

## Interactive Data

### Macro environment

Crude oil prices and foreign exchange rates, model refining margin of Grupa LOTOS S.A.

		1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17	4Q16	3Q16	2Q16	
<b>Quarterly average crude oil prices</b>														
Brent Dtd	USD/bbl	<b>62.90</b>	68.22	75.08	74.55	66.87	61.40	52.10	49.56	53.59	49.05	45.71	45.56	33
Spread Brent Dtd vs Ural Rtdm	USD/bbl	<b>0.24</b>	0.82	1.32	1.87	1.59	0.91	1.01	1.52	2.14	2.18	2.33	2.59	2.7
<b>Quarterly average FX rates</b>														
USD	PLN	<b>3.79</b>	3.77	3.7	3.58	3.40	3.60	3.63	3.83	4.06	4.06	3.89	3.87	3.9
EUR	PLN	<b>4.30</b>	4.30	4.31	4.26	4.18	4.23	4.26	4.22	4.32	4.38	4.34	4.37	4.3
<b>Model refining margin *</b>	USD/bbl	<b>6.98</b>	<b>8.47</b>	<b>7.47</b>	<b>7.29</b>	<b>6.38</b>	<b>7.07</b>	<b>8.57</b>	<b>7.14</b>	<b>7.34</b>	<b>8.24</b>	<b>6.01</b>	<b>6.49</b>	<b>6.1</b>