



# Prices

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| NEW YORK FUTURES                                                                                                                                      |                 |                     |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------|-----------|
|                                                                                                                                                       | Price           | Change <sup>†</sup> | Assessed  |
| <b>Comex: Copper high grade cents/lb</b>                                                                                                              |                 |                     |           |
| Settlement                                                                                                                                            | 273.75          | -2.13% ▼            | 18 Oct 18 |
| Open interest                                                                                                                                         | 237,197         | 0.8% ▲              | 17 Oct 18 |
| Stocks (short ton)                                                                                                                                    | 163,866         | -1.83% ▼            | 17 Oct 18 |
| <b>Comex: Gold \$/troy oz</b>                                                                                                                         |                 |                     |           |
| Settlement                                                                                                                                            | 1,226.5         | 0.25% ▲             | 18 Oct 18 |
| Open interest                                                                                                                                         | 469,297         | 2.33% ▲             | 17 Oct 18 |
| Stocks (troy oz)                                                                                                                                      | 8,101,421       | -0.47% ▼            | 17 Oct 18 |
| <b>Nymex: Palladium \$/troy oz</b>                                                                                                                    |                 |                     |           |
| Settlement                                                                                                                                            | 1,064.70        | -0.98% ▼            | 18 Oct 18 |
| Stocks (troy oz)                                                                                                                                      | 48,365          | -0.2% ▼             | 17 Oct 18 |
| <b>Nymex: Platinum \$/troy oz</b>                                                                                                                     |                 |                     |           |
| Settlement                                                                                                                                            | 827.80          | -1.78% ▼            | 18 Oct 18 |
| Stocks (troy oz)                                                                                                                                      | 174,471         | 0% ▼                | 17 Oct 18 |
| <b>Comex: Silver cents/troy oz</b>                                                                                                                    |                 |                     |           |
| Settlement                                                                                                                                            | 1,453.30        | -0.01% ▼            | 18 Oct 18 |
| Open interest                                                                                                                                         | 198,011         | -1.5% ▼             | 17 Oct 18 |
| SHANGHAI FUTURES                                                                                                                                      |                 |                     |           |
|                                                                                                                                                       | Price           | Change <sup>†</sup> | Assessed  |
| Aluminium yuan/tonne                                                                                                                                  | 14,175          | -0.74% ▼            | 19 Oct 18 |
| Copper yuan/tonne                                                                                                                                     | 50,270          | -1.08% ▼            | 19 Oct 18 |
| Nickel cathode yuan/tonne                                                                                                                             | 103,900         | -4.68% ▼            | 19 Oct 18 |
| Tin ingot yuan/tonne                                                                                                                                  | 144,850         | -0.45% ▼            | 19 Oct 18 |
| Zinc yuan/tonne                                                                                                                                       | 22,475          | -6.1% ▼             | 19 Oct 18 |
| Steel rebar month 1 yuan/tonne                                                                                                                        | 4,508           | -3.76% ▼            | 19 Oct 18 |
| Steel rebar month 2 yuan/tonne                                                                                                                        | 4,290           | -5.98% ▼            | 19 Oct 18 |
| Steel rebar month 3 yuan/tonne                                                                                                                        | 4,093           | -5.08% ▼            | 19 Oct 18 |
| <b>Weekly stocks deliverable</b>                                                                                                                      |                 |                     |           |
| Aluminium (tonnes)                                                                                                                                    | 820,675         | -2.61% ▼            | 19 Oct 18 |
| Copper (tonnes)                                                                                                                                       | 140,789         | 12% ▲               | 19 Oct 18 |
| Nickel cathode (tonnes)                                                                                                                               | 15,041          | -7.18% ▼            | 19 Oct 18 |
| Tin ingot (tonnes)                                                                                                                                    | 7,173           | 9.16% ▲             | 19 Oct 18 |
| Zinc (tonnes)                                                                                                                                         | 53,479          | 23.3% ▲             | 19 Oct 18 |
| Steel rebar (tonnes)                                                                                                                                  | 9,909           | 1027.3% ▲           | 19 Oct 18 |
| DAILY METAL AND STEEL                                                                                                                                 |                 |                     |           |
| <i>London forward LME settlement prices. All prices per tonne, unless otherwise stated, in LME warehouse, EU duty, if any paid for buyers account</i> |                 |                     |           |
|                                                                                                                                                       | Price           | Change <sup>†</sup> | Assessed  |
| <b>Aluminium high grade \$</b>                                                                                                                        |                 |                     |           |
| Cash official                                                                                                                                         | 2,022-2,022.5   | -1.1% ▼             | 19 Oct 18 |
| Cash unofficial                                                                                                                                       | 2,004.5-2,006.5 | -1.11% ▼            | 18 Oct 18 |
| 3 months official                                                                                                                                     | 2,023-2,024     | -1.18% ▼            | 19 Oct 18 |
| 3 months unofficial                                                                                                                                   | 2,010-2,012     | -1.13% ▼            | 18 Oct 18 |
| LME Tapo notional average price (NAP)                                                                                                                 | 2,068.29        | -1.17% ▼            | 18 Oct 18 |
| LME stocks (tonnes)                                                                                                                                   | 1,066,725       | 14.27% ▲            | 18 Oct 18 |
| <b>Aluminium alloy (A380.1/DIN/D12S) \$</b>                                                                                                           |                 |                     |           |
| LME cash official                                                                                                                                     | 1,260-1,265     | -11.56% ▼           | 19 Oct 18 |
| LME cash unofficial                                                                                                                                   | 1,373-1,383     | -4.9% ▼             | 18 Oct 18 |
| LME 3 months official                                                                                                                                 | 1,370-1,420     | -6.06% ▼            | 19 Oct 18 |
| LME 3 months unofficial                                                                                                                               | 1,415-1,425     | -5.02% ▼            | 18 Oct 18 |
| LME stocks (tonnes)                                                                                                                                   | 13,500          | -2.6% ▼             | 18 Oct 18 |

|                                            | Price           | Change    | Assessed  |
|--------------------------------------------|-----------------|-----------|-----------|
| <b>N. American special aluminium alloy</b> |                 |           |           |
| LME cash official                          | 1,420-1,430     | -3.55% ▼  | 19 Oct 18 |
| LME cash unofficial                        | 1,452-1,462     | -2.21% ▼  | 18 Oct 18 |
| LME 3 months official                      | 1,460-1,480     | -2.97% ▼  | 19 Oct 18 |
| LME 3 months unofficial                    | 1,480-1,490     | -2.3% ▼   | 18 Oct 18 |
| LME stocks (tonnes)                        | 145,120         | -1.12% ▼  | 18 Oct 18 |
| <b>Copper grade A \$</b>                   |                 |           |           |
| LME cash official                          | 6,191-6,191.5   | -2.1% ▼   | 19 Oct 18 |
| LME cash unofficial                        | 6,157.5-6,159.5 | -2.06% ▼  | 18 Oct 18 |
| LME 3 months official                      | 6,190-6,190.5   | -1.79% ▼  | 19 Oct 18 |
| LME 3 months unofficial                    | 6,161-6,163     | -1.79% ▼  | 18 Oct 18 |
| LME Tapo notional average price (NAP)      | 6,233.54        | 0.09% ▲   | 18 Oct 18 |
| LME stocks (tonnes)                        | 153,950         | -7.59% ▼  | 18 Oct 18 |
| <b>Lead \$</b>                             |                 |           |           |
| LME cash official                          | 1,965.5-1,966   | -3.45% ▼  | 19 Oct 18 |
| LME cash unofficial                        | 1,989.5-1,991.5 | 1.09% ▲   | 18 Oct 18 |
| LME 3 months official                      | 1,991-1,991.5   | -1.86% ▼  | 19 Oct 18 |
| LME 3 months unofficial                    | 2,006-2,008     | 1.62% ▲   | 18 Oct 18 |
| LME stocks (tonnes)                        | 115,225         | -1.01% ▼  | 18 Oct 18 |
| <b>Nickel \$</b>                           |                 |           |           |
| LME cash official                          | 12,465-12,470   | -1.89% ▼  | 19 Oct 18 |
| LME cash unofficial                        | 12,250-12,275   | -2.74% ▼  | 18 Oct 18 |
| LME 3 months official                      | 12,550-12,600   | -1.72% ▼  | 19 Oct 18 |
| LME 3 months unofficial                    | 12,325-12,350   | -2.76% ▼  | 18 Oct 18 |
| LME stocks (tonnes)                        | 219,978         | -1.89% ▼  | 18 Oct 18 |
| <b>Tin \$</b>                              |                 |           |           |
| LME cash official                          | 19,150-19,160   | 0.6% ▲    | 19 Oct 18 |
| LME cash unofficial                        | 19,010-19,060   | -0.9% ▼   | 18 Oct 18 |
| LME 3 months official                      | 19,105-19,110   | 0.33% ▲   | 19 Oct 18 |
| LME 3 months unofficial                    | 19,000-19,050   | -0.98% ▼  | 18 Oct 18 |
| LME stocks (tonnes)                        | 2,955           | -6.78% ▼  | 18 Oct 18 |
| <b>Zinc special high grade \$</b>          |                 |           |           |
| LME cash official                          | 2,695.5-2,696   | 0.72% ▲   | 19 Oct 18 |
| LME cash unofficial                        | 2,708-2,710     | 1.86% ▲   | 18 Oct 18 |
| LME 3 months official                      | 2,653-2,654     | 0.72% ▲   | 19 Oct 18 |
| LME 3 months unofficial                    | 2,663-2,665     | 0.95% ▲   | 18 Oct 18 |
| LME stocks (tonnes)                        | 171,250         | -10.23% ▼ | 18 Oct 18 |
| <b>Cobalt min 99.3%</b>                    |                 |           |           |
| LME cash official                          | 60,250-60,750   | -2.81% ▼  | 19 Oct 18 |
| LME 3 months official                      | 59,750-60,250   | -2.83% ▼  | 19 Oct 18 |
| LME stocks (tonnes)                        | 738             | -0.27% ▼  | 18 Oct 18 |
| <b>Molybdenum \$</b>                       |                 |           |           |
| LME cash official                          | 24,000-26,000   | 0%        | 19 Oct 18 |
| LME 3 months official                      | 24,000-26,000   | 0%        | 19 Oct 18 |
| LME stocks (tonnes)                        | 0               | 0%        | 18 Oct 18 |

<sup>†</sup> week-on-week change

continued ➤



|                                                                     | Price      | Change              | Assessed  |
|---------------------------------------------------------------------|------------|---------------------|-----------|
| <b>Gold \$/troy oz</b>                                              |            |                     |           |
| London morning                                                      | 1,224.60   | 1.96% ▲             | 18 Oct 18 |
| London afternoon                                                    | 1,223      | 1.45% ▲             | 18 Oct 18 |
| Handy/Harman                                                        | 1,223      | 1.45% ▲             | 18 Oct 18 |
| <b>Silver per troy oz</b>                                           |            |                     |           |
| London spot pence                                                   | 1,106      | 1.47% ▲             | 18 Oct 18 |
| London spot cents                                                   | 1,451.5    | 0.8% ▲              | 18 Oct 18 |
| Handy/Harman                                                        | 1,464.5    | 0.31% ▲             | 18 Oct 18 |
| <b>Palladium \$/troy oz</b>                                         |            |                     |           |
| London morning                                                      | 1,076      | 0.19% ▲             | 18 Oct 18 |
| London afternoon                                                    | 1,075      | -0.74% ▼            | 18 Oct 18 |
| <b>Platinum \$/troy oz</b>                                          |            |                     |           |
| London morning                                                      | 832        | 1.09% ▲             | 18 Oct 18 |
| London afternoon                                                    | 828        | 0.49% ▲             | 18 Oct 18 |
| <b>Kuala Lumpur tin market</b>                                      |            |                     |           |
| Tin \$/tonne                                                        | 19,030     | 0.16% ▲             | 19 Oct 18 |
| <b>ICDX</b>                                                         |            |                     |           |
| Tin PB300 settlement price \$/tonne                                 | 18,850     | -1.31% ▼            | 17 Oct 18 |
| Tin PB300 volume, tonnes                                            | 1          | -98.31% ▼           | 17 Oct 18 |
| <b>RAND FIXING PRICES</b>                                           |            |                     |           |
| <i>Rand fixing prices per tonne for London Metal Exchange trade</i> |            |                     |           |
|                                                                     | Price      | Change <sup>†</sup> | Assessed  |
| Copper                                                              | 89,030.67  | -3.3% ▼             | 19 Oct 18 |
| Aluminium                                                           | 29,082.54  | -2.31% ▼            | 19 Oct 18 |
| Lead                                                                | 28,270.10  | -4.66% ▼            | 19 Oct 18 |
| Zinc                                                                | 38,767.13  | -0.52% ▼            | 19 Oct 18 |
| Nickel                                                              | 179,312.37 | -3.09% ▼            | 19 Oct 18 |
| Tin                                                                 | 275,511.22 | -0.65% ▼            | 19 Oct 18 |
| <b>EXCHANGE RATES</b>                                               |            |                     |           |
|                                                                     | Price      | Change <sup>†</sup> | Assessed  |
| <b>LME settlement conversion rates</b>                              |            |                     |           |
| \$/£                                                                | 1.3027     | -1.38% ▼            | 19 Oct 18 |
| \$/¥                                                                | 112.4900   | 0.17% ▲             | 19 Oct 18 |
| \$/€                                                                | 1.1467     | -0.97% ▼            | 19 Oct 18 |
| <b>Closing rates, midpoint</b>                                      |            |                     |           |
| \$/£                                                                | 1.3074     | -1.04% ▼            | 18 Oct 18 |
| \$/¥                                                                | 112.500    | 0.21% ▲             | 18 Oct 18 |
| \$/€                                                                | 1.1490     | -0.61% ▼            | 18 Oct 18 |
| £/€                                                                 | 1.1379     | -0.43% ▼            | 18 Oct 18 |
| \$/CNY                                                              | 6.9411     | 0.21% ▲             | 18 Oct 18 |
| <b>BASE METALS ARBITRAGE</b>                                        |            |                     |           |
|                                                                     | Price      | Change <sup>†</sup> | Assessed  |
| <b>Aluminium</b>                                                    |            |                     |           |
| Import arbitrage, \$/tonne                                          | -445.55*   | -0.99% ▼            | 19 Oct 18 |
| Import arbitrage, yuan/tonne                                        | -3,095.84* | -0.78% ▼            | 19 Oct 18 |
| <b>Copper</b>                                                       |            |                     |           |
| Import arbitrage, \$/tonne                                          | -74.34*    | -43.03% ▼           | 19 Oct 18 |
| Import arbitrage, yuan/tonne                                        | -516.53*   | -42.91% ▼           | 19 Oct 18 |
| <b>Nickel</b>                                                       |            |                     |           |
| Import arbitrage, \$/tonne                                          | 348.67*    | 62.8% ▲             | 19 Oct 18 |
| Import arbitrage, yuan/tonne                                        | 2,422.65*  | 63.14% ▲            | 19 Oct 18 |
| <b>Zinc</b>                                                         |            |                     |           |
| Import arbitrage, \$/tonne                                          | -121.56*   | -456.59% ▼          | 19 Oct 18 |
| Import arbitrage, yuan/tonne                                        | -844.63*   | -457.32% ▼          | 19 Oct 18 |

**MB BASE METAL PREMIUMS***All prices \$/tonne unless otherwise stated**\*MB Copyright*

|                                                                                       | Price        | Change <sup>†</sup> | Assessed  |
|---------------------------------------------------------------------------------------|--------------|---------------------|-----------|
| <b>Copper</b>                                                                         |              |                     |           |
| Annual premium 8mm wire rod, cif Nhava Sheva, \$/tonne                                | 130-175*     | -12.86% ▼           | 07 Sep 18 |
| Rotterdam, Grade A, cathode, cif, \$/tonne                                            | 45.0-50.0*   | 0%                  | 16 Oct 18 |
| Germany, Grade A, cathode, delivered, \$/tonne                                        | 90.0-95.0*   | 0%                  | 16 Oct 18 |
| North European warrants, Grade A cathode, in-warehouse, \$/tonne                      | 10.0-15.0*   | 0%                  | 16 Oct 18 |
| South European warrants, Grade A cathode, in-warehouse, \$/tonne                      | 10.0-15.0*   | 0%                  | 16 Oct 18 |
| Leghorn, copper low-high premium, Grade A, cathode, cif, \$/tonne                     | 60.0-70.0*   | 0%                  | 16 Oct 18 |
| Leghorn, copper average premium, Grade A, cathode, cif, \$/tonne                      | 67*          | 0%                  | 21 Aug 18 |
| Japan, copper, Grade A, cathode, cif, \$/tonne                                        | 80.0-90.0*   | 0%                  | 16 Oct 18 |
| South Korea, copper low-high premium, Grade A, cathode, cif, \$/tonne                 | 85.0-90.0*   | 0%                  | 16 Oct 18 |
| South Korea, copper average premium, Grade A, cathode, cif, \$/tonne                  | 70*          | 0%                  | 21 Aug 18 |
| Southeast Asian warrants, Grade A cathode, in-warehouse, \$/tonne                     | 10.0-15.0*   | 0%                  | 16 Oct 18 |
| East Asian warrants, Grade A cathode, in-warehouse, \$ per tonne                      | 10.0-15.0*   | 0%                  | 16 Oct 18 |
| Southeast Asia, Grade A cathode, cif, \$ per tonne                                    | 80.0-90.0*   | 0%                  | 16 Oct 18 |
| Shanghai, copper low-high premium, Grade A, cathode, in-warehouse, \$/tonne           | 100.0-116.0* | -0.92% ▼            | 19 Oct 18 |
| Shanghai, copper average premium, Grade A, cathode, in-warehouse, \$/tonne            | 79*          | 5.33% ▲             | 24 Aug 18 |
| Shanghai, copper low-high premium, Grade A, cathode, cif, \$/tonne                    | 90.0-103.0*  | -1.53% ▼            | 19 Oct 18 |
| Shanghai, copper average premium, Grade A, cathode, cif, \$/tonne                     | 79*          | 6.76% ▲             | 24 Aug 18 |
| Shanghai, copper cif ER, premium, Grade A, cathode, \$/tonne                          | 95.0-103.0*  | -1.49% ▼            | 19 Oct 18 |
| Shanghai, copper cif SX-EW, premium, Grade A, cathode, \$/tonne                       | 90.0-95.0*   | -3.14% ▼            | 19 Oct 18 |
| Shanghai, copper bonded in-warehouse, SX-EW, premium, Grade A, cathode, \$/tonne      | 100.0-110.0* | 0%                  | 19 Oct 18 |
| Shanghai, copper bonded in-warehouse, ER, premium, Grade A, cathode, \$/tonne         | 100.0-116.0* | -5.26% ▼            | 19 Oct 18 |
| Taiwan, Grade A cathode, cif, \$ per tonne                                            | 80.0-90.0*   | 0%                  | 16 Oct 18 |
| MB free market US: High-grade cathode premium indicator, \$/tonne                     | 154.3-165.3* | 0%                  | 16 Oct 18 |
| United States warrants, Grade A cathode, \$/tonne                                     | 10.0-15.0*   | 0%                  | 16 Oct 18 |
| <b>Aluminium</b>                                                                      |              |                     |           |
| Aluminium P1020A, in-warehouse Rotterdam duty-unpaid, spot low-high, \$/tonne         | 70.0-80.0*   | 0%                  | 19 Oct 18 |
| Aluminium P1020A, in-warehouse Rotterdam duty-unpaid, spot weighted average, \$/tonne | 87*          | 2.35% ▲             | 24 Aug 18 |
| Aluminium P1020A, cif Korea (Gwangyang or Busan), spot low-high, \$/tonne             | 80-95*       | -2.78% ▼            | 16 Oct 18 |
| Aluminium P1020A, cif Korea (Gwangyang or Busan), spot weighted average, \$/tonne     | 90*          | 0%                  | 21 Aug 18 |
| Aluminium P1020A, Southeast Asian warrants, in-warehouse, \$/tonne                    | 8.0-25.0*    | 0%                  | 16 Oct 18 |
| Aluminium P1020A, East Asian warrants, in-warehouse, \$/tonne                         | 8.0-25.0*    | 0%                  | 16 Oct 18 |

<sup>†</sup> week-on-week change

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|                                                                                                                 | Price          | Change    | Assessed  |
|-----------------------------------------------------------------------------------------------------------------|----------------|-----------|-----------|
| Aluminium P1020A, cif Shanghai, spot low-high, \$/tonne                                                         | 95.0-105.0*    | 0%        | 16 Oct 18 |
| Aluminium P1020A, cif Shanghai, spot weighted average, \$/tonne                                                 | 99*            | 0%        | 21 Aug 18 |
| Aluminium P1020A, Singapore, fob, \$/tonne                                                                      | 70.0-80.0*     | -6.25% ▼  | 16 Oct 18 |
| Aluminium P1020A, South Korea, fca, \$/tonne                                                                    | 85.0-100.0*    | 0%        | 16 Oct 18 |
| Aluminium P1020A, Malaysia, fob, \$/tonne                                                                       | 70.0-80.0*     | -6.25% ▼  | 16 Oct 18 |
| Aluminium P1020A, Shanghai, in-warehouse, \$/tonne                                                              | 95.0-105.0*    | 0%        | 16 Oct 18 |
| Aluminium P1020A, Taiwan, cif, \$/tonne                                                                         | 90.0-100.0*    | 0%        | 16 Oct 18 |
| Aluminium P1020A, Antwerp, in-warehouse duty-unpaid, \$/tonne                                                   | 70.0-78.0*     | -3.27% ▼  | 16 Oct 18 |
| Aluminium P1020A, Antwerp, in-warehouse duty-paid, \$/tonne                                                     | 138.0-146.0*   | -1.39% ▼  | 16 Oct 18 |
| Aluminium P1020A, Vlissingen, in-warehouse duty-unpaid, spot, \$/tonne                                          | 70.0-78.0*     | -3.27% ▼  | 16 Oct 18 |
| Aluminium P1020A, Vlissingen, in-warehouse duty-paid, spot, \$/tonne                                            | 138.0-146.0*   | -1.39% ▼  | 16 Oct 18 |
| Aluminium P1020A, Italy, fca duty-paid, spot, \$/tonne                                                          | 195.0-205.0*   | -2.44% ▼  | 16 Oct 18 |
| Aluminium P1020A, Spain, fca duty-paid, \$/tonne                                                                | 195.0-205.0*   | -2.44% ▼  | 16 Oct 18 |
| Aluminium P1020A, Turkey, cif duty-unpaid, \$/tonne                                                             | 110.0-120.0*   | 0%        | 16 Oct 18 |
| Aluminium P1020A, cif main Japanese ports, spot low-high, \$/tonne                                              | 70.0-80.0*     | -18.92% ▼ | 19 Oct 18 |
| Aluminium P1020A, cif main Japanese ports, spot weighted average, \$/tonne                                      | 123*           | 0%        | 20 Mar 18 |
| Aluminium ingotADC 12 ex-works China, duty-paid, yuan/tonne                                                     | 15,000-15,200* | -0.33% ▼  | 17 Oct 18 |
| Aluminium ingotADC 12 spot, main Japanese ports, \$/tonne                                                       | 1,750-1,770*   | -1.4% ▼   | 17 Oct 18 |
| Aluminium P1020A, cif main Japanese ports, quarterly, \$/tonne                                                  | 103.0-103.0*   | -21.97% ▼ | 01 Oct 18 |
| Aluminium extrusion billet premium 6063 cif Japan, yearly, \$/tonne                                             | 140.0-150.0*   | -6.45% ▼  | 12 Jan 18 |
| Aluminium P1020A, in-warehouse Rotterdam duty-paid, spot \$/tonne                                               | 128.0-138.0*   | -6.99% ▼  | 19 Oct 18 |
| Aluminium 6063 extrusion billet, in-warehouse Rotterdam duty-paid, spot, \$/tonne                               | 480.0-520.0*   | 0%        | 19 Oct 18 |
| Aluminium P1020A, delivered US midwest, spot, \$/lb                                                             | 0.193-0.198*   | -2.5% ▼   | 19 Oct 18 |
| Aluminium P1020A, US warrants, in-warehouse, \$/tonne                                                           | 115.0-125.0*   | 0%        | 16 Oct 18 |
| Aluminium P1020A, delivered Sao Paulo region, spot, \$/tonne                                                    | 280.0-320.0*   | -4.76% ▼  | 16 Oct 18 |
| Aluminium P1020A, cif Brazilian main ports duty-unpaid, spot, \$/tonne                                          | 175.0-185.0*   | 0%        | 16 Oct 18 |
| Aluminium 6063 + 6060 extrusion billet, cif Brazilian main ports, spot (premium over LME cash), \$/tonne        | 290.0-330.0*   | 0%        | 12 Oct 18 |
| Aluminium extrusion billet, delivered duty-paid North Germany (Ruhr region) over LME 30-day pay, \$/gross tonne | 520.0-560.0*   | 0%        | 19 Oct 18 |
| Aluminium extrusion billet, delivered duty-paid Italy (Brescia area) over LME 60-day pay, \$/gross tonne        | 520.0-550.0*   | 0%        | 19 Oct 18 |
| Aluminium extrusion billet, delivered duty-paid Spain over LME 60-day pay, \$/gross tonne                       | 520.0-540.0*   | -1.85% ▼  | 12 Oct 18 |
| Aluminium extrusion billet, cif Thailand duty-unpaid over LME cash pay, \$/gross tonne                          | 220.0-255.0*   | 21.79% ▲  | 28 Sep 18 |
| Aluminium extrusion billet, cif Japan duty-unpaid over MJP and LME cash pay, \$/gross tonne                     | 140.0-155.0*   | 1.72% ▲   | 19 Oct 18 |

|                                                                                                               | Price        | Change   | Assessed    |
|---------------------------------------------------------------------------------------------------------------|--------------|----------|-------------|
| Aluminium extrusion billet, cif Turkey (Marmara region) duty-paid over LME cash pay, \$/gross tonne           | 270.0-300.0* | 0%       | 12 Oct 18   |
| Aluminium foundry alloy premium, delivered duty-paid, Germany, \$/tonne                                       | 410.0-450.0* | -2.27% ▼ | 12 Oct 18   |
| Aluminium foundry alloy premium, delivered duty-paid, Eastern Europe, \$/tonne                                | 430.0-480.0* | 0%       | 12 Oct 18   |
| Aluminium foundry alloy premium, delivered duty-unpaid, US midwest, \$/tonne                                  | 14.0-15.0*   | 0%       | 12 Oct 18   |
| Aluminium foundry alloy premium, delivered duty-paid cif Turkey, \$/tonne                                     | 170.0-180.0* | 0%       | 12 Oct 18   |
| Annual aluminium wheel alloy silicon 7 ingot cif main Japanese ports (Yokohama, Osaka, Nagoya) \$/tonne       | 105.0-120.0* | 0%       | 09 Feb 18   |
| Annual aluminium wheel alloy silicon 7 ingot cif main South Korean ports (Busan, Gwangyang, Incheon) \$/tonne | 80.0-100.0*  | 0%       | 09 Feb 18   |
| <b>Lead</b>                                                                                                   |              |          |             |
| North European warrants, min 99.97% ingots, in-warehouse, \$/tonne                                            | 10.0-15.0*   | 0%       | 16 Oct 18   |
| Southeast Asian warrants, min 99.97% ingots, in-warehouse, \$/tonne                                           | 15.0-30.0*   | 0%       | 16 Oct 18   |
| East Asian warrants, min 99.97% ingots, in-warehouse, \$/tonne                                                | 15.0-25.0*   | 0%       | 16 Oct 18   |
| Southeast Asia, min 99.97% cif, \$/tonne                                                                      | 70.0-90.0*   | 0%       | 16 Oct 18   |
| Southeast Asia, 99.99% cif, \$/tonne                                                                          | 120.0-140.0* | 0%       | 16 Oct 18   |
| Taiwan, 99.97% purity, cif, \$/tonne                                                                          | 60.0-100.0*  | 0%       | 16 Oct 18   |
| Taiwan, 99.99% purity, cif, \$/tonne                                                                          | 135.0-150.0* | 0%       | 16 Oct 18   |
| India, 99.97% purity, cif, \$/tonne                                                                           | 70.0-110.0*  | 0%       | 16 Oct 18   |
| India, 99.99% purity, cif, \$/tonne                                                                           | 140.0-160.0* | 0%       | 16 Oct 18   |
| South European warrants, 99.97% purity, in-warehouse, \$/tonne                                                | 10.0-15.0*   | 0%       | 16 Oct 18   |
| Rotterdam, 99.97% purity, duty-paid fca, \$/tonne                                                             | 65.0-75.0*   | 0%       | 16 Oct 18   |
| Rotterdam, 99.99% purity, duty-paid fca, \$/tonne                                                             | 165.0-170.0* | 0%       | 16 Oct 18   |
| Italy, 99.97% purity, duty-paid fca, \$/tonne                                                                 | 110.0-120.0* | 0%       | 16 Oct 18   |
| US warrants, 99.97% purity, in-warehouse, \$/tonne                                                            | 20.0-30.0*   | 0%       | 16 Oct 18   |
| US lead premium 99.97%, delivered domestic, \$/lb                                                             | 0.09-0.11*   | 0%       | 16 Oct 18   |
| US lead premium 99.97%, delivered domestic, cents/lb                                                          | 9-11*        | 0%       | 16 Oct 18   |
| US lead premium 99.99%, delivered domestic, cents/lb                                                          | 11-13*       | 0%       | 16 Oct 18   |
| <b>Nickel</b>                                                                                                 |              |          |             |
| Shanghai, nickel low-high premium, 99.8% purity in-warehouse, \$/tonne                                        | 200.0-210.0* | 0%       | 16 Oct 18   |
| Shanghai, nickel average premium, 99.8% purity in-warehouse, \$/tonne                                         | 190*         | 2.7% ▲   | 21 Aug 18   |
| Shanghai, nickel low-high premium, 99.8% purity, full plate, cif, \$/tonne                                    | 200.0-210.0* | 0%       | 16 Oct 18   |
| Shanghai, nickel premium, 99.8% purity full plate, cif, \$/tonne                                              | 185*         | 5.71% ▲  | 21 Aug 18   |
| Southeast Asian warrants, min 99.80% full plates, in-warehouse, \$/tonne                                      | 90-160*      | 0%       | 16 Oct 18   |
| Southeast Asian warrants, min 99.80% briquettes, in-warehouse, \$/tonne                                       | 10-15*       | 0%       | 16 Oct 18   |
| East Asian warrants, min 99.80% full plates, in-warehouse, \$/tonne                                           | 90-160*      | 0%       | 16 Oct 18   |
| East Asian warrants, min 99.80% briquettes, in-warehouse, \$/tonne                                            | 10-15*       | 0%       | 16 Oct 18   |
| North European warrants, min 99.80%, in-warehouse, \$/tonne                                                   | 190-230*     | 0%       | 16 Oct 18   |
| uncut cathodes premium indicator                                                                              | 210.0-250.0* | 0%       | 16 Oct 18   |
| † week-on-week change                                                                                         |              |          | continued ➤ |



|                                                                             | Price        | Change    | Assessed  |
|-----------------------------------------------------------------------------|--------------|-----------|-----------|
| 4x4 cathodes premium indicator                                              | 470.0-520.0* | 0%        | 16 Oct 18 |
| briquettes premium indicator                                                | 245.0-275.0* | 0%        | 16 Oct 18 |
| Nickel 4x4 cathode premium, delivered consumer works US, US cents per pound | 35-45*       | 0%        | 16 Oct 18 |
| Nickel briquette premium, delivered consumer works US, US cents per pound   | 25-35*       | 0%        | 16 Oct 18 |
| <b>Tin</b>                                                                  |              |           |           |
| Rotterdam spot premium, 99.9% low lead ingots, in-warehouse \$/tonne        | 500-550*     | 0%        | 16 Oct 18 |
| Rotterdam spot premium 99.9% ingot, in-warehouse \$/tonne                   | 290-325*     | 0%        | 16 Oct 18 |
| Rotterdam spot premium 99.85% ingot, in-warehouse \$/tonne                  | 275-300*     | 0%        | 16 Oct 18 |
| South East Asian warrants, min 99.85% ingots, in-warehouse \$/tonne         | 20-35*       | 0%        | 16 Oct 18 |
| Singapore spot premium, 99.9% ingots, in-warehouse \$/tonne                 | -25-25*      | 0%        | 16 Oct 18 |
| Singapore spot premium, 99.9% low lead ingots, in-warehouse \$/tonne        | 250-300*     | 0%        | 16 Oct 18 |
| Shanghai spot premium, 99.85% ingots, cif, \$/tonne                         | 150-170*     | 0%        | 16 Oct 18 |
| Shanghai spot premium, 99.9% ingots, cif, \$/tonne                          | 230-250*     | 0%        | 16 Oct 18 |
| Shanghai spot premium, 99.9% low lead ingots, cif, \$/tonne                 | 320-350*     | 0%        | 16 Oct 18 |
| Taiwan spot premium, 99.9% ingots, cif, \$/tonne                            | 220-240*     | 0%        | 16 Oct 18 |
| Baltimore premium, 99.85% ASTM grade A ingots, in-warehouse \$/tonne        | 500-600*     | 0%        | 16 Oct 18 |
| US midwest premium, 99.85% ASTM grade A ingots, delivered \$/tonne          | 550-625*     | 0%        | 16 Oct 18 |
| US New York spot, cents/lb                                                  | 946-947      | -1.76% ▼  | 25 Jun 18 |
| <b>Zinc</b>                                                                 |              |           |           |
| North European warrants, min 99.995% SHG ingots, \$/tonne                   | 15.0-25.0*   | 0%        | 16 Oct 18 |
| MB EU: Special high grade, fca Rotterdam, \$/tonne                          | 115.0-125.0* | 0%        | 16 Oct 18 |
| Malaysia in-warehouse, 99.995% SHG ingots, \$/tonne                         | 135.0-145.0* | 0%        | 16 Oct 18 |
| Malaysia fca, 99.995%, \$/tonne                                             | 140.0-150.0* | 0%        | 16 Oct 18 |
| Southeast Asia cif, 99.995%, \$/tonne                                       | 160.0-180.0* | 9.68% ▲   | 16 Oct 18 |
| Singapore, zinc low-high premium, 99.995% purity, in-warehouse, \$/tonne    | 135.0-145.0* | 0%        | 16 Oct 18 |
| Singapore, zinc average premium, 99.995% purity, in-warehouse, \$/tonne     | 120*         | 41.18% ▲  | 21 Aug 18 |
| Singapore, zinc premium, 99.995% purity, fca \$/tonne                       | 140.0-150.0* | 0%        | 16 Oct 18 |
| Shanghai, zinc low-high premium, 99.995% purity, in-warehouse, \$/tonne     | 170.0-190.0* | -12.2% ▼  | 16 Oct 18 |
| Shanghai, zinc average premium, 99.995% purity, in-warehouse, \$/tonne      | 147*         | 8.89% ▲   | 21 Aug 18 |
| Shanghai 99.995% purity, cif \$/tonne                                       | 160.0-170.0* | -13.16% ▼ | 16 Oct 18 |
| Taiwan 99.995% purity SHG ingots, cif \$/tonne                              | 140.0-155.0* | 0%        | 16 Oct 18 |
| India 99.995% purity, cif duty-unpaid \$/tonne                              | 120.0-140.0* | 0%        | 16 Oct 18 |
| India 99.995% purity, cif duty-paid \$/tonne                                | 225.0-250.0* | 0%        | 16 Oct 18 |
| Antwerp 99.995% purity, duty-paid fca \$/tonne                              | 115.0-125.0* | 0%        | 16 Oct 18 |
| Italy 99.995% purity, duty-paid fca \$/tonne                                | 145.0-155.0* | 0%        | 16 Oct 18 |
| Italy 99.995% purity, delivered duty-paid \$/tonne                          | 185.0-200.0* | 0%        | 16 Oct 18 |
| US warrants 99.995% purity, in-warehouse \$/tonne                           | 5.0-10.0*    | 0%        | 16 Oct 18 |
| MB US: Special high grade, \$/lb                                            | 0.085-0.093* | 0%        | 16 Oct 18 |

| <b>BASE METALS</b>                                                                                                                                                                                                               |                  |           |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|-----------|
|                                                                                                                                                                                                                                  | Price            | Change†   | Assessed  |
| <b>Alumina</b>                                                                                                                                                                                                                   |                  |           |           |
| MB Chinese free market, metallurgical grade, delivered duty-paid, yuan/tonne                                                                                                                                                     | 3,000.0-3,100.0* | 0%        | 18 Oct 18 |
| Alumina Index fob Australia                                                                                                                                                                                                      | 485*             | -1.77% ▼  | 19 Oct 18 |
| Alumina Index fob Brazil                                                                                                                                                                                                         | 4.83*            |           | 11 Oct 18 |
| Alumina Index fob Brazil, inferred Brazil price \$ per dry metric ton                                                                                                                                                            | 489.83*          |           | 19 Oct 18 |
| <b>Aluminium</b>                                                                                                                                                                                                                 |                  |           |           |
| Shanghai bonded aluminium stocks, tonnes                                                                                                                                                                                         | 4,500-5,000*     | -5% ▼     | 09 Oct 18 |
| <b>Bauxite</b>                                                                                                                                                                                                                   |                  |           |           |
| fob Kamsar, Guinea \$/tonne per dmtu                                                                                                                                                                                             | 38*              | 0%        | 11 Oct 18 |
| fob Trombetas, Brazil \$/tonne per dmtu                                                                                                                                                                                          | 37*              | 0%        | 11 Oct 18 |
| <b>Copper &amp; Brass</b>                                                                                                                                                                                                        |                  |           |           |
| <b>Producer premium</b>                                                                                                                                                                                                          |                  |           |           |
| Aurubis European Grade A cathode ex-works \$/tonne                                                                                                                                                                               | 86.0             | 0%        | 20 Oct 17 |
| Codelco: Contract Grade A cathode (average)                                                                                                                                                                                      | 98.0             | 11.36% ▲  | 26 Sep 18 |
| Germany: (VDM) Electro, €/tonne wirebar (DEL):                                                                                                                                                                                   | 5,495.0-5,522.0  | -0.96% ▼  | 17 Oct 18 |
| cathodes:                                                                                                                                                                                                                        | 5,390.0-5,490.0  | -1.09% ▼  | 17 Oct 18 |
| South Africa: Palabora copper rod 7.90mm, Rand/tonne                                                                                                                                                                             | 102,694.150      | 4.52% ▲   | 01 Oct 18 |
| Copper concentrate Asia-Pacific Index RC import, US cents/lb (twice monthly on 15th and last day of month)                                                                                                                       | 8.90-8.90*       | 3.01% ▲   | 15 Oct 18 |
| Copper concentrate Asia-Pacific Index TC import, \$/dmt (twice monthly on 15th and last day of month)                                                                                                                            | 89-89*           | 3.01% ▲   | 15 Oct 18 |
| Shanghai bonded copper stocks, tonnes                                                                                                                                                                                            | 392,000-400,000* | -7.58% ▼  | 09 Oct 18 |
| <b>Nickel</b>                                                                                                                                                                                                                    |                  |           |           |
| Nickel pig iron high grade NPI content 10-15% contract price delivered duty-paid China yuan per nickel unit price                                                                                                                | 1,065-1,090*     | 0.47% ▲   | 16 Oct 18 |
| Nickel pig iron high grade NPI content 10-15% spot price China yuan per nickel unit price                                                                                                                                        | 1,070-1,090*     | 0.93% ▲   | 16 Oct 18 |
| Shanghai bonded nickel stocks, tonnes                                                                                                                                                                                            | 40,000-45,000*   | -15.84% ▼ | 09 Oct 18 |
| <b>Nickel ore</b>                                                                                                                                                                                                                |                  |           |           |
| Laterite ore with 1.5% nickel content cif China, \$/tonne                                                                                                                                                                        | 30-31*           | -1.61% ▼  | 16 Oct 18 |
| Nickel ore 1.8% basis cif China, 15-20% Fe, water content: 30-35%, Si:Mg ratio less than 2, lot size 50,000 tonnes, \$/tonne                                                                                                     | 56-57*           | -0.88% ▼  | 16 Oct 18 |
| <b>Lead</b>                                                                                                                                                                                                                      |                  |           |           |
| Germany: (VDM) virgin soft, €/tonne                                                                                                                                                                                              | 1,920-1,950      | 2.93% ▲   | 17 Oct 18 |
| Lead concentrate spot treatment charge (TC) high silver CIF Asia Pacific, \$/tonne                                                                                                                                               | 15-35*           | 11.11% ▲  | 28 Sep 18 |
| Lead concentrate spot treatment charge (TC) low silver CIF Asia Pacific, \$/tonne                                                                                                                                                | 20-45*           | 44.44% ▲  | 28 Sep 18 |
| <i>EUROBAT has decided to discontinue collecting and aggregating premium information. So it will no longer be able to supply this information to the Metal Bulletin. The premiums will be discontinued from the end of 2017.</i> |                  |           |           |
| <b>Zinc</b>                                                                                                                                                                                                                      |                  |           |           |
| Germany: (VDM) virgin, €/tonne                                                                                                                                                                                                   | 2,480-2,480      | -1.98% ▼  | 17 Oct 18 |
| UK: Special high grade, delivered monthly average price £/tonne                                                                                                                                                                  | 2,071*           | -1.19% ▼  | 01 Oct 18 |
| Zinc concentrate spot treatment charge (TC) CIF Asia-Pacific \$/tonne                                                                                                                                                            | 115-135*         | 42.86% ▲  | 28 Sep 18 |
| Zinc concentrate spot treatment charge (TC) delivered North China yuan/tonne                                                                                                                                                     | 4,200-4,600*     | 6.02% ▲   | 28 Sep 18 |
| Zinc concentrate spot treatment charge (TC) delivered South China yuan/tonne                                                                                                                                                     | 4,100-4,400*     | 4.94% ▲   | 28 Sep 18 |
| Shanghai bonded zinc stocks, tonnes                                                                                                                                                                                              | 28,000-33,000*   | -69.35% ▼ | 09 Oct 18 |

† week-on-week change

continued ➤



| PRECIOUS METALS                                                                                    |                  |                     |           |
|----------------------------------------------------------------------------------------------------|------------------|---------------------|-----------|
|                                                                                                    | Price            | Change <sup>†</sup> | Assessed  |
| <b>Iridium</b>                                                                                     |                  |                     |           |
| MB free market: min 99.9%, \$/troy oz in-warehouse                                                 | 1,420-1,520*     | 0%                  | 19 Oct 18 |
| Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)                                            | 1,460            | 0%                  | 19 Oct 18 |
| Engelhard base price: \$/troy oz                                                                   | 1,485            | 0%                  | 19 Oct 18 |
| <b>Palladium</b>                                                                                   |                  |                     |           |
| European free market: min 99.9%, \$/troy oz in-warehouse                                           | 1,071-1,092*     | -0.6% ▼             | 19 Oct 18 |
| Engelhard base price: \$/troy oz                                                                   | 1,087            | -0.28% ▼            | 19 Oct 18 |
| Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)                                            | 1,092            | -0.09% ▼            | 19 Oct 18 |
| <b>Platinum</b>                                                                                    |                  |                     |           |
| European free market: min 99.9%, \$/troy oz in-warehouse                                           | 827-835*         | -0.42% ▼            | 19 Oct 18 |
| Engelhard base price: \$/troy oz                                                                   | 833              | -1.42% ▼            | 19 Oct 18 |
| Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)                                            | 835              | -1.07% ▼            | 19 Oct 18 |
| <b>Rhodium</b>                                                                                     |                  |                     |           |
| European free market: min 99.9%, \$/troy oz in-warehouse                                           | 2,415-2,515*     | -1.4% ▼             | 19 Oct 18 |
| Engelhard base price: \$/troy oz                                                                   | 2,500            | -0.99% ▼            | 19 Oct 18 |
| Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)                                            | 2,490            | -0.99% ▼            | 19 Oct 18 |
| <b>Ruthenium</b>                                                                                   |                  |                     |           |
| European free market: min 99.9%, \$/troy oz in-warehouse                                           | 250-290*         | 0%                  | 19 Oct 18 |
| Engelhard base price: \$/troy oz                                                                   | 270              | 0%                  | 19 Oct 18 |
| Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)                                            | 265              | 0%                  | 19 Oct 18 |
| <b>MINOR METALS</b>                                                                                |                  |                     |           |
|                                                                                                    | Price            | Change <sup>†</sup> | Assessed  |
| <b>Antimony</b>                                                                                    |                  |                     |           |
| MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam | 8,150-8,500*     | -2.06% ▼            | 19 Oct 18 |
| MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam                                            | 8,150-8,450*     | -2.35% ▼            | 19 Oct 18 |
| MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne                      | 51,000-51,500*   | -2.84% ▼            | 17 Oct 18 |
| <b>Arsenic</b>                                                                                     |                  |                     |           |
| MB free market \$/lb                                                                               | 1.20-1.5*        | 0%                  | 12 Oct 18 |
| <b>Bismuth</b>                                                                                     |                  |                     |           |
| MB free market \$/lb                                                                               | 3.90-4.40*       | 0%                  | 19 Oct 18 |
| MB China domestic, min 99.99%, yuan/tonne                                                          | 51,000-52,500*   | -1.43% ▼            | 19 Oct 18 |
| <b>Cadmium</b>                                                                                     |                  |                     |           |
| MB free market min 99.95% cents/lb                                                                 | 120-135*         | 0%                  | 19 Oct 18 |
| MB free market min 99.99% cents/lb                                                                 | 125-140*         | 0%                  | 19 Oct 18 |
| <b>Chromium</b>                                                                                    |                  |                     |           |
| MB free market alumino-thermic min 99% \$/tonne                                                    | 10,800-11,600*   | -1.75% ▼            | 19 Oct 18 |
| <b>Cobalt</b>                                                                                      |                  |                     |           |
| MB free market high-grade \$/lb                                                                    | 33.5-34.40*      | 0%                  | 19 Oct 18 |
| MB free market low-grade \$/lb                                                                     | 33.5-34.40*      | 0%                  | 19 Oct 18 |
| MB high-grade, weighted average of all confirmed international trades, \$/lb                       | 34.40*           | -1.15% ▼            | 19 Oct 18 |
| MB low-grade, weighted average of all confirmed international trades, \$/lb                        | 33.5*            | -1.15% ▼            | 17 Oct 18 |
| MB China domestic, min 99.8% yuan/tonne                                                            | 450,000-490,000* | -3.59% ▼            | 19 Oct 18 |
| Cobalt tetroxide min 72.6% Co delivered China yuan/tonne                                           | 310,000-330,000* | -3.03% ▼            | 19 Oct 18 |

|                                                                     | Price          | Change    | Assessed  |
|---------------------------------------------------------------------|----------------|-----------|-----------|
| <b>Gallium</b>                                                      |                |           |           |
| MB free market \$/kg                                                | 200-215*       | 0%        | 19 Oct 18 |
| MB China domestic, min 99.99%, yuan/kg                              | 1,300-1,350*   | -2.93% ▼  | 17 Oct 18 |
| <b>Germanium</b>                                                    |                |           |           |
| Germanium dioxide MB free market \$/kg                              | 950-1,150*     | 0%        | 19 Oct 18 |
| Germanium metal \$/kg Rotterdam                                     | 1,300-1,450*   | 0%        | 19 Oct 18 |
| Germanium metal MB China domestic, min 99.99%, yuan/kg              | 8,200-8,500*   | 0%        | 17 Oct 18 |
| <b>Hafnium</b>                                                      |                |           |           |
| Hafnium 1% Zr max, in-warehouse global locations, \$/kg             | 950-1,050*     | 0%        | 12 Oct 18 |
| <b>Indium</b>                                                       |                |           |           |
| MB free market \$/kg                                                | 240-270*       | -0.97% ▼  | 19 Oct 18 |
| MB China domestic, min 99.99% yuan/kg                               | 1,550-1,600*   | -3.08% ▼  | 17 Oct 18 |
| Indium Corp ingots min 99.97% \$/kg fob                             | 440            | -40.94% ▼ | 26 Jun 15 |
| <b>Magnesium</b>                                                    |                |           |           |
| European free market \$ per tonne                                   | 2,630-2,750*   | 3.46% ▲   | 19 Oct 18 |
| China free market min 99.8% Mg, fob China main ports, \$ per tonne  | 2,700-2,720*   | 1.69% ▲   | 19 Oct 18 |
| MB Chinese free market min 99% Mg, ex-works yuan/tonne              | 17,900-18,000* | 1.7% ▲    | 19 Oct 18 |
| <b>Manganese flake</b>                                              |                |           |           |
| MB free market \$/tonne                                             | 2,600-2,700*   | -3.64% ▼  | 19 Oct 18 |
| <b>Mercury</b>                                                      |                |           |           |
| MB free market \$ per flask                                         | 2,750-3,100*   | 0%        | 12 Oct 18 |
| <b>Rhenium in-warehouse Rotterdam duty paid</b>                     |                |           |           |
| Metal pellets, min 99.9% \$/lb                                      | 726-755*       | 0%        | 12 Oct 18 |
| APR catalytic grade \$/kg Re                                        | 1,440-1,580*   | 0%        | 12 Oct 18 |
| <b>Selenium</b>                                                     |                |           |           |
| MB free market \$/lb                                                | 14.5-15.5*     | -3.23% ▼  | 19 Oct 18 |
| MB China domestic, min 99.9%, yuan/kg                               | 210-260*       | 2.17% ▲   | 19 Oct 18 |
| Selenium dioxide, MB China domestic, min 98%, yuan/kg               | 105-110*       | 0%        | 14 Sep 18 |
| <b>Silicon</b>                                                      |                |           |           |
| Grade 441, min 99% Si in-warehouse Rotterdam, €/tonne               | 1,840-1,920*   | -1.31% ▼  | 19 Oct 18 |
| Grade 553, min 98.5% Si in-warehouse Rotterdam, €/tonne             | 1,720-1,820*   | -4.32% ▼  | 19 Oct 18 |
| US free market cents/lb                                             | 124-127*       | -1.95% ▼  | 10 Oct 18 |
| Export from mainland China min 98.5%, \$/tonne fob                  | 1,680-1,750*   | 1.18% ▲   | 19 Oct 18 |
| <b>Tellurium</b>                                                    |                |           |           |
| MB free market \$/kg                                                | 60-80*         | 0%        | 19 Oct 18 |
| MB China domestic, min 99.99%, yuan/kg                              | 470-500*       | 0%        | 19 Oct 18 |
| <b>Titanium</b>                                                     |                |           |           |
| MB free market ferro-titanium 70% (max 4.5% Al) \$/kg Ti d/d Europe | 5.20-5.65*     | -3.98% ▼  | 17 Oct 18 |
| <b>Titanium ores \$/tonne</b>                                       |                |           |           |
| Rutile conc min 95% TiO2 bagged, fob/Aus                            | 1,050-1,300    | 0%        | 18 Oct 18 |
| Rutile bulk conc min 95% TiO2 fob/Aus                               | 1,000-1,050    | 0%        | 18 Oct 18 |
| Ilmenite concentrate, 47-49% TiO2 cif China                         | 160-180        | 0%        | 18 Oct 18 |

† week-on-week change

continued ➤



| NOBLE ALLOYS & ORES                                                                                     |                  |                     |           |
|---------------------------------------------------------------------------------------------------------|------------------|---------------------|-----------|
|                                                                                                         | Price            | Change <sup>†</sup> | Assessed  |
| <b>Molybdenum molybdc oxide</b>                                                                         |                  |                     |           |
| Europe drummed molybdc oxide \$/lb Mo                                                                   | 11.90-12*        | -1.04% ▼            | 19 Oct 18 |
| US canned molybdc oxide \$/lb Mo                                                                        | 12-12.10*        | -0.21% ▼            | 18 Oct 18 |
| <b>Ferro-molybdenum</b>                                                                                 |                  |                     |           |
| Basis 65% min, in-warehouse Rotterdam \$/kg Mo                                                          | 28.60-29.10*     | -1.2% ▼             | 19 Oct 18 |
| US free market 65-70% Mo \$/lb in-warehouse Pittsburgh                                                  | 12.90-13.35*     | 0.19% ▲             | 18 Oct 18 |
| MB Chinese free market concentrate 45% Mo in-warehouse China yuan/mtu                                   | 1,920-1,970*     | 2.1% ▲              | 17 Oct 18 |
| <b>Tungsten</b>                                                                                         |                  |                     |           |
| European free market APT \$/mtu                                                                         | 275-295*         | 0.88% ▲             | 19 Oct 18 |
| Export from mainland China APT Chinese No1 grade, min 88.5% W03, S/mtu fob                              | 280-286*         | 0%                  | 17 Oct 18 |
| MB Chinese free market concentrate 65% W03 in-warehouse China yuan/tonne                                | 103,000-105,000* | 2.46% ▲             | 17 Oct 18 |
| <b>Ferro-tungsten</b>                                                                                   |                  |                     |           |
| Basis 75% W min \$/kg W in-warehouse Rotterdam duty-unpaid                                              | 33-34*           | 0%                  | 19 Oct 18 |
| China export min 75% \$/kg W, fob China                                                                 | 33-34*           | -0.74% ▼            | 17 Oct 18 |
| <b>Vanadium</b>                                                                                         |                  |                     |           |
| Ferro-vanadium basis 78% min, fob, China \$/kg V                                                        | 130-140*         | 17.39% ▲            | 18 Oct 18 |
| Ferro-vanadium basis 78% min, free delivery duty paid consumer plant, 1st grade, Western Europe \$/kg V | 113.25-118.5*    | 1.2% ▲              | 19 Oct 18 |
| US free market ferro-vanadium \$/lb in-warehouse Pittsburgh                                             | 51.5-53.75*      | 1.2% ▲              | 18 Oct 18 |
| Vanadium pentoxide 98% min, fob, China \$/lb V2O5                                                       | 30-32*           | 16.98% ▲            | 18 Oct 18 |
| Vanadium pentoxide min 98%, in-warehouse Rotterdam \$/lb V2O5                                           | 24.10-25.5*      | 2.06% ▲             | 19 Oct 18 |
| <b>Zircon</b>                                                                                           |                  |                     |           |
| Foundry grade bulk \$/tonne fob Australia                                                               | 950-1,000        | 0%                  | 01 Feb 18 |
| Premium bulk \$/tonne fob Australia                                                                     | 1,380-1,570      | 0%                  | 12 Apr 18 |
| <b>BULK ALLOYS</b>                                                                                      |                  |                     |           |
|                                                                                                         | Price            | Change <sup>†</sup> | Assessed  |
| <b>Ferro-chrome \$/lb Cr</b>                                                                            |                  |                     |           |
| China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid                                      | 0.86*            | 0%                  | 19 Oct 18 |
| Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb       | 1.22*            | 0%                  | 19 Oct 18 |
| Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne                                           | 7,000-7,200*     | -0.7% ▼             | 19 Oct 18 |
| Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne                                       | 6,850-7,100*     | 0%                  | 19 Oct 18 |
| Lumpy Cr charge basis 52% Cr (and high carbon) quarterly                                                | 1.24*            | -10.14% ▼           | 17 Oct 18 |
| High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si                                                        | 1.12-1.26*       | 0%                  | 19 Oct 18 |
| 0.10% C average 60-70% Cr                                                                               | 2.16-2.26*       | -1.56% ▼            | 19 Oct 18 |
| European low carbon in-warehouse 0.06% C max - 65% Cr                                                   | 2.26-2.37*       | 0%                  | 19 Oct 18 |
| Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05%                                 | 1.18-1.28*       | -5.38% ▼            | 19 Oct 18 |
| Japan import 8-9% C, basis 60% Cr, cif Japan, duty-unpaid \$/lb contained chrome                        | 0.89-0.93*       | 0%                  | 18 Oct 18 |
| South Korea import 8-9% C, basis 60% Cr, cif South Korea, duty-unpaid \$/lb contained chrome            | 0.84-0.86*       | -1.16% ▼            | 18 Oct 18 |

|                                                                                    | Price        | Change   | Assessed  |
|------------------------------------------------------------------------------------|--------------|----------|-----------|
| <b>US free market low carbon duty-paid fob Pittsburgh</b>                          |              |          |           |
| US free market in-warehouse Pittsburgh 6-8% C basis 60-65% Cr max 2% Si            | 1.300-1.400* | 0%       | 18 Oct 18 |
| 0.05% C - 65% min Cr                                                               | 2.35-2.40*   | 0%       | 18 Oct 18 |
| 0.10% C - 62% min Cr                                                               | 2.05-2.10*   | -0.72% ▼ | 18 Oct 18 |
| 0.15% C - 60% min Cr                                                               | 2.01-2.05*   | -0.49% ▼ | 18 Oct 18 |
| <b>Chrome ore \$/tonne</b>                                                         |              |          |           |
| <i>Chrome ore cif main Chinese ports</i>                                           |              |          |           |
| South African UG2 chrome ore concs, index basis 42%                                | 172*         | 1.78% ▲  | 19 Oct 18 |
| Turkish lumpy 40-42% cfr main Chinese ports                                        | 230-240*     | 3.52% ▲  | 19 Oct 18 |
| <b>Ferro-manganese</b>                                                             |              |          |           |
| basis 78% Mn (scale pro rata) standard 7.5% C €/tonne                              | 925-975*     | 0%       | 19 Oct 18 |
| US free market 78% Mn standard 7.5% C \$/long ton in-warehouse Pittsburgh          | 1,300-1,410* | 1.31% ▲  | 18 Oct 18 |
| US free market medium carbon duty-paid fob Pittsburgh, 80% min Mn 1.5% max C \$/lb | 1.12-1.15*   | 0%       | 18 Oct 18 |
| MB Chinese free market min 65% Mn max 7.0% C in-warehouse China yuan/tonne         | 7,100-7,300* | -2.04% ▼ | 19 Oct 18 |
| <b>Manganese ore</b>                                                               |              |          |           |
| 44% Mn, cif Tianjin \$/dmu of metal contained                                      | 7.16*        | -0.28% ▼ | 19 Oct 18 |
| 37% Mn, fob Port Elizabeth \$/dmu of metal contained                               | 5.98*        | 0.5% ▲   | 19 Oct 18 |
| Inventories at the main ports of Tianjin and Qinzhou, million tonnes               | 2.57-2.61*   | -6.5% ▼  | 17 Oct 18 |
| <b>Ferro-nickel</b>                                                                |              |          |           |
| China premium, 26-32% nickel contained, cif China, \$/tonne                        | -300--150*   | -10%     | 24 Sep 18 |
| <b>Ferro-silicon</b>                                                               |              |          |           |
| Lumpy basis 75% Si (scale pro rata) €/tonne                                        | 1,300-1,350* | 0%       | 19 Oct 18 |
| US free market \$/lb in-warehouse Pittsburgh lumpy basis 75% Si - imported         | 1.04-1.07*   | -0.47% ▼ | 18 Oct 18 |
| Export from mainland China, min 75% Si, 7.5% C, \$/tonne, fob                      | 1,280-1,300* | -1.53% ▼ | 19 Oct 18 |
| MB Chinese free market min 75% Si, in-warehouse China, yuan/tonne                  | 6,500-6,800* | -1.48% ▼ | 19 Oct 18 |
| <b>Silico-manganese</b>                                                            |              |          |           |
| Lumpy basis 65-75% Mn basis 15-19% Si (scale pro rata) €/tonne                     | 950-1,000*   | 0%       | 19 Oct 18 |
| US free market \$/lb in-warehouse Pittsburgh                                       | 0.61-0.63*   | 0%       | 18 Oct 18 |
| MB Chinese free market min 65% Mn max 17% Si in-warehouse China yuan/tonne         | 8,400-8,600* | 0.59% ▲  | 19 Oct 18 |
| 65% min Mn 16% min Si \$/tonne fob India                                           | 1,050-1,100* | 0%       | 19 Oct 18 |

† week-on-week change

continued ➤



| CARBON STEEL - EUROPE                                                                                                                                                                 |              |                     |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------|-----------|
|                                                                                                                                                                                       | Price        | Change <sup>†</sup> | Assessed  |
| <b>Northern Europe imports</b>                                                                                                                                                        |              |                     |           |
| <i>Metal Bulletin's appraisal of cfr prices for imported, non-EU origin, commercial-quality carbon steel, € per tonne cfr main EU port</i>                                            |              |                     |           |
| Rebar                                                                                                                                                                                 | 500-505*     | 0%                  | 17 Oct 18 |
| Wire rod (mesh quality)                                                                                                                                                               | 520-530*     | 0%                  | 17 Oct 18 |
| Plate (8-40mm)                                                                                                                                                                        | 580-590*     | 0%                  | 17 Oct 18 |
| Hot rolled coil                                                                                                                                                                       | 530-535*     | 0%                  | 17 Oct 18 |
| Cold rolled coil                                                                                                                                                                      | 600-620*     | 0%                  | 17 Oct 18 |
| Hot-dip galvanized coil                                                                                                                                                               | 650-670*     | 0.76% ▲             | 17 Oct 18 |
| <b>Southern Europe imports</b>                                                                                                                                                        |              |                     |           |
| <i>Metal Bulletin's appraisal of cfr prices for imported, non-EU origin, commercial-quality carbon steel, € per tonne cfr main EU port</i>                                            |              |                     |           |
| Rebar                                                                                                                                                                                 | 480-500*     | 0%                  | 17 Oct 18 |
| Wire rod (mesh quality)                                                                                                                                                               | 520-530*     | 0%                  | 17 Oct 18 |
| Plate (8-40mm)                                                                                                                                                                        | 570-575*     | 0%                  | 17 Oct 18 |
| Hot rolled coil                                                                                                                                                                       | 515-525*     | 0.97% ▲             | 17 Oct 18 |
| Cold rolled coil                                                                                                                                                                      | 600-610*     | 1.26% ▲             | 17 Oct 18 |
| Hot-dip galvanized coil                                                                                                                                                               | 640-660*     | 0.78% ▲             | 17 Oct 18 |
| <b>Southern Europe exports</b>                                                                                                                                                        |              |                     |           |
| <i>Metal Bulletin's appraisal of Southern Europe mills' prices for export outside Southern Europe of commercial-quality carbon steel, € per tonne fob main Southern European port</i> |              |                     |           |
| Rebar                                                                                                                                                                                 | 460-490*     | 0%                  | 17 Oct 18 |
| Wire rod (mesh quality)                                                                                                                                                               | 480-500*     | -2% ▼               | 17 Oct 18 |
| <b>Northern Europe domestic</b>                                                                                                                                                       |              |                     |           |
| <i>Metal Bulletin's appraisal of prices within the EU (excluding the UK) for commercial-quality carbon steel of EU origin, € per tonne delivered basis point</i>                      |              |                     |           |
| Rebar                                                                                                                                                                                 | 550-570*     | 0%                  | 17 Oct 18 |
| Wire rod (mesh quality)                                                                                                                                                               | 535-560*     | 0%                  | 17 Oct 18 |
| Sections (medium)                                                                                                                                                                     | 660-670*     | 0.76% ▲             | 17 Oct 18 |
| Beams                                                                                                                                                                                 | 620-650*     | 0%                  | 17 Oct 18 |
| <b>Southern Europe domestic</b>                                                                                                                                                       |              |                     |           |
| <i>Metal Bulletin's appraisal of prices within the EU (excluding the UK) for commercial-quality carbon steel of EU origin, € per tonne delivered basis point</i>                      |              |                     |           |
| Rebar                                                                                                                                                                                 | 520-545*     | -0.93% ▼            | 17 Oct 18 |
| Wire rod (mesh quality)                                                                                                                                                               | 535-560*     | 0%                  | 17 Oct 18 |
| Sections (medium)                                                                                                                                                                     | 630-650*     | 0%                  | 17 Oct 18 |
| Beams                                                                                                                                                                                 | 630-650*     | 0%                  | 17 Oct 18 |
| <b>Central Europe domestic € per tonne ex-works</b>                                                                                                                                   |              |                     |           |
| Hot rolled coil                                                                                                                                                                       | 540-550*     | 0%                  | 17 Oct 18 |
| <b>Poland domestic zloty per tonne ex-works</b>                                                                                                                                       |              |                     |           |
| Rebar                                                                                                                                                                                 | 2,340-2,370* | -0.21% ▼            | 19 Oct 18 |
| <b>Northern Europe € per tonne ex-works</b>                                                                                                                                           |              |                     |           |
| Plate (8-40mm)                                                                                                                                                                        | 620-635*     | -0.4% ▼             | 17 Oct 18 |
| Hot rolled coil                                                                                                                                                                       | 560-570*     | -0.44% ▼            | 17 Oct 18 |
| Cold rolled coil                                                                                                                                                                      | 640-655*     | 0.39% ▲             | 17 Oct 18 |
| Hot-dip galvanized coil                                                                                                                                                               | 640-670*     | 0%                  | 17 Oct 18 |
| <b>Southern Europe € per tonne ex-works</b>                                                                                                                                           |              |                     |           |
| Plate (8-40mm)                                                                                                                                                                        | 575-585*     | -0.43% ▼            | 17 Oct 18 |
| Hot rolled coil                                                                                                                                                                       | 510-540*     | 0%                  | 17 Oct 18 |
| Cold rolled coil                                                                                                                                                                      | 600-625*     | -0.41% ▼            | 17 Oct 18 |
| Hot-dip galvanized coil                                                                                                                                                               | 610-625*     | -2.76% ▼            | 17 Oct 18 |
| <b>CARBON STEEL - NORTH AFRICA</b>                                                                                                                                                    |              |                     |           |
|                                                                                                                                                                                       | Price        | Change <sup>†</sup> | Assessed  |
| <b>Algeria imports</b>                                                                                                                                                                |              |                     |           |
| <i>Metal Bulletin's appraisal of cfr prices for imported, EU origin, commercial-quality carbon steel, € per tonne cfr main port</i>                                                   |              |                     |           |
| Rebar                                                                                                                                                                                 | 480-490*     | 0%                  | 03 Oct 18 |

| CARBON STEEL - CIS                                                                                                                                                |                |                     |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|-------------|
|                                                                                                                                                                   | Price          | Change <sup>†</sup> | Assessed    |
| <b>CIS exports (Black Sea)</b>                                                                                                                                    |                |                     |             |
| <i>Metal Bulletin's appraisal of CIS mills' prices for export outside the CIS of commercial-quality carbon steel, \$ per tonne fob stowed main Black Sea port</i> |                |                     |             |
| Billet index                                                                                                                                                      | 455*           | -1.52% ▼            | 19 Oct 18   |
| Slab                                                                                                                                                              | 465-475*       | 0%                  | 16 Oct 18   |
| Rebar                                                                                                                                                             | 495-500*       | -0.5% ▼             | 16 Oct 18   |
| Wire rod (mesh)                                                                                                                                                   | 530-530*       | -0.47% ▼            | 16 Oct 18   |
| Heavy plate (10-50mm)                                                                                                                                             | 627-631*       | 0.56% ▲             | 16 Oct 18   |
| Hot rolled coil                                                                                                                                                   | 520-530*       | -0.47% ▼            | 16 Oct 18   |
| Cold rolled coil                                                                                                                                                  | 595-610*       | 0.42% ▲             | 16 Oct 18   |
| <b>CIS domestic</b>                                                                                                                                               |                |                     |             |
| <i>Metal Bulletin's appraisal of prices within Russia for commercial-quality carbon steel of CIS origin, rubles per tonne, carriage paid to (cpt) inc VAT</i>     |                |                     |             |
| Rebar                                                                                                                                                             | 40,500-40,500* | -3.57% ▼            | 16 Oct 18   |
| Hot rolled sheet                                                                                                                                                  | 42,970-43,000* | -1.07% ▼            | 16 Oct 18   |
| Cold rolled sheet                                                                                                                                                 | 48,100-50,400* | -1.6% ▼             | 16 Oct 18   |
| Plate                                                                                                                                                             | 41,800-43,100* | -3.41% ▼            | 16 Oct 18   |
| <b>CARBON STEEL - MIDDLE EAST</b>                                                                                                                                 |                |                     |             |
|                                                                                                                                                                   | Price          | Change <sup>†</sup> | Assessed    |
| <b>Turkish exports</b>                                                                                                                                            |                |                     |             |
| <i>Metal Bulletin's appraisal of Turkish mills' prices for export of commercial-quality carbon steel, \$ per tonne fob main Turkish port</i>                      |                |                     |             |
| Billet                                                                                                                                                            | 460-475*       | -3.11% ▼            | 18 Oct 18   |
| Rebar                                                                                                                                                             | 495-500*       | 0%                  | 18 Oct 18   |
| Wire rod (mesh quality)                                                                                                                                           | 515-525*       | -0.48% ▼            | 18 Oct 18   |
| Merchant bars                                                                                                                                                     | 555-565*       | 0%                  | 18 Oct 18   |
| Structural pipe                                                                                                                                                   | 620-640*       | -1.56% ▼            | 10 Oct 18   |
| Hot rolled coil                                                                                                                                                   | 550-560*       | -3.48% ▼            | 19 Oct 18   |
| Hot dip galvanized                                                                                                                                                | 700-720*       | -2.07% ▼            | 19 Oct 18   |
| <b>Turkish domestic</b>                                                                                                                                           |                |                     |             |
| <i>Metal Bulletin's appraisal of prices within Turkey for commercial-quality carbon steel of Turkish origin, \$ per tonne ex-works</i>                            |                |                     |             |
| Billet                                                                                                                                                            | 457-460*       | -3.98% ▼            | 18 Oct 18   |
| Rebar                                                                                                                                                             | 530-545*       | -2.27% ▼            | 16 Aug 18   |
| Wire rod (mesh quality)                                                                                                                                           | 560-580*       | -2.98% ▼            | 16 Aug 18   |
| Hot rolled coil                                                                                                                                                   | 550-560*       | -3.48% ▼            | 19 Oct 18   |
| Cold rolled coil                                                                                                                                                  | 640-650*       | 0%                  | 19 Oct 18   |
| Hot dip galvanized                                                                                                                                                | 700-720*       | 0%                  | 19 Oct 18   |
| Prepainted galvanized                                                                                                                                             | 790-820*       | 0%                  | 19 Oct 18   |
| <b>Turkish imports</b>                                                                                                                                            |                |                     |             |
| <i>Metal Bulletin's appraisal of prices for imported commercial-quality carbon steel, \$ per tonne cfr main Turkish port</i>                                      |                |                     |             |
| Billet                                                                                                                                                            | 455-465*       | -3.66% ▼            | 18 Oct 18   |
| Hot rolled coil                                                                                                                                                   | 535-540*       | 0%                  | 19 Oct 18   |
| Cold rolled coil                                                                                                                                                  | 620-625*       | 0%                  | 19 Oct 18   |
| <b>UAE imports</b>                                                                                                                                                |                |                     |             |
| <i>Metal Bulletin's appraisal of prices for imported commercial-quality carbon steel, \$ per tonne cfr Jebel Ali</i>                                              |                |                     |             |
| Billet                                                                                                                                                            | 495-500*       | -1.49% ▼            | 16 Oct 18   |
| Rebar                                                                                                                                                             | 525-530*       | 0%                  | 16 Oct 18   |
| Hot rolled coil                                                                                                                                                   | 575-590*       | -0.43% ▼            | 16 Oct 18   |
| Cold rolled coil                                                                                                                                                  | 650-660*       | -1.13% ▼            | 16 Oct 18   |
| Hot dip galvanized coil                                                                                                                                           | 710-780*       | -1.32% ▼            | 16 Oct 18   |
| <b>Saudi Arabia imports</b>                                                                                                                                       |                |                     |             |
| <i>Metal Bulletin's appraisal of prices for imported commercial-quality carbon steel, \$ per tonne cfr</i>                                                        |                |                     |             |
| Rebar                                                                                                                                                             | 570-575*       | 0%                  | 26 Jun 18   |
| Hot rolled coil                                                                                                                                                   | 560-570*       | -5.04% ▼            | 16 Oct 18   |
| <b>UAE domestic</b>                                                                                                                                               |                |                     |             |
| † week-on-week change                                                                                                                                             |                |                     | continued ➤ |



|                                                                                                                                                                                         | Price          | Change   | Assessed  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|-----------|
| <i>Metal Bulletin's appraisal of prices within UAE for commercial-quality carbon steel of UAE origin, dirhams per tonne ex-works</i>                                                    |                |          |           |
| Rebar                                                                                                                                                                                   | 2,016-2,018*   | 0%       | 16 Oct 18 |
| <b>Iran imports</b>                                                                                                                                                                     |                |          |           |
| <i>Metal Bulletin's appraisal of prices quoted by overseas suppliers for commercial-quality carbon steel to Iranian buyers, \$ per tonne cfr Iranian northern ports</i>                 |                |          |           |
| Cold rolled coil                                                                                                                                                                        | 630-640*       | 0%       | 29 Aug 18 |
| Hot rolled coil                                                                                                                                                                         | 595-600*       | 0%       | 29 Aug 18 |
| <b>Iran exports</b>                                                                                                                                                                     |                |          |           |
| <i>Metal Bulletin's appraisal of prices quoted by overseas suppliers for commercial-quality carbon steel to Iranian buyers, \$ per tonne fob Iranian ports</i>                          |                |          |           |
| Billet                                                                                                                                                                                  | 440-450*       | -3.78% ▼ | 17 Oct 18 |
| Slab                                                                                                                                                                                    | 440-445*       | -2.75% ▼ | 17 Oct 18 |
| <b>Egyptian domestic</b>                                                                                                                                                                |                |          |           |
| <i>Metal Bulletin's appraisal of prices within Egypt for commercial-quality carbon steel of Egyptian origin, £ per tonne ex-works</i>                                                   |                |          |           |
| Rebar                                                                                                                                                                                   | 12,180-12,198* | 0%       | 18 Oct 18 |
| <b>Egyptian import</b>                                                                                                                                                                  |                |          |           |
| <i>Metal Bulletin's appraisal of prices for imported commercial-quality carbon steel, \$ per tonne cfr main port</i>                                                                    |                |          |           |
| Billet                                                                                                                                                                                  | 480-485*       | -2.03% ▼ | 18 Oct 18 |
| <b>CARBON STEEL - LATIN AMERICA</b>                                                                                                                                                     |                |          |           |
|                                                                                                                                                                                         | Price          | Change†  | Assessed  |
| <b>Latin American exports</b>                                                                                                                                                           |                |          |           |
| <i>Metal Bulletin's appraisal of Latin American mills' prices for export outside Latin America of commercial-quality carbon steel, \$ per tonne fob stowed main Latin American port</i> |                |          |           |
| Billet                                                                                                                                                                                  | 480-490*       | 0%       | 19 Oct 18 |
| Slab, Brazil                                                                                                                                                                            | 500-510*       | 1% ▲     | 19 Oct 18 |
| Rebar                                                                                                                                                                                   | 560-565*       | 0%       | 19 Oct 18 |
| Wire rod mesh quality                                                                                                                                                                   | 595-600*       | 0%       | 19 Oct 18 |
| Heavy plate over 10mm                                                                                                                                                                   | 640-650*       | 0%       | 19 Oct 18 |
| Hot rolled coil (dry)                                                                                                                                                                   | 575-580*       | -3.35% ▼ | 19 Oct 18 |
| Cold rolled coil                                                                                                                                                                        | 650-660*       | -2.6% ▼  | 19 Oct 18 |
| Galvanized coil                                                                                                                                                                         | 800-810*       | 0%       | 19 Oct 18 |
| <b>South America imports</b>                                                                                                                                                            |                |          |           |
| <i>Metal Bulletin's appraisal of cfr prices for imported, commercial-quality carbon steel, \$ per tonne cfr main ports</i>                                                              |                |          |           |
| Plate                                                                                                                                                                                   | 625-630*       | 0%       | 19 Oct 18 |
| Hot rolled coil                                                                                                                                                                         | 590-610*       | -2.83% ▼ | 19 Oct 18 |
| Cold rolled coil                                                                                                                                                                        | 630-650*       | -2.29% ▼ | 19 Oct 18 |
| Galvanized coil                                                                                                                                                                         | 690-700*       | -2.8% ▼  | 19 Oct 18 |
| <b>Argentina domestic \$ per tonne ex-works</b>                                                                                                                                         |                |          |           |
| <i>Metal Bulletin's appraisal of prices within Argentina for commercial-quality carbon steel, \$ per tonne</i>                                                                          |                |          |           |
| Hot rolled coil                                                                                                                                                                         | 725-755*       | 0%       | 12 Oct 18 |
| Cold rolled coil                                                                                                                                                                        | 825-860*       | 0%       | 12 Oct 18 |
| Galvanized coil                                                                                                                                                                         | 1,035-1,170*   | 0%       | 12 Oct 18 |
| Rebar                                                                                                                                                                                   | 820-860*       | 0%       | 12 Oct 18 |
| <b>Brazil domestic</b>                                                                                                                                                                  |                |          |           |
| <i>Metal Bulletin's appraisal of prices within Brazil for commercial-quality carbon steel, Reais per tonne ex-works</i>                                                                 |                |          |           |
| Hot rolled coil                                                                                                                                                                         | 2,850-2,900*   | 0.88% ▲  | 05 Oct 18 |
| Cold rolled coil                                                                                                                                                                        | 3,100-3,300*   | 2.4% ▲   | 05 Oct 18 |
| Hot dip galvanized coil                                                                                                                                                                 | 3,500-3,600*   | 0%       | 05 Oct 18 |
| <i>Metal Bulletin's appraisal of prices within Brazil for commercial-quality carbon steel, Reais per tonne delivered</i>                                                                |                |          |           |
| Rebar                                                                                                                                                                                   | 2,650-2,730*   | 2.97% ▲  | 05 Oct 18 |

| <b>CARBON STEEL - NAFTA</b>                                                                                                                                     |              |          |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|-----------|
|                                                                                                                                                                 | Price        | Change†  | Assessed  |
| <b>US imports</b>                                                                                                                                               |              |          |           |
| <i>Metal Bulletin's appraisal of prices for imported, non-Nafta origin, commercial-quality carbon steel, \$ per short ton cfr port Houston</i>                  |              |          |           |
| Rebar                                                                                                                                                           | 676-700*     | 0%       | 17 Oct 18 |
| Merchant bars                                                                                                                                                   | 640-680*     | 0%       | 28 Sep 18 |
| Wire rod (low carbon)                                                                                                                                           | 744-762*     | 0%       | 10 Oct 18 |
| Medium sections                                                                                                                                                 | 900-920*     | 0%       | 27 Sep 18 |
| Medium plate                                                                                                                                                    | 880-900*     | 0%       | 17 Oct 18 |
| Hot rolled coil (commodity)                                                                                                                                     | 740-780*     | 1.33% ▲  | 17 Oct 18 |
| Cold rolled coil                                                                                                                                                | 880-940*     | 0.55% ▲  | 17 Oct 18 |
| Hot dipped galvanized 0.012-0.015, G30                                                                                                                          | 1,100-1,110* | 0%       | 17 Oct 18 |
| ERW linepipe (X42)                                                                                                                                              | 1,150-1,300* | 3.81% ▲  | 25 Sep 18 |
| OCTG API5CT - casing J55                                                                                                                                        | 1,100-1,150* | -0.88% ▼ | 25 Sep 18 |
| <b>US domestic</b>                                                                                                                                              |              |          |           |
| <i>AMM's appraisal of prices within the USA for commercial-quality carbon steel of US or Canadian origin, \$ per short ton, delivery terms as indicated</i>     |              |          |           |
| Rebar (fob mill)                                                                                                                                                | 700-720*     | 0%       | 17 Oct 18 |
| Wire rod (mesh quality fob mill)                                                                                                                                | 765-765*     | 0%       | 10 Oct 18 |
| Plate (fob mill)                                                                                                                                                | 960-960*     | 0%       | 12 Oct 18 |
| Hot rolled sheet index (fob mill)                                                                                                                               | 834-834*     | 2.28% ▲  | 18 Oct 18 |
| Cold rolled sheet (fob mill)                                                                                                                                    | 920-920*     | 0%       | 18 Oct 18 |
| Hot-dip galvanized (base) Midwest (fob mill)                                                                                                                    | 960-960*     | 2.13% ▲  | 18 Oct 18 |
| OCTG API5CT - casing J55 (fob mill)                                                                                                                             | 1,200-1,225* | -6.73% ▼ | 25 Sep 18 |
| <i>AMM's appraisal of prices within the USA for commercial-quality carbon steel of US or Canadian origin, \$ per hundredweight, delivery terms as indicated</i> |              |          |           |
| Merchant bar 3 x 3 1/4 angle (fob mill)                                                                                                                         | 38.5-38.5*   | 0%       | 28 Sep 18 |
| <b>CARBON STEEL - ASIA</b>                                                                                                                                      |              |          |           |
|                                                                                                                                                                 | Price        | Change†  | Assessed  |
| <b>China exports</b>                                                                                                                                            |              |          |           |
| <i>Metal Bulletin's appraisal of Chinese mills prices for export of commercial-quality carbon steel, \$ per tonne fob main China port</i>                       |              |          |           |
| Rebar index                                                                                                                                                     | 570-570*     | 0.15% ▲  | 19 Oct 18 |
| Wire rod (mesh quality)                                                                                                                                         | 575-580*     | -0.43% ▼ | 16 Oct 18 |
| Heavy plate                                                                                                                                                     | 580-585*     | -0.43% ▼ | 16 Oct 18 |
| Hot rolled coil index                                                                                                                                           | 549-549*     | -0.9% ▼  | 19 Oct 18 |
| Cold rolled coil                                                                                                                                                | 595-605*     | -0.83% ▼ | 16 Oct 18 |
| Galvanized coil 1mm                                                                                                                                             | 650-660*     | -0.76% ▼ | 16 Oct 18 |
| <b>Eastern China domestic</b>                                                                                                                                   |              |          |           |
| <i>Metal Bulletin's appraisal of prices in eastern China for commercial-quality carbon steel of Chinese origin, yuan per tonne ex-warehouse</i>                 |              |          |           |
| Rebar                                                                                                                                                           | 4,540-4,580* | 0%       | 19 Oct 18 |
| Wire rod (mesh)                                                                                                                                                 | 4,450-4,550* | -1.64% ▼ | 19 Oct 18 |
| Sections                                                                                                                                                        | 4,250-4,300* | 0%       | 19 Oct 18 |
| Plate                                                                                                                                                           | 4,330-4,390* | -0.46% ▼ | 19 Oct 18 |
| Hot rolled coil (min 2mm)                                                                                                                                       | 4,180-4,200* | -1.06% ▼ | 19 Oct 18 |
| Cold rolled coil (0.5 - 2 mm)                                                                                                                                   | 4,700-4,800* | -1.04% ▼ | 19 Oct 18 |
| Hot-dip galvanized coil                                                                                                                                         | 4,930-5,000* | -0.5% ▼  | 19 Oct 18 |
| <b>Northern China domestic</b>                                                                                                                                  |              |          |           |
| <i>Metal Bulletin's appraisal of prices in northern China for commercial-quality carbon steel of Chinese origin (Tangshan), yuan per tonne ex-works</i>         |              |          |           |
| Billet                                                                                                                                                          | 3,940-3,940* | 1.29% ▲  | 19 Oct 18 |
| <i>Metal Bulletin's appraisal of prices in northern China for commercial-quality carbon steel of Chinese origin, yuan per tonne ex-warehouse</i>                |              |          |           |
| Hot rolled coil                                                                                                                                                 | 4,110-4,130* | -0.6% ▼  | 19 Oct 18 |
| Rebar                                                                                                                                                           | 4,340-4,380* | 0.23% ▲  | 19 Oct 18 |

† week-on-week change

continued ➤



|                                                                                                                                                  | Price          | Change   | Assessed  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|-----------|
| <b>Southern China domestic</b>                                                                                                                   |                |          |           |
| <i>Metal Bulletin's appraisal of prices in southern China for commercial-quality carbon steel of Chinese origin, yuan per tonne ex-warehouse</i> |                |          |           |
| Rebar                                                                                                                                            | 4,750-4,850*   | 1.05% ▲  | 19 Oct 18 |
| Wire rod (mesh)                                                                                                                                  | 4,700-4,800*   | 0.53% ▲  | 19 Oct 18 |
| Sections                                                                                                                                         | 4,300-4,350*   | 0%       | 19 Oct 18 |
| Plate                                                                                                                                            | 4,450-4,500*   | -1.1% ▼  | 19 Oct 18 |
| Hot rolled coil (min 2mm)                                                                                                                        | 4,250-4,300*   | -0.35% ▼ | 19 Oct 18 |
| Cold rolled coil (0.5 - 2 mm)                                                                                                                    | 4,730-4,800*   | 0%       | 19 Oct 18 |
| Hot-dip galvanized coil                                                                                                                          | 4,950-5,020*   | -0.7% ▼  | 19 Oct 18 |
| <b>Southeast Asia imports</b>                                                                                                                    |                |          |           |
| <i>Metal Bulletin's appraisal of prices in Southeast Asia for commercial-quality carbon steel \$ per tonne cfr</i>                               |                |          |           |
| Billet                                                                                                                                           | 510-515*       | 0%       | 19 Oct 18 |
| Slab (Asia/East Asia)                                                                                                                            | 490-500*       | 0.51% ▲  | 15 Oct 18 |
| Hot rolled coil (Vietnam)                                                                                                                        | 565-575*       | 0%       | 15 Oct 18 |
| Rebar (Singapore)                                                                                                                                | 530-530*       | 0%       | 15 Oct 18 |
| Wire rod (low carbon)                                                                                                                            | 580-595*       | -1.67% ▼ | 15 Oct 18 |
| <b>Indian exports</b>                                                                                                                            |                |          |           |
| <i>Metal Bulletin's appraisal of Indian mills' prices for export of commercial-quality carbon steel, \$ per tonne fob main India port</i>        |                |          |           |
| Billet                                                                                                                                           | 505-510*       | 0%       | 12 Oct 18 |
| Plate (12-40mm)                                                                                                                                  | 600-605*       | 0%       | 12 Oct 18 |
| Hot rolled coil (commodity)                                                                                                                      | 565-575*       | 0.44% ▲  | 12 Oct 18 |
| Hot-dip galvanized coil                                                                                                                          | 750-760*       | 0%       | 12 Oct 18 |
| <b>Indian imports</b>                                                                                                                            |                |          |           |
| <i>Metal Bulletin's appraisal of prices for imported, non-EU origin, commercial-quality carbon steel, \$ per tonne cfr main India port</i>       |                |          |           |
| Plate (20-60mm)                                                                                                                                  | 625-630*       | 0%       | 12 Oct 18 |
| Hot rolled coil (commodity)                                                                                                                      | 605-610*       | -2.41% ▼ | 12 Oct 18 |
| Hot rolled coil (CR grade)                                                                                                                       | 620-625*       | 0%       | 12 Oct 18 |
| Cold rolled                                                                                                                                      | 640-645*       | 0%       | 12 Oct 18 |
| <b>Indian domestic</b>                                                                                                                           |                |          |           |
| <i>Metal Bulletin's appraisal of prices within India for commercial-quality carbon steel, rupees per tonne ex-works</i>                          |                |          |           |
| Billet                                                                                                                                           | 33,200-33,400* | -0.3% ▼  | 12 Oct 18 |
| Heavy plate                                                                                                                                      | 46,500-47,000* | 0%       | 12 Oct 18 |
| Hot rolled coil                                                                                                                                  | 46,500-47,000* | 0%       | 12 Oct 18 |
| Cold rolled coil                                                                                                                                 | 52,000-52,500* | 0%       | 12 Oct 18 |
| DRI                                                                                                                                              | 22,800-23,000* | -1.29% ▼ | 12 Oct 18 |
| Hot-dip galvanized coil                                                                                                                          | 55,500-56,000* | 0%       | 12 Oct 18 |
| Rebar                                                                                                                                            | 37,400-37,600* | 0.54% ▲  | 12 Oct 18 |
| <b>STEELBENCHMARKER™ PRICES</b>                                                                                                                  |                |          |           |
|                                                                                                                                                  | Price          | Change†  | Assessed  |
| <b>Region: USA east of the Mississippi</b>                                                                                                       |                |          |           |
| Standard plate (\$/metric tonne)                                                                                                                 | 1,106          | 1.94% ▲  | 08 Oct 18 |
| Standard plate (\$/short ton)                                                                                                                    | 1,003          | 1.93% ▲  | 08 Oct 18 |
| Hot rolled coil (\$/metric tonne)                                                                                                                | 940            | -2.19% ▼ | 08 Oct 18 |
| Hot rolled coil (\$/short ton)                                                                                                                   | 853            | -2.18% ▼ | 08 Oct 18 |
| Cold rolled coil (\$/metric tonne)                                                                                                               | 1,029          | -2.46% ▼ | 08 Oct 18 |
| Cold rolled coil (\$/short ton)                                                                                                                  | 933            | -2.51% ▼ | 08 Oct 18 |
| <b>Region: Mainland China</b>                                                                                                                    |                |          |           |
| Rebar                                                                                                                                            | 545            | -2.85% ▼ | 08 Oct 18 |
| Standard plate                                                                                                                                   | 535            | -3.25% ▼ | 08 Oct 18 |
| Hot rolled coil                                                                                                                                  | 519            | -2.81% ▼ | 08 Oct 18 |
| Cold rolled coil                                                                                                                                 | 596            | -2.13% ▼ | 08 Oct 18 |
| <b>Region: World export market</b>                                                                                                               |                |          |           |
| Hot rolled coil (\$/metric tonne)                                                                                                                | 579            | -1.19% ▼ | 08 Oct 18 |

|                                                                                                                                            | Price          | Change†  | Assessed  |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|-----------|
| <b>STAINLESS STEEL</b>                                                                                                                     |                |          |           |
| <b>Asia import</b>                                                                                                                         |                |          |           |
| <b>\$/tonne cif East Asian port</b>                                                                                                        |                |          |           |
| Grade 304 2mm CR coil 2B                                                                                                                   | 2,050-2,150*   | -1.41% ▼ | 17 Oct 18 |
| Grade 304 HR sheet                                                                                                                         | 2,180-2,280*   | -1.76% ▼ | 04 Jul 18 |
| <b>China domestic</b>                                                                                                                      |                |          |           |
| <b>yuan/tonne, in-warehouse</b>                                                                                                            |                |          |           |
| Grade 304 2mm CR coil                                                                                                                      | 15,600-15,900* | -1.25% ▼ | 17 Oct 18 |
| Grade 430 2mm CR coil                                                                                                                      | 8,400-8,450*   | -0.59% ▼ | 17 Oct 18 |
| <b>EU export</b>                                                                                                                           |                |          |           |
| <b>€/tonne fob N.European port</b>                                                                                                         |                |          |           |
| <b>Min 100 tonne lot</b>                                                                                                                   |                |          |           |
| Grade 304 2mm CR sheet                                                                                                                     | 2,559-2,634*   | -2.42% ▼ | 27 Jul 18 |
| <b>EU domestic</b>                                                                                                                         |                |          |           |
| <b>2mm 304 cold rolled stainless sheet, €/tonne</b>                                                                                        |                |          |           |
| N.Europe Base price                                                                                                                        | 925-985*       | 0%       | 19 Oct 18 |
| Alloy surcharge                                                                                                                            | 1,413-1,443*   | 0%       | 19 Oct 18 |
| <b>2mm 316 cold rolled stainless sheet, €/tonne</b>                                                                                        |                |          |           |
| Base price                                                                                                                                 | 1,270-1,320*   | 0%       | 19 Oct 18 |
| Alloy surcharge                                                                                                                            | 2,136-2,180*   | 0%       | 19 Oct 18 |
| <b>304 stainless steel bright bar, €/tonne</b>                                                                                             |                |          |           |
| Base price                                                                                                                                 | 1,000-1,080*   | 0%       | 19 Oct 18 |
| Alloy surcharge                                                                                                                            | 1,741-1,802*   | 0%       | 19 Oct 18 |
| <b>US domestic</b>                                                                                                                         |                |          |           |
| <i>AMM's appraisal of prices within the USA for commercial-quality stainless steel of US or Canadian origin, \$ per hundredweight, fob</i> |                |          |           |
| Grade 304 coiled plate                                                                                                                     | 115-115*       | -5.74% ▼ | 10 Oct 18 |
| Grade 316 coiled plate                                                                                                                     | 168-168*       | -4.27% ▼ | 10 Oct 18 |
| Grade 304 cold rolled sheet                                                                                                                | 131-131*       | -5.07% ▼ | 10 Oct 18 |
| Grade 316L cold rolled sheet                                                                                                               | 178-178*       | -4.04% ▼ | 10 Oct 18 |
| <b>Raw materials index</b>                                                                                                                 |                |          |           |
| <b>EU domestic stainless steel \$ per tonne</b>                                                                                            |                |          |           |
| 304 Europe raw materials index                                                                                                             | 1,320.03*      | -0.26% ▼ | 15 Oct 18 |
| <b>CHINA IRON ORE</b>                                                                                                                      |                |          |           |
| <i>cfr main China port \$ per dry metric tonne</i>                                                                                         |                |          |           |
|                                                                                                                                            | Price          | Change†  | Assessed  |
| Iron ore index (62% Fe)                                                                                                                    | 73.28*         | 2.25% ▲  | 19 Oct 18 |
| Iron ore pellet index cfr Qingdao (65% Fe)                                                                                                 | 155.63*        | -3.06% ▼ | 19 Oct 18 |
| Iron ore concentrate index cfr Qingdao (66% Fe)                                                                                            | 102.13*        | 0.45% ▲  | 19 Oct 18 |
| Metal Bulletin Indicator for US\$/% Fe in iron ore fines cfr Qingdao                                                                       | 1.07*          | -3.6% ▼  | 01 Oct 18 |
| <b>COKING COAL</b>                                                                                                                         |                |          |           |
| <i>\$ per metric tonne</i>                                                                                                                 |                |          |           |
|                                                                                                                                            | Price          | Change†  | Assessed  |
| Premium hard coking coal cfr China                                                                                                         | 214.38-214.38* | 1.63% ▲  | 19 Oct 18 |
| Hard coking coal cfr China                                                                                                                 | 191.79-191.79* | 1.19% ▲  | 19 Oct 18 |
| Premium hard coking coal fob Australia                                                                                                     | 221.20-221.20* | 2.34% ▲  | 19 Oct 18 |
| Hard coking coal fob Australia                                                                                                             | 185.30-185.30* | 3.26% ▲  | 19 Oct 18 |
| China hard coking coal Shanxi spot market domestic delivered yuan/tonne                                                                    | 1,460-1,800*   | 0%       | 19 Oct 18 |
| 65% CSR coke \$/tonne fob China                                                                                                            | 370-385*       | 3.42% ▲  | 16 Oct 18 |
| † week-on-week change                                                                                                                      |                |          |           |

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| FERROUS SCRAP                                                                                                                                                                                                                                                                  |              |                     |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------|-----------|
|                                                                                                                                                                                                                                                                                | Price        | Change <sup>†</sup> | Assessed  |
| <b>UK ferrous scrap domestic</b>                                                                                                                                                                                                                                               |              |                     |           |
| <i>The following is Metal Bulletin's evaluation of UK prices for processed scrap delivered to consumers within the month listed. Prices may vary according to region and destination, and should be read in conjunction with editorial comment on the Ferrous scrap pages.</i> |              |                     |           |
| <i>£/tonne</i>                                                                                                                                                                                                                                                                 |              |                     |           |
| <b>Cut grades</b>                                                                                                                                                                                                                                                              |              |                     |           |
| OA plate and structural                                                                                                                                                                                                                                                        | 180-205*     | 0%                  | 12 Oct 18 |
| 1&2 old steel                                                                                                                                                                                                                                                                  | 160-185*     | 0%                  | 12 Oct 18 |
| 12A/C new production heavy and shovellable steel                                                                                                                                                                                                                               | 200-225*     | 0%                  | 12 Oct 18 |
| 12D new production heavy and shovellable steel                                                                                                                                                                                                                                 | 205-230*     | 0%                  | 12 Oct 18 |
| <b>Bales and cuttings</b>                                                                                                                                                                                                                                                      |              |                     |           |
| 4A new steel bales                                                                                                                                                                                                                                                             | 205-230*     | 0%                  | 12 Oct 18 |
| 4C new steel bales                                                                                                                                                                                                                                                             | 195-220*     | 0%                  | 12 Oct 18 |
| 8A new loose light cuttings                                                                                                                                                                                                                                                    | 190-220*     | 0%                  | 12 Oct 18 |
| 8B new loose light cuttings                                                                                                                                                                                                                                                    | 175-205*     | 0%                  | 12 Oct 18 |
| <b>Turnings</b>                                                                                                                                                                                                                                                                |              |                     |           |
| UK inter-merchant 7B heavy steel turnings                                                                                                                                                                                                                                      | 140-160*     | 0%                  | 12 Oct 18 |
| <b>Cast iron</b>                                                                                                                                                                                                                                                               |              |                     |           |
| 9A/10 heavy and light cast iron                                                                                                                                                                                                                                                | 160-185*     | 0%                  | 12 Oct 18 |
| 9B/C cylinder block scrap                                                                                                                                                                                                                                                      | 180-205*     | 0%                  | 12 Oct 18 |
| 11A cast iron borings                                                                                                                                                                                                                                                          | 100-120*     | 0%                  | 12 Oct 18 |
| <i>Prices relate to new UK scrap specifications</i>                                                                                                                                                                                                                            |              |                     |           |
| <i>Please see MB.com for full explanation of price changes</i>                                                                                                                                                                                                                 |              |                     |           |
| <b>UK intermerchant weekly price</b>                                                                                                                                                                                                                                           |              |                     |           |
| <i>£/tonne</i>                                                                                                                                                                                                                                                                 |              |                     |           |
| 5C loose old light                                                                                                                                                                                                                                                             | 85-115*      | 0%                  | 19 Oct 18 |
| <b>UK ferrous scrap export</b>                                                                                                                                                                                                                                                 |              |                     |           |
| <i>MB assessment \$ fob main UK port</i>                                                                                                                                                                                                                                       |              |                     |           |
| HMS 1&2 (80:20 mix)                                                                                                                                                                                                                                                            | 304-306*     | 0.99% ▲             | 19 Oct 18 |
| Shredded                                                                                                                                                                                                                                                                       | 314-316*     | 0.96% ▲             | 19 Oct 18 |
| <b>Indian imports</b>                                                                                                                                                                                                                                                          |              |                     |           |
| <i>MB assessment \$/tonne cfr Nhava Sheva</i>                                                                                                                                                                                                                                  |              |                     |           |
| MB index cfr India shredded                                                                                                                                                                                                                                                    | 354.42*      | -1.25% ▼            | 19 Oct 18 |
| HMS 1&2 (80:20 mix)                                                                                                                                                                                                                                                            | 315-330*     | -2.27% ▼            | 19 Oct 18 |
| <b>Alloy steel scrap domestic</b>                                                                                                                                                                                                                                              |              |                     |           |
| <i>UK wholesale merchants' stainless (£/tonne)</i>                                                                                                                                                                                                                             |              |                     |           |
| 18/8 solids                                                                                                                                                                                                                                                                    | 850-900*     | -2.78% ▼            | 19 Oct 18 |
| 18/8 turnings                                                                                                                                                                                                                                                                  | 725-765*     | -2.61% ▼            | 19 Oct 18 |
| 12-13% Cr solids                                                                                                                                                                                                                                                               | 190-220*     | -5.75% ▼            | 19 Oct 18 |
| 16-17% Cr solids                                                                                                                                                                                                                                                               | 240-280*     | 0%                  | 19 Oct 18 |
| <b>Cif Europe stainless € per tonne</b>                                                                                                                                                                                                                                        |              |                     |           |
| 18/8 solids                                                                                                                                                                                                                                                                    | 1,000-1,030* | -2.64% ▼            | 19 Oct 18 |
| 18/8 turnings                                                                                                                                                                                                                                                                  | 900-925*     | -2.93% ▼            | 19 Oct 18 |
| <b>Rotterdam export</b>                                                                                                                                                                                                                                                        |              |                     |           |
| <i>MB assessment \$/tonne fob Rotterdam</i>                                                                                                                                                                                                                                    |              |                     |           |
| MB index fob Rotterdam HMS 1&2 (80:20)                                                                                                                                                                                                                                         | 305.09*      | 0.45% ▲             | 19 Oct 18 |
| HMS 1&2 (70:30 mix)                                                                                                                                                                                                                                                            | 299-301*     | 1.35% ▲             | 19 Oct 18 |
| Shredded                                                                                                                                                                                                                                                                       | 309-311*     | -0.32% ▼            | 19 Oct 18 |
| <b>Turkish import</b>                                                                                                                                                                                                                                                          |              |                     |           |
| <i>MB assessment \$/tonne cfr main Turkish ports</i>                                                                                                                                                                                                                           |              |                     |           |
| MB index cfr Turkey HMS 1&2 (80:20) (North Europe material)                                                                                                                                                                                                                    | 324.06*      | 1.21% ▲             | 19 Oct 18 |
| MB index cfr Turkey HMS 1&2 (80:20) (United States material)                                                                                                                                                                                                                   | 333.51*      | 1.5% ▲              | 19 Oct 18 |
| HMS 1&2 (75:25 mix)                                                                                                                                                                                                                                                            | 318-320*     | 1.27% ▲             | 19 Oct 18 |
| Shredded                                                                                                                                                                                                                                                                       | 332-334*     | 0.15% ▲             | 19 Oct 18 |

|                                                                        | Price        | Change   | Assessed  |
|------------------------------------------------------------------------|--------------|----------|-----------|
| <b>Turkish domestic</b>                                                |              |          |           |
| <i>MB assessment delivered</i>                                         |              |          |           |
| Melting scrap from shipbreaking (\$/tonne)                             | 318-325*     | -0.62% ▼ | 15 Oct 18 |
| Auto bundle scrap (Turkish lira/tonne)                                 | 1,850-2,040* | -1.27% ▼ | 15 Oct 18 |
| <b>USA export</b>                                                      |              |          |           |
| <i>AMM ferrous scrap export index \$/tonne East Coast fob New York</i> |              |          |           |
| HMS 1&2 (80:20)                                                        | 307.71*      | 0%       | 17 Oct 18 |
| Shredded                                                               | 310.33*      | 0%       | 17 Oct 18 |
| <b>USA domestic</b>                                                    |              |          |           |
| <i>AMM Midwest index \$/gross ton delivered mill</i>                   |              |          |           |
| No 1 heavy melting scrap                                               | 304.5*       | 3.76% ▲  | 10 Oct 18 |
| No 1 busheling                                                         | 392.28*      | 5.23% ▲  | 10 Oct 18 |
| Shredded                                                               | 330.97*      | 3.37% ▲  | 10 Oct 18 |
| <b>China domestic</b>                                                  |              |          |           |
| <i>yuan/tonne delivered mill</i>                                       |              |          |           |
| Heavy scrap                                                            | 2,700-2,880* | 1.64% ▲  | 19 Oct 18 |
| <b>Taiwan import</b>                                                   |              |          |           |
| <i>\$/tonne cfr main port</i>                                          |              |          |           |
| HMS 1&2 (80:20 mix) (USA material)                                     | 325-330*     | -1.65% ▼ | 19 Oct 18 |
| <b>Germany domestic</b>                                                |              |          |           |
| <i>€/tonne composite sales price ex-yard, source: BDSV</i>             |              |          |           |
| No E2/8 (new steel scrap)                                              | 254.80       | -4.75% ▼ | 03 Sep 18 |
| No E1 (old steel scrap)                                                | 224.10       | -5.56% ▼ | 03 Sep 18 |
| No E3 (old thick steel scrap)                                          | 248.80       | -4.6% ▼  | 03 Sep 18 |
| No E40 (shredded steel scrap)                                          | 250.60       | -5.79% ▼ | 03 Sep 18 |
| No E5 (steel turnings)                                                 | 202.40       | -6.08% ▼ | 03 Sep 18 |
| <i>MB assessment €/tonne delivered at mill</i>                         |              |          |           |
| Grade E40 (shredded steel scrap)                                       | 280-290      | 0%       | 19 Oct 18 |
| No E8 (thin new production steel scrap)                                | 275-285      | 0%       | 19 Oct 18 |
| No E3 (old thick scrap)                                                | 270-285      | 0%       | 19 Oct 18 |
| <b>Italy domestic</b>                                                  |              |          |           |
| <i>MB assessment €/tonne delivered at mill</i>                         |              |          |           |
| No E3 (old thick scrap)                                                | 275          | 0%       | 17 Oct 18 |
| No E8 (thin new production steel)                                      | 280          | 0%       | 17 Oct 18 |

| SCRAP SUBSTITUTES                                                |              |                     |           |
|------------------------------------------------------------------|--------------|---------------------|-----------|
|                                                                  | Price        | Change <sup>†</sup> | Assessed  |
| <b>EU imports \$/tonne</b>                                       |              |                     |           |
| Pig iron imports cif Italy                                       | 385-390*     | 0%                  | 18 Oct 18 |
| <b>Latin American exports \$/tonne, delivery terms as stated</b> |              |                     |           |
| Hot briquetted iron Venezuela                                    | 230-240*     | 0%                  | 19 Oct 18 |
| Pig iron fob Vitoria/Rio                                         | 350-350*     | 0%                  | 19 Oct 18 |
| Pig iron fob Ponta da Maderia                                    | 372-377*     | 0.67% ▲             | 19 Oct 18 |
| <b>US imports \$/tonne cfr Gulf of Mexico</b>                    |              |                     |           |
| Pig iron                                                         | 375-395*     | 0.65% ▲             | 19 Oct 18 |
| <b>CIS exports \$/tonne fob main port</b>                        |              |                     |           |
| Pig iron Baltic Sea                                              | 385-395*     | 0.65% ▲             | 18 Oct 18 |
| Pig iron Black Sea                                               | 360-370*     | -0.68% ▼            | 18 Oct 18 |
| <b>China domestic yuan/tonne delivered warehouse</b>             |              |                     |           |
| Pig iron                                                         | 3,000-3,050* | 0%                  | 16 Feb 18 |

† week-on-week change

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| NON-FERROUS SCRAP EUROPE                          |              |                     |           |
|---------------------------------------------------|--------------|---------------------|-----------|
|                                                   | Price        | Change <sup>†</sup> | Assessed  |
| <b>Aluminium</b>                                  |              |                     |           |
| <b>European free market MB assessment €/tonne</b> |              |                     |           |
| Floated frag                                      | 1,010-1,060* | -0.96% ▼            | 19 Oct 18 |
| Cast                                              | 925-975*     | -0.52% ▼            | 19 Oct 18 |
| Mixed turnings 6%                                 | 775-825*     | -0.62% ▼            | 19 Oct 18 |
| <b>Germany per 1000kg</b>                         |              |                     |           |
| Pure cuttings                                     | 1,310-1,390  | -1.46% ▼            | 17 Oct 18 |
| Commercial cast                                   | 1,100-1,190  | -2.97% ▼            | 17 Oct 18 |
| H9 extrusions                                     | 1,680-1,780  | 0%                  | 17 Oct 18 |
| Alloy turnings                                    | 720-840      | -3.11% ▼            | 17 Oct 18 |
| <i>Source: VDM</i>                                |              |                     |           |
| <b>France per 1000kg</b>                          |              |                     |           |
| Pure cuttings                                     | 1,600-1,650  | 0%                  | 16 Oct 18 |
| Old rolled                                        | 600-650      | 0%                  | 16 Oct 18 |
| Commercial cast                                   | 600-630      | -15.17% ▼           | 16 Oct 18 |
| <i>Source: Lettre d'Information Metaux</i>        |              |                     |           |
| <b>Italy per 1000kg</b>                           |              |                     |           |
| Pure cuttings                                     | 1,045-1,075  | -0.93% ▼            | 12 Oct 18 |
| Old mixed scrap                                   | 1,480-1,520  | -0.33% ▼            | 12 Oct 18 |
| Commercial cast                                   | 910-945      | -0.27% ▼            | 12 Oct 18 |
| <i>Source: Assomet</i>                            |              |                     |           |
| <b>Copper</b>                                     |              |                     |           |
| <b>Germany per 1000kg</b>                         |              |                     |           |
| Copper wire (berry)                               | 5,200-5,350  | 0%                  | 17 Oct 18 |
| Heavy copper                                      | 4,770-4,850  | 0%                  | 17 Oct 18 |
| Heavy brass                                       | 3,410-3,610  | -0.85% ▼            | 17 Oct 18 |
| Brass turnings (MS 58)                            | 3,800-3,910  | -0.26% ▼            | 17 Oct 18 |
| Brass sheet (MS 63)                               | 3,900-4,020  | -0.75% ▼            | 17 Oct 18 |
| <i>Source: Verein Deutscher Metallhandler</i>     |              |                     |           |
| <b>France per 1000kg</b>                          |              |                     |           |
| Electro cuttings                                  | 4,850-4,900  | 0%                  | 16 Oct 18 |
| No 1 bright wire                                  | 4,450-4,500  | -1.65% ▼            | 16 Oct 18 |
| Mixed (96%)                                       | 4,400-4,450  | -1.78% ▼            | 16 Oct 18 |
| Brass plate cuttings 70/30                        | 3,700-3,740  | -1.46% ▼            | 16 Oct 18 |
| Brass turnings                                    | 3,250-3,280  | -0.31% ▼            | 16 Oct 18 |
| Mixed brass                                       | 2,950-3,000  | 0%                  | 16 Oct 18 |
| <i>Source: Lettre d'Information Metaux</i>        |              |                     |           |
| <b>Italy per 1000kg</b>                           |              |                     |           |
| Electrolytic dd EN 12861-S-Cu-2                   | 5,060-5,220  | -0.68% ▼            | 12 Oct 18 |
| Enamelled wire EN 12861-S-Cu-3                    | 4,938-5,100  | -0.69% ▼            | 12 Oct 18 |
| New from tubes, strips etc EN 12861-S-Cu-4        | 4,962-5,190  | -0.68% ▼            | 12 Oct 18 |
| Old from tubes, strips etc 12861-S-Cu-7           | 4,790-4,960  | -0.71% ▼            | 12 Oct 18 |
| EN12861-S-Cu-Zn-1-A-Cu 63.5%                      | 3,980-4,095  | -0.86% ▼            | 12 Oct 18 |
| Mixed from valves/taps EN 12861-S-Cu-Zn-6         | 3,215-3,545  | -1.02% ▼            | 12 Oct 18 |
| Several 95% m/m 12861-S-Cu-Zn-7                   | 3,265-3,345  | -1.05% ▼            | 12 Oct 18 |
| <i>Source: Assomet</i>                            |              |                     |           |

| STEELBENCHMARKER™ SCRAP PRICES                                       |              |                     |           |
|----------------------------------------------------------------------|--------------|---------------------|-----------|
|                                                                      | Price        | Change <sup>†</sup> | Assessed  |
| <b>Region: USA, east of the Mississippi</b>                          |              |                     |           |
| Shredded scrap (\$/metric tonne)**                                   | 335          | 3.08% ▲             | 08 Oct 18 |
| Shredded scrap (\$/gross ton)**                                      | 340          | 3.03% ▲             | 08 Oct 18 |
| No 1 heavy melting scrap (\$/metric tonne)                           | 310          | 3.33% ▲             | 08 Oct 18 |
| No 1 heavy melting scrap (\$/gross ton)                              | 315          | 3.28% ▲             | 08 Oct 18 |
| No 1 busheling scrap (\$/metric tonne)                               | 399          | 5.28% ▲             | 08 Oct 18 |
| No 1 busheling scrap (\$/gross ton)                                  | 405          | 5.19% ▲             | 08 Oct 18 |
| <b>**For shredded scrap the region is for all but the West Coast</b> |              |                     |           |
| <b>UK NON-FERROUS SCRAP</b>                                          |              |                     |           |
|                                                                      | Price        | Change <sup>†</sup> | Assessed  |
| <b>Aluminium - actual price</b>                                      |              |                     |           |
| <i>£ per tonne</i>                                                   |              |                     |           |
| Group 1 pure 99% & Litho                                             | 1,400-1,450* | -0.7% ▼             | 17 Oct 18 |
| Commercial pure cuttings                                             | 1,100-1,160* | -0.44% ▼            | 17 Oct 18 |
| Clean HE9 extrusions                                                 | 1,400-1,450* | -0.7% ▼             | 17 Oct 18 |
| Loose old rolled cuttings                                            | 800-830*     | 0%                  | 17 Oct 18 |
| Baled old rolled                                                     | 865-885*     | -0.57% ▼            | 17 Oct 18 |
| Commercial cast                                                      | 930-980*     | -1.04% ▼            | 17 Oct 18 |
| Cast wheels                                                          | 1,220-1,240* | -1.6% ▼             | 17 Oct 18 |
| Commercial turnings                                                  | 625-655*     | -0.78% ▼            | 17 Oct 18 |
| Group 7 turnings                                                     | 535-555*     | -0.91% ▼            | 17 Oct 18 |
| <b>MB and LME aluminium scrap discounts</b>                          |              |                     |           |
| <i>£ per tonne</i>                                                   |              |                     |           |
| Group 1 pure 99% & Litho                                             | 87-137*      | -36.36% ▼           | 17 Oct 18 |
| Commercial pure cuttings                                             | 377-437*     | -14.5% ▼            | 17 Oct 18 |
| Clean HE9 extrusions                                                 | 87-137*      | -36.36% ▼           | 17 Oct 18 |
| Loose old rolled cuttings                                            | 320-350*     | -15.19% ▼           | 17 Oct 18 |
| Baled old rolled                                                     | 265-285*     | -16.67% ▼           | 17 Oct 18 |
| Commercial cast                                                      | 170-220*     | -20.41% ▼           | 17 Oct 18 |
| Cast wheels                                                          | -90-70*      | 100% ▲              | 17 Oct 18 |
| Commercial turnings                                                  | 495-525*     | -9.73% ▼            | 17 Oct 18 |
| Group 7 turnings                                                     | 595-615*     | -8.33% ▼            | 17 Oct 18 |
| <b>Titanium</b>                                                      |              |                     |           |
| <i>\$/lb cif</i>                                                     |              |                     |           |
| Turnings, unprocessed type 90/6/4 (0.5% Sn max)                      | 1.10-1.20*   | 0%                  | 17 Oct 18 |
| Turnings, unprocessed 90/6/4 (over 0.5% max 2% Sn)                   | 1-1.05*      | 0%                  | 17 Oct 18 |
| <b>Copper scrap discount</b>                                         |              |                     |           |
| <i>cents/lb</i>                                                      |              |                     |           |
| No 2 copper (birch/cliff) imported into China 94-96% cif China       | 30-40*       | 6.06% ▲             | 24 Sep 18 |
| <sup>†</sup> week-on-week change                                     |              |                     |           |

continued ➤



| NON-FERROUS FOUNDRY INGOTS                                                             |              |                     |           |
|----------------------------------------------------------------------------------------|--------------|---------------------|-----------|
|                                                                                        | Price        | Change <sup>1</sup> | Assessed  |
| <b>Aluminium UK £/tonne</b>                                                            |              |                     |           |
| <b>MB free market</b>                                                                  |              |                     |           |
| LM24 pressure diecasting ingot                                                         | 1,555-1,600* | -0.47% ▼            | 17 Oct 18 |
| LM6/LM25 gravity diecasting ingot                                                      | 1,785-1,840* | -0.55% ▼            | 17 Oct 18 |
| <b>NB: prices expressed delivered consumer works, LM series as specified in BS1490</b> |              |                     |           |
| <b>Aluminium Europe</b>                                                                |              |                     |           |
| <b>MB free market</b>                                                                  |              |                     |           |
| Duty paid delivered works pressure diecasting ingot price (DIN226/A380) - €/tonne      | 1,500-1,550* | 0%                  | 19 Oct 18 |
| <b>Aluminum US \$/lb delivered Midwest</b>                                             |              |                     |           |
| A380.1 alloy                                                                           | 0.90-0.92*   | 0%                  | 18 Oct 18 |
| <b>AFFIMET €/tonne</b>                                                                 |              |                     |           |
| AS12                                                                                   | 3,709        | -0.54% ▼            | 01 Oct 18 |
| AS12 UN                                                                                | 2,675        | -3.95% ▼            | 01 Oct 18 |
| AS9 U3                                                                                 | 2,050        | -5.09% ▼            | 01 Oct 18 |
| AS5 U3                                                                                 | 2,400        | -4.38% ▼            | 01 Oct 18 |
| <b>Reflects generally larger traded lots</b>                                           |              |                     |           |
| <b>VDM €/1000 kg delivered</b>                                                         |              |                     |           |
| DIN 226                                                                                | 2,230-2,330  | -0.87% ▼            | 17 Oct 18 |
| DIN 231                                                                                | 2,310-2,410  | -0.84% ▼            | 17 Oct 18 |
| DIN 311                                                                                | 2,290-2,390  | -0.85% ▼            | 17 Oct 18 |
| <b>Aluminium bronze £/tonne UK</b>                                                     |              |                     |           |
| AB1 ex-works                                                                           | 5,000        | 0%                  | 16 Oct 18 |
| AB2 ex-works                                                                           | 5,050        | 0%                  | 16 Oct 18 |
| <b>Source: C.F. Booth Ltd</b>                                                          |              |                     |           |
| <b>Brass UK £/tonne</b>                                                                |              |                     |           |
| SCB3 ex-works                                                                          | 4,150        | 0%                  | 16 Oct 18 |
| High tensile HTB1 ex-works                                                             | 4,460        | 0%                  | 16 Oct 18 |
| <b>Source: C.F. Booth Ltd</b>                                                          |              |                     |           |
| <b>Gunmetal UK £/tonne</b>                                                             |              |                     |           |
| LG2 85/5/5/5 ex-works                                                                  | 4,740        | 0%                  | 16 Oct 18 |
| LG4 87/7/3/3 ex-works                                                                  | 5,620        | 0%                  | 16 Oct 18 |
| G1 1.15 PB ex-works                                                                    | 6,250        | 0%                  | 16 Oct 18 |
| <b>Source: C.F. Booth Ltd</b>                                                          |              |                     |           |
| <b>Phosphor bronze UK £/tonne</b>                                                      |              |                     |           |
| PB1 ex-works                                                                           | 6,800        | 0%                  | 16 Oct 18 |
| <b>Source: C.F. Booth Ltd</b>                                                          |              |                     |           |
| <b>Phosphor copper £/tonne</b>                                                         |              |                     |           |
| 10% P ex-works                                                                         | 6,200        | 0%                  | 16 Oct 18 |
| 15% P ex-works                                                                         | 6,250        | 0%                  | 16 Oct 18 |
| <b>Source: C.F. Booth Ltd</b>                                                          |              |                     |           |
| <b>Zinc alloys UK £/tonne</b>                                                          |              |                     |           |
| <b>Brock Metal Co contract alloy price (delivered UK)</b>                              |              |                     |           |
| Brock Metal ZL3                                                                        | 2,614        | 5.92% ▲             | 01 Oct 18 |
| Brock Metal ZL5                                                                        | 2,638        | 5.69% ▲             | 01 Oct 18 |



# Monthly averages: September

| BASE METALS                                                                  |                |           |          |
|------------------------------------------------------------------------------|----------------|-----------|----------|
|                                                                              |                | Low       | High     |
| <b>Aluminium</b>                                                             |                |           |          |
| Aluminium P1020A, in-warehouse Rotterdam premium, duty unpaid, spot \$/tonne |                | 82.80     | 92.80    |
| Aluminium P1020A, in-warehouse Rotterdam duty paid, spot \$/tonne            |                | 153.75    | 163.75   |
| <b>Alumina</b>                                                               |                |           |          |
| Index fob Australia                                                          |                | 600.71    |          |
| <b>Copper</b>                                                                |                |           |          |
| US High-grade cathode premium indicator, \$/tonne                            |                | 154.32    | 165.35   |
| <b>Nickel</b>                                                                |                |           |          |
| Free market in warehouse premium                                             |                |           |          |
| Europe \$/tonne                                                              | Uncut cathodes | 205.00    | 245.00   |
|                                                                              | 4x4 cathodes   | 405.00    | 462.50   |
|                                                                              | Briquettes     | 245.00    | 275.00   |
| US                                                                           | Melting \$/lb  | 0.25      | 0.38     |
| <b>Tin</b>                                                                   |                |           |          |
| European free market                                                         |                |           |          |
| Spot Premium 99.9%, \$/tonne                                                 |                | 290.00    | 330.00   |
| Spot premium 99.85%, \$/tonne                                                |                | 275.00    | 300.00   |
| Kuala Lumpur (ex-smelter), \$/tonne                                          |                | 18,910.59 |          |
| <b>MINOR METALS</b>                                                          |                |           |          |
| <b>Antimony</b>                                                              |                |           |          |
| MB free market Regulus 99.65%, max Se 50ppm, in warehouse, \$/tonne          |                | 8,462.50  | 8,668.75 |
| MMTA Standard grade II, \$/tonne                                             |                | 8,437.50  | 8,643.75 |
| <b>Bismuth</b>                                                               |                |           |          |
| MB free market min. 99.99%, tonne lots, in warehouse, \$/lb                  |                | 4.00      | 4.56     |
| <b>Cadmium</b>                                                               |                |           |          |
| MB free market                                                               |                |           |          |
| min 99.95%, in warehouse, cents/lb                                           |                | 120.00    | 135.00   |
| min 99.99%, in warehouse cents/lb                                            |                | 125.00    | 140.00   |
| <b>Cobalt</b>                                                                |                |           |          |
| MB free market                                                               |                |           |          |
| High Grade, in warehouse, \$/lb                                              |                | 33.41     | 34.33    |
| Low Grade, in warehouse, \$/lb                                               |                | 33.38     | 34.11    |
| <b>Germanium Dioxide</b>                                                     |                |           |          |
| MB free market min 99.99%, \$/kg                                             |                | 950.00    | 1,150.00 |
| Rotterdam, \$/kg                                                             |                | 1,261.25  | 1,422.50 |
| <b>Indium</b>                                                                |                |           |          |
| MB free market ingots, min 99.97%, in warehouse, \$/kg                       |                | 242.50    | 273.75   |
| <b>Magnesium</b>                                                             |                |           |          |
| MB free market min 99.8%, \$/tonne                                           |                | 2,525.00  | 2,625.00 |
| China free market min 99.8%, \$/tonne                                        |                | 2,637.50  | 2,662.50 |
| <b>Mercury</b>                                                               |                |           |          |
| MB free market min 99.99%, in warehouse, \$/flask                            |                | 2,750.00  | 3,100.00 |

|                                                                                          | Low          | High     |
|------------------------------------------------------------------------------------------|--------------|----------|
| <b>Selenium</b>                                                                          |              |          |
| MB free market min 99.5% in warehouse, \$/lb                                             | 14.25        | 15.63    |
| <b>Silicon</b>                                                                           |              |          |
| Grade 441, min 99% Si in-warehouse Rotterdam, €/tonne                                    | 1,952.50     | 2,050.00 |
| <b>Titanium</b>                                                                          |              |          |
| Ferro-Titanium, 70% (max 4.5% Al), d/d Europe, \$/kg                                     | 5.73         | 6.03     |
| <b>ORES &amp; ALLOYS</b>                                                                 |              |          |
|                                                                                          | Low          | High     |
| <b>Molybdenum</b>                                                                        |              |          |
| Free market in warehouse Europe drummed molybdic oxide \$/lb Mo                          | 11.98        | 12.14    |
| US canned molybdic oxide \$/lb Mo                                                        | 12.08        | 12.23    |
| <b>Ferro-molybdenum</b>                                                                  |              |          |
| basis 65% min, in-warehouse Rotterdam, \$/kg Mo                                          | 29.04        | 29.25    |
| <b>Tungsten</b>                                                                          |              |          |
| European free market APT, \$/mtu                                                         | 275.00       | 290.00   |
| <b>Ferro-tungsten</b>                                                                    |              |          |
| basis 75% W min, \$/kg                                                                   | 34.20        | 35.69    |
| <b>Vanadium</b>                                                                          |              |          |
| min 98%, in-warehouse Rotterdam, V2O5, \$/lb                                             | 20.75        | 21.63    |
| <b>Ferro-vanadium</b>                                                                    |              |          |
| basis 78% min, free delivery duty paid consumer plant, 1st grade Western Europe, \$/kg V | 93.61        | 96.73    |
| US Free market 70-80%, \$/lb                                                             | 41.89        | 43.19    |
| <b>PRECIOUS METALS</b>                                                                   |              |          |
| <b>Gold</b>                                                                              |              |          |
| London \$/troy oz                                                                        | Morning      | 1,199.20 |
|                                                                                          | Afternoon    | 1,198.47 |
| London £/troy oz                                                                         | Morning      | 918.99   |
|                                                                                          | Afternoon    | 917.77   |
| \$/troy oz                                                                               | Handy/Harman | 1,198.39 |
| <b>Palladium</b>                                                                         |              |          |
| Morning \$/troy oz                                                                       |              | 1,009.10 |
| Afternoon \$/troy oz                                                                     |              | 1,012.95 |
| <b>Platinum: per troy oz</b>                                                             |              |          |
| Morning \$/troy oz                                                                       |              | 804.55   |
| Afternoon \$/troy oz                                                                     |              | 803.98   |
| <b>Rhodium</b>                                                                           |              |          |
| European free market min 99.9% in-warehouse, \$/troy oz                                  | 2,412.00     | 2,512.00 |
| <b>Silver</b>                                                                            |              |          |
| London                                                                                   |              |          |
| spot pence/troy oz                                                                       |              | 1,092.75 |
| spot cents/troy oz                                                                       |              | 1,426.30 |
| Handy/Harman cents/troy oz                                                               |              | 1,427.17 |

† week-on-week change

continued ➤



| FOUNDRY INGOTS                                                                                              |               |           |                   |
|-------------------------------------------------------------------------------------------------------------|---------------|-----------|-------------------|
|                                                                                                             | Low           | High      |                   |
| <b>Aluminium</b>                                                                                            |               |           |                   |
| LM24, £/tonne                                                                                               | 1,611.25      | 1,651.25  |                   |
| LM6/LM25, £/tonne                                                                                           | 1,821.25      | 1,877.50  |                   |
| Aluminium Europe €/tonne                                                                                    | 1,582.50      | 1,642.50  |                   |
| <b>Phosphor Bronze</b>                                                                                      |               |           |                   |
| PB1 ex-works, £/tonne                                                                                       | 6,602.50      |           |                   |
| <b>Zinc Alloy</b>                                                                                           |               |           |                   |
| ZL3, £/tonne                                                                                                | 2,468.00      |           |                   |
| <b>EXCHANGE RATES (CLOSING RATES)</b>                                                                       |               |           |                   |
| \$/£                                                                                                        | 1.31          |           |                   |
| \$/yen                                                                                                      | 112.03        |           |                   |
| \$/€                                                                                                        | 1.17          |           |                   |
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| Fastmarkets MB monthly average prices are calculated on those price quotations formulated during the month. |               |           |                   |
| <b>LONDON METAL EXCHANGE</b>                                                                                |               |           |                   |
| High, low and average September (20 days)                                                                   |               |           |                   |
| LME averages are mean of buyers and sellers except for settlement and 3 months sellers.                     |               |           |                   |
|                                                                                                             | Jan-Sept 2018 |           | September average |
|                                                                                                             | Low           | High      |                   |
|                                                                                                             | \$            | \$        | \$                |
| <b>Aluminium (\$)</b>                                                                                       |               |           |                   |
| Cash                                                                                                        | 1,966.50      | 2,600.00  | 2,022.50          |
| 3 months                                                                                                    | 1,987.50      | 2,586.50  | 2,054.75          |
| Settlement                                                                                                  | 1,967.00      | 2,602.50  | 2,023.00          |
| 3 months seller                                                                                             | 1,988.00      | 2,587.00  | 2,055.20          |
| <b>Copper Grade A (\$)</b>                                                                                  |               |           |                   |
| Cash                                                                                                        | 5,822.50      | 7,262.00  | 6,019.60          |
| 3 months                                                                                                    | 5,848.50      | 7,267.00  | 6,034.98          |
| Settlement                                                                                                  | 5,823.00      | 7,262.50  | 6,020.03          |
| 3 months seller                                                                                             | 5,849.00      | 7,268.00  | 6,035.83          |
| <b>Copper Grade A (£)</b>                                                                                   |               |           |                   |
| Settlement                                                                                                  | 4,465.44      | 5,421.80  | 4,611.58          |
| 3 months seller                                                                                             | 4,463.76      | 5,402.51  | 4,604.94          |
| <b>Lead (\$)</b>                                                                                            |               |           |                   |
| Cash                                                                                                        | 1,969.50      | 2,682.75  | 2,027.78          |
| 3 months                                                                                                    | 1,989.00      | 2,655.50  | 2,042.49          |
| Settlement                                                                                                  | 1,970.00      | 2,683.00  | 2,028.23          |
| 3 months seller                                                                                             | 1,990.00      | 2,656.00  | 2,043.25          |
| <b>Lead (£)</b>                                                                                             |               |           |                   |
| Settlement                                                                                                  | 1,502.93      | 1,928.42  | 1,554.11          |
| 3 months seller                                                                                             | 1,507.35      | 1,915.31  | 1,559.30          |
| <b>Nickel (\$)</b>                                                                                          |               |           |                   |
| Cash                                                                                                        | 12,202.50     | 15,747.50 | 12,523.88         |
| 3 months                                                                                                    | 12,300.00     | 15,785.00 | 12,615.88         |
| Settlement                                                                                                  | 12,205.00     | 15,750.00 | 12,527.25         |
| 3 months seller                                                                                             | 12,305.00     | 15,790.00 | 12,623.75         |
| <b>Tin (\$)</b>                                                                                             |               |           |                   |
| Cash                                                                                                        | 18,662.50     | 22,102.50 | 18,989.50         |
| 3 months                                                                                                    | 18,652.50     | 21,907.50 | 18,937.63         |
| Settlement                                                                                                  | 18,675.00     | 22,105.00 | 18,998.75         |
| 3 months seller                                                                                             | 18,655.00     | 21,910.00 | 18,950.50         |

|                             | Jan-Sept 2018 |           | September average |
|-----------------------------|---------------|-----------|-------------------|
|                             | Low           | High      |                   |
|                             | \$            | \$        | \$                |
| <b>Zinc (\$)</b>            |               |           |                   |
| Cash                        | 2,286.00      | 3,617.50  | 2,432.71          |
| 3 months                    | 2,310.50      | 3,585.50  | 2,432.40          |
| Settlement                  | 2,287.00      | 3,618.00  | 2,433.20          |
| 3 months seller             | 2,311.00      | 3,586.00  | 2,432.95          |
| <b>Cobalt (\$)</b>          |               |           |                   |
| Cash                        | 54,750.00     | 95,250.00 | 62,275.00         |
| 3 months                    | 55,450.00     | 95,250.00 | 62,775.00         |
| Settlement                  | 55,000.00     | 95,500.00 | 62,525.00         |
| 3 months seller             | 55,700.00     | 95,500.00 | 63,025.00         |
| <b>Molybdenum (\$)</b>      |               |           |                   |
| Cash                        | 15,750.00     | 25,000.00 | 25,000.00         |
| 3 months                    | 15,750.00     | 25,000.00 | 25,000.00         |
| Settlement                  | 16,000.00     | 26,000.00 | 26,000.00         |
| 3 months seller             | 16,000.00     | 26,000.00 | 26,000.00         |
| <b>Aluminium Alloy (\$)</b> |               |           |                   |
| Cash                        | 1,345.00      | 2,015.00  | 1,485.75          |
| 3 months                    | 1,425.00      | 2,020.00  | 1,544.25          |
| Settlement                  | 1,350.00      | 2,020.00  | 1,491.00          |
| 3 months seller             | 1,450.00      | 2,025.00  | 1,558.50          |
| <b>Nasaa (\$)</b>           |               |           |                   |
| Cash                        | 1,432.50      | 2,026.50  | 1,540.96          |
| 3 months                    | 1,470.00      | 2,060.00  | 1,586.50          |
| Settlement                  | 1,435.00      | 2,027.00  | 1,543.35          |
| 3 months seller             | 1,480.00      | 2,065.00  | 1,597.25          |

#### LME SETTLEMENT CONVERSION RATES

|        |        |
|--------|--------|
| \$/£   | 1.31   |
| \$/yen | 111.97 |
| \$/€   | 1.17   |