

Semi-products

In 2017, semi-products revenue (primarily copper cake and nickel concentrate) increased by USD 208 million (or 96%) to USD 424 million, and accounted for 5% of the Group's total metal revenue. This increase was mainly driven by higher physical sales to third parties instead of processing these semis at the Company's own refineries.

Other sales

In 2017, other sales were up by 19% or USD 731 million primarily owing to the Russian rouble appreciation (USD 80 million) and revenue increase in real terms driven by the increase of prices for services provided to third parties (USD 13 million), and higher revenue from transport and consumer services subsidiaries of the Group, which was partly offset negatively by the divestiture of non-core assets.

Cost of Metal Sales

Cost of metals sales

In 2017, the cost of metal sales increased by 9% (or USD 335 million) to USD 3,968 million owing to:

- Increase in cash operating costs by 33% (USD 965 million);
- Increase in depreciation charges by 38% (USD 174 million);
- Change in metal inventories y-o-y (cost of metal sales decrease by USD 804 million).

The negative effect of currencies appreciation (RUB and ZAR) amounted to USD 312 million.

The inflationary growth of cash operating costs by USD 115 million was exacerbated by an increase in metal purchase costs (USD 346 million) and increase of the mineral extraction tax (USD 83 million) resulting from the change in legislation in 2017. Mineral extraction tax increased following the cancellation of PGM export duties in September, 2016.

Cash operating costs

In 2017, total cash operating costs increased by 33% (or USD 965 million) to USD 3,852 million.

Cash operating costs structure in 2017 and 2016 was affected by consolidation of 50% of Nkomati joint operation.

Cash operating costs

USD million	2017	2016	Change,%
Labour	1,377	1,145	20%
Purchases of metals for resale	530	184	188%
Purchases of raw materials and semi-products	297	292	2%
Materials and supplies	703	520	35%
Mineral extraction tax and other levies	221	122	81%
Third-party services	204	170	20%
Electricity and heat energy	132	101	31%
Fuel	81	60	35%
Production costs related to joint operation	93	79	18%
Transportation expenses	64	71	(10%)
Sundry costs	150	143	5%
Total cash operating costs	3,852	2,887	33%
Depreciation and amortisation	630	456	38%
(Increase)/decrease of metal inventories	(514)	290	n.a.
Total cost of metal sales	3,968	3,633	9%

Labour

In 2017, labour costs increased by 20% (or USD 231 million) to USD 1,377 million amounting to 36% of the Group's total cash operating costs driven by the following:

- USD 162 million – cost increase owing to the Russian rouble appreciation against US Dollar;
- USD 50 million – cost decrease following the decrease of production staff headcount owing primarily to the Nickel plant closure and ongoing downstream reconfiguration program.
- USD 119 million – other increase in real terms primarily driven by the indexation of RUB-denominated salaries and wages.

Purchases of metals for resale

In 2017, expenses on the purchase of metals for resale increased 3 times (or by USD 346 million) to USD 530 million. Metal purchase increase is primarily due to piling up metal stocks to meet additional demand of the Company's key clients, primarily palladium.

Purchases of raw materials and semi-products

In 2017, expenses on the purchase of raw materials and semi-products increased by 2% (or by USD 5 million) to USD 297 million driven by the following:

- USD 58 million – cost increase owing to higher semi-products prices;
- USD 140 million – cost increase owing to the processing of copper concentrate purchased from Rostec;
- USD 82 million – cost increase owing to purchase of semi-products from Nkomati for further resale to third parties;
- USD 275 million – cost reduction resulting from the decrease of purchased semi-products from third parties for processing at NN Harjavalta as part of ongoing downstream reconfiguration program.

Materials and supplies

In 2017, materials and supplies expenses increased by 35% (or USD 183 million) to USD 703 million driven by the following:

- USD 62 million – negative effect of the Russian rouble appreciation;
- USD 11 million – inflationary growth in materials and supplies;
- USD 110 million – cost increase in line with the ongoing downstream reconfiguration program.

Third-party services

In 2017, cost of third party services increased by 20% (or USD 34 million) to USD 204 million.

The negative effect of the Russian rouble appreciation amounted to USD 18 million.

The cost increase owing to higher volumes of repairs, tolling services, and other production services (USD 37 million) was mostly offset by cost decrease due to the termination of Nkomati concentrate processing (USD 21 million).

Mineral extraction tax and other levies

In 2017, mineral extraction tax and other levies increased by 81% (or USD 99 million) to USD 221 million.

The negative effect of the Russian rouble appreciation amounted to USD 18 million.

Cash cost increase in real terms by USD 81 million was primarily driven by the higher mineral extraction tax resulting from the change in legislation (USD 83 million), resulting from cancellation of PGM export duties in 2016 for metals, produced by the Company.

Change in mineral extraction tax rate in January 2017 was mostly compensated by cancellation of PGM export duties in September 2016.

Electricity and heat energy

In 2017, electricity and heat energy expenses increased by 31% (or USD 31 million) to USD 132 million driven by the following:

- USD 10 million – negative effect of the Russian rouble appreciation;
- USD 22 million – increase in expenses owing to higher consumption of energy due to the ongoing downstream reconfiguration program (Polar division feed processing at Kola MMC, which purchases electricity from third parties) and energy tariffs inflationary growth.

Fuel

In 2017, fuel expenses increased by 35% (or USD 21 million) to USD 81 million driven by the following:

- USD 8 million – negative effect of the Russian rouble appreciation;
- USD 15 million – higher fuel oil and other oil products prices.

Transportation expenses

In 2017, transportation expenses decreased by 10% (or USD 7 million) to USD 64 million driven by the following:

- USD 7 million – negative effect of the Russian rouble appreciation;
- USD 14 million – costs decrease driven by transportation of Nkomati concentrate to third parties instead of NN Harjavalta production facilities.

Sundry costs

In 2017, sundry costs increased by 5% (or USD 7 million) to USD 150 million, driven by the following:

- USD 19 million – negative effect of the Russian rouble appreciation;
- USD 12 million – decrease in insurance expenses owing to the renegotiation of property insurance agreements on the same insurance cover terms.

Production costs related to joint operation

In 2017, production costs related to joint operation increased by 18% (or USD 14 million) to USD 93 million, driven by the following:

- USD 8 million – negative effect of the South African rand appreciation;
- USD 6 million – increase in expenses owing to the higher sales volume of Nkomati concentrates..

Depreciation and amortisation

In 2017, depreciation and amortisation increased by 38% (or USD 174 million) to USD 630 million.

Russian rouble appreciation amounted to depreciation and amortisation increase by USD 62 million.

Depreciation charges increased in real terms by USD 112 million mainly due to additions to production assets at the Company's operating subsidiaries in Russia in 2H2016 and in 2017.

(Increase)/decrease of metal inventories

In 2017, comparative effect of change in metal inventory amounted to USD 804 million resulting in a decrease in cost of metal sales, driven by the following:

- USD 729 million – sale of metal from temporary stock in 2016 as part of reconfiguration programme, as well as a built-up of palladium stock and accumulation of metal stock in 2017 to meet additional demand of the Company's key customers.
- USD 75 million – comparative effect of change in work-in-progress, primarily due to higher accumulation of work-in-progress at Russian subsidiaries of the Group in 2017 as part of ongoing downstream reconfiguration program and due to start of Rostec copper concentrate processing in 2017.

Cost of Other Sales

In 2017, cost of other sales increased by 24% (or USD 124 million) to USD 632 million.

Russian rouble appreciation amounted to cost of other sales increase by USD 72 million.

Cost of other sales increased in real terms by USD 52 million comprised of USD 96 million increase in expenses resulting from higher transportation services, indexation of RUB-denominated salaries and wages and growth of other services, which were partly offset positively by the sale of non-core assets resulting in a cost reduction of USD 44 million.

Selling and Distribution Expenses

Selling and distribution expenses decreased 32% (or USD 36 million) to USD 75 million due to the cancellation of PGM export duties in September 2016 as part of Russian Federation's WTO membership terms (USD 60 million cost reduction), which was partly negatively offset by increase of transportation expenses primarily due to increase of semi-product sales.

USD million	2017	2016	Change,%
Transportation expenses	38	23	65%
Staff costs	13	13	0%
Marketing expenses	14	7	100%
Export duties	1	61	(98%)
Other	9	7	29%
Total	75	111	(32%)