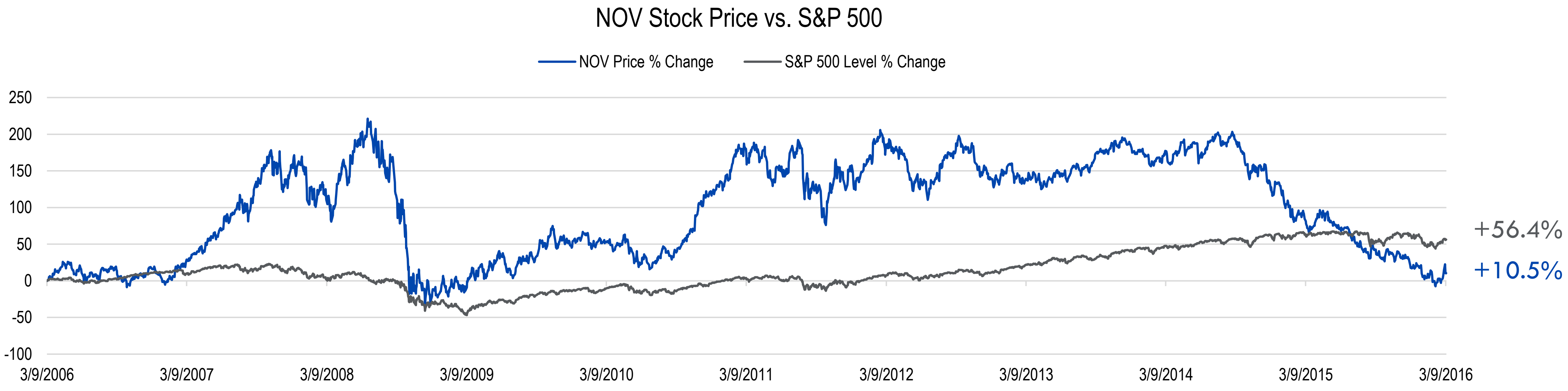
REFERENTIAL DATA

National Oilwell Varco (NOV)

Market Capitalization: $11.8 billion

Sector and Industry: Energy Sector, Oil & Gas Equipment & Services (Industry ETF: OIH)



Business Summary

NOV provides capital equipment, consumable equipment, and services for the production of oil and gas.

LAND

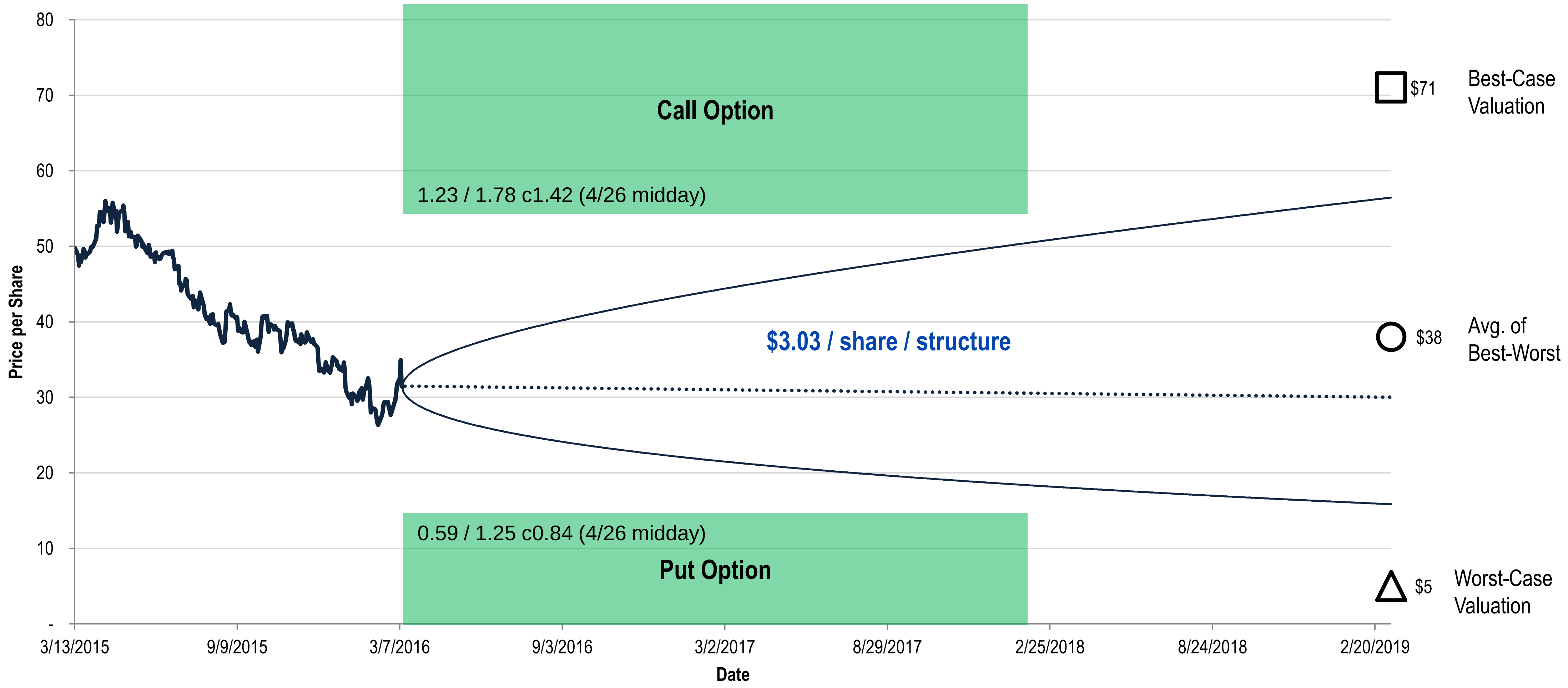
OFFSHORE

Company was created by a private equity deal merging National Oilwell and Varco in 1996. The company has built scale and broadened its offering by acquiring small, specialized equipment makers and servicing companies.

As the price of oil has fallen, new offshore drilling projects have been delayed or cancelled, biting into the most profitable portion of NOV's business. Now, market participants are beginning to believe it will have to cut its dividend (~6% yield).

BSM Cone vs Valuation Range

"Strangle"



NOTES ON "STRANGLE" STRATEGY

This is a speculative strategy and an investors SHOULD take profits before expiration

- Premium on one "leg" will likely be wasted so you need a large enough move to pay for both legs
- Read about the Strangle on pp. 205-207 of *The Intelligent Option Investor*

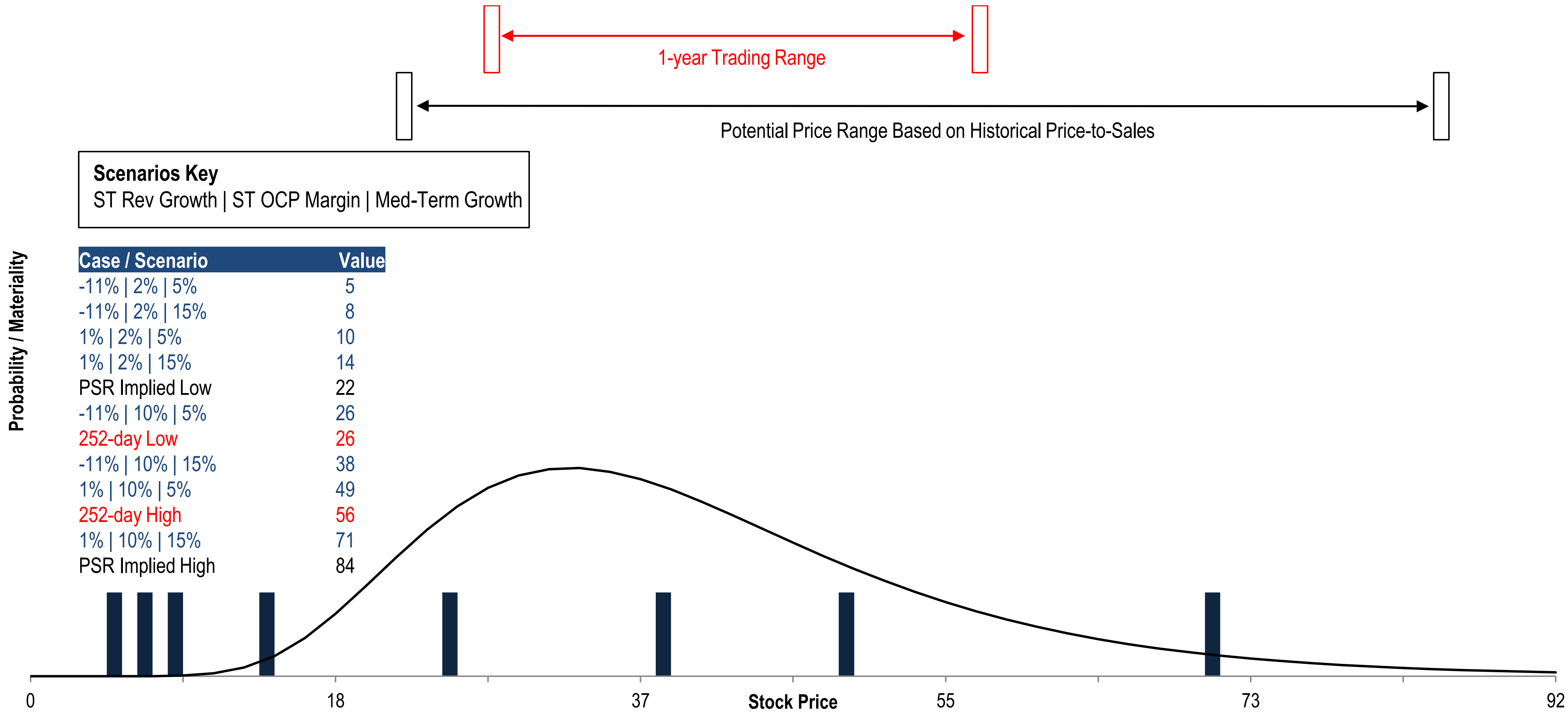
In terms of IOI's "Balanced Investing Meal" a Strangle is definitely in the category of a spicy *hors d'oeuvers* or an after-dinner mint

This strategy is a manifestation of low investment conviction and indicative of high valuation uncertainty

If holding to maturity, a "Straddle" is a better structure (put and calls bought at same strike price)

- Straddles are an enormous waste of money in most cases and they are NOT recommended
- Read about the Straddle on pp. 208-209 of *The Intelligent Option Investor*

Valuation Scenarios



Scenarios Key
ST Rev Growth | ST OCP Margin | Med-Term Growth

Case / Scenario	Value
-11% | 2% | 5%	5
-11% | 2% | 15%	8
1% | 2% | 5%	10
1% | 2% | 15%	14
PSR Implied Low	22
-11% | 10% | 5%	26
252-day Low	26
-11% | 10% | 15%	38
1% | 10% | 5%	49
252-day High	56
1% | 10% | 15%	71
PSR Implied High	84

Valuation Waterfall

IOI analyses focus on three main valuation drivers: revenue growth, profitability, and medium-term cash flow growth. We estimate a best- and worst-case scenario for each of these drivers resulting in a total of $2^3 = 8$ fair value scenarios. Profitability is measured by Owners' Cash Profit (OCP) margin.

A wide spread of lowest and highest fair values indicates a firm whose value is uncertain. Risk depends on the stock price's relationship to the valuation range.

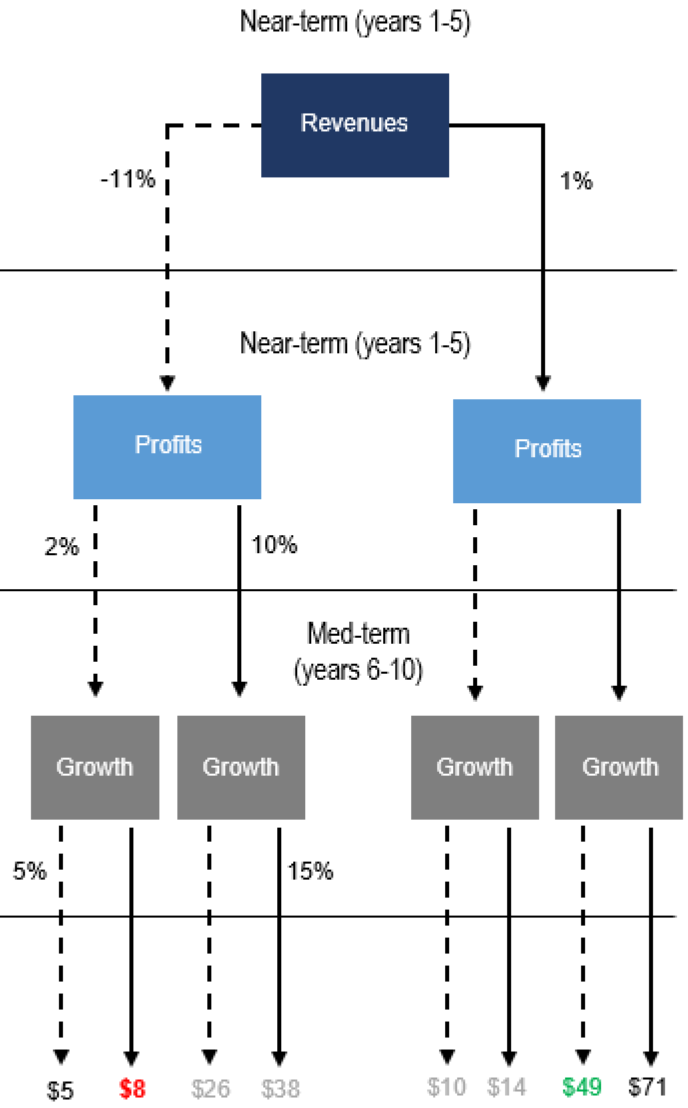
Best-case scenarios are represented with a solid line; worst-case scenarios, with a dotted one.

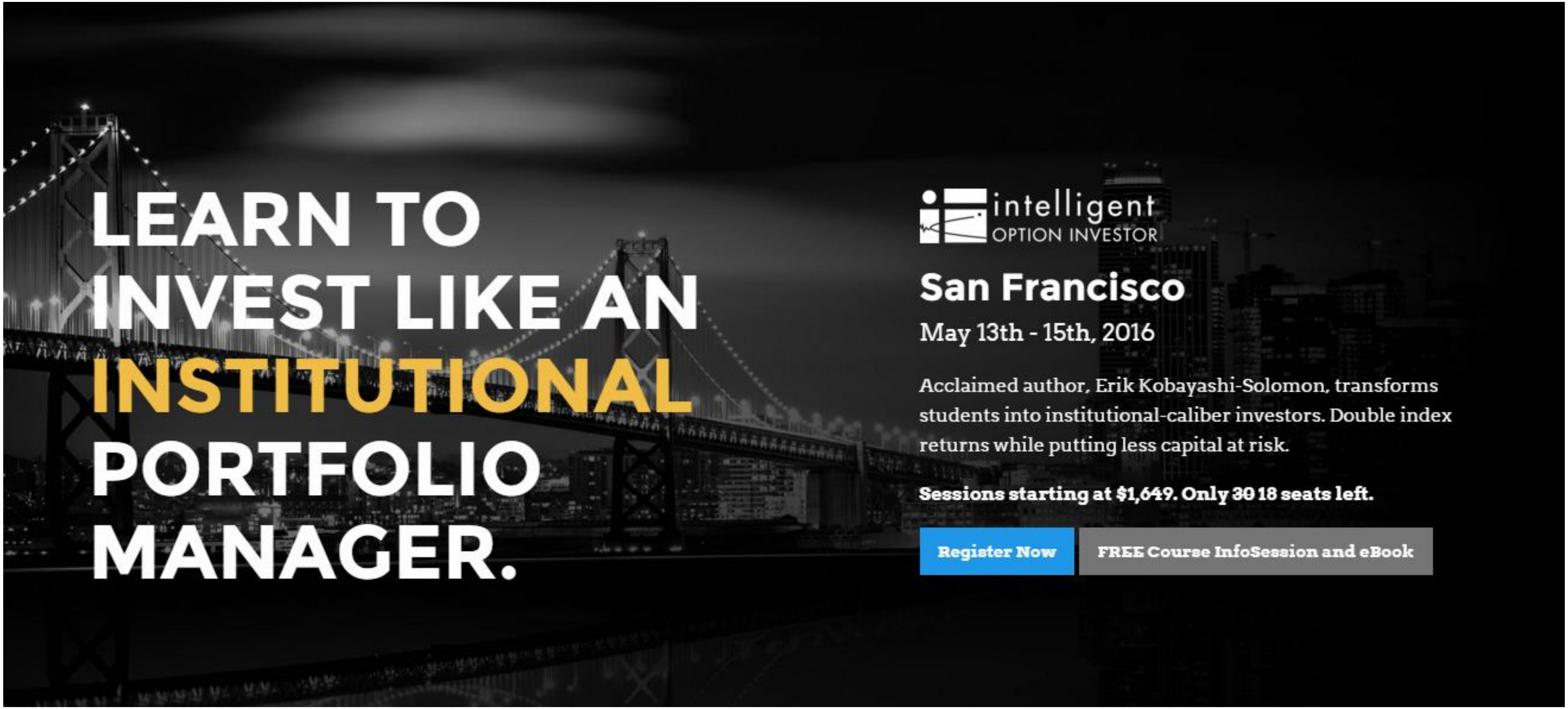
Revenue Growth
Revenues for Rig Systems are contingent on expectation for an extended period of high oil prices.
Revenues for other segments related to active rig count and to levels of drilling activity. Onshore demand may bounce back due to deteriorating condition of rig fleet.

Profitability
Rig Systems – especially offshore rig sales – is a major driver for overall profitability. A weak demand environment will shift revenues toward businesses that are less profitable.
The firm does have room for cost savings by consolidating years of acquired operations.

Medium-Term Cash Flow Growth
A cyclical rebound in the price of is likely to drive rapid medium-term cash flow growth. If, however, political will to reduce carbon emissions and a shift toward renewable energy would drive only very tepid medium-term growth. Strong demand + high capex would also slow medium-term growth.

Fair Value Range
An uncertain demand environment coupled with high operating leverage makes for a high degree of short-term driver uncertainty. Political / environmental issues make the medium-term uncertain as well. IOI considers the $8/share level a likely worst-case and $49/share a likely best-case valuation scenario.





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Thank You

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