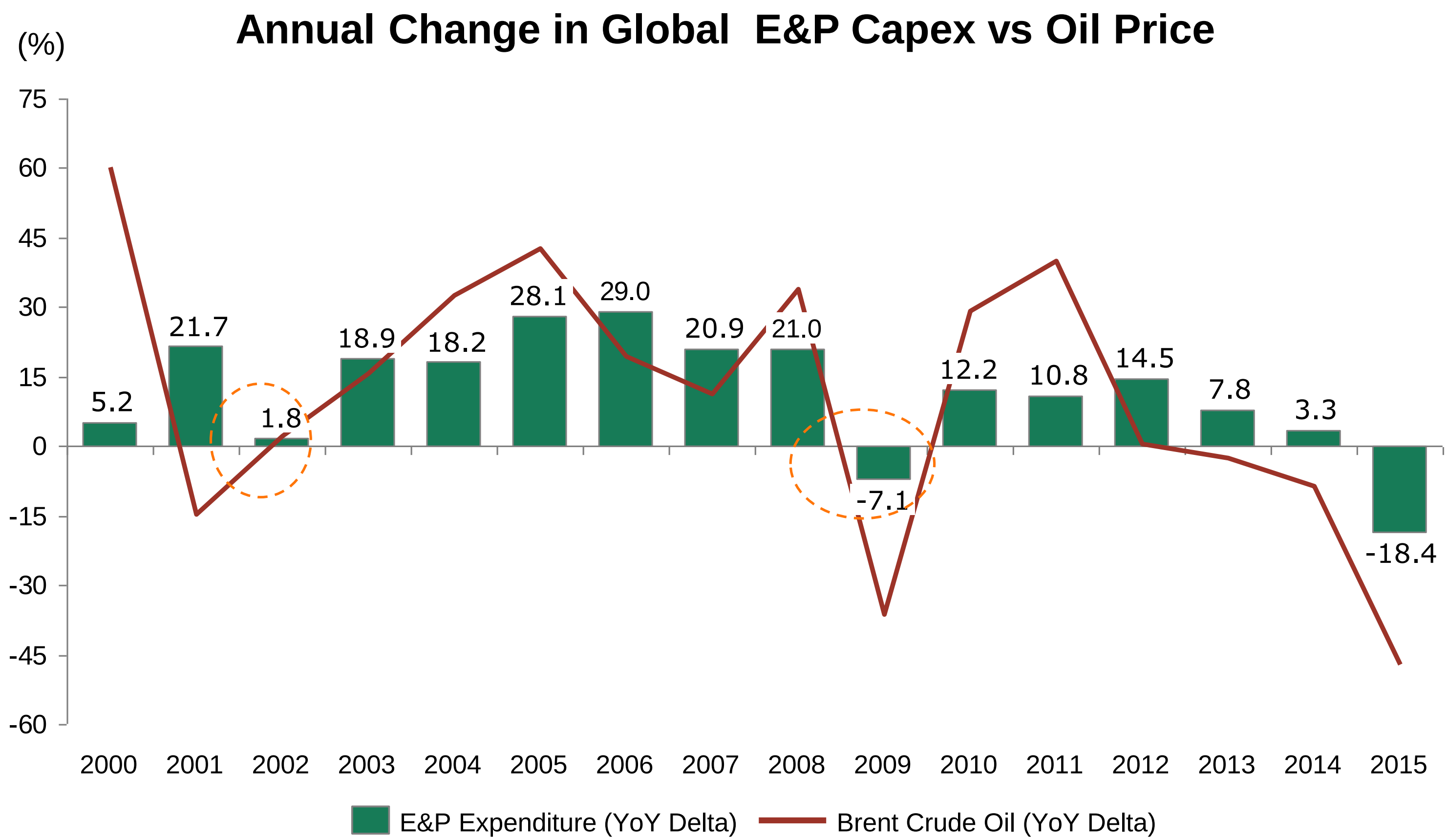
Achieving
Innovation through Dynamic Change

Industry Perspective

presented by J. Robinson West

7 April 2016 PESA Annual Meeting

"Generals always fight the last war"



Boom and bust cycle continues as operators aggressively cut capex in response to price

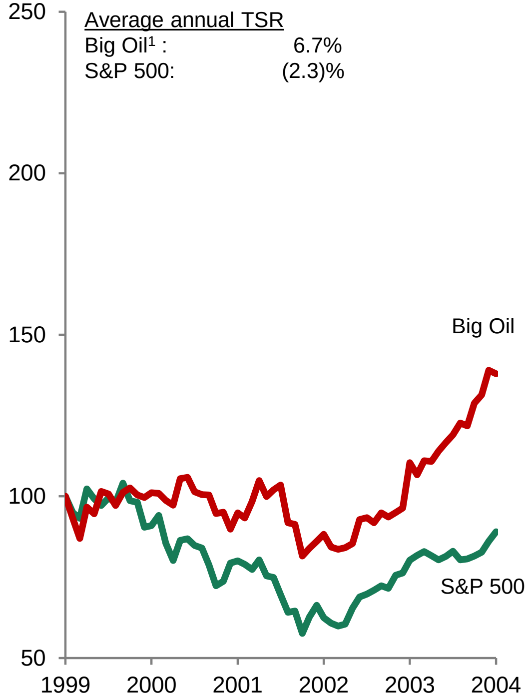
Source: Rystad UCube (Feb 2016); EIA, BCG

The model of the Oil & Gas industry is broken

Big oil value creation has disappointed investors prior to the oil price decline

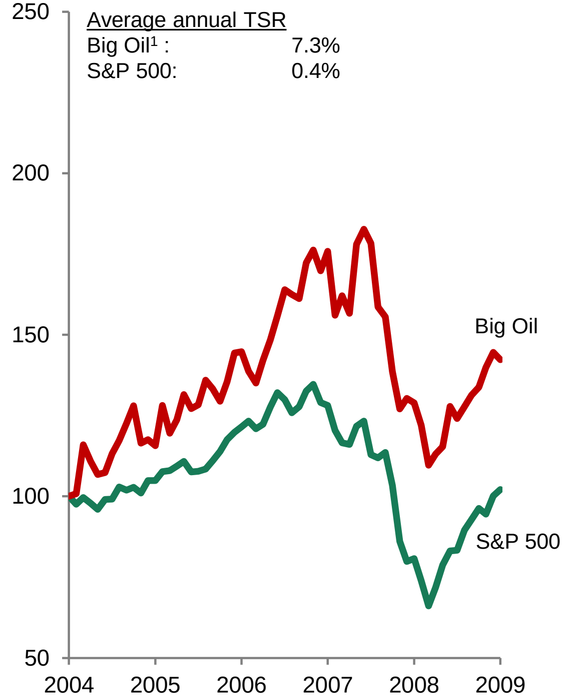
Dec 1999 – Dec 2004

Value of $100 invested in Dec 1999 ($)



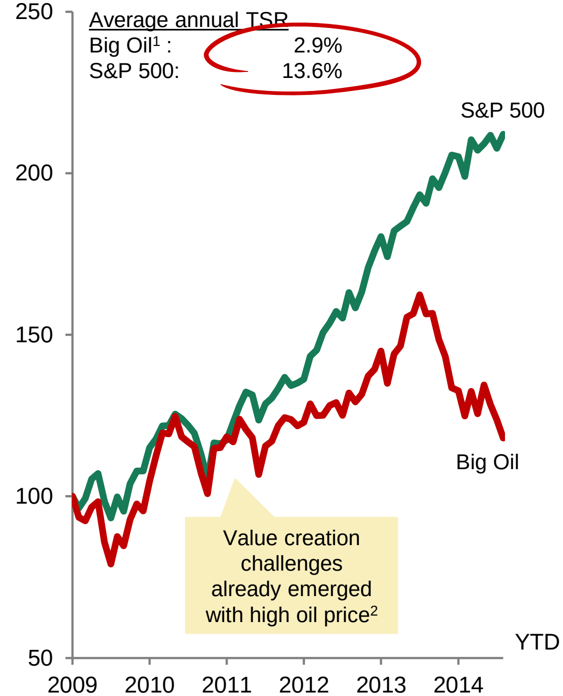
Dec 2004 – Dec 2009

Value of $100 invested in Dec 2004 ($)



Dec 2009 – Oct 2015

Value of $100 invested in Dec 2009 ($)



Avg. oil price ($/bbl)[3] :																		
18	29	24	25	29	38	38	55	65	72	98	61	61	80	111	112	109	100	55

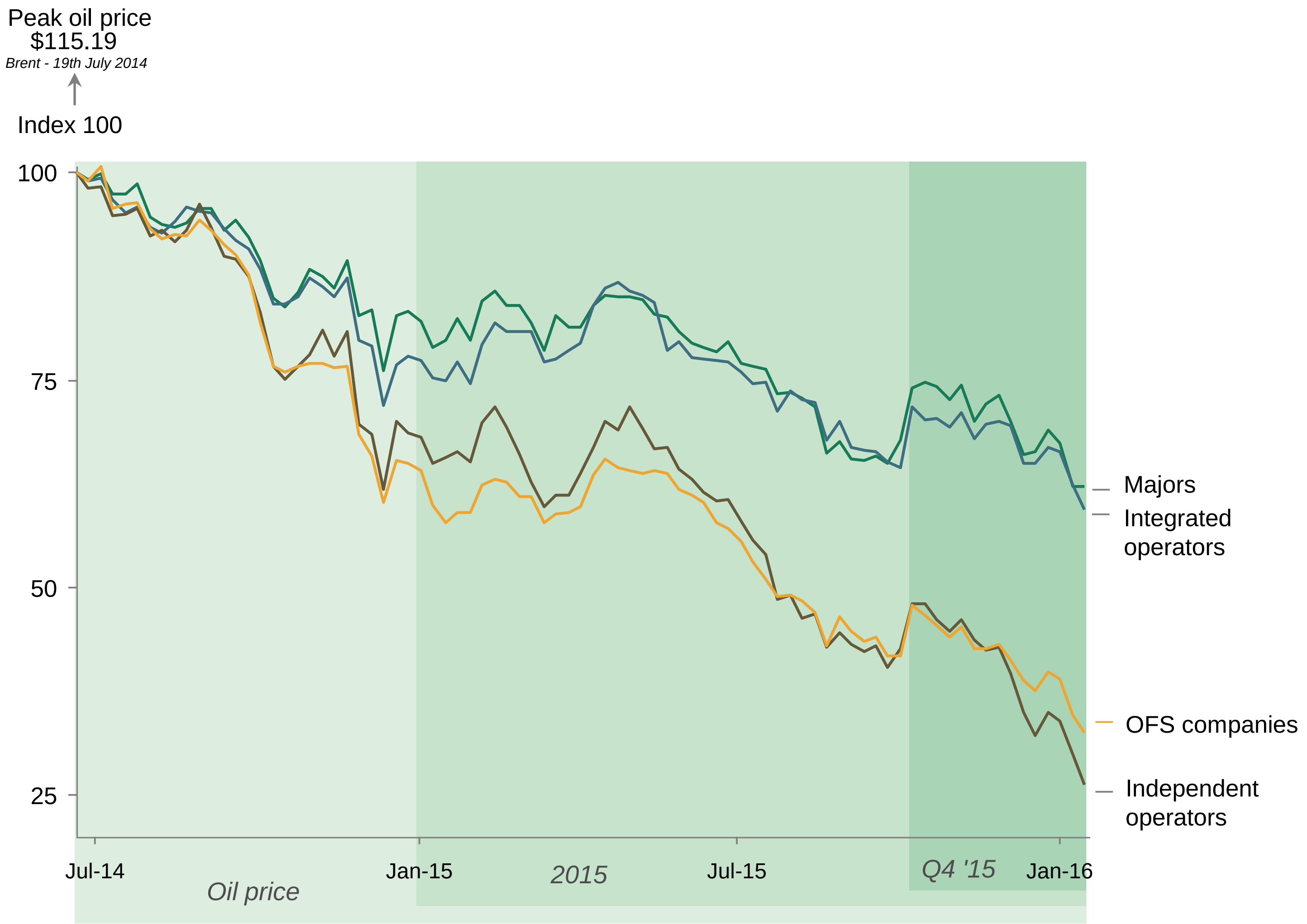
1. 'Big Oil' is: Chevron, ExxonMobil, Shell, Total, BP, ConocoPhilips, Statoil, Eni, Repsol; 2. Dec 2009-July 2014 TSRs for Big Oil: 10.3% and S&P 500: 15.1%. 3. Brent
Note: 'Big Oil' index uses equal-weighted median returns, rebalanced monthly and will not equal the average return of all peers shown previously. Statoil is not included in Dec 1999 – Dec 2004 index because its initial public offering did not take place until 2001. Source: S&P Capital IQ, BCG ValueScience Center, Thomson Reuters, BCG analysis

A fundamental misunderstanding of the industry has underpinned this failure

Myths of the industry		Reality of the industry
It is a rich industry • *Net profit margin >8%prior to 2009*	▶	***Margins are tight*** • *Net profit margin <5% since 2009*
It is a vehicle to deliver dividends • *Historic dividend coverage of >200%*	▶	***Capex consumes most cash flow*** • *$0.97 of every new $1 of cash flow dedicated to capex*
You need scale to be successful • *Consolidation of the 1990s-2000s created value*	▶	***Smaller players are more nimble*** • *One-size-fits-all model not well suited to new challenges, e.g. shale*
Industry is adaptable and flexible • Successful growth into new basins and development of new technologies	▶	***Industry is internally focused and doesn't learn from the outside*** • *New, lean operating models are needed*
Operators run efficient businesses • *Established operating models worked*	▶	***Operators are run by smart engineers*** • *A cultural shift is required to focus on cost and continuous improvement*

Source: BCG

Service companies and operators are in this together, and must solve it together as well



	Jun '14	Jan '15	Q4 '15
Majors	-38%	-24%	-8%
Integrated operators	-41%	-23%	-8%
OFS companies	-65%	-46%	-23%
Independent operators	-74%	-62%	-39%

Updated: January 2016
Note: Companies included: *Majors*: Total, Shell, ExxonMobil, Eni, ConocoPhilips, Chevron, BP, *Integrated*: Suncor Energy, Santos, Pluspetrol, Oxy, Novatek, Murphy Oil, Mitsui, Lukoil, Inpex, Imperial Oil, Hess, Gazprom, CNRL, BG, AGL Energy, *Independant*: Southwestern Energy, Marathon Oil, EOG Resources, Encana, Devon Energy, Chesapeake, Apache, Anadarko.
Source: Bloomberg, BCG Analysis

However, you behave as suppliers to customers

You are not advisors to anticipate change

You adjust prices responsively based on market conditions

You are not actively seen as helping to bring cost structures down

Your "solutions" are often just baskets of your services

Unless we change this dynamic, the whole industry will be in even deeper trouble

So what to do?
Most operators are attacking cost in similar areas

1 **Technical standardization and de-averaging**

Choosing appropriate standards and limiting choices

2 **Organizational right-sizing**

Optimizing head count and upgrading talent

3 **Improved workforce efficiency**

Reducing administrative costs and bureaucracy

4 **Supply chain partnering and renegotiation**

Leveraging partnership opportunities and overhauling agreements

5 **Maintenance optimization**

Rethinking schedules and policies

6 **Optimization of aviation, trucking, and marine logistics**

Adjusting contracts and optimizing asset utilization

7 **Greater cooperation with other industry players**

Cooperating with peers to reduce infrastructure and asset costs

8 **Streamlining overhead, real estate and support service costs**

Exercising greater discipline in—and thinking more strategically about-cost management

Most of you know this "what" – Why is it so hard in practice?

Typical barriers to genuine supplier-operator collaboration

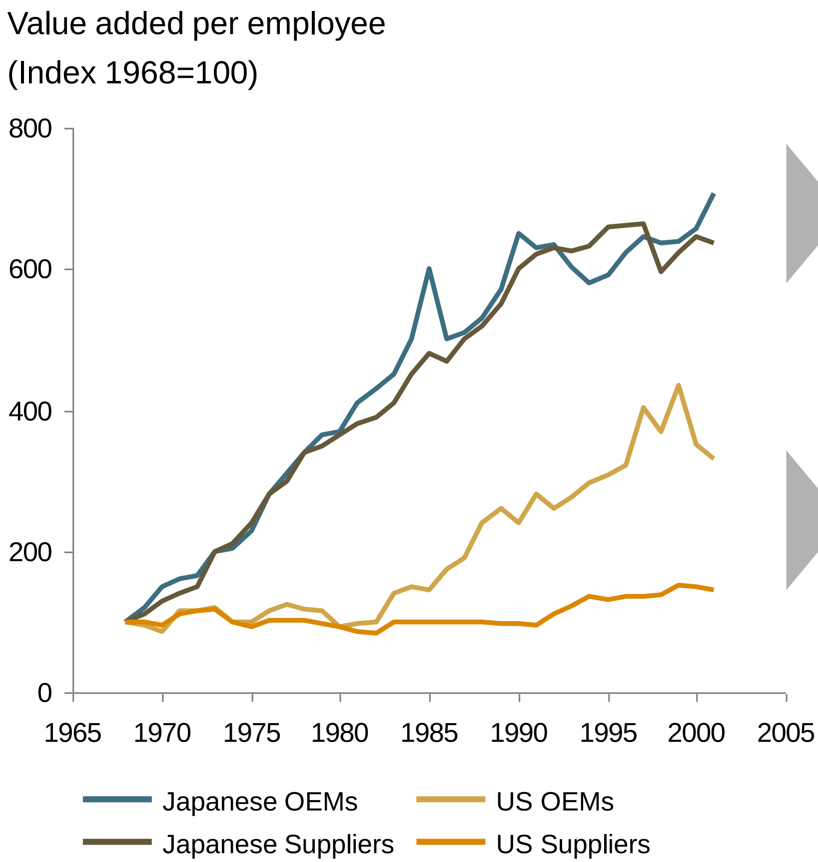
You don't understand one another's businesses

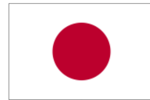
You don't have mechanisms to solve problems together

You may not trust each other or have had adversarial relationships in the past

It is new/different and can be perceived as risky

An example of what is possible: Supplier collaboration in the automotive industry





Japanese OEMs & Suppliers

- Close collaboration through R&D and design processes
- Results in a high degree of outsourcing (>75% for Toyota)

VS.

US OEMs & Suppliers

- More transactional and reactionary sourcing relationships
- Results in lower degree of outsourcing (~50% for GM)

Japanese automotive suppliers achieved 4x value over US suppliers in the same period

Source(s): US Census Bureau Annual Survey of Manufacturers, Toyota Data Book 2003, Japanese Census of Manufacturers, Dyer and Nobeoka, "Creating and Managing a High Performance Network: The Toyota Case, SMJ, 2000; BCG analysis

Environment and Climate

- Challenging License to Operate
- “Fossil” fuel industry
- Targeting infrastructure
- Fracking success/fiasco
- Service sector on point

Responding to climate change is an emerging area for collaboration with your customers

Context: Operators launched the Oil & Gas Climate Initiative (OGCI)

OIL AND GAS CLIMATE INITIATIVE

OGCI member declaration: "We are committed to playing our part. Over the coming years we will collectively strengthen our actions and investments to contribute to reducing the GHG intensity of the global energy mix"

Members include: BP, CNPC, Eni, PEMEX, Reliance Industries, Repsol, Saudi Aramco, Shell, Statoil and TOTAL

Commitments

- **Improve efficiency** and reduce GHG emissions from own operations
- **Invest in long-term solutions**, including R&D and scaling up of new technologies
- **Increase natural gas** substitution for other, higher carbon intensity fuels
- **Develop common methods** for reporting efforts and measuring impacts
- **Share best practices** and engage across industries to find solutions

Source: OGCI, BCG

Use the current environment as an opportunity for change

"Never let a good crisis go to waste"

– *Winston Churchill*

Yes, but how?

Change relationships between operators and service companies

- **Transform from customer/transactional to partners/collaboration**
- **Shift from cost to value creation**
- **Redefine brand**
- **Think pennies before dollars – for yourself and your customers**

Environment/climate

- **Recognize this is a serious threat**
- **Be and be seen to be part of the solution, not the problem**
- **Must address critics not just admirers**
- **Answer the questions behind the questions**