



CFA Institute Research Challenge 2016

Prague, 3/2/2016

Unipetrol: From Ashes Like a Phoenix!

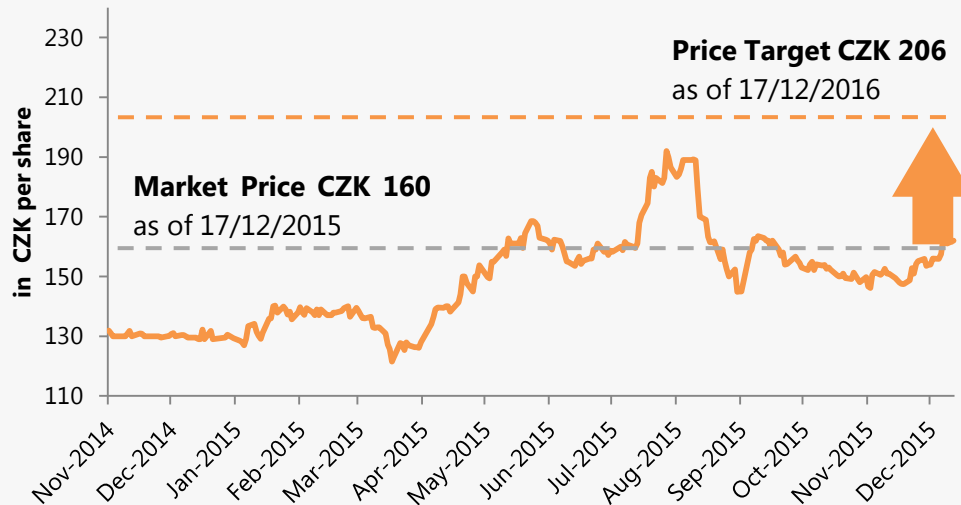
Team D

Ondřej, Pavel, Robert K., Robert Š., Tomáš

Executive Summary

Main features

- Largest downstream group in CZ
- Operator of 339 fuel stations in CZ
- Part of PKN Orlen (63%)



Company profile

Market Cap	CZK 29.0bn
EBIT	CZK 8.5bn
Net Cash	CZK 6.8bn
52-week price range	CZK 119 – 195
Average daily volume	CZK 10.8m
Free float	15%

Recommendation

Current Price:
160 CZK

Target Price:
206 CZK

Upside: **29%**

BUY

Business Description

Downstream



Refining

PetChem

Retail



Filling stations network

Business Description

Downstream



Refining



PetChem



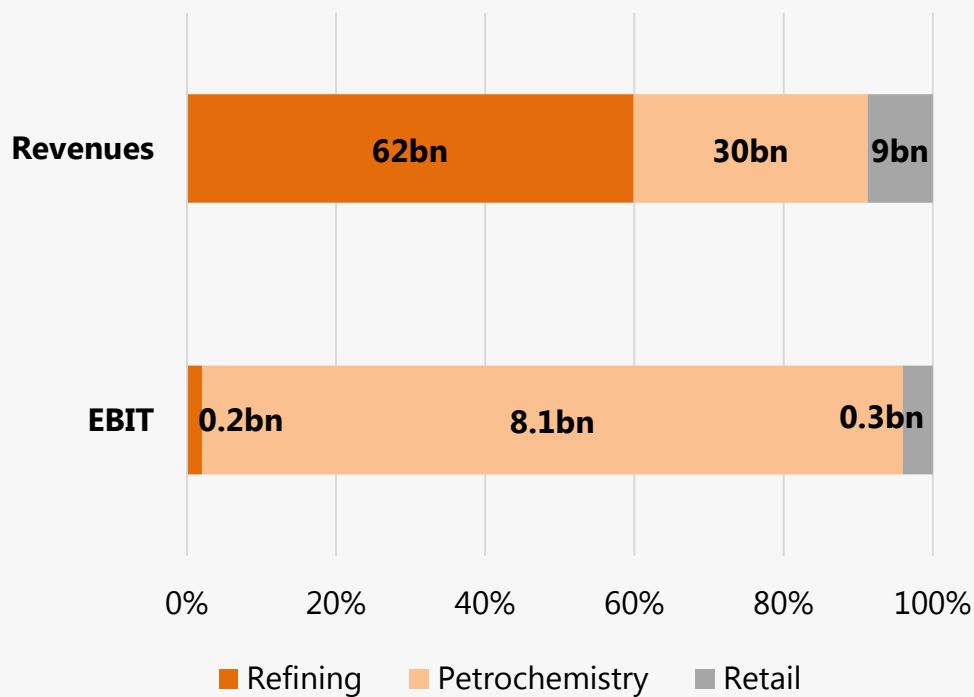
Retail



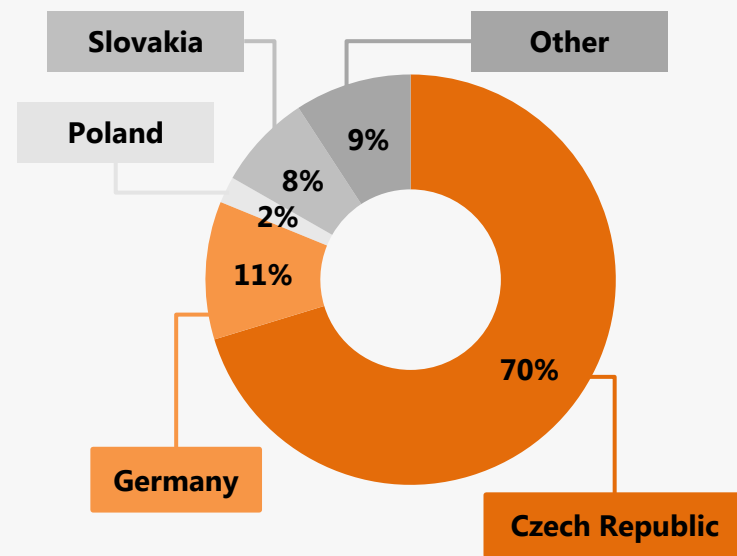
Filling stations network

Financials Breakdown

2015E Revenues and EBIT (CZK)



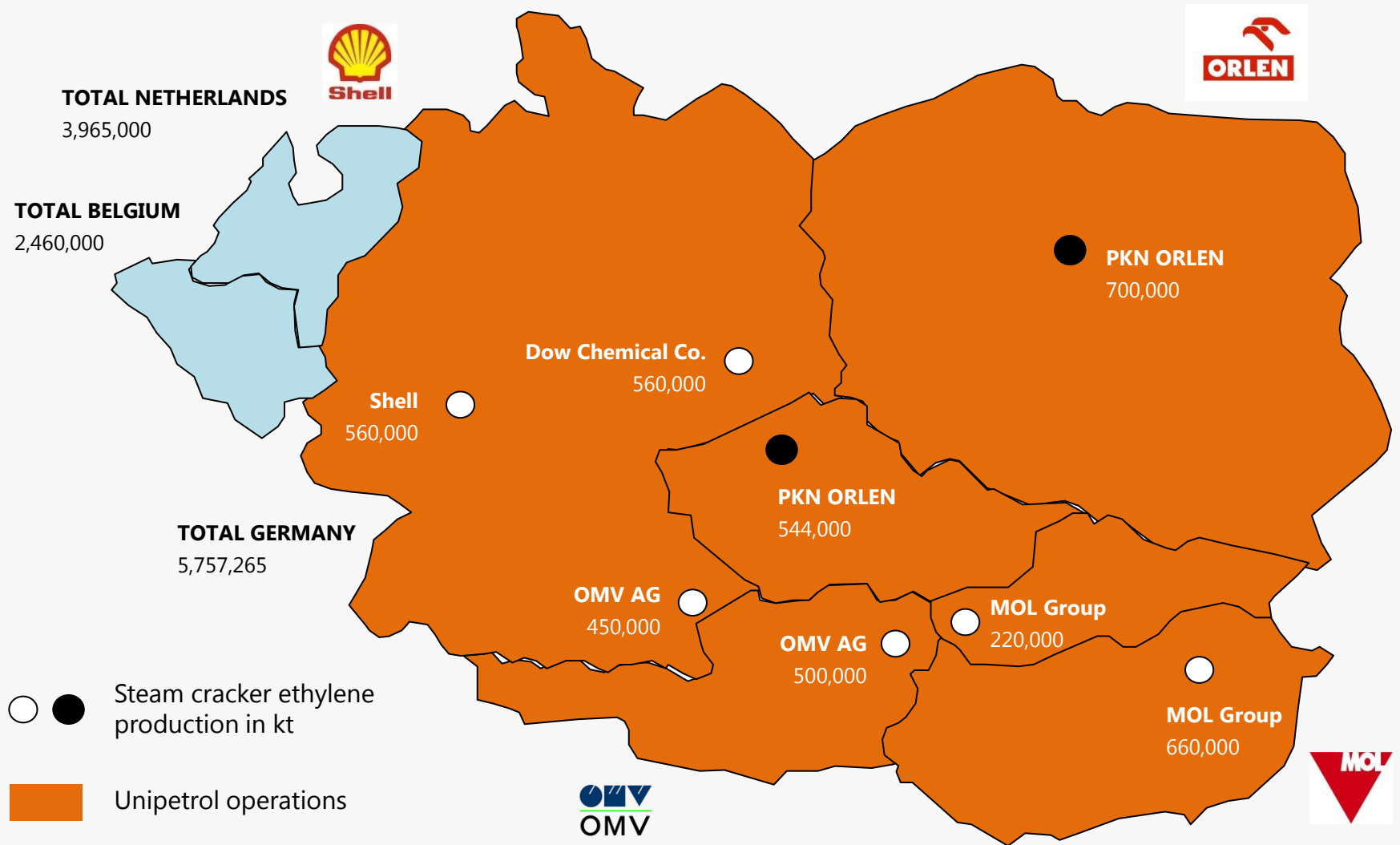
Revenues by country





Industry Overview & Competitive Positioning

Industry & Competitors





Investment Summary



Investment Summary

Key drivers:

1. Crude oil price

2. Steam cracker overreaction
3. Modernization and M&A
4. Macro environment



crude oil represents
**62% of total
costs**

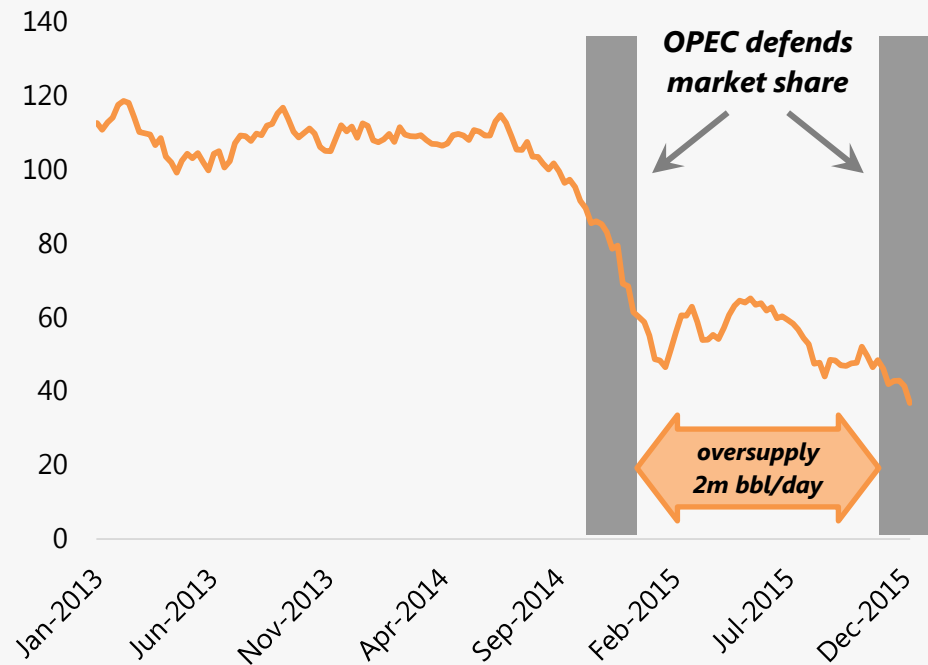
Investment Summary

Key drivers:

1. Crude oil price

2. Steam cracker overreaction
3. Modernization and M&A
4. Macro environment

Brent crude oil price (USD/bbl)



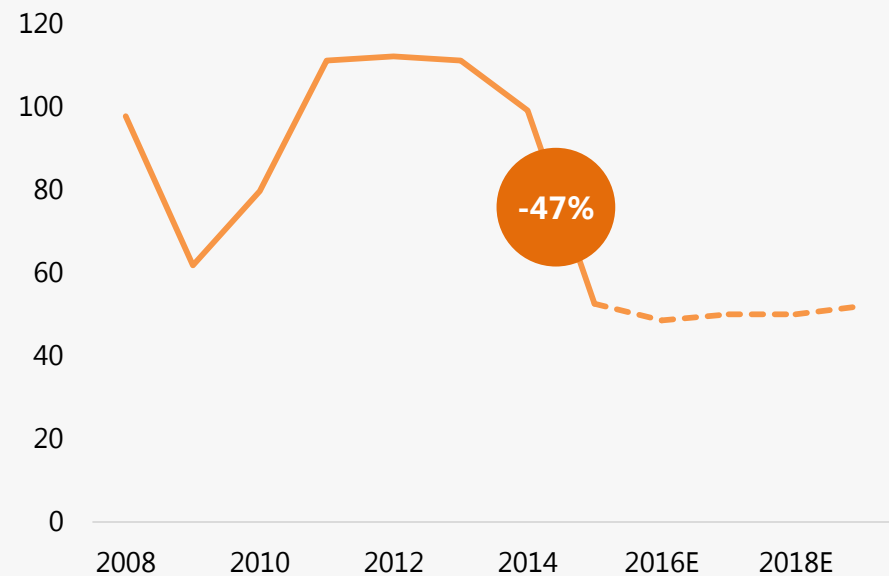
Investment Summary

Key drivers:

1. Crude oil price

2. Steam cracker overreaction
3. Modernization and M&A
4. Macro environment

Avg. annual oil price forecast (USD/bbl)



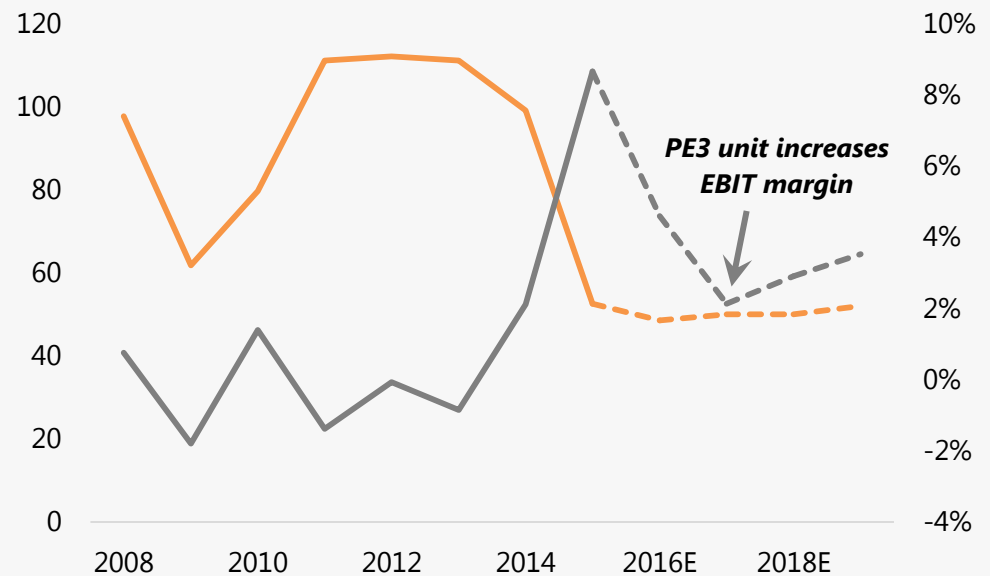
Investment Summary

Key drivers:

1. Crude oil price

2. Steam cracker overreaction
3. Modernization and M&A
4. Macro environment

Avg. annual oil price vs. EBIT margin



Investment Summary

Key drivers:

1. Crude oil price
- 2. Steam cracker overreaction**
3. Modernization and M&A
4. Macro environment

Steam cracker accident

- August 2015 – steam cracker caught on fire
- October 2016 – fully operational

	CZK
Damage & lost profit	14bn
Unrecoverable cost:	
Management expectation	2bn
Market reaction	7bn
Our estimation	6bn

**CZK 1bn
upside**

Investment Summary

Key drivers:

1. Crude oil price
2. Steam cracker overreaction

3. Modernization and M&A

4. Macro environment

M&A activities

- 100% stake in Česká rafinérská (April 2015)
- 68 OMV stations (reaching 20% share in retail)

Refining capacity



Investment Summary

Key drivers:

1. Crude oil price
2. Steam cracker overreaction

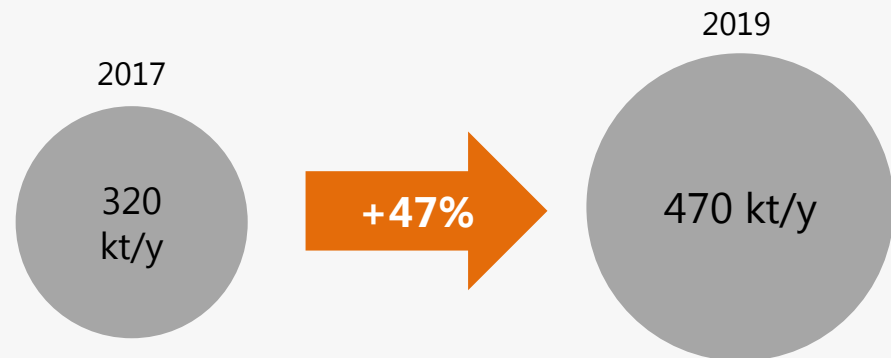
3. Modernization and M&A

4. Macro environment

PE3 Investment

- New polyethylene (PE) unit
- Large investment project (CZK 8.5bn)

Polyethylene units capacity



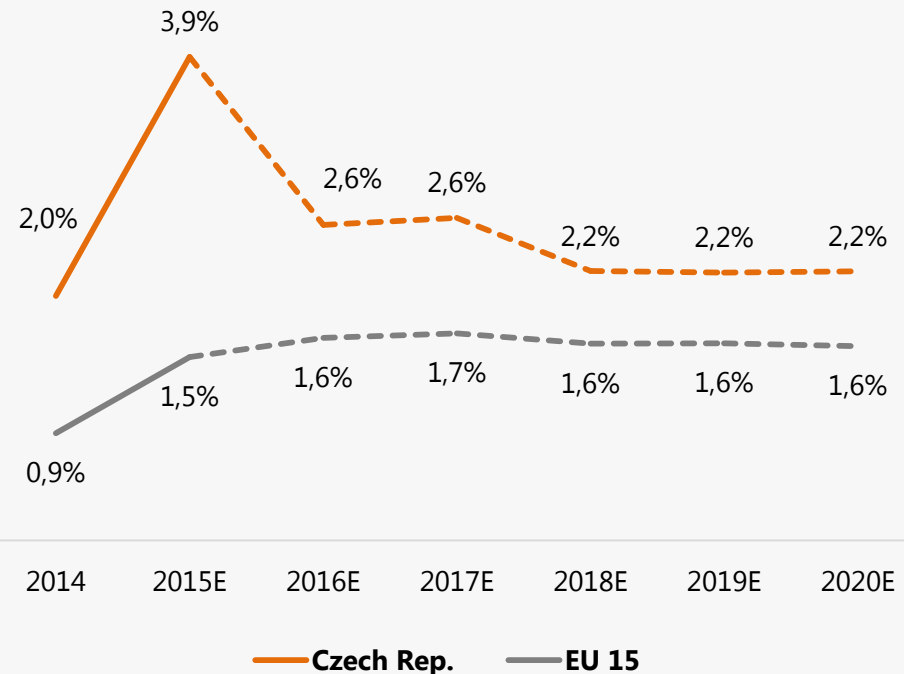
Investment Summary

Key drivers:

1. Crude oil price
2. Steam cracker overreaction
3. Modernization and M&A

4. Macro environment

GDP Growth

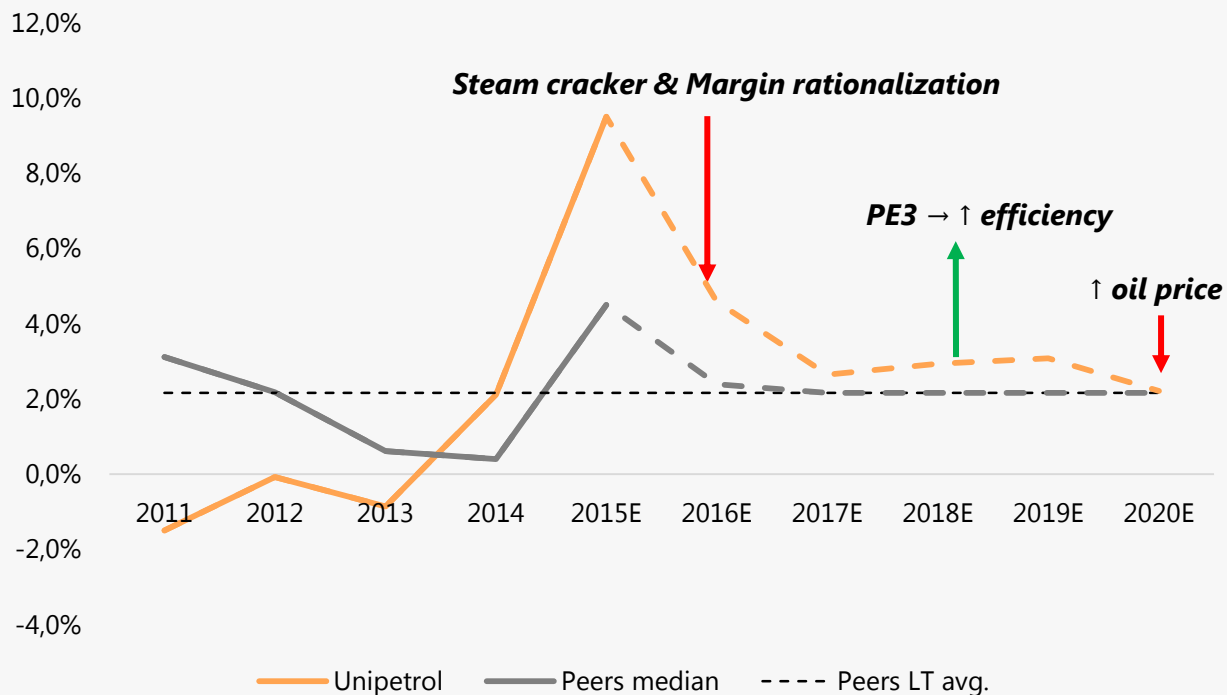




Financial Analysis

Profitability Analysis

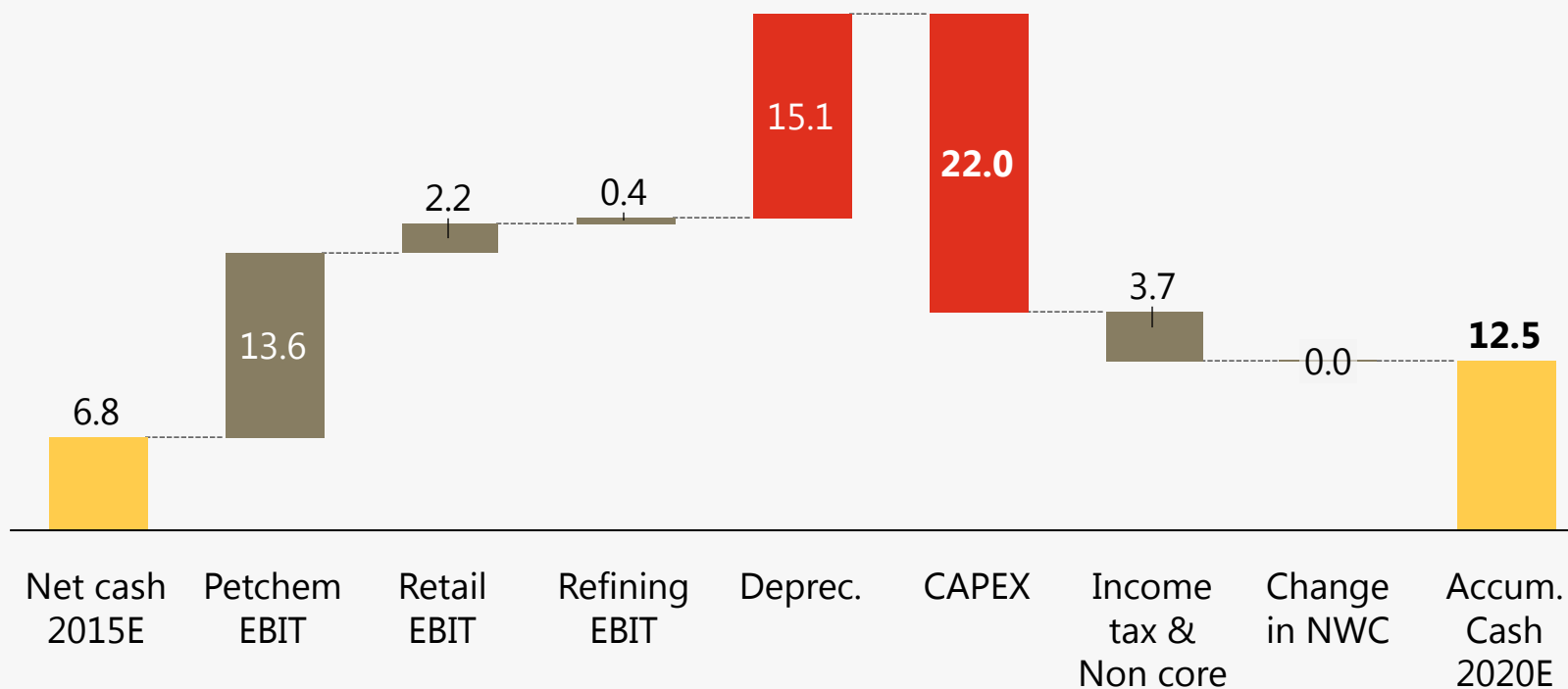
EBIT margin Unipetrol vs. peers



EBIT margin	
2011 – 2014	-0.3%
2015	9.5%
2020E	2.2%

CAPEX and Dividend Potential

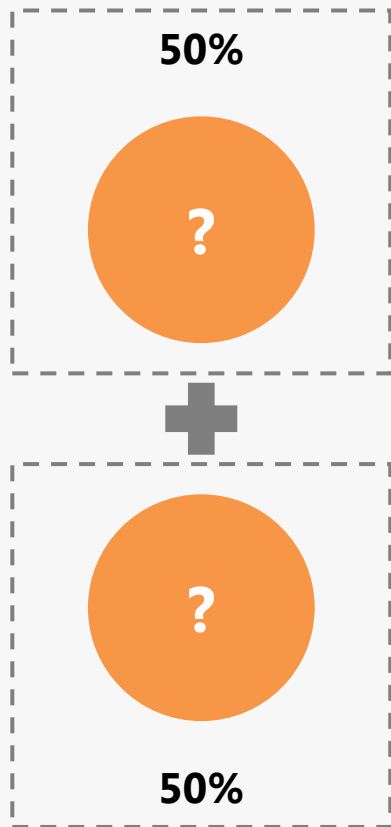
Cumulative FCF 2016 – 2020 (CZK bn)





Valuation

Valuation



Discounted cash flow model

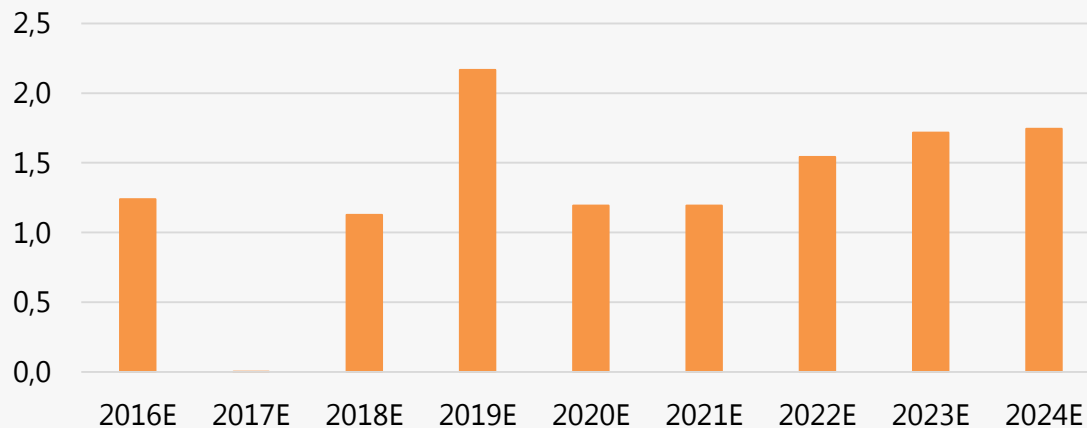
- 10-year forecast
- EBIT estimated by segments
- Adjustments for CAPEX, Depreciation, and NWC

Peer group valuation

Discounted Cash Flow

	2014	2015	2016E	2017E	2018E	2019E	2020E
Crude Oil price (USD/bbl)	99.0	52.5	48.5	47.3	50.0	52.0	56.0
EBIT margin	2.1%	9.5%	4.5%	2.7%	2.9%	3.5%	2.5%

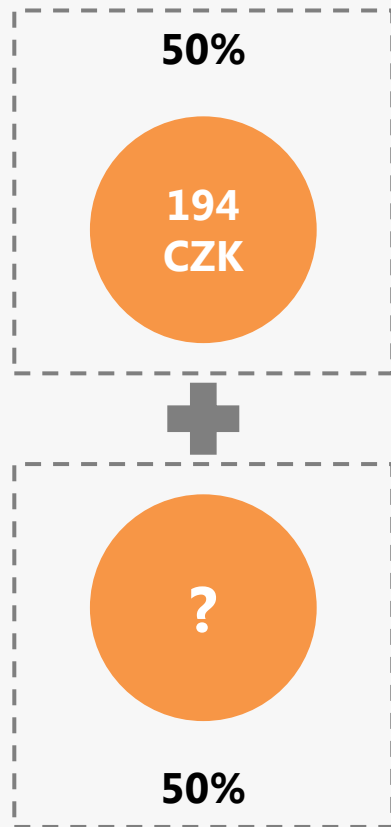
Free cash flow (CZK bn)



WACC calculation

Risk-free rate	2.7%
Beta	0.76
Risk premium	3.9%
Size premium	2.2%
Cost of Equity	8.8%
Cost of Debt	2.6%
Equity weight	63%
Debt weight	37%
WACC	6.3%

Valuation



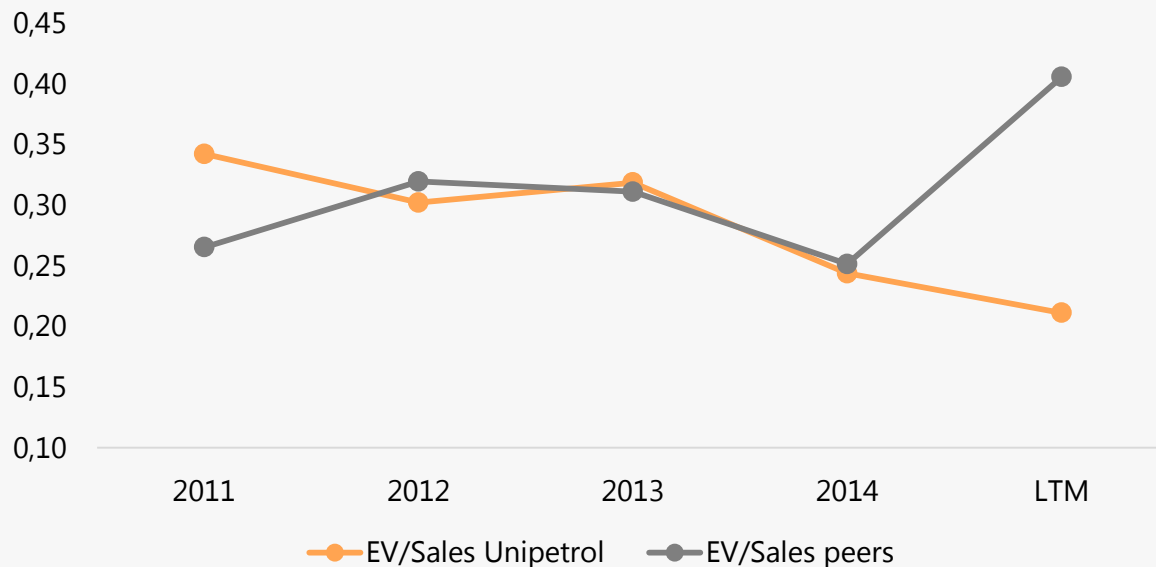
Discounted cash flow model

Peer group valuation

- 13 European downstream companies
- EV/Sales valuation
- EV/EBITDA inappropriate multiple – volatility

Multiples Pricing

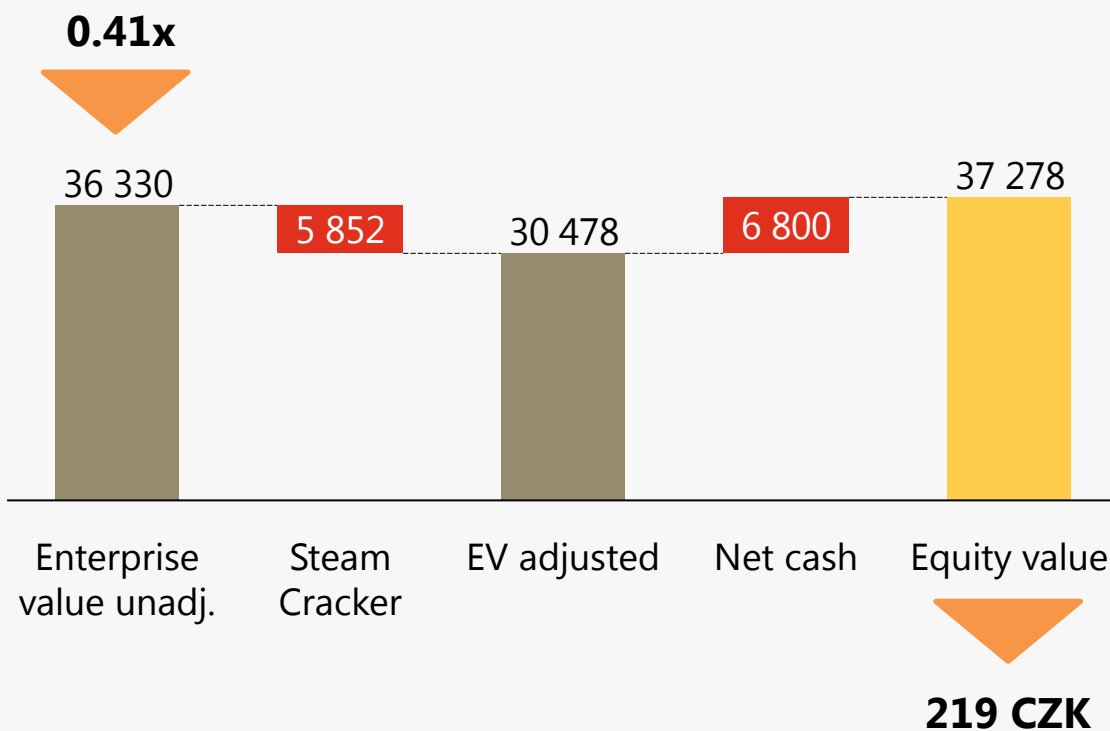
EV/Sales Unipetrol vs. peers median



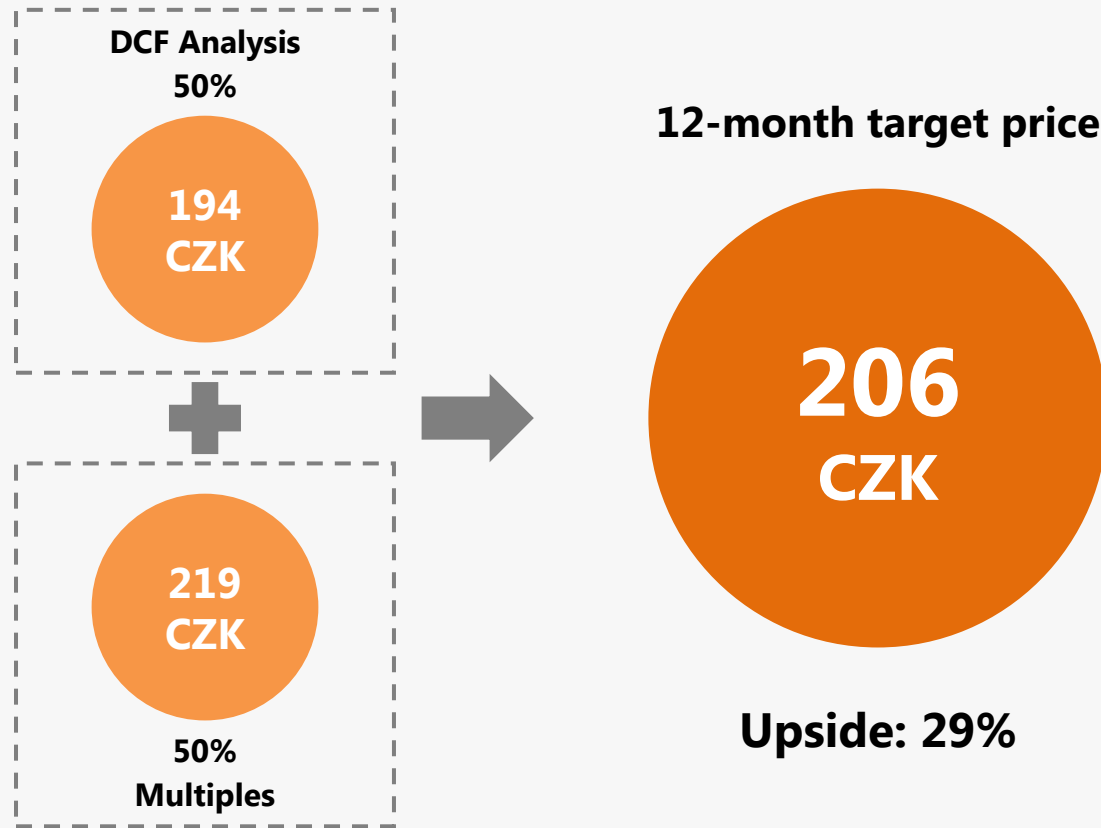
EV/Sales	
Historical discount	-6%
LTM discount	48%

Multiples Pricing

LTM EV/Sales peers median



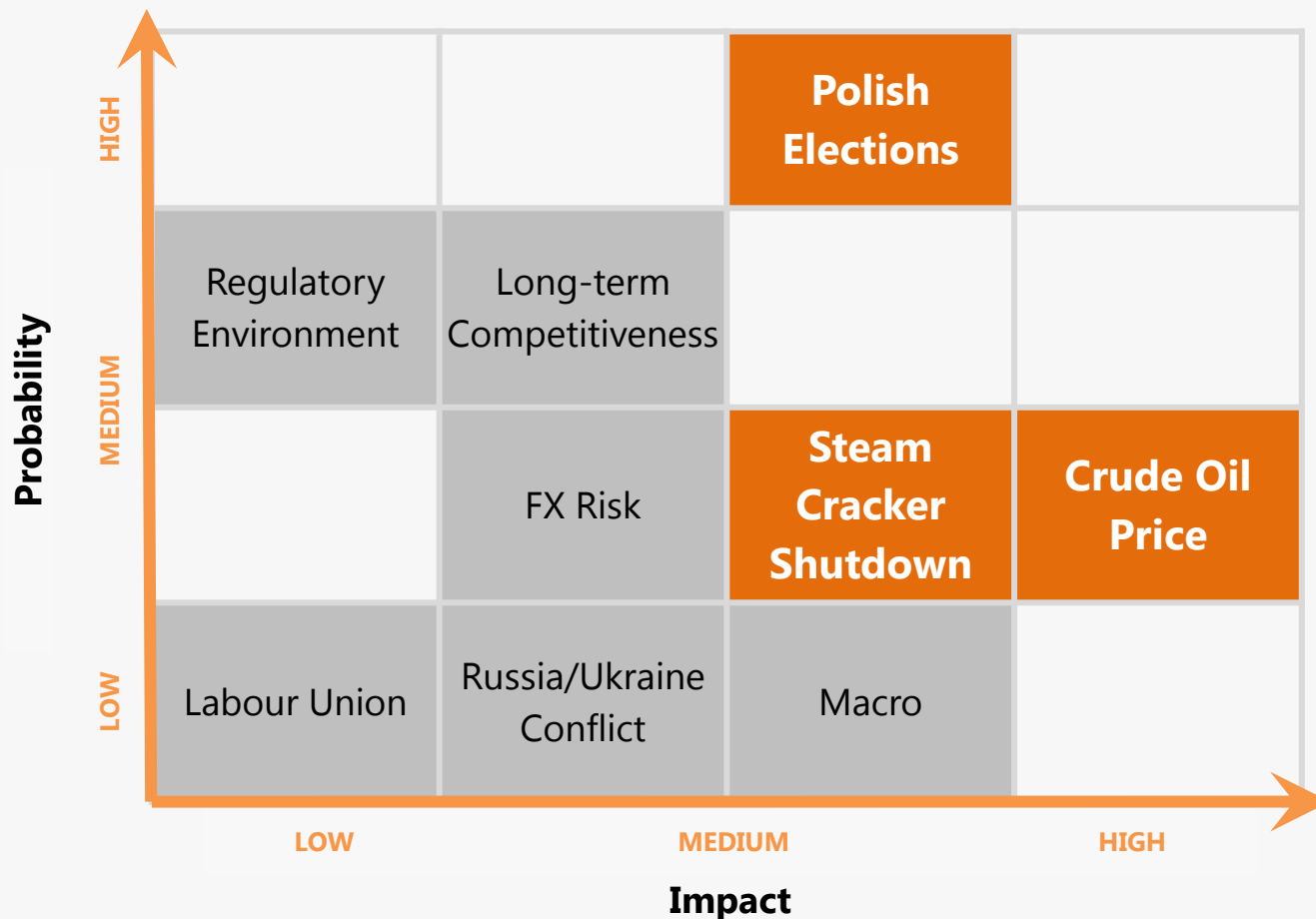
Target Price





Risk Analysis

Risk Matrix



Company Overview

Industry & Competitors

Investment Case

Financial Analysis

Valuation

Risks

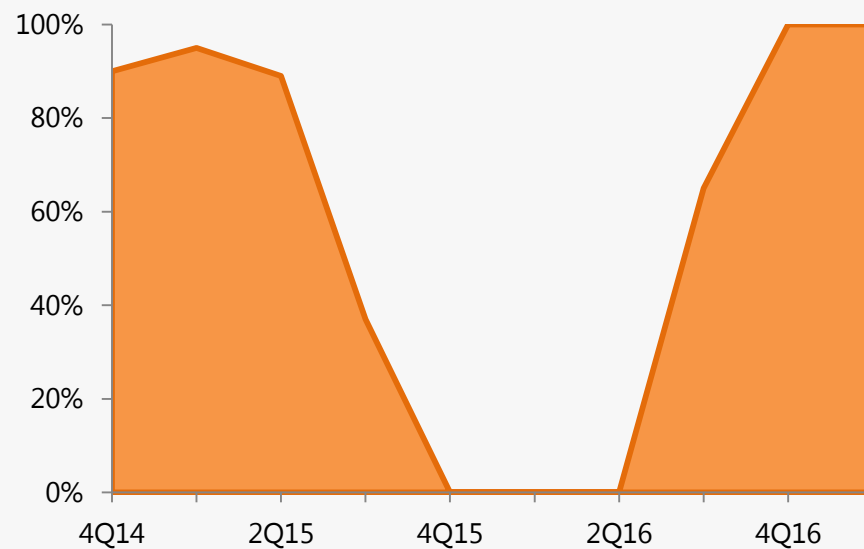
Conclusion

Main Risk: Steam Cracker Shutdown

Steam cracker shutdown

- Postponed reconstruction
- Full coverage expected by management
- Additional potential upside

Planned steam cracker utilization



Main Risks: Oil Price

Positive risks

- China slowdown
- Iran comeback
- US storage capacity utilized



Negative risks

- Curtailing production in the US
- US-RUS-OPEC agreement
- Geopolitical risks

Main Risks: Corporate Risk

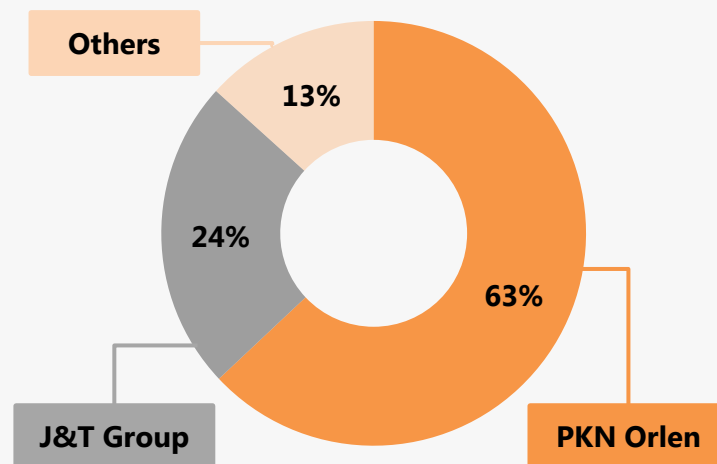
Polish elections

- Changes in PKN long-term strategy
- New management

J&T Group

- Activist shareholder
- Pressure on dividend payout

Shareholder structure





Conclusion

Recommendation

1. Low crude oil prices



2. Steam cracker overreaction



3. Modernization and M&A



4. Macro environment



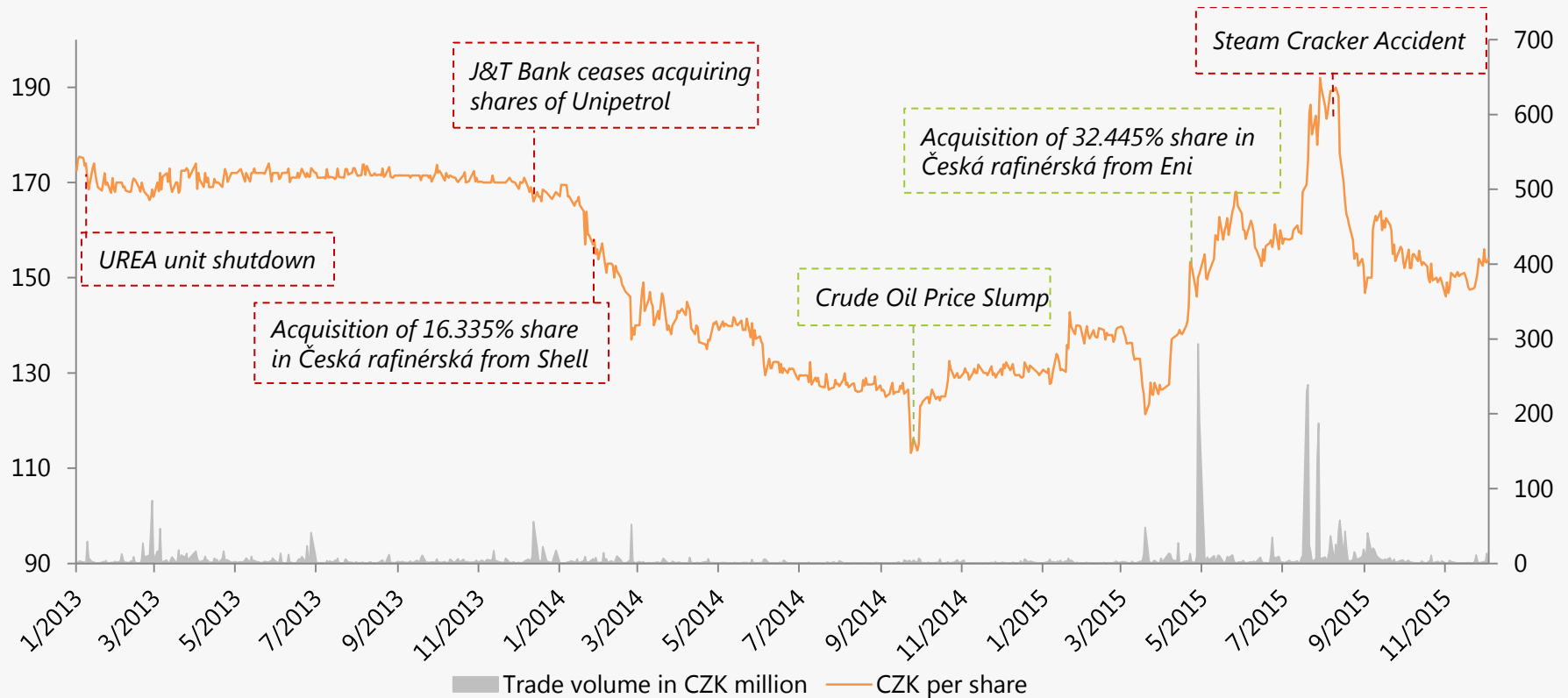
BUY

Appendix

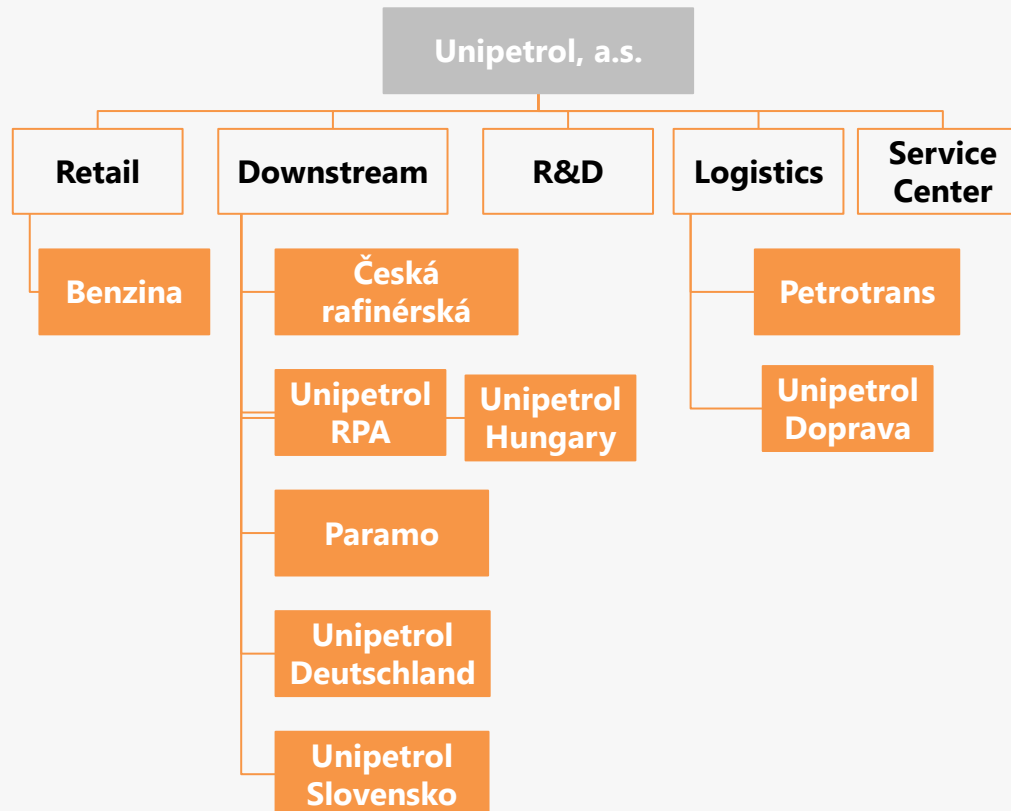
Contents:

- [Stock Price Development](#)
- [Company Structure](#)
- [Map of Distribution System](#)
- [SWOT Analysis](#)
- [Porter 5 Forces](#)
- [Oil Supply & Demand Factors](#)
- [Steam Cracker Accident](#)
- [Refining Utilization Ratio](#)
- [Refining and PE Capacity](#)
- [Refining Shutdowns](#)
- [Number of Fuel Stations](#)
- [ROIC Decomposition](#)
- [Beta Calculation](#)
- [DCF Model](#)
- [Comparables List](#)
- [Comparable Companies](#)
- [Multiples Valuation](#)
- [EV/EBITDA](#)
- [Sensitivity Analysis](#)
- [Risk Matrix](#)

Unipetrol stock price (CZK) and daily volumes (CZK m)



Company structure



Appendix: Map of Distribution System

[Back to contents](#)

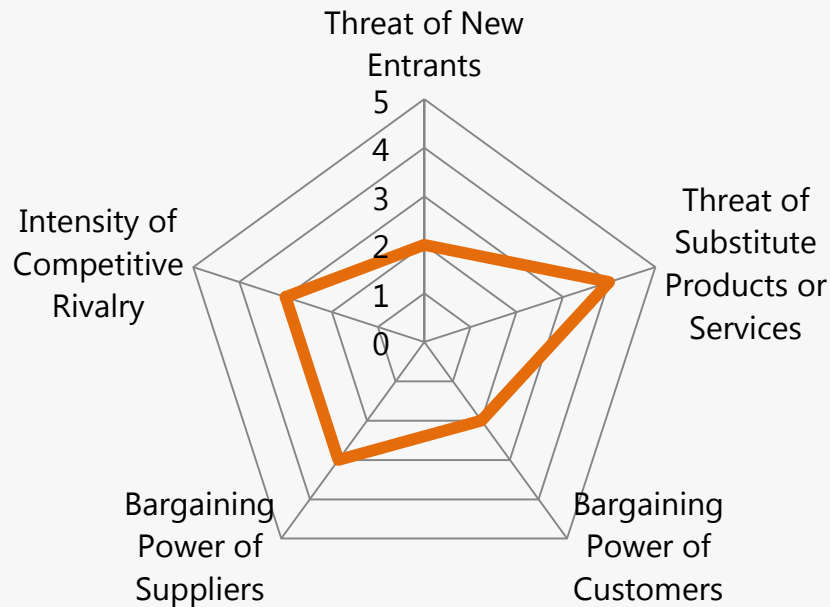
Distribution system in CZ and SK



SWOT analysis

Strengths	Weaknesses
Česká rafinérská shares purchase	Disabled PetChem Production
Leveraging on retail market position	New Polish Government Changes
Refining Monopoly in CR	Low Competitiveness
High Refining & PetChem Margins	
Record GDP Growth	
Low Crude Oil Price	
Strong US Dollar	
Opportunities	Threats
PE3 Investment Project	MOL Group influence Growth
Low Crude Oil Forecast	New Gulf and US refineries
Strengthening Export	
Further CNB Interventions	
Divident Payout	

Porter five forces analysis

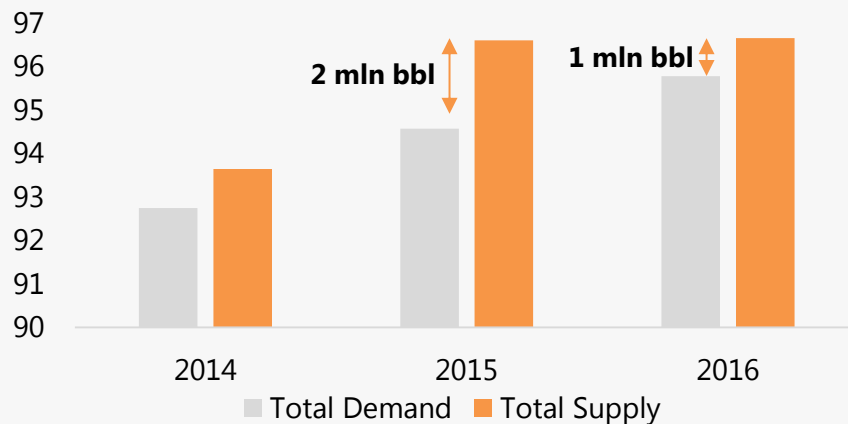


- 0** No threat to the business
- 1** Insignificant threat to the business
- 2** Low threat to the business
- 3** Moderate threat to the business
- 4** Significant threat to the business
- 5** High threat to the business

Appendix: Oil Supply & Demand Factors

[Back to contents](#)

Avg. daily supply/demand (m bbl)



Supply & demand drivers

1. OPEC production + 5.7% over official quotas
2. Iran easement + 600 k bbl/day + 30 m bbl stored in tankers
3. Historical highs of Iraq production
4. High utilization of US storage capacities
5. Oil demand slowdown driven by lower GDP growth of China (6% 2016 vs. 6.8% 2015)

Proven Oil Reserves 2014	Proven Oil Reserves (m bbl)	Total Cost of Oil Production (USD/bbl)	Marginal Cost of Production (USD/bbl)
North America	40 681	39	80
Latin America	342 235	25	20
Eastern Europe and Eurasia	119 863	22	45
Western Europe	11 577	52	105
Middle East	802 518	10	7
Africa	127 561	26	19
Asia and Pacific	48 445	29	N/A
Total	1 492 880	18	17
OPEC	1 206 004	14	11
OPEC %	81%	24%	34%

Company Overview

Industry & Competitors

Investment Case

Financial Analysis

Valuation

Risks

Conclusion

Appendix: Steam Cracker Accident

[Back to contents](#)

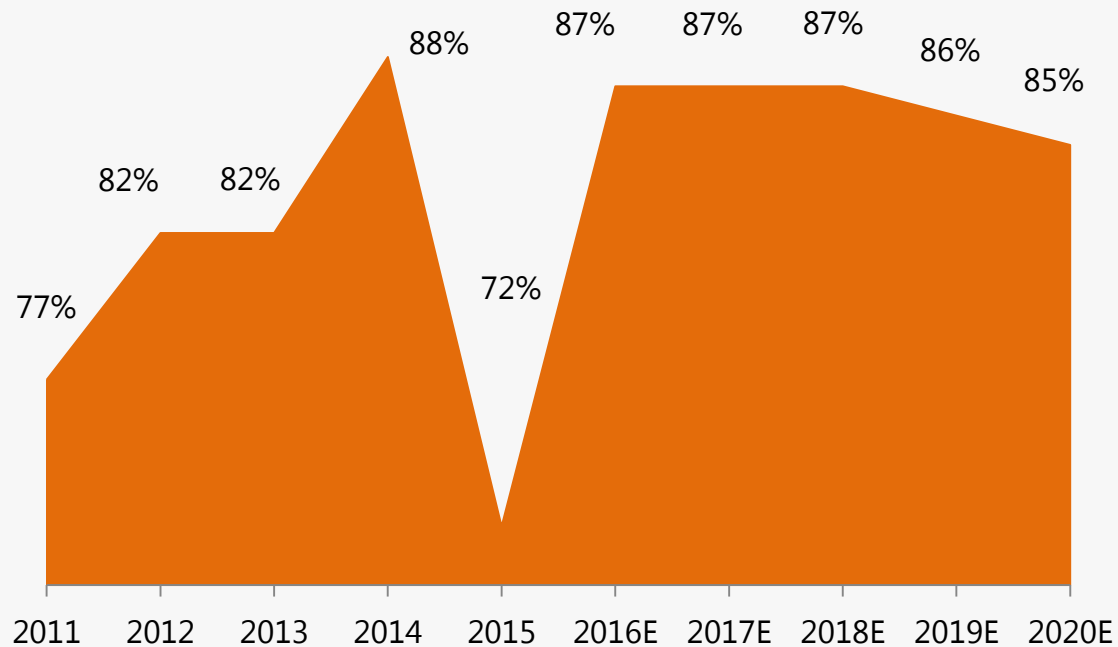
Steam cracker accident direct costs and insurance (mil. CZK)

Cost by type	Total cost	Mngmt. expected recovery in %	Management expected loss	Our expected recovery	Our expected loss
Cost of repair	4 100	100%	-	100%	-
Lost profit 3Q 2015	1 600	0%	1 600	0%	1 600
Lost profit 4Q 2015	480	0%	480	0%	480
Lost profit 4Q 2015	2 400	100%	-	50%	1 200
Lost profit 1Q 2016	2 189	100%	-	50%	1 094
Lost profit 2Q 2016	2 189	100%	-	50%	1 094
Lost profit 3Q 2016	766	100%	-	50%	383
Total cost	13 724		2 080		5 852

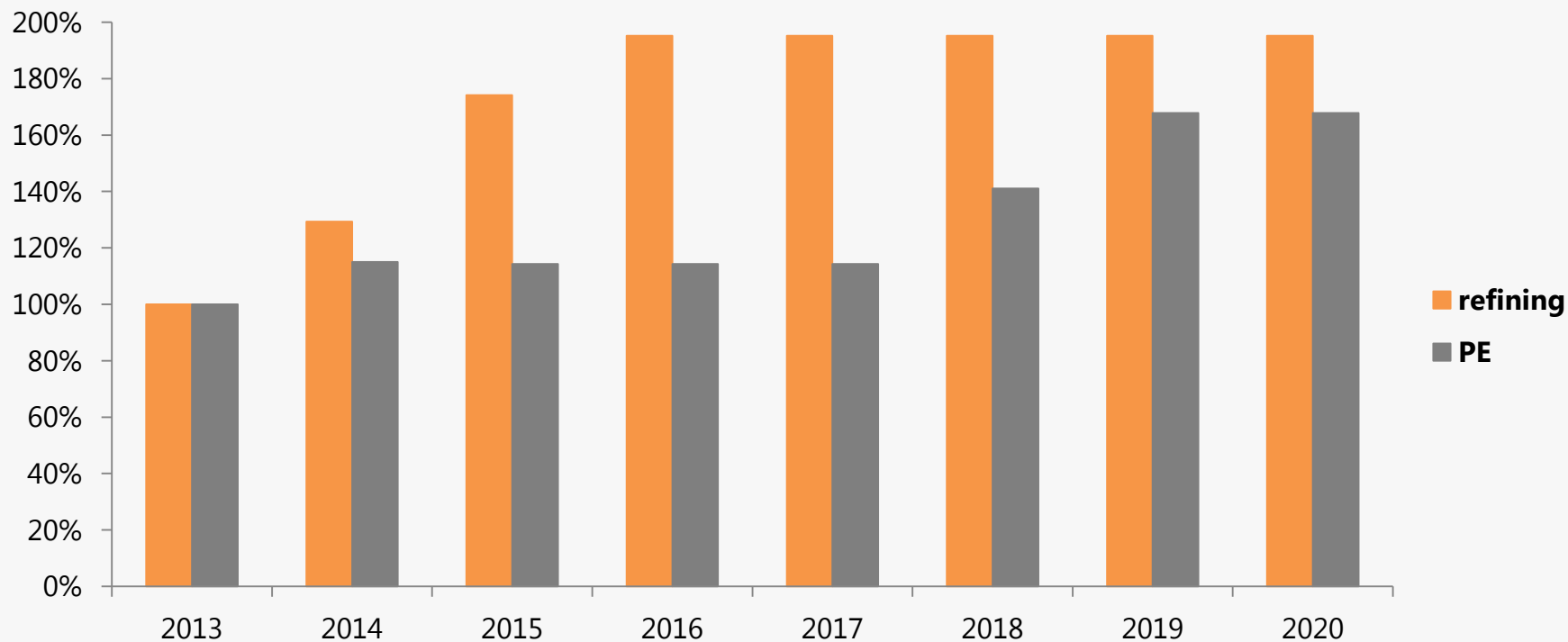
Appendix: Refining Utilization Ratio

[Back to contents](#)

Refining utilization ratio



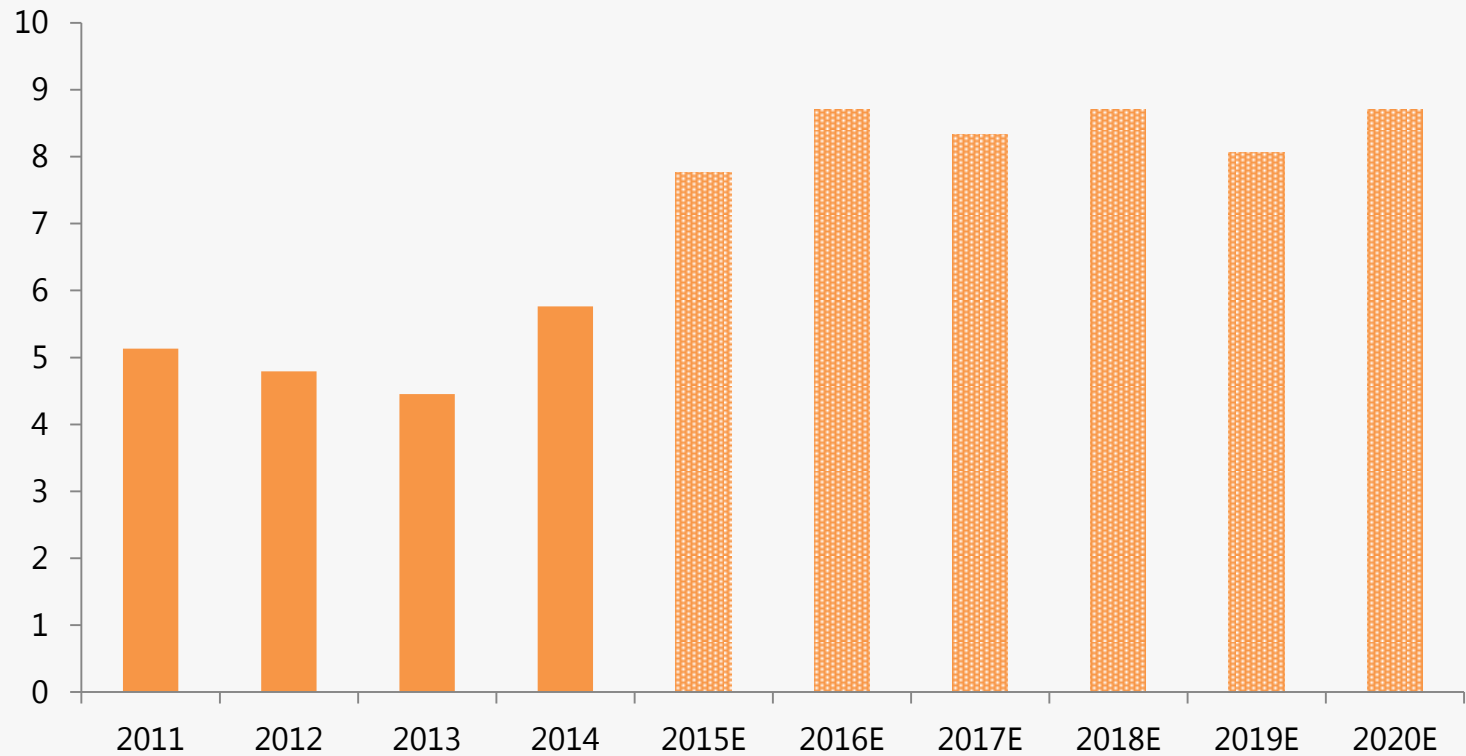
Refining and PE capacity development



Appendix: Refining Shutdowns

[Back to contents](#)

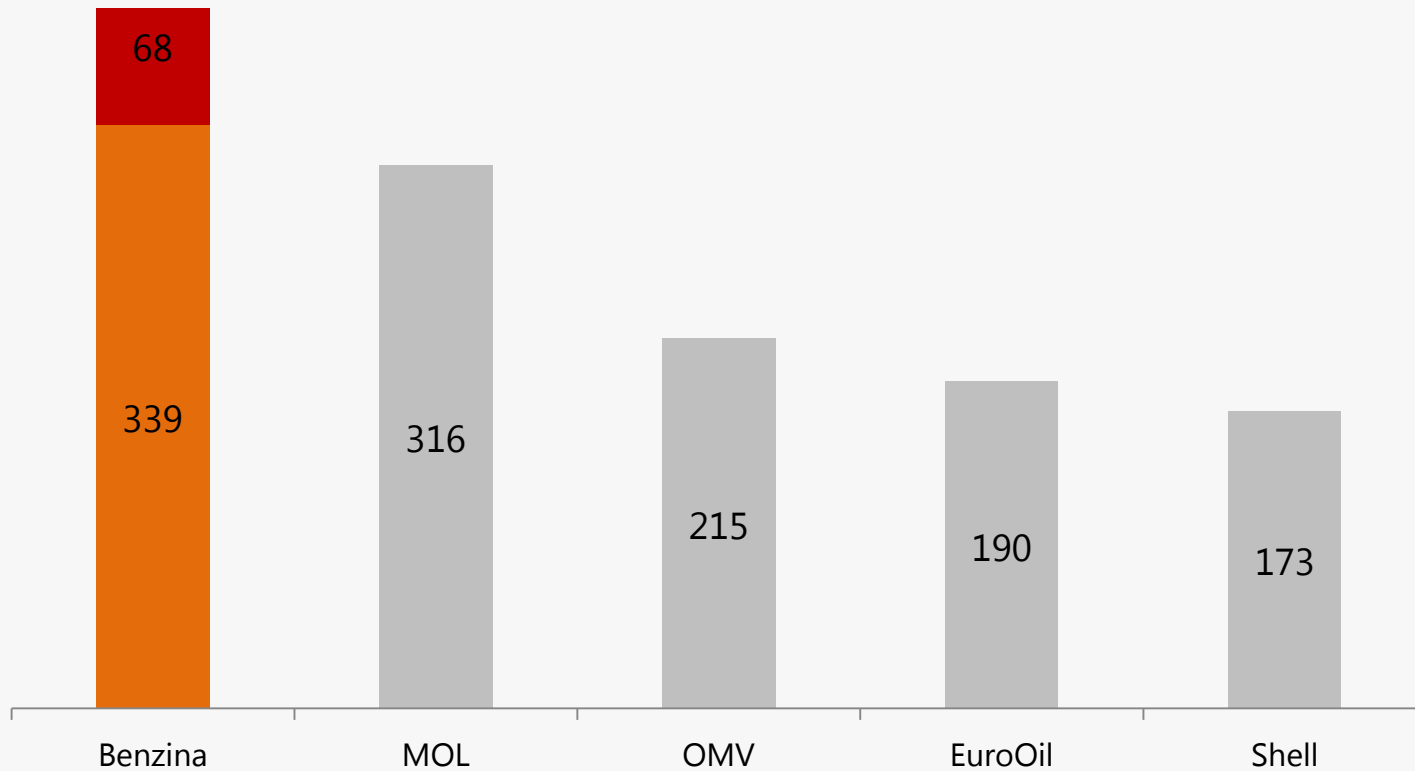
2017 and 2019 planned periodical shutdowns (ths. kt)



Appendix: Number of Fuel Stations

[Back to contents](#)

Number of filling stations in 2015
Selected Chains



Appendix: ROIC Decomposition

ROIC					
Year	2011	2012	2013	2014	LTM
Unipetrol	-3.6%	-0.2%	-2.3%	6.8%	30.4%
Peers med.	8.6%	6.7%	1.7%	1.5%	12.3%

PM (After tax)					
Year	2011	2012	2013	2014	LTM
Unipetrol	-1.2%	-0.1%	-0.7%	1.7%	6.8%
Peers med.	2.5%	1.8%	0.5%	0.3%	3.6%

Gross margin					
Year	2011	2012	2013	2014	LTM
Unipetrol	5.5%	5.5%	4.7%	6.6%	13.1%
Peers med.	8.7%	7.8%	6.4%	3.7%	8.2%

SG&A, distribution expenses and others/Sales					
Year	2011	2012	2013	2014	LTM
Unipetrol	3.8%	3.0%	3.2%	2.7%	3.0%
Peers med.	3.9%	4.2%	3.8%	3.9%	5.1%

Depreciation/Sales					
Year	2011	2012	2013	2014	LTM
Unipetrol	3.2%	2.6%	2.4%	1.8%	1.7%
Peers med.	1.9%	1.8%	1.9%	2.2%	2.5%

Invested capital turnover					
Year	2011	2012	2013	2014	LTM
Unipetrol	2.97	3.65	3.36	4.00	4.50
Peers med.	3.30	3.31	3.49	4.00	2.66

ST part of Invested capital turnover					
Year	2011	2012	2013	2014	LTM
Unipetrol	29.28	23.63	19.06	12.21	18.94
Peers med.	15.80	19.03	16.89	11.44	19.98

LT part of Invested capital turnover					
Year	2011	2012	2013	2014	LTM
Unipetrol	3.30	4.32	4.08	5.94	5.90
Peers med.	3.99	3.77	3.93	2.94	2.69

Appendix: Beta Calculation

[Back to contents](#)

Ticker	Levered Beta					Leverage						Unlevered Beta	Beta relevered	Beta with shrinkage
	FY2011	FY2012	FY2013	FY2014	LTM	FY2011	FY2012	FY2013	FY2014	LTM	Average	LTM	LTM	LTM
PKN	0,90	0,87	0,96	0,62	0,49	93%	43%	43%	51%	38%	54%	0,34	0,63	0,75
NESTE	1,07	1,17	1,58	1,40	1,20	119%	93%	48%	36%	29%	65%	0,78	0,67	0,78
MOL	1,20	1,19	0,98	0,59	0,63	58%	51%	51%	64%	30%	51%	0,44	0,62	0,75
Saras	1,21	1,34	1,06	0,90	1,01	58%	49%	55%	74%	29%	53%	0,71	0,63	0,75
Hellenic Pet.	0,72	0,70	0,48	0,62	0,39	59%	18%	63%	160%	180%	96%	0,22	0,78	0,86
Lotos	1,13	1,09	0,93	0,64	0,43	251%	123%	135%	139%	127%	155%	0,19	0,99	1,00
Motor Oil Hell:	Lvol.	Lvol.	Lvol.	Lvol.	Lvol.	199%	129%	115%	166%	122%	146%	Lvol.	0,96	0,98
Slovnaft	Lvol.	Lvol.	Lvol.	Lvol.	Lvol.	13%	38%	22%	35%	16%	25%	Lvol.	0,53	0,69
NIS	Lvol.	Lvol.	Lvol.	Lvol.	Lvol.	38%	31%	59%	79%	109%	63%	Lvol.	0,67	0,78
Esso Francaise	1,11	1,13	1,07	1,01	0,92	15%	21%	63%	89%	0%	38%	0,70	0,58	0,72
Paz Oil	0,78	0,78	0,70	0,52	0,62	122%	108%	109%	80%	59%	95%	0,35	0,78	0,85
Oil Refineries	NA	0,89	0,82	0,84	0,96	130%	139%	170%	189%	112%	148%	0,44	0,97	0,98
TUPRAS	1,16	1,25	1,02	1,16	1,09	14%	29%	52%	55%	57%	41%	0,82	0,59	0,72
Unipetrol	Lvol.	Lvol.	Lvol.	Lvol.	Lvol.	8%	9%	9%	20%	0%	9%	Lvol.	0,65	0,77
1st quartile	84%	85%	79%	61%	48%	15%	27%	46%	48%	25%	40%	0,31	0,31	0,31
Median	111%	111%	97%	74%	77%	58%	46%	57%	76%	47%	58%	0,44	0,66	0,77
3rd quartile	118%	121%	106%	105%	103%	124%	111%	110%	144%	115%	109%	0,72	0,83	0,86

DCF (CZK m)	4Q15E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E
EBIT	111	3,291	2,636	3,031	3,644	2,901	2,849	2,794	2,753	2,718
Tax rate	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
NOPAT	90	2,666	2,135	2,455	2,951	2,349	2,349	2,263	2,230	2,202
Depreciation	780	2,620	2,881	3,114	3,211	3,298	3,298	3,443	3,504	3,559
Capex/Divestitures	-3,973	-5,000	-5,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000	-4,000
Change in NWC	3,116	953	-16	-443	5	-455	-455	-163	-17	-17
Free Cash Flow	13	1,239	1	1,126	2,167	1,192	1,192	1,543	1,718	1,744
WACC	6.34%	6.34%	6.34%	6.34%	6.34%	6.34%	6.34%	6.34%	6.34%	6.34%
Discount factor	0.98	0.93	0.87	0.82	0.77	0.72	0.68	0.64	0.60	0.57
NPV of FCF	12	1,147	1	922	1,669	864	812	988	1,035	988

Sum of NPV of FCF **8,311**

Terminal value growth 1%

Term value at 1% growth 32,989

Terminal value PV **18,405**

Enterprise Value 26,716

Net cash/(Net Debt) 6,800

Fair value 33,516

Shares outstanding (m) 181

Present value **182.0**

Upside 13%

Price Target **193.6**

Upside 20%

[Back to contents](#)

Appendix: Comparables List

[Back to contents](#)

Ticker	Company	Refining& Petchem	Retail/ Trading	others	Markets
PKN.WA	PKN Orlen	74.48%	25.29%	0.23%	Germany and Central Europe
NESTE.HE	Neste Oil	63.23%	24.06%	12.71%	Baltic sea region
MOLB.BU	MOL Plc	70.17%	16.25%	13.59%	Eastern Europe and UK
SRS.MI	SARAS group	74.67%	21.05%	4.28%	Italy, Spain
ELPE.AT	Hellenic Petroleum	73.79%	25.99%	0.22%	South Eastern europe
LTSP.WA	Grupa Lotos	96.79%	0.00%	3.19%	Poland and surrounding
MOH.AT	Motor Oil Hellas Group	73.96%	26.04%	0.00%	Greece and South eastern europe
SLV.BE	SLOVNAFT	98.39%	10.56%	-8.95%	Central Europe, Germany and Austria
NIIS.BEL	NIS ad Novi Sad	75.29%	0.00%	24.71%	South east Europe
ESSF.PA	Esso Francaise SA	NA	NA	NA	France
PZOL.TA	Paz Oil Company Ltd	57.75%	42.25%	0.00%	Israel
ORL.TA	Oil Refineries Ltd	100.00%	0.00%	0.00%	Israel
TUPRS.IS	TUPRAS	100.00%	0.00%	0.00%	Turkey
UNPE.PR	Unipetrol	91.00%	9.00%	0.00%	Czech Republic and central europe

Company Overview

Industry & Competitors

Investment Case

Financial Analysis

Valuation

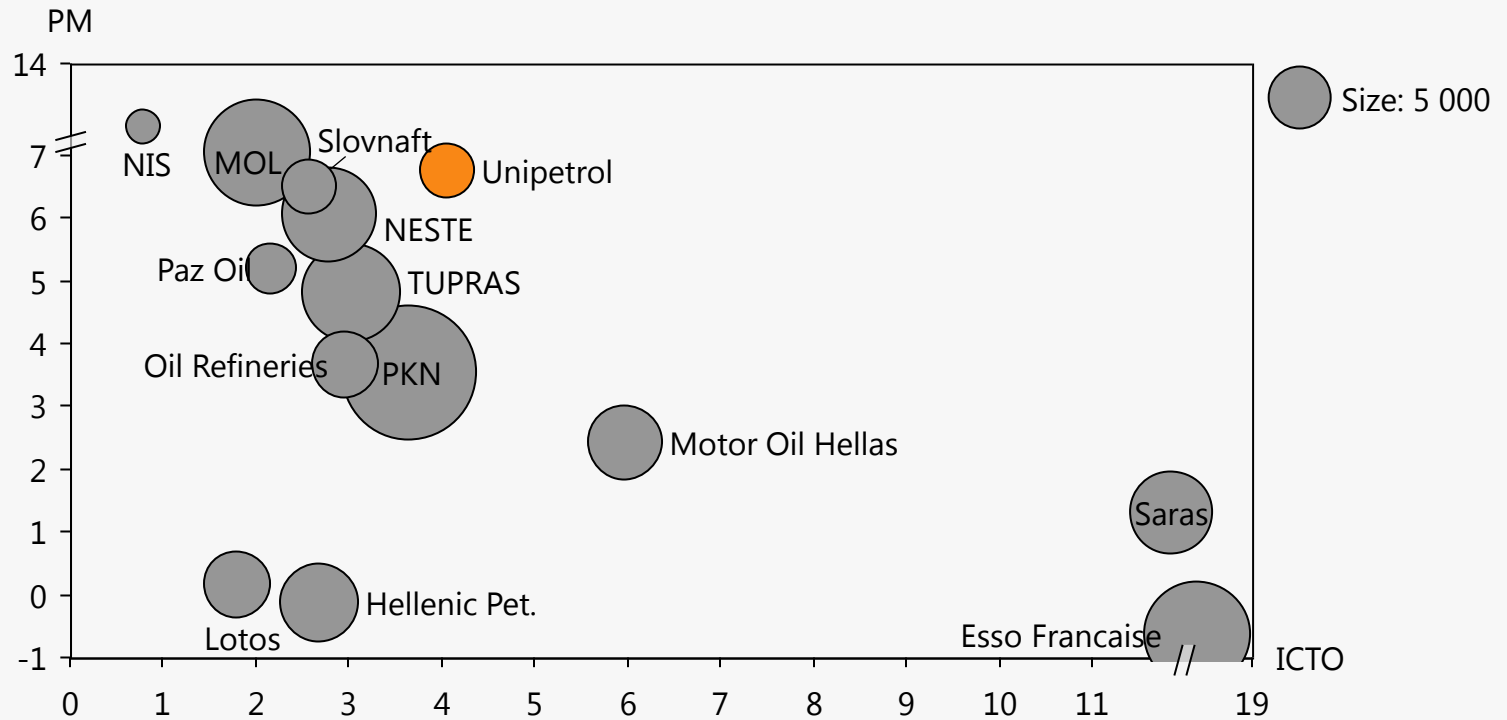
Risks

Conclusion

Appendix: Comparable Companies

[Back to contents](#)

Comparable companies PM, ICTO sized by sales (EUR m)

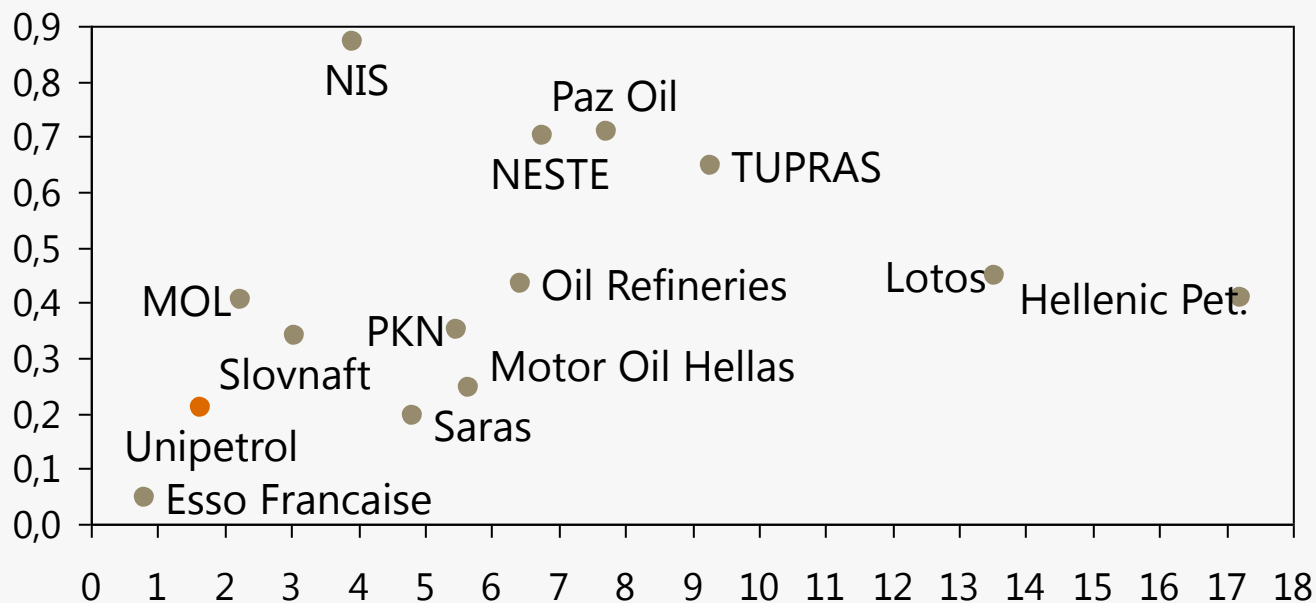


Appendix: Multiples Valuation

[Back to contents](#)

Comparison of peers multiples in 2015

EV/Sales

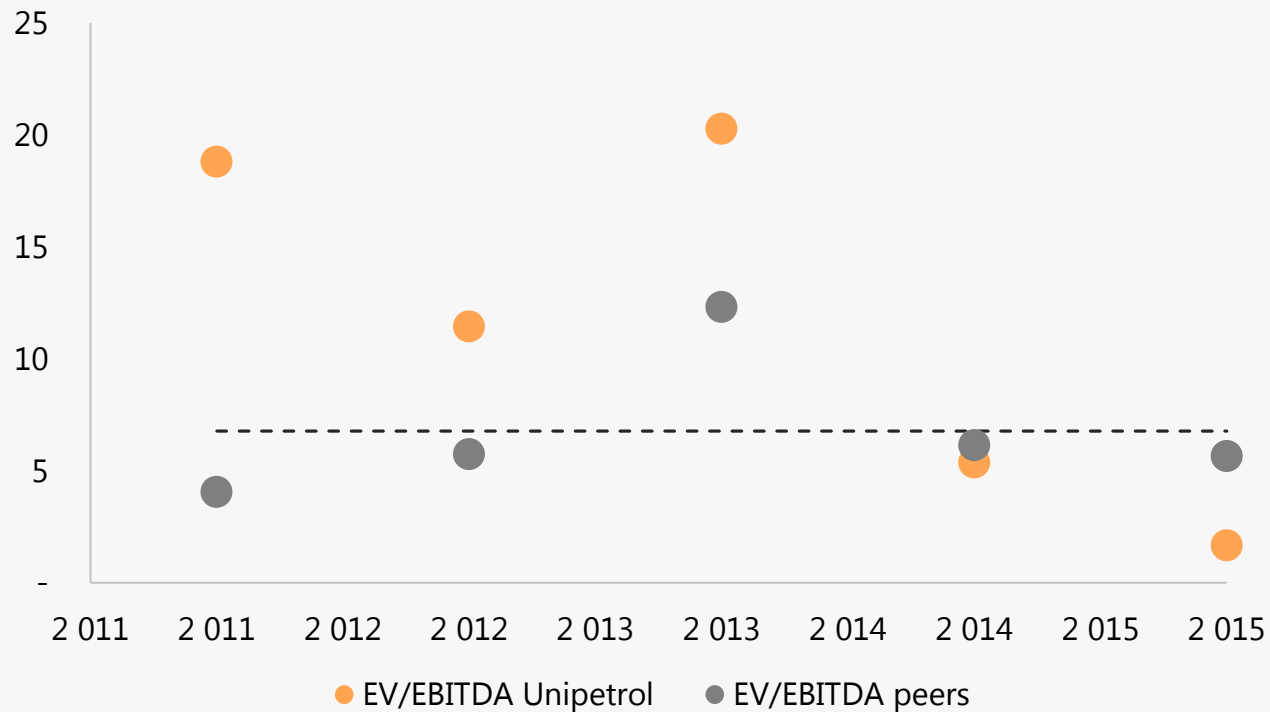


Equity value

Multiple used	LTM
EV/Sales	37 278
MV/BV	36 939
EV/EBITDA	65 363

EV/EBITDA

EV/EBITDA Unipetrol vs. peers median



Appendix: Sensitivity Analysis

[Back to contents](#)

Price target sensitivity to terminal growth and WACC

		WACC								
		5.3%	5.6%	5.8%	6.1%	6.3%	6.6%	6.8%	7.1%	7.3%
terminal growth	-2%	194	191	189	187	185	183	182	180	178
	-1%	201	198	195	193	190	188	186	184	182
	0%	211	207	203	200	197	194	191	189	187
	1%	225	219	214	210	206	202	199	196	193
	2%	248	239	231	225	219	214	209	205	201
	3%	290	274	261	250	240	232	225	219	214
	4%	395	352	321	298	280	265	252	242	234