Hellenic Petroleum

2019 outlook

IMO 2020 on the horizon

Oil & gas

Changes to bunker fuel regulation to be implemented on 1 January 2020 by the International Maritime Organization (IMO) will have major implications for both the refining and shipping sectors. Shipping costs will rise, sour crude discounts will widen, high sulphur fuel oil (HSFO 3.5%) demand will collapse, being replaced by increased demand for ultra-low sulphur fuel oil (ULSFO 0.5%) and marine gasoil (MGO 0.5%). In this note, we outline some of the options shippers and refiners are likely to consider ahead of 2020. We continue to believe that Hellenic (ELPE) is well placed given its high middle distillate yield, above average complexity and crude slate flexibility. Our valuation of €9.22/share (from €8.90/share when we last published) is based on a blend of DCF, EV/EBITDA and P/E multiples. Edison's FY19 and FY20 financial forecasts include management guidance on the impact of IFRS 16.

Year-end	Revenues (€m)	Adjusted EBITDA* (€m)	Net debt (€m)	Dividend yield (%)	P/E (x)
12/17	7,995	833	1,802	4.1	6.9
12/18	9,769	730	1,460	5.8	8.8
12/19e	9,941	746	1,366	8.9**	8.7
12/20e	9,960	847	1,083	6.0	6.6

Note: *Adjusted numbers account for inventory movements and other specials. **Includes special dividend from DESFA proceeds.

Uncertain macro environment: Refining flexibility key

Ahead of IMO 2020, there is still significant uncertainty around shipping compliance levels, quantifying scrubber installations, and the ability of the refining sector to shift over 3mmbd of product output from HSFO 3.5% to ULSFO 0.5% and MGO 0.5%. Given this uncertainty, we believe that refining flexibility and complexity are valuable qualities. ELPE's above-average composite Nelson complexity index at 9.2, ability to process heavy/sour crudes and low fuel oil/high middle distillate product yield place it in a strong position to take advantage of an evolving macro environment.

Changes to short-term forecasts

We make changes to our short-term forecasts to reflect our updated refining and petrochemical margin forecasts. This includes weather-related impacts on Q119 refining margins and weaker petrochemical margins. Edison's FY19 EBITDA forecast increases by 5% to €746m, which we estimate will rise to €847m in FY20. Our EBITDA forecasts now include the anticipated positive impact of IFRS 16.

Valuation: Blended DCF and multiple €9.22/share

Our valuation is based on a blend of DCF, EV/EBITDA and P/E valuation approaches. ELPE trades at a small premium to the European peers at 5.7x FY19 EV/EBITDA versus the sector on 5.3x, and 8.7x P/E compared to the European sector on 9.2x. The refining peer group, including Hellenic, re-rated in Q418/Q119 as crude prices stabilised and in anticipation of IMO 2020 gains.

21 March 2019

Price	**€8.40**
Market cap	**€2.6bn**
	€0.87/US$
Net debt (€m) at 31 December 2018	1,460
Shares in issue	305.6m
Free float	19%
Code	ELPE
Primary exchange	Athens
Secondary exchange	LSE

Share price performance

%	1m	3m	12m
Abs	5.7	9.0	5.7
Rel (local)	(0.8)	(6.5)	19.0
52-week high/low		€8.6	€6.7

Business description

Hellenic Petroleum (ELPE) operates three refineries in Greece with a total capacity of 341kbd, and has sizeable marketing (domestic and international) and petrochemicals divisions.

Next events

Q119 results	16 May 2019

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Edison profile page

Hellenic PetroleumHellenic Petroleum is a research client of Edison Investment Research Limited

Investment summary

Flexible, complex European refiner

Hellenic Petroleum operates three refineries in Greece with a total capacity of 341kbd and has sizeable marketing (domestic and international) and petrochemicals divisions. Two of the refineries (Aspropyrgos and Elefsina) are complex, integrated and provide significant flexibility of feedstocks/throughput. The third, Thessaloniki, is small and simple but houses Hellenic's petrochemicals units, which have significant Greek and Mediterranean sales, and complements Hellenic's refining system. In addition to refining and petrochemicals, ELPE is active in the fuels marketing, power and gas sectors. It is looking to build out its renewable power generation capacity over the course of the next five years.

Strategy: Growing renewables investment

Hellenic's strategy continues to evolve, with the aim of increasing refining competitiveness through energy efficiency initiatives, procurement optimisation and leveraging digital technology across all group activities. In addition, over the next five years c €300–400m of capex is earmarked for growth projects. This includes conversion unit debottlenecking, margin improvement and investment in the group's renewables strategy. We believe this will include investment in the Greek wind, solar and biofuel sectors. We expect management to provide details of precise investments, margin expectations and power generation capacity in due course. Management estimates that the combination of competitiveness improvement and growth projects described above could deliver an incremental €150–200m in EBITDA post-investment which, combined with management's anticipated IMO 2020 impacts, has the potential to deliver group adjusted EBITDA in excess of €1bn beyond 2020.

Blended valuation of €9.22/share

Edison's valuation of ELPE is based on a blend of three approaches: DCF, FY19 P/E multiple and FY19 EV/EBITDA multiple. ELPE trades at an FY19e P/E of 8.7x relative to European peers of 9.2x, and 5.7x FY19e EV/EBITDA relative to 5.3x. ELPE's premium EV/EBITDA could reflect its peer-leading dividend yield. Dividends to be paid in FY19 include a €0.25/share special dividend based on DESFA sale proceeds. Key sensitivities include refining margins assumptions, both short- and long-term. A ±10% move in benchmark margin has a ±8% move in our valuation.

FCF to be directed towards debt reduction and dividends

We expect ELPE to be significantly free cash flow (FCF) generative in the absence of major upgrade spend, with FY19 FCF of €535m and FY20 FCF of €626m. Excess cash generation and DESFA sales proceeds offer the ability to de-leverage and fund a special return to shareholders of €0.25/share to be paid in FY19. While opportunities exist to maximise margins through optimisation of existing installed capacity as macro conditions evolve, we expect decisions on major upgrades or expansion to be deferred until completion of the sale of a majority stake in the company.

Risks and sensitivities

A tender process is currently underway for the sale of a 50.1% stake in Hellenic; binding offers are expected in early 2019 and are likely to act as key valuation benchmarks for the equity market. Competition remains robust within the refining sector with more than 2mmbd of new refining capacity ramping-up from Q418, potentially putting a cap on margins and driving down Middle

Eastern crude differentials. We see this as a threat to small, lower complexity refineries in high-cost jurisdictions.

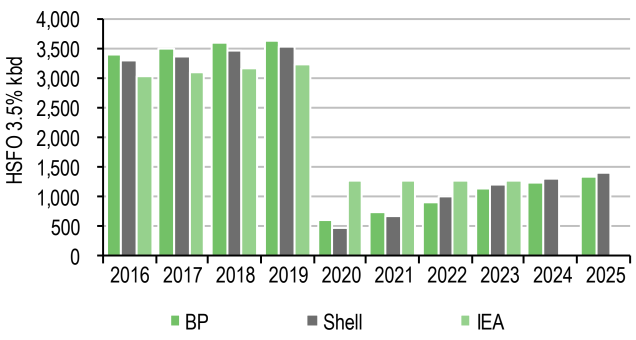
A year to IMO 2020 – laying out the options

IMO 2020 overview

Stronger controls on the sulphur levels in vessel exhaust gases will come into effect in January 2020 as environmental legislation for shipping catches up with existing policy in other heavy industry. On 1 January 2020, shippers will be compelled to use marine fuels with a sulphur content of less than 0.5% (from current 3.5%) for all international shipping outside certain emission control areas; specific coastal areas impose stricter limits. As of today, c 80% of fuel within the global shipping fleet is heavy HSFO rather than low sulphur marine fuel, or distillate-based light fuel oils. It is widely expected that shippers will shift to using ultra-low sulphur fuel oil (ULSFO 0.5%), or MGO 0.5% as an alternative driving a significant expansion in the gasoil to HSFO price spread from the start of 2020. With c 3.5mmbd of HSFO currently being produced within the global refining complex, we expect IMO 2020 to have a significant impact on crude and product price spreads.

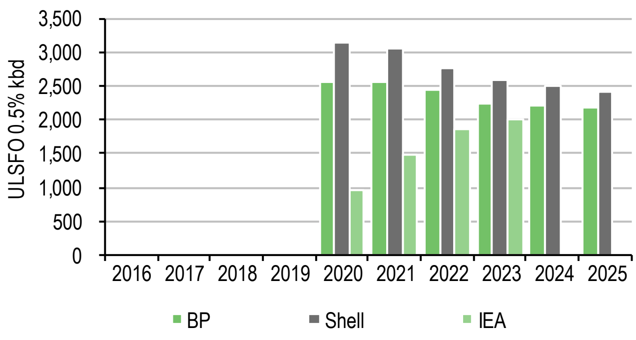
Forecasts from integrated oil companies and the IEA show the anticipated shift in product demand post IMO 2020. The IEA estimates a slightly slower transition away from HSFO, on the basis of non-compliance in the shipping sector during the early years of IMO 2020 implementation.

Exhibit 1: Forecast HSFO 3.5% demand reduction



Source: Delft, BP, IEA, Shell, Edison Investment Research

Exhibit 2: Forecast increase in ULSFO 0.5% demand



Source: Delft, BP, IEA, Shell, Edison Investment Research

Options for the shippers

In order for shipping companies to be compliant with IMO 2020 there are three main options under consideration, which we describe below. Industry experts estimate that the shift in fuel cost for the industry as a whole will cost c US$60bn per annum over the period 2020–23. In general, the shipping industry is keen to pass this cost on to the charterer, while testing alternative solutions such as exhaust gas cleaning systems and LNG in order to remain competitive.

Installation of exhaust gas cleaning systems (scrubbers)

Scrubbers offer an ‘instant-fix’ for the shipping industry, but are possibly the least environmentally friendly option. Increased fuel consumption, resultant higher CO_2 emissions and water pollution and lack of industry experience are key considerations. However, at a cost of c US$7–10m per ship, and with the ability to continue to operate on HSFO 3.5%, there is potentially a significant advantage available to shippers that deploy this solution and exploit deeply discounted fuel costs.

The payback period for investment in scrubbers will depend on the size of vessel and the discount at which HSFO 3.5% trades relative to compliant fuels. Industry experts estimate a payback of less than a year assuming a c US$200/mt (metric tonne) differential between HSFO 3.5% and ULSFO 0.5%.

Other major downsides of the use of scrubbers include the costs of maintenance, operation and cleaning, loss of vessel capacity, and potential fines if performance fails to meet specification.

Retrofitting vessels to LNG fuel

LNG retrofits are considered a high capex option that provides certainty of emissions compliance, but the lack of fuelling infrastructure at major ports is currently a major deterrent. Hapag-Lloyd estimates the cost for conversion to LNG at US$25–30m per ship.

Shift to compliant fuels

The current preferred option among the shipping industry is to switch to compliant fuels such as ULSFO 0.5% or MGO 0.5%, meeting the requirements of IMO 2020. The price impact on charter rates will be significant and shippers are devising various formulas by which they can pass on higher fuel costs to customers while remaining competitive and maintaining margins. Hapag-Lloyd estimates the cost per 20-foot equivalent unit (TEU) could be an incremental $128 to $415 depending on transport route and underlying fuel prices.

How refiners are reacting to a shift in feedstock pricing and product demand

Increasing crude flexibility

Feedstock accounts for c 80% of refining costs and crude flexibility remains a key lever when looking to maximise margins in the face of crude price and product demand volatility. Most refineries are configured to operate within a relatively narrow quality window, which may limit their ability to exploit lower-priced crudes without affecting plant performance.

Heavily discounted sour crudes may present an opportunity for complex and flexible refineries able to increase sour feedstock while limiting HSFO residues. Refineries dependent on light-sweet crude feedstock are likely to be less robust, in the absence of hardware changes, assuming a material widening of the sweet-sour crude spread.

With IMO 2020 on the horizon, we expect refiners to have been through the process of analysing crude flexibility within plant tolerances, and scoping plant upgrades in order to assess the potential returns. Refineries are likely to be assessing crude flexibility within existing facility constraints, but pressing the button on large capital projects (such as cokers or deep conversion units, which can cost billions of dollars and take many years to engineer and construct) is unlikely to occur until there is greater visibility of the direct impact of IMO 2020 given the uncertainties.

ELPE’s refining capacity, complexity and flexibility

ELPE operates three refineries that together account for 341kbd capacity and 65% of the Greek refinery output. A composite Nelson complexity index of 9.2 gives an indication of the complex’s flexibility and ability to produce a high percentage of light products from every barrel. The refineries are linked, allowing better integration to best take advantage of their strengths of location, size, storage and complexity.

The complex has a high degree of flexibility; since 2014 it has been able to flex its gasoline yield between 20% and 24%, while middle distillates have been between 50% and 58% of yield (working at full capacity). Fuel oil yields are fairly low (10–13%) and there are no plans to undertake large projects to add further units to the complex at this time. The company has a large storage capacity (41.8mmbbl) and can take advantage of trading opportunities.

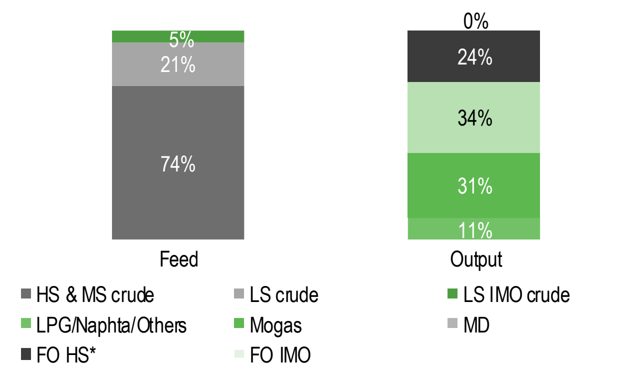
Exhibit 3: Summary of ELPE refineries

Refinery (Greece)	Daily refining capacity (kbd)	Annual refining capacity (MTm)	Refinery type	Nelson complexity index	Solomon complexity index
Aspropyrgos	148	7.5	Cracking (FCC)	9.7	8.8
Elefsina	100	5.0	Hydrocracking	11.3	13.9
Thessaloniki	93	4.5	Hydroskimming	6.9	5.0

Source: Hellenic Petroleum

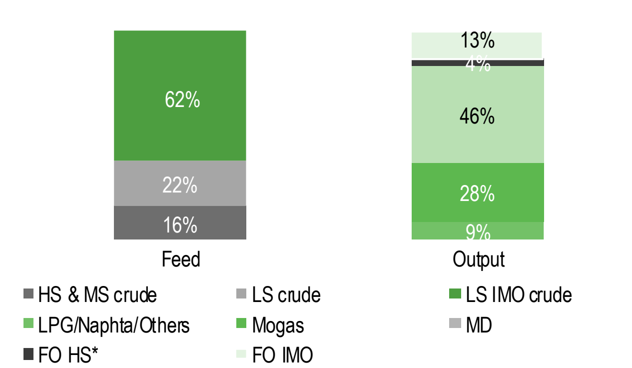
ELPE's low fuel oil yield and complexity should ensure the group is well placed for IMO 2020 and the anticipated switch in demand from HSFO 3.5% to ULSFO 0.5% and MGO 0.5%. ELPE plans minimal changes to crude processing at Elefsina and Thessaloniki ahead of IMO 2020 as neither refinery produces HSFO. Aspropyrgos, on the other hand, presents an opportunity to reduce high sulphur feed and replace this with lower sulphur crudes, switching current output from 24% HSFO to just 4% HSFO.

Exhibit 4: Aspropyrgos current feed and output



Source: Hellenic Petroleum. Note: *Includes bitumen.

Exhibit 5: Aspropyrgos IMO 2020 planned feed and output (assumes normal operations)

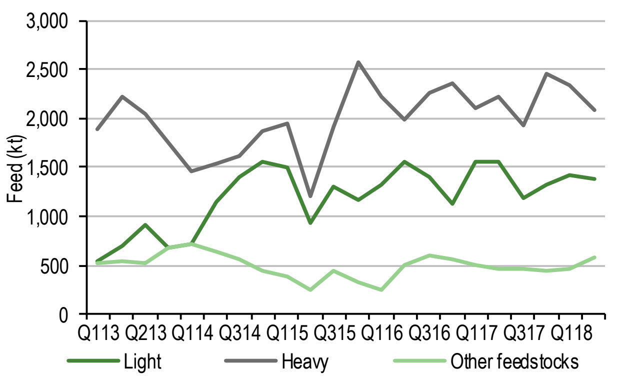


Source: Hellenic Petroleum. Note: *Includes bitumen.

Options may exist to take advantage of heavily discounted high sulphur crudes; however, desulphurisation is a catalyst intensive and expensive process, which is likely to limit the appeal to upgrade sour crudes unless we see a material widening of the sweet-sour (Brent-Dubai) spread.

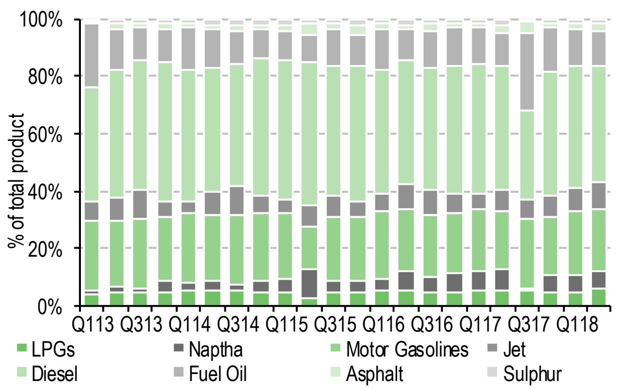
The graphs below show ELPE's current group-level bias towards heavy crude feedstock, high middle distillate output and low fuel oil output. Current HSFO yield stands at 10–12%.

Exhibit 6: ELPE crude slate



Source: Hellenic Petroleum, Edison Investment Research

Exhibit 7: ELPE product mix



Source: Hellenic Petroleum, Edison Investment Research

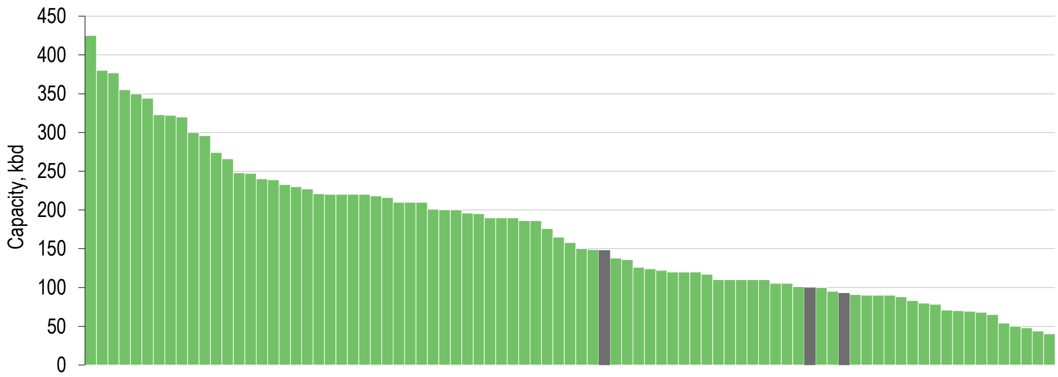
Refinery: Integration and flexibility

Aspropyrgos refinery is the largest in Hellenic's portfolio and is one of the most modern refineries in Europe (it was built in 1958). Significant upgrades were completed in 1986 (residue conversion project, FCC, mild hydrocracker, visbreaker and CCR units), 1999 (capacity increased to 148kbd) and 2004 (upgrade of conversion units). From 2014, heat and power have been supplied by natural gas (rather than fuel oil), reducing costs and increasing flexibility. The result is a refinery able to produce high levels of gasoline. It is connected to Elefsina via pipeline.

Elefsina is Hellenic's most complex refinery and has a refining capacity of 100kbd. A €1.4bn upgrade in 2012 added a 39kbd hydrocracker, a 20kbd thermal cracking unit (flexicoker, which gasifies coke for internal heat and power generation and reduces the need to export/sell coke produced elsewhere in the refinery) and a vacuum distillation unit, increasing the Solomon complexity to 13.9 from 1.5 (and the Nelson complexity to 11.3). Its large storage capacity (20.7mmbbl), coastal location and connections (to Aspropyrgos refinery and crude terminals at Pachi and Megara) make it a good trading and logistics hub. The refinery can take heavy, high-sulphur crudes and products. As a result, its middle distillate yield is over 75%.

Thessaloniki is the smallest and simplest refinery (hydroskimming) type and has a storage capacity of 8.8mmbbl. It is the only refinery in Northern Greece (Aspropyrgos and Elefsina make up a southern Greek hub) and supplies both the domestic market and neighbouring countries. A 2011 upgrade renovated distillation units, increased storage capacity and added a 15kbd CCR unit. Thessaloniki also provides feedstock (including residues) to the Southern hub and reforms naphtha from Elefsina (to gasoline).

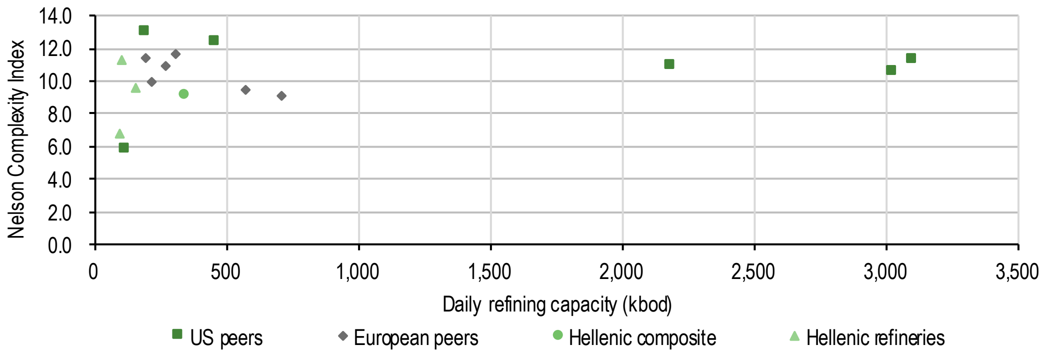
Exhibit 8: European refinery capacities



Source: Edison Investment Research, various. Note: Grey bars are Hellenic's refineries.

ELPE's refineries are at the smaller end in comparison to European refinery capacities, but we note that the combination of ELPE's two more complex refineries (integrated through pipeline connection) would equate to a combined capacity towards the top end of the group.

Exhibit 9: ELPE's refineries are a mix of sizes and complexities



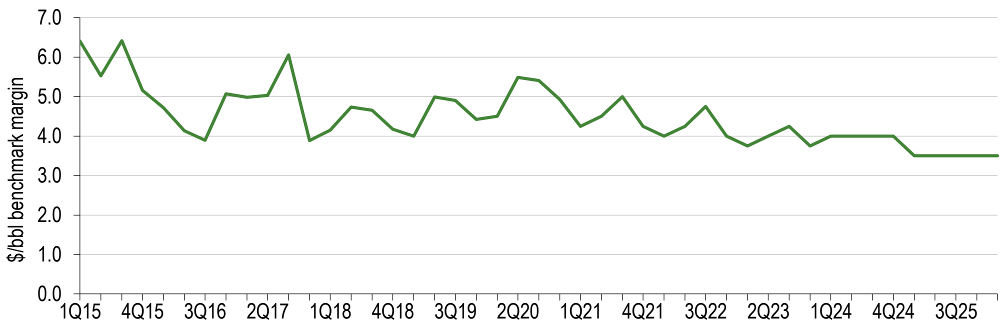
Source: Hellenic Petroleum and peers' reports and presentations

This complexity and integration means that Hellenic's refining margin compares well to its European listed peers, especially after the Elefsina 2012 upgrades.

Edison benchmark margin estimates

Our base case benchmark margin assumptions are shown in the graph below and reflect an improving benchmark in 2020 due to the forecast impacts of IMO 2020, offset by the impact of new global refining capacity additions in the longer term. We assume an average margin over-performance relative to ELPE benchmark of $6/bbl in FY19 and in FY20 (this is relative to an FY18 over-performance of $6.2/bbl). We have conservatively assumed a fairly moderate impact from IMO 2020, but there is a significant amount of uncertainty on the precise margin impact given unknowns such as compliance, scrubber installations, relative crude discounts and refinery flexibility. We expect to adapt our assumptions as markets evolve over the course of FY19 and FY20.

Exhibit 10: Edison forecast of Hellenic benchmark margins



Source: Edison Investment Research

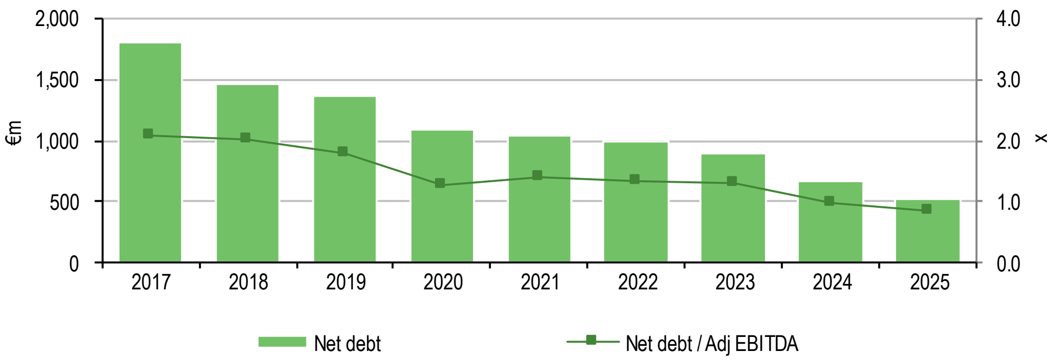
DESFA proceeds

ELPE received €284m of sale proceeds in Q418 on completion of the disposal of its 35% interest in DESFA. The board of Hellenic has confirmed that net proceeds will be directed to reduce net debt and fund a €0.25/share special distribution.

Uses of capital and free cash flow

We believe ELPE's excess cash, FCF and DESFA sales proceeds will be used to reduce debt, including the company's €325m five-year Eurobond maturing in July 2019. Net debt should continue to fall in the absence of major investment over and above maintenance capex, with net debt/EBITDA remaining well below 2x.

Exhibit 11: Net debt and net debt/EBITDA



Source: Edison Investment Research

Other uses of FCF include increasing investment in growth, which ELPE has set out as the development of the company's renewables business, conversion unit debottlenecking and margin improvement. Current guidance is for combined growth capex spend of €300–400m over the next three to four years. Our net debt forecasts above include this spend, but conservatively do not include a material margin contribution from renewables in FY19 and FY20 given the construction timelines for greenfield renewable projects. Renewable investments are likely to span the wind, solar and biofuel sectors, while margins and returns on investment have the potential to be robust based on renewable peers in Greece. Wind and Solar projects in Greece offer the potential for stable, long-term cash flows in Greece based on a combination of feed-in tariffs and power purchase agreements. We expect management to provide more details on this aspect of the business in due course. Management currently expects maintenance capex, growth capex and the impact of IMO 2020 to provide the basis for a company that can generate adjusted EBITDA in excess of €1bn pa (excluding IFRS 16 impacts); this is relative to our FY20 EBITDA forecast of €847m.

We believe the ongoing sale process for 50.1% of Hellenic (from the combined Greek government and Pan European Oil holding of c 80%) is likely to limit short-term infrastructure investment beyond optimisation spend, but management has set out ambitions for reinvestment in the company's assets once this process is complete. Greece has short-listed Glencore and Vitol as bidders, with the sale process currently anticipated to be completed in Q119. Recent press reports suggest that Glencore is seeking to partner with a US fund, and Vitol to partner with Sonatrach ahead of binding offers. Valuation of the 50.1% will likely act as a benchmark for equity markets and will likely be a key short-term driver of the share price.

Management

Chairman and CEO Efstathios Tsotsoros is a professor at the Panteion University in economic development and social transformation. He has extensive experience in management positions in the public and private sectors as well as in local government. He has been director of PPC, board member and CEO of the Business Reconstruction Organization, vice president and general manager of the Athens Regulatory Plan and Environmental Protection Organization, board member and CEO of various companies in the private sector and founder, chairman and CEO of the Broadcasting Group Alpha. He was also an advisor to the minister of energy, to the Athens mayor and to the president of the Greek Technical Chamber and has occupied the post of the chairman of the National Committee of Programme Agreements and Development Contracts.

CFO and Deputy CEO Andreas Shiamishis holds an economics degree and is a fellow (FCA) member of the Institute of Chartered Accountants in England and Wales. His previous roles include positions at KPMG and Diageo. From 2000 to 2002 he worked as CFO at LEVENTIS Group and took over as chief financial and IT officer at Petrola Hellas in 2003. After the merger of Petrola Hellas with Hellenic Petroleum, in 2004 he took over as CFO. He is a member of the Hellenic Chamber and of the Corporate Finance Faculty of the ICAEW.

Sensitivities

Refining margins: along with all refineries, the major risk to earnings is volatility of refining margins. As a price taker, Hellenic can do little to mitigate this in the short term. In the longer term improvements of the refineries are capital intensive and take many years. However, Hellenic will also benefit from increases in refinery margins. As we discuss in the report, we think margins in Europe will compress in the long term.

Concentration risk: the bulk of Hellenic's earnings are generated at the three refineries. Any incident that stops the refineries from operating (such as an unplanned outage) could have a material effect on cash flows. This is mitigated to some extent by the three separate sites and the other material businesses (not least marketing).

Oil price: an increase in the oil price could have a material effect on the refinery earnings and balance sheet.

Greek risk: Hellenic has significant export businesses and its production is entirely fungible for international markets. Greek country risk is a factor when considering cost of capital and domestic product demand.

Equally, we note that the Greek economy has a lot of potential to grow, and Hellenic Petroleum would be well placed to benefit from increased economic activity through the marketing, power and chemicals divisions. Increased tourism would help the refining and trading segment.

FX rates: Refining is a US dollar business (margins are quoted in US dollars) and so lower costs in US terms (as costs are in euros) have benefited earnings (and cushioned the poor refining environment in 2011–14). While we do not forecast currency swings, fluctuating exchange rates will have an earnings impact.

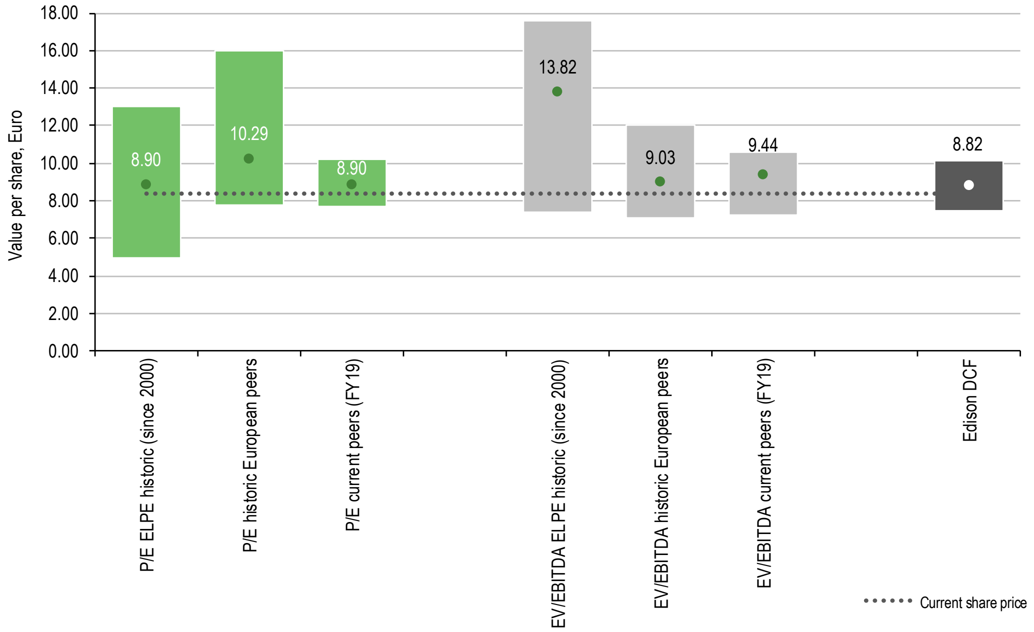
Valuation

We value ELPE using a blend of DCF, levered and un-levered multiples arriving at a blended valuation of €9.22/share, up slightly from our last published €8.90/share. Adjusted EBITDA forecasts for FY19 are little changed, but sector multiples have increased, driving our higher valuation. Changes to Edison forecasts are shown in Exhibit 16.

ELPE trades at 5.7x FY19 EV/EBITDA and 3.6x FY19 P/CF compared to the European group on 5.3x and 6.1x, respectively. FCF yield is higher than that of peers at 20.5% in FY19e and EV per complexity adjusted barrel lower than that of peers at $1,502/bbld.

We see potential for ELPE to trade at a premium valuation on demonstration of its ability to benefit from the refining flexibility, integration and complexity to maintain margin over-performance in FY19 and FY20. Our DCF is based on discounted cash flows to 2025, using an 8% cost of capital. We incorporate a terminal value, which assumes the unwinding of working capital and minus 1% terminal growth.

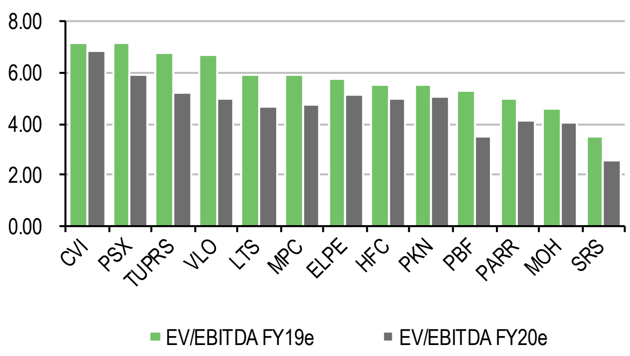
Exhibit 12: ELPE valuation (EV includes IFRS 16 lease liability of €170m minus associates)



Source: Edison Investment Research. Note: Bands represent valuation ranges and dots mean values.

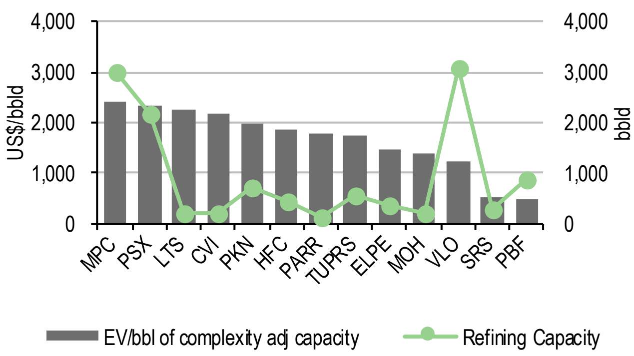
ELPE currently trades at premium to the peer group at current forecasts, which are highly sensitive to underlying refining margin and over-performance assumptions. On a complexity adjusted basis ELPE trades at a discount despite the flexibility offered by its current refining configuration.

Exhibit 13: EV/EBITDA FY19e and FY20e



Source: Edison Investment Research, Bloomberg, Refinitiv

Exhibit 14: EV/barrels of complexity adjusted capacity



Source: Edison Investment Research, Bloomberg, Refinitiv, company reports/presentations

Exhibit 15: Peer group valuation table

Company	Market cap ($m)	EV ($m)	P/E FY19e (x)	P/E FY20e (x)	EV/EBITDA FY19e (x)	EV/EBITDA FY20e (x)	FCF yield FY19e (%)	FCF yield FY20e (%)	P/CF FY19e (x)	P/CF FY20e (x)	ND/EBITDA FY18 (x)	Div yield FY19e (%)	Refining capacity (kbd)	EV/bbl of complexity adj capacity ($/bbld)
Hellenic Petroleum*	2,914	4,890	8.72	6.63	5.70	5.02	20.9%	24.4%	3.54	3.15	2.00	6.0%	341	1,485
Europe average			**9.21**	**7.04**	**5.33**	**4.44**	**8.7%**	**11.5%**	**6.09**	**4.93**	**0.87**	**5.5%**	**385**	**1,556**
Grupa Lotos SA	4,262	4,750	10.62	7.67	5.91	4.66	7.4%	9.8%	6.62	5.45	0.60	2.4%	211	2,253
Hellenic Petroleum SA	2,914	4,659	9.88	7.86	5.76	5.12	12.9%	13.1%	5.90	4.40	2.09	5.8%	341	1,485
Motor Oil Hellas Corinth Refineries SA	2,641	2,935	8.02	6.85	4.57	4.05	11.3%	12.7%	7.08	5.77	0.44	6.6%	185	1,380
Polski Koncern Naftowy ORLEN SA	11,310	12,857	8.98	8.23	5.49	5.04	7.2%	6.7%	5.46	5.47	0.65	3.3%	707	1,978
Saras SpA	1,878	1,796	9.21	5.70	3.46	2.54	2.9%	12.7%	4.72	3.54	(0.17)	5.6%	300	512
Tupras Turkiye Petrol Rafinerileri AS	6,982	9,267	8.53	5.95	6.77	5.22	10.8%	13.6%	6.79	4.98	1.61	9.4%	564	1,729
US average			**11.73**	**7.93**	**6.10**	**5.01**	**4.3%**	**12.4%**	**6.40**	**5.05**	**1.21**	**3.6%**	**1,420**	**1,756**
CVR Energy Inc	4,145	5,269	13.32	11.35	7.17	6.89	15.5%	13.1%	7.37	7.18	0.77	7.7%	185	2,191
HollyFrontier Corp	8,899	10,696	9.94	8.12	5.54	4.95	9.5%	12.9%	6.15	5.35	0.69	2.6%	457	1,872
Marathon Petroleum Corp	41,725	77,440	10.04	6.74	5.89	4.75	6.4%	11.6%	5.04	3.94	2.25	3.5%	3,021	2,418
Par Pacific Holdings Inc	853	1,177	11.46	6.97	4.95	4.10	-17.1%	13.7%	6.27	3.74	1.36	0.0%	112	1,776
PBF Energy Inc	3,963	5,300	13.51	6.15	5.32	3.51	2.7%	13.5%	5.19	3.84	1.34	3.6%	884	491
Phillips 66	44,986	55,627	11.77	8.62	7.17	5.89	5.8%	9.1%	8.04	6.30	1.10	3.5%	2,184	2,315
Valero Energy Corp	36,094	43,285	12.06	7.57	6.69	4.97	7.1%	13.0%	6.71	5.01	0.97	4.2%	3,100	1,225
Global average			**10.43**	**7.46**	**5.74**	**4.77**	**7.4%**	**12.9%**	**6.06**	**4.86**	**1.12**	**4.6%**	**899**	**1,651**

Source: Edison Investment Research, Refinitiv, Bloomberg. Note: *Edison forecasts. Prices at 20 March 2019.

Financials

An overview of the key changes to our forecasts is provided below. Key impacts include IFRS 16, which moves fuel station rental expense from operating expense to asset depreciation and financial expense; this is the key driver of increased marketing EBITDA.

Exhibit 16: Changes to Edison forecasts

€m	Actual	FY19e			New
	FY18	Old	New	Difference (%)	FY20e
Adjusted EBITDA, refining	543	504	528	5%	638
Adjusted EBITDA, petrochemicals	100	108	92	(15%)	83
Adjusted EBITDA, marketing	93	100	133	33%	133
Other	(2)	(8)	(8)		(8)
Total adjusted EBITDA	**730**	**704**	**746**	**6%**	**847**
Associates	(2)	10	10		10
Adjusted EBIT	533	510	521	2%	622
Finance costs	(146)	(131)	(139)		(116)
Adjusted net income	291	292	294	1%	387

Source: Hellenic Petroleum data, Edison Investment Research

Edison forecasts are ahead of consensus for FY19 and FY20, with adjusted EBITDA 6% and 8% higher, respectively. Material differences in analyst estimates can be expected in light of recent benchmark margin and over-performance volatility as well as uncertainty heading into 2020. It is unclear whether analysts are including the impacts of IFRS 16 for FY19. As discussed earlier, ELPE has provided details on key growth levers that define a path to delivery of adjusted EBITDA of over €1bn. These include energy efficiency, digital transformation, debottlenecking, additional conversion units and renewables growth.

Exhibit 17: Edison forecasts versus I/B/E/S consensus

€m	Actual	Edison		Consensus		Difference	
	FY18	FY19e	FY20e	FY19e	FY20e	FY19e	FY20e
Adjusted EBITDA, refining	543	528	638				
Adjusted EBITDA, petrochemicals	100	92	83				
Adjusted EBITDA, marketing	93	133	133				
Other	(2)	(8)	(8)				
Total adjusted EBITDA	**730**	**746**	**847**	**704**	**787**	**6%**	**8%**
Associates	(2)	10	10				
Adjusted EBIT	533	521	622	510	603	2%	3%
Finance costs	(146)	(139)	(116)				
Adjusted net income	291	294	387	280	350	5%	11%

Source: Hellenic Petroleum data, Edison Investment Research, Refinitiv

Exhibit 18: Financial summary

IFRS, year-end 31 December	€m	2016	2017	2018	2019e	2020e
INCOME STATEMENT						
Total revenues		6,680	7,995	9,769	9,941	9,960
Cost of sales		(5,673)	(6,907)	(8,770)	(8,927)	(8,844)
Gross profit		1,007	1,087	999	1,013	1,116
SG&A (expenses)		(409)	(410)	(475)	(480)	(481)
Other income/(expense)		28	(16)	(10)	(12)	(12)
Exceptionals and adjustments		110	18	(19)	0	0
Reported EBIT		626	662	514	521	622
Finance income/(expense)		(201)	(165)	(146)	(139)	(116)
Profit (loss) from JVs / associates (post tax)		19	31	(2)	10	10
Other income (includes exceptionals)		21	(8)	2	0	0
Reported PBT		466	520	369	393	516
Income tax expense (includes exceptionals)		(137)	(136)	(154)	(98)	(129)
Reported net income		329	384	215	294	387
Basic average number of shares, m		306	306	306	306	306
Basic EPS (€)		1.1	1.3	0.7	1.0	1.3
Adjusted EBITDA		731	833	730	746	847
Adjusted EBIT		522	644	533	521	622
Adjusted PBT		361	502	388	393	516
Adjusted net income		252	371	291	294	387
Adjusted EPS (€)		0.82	1.21	0.95	0.96	1.27
DPS (€)		0.00	0.34	0.49	0.75	0.50
BALANCE SHEET						
Property, plant and equipment		3,303	3,312	3,269	3,234	3,200
Intangible assets		108	106	106	106	106
Other non-current assets		883	864	529	537	544
Total non-current assets		4,295	4,282	3,903	3,877	3,850
Cash and equivalents		1,082	1,019	1,276	1,045	928
Inventories		929	1,056	993	1,010	1,024
Trade and other receivables		868	791	822	827	834
Other current assets		15	12	3	3	3
Total current assets		2,894	2,878	3,094	2,885	2,789
Non-current loans and borrowings		1,456	920	1,627	1,302	902
Other non-current liabilities		423	300	420	420	420
Total non-current liabilities		1,879	1,220	2,047	1,722	1,322
Trade and other payables		1,778	1,661	1,349	1,449	1,569
Current loans and borrowings		1,386	1,900	1,109	1,109	1,109
Other current liabilities		4	7	97	97	97
Total current liabilities		3,168	3,568	2,555	2,655	2,775
Equity attributable to company		2,040	2,309	2,331	2,320	2,478
Non-controlling interest		102	63	64	64	64
CASH FLOW STATEMENT						
Profit before tax		466	520	369	393	516
Depreciation and amortisation		209	189	197	225	225
Other adjustments		236	207	237	129	106
Movements in working capital		(1,228)	(463)	(296)	78	99
Income taxes paid		(16)	(10)	(5)	(98)	(129)
Cash from operations (CFO)		(334)	443	503	725	816
Capex		(126)	(209)	(157)	(190)	(190)
Acquisitions & disposals net		(0)	0	(16)	0	0
Other investing activities		10	24	311	12	11
Cash used in investing activities (CFIA)		(116)	(185)	138	(178)	(179)
Net proceeds from issue of shares		0	0	(1)	0	0
Dividends paid in period		(3)	(107)	(151)	(306)	(229)
Movements in debt		(393)	(35)	(97)	(325)	(400)
Other financing activities		(192)	(149)	4	(149)	(124)
Cash from financing activities (CFF)		(589)	(300)	(244)	(779)	(753)
Increase/(decrease) in cash and equivalents		(1,039)	(42)	397	(232)	(117)
Currency translation differences and other		10	(9)	5	0	0
Cash and equivalents at end of period		924	873	1,275	1,043	927
Net (debt) cash		(1,761)	(1,802)	(1,460)	(1,366)	(1,083)
Free cash flow (pre dividends)		(450)	258	641	547	636

Source: Hellenic Petroleum accounts, Edison Investment Research

Contact details	Revenue by geography
8A Chimarras str., GR 151 25-Maroussi Greece +30 210 63 02 000 www.helpe.gr	Majority Greece, other revenues from the Mediterranean region.

Management team

Chairman/CEO: Efstathios Tsotsoros	CFO and Deputy CEO: Andreas Shiamishis
Efstathios Tsotsoros is a professor at the Panteion University in economic development and social transformation. He has extensive experience in management positions in the public and private sectors as well as in local government. He has been director of PPC, board member and CEO of the Business Reconstruction Organization, vice president and general manager of the Athens Regulatory Plan and Environmental Protection Organization, board member and CEO of various companies in the private sector and founder, chairman and CEO of the Broadcasting Group Alpha. He was also advisor to the minister of energy, to the Athens mayor and to the president of the Greek Technical Chamber and he has also occupied the post of chairman of the National Committee of Programme Agreements and Development Contracts.	Andreas Shiamishis holds an economics degree and is a fellow (FCA) member of the Institute of Chartered Accountants in England and Wales. His previous roles include positions at KPMG and Diageo. From 2000 to 2002 he worked as CFO at LEVENTIS Group and took over as chief financial and IT officer at Petrola Hellas in 2003. After the merger of Petrola Hellas with Hellenic Petroleum, in 2004 he took over as CFO. He is a member of the Hellenic Chamber and the Corporate Finance Faculty of the ICAEW.

Principal shareholders	(%)
Paneuropean Oil & Industrial Holdings	45.47
Hellenic Republic Asset Development Fund SA	35.48
Norges Bank	0.86
Vanguard Group Inc/The	0.71
Alpha Asset Management SA	0.40
Global X Management Co LLC	0.36
Dimensional Fund Advisors LP	0.26
National Bank of Greece SA	0.21
Eurobank Ergasias SA	0.19
ING PIRAEUS Fund Management Co/Greece	0.14

Companies named in this report

Glencore, Motor Oil Hellas Corinth Refineries SA, Petrola Hellas SA, Saras SpA, Sonatrach, Vitol Group

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