PDL BioPharma

A strong year

PDL recently reported results for 2017. Revenue grew by 31% compared to 2016 to $320.1m as the company transitioned away from royalties related to the Queen et al. patents to product revenue related to its Noden and Lensar subsidiaries as well as royalties from the Depomed assets. The company also recently announced that it was abandoning the Neos buyout bid as the two parties could not agree on terms. We expect PDL to continue to pursue additional commercial assets for its portfolio.

<table>
<thead>
<tr>
<th>Year end</th>
<th>Revenue ($m)</th>
<th>PBT* ($m)</th>
<th>EPS* ($)</th>
<th>DPS ($)</th>
<th>P/E (x)</th>
<th>Yield (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/16</td>
<td>244.3</td>
<td>175.5</td>
<td>0.78</td>
<td>0.10</td>
<td>3.8</td>
<td>3.3</td>
</tr>
<tr>
<td>12/17</td>
<td>320.1</td>
<td>200.3</td>
<td>0.81</td>
<td>0.00</td>
<td>3.7</td>
<td>N/A</td>
</tr>
<tr>
<td>12/18e</td>
<td>173.8</td>
<td>61.6</td>
<td>0.36</td>
<td>0.00</td>
<td>8.2</td>
<td>N/A</td>
</tr>
<tr>
<td>12/19e</td>
<td>180.9</td>
<td>71.7</td>
<td>0.40</td>
<td>0.00</td>
<td>7.4</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Tekturna/Rasilez licensing agreements in Asia

In December, PDL’s subsidiary Noden Pharmaceuticals licensed the rights to Tekturna/Rasilez in China, Hong Kong, Macau and Taiwan to Lee’s Pharmaceutical Holdings, a Hong Kong-based pharmaceutical company with approximately $125m in revenues over the previous 12 months. As part of the agreement, Noden will receive guaranteed minimum payments. Noden has also entered into a distribution agreement with Orphan Pacific to distribute Tekturna/Rasilez in Japan.

50% sequential growth at LENSAR

Quarterly revenues for LENSAR, which PDL acquired in May 2017, were up 50% to $7.5m compared to $5m in Q317, mainly due to a number of transactions outside of the United States, predominantly in China. Importantly, expenses related to LENSAR were down slightly from $10.6m in Q317 to $10m in Q417, bringing the subsidiary closer to break even.

$25m share repurchase program to be implemented

In September 2017, PDL announced a $25m share repurchase program that will run through to September 2018. Blackout periods and the Neos buyout bid attempt have delayed the start of the program but these restrictions will soon lift and the program should start to be implemented soon. With a book value ($5.54 per share as of the end of 2017) that is much higher than the current stock price, share repurchases are strongly earnings accretive.

Valuation: $858m or $5.58 per share

Our valuation has increased to $858m or $5.58 per share from $796m or $5.16 per share. This was mainly due to a higher valuation for the Depomed assets due to the statutory corporate tax rate in the US decreasing from 35% to 21%. A higher net cash balance also increased the valuation. This was mitigated in part by a lower value for Noden as we raised our expense estimates going forward.

Financial update

21 March 2018

Price US$2.96
Market cap US$457m

Net cash ($m) at 31 December 2017 288.6
Shares in issue 153.8m
Free float 90.3%
Code PDLI
Primary exchange NASDAQ
Secondary exchange N/A

Share price performance

Business description

PDL BioPharma is reinventing itself as a healthcare-focused finance company through a three-pronged strategy: investing in royalty streams; providing high-yield financing to life science companies with near-term product launches; and purchasing approved drugs to be sold by Noden Pharma.

Next events

Acquire additional products for Noden platform

Analysts

Maxim Jacobs +1 646 653 7027
Nathaniel Calloway +1 646 653 7036
healthcare@edisongroup.com

Edison profile page

PDL BioPharma is a research client of Edison Investment Research Limited
FY17 results

PDL recently reported 2017 results and provided an update on its assets. For the full year, revenues were up 31% to $320.1m from $244.3m in 2016. The change in fair value of royalty rights was $162.3m for the year, up from $16.2m last year. The Depomed assets accounted for $165.6m of the $162.3m (there were some fair value decreases in the other royalty assets, especially those related to Cerdelga and Kybella) as this investment continues to pay off. Through the end of 2017, PDL has received cash royalty payments of $308.5m from its $240.5m investment in the Depomed assets.

With regards to Noden, net revenue for the quarter was $25.1m (14.5m in the US and $10.6m in the rest of the world), up 66% from $15.1m in Q317 ($11.5m in the US and $3.6m internationally) as the commercialization of Tekturna/Rasilez in Switzerland and the EU was transferred from Novartis to Noden in November 2017. As a reminder, prior to November, Noden booked revenue outside the US net of cost of goods as well as a separate fee to Novartis so the change has increased both revenues and cost of goods. The company will focus on selling in profitable countries and recently discontinued marketing in a few European countries, such as France, where the product was not making money.

In December, Noden licensed the rights to Tekturna/Rasilez in China, Hong Kong, Macau and Taiwan to Lee’s Pharmaceutical Holdings, a Hong Kong-based pharmaceutical company with approximately $125m in revenues over the previous 12 months. As part of the agreement, there will be guaranteed minimum payments due to Noden from Lee’s. Also, Lee’s is prepared to invest in combination studies with Tekturna/Rasilez and calcium channel blockers, which are much more commonly used in China, in order to increase uptake of the product. In Japan, Tekturna/Rasilez is now being distributed by Orphan Pacific, which has already started shipping product.

LENSAR, which was acquired in May 2017, saw Q417 revenues up 50% to $7.5m compared with $5m in Q317, mainly due to a number of transactions outside the US, predominantly in China. Importantly, expenses related to LENSAR were down slightly from $10.6m last quarter to $10m in Q417, bringing the subsidiary closer to break even.

With regards to the rest of PDL’s portfolio, royalties from Tysabri continue to decrease as supplies of product manufactured before patent expiration are dwindling. PDL received $4.5m in revenue related to Tysabri in Q417 and revenues associated with the product are expected to continue to fall over the course of 2018 and cease altogether after Q119. With regards to the CareView note receivable, the company entered into a modification agreement in February that saw the liquidity covenant lowered and the principal repayment delayed for a period up to the end of 2018. In exchange, the exercise price of 4.4m warrants owned by PDL was decreased and PDL was granted additional equity interests.

Valuation

Our valuation has increased to $858m or $5.58 per share from $796m or $5.16 per share. This was mainly due to a higher valuation for the Depomed assets as a result of the statutory corporate tax rate in the US decreasing from 35% to 21%. A higher net cash balance also increased the valuation. Our valuation of LENSAR has increased from $50.2m to $52.3m as our raised revenue assumptions have a positive effect on the company’s long-term profitability. This is mitigated in part by a lower value for Noden ($55.5m versus $59.8m previously) as we have increased our expense estimates.
### Exhibit 1: PDL valuation table

<table>
<thead>
<tr>
<th>Royalty/Note</th>
<th>Type</th>
<th>Expiration year</th>
<th>PDL balance sheet carrying value ($m)</th>
<th>NPV ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queen et al</td>
<td>Royalty</td>
<td>2015</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Depomed</td>
<td>Royalty on Glumetza and other products</td>
<td>2024</td>
<td>$232.0</td>
<td>$281.8</td>
</tr>
<tr>
<td>VB</td>
<td>Royalty on Spine Implant</td>
<td>Undisclosed</td>
<td>$14.4</td>
<td>$16.5</td>
</tr>
<tr>
<td>University of Michigan</td>
<td>Royalty on Cerdelga</td>
<td>2022</td>
<td>$28.6</td>
<td>$14.4</td>
</tr>
<tr>
<td>Wellstat</td>
<td>Note (Impaired)</td>
<td>Unknown</td>
<td>$50.2</td>
<td>$50.2</td>
</tr>
<tr>
<td>Hyperion</td>
<td>Note (Impaired)</td>
<td>Unknown</td>
<td>$1.2</td>
<td>$1.2</td>
</tr>
<tr>
<td>Avinger</td>
<td>Royalty</td>
<td>2018</td>
<td>$0.4</td>
<td>$0.4</td>
</tr>
<tr>
<td>Lensar</td>
<td>Equity</td>
<td>N/A</td>
<td>$52.3</td>
<td></td>
</tr>
<tr>
<td>Acelrx</td>
<td>Royalty on Zalviso</td>
<td>2027</td>
<td>$72.9</td>
<td>$75.2</td>
</tr>
<tr>
<td>Careview</td>
<td>Note</td>
<td>2022</td>
<td>$19.3</td>
<td>$20.5</td>
</tr>
<tr>
<td>Noden</td>
<td>Equity</td>
<td>N/A</td>
<td>$55.5</td>
<td></td>
</tr>
<tr>
<td>Kybella</td>
<td>Royalty</td>
<td>Unknown</td>
<td>$2.7</td>
<td>$1.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$570</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Net cash (Q417) ($m)</strong></td>
<td></td>
<td></td>
<td><strong>$288.6</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total firm value ($m)</strong></td>
<td></td>
<td></td>
<td><strong>$858</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total basic shares (m)</strong></td>
<td></td>
<td></td>
<td>153.8</td>
<td></td>
</tr>
<tr>
<td><strong>Value per basic share ($)</strong></td>
<td></td>
<td></td>
<td><strong>$5.58</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total options (m)</strong></td>
<td></td>
<td></td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td><strong>Total number of shares (m)</strong></td>
<td></td>
<td></td>
<td>154.4</td>
<td></td>
</tr>
<tr>
<td><strong>Diluted value per share ($)</strong></td>
<td></td>
<td></td>
<td><strong>$5.56</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Edison Investment Research

### Financials

PDL reported revenue of $68.0m for Q417, which was higher than our $43.2m estimate (due to higher than expected revenues from royalty assets, Noden and LENSAR) and up 8% sequentially from $62.7m in Q317. We have increased our estimated FY18 revenues from $104.2m to $173.8m as we have increased our revenue estimates for Noden which is now booking ex-US revenues. We have also increased our LENSAR estimates due to a strong quarter. In addition, we introduce 2019 estimates which include $180.1m in revenues, up 4.0% compared with 2018.

Due to the high COGS for Tekturna/Rasilez outside of the United States we have increased our estimate for COGS for 2018 from $9.4m to $37.8m. R&D and SG&A spending totaled $17.0m in Q417, down slightly from $17.6m in Q217. We have trimmed our estimates for these line items for 2018 from $71.0m to $69.5m. The company ended the quarter with $527.3m in cash and $4.8m in short-term investments. Subsequent to the quarter, the company paid back the principal ($126.4m) plus $2.6m in accrued interest on its 2018 convertible notes in February.

In September, PDL announced a $25m share repurchase program that will run through to September 2018. Blackout periods and the Neos buyout bid attempt have delayed the start of the program. These restrictions will soon lift and the program should start be implemented soon. With a book value ($5.54 per share as of the end of 2017) that is much higher than the current stock price, share repurchases are strongly earnings accretive.
## Exhibit 2: Financial summary

<table>
<thead>
<tr>
<th>$000s</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018e</th>
<th>2019e</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year and 31 December</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROFIT &amp; LOSS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>$590,448</td>
<td>$244,301</td>
<td>$320,060</td>
<td>$173,841</td>
<td>$180,875</td>
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<tr>
<td>Cost of Sales</td>
<td>0</td>
<td>(4,065)</td>
<td>(30,537)</td>
<td>(37,814)</td>
<td>(34,838)</td>
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<td>Gross Profit</td>
<td>$590,448</td>
<td>$240,236</td>
<td>$289,523</td>
<td>$136,027</td>
<td>$146,037</td>
</tr>
<tr>
<td>General &amp; Administrative</td>
<td>$36,090</td>
<td>(43,287)</td>
<td>(63,324)</td>
<td>(55,807)</td>
<td>(68,491)</td>
</tr>
<tr>
<td>EBITDA</td>
<td>$550,379</td>
<td>$193,120</td>
<td>$218,818</td>
<td>$66,479</td>
<td>$73,555</td>
</tr>
<tr>
<td>Operating Profit (before amort. and except.)</td>
<td>$550,379</td>
<td>$193,120</td>
<td>$218,818</td>
<td>$66,479</td>
<td>$73,555</td>
</tr>
<tr>
<td>Intangible Amortisation</td>
<td>0</td>
<td>(12,028)</td>
<td>(24,689)</td>
<td>(24,689)</td>
<td>(24,689)</td>
</tr>
<tr>
<td>Other</td>
<td>(3,975)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Exceptionals</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Operating Profit</td>
<td>$550,379</td>
<td>$129,402</td>
<td>$193,780</td>
<td>41,790</td>
<td>49,166</td>
</tr>
<tr>
<td><strong>Net Interest</strong></td>
<td></td>
<td>$(26,691)</td>
<td>$(17,679)</td>
<td>$(18,562)</td>
<td>$(4,900)</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td>(6,450)</td>
<td>(2,353)</td>
<td>9,309</td>
<td>0</td>
</tr>
<tr>
<td><strong>Profit Before Tax (norm)</strong></td>
<td>530,138</td>
<td>175,450</td>
<td>200,256</td>
<td>61,579</td>
<td>71,737</td>
</tr>
<tr>
<td><strong>Profit Before Tax (FRS 3)</strong></td>
<td>530,138</td>
<td>109,370</td>
<td>184,527</td>
<td>36,690</td>
<td>47,048</td>
</tr>
<tr>
<td><strong>Tax</strong></td>
<td>(197,343)</td>
<td>(45,711)</td>
<td>(73,626)</td>
<td>(7,747)</td>
<td>(8,889)</td>
</tr>
<tr>
<td><strong>Deferred tax</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Profit After Tax (norm)</strong></td>
<td>332,795</td>
<td>129,739</td>
<td>126,430</td>
<td>53,832</td>
<td>61,857</td>
</tr>
<tr>
<td><strong>Profit After Tax (FRS 3)</strong></td>
<td>332,795</td>
<td>63,659</td>
<td>110,701</td>
<td>29,143</td>
<td>37,168</td>
</tr>
<tr>
<td><strong>Minority interest</strong></td>
<td></td>
<td>0</td>
<td>(53)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Profit After Tax less Minority Interest (FRS 3)</strong></td>
<td>332,795</td>
<td>63,606</td>
<td>110,654</td>
<td>29,096</td>
<td>37,168</td>
</tr>
<tr>
<td><strong>Average Number of Shares Outstanding (m)</strong></td>
<td>163.4</td>
<td>163.8</td>
<td>155.4</td>
<td>151.3</td>
<td>154.3</td>
</tr>
<tr>
<td><strong>EPS - normalised ($)</strong></td>
<td>2.04</td>
<td>0.78</td>
<td>0.81</td>
<td>0.36</td>
<td>0.40</td>
</tr>
<tr>
<td><strong>EPS - FRS 3 ($)</strong></td>
<td>2.04</td>
<td>0.39</td>
<td>0.71</td>
<td>0.19</td>
<td>0.24</td>
</tr>
<tr>
<td><strong>Dividend per share (c)</strong></td>
<td>60.17</td>
<td>10.03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Gross Margin (%)</strong></td>
<td>100.0</td>
<td>98.3</td>
<td>90.5</td>
<td>78.2</td>
<td>80.7</td>
</tr>
<tr>
<td><strong>EBITDA Margin (%)</strong></td>
<td>93.2</td>
<td>79.1</td>
<td>66.4</td>
<td>38.2</td>
<td>40.8</td>
</tr>
<tr>
<td><strong>Operating Margin (before GW and except.), (%)</strong></td>
<td>93.2</td>
<td>79.1</td>
<td>68.4</td>
<td>38.2</td>
<td>40.8</td>
</tr>
<tr>
<td><strong>BALANCE SHEET</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fixed Assets</td>
<td>733,468</td>
<td>818,949</td>
<td>611,827</td>
<td>543,717</td>
<td>440,037</td>
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<tr>
<td>Intangible Assets</td>
<td>0</td>
<td>228,542</td>
<td>215,823</td>
<td>191,134</td>
<td>191,134</td>
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<td>Tangible Assets</td>
<td>31</td>
<td>1,631</td>
<td>16,369</td>
<td>11,826</td>
<td>14,284</td>
</tr>
<tr>
<td>Royalty rights</td>
<td>395,204</td>
<td>402,318</td>
<td>349,223</td>
<td>310,345</td>
<td>223,448</td>
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<tr>
<td>Other</td>
<td>334,233</td>
<td>186,458</td>
<td>30,412</td>
<td>30,412</td>
<td>11,170</td>
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<tr>
<td>Current Assets</td>
<td>279,731</td>
<td>395,147</td>
<td>631,296</td>
<td>608,226</td>
<td>734,715</td>
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<td>Stocks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Debtors</td>
<td>0</td>
<td>40,120</td>
<td>31,183</td>
<td>31,183</td>
<td>31,183</td>
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<tr>
<td>Cash</td>
<td>218,889</td>
<td>147,154</td>
<td>527,266</td>
<td>504,196</td>
<td>630,685</td>
</tr>
<tr>
<td>Other</td>
<td>60,846</td>
<td>207,873</td>
<td>72,847</td>
<td>72,847</td>
<td>72,847</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>(36,662)</td>
<td>(130,315)</td>
<td>(193,109)</td>
<td>(67,043)</td>
<td>(67,043)</td>
</tr>
<tr>
<td>Creditors</td>
<td>(394)</td>
<td>(7,016)</td>
<td>(19,785)</td>
<td>(19,785)</td>
<td>(19,785)</td>
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<td>Short term borrowings</td>
<td>(24,966)</td>
<td>0</td>
<td>(126,086)</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Other</td>
<td>(11,302)</td>
<td>(123,299)</td>
<td>(47,265)</td>
<td>(47,258)</td>
<td>(47,258)</td>
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<tr>
<td>Long Term Liabilities</td>
<td>(283,485)</td>
<td>(320,849)</td>
<td>(204,124)</td>
<td>(210,691)</td>
<td>(210,691)</td>
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<td>Other long term liabilities</td>
<td>(50,650)</td>
<td>(97,206)</td>
<td>(86,709)</td>
<td>(86,709)</td>
<td>(86,709)</td>
</tr>
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<td>Net Assets</td>
<td>693,052</td>
<td>754,132</td>
<td>845,890</td>
<td>874,210</td>
<td>907,017</td>
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<tr>
<td>Minority Interests</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shareholder equity</td>
<td>693,052</td>
<td>754,132</td>
<td>845,890</td>
<td>874,210</td>
<td>907,017</td>
</tr>
<tr>
<td><strong>CASH FLOW</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Operating Cash Flow</td>
<td>301,465</td>
<td>101,718</td>
<td>40,624</td>
<td>25,264</td>
<td>22,462</td>
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<tr>
<td>Net interest</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tax</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Capex</td>
<td>(9,379)</td>
<td>(109,963)</td>
<td>(1,228)</td>
<td>(1,748)</td>
<td>(1,809)</td>
</tr>
<tr>
<td>Acquisitions/disposals</td>
<td>(71,593)</td>
<td>(13,082)</td>
<td>128,415</td>
<td>77,757</td>
<td>102,932</td>
</tr>
<tr>
<td>Financing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dividends</td>
<td>(98,307)</td>
<td>(16,583)</td>
<td>(222)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>(8,046)</td>
<td>(47,629)</td>
<td>212,592</td>
<td>2,095</td>
<td>2,903</td>
</tr>
<tr>
<td>Net Cash Flow</td>
<td>123,510</td>
<td>(59,375)</td>
<td>380,112</td>
<td>103,377</td>
<td>126,488</td>
</tr>
<tr>
<td>Opening net debt/(cash)</td>
<td>180,347</td>
<td>38,918</td>
<td>85,269</td>
<td>263,785</td>
<td>380,214</td>
</tr>
<tr>
<td>HP finance leases initiated</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Exchange rate movements</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>(2,081)</td>
<td>13,004</td>
<td>(11,038)</td>
<td>(6,948)</td>
<td>(0)</td>
</tr>
<tr>
<td>Closing net debt/(cash)</td>
<td>38,918</td>
<td>85,269</td>
<td>(283,785)</td>
<td>(380,214)</td>
<td>(506,703)</td>
</tr>
</tbody>
</table>

Source: Company accounts, Edison Investment Research
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