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Commodity price monitor

August-22

Prepared for ACMA

*Strictly private
and confidential*

August 2022



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Commodity trend dashboard

Commodity trend dashboard Quarter-on-Quarter changes (1/2)-Rolling view

Calendar Year 2022: Q vs. Q update

| Commodity | Region | Q-o-Q Up | Q-o-Q Down |
|-------------------------|---------------------|----------|------------|
| Iron & Steel | | | |
| Iron Ore | International | | -22.85% ▼ |
| | Domestic low grade | | |
| | Domestic high grade | | |
| Pig Iron | International | | -7.02% ▼ |
| | Domestic | 0.80% ▲ | |
| Stainless steel | Domestic | 17.64% ▲ | |
| | Domestic | 16.49% ▲ | |
| Wire rod | International | 1.17% ▲ | |
| | Domestic | | -1.51% ▼ |
| Steel Billets | International | | -1.94% ▼ |
| | Domestic | 4.21% ▲ | |
| Hot-rolled coils | International | | -6.90% ▼ |
| | Domestic | 4.02% ▲ | |
| Cold-rolled coils | International | | -8.26% ▼ |
| | Domestic | 2.63% ▲ | |
| Steel Scrap | Domestic | | -0.21% ▼ |
| | EN8 | | -0.36% ▼ |
| | 20MnCr5 | | -0.36% ▼ |
| Ferro-alloys | | | |
| Ferro chrome | International | 28.47% ▲ | |
| | Domestic | 26.13% ▲ | |
| Ferro silicon | International | 36.93% ▲ | |
| | Domestic | 13.73% ▲ | |

ND: Not disclosed by the source

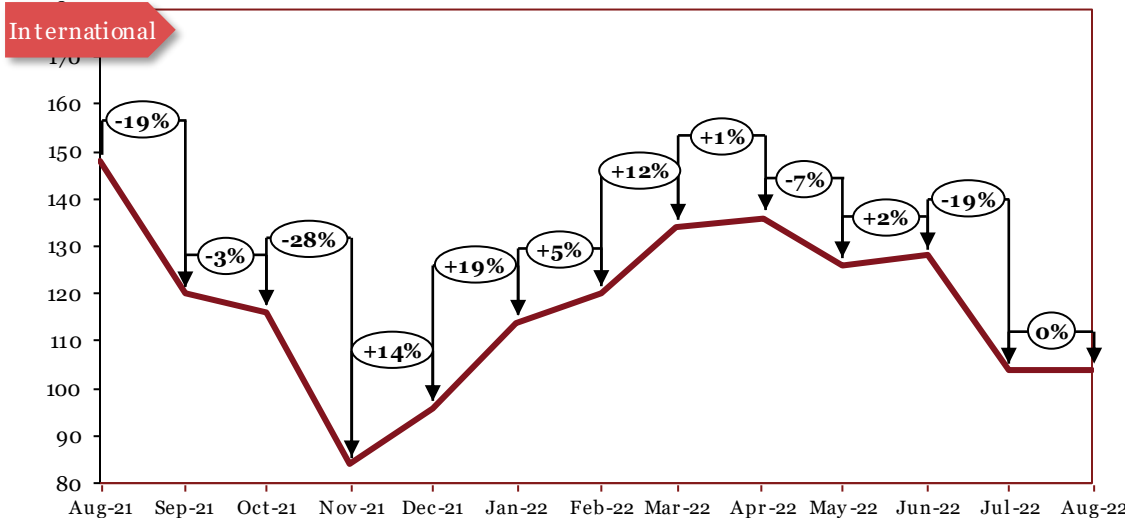
Commodity trend dashboard Quarter-on-Quarter changes (2/2)- Rolling view

Calendar Year 2022: Q vs. Q update

| Commodity | Region | Q-o-Q Up | Q-o-Q Down |
|--|---------------|----------|------------|
| Base Metals | | | |
| Aluminum | International | 10.36% ▲ | |
| | Domestic | 10.07% ▲ | |
| Copper | International | | -3.49% ▼ |
| | Domestic | | -2.23% ▼ |
| Zinc | International | | -3.09% ▼ |
| | Domestic | 6.18% ▲ | |
| Lead | International | 10.05% ▲ | |
| | Domestic | 5.34% ▲ | |
| Nickel | International | 10.27% ▲ | |
| | Domestic | 11.80% ▲ | |
| Tin | International | 11.48% ▲ | |
| | Domestic | N/A | |
| Precious Metals | | | |
| Platinum | International | | -13.35% ▼ |
| Palladium | International | | -11.68% ▼ |
| Rhodium | International | | -33.32% ▼ |
| Polymers | | | |
| Low density polyethylene (LDPE) | International | 0.42% ▲ | |
| | Domestic | | -3.72% ▼ |
| Polypropylene (PP) | International | | -5.12% ▼ |
| | Domestic | | -2.80% ▼ |
| Acrylonitrile Buta diene Styrene (ABS) | International | | -2.13% ▼ |
| | Domestic | | -1.69% ▼ |
| Polystyrene (PS) | International | | -1.55% ▼ |
| | Domestic | | -1.38% ▼ |
| Rubber | Domestic | 2.57% ▲ | |
| Currency Exchange | | | |
| Dollar | International | 0.35% ▲ | |
| Pound | International | | -1.54% ▼ |
| Euro | International | | -0.39% ▼ |
| Yen | International | | -0.40% ▼ |

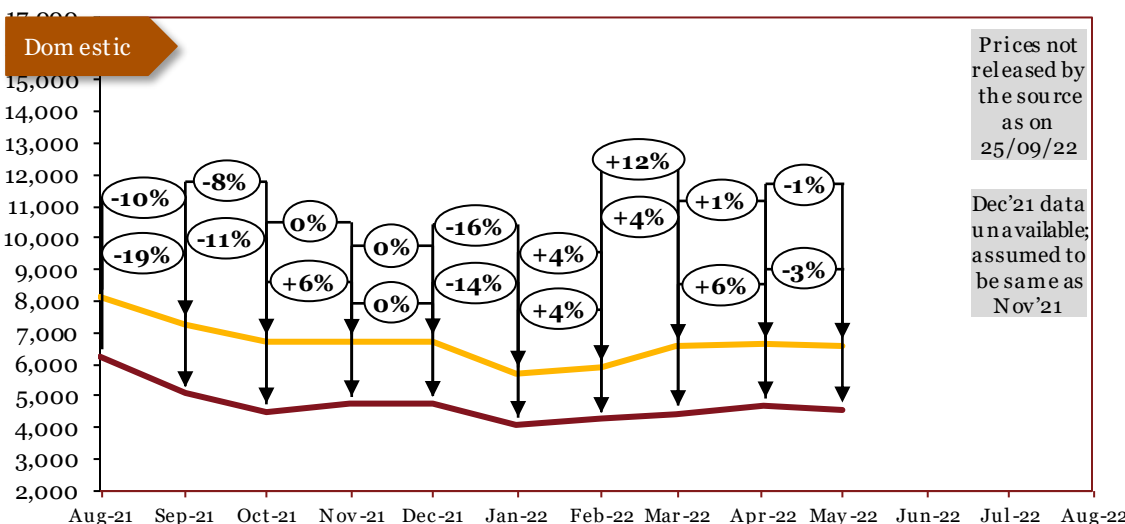
Iron & Steel

Iron Ore



Source: Crisil

| Period | *Int'l | *Dom | |
|--------|----------|-------------|-------------|
| | \$/tonne | Rs/tonne | |
| | | 65% & below | 65% & above |
| Aug-21 | 148 | 6271 | 8124 |
| Sep-21 | 120 | 5070 | 7286 |
| Oct-21 | 116 | 4518 | 6733 |
| Nov-21 | 84 | 4779 | 6721 |
| Dec-21 | 96 | 4779 | 6721 |
| Jan-22 | 114 | 4113 | 5667 |
| Feb-22 | 120 | 4259 | 5874 |
| Mar-22 | 134 | 4447 | 6579 |
| Apr-22 | 136 | 4696 | 6632 |
| May-22 | 126 | 4571 | 6583 |
| Jun-22 | 128 | | |
| Jul-22 | 104 | | |
| Aug-22 | 104 | | |



Prices not released by the source as on 25/09/22

Dec'21 data unavailable; assumed to be same as Nov'21

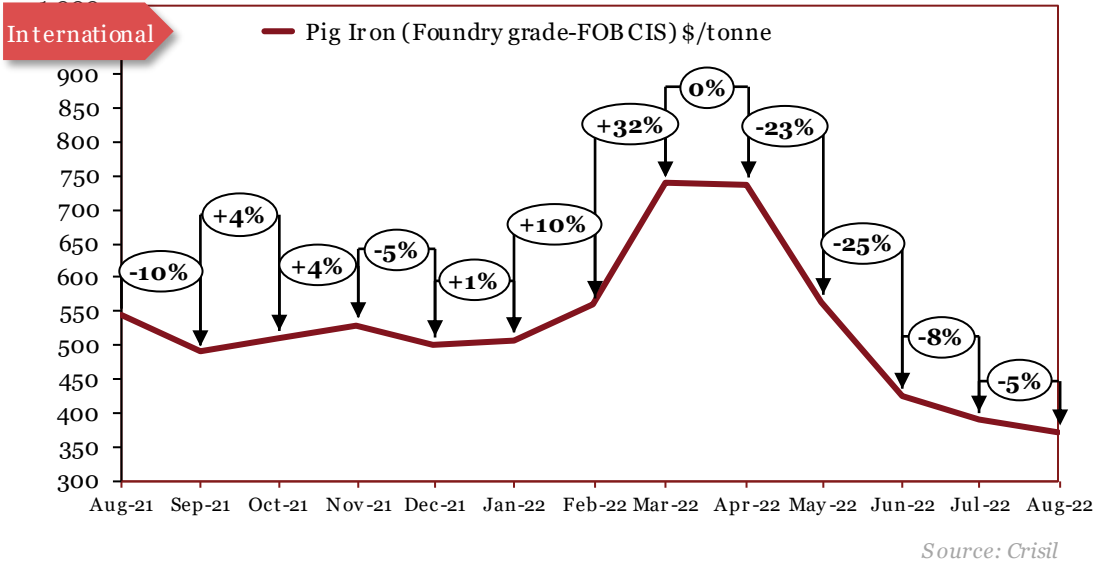
Source: Crisil

*The actual prices may vary depending on city, player, grade etc.

Outlook

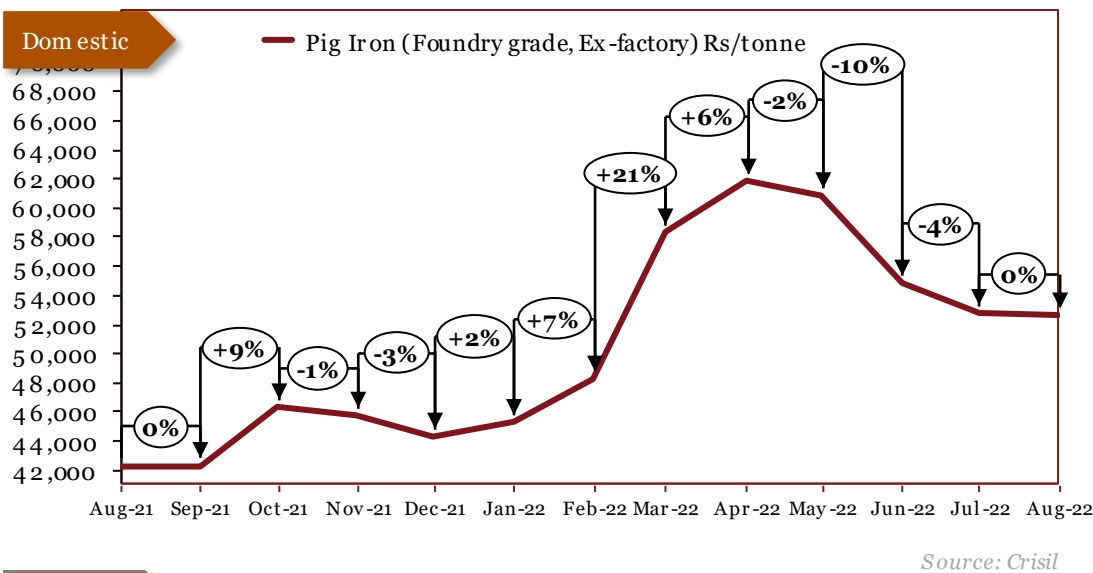
In December, international prices underwent a correction due to a rise in steel mill margins and a recovery in Chinese steel production. In January, international prices continued to rise steeply due to an increase in operating and input (e.g., coking coal) costs, as well as increased demand caused by a ramp up in Chinese infrastructure projects. In February, international prices continued to rally upwards due to renewed Chinese demand, alongside ramp up in operations in the infrastructure, construction and automobile sectors across the globe. In March, international prices continued to soar as expectations of policy support in China outweighed concerns of weaker demand amid lockdowns. In April, prices rose slightly as a rise in demand was offset by a fall in prices – amidst rising Covid cases in China – towards the end of the month. In May, international prices declined due to prolonged covid-19 restrictions in China which led to weaker spot demand. In June, international prices rose slightly due to sentiment in future markets and demand from top steel producers in China. In July, international prices fell sharply due to weaker demand of steel from construction sector in China. In August, international prices remained stable.

Pig Iron



Monthly Average Prices

| Period | *Int'l | *Dom |
|--------|----------|----------|
| | \$/tonne | Rs/tonne |
| Aug-21 | 545 | 42250 |
| Sep-21 | 490 | 42250 |
| Oct-21 | 511 | 46250 |
| Nov-21 | 530 | 45750 |
| Dec-21 | 502 | 44250 |
| Jan-22 | 508 | 45250 |
| Feb-22 | 561 | 48250 |
| Mar-22 | 739 | 58250 |
| Apr-22 | 736 | 61750 |
| May-22 | 564 | 60750 |
| Jun-22 | 425 | 54750 |
| Jul-22 | 391 | 52750 |
| Aug-22 | 373 | 52600 |

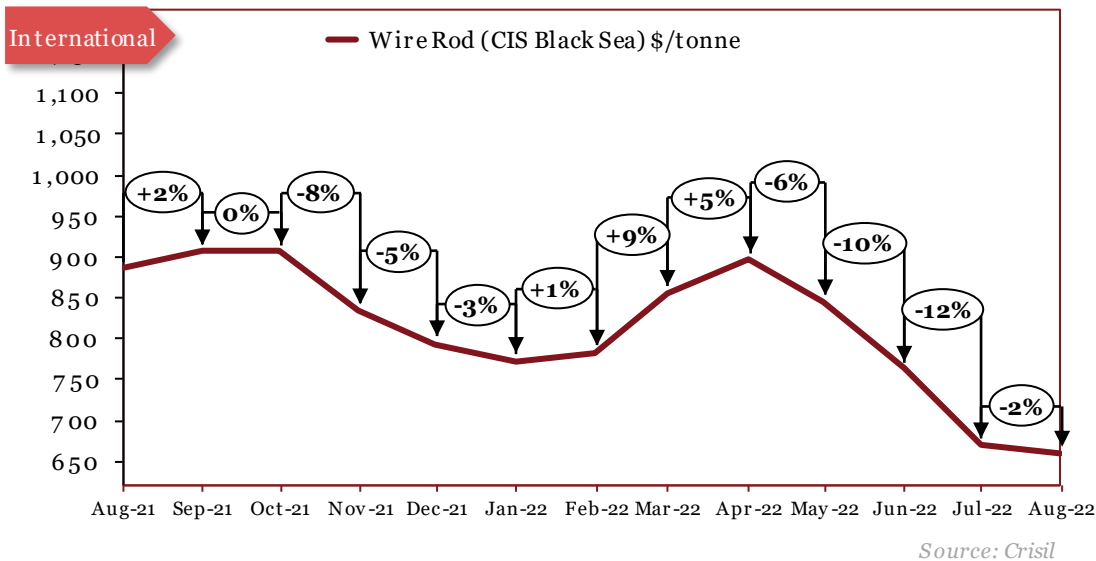


*The actual prices may vary depending on city, player, grade etc.

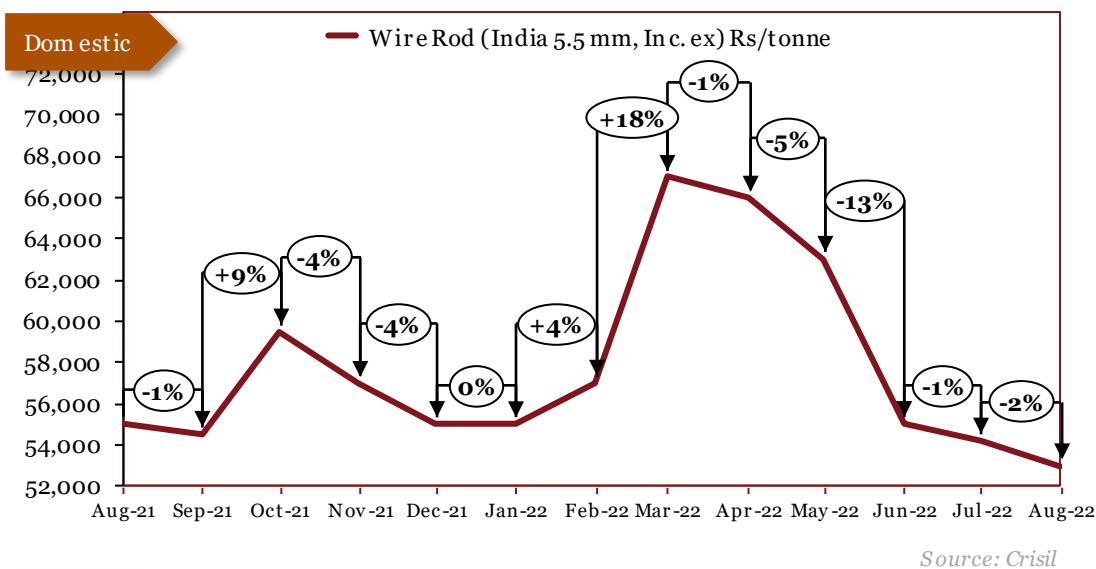
Outlook

In February, both international and domestic prices rose sharply in tandem with iron ore prices. In March, both international and domestic prices rose sharply due to disruptions in the supply chain – caused by geopolitical tensions – and China stimulus hopes, amid a surge in Covid-19 cases. In April, domestic prices continued to rise on account of a slight rise in demand, coupled with persistent supply disruptions. International prices remained stable. In May, international prices fell steeply due to lower demand from US & Europe, along with the emergence of alternative lower cost supplies from Asian countries. Domestic prices fell as a result of imposition of 15% export duty on Pig Iron in India. In June, international prices hit a 12-month low due to sentiment of oversupply of steel in China and weak demand. Domestic prices fell as a result of decline in exports and weak market sentiment post export duty. In July, international prices fell down owing to weak demand and supply of steel. Domestic prices fell due to decline in domestic demand and sustained effect of imposition of higher export duties. In August, domestic prices remained stable. International prices fell as a result of a sustained decrease in coking coal prices.

Wire Rod



| Monthly Average Prices | | |
|------------------------|--------------------|-----------------|
| Period | ^*Int'l (\$/tonne) | *Dom (Rs/tonne) |
| Aug-21 | 885 | 54994 |
| Sep-21 | 906 | 54494 |
| Oct-21 | 906 | 59494 |
| Nov-21 | 833 | 56994 |
| Dec-21 | 792 | 54994 |
| Jan-22 | 772 | 54994 |
| Feb-22 | 782 | 56994 |
| Mar-22 | 854 | 66994 |
| Apr-22 | 895 | 65994 |
| May-22 | 844 | 62994 |
| Jun-22 | 761 | 54994 |
| Jul-22 | 669 | 54194 |
| Aug-22 | 659 | 52994 |

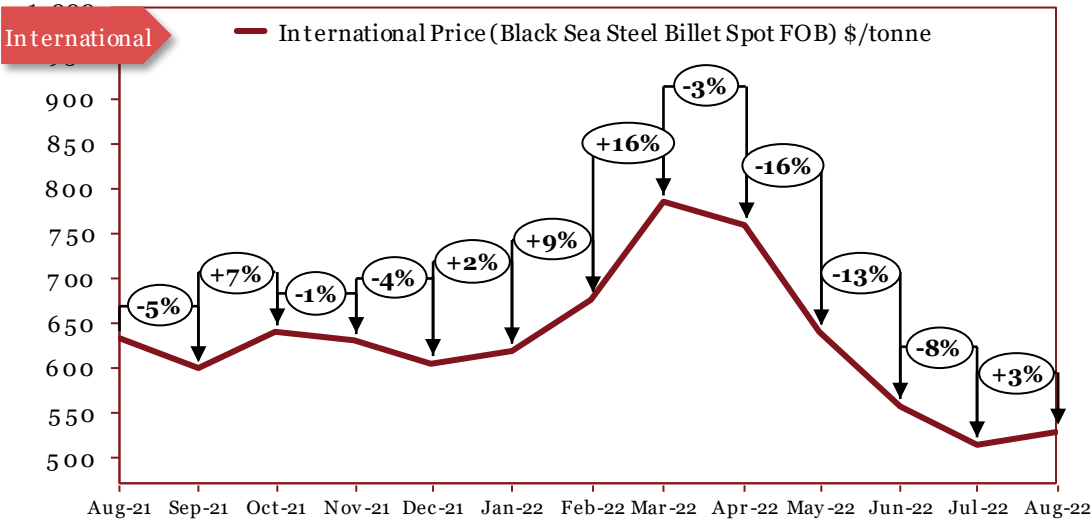


*The actual prices may vary depending on city, player, grade etc.

Outlook

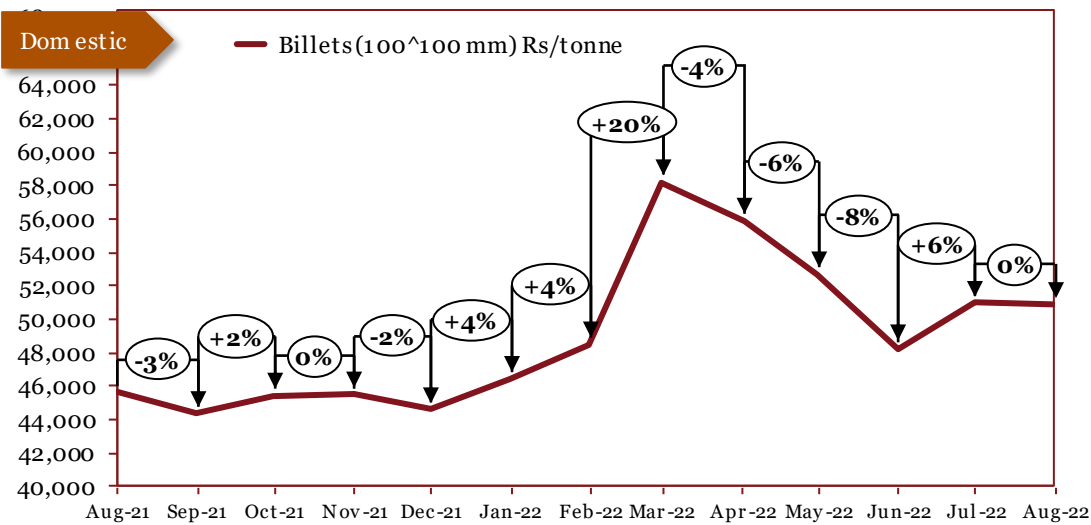
In February, domestic prices rose amidst a slight pick-up in demand, caused by strong consumption and limited imports, following a period of slow demand. International prices remained stable. In March, prices rose sharply due to high costs at mills, limited imports and availability concerns for buyers. In April, international prices continued to rise as a result of limited inventories at mills. Domestic prices fell slightly due to a drop in demand – caused by covid scares in China. In May, international prices fell on the back of a drop in iron ore prices, coupled with weaker demand. Domestic prices fell as a result of imposition of 15% export duty on wire rod in India. In June, international continued to fall due to slow economic growth, weak demand and scrap price reduction in European countries. Domestic prices tumbled as result of decrease in exports. In July, international prices fell on account of weaker demand in major countries. Domestic prices declined slightly due to a lack of buying enquiries from end use industries. In August, domestic prices fell slightly owing to a reduction in offer prices by steel producers and a fall in bids at SAIL auctions. International prices fell as a result of a fall in demand, due to lower consumption levels.

Steel Billets



Source: Crisil

| Monthly Average Prices | | |
|------------------------|-----------------------|--------------------|
| Period | ^*Int'l (\$/tonne) | *Dom (Rs/tonne) |
| Aug-21 | 633 | 45600 |
| Sep-21 | 599 | 44350 |
| Oct-21 | 638 | 45430 |
| Nov-21 | 630 | 45475 |
| Dec-21 | 604 | 44600 |
| Jan-22 | 618 | 46425 |
| Feb-22 | 675 | 48500 |
| Mar-22 | 784 | 58200 |
| Apr-22 | 758 | 55860 |
| May-22 | 638 | 52650 |
| Jun-22 | 556 | 48250 |
| Jul-22 | 513 | 50960 |
| Aug-22 | 527 | 50833 |



Source: Crisil

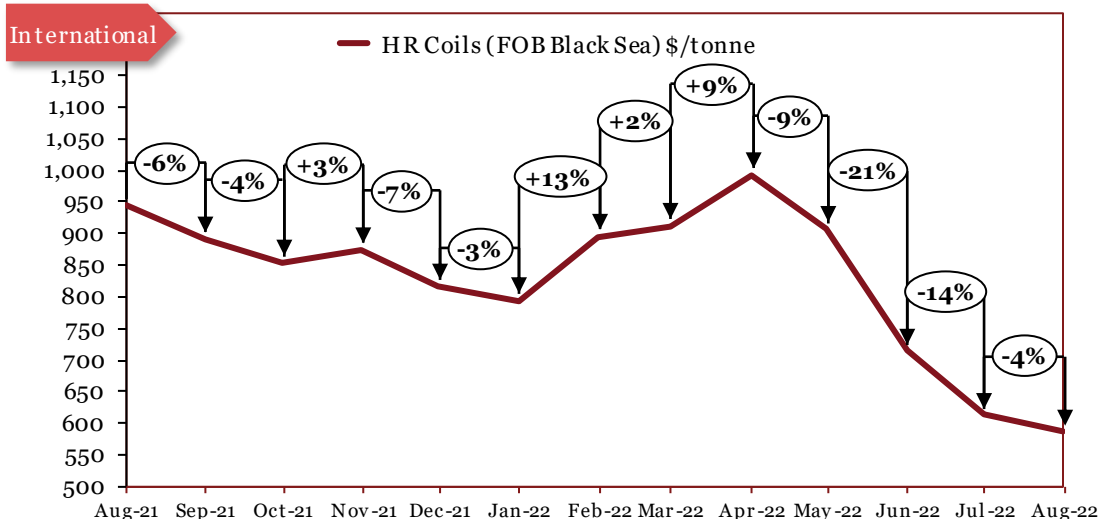
*The actual prices may vary depending on city, player, grade etc.

Outlook

In January, domestic prices increased on account of a rise in prices of DRI, the main raw material used for billet-making. International prices rose as demand kept outweighing supply throughout the month. In February, both international and domestic prices increased due to global logistics disruptions amid the conflict in Ukraine. In March, prices increased sharply due to uncertainty over supply of steel from China and Russia. In April, domestic prices fell due to subdued demand for finished steel from the construction sector. International prices decreased due to a fall in demand and lower scrap costs. In May, international prices dipped due to weaker demand and high material availability. Domestic prices followed suit. In June, international prices fell due to limited trade and lower price offerings from Russia. Domestic prices also fell due to low demand from key import nations. In July, international prices fell to their lowest level in 12 months on account of weaker demand for finished steel. Domestic prices rose sharply due to a rise in input cost. In August, international prices rose due to an increase in energy costs. Domestic prices remained stable.

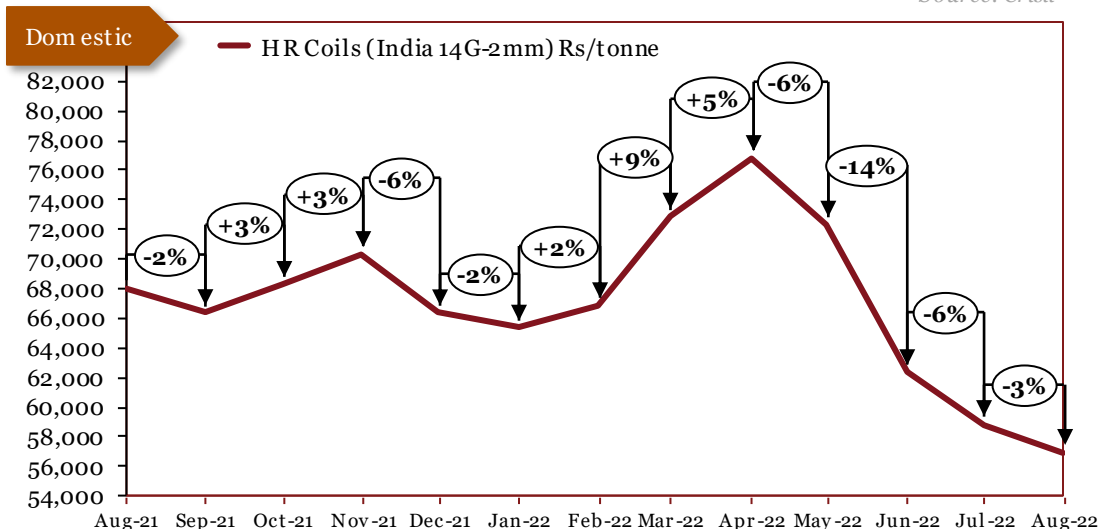
^International prices changed due to change in the grade

Hot-Rolled (HR) Coils



Source: Crisil

| Monthly Average Prices | | |
|------------------------|----------------------|---------------------|
| Period | *Int'l (\$/tonne) | ^*Dom (Rs/tonne) |
| Aug-21 | 943 | 68050 |
| Sep-21 | 890 | 66350 |
| Oct-21 | 853 | 68350 |
| Nov-21 | 874 | 70350 |
| Dec-21 | 815 | 66350 |
| Jan-22 | 794 | 65350 |
| Feb-22 | 895 | 66850 |
| Mar-22 | 911 | 72850 |
| Apr-22 | 991 | 76850 |
| May-22 | 906 | 72350 |
| Jun-22 | 714 | 62350 |
| Jul-22 | 613 | 58850 |
| Aug-22 | 586 | 56950 |



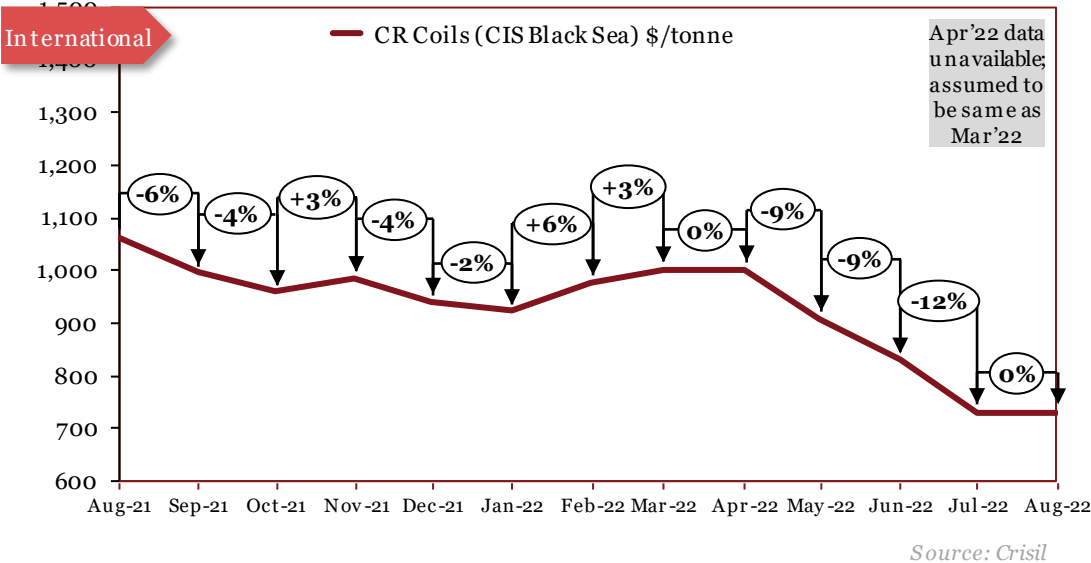
Source: Crisil

*The actual prices may vary depending on city, player, grade etc.

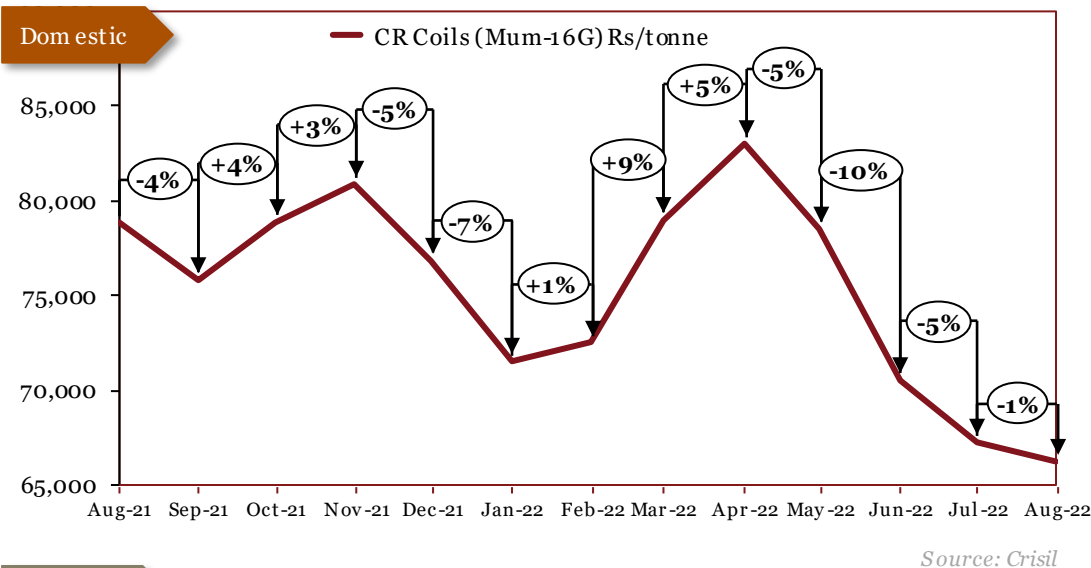
Outlook

In December, both domestic and international prices fell due to a seasonal slowdown of demand and weak consumption. In January, domestic prices fell owing to the government's decision to remove anti-dumping duty on HRC imports. International prices fell due to weak demand. In February, both international and domestic prices rose as steel mills raised their prices due to supply tightness. In March, both international and domestic prices rose amid Covid-19-imposed lockdowns in China, leading to a decrease in supply, as well as an increase in prices announced by European mills. In April, domestic prices continued to rise amid strong demand for HRC in the spot market. International prices rose due to supply disruptions caused by Covid lockdowns in China. In May, prices fell due to sluggish demand from the Asian market. In June, international prices fell sharply due to oversupply of HRC in European countries. Domestic prices fell as a result of export duty. In July, both international and domestic prices fell to their lowest level in 12 months due to poor demand in domestic and for foreign markets. In August, prices fell owing to weekly price cuts by steel mills, as a result of subdued domestic demand and exports.

Cold-Rolled (CR) Coils



| Monthly Average Prices | | |
|------------------------|----------------------|---------------------|
| Period | *Int'l (\$/tonne) | ^*Dom (Rs/tonne) |
| Aug-21 | 1064 | 78850 |
| Sep-21 | 996 | 75850 |
| Oct-21 | 959 | 78850 |
| Nov-21 | 984 | 80850 |
| Dec-21 | 941 | 76850 |
| Jan-22 | 923 | 71500 |
| Feb-22 | 978 | 72500 |
| Mar-22 | 1002 | 79000 |
| Apr-22 | 1002 | 83000 |
| May-22 | 910 | 78500 |
| Jun-22 | 830 | 70500 |
| Jul-22 | 732 | 67250 |
| Aug-22 | 732 | 66250 |

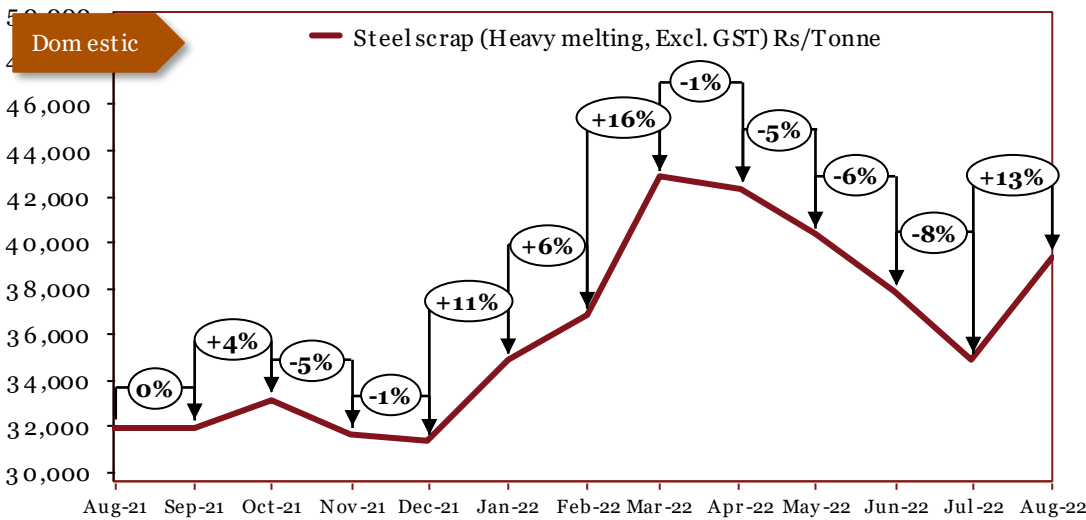


*The actual prices may vary depending on city, player, grade etc.

Outlook

In November, both international and domestic prices rose in tandem with HRC prices. In December, prices fell due to a fall in demand and low levels of industrial and commercial activity caused by lockdowns. In January, domestic prices fell owing to the government's decision to remove anti-dumping duty on CRC imports. International prices fell due to weak demand. In February, both international and domestic prices rose in tandem with HRC and steel prices. In March, international prices rose slightly, despite major supply chain disruptions – as buyers were reluctant to make new deals due to full credit lines. Domestic prices rose sharply on the back of an increase in raw material procurement costs. In April, domestic prices rose in tandem with HRC prices. In May, both international and domestic prices fell in tandem with HRC prices. In June, international prices fell on back with lack of bookings. Domestic prices fell in tandem with HRC prices. In July, both international and domestic prices fell sharply due to weaker demand from China, coupled with inflationary pressures in Europe. In August, domestic prices fell slightly due to a fall in raw material (coking coal) prices. International prices remained stable.

Steel Scrap (Heavy Melting)



Source: CRISIL

| Monthly Average Prices | |
|------------------------|-----------------|
| Period | *Dom (Rs/Tonne) |
| Aug-21 | 31900 |
| Sep-21 | 31900 |
| Oct-21 | 33100 |
| Nov-21 | 31600 |
| Dec-21 | 31300 |
| Jan-22 | 34800 |
| Feb-22 | 36800 |
| Mar-22 | 42800 |
| Apr-22 | 42300 |
| May-22 | 40300 |
| Jun-22 | 37800 |
| Jul-22 | 34800 |
| Aug-22 | 39300 |

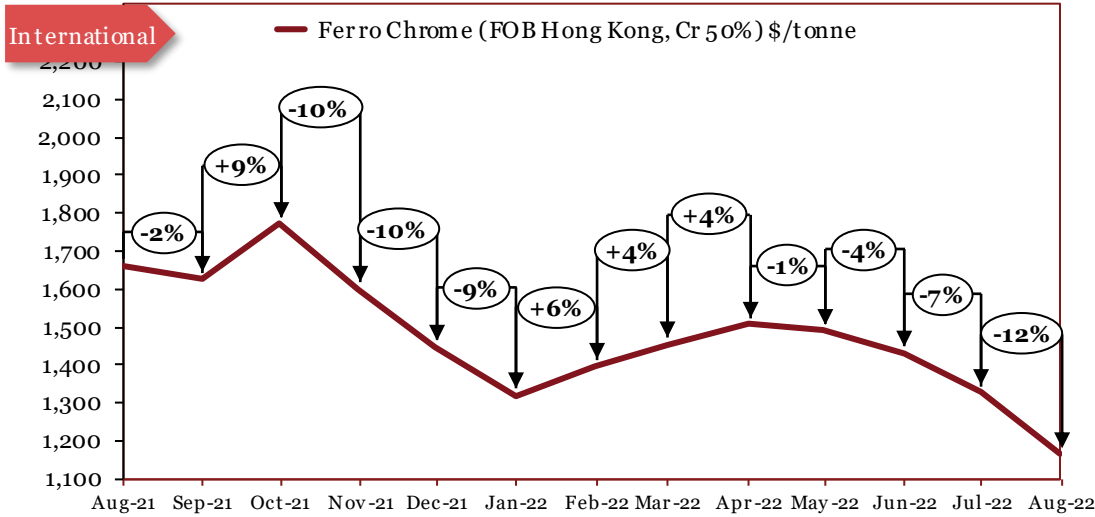
*The actual prices may vary depending on city, player, grade etc.

Outlook

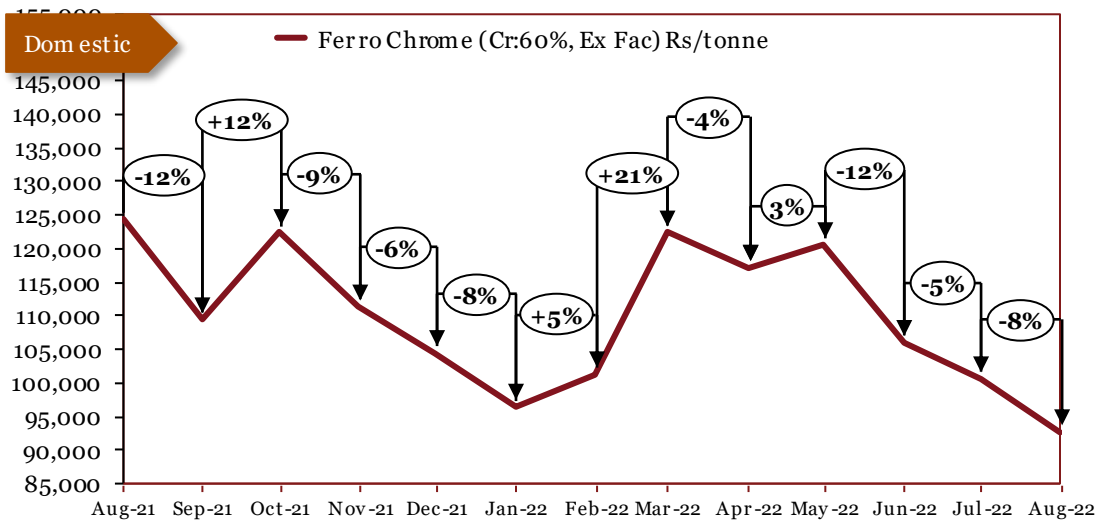
In September, prices remained unaffected. In October, prices increased as growing desperation for steel scrap imports at steel mills led to a sellers' market for bulk and container cargoes, along with a rise in Turkish prices and growing bullishness amongst American suppliers. In November, prices decreased on account of weak market sentiment, and an overall slowdown of growth in demand due to hot metal being more attractive to mills. In December, prices remained relatively unchanged as supply tightness was offset by a drop in demand due to a seasonal slowdown and concerns over the Omicron variant. In January and February, prices rose drastically due to a combination of factors; a strong surge in demand amid normalization post COVID, and global logistics problems due to geo-political turmoil. In March, prices rose in tandem with steel prices. In April, prices fell slightly due to weaker demand from domestic steel mills and weaker prices into Turkey, which is a key buyer. In May, domestic prices fell due to weaker demand for finished steel. In June, domestic prices fell due to low in-gots sales. In July, prices fell amid an oversupply crisis, weakening of demand and seasonal monsoon pressures. In August, prices increased on the back of a rise in demand from the automotive industry, owing to the onset of the festive season.

Ferro-alloys

Ferro chrome



Source: Crisil



Source: Crisil

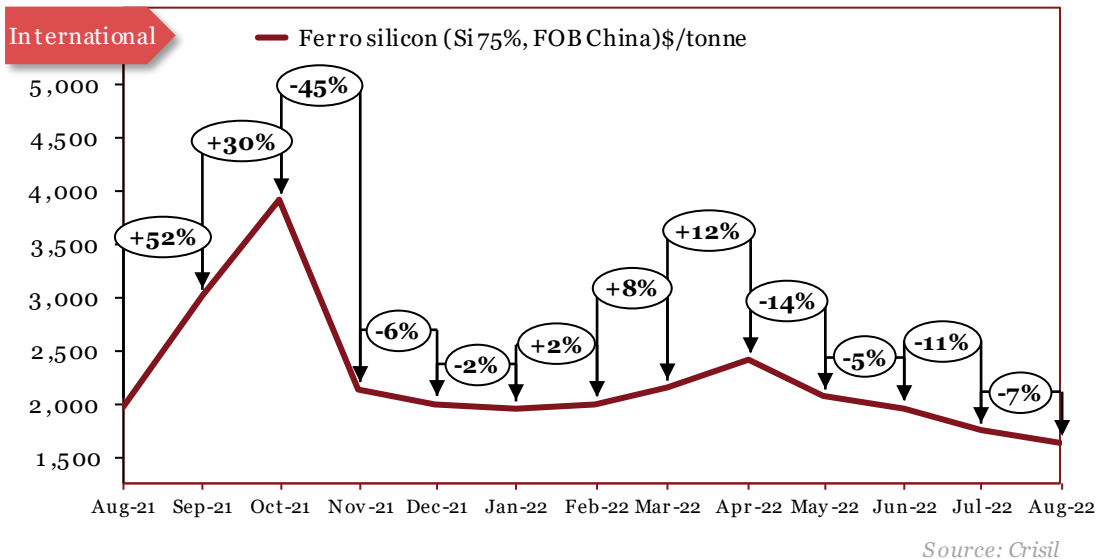
| Monthly Average Prices | | |
|------------------------|-------------------|-----------------|
| Period | *Int'l (\$/tonne) | *Dom (Rs/tonne) |
| Aug-21 | 1661 | 124400 |
| Sep-21 | 1626 | 109400 |
| Oct-21 | 1772 | 122400 |
| Nov-21 | 1601 | 111400 |
| Dec-21 | 1447 | 104400 |
| Jan-22 | 1318 | 96400 |
| Feb-22 | 1395 | 101400 |
| Mar-22 | 1455 | 122400 |
| Apr-22 | 1507 | 117200 |
| May-22 | 1489 | 120600 |
| Jun-22 | 1430 | 106100 |
| Jul-22 | 1327 | 100600 |
| Aug-22 | 1164 | 92600 |

*The actual prices may vary depending on city, player, grade etc.

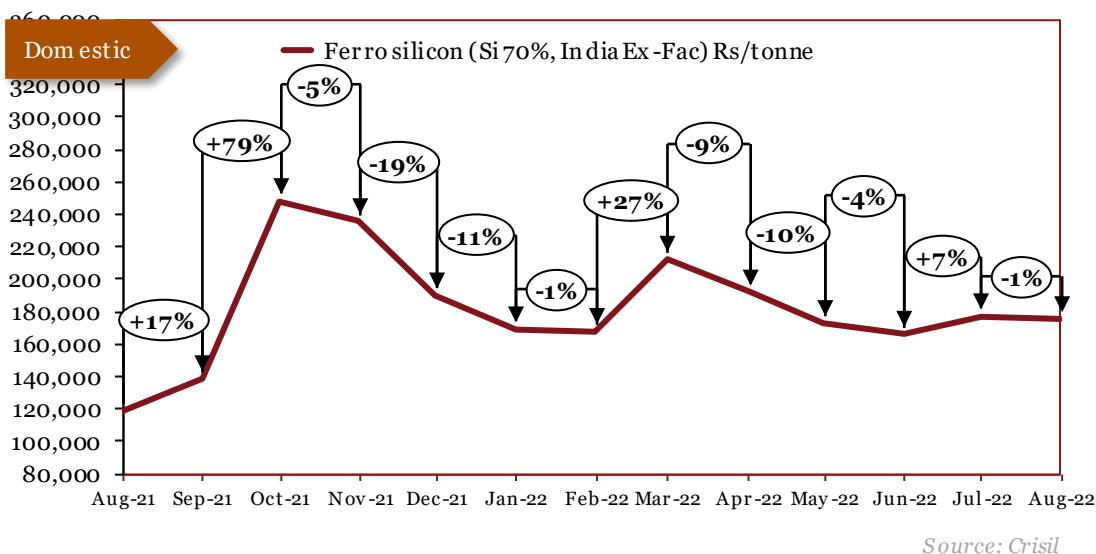
Outlook

In January, prices continued to fall amid rising supply and weak, aided by an underperforming downstream sector. In February, both international and domestic prices increased due to rising chrome ore prices, which were driven by lower inventories in China, strong consumption and a bright downstream outlook. In March, prices increased as tender prices were raised due to chrome ore prices reaching a four-year high. In April, international prices rose due to supply constraints caused by operational disruptions in South Africa and the war in Ukraine. Domestic prices decreased on account of a fall in local demand. In May, domestic prices rose slightly due to an increase in coal prices, as well as supply disruptions from South Africa. International prices remained relatively stable. In June, both international and domestic prices fell due to extremely sluggish demand. In July, domestic prices fell owing to a lack of demand from stainless steel makers and decrease in export orders. International prices fell due to a weakening of demand caused by ongoing inflationary pressures. In August, prices continued to trend downwards amid low liquidity levels and bearish market sentiments.

Ferro silicon



| Monthly Average Prices | | |
|------------------------|-------------------|-----------------|
| Period | *Int'l (\$/tonne) | *Dom (Rs/tonne) |
| Aug-21 | 1973 | 118450 |
| Sep-21 | 3002 | 138450 |
| Oct-21 | 3899 | 248450 |
| Nov-21 | 2125 | 235450 |
| Dec-21 | 1994 | 190450 |
| Jan-22 | 1953 | 169450 |
| Feb-22 | 1994 | 167450 |
| Mar-22 | 2153 | 212450 |
| Apr-22 | 2408 | 192450 |
| May-22 | 2063 | 172450 |
| Jun-22 | 1953 | 165950 |
| Jul-22 | 1739 | 177450 |
| Aug-22 | 1622 | 174950 |

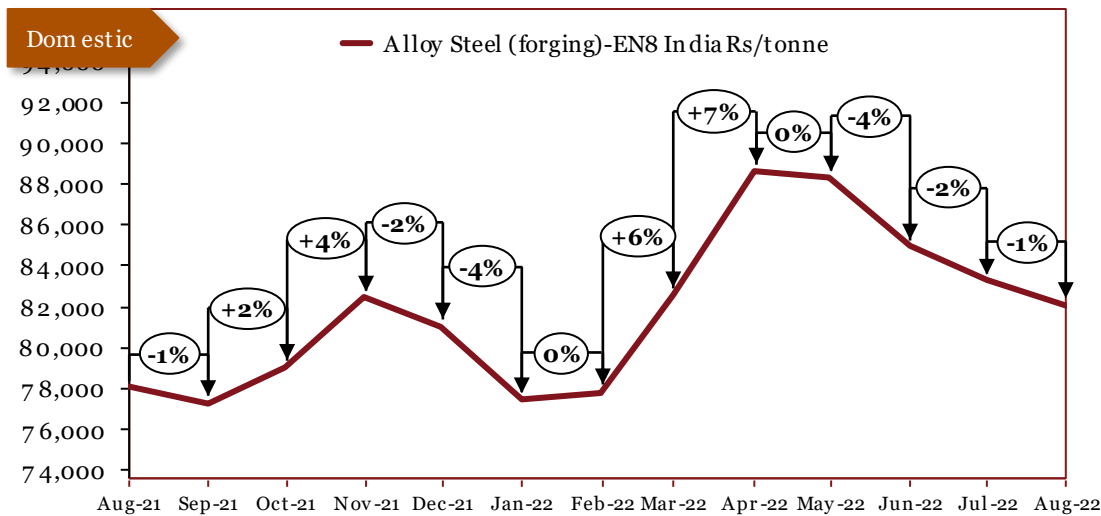


*The actual prices may vary depending on city, player, grade etc.

Outlook

In January, domestic prices continued to spiral downwards due to a lull in demand. International prices remained relatively stable as higher costs of semi-coke pushed manufacturers to increase prices towards the latter half of the month. In February, international prices rose marginally due to a slight increase in demand after a period of slow demand. Domestic prices remained stable. In March, prices rose sharply due to disruptions in the supply chain, caused by the ongoing conflict in Ukraine. In April, international prices increased due to supply disruptions caused by severe flooding in South Africa. Domestic prices fell as a result of a drop in demand amid Covid scares in China. In May, international and domestic prices fell due to a fall in steel production, which hereby led to lower consumption and a fall in demand. In June, international and domestic prices fell due to oversupply significant products during Russia-Ukraine invasion which now remains unused in warehouses. In July, international prices fell due to a fall in demand and caused by reduction in steel consumption, and the ongoing energy crisis. Domestic prices rose on account of higher input costs. In August, international prices fell due to a lack of consumer demand, driven strongly by falling futures prices and a lower number of bids/inquiries. Domestic prices remained relatively stable.

EN8 Alloy Steel (Forging)



Source: SIAM

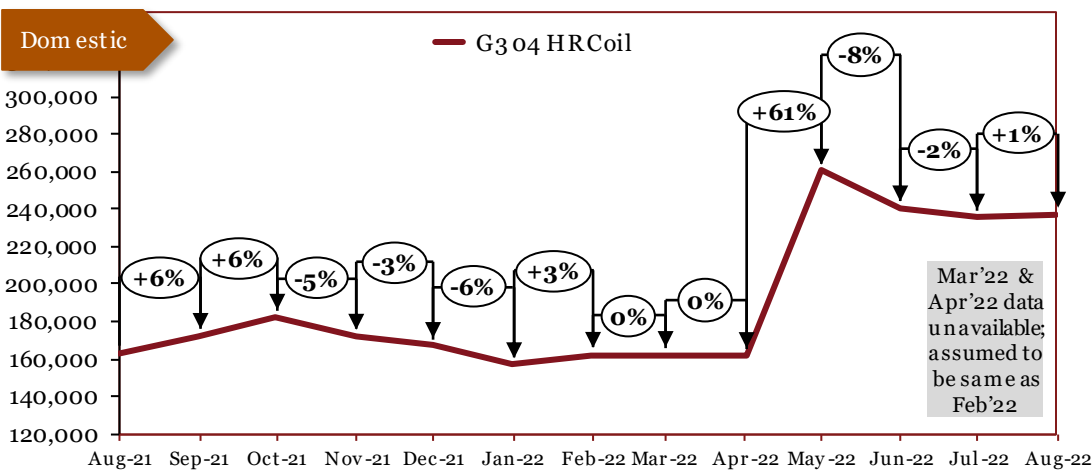
| Monthly Average Prices | |
|------------------------|-----------------|
| Period | *Dom (Rs/tonne) |
| Aug-21 | 78000 |
| Sep-21 | 77250 |
| Oct-21 | 79000 |
| Nov-21 | 82375 |
| Dec-21 | 81000 |
| Jan-22 | 77375 |
| Feb-22 | 77750 |
| Mar-22 | 82500 |
| Apr-22 | 88600 |
| May-22 | 88250 |
| Jun-22 | 84875 |
| Jul-22 | 83200 |
| Aug-22 | 82000 |

*The actual prices may vary depending on city, player, grade etc.

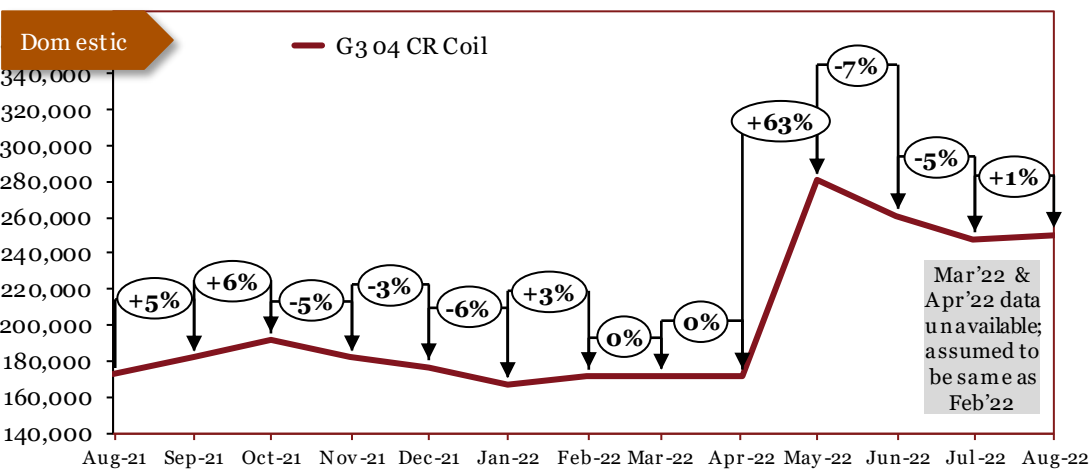
Outlook

In February, domestic prices fell in conjunction with steel prices. In March, domestic prices remained stable. In April, domestic prices increased in conjunction with international steel prices. In May, domestic prices rose amidst tight supply. In June, domestic prices remained stable. In July, prices fell on account of a market correction. In August, prices remained unaffected. In September, prices slightly dipped on account of a softening in demand. In October, prices rose in accordance with rising steel prices. In November, prices rose due to supply constraints. In December, prices fell in accordance with steel prices, amid rising inventories at steel mills and a softening of demand. In January, prices fell in conjunction with stainless steel prices. In February, prices remained stable. In March, prices increase in tandem with steel prices. In April, prices continued to rise amid supply disruptions caused by the situations in South Africa and Ukraine. In May, domestic prices remained stable. In June, Decline in prices is due to plunge in exports and stagnant demand. In July, domestic prices fell slightly due to lower demand on account of a lack of export orders. In August, prices fell slightly owing to price cuts by steel mills, along with a fall in demand from the automotive industry.

Stainless Steel



| Monthly Domestic Average Prices | | |
|---------------------------------|------------|------------|
| Period | *G304 HR | *G304 CR |
| | (Rs/tonne) | (Rs/tonne) |
| Aug-21 | 163200 | 172750 |
| Sep-21 | 172200 | 181750 |
| Oct-21 | 182200 | 191750 |
| Nov-21 | 172200 | 181750 |
| Dec-21 | 167200 | 176750 |
| Jan-22 | 157200 | 166750 |
| Feb-22 | 162200 | 171750 |
| Mar-22 | 162200 | 171750 |
| Apr-22 | 162200 | 171750 |
| May-22 | 260500 | 280500 |
| Jun-22 | 240500 | 260600 |
| Jul-22 | 235750 | 247750 |
| Aug-22 | 237375 | 250250 |



Source: SIAM

*The actual prices may vary depending on city, player, grade etc.

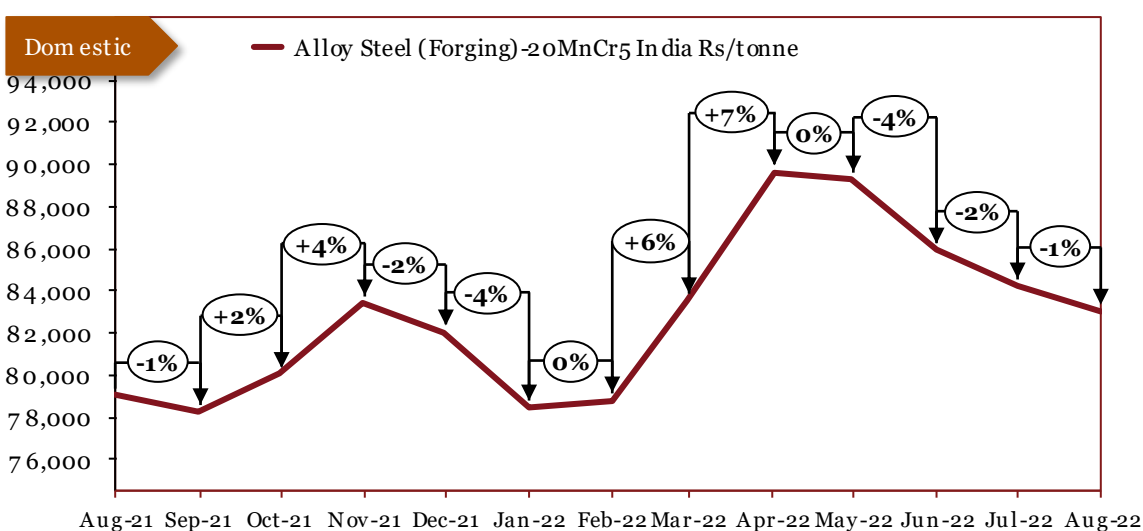
Outlook

In September, the continued cuts in China's steel production – caused by energy consumption requirements – meant that prices were pushed even further up. In October, prices continued to soar as steel mills hiked prices on the back of rising power costs, despite a weakening of demand owing to the same. In November prices fell owing to a weakening of demand, as the Chinese real estate sector remained depressed in the light of the government's policy stance on rebalancing and environmental protection. In December, prices fell slightly further on account of concerns over the Omicron variant. In January, prices continued to decrease amid oversupply and weak demand. In February, prices rose marginally due to missing volumes from Russia and Ukraine, coupled with rising production costs. In March and April, prices were assumed to be stable owing to unavailability of data. In June, prices fell on back of imposition of export duty and crash in domestic steel prices. In July, weaker demand from construction and automobile industries led to decrease in prices. In August, prices increased slightly as a result of an increase in end-consumer demand, due to the on set of the festive season.

20MnCr5 Alloy Steel (Forging)

Monthly Average Prices

| Period | *Dom (Rs/tonne) |
|--------|--------------------|
| Aug-21 | 79000 |
| Sep-21 | 78250 |
| Oct-21 | 80000 |
| Nov-21 | 83375 |
| Dec-21 | 82000 |
| Jan-22 | 78375 |
| Feb-22 | 78750 |
| Mar-22 | 83500 |
| Apr-22 | 89600 |
| May-22 | 89250 |
| Jun-22 | 85875 |
| Jul-22 | 84200 |
| Aug-22 | 83000 |



Source: SIAM

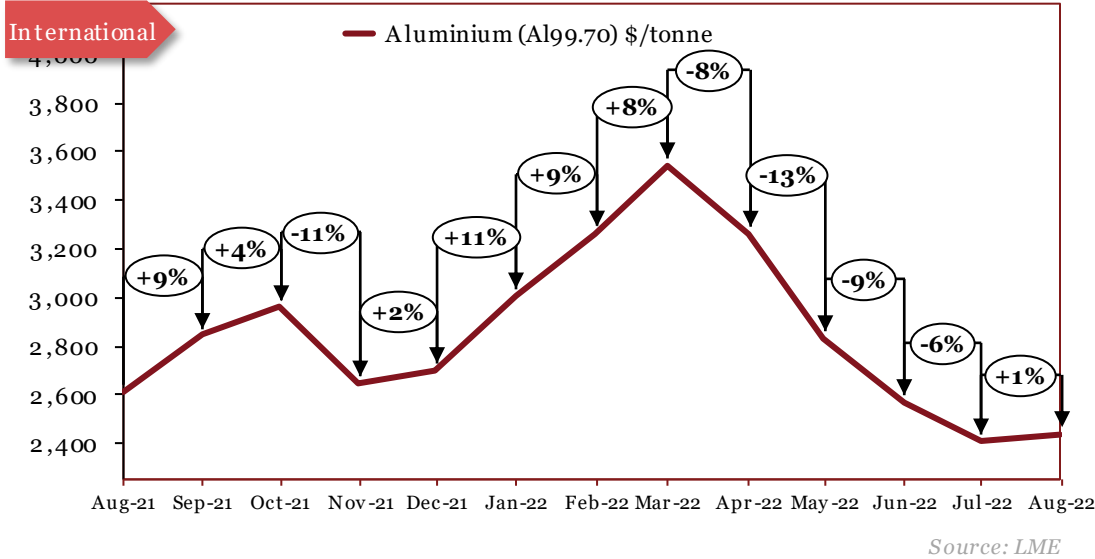
*The actual prices may vary depending on city, player, grade etc.

Outlook

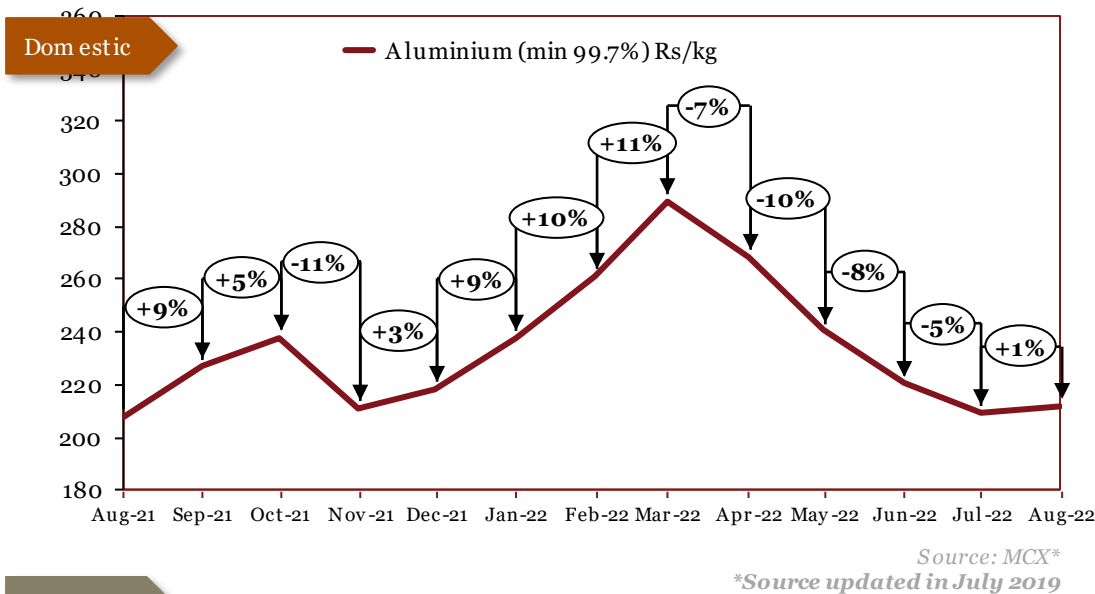
In March, domestic prices remained stable. In April, domestic prices rose in tandem with global steel prices on the back of reduced exports from China. In May, prices rose in line with flat steel prices coupled with increased consumption from China. In June, prices stayed stable in line with other steel alloys. In July, prices fell due to an increase in production. In August, prices remained stable. In September, prices slightly dipped due to a softening of demand. In October, prices rose amid a worsening of the power supply crisis. In November, prices rose amid speculations of steel production cuts in China. In December, prices fell in accordance with steel prices and a weakening of demand. In January, prices dropped in accordance with stainless steel prices. In February, prices remained stable. In March, prices rose in tandem with steel prices. In April, prices rose on account of supply disruptions caused by severe flooding in South Africa and the war in Ukraine. In May, prices remained stable. In June, prices fell in tandem with other steel alloys. In July, prices fell on account of a lack of buying enquiries from buyers and decrease in exports. In August, prices fell owing slightly to a sustained fall in demand from the automotive industry.

Base Metals

Aluminium



| Monthly Average Prices | | |
|------------------------|-------------------|--------------|
| Period | *Int'l (\$/tonne) | *Dom (Rs/kg) |
| Aug-21 | 2 611 | 2 08 |
| Sep-21 | 2 839 | 2 27 |
| Oct-21 | 2 955 | 2 38 |
| Nov-21 | 2 641 | 2 11 |
| Dec-21 | 2 695 | 2 18 |
| Jan-22 | 3 003 | 2 38 |
| Feb-22 | 3 260 | 2 61 |
| Mar-22 | 3 537 | 2 90 |
| Apr-22 | 3 256 | 2 68 |
| May-22 | 2 826 | 2 41 |
| Jun-22 | 2 563 | 2 21 |
| Jul-22 | 2 401 | 2 09 |
| Aug-22 | 2 431 | 2 12 |

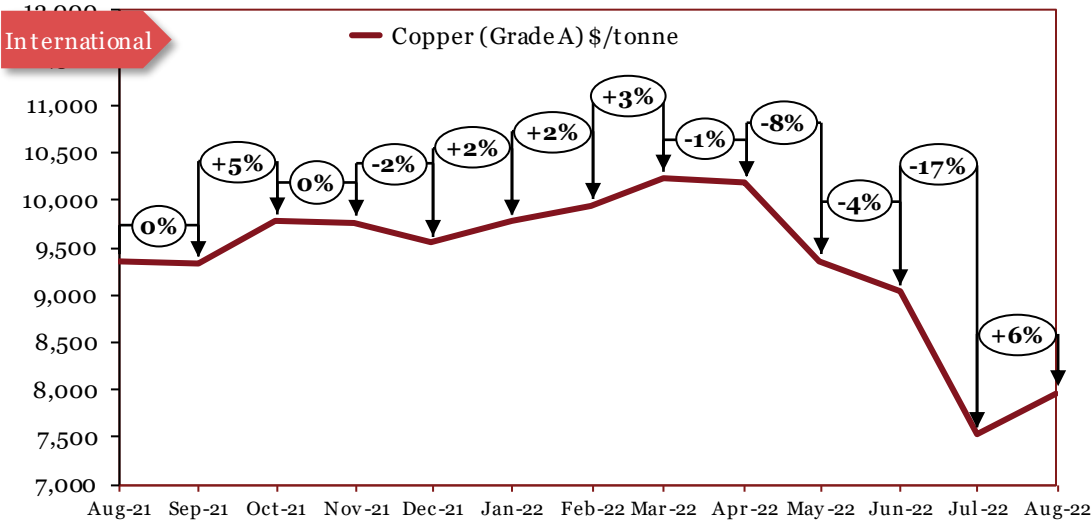


*The actual prices may vary depending on city, player, grade etc.

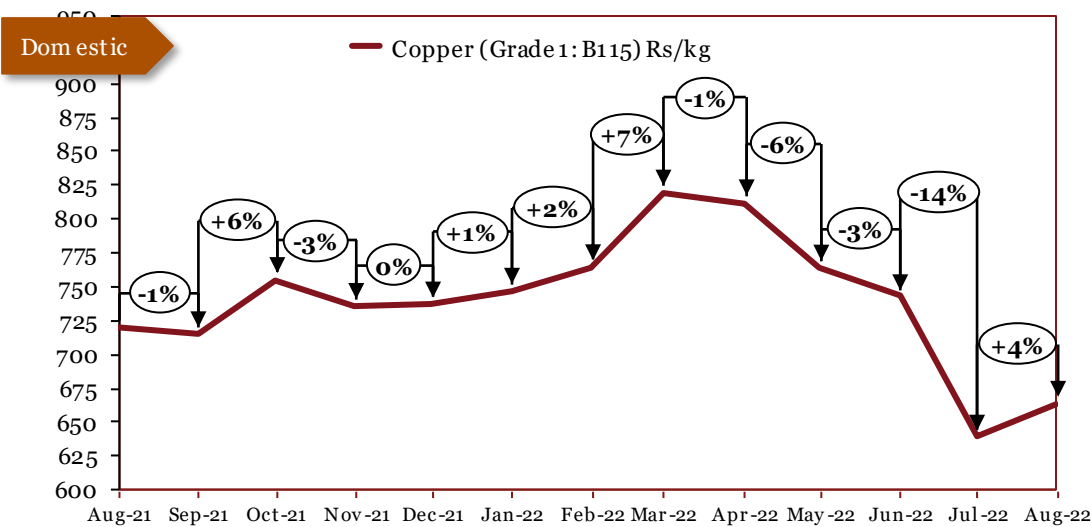
Outlook

In December, prices rose slightly due to rising energy costs and low inventory volumes. In January, international prices fell drastically amid a seasonal drop in demand, particularly due to the Lunar New Year. Domestic prices rose due to supply concerns and growing geo-political tensions. In February, prices continued to rise on the back of tight supply and geo-political tensions. In March, prices rose sharply as Primary Foundry Alloy (PFA) premiums reached all-time highs in the United States and Europe. In April, prices fell as various smelters in China ramped up their production, thus leading to a rise in supply. In May, both international and domestic prices fell sharply due to weaker demand along with higher material availability. In June, international prices continued to soar due to bearish sentiments and uncertain conditions from buyers. Domestic prices fell due to lower demand from major industries. In July, international prices fell due to weaker demand, caused by weaker premiums and recession concerns. In August, both domestic and international prices increased slightly owing to a growth in industrial demand in China, coupled with production cuts in European Aluminium smelters.

Copper



Source: LME



Source: MCX

| Monthly Average Prices | | |
|------------------------|-------------------|--------------|
| Period | *Int'l (\$/tonne) | *Dom (Rs/kg) |
| Aug-21 | 9357 | 720 |
| Sep-21 | 9324 | 715 |
| Oct-21 | 9777 | 755 |
| Nov-21 | 9765 | 736 |
| Dec-21 | 9549 | 737 |
| Jan-22 | 9775 | 747 |
| Feb-22 | 9940 | 765 |
| Mar-22 | 10237 | 819 |
| Apr-22 | 10182 | 812 |
| May-22 | 9362 | 764 |
| Jun-22 | 9032 | 743 |
| Jul-22 | 7529 | 639 |
| Aug-22 | 7960 | 664 |

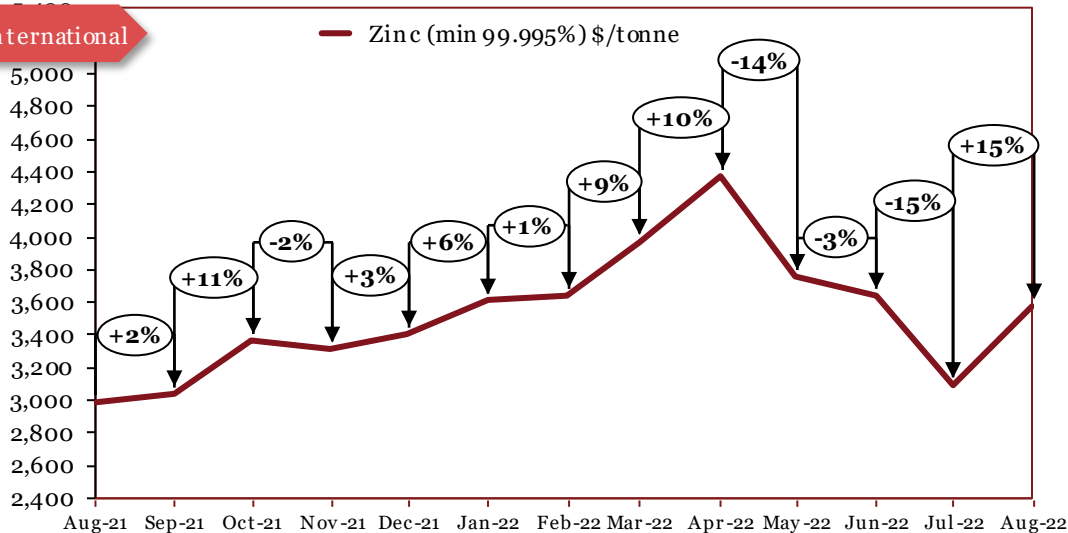
*The actual prices may vary depending on city, player, grade etc.

Outlook

In December, international prices rose due to surge in supply during the latter half of the month, coupled with a seasonal slowdown of demand and trading activity. Domestic prices remained stable. In January, both international and domestic prices increased marginally amid growing geo-political tensions, aided by supply disruptions. In February, prices rose marginally yet again due to a rise in copper concentrate processing charges. In March, prices rose due to supply tightness caused by geo-political tensions. In April, both international and domestic prices fell due to low demand in China, caused by Covid lockdowns. In May, both international and domestic prices fell as a result of a fall in demand due to prolonged Covid-19 restrictions in China, which is one of the top consumers of Copper. In June, domestic and international prices fell due to poor demand as countries raised interest rates to curb inflation. In July, both international and domestic prices fell to their lowest level in 12 months on account of concerns of recession in Europe and U.S, leading to monetary tightening. In August, prices increased as US inflation data was weaker than expected, reducing concerns over aggressive interest rate hikes and easing fears of a recession.

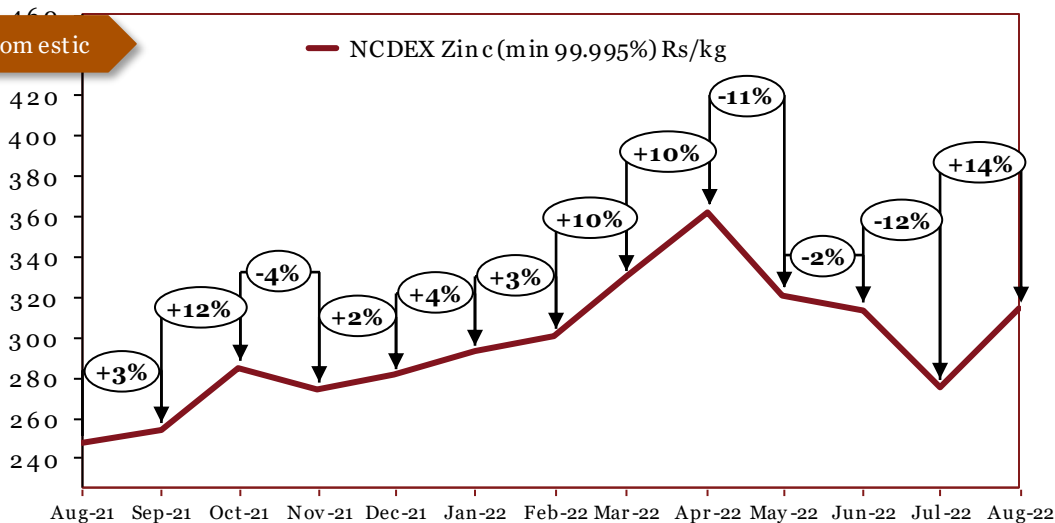
Zinc

International



Source: LME

Domestic



Source: MCX*

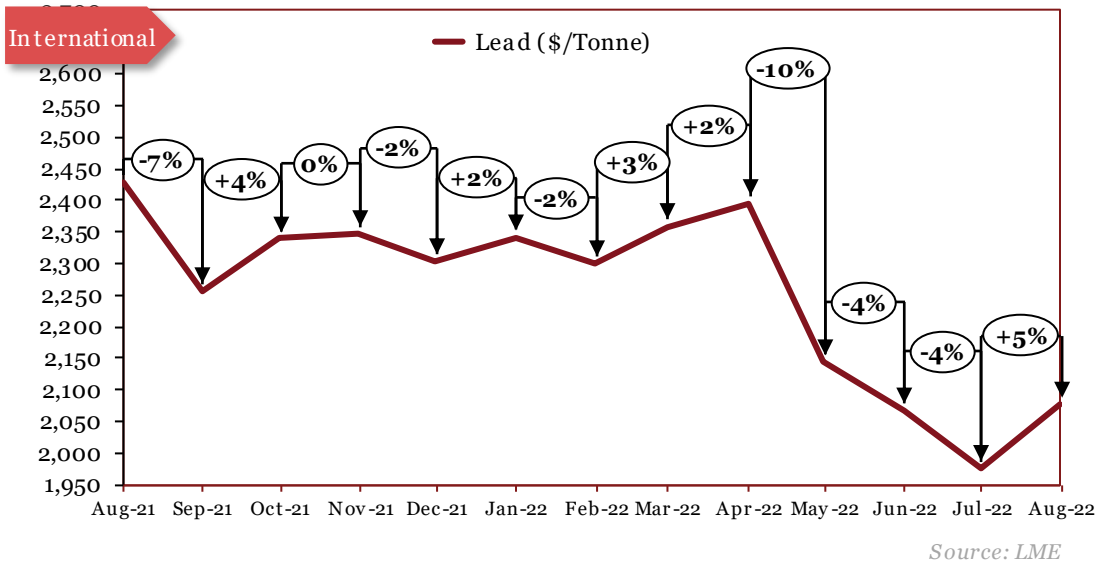
| Monthly Average Prices | | |
|------------------------|------------|---------|
| Period | *Int'l | *Dom |
| | (\$/tonne) | (Rs/kg) |
| Aug-21 | 2989 | 247 |
| Sep-21 | 3042 | 254 |
| Oct-21 | 3369 | 285 |
| Nov-21 | 3317 | 274 |
| Dec-21 | 3407 | 281 |
| Jan-22 | 3609 | 292 |
| Feb-22 | 3644 | 301 |
| Mar-22 | 3974 | 329 |
| Apr-22 | 4370 | 362 |
| May-22 | 3759 | 321 |
| Jun-22 | 3643 | 313 |
| Jul-22 | 3097 | 275 |
| Aug-22 | 3572 | 314 |

*The actual prices may vary depending on city, player, grade etc.

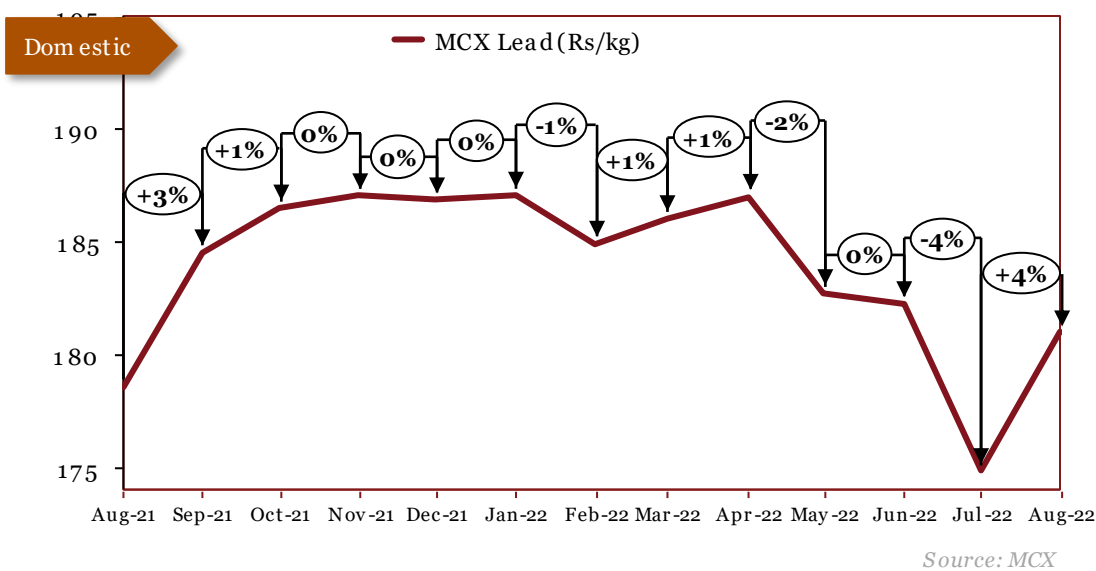
Outlook

. In November, both international and domestic prices fell amid uncertain macroeconomic picture, caused by advent of Omicron variant of COVID-19. In December, prices increased slightly on account of persistently high energy prices and low volumes of inventory. In January, both international and domestic prices continued upward trend as supply tightness coupled with geo-political tensions and growing demand pushed prices up. In February, prices rose marginally due to supply tightness caused by conflict in Ukraine. In March, prices rose sharply as disruptions in the supply chain caused by the conflict in Ukraine – have been resulting in price hikes. In April, both international and domestic prices rose sharply due to rising interest rates, inflation and energy costs. In May, both international and domestic prices fell due to muted demand from consumer industries. In June, prices fell slightly due to slow demand, crackdown of supply chain by governments to fight inflation. In July, prices continued to fall due to oversupply and a weakening in demand. In August, prices rose sharply due to closure of Dutch mills on the back of the global energy crisis, along with production cuts in Chinese Zinc smelters.

Lead



| Monthly Average Prices | | |
|------------------------|------------|---------|
| Period | *Int'l | *Dom |
| | (\$/tonne) | (Rs/kg) |
| Aug-21 | 2429 | 179 |
| Sep-21 | 2257 | 185 |
| Oct-21 | 2339 | 186 |
| Nov-21 | 2347 | 187 |
| Dec-21 | 2304 | 187 |
| Jan-22 | 2342 | 187 |
| Feb-22 | 2299 | 185 |
| Mar-22 | 2358 | 186 |
| Apr-22 | 2396 | 187 |
| May-22 | 2144 | 183 |
| Jun-22 | 2067 | 182 |
| Jul-22 | 1976 | 175 |
| Aug-22 | 2077 | 181 |

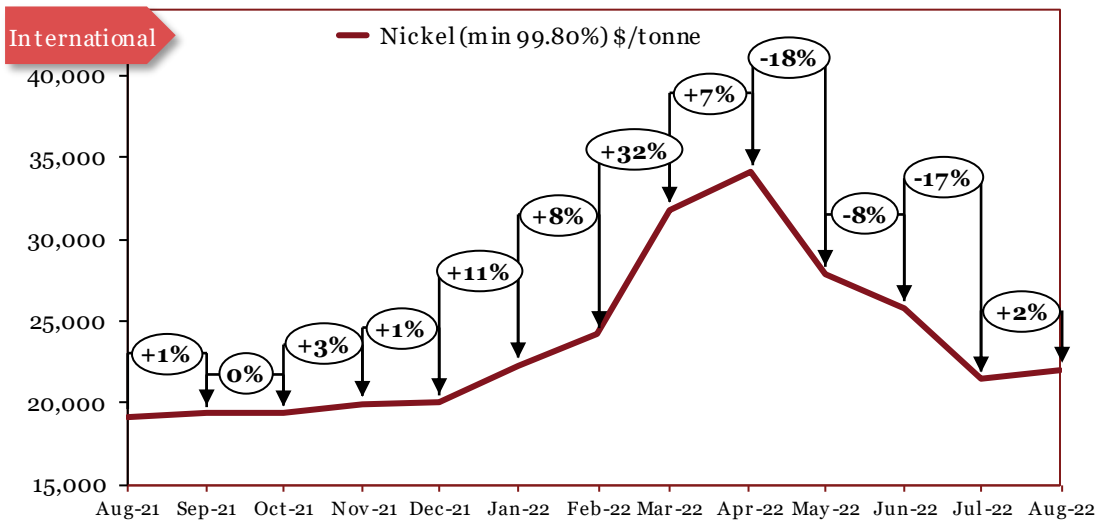


*The actual prices may vary depending on city, player, grade etc.

Outlook

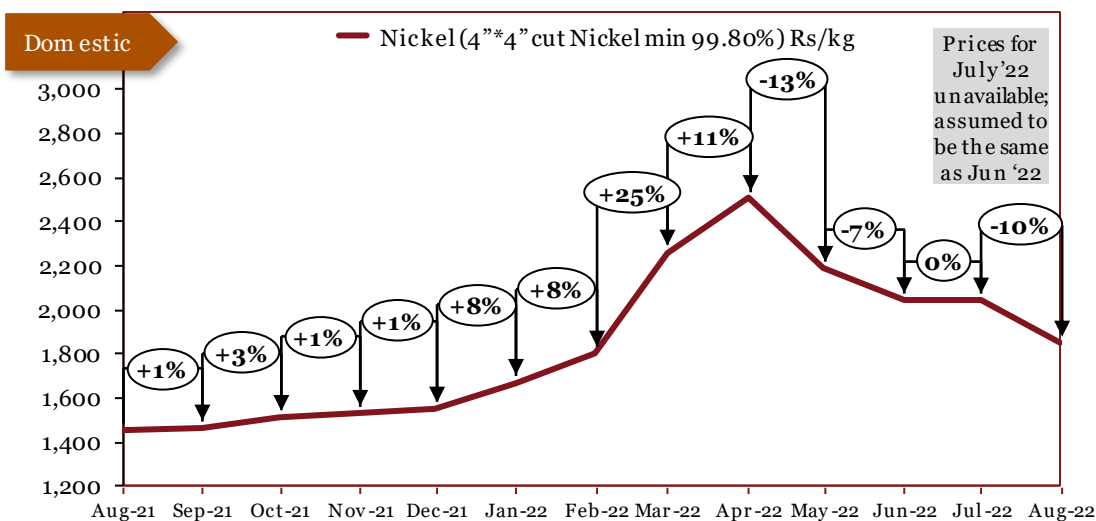
In September, international prices fell sharply due to a steep fall in demand. Domestic prices slightly increased due to soaring energy costs. In October, international prices rose on account of tight supply. Domestic prices remained largely unaffected. In November, prices remained stable as a growth in the lithium-ion battery industry offset the negative impact caused by the Omicron variant. In December, prices remained relatively stable. In January, international prices rose marginally on weak supply. Domestic prices remained stable. In February, international prices dipped marginally due to a drop in demand. Domestic prices remained stable. In March, prices remained stable. In April, prices remained relatively stable. In May, international prices hit a 12 month low due to weak global demand, increased supply and a general slowdown in demand within automobile sector. In June, domestic prices remained stable. International prices going further low due to actions taken to confront inflation. In July, both international and domestic prices fell to their lowest levels in 12 months as a result of oversupply and inflation concerns. In August, prices increased due to an increase in demand for lead-acid batteries.

Nickel



Source: LME

| Monthly Average Prices | | |
|------------------------|-------------------|--------------|
| Period | *Int'l (\$/tonne) | *Dom (Rs/kg) |
| Aug-21 | 19160 | 1450 |
| Sep-21 | 19394 | 1462 |
| Oct-21 | 19416 | 1512 |
| Nov-21 | 19958 | 1529 |
| Dec-21 | 20065 | 1549 |
| Jan-22 | 22319 | 1671 |
| Feb-22 | 24173 | 1804 |
| Mar-22 | 31840 | 2261 |
| Apr-22 | 34098 | 2504 |
| May-22 | 27939 | 2189 |
| Jun-22 | 25825 | 2046 |
| Jul-22 | 21471 | 2046 |
| Aug-22 | 21988 | 1850 |



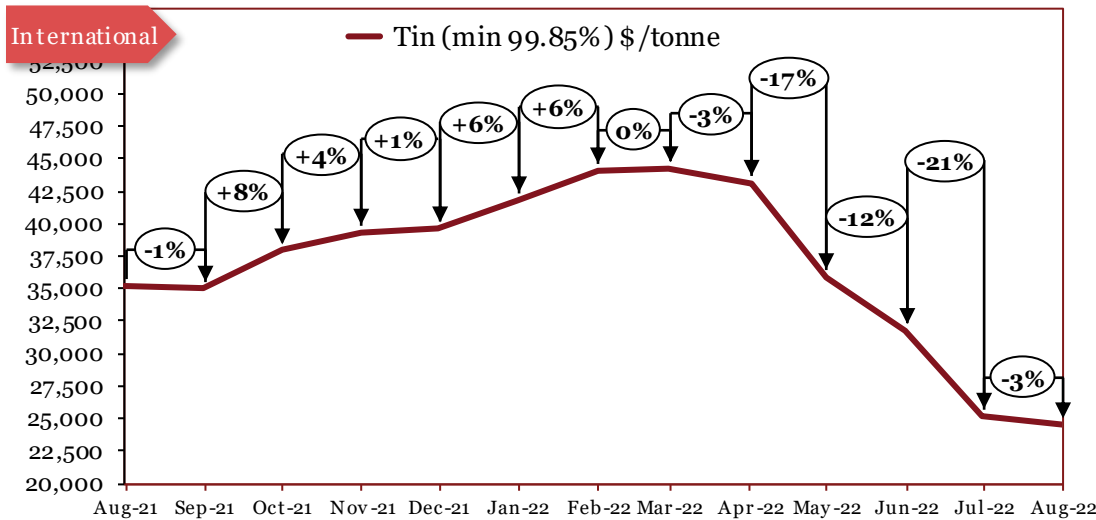
Source: MCX*

*The actual prices may vary depending on city, player, grade etc.

Outlook

In December, prices rose slightly due to rising input prices and strong year-end demand for base metals. In January, Nickel prices rose to their highest levels since 2011, owing to declining inventories and strengthening demand for nickel batteries. In February, both international and domestic prices rose due to an increase in cost of raw materials like mixed hydroxide precipitates and nickel briquettes. In March, prices soared amid supply disruptions, caused by the conflict in Ukraine and lockdowns in China. In April, prices continued to rise amid supply disruptions and higher energy and raw material costs. In May, both international and domestic prices fell drastically due to higher supply of intermediate products (such as mixed hydroxide precipitate), thus leading to lower production cost. In June, international and domestic prices fell on back of economic concerns stemming from rising inflation, interest rates and energy costs. In July, international prices fell sharply due to lower industrial demand. In August, international prices rose on the back of increased demand from the EV-battery industry. Domestic prices fell as a result of lower input costs.

Tin



Source: LME

| Monthly Average Prices | |
|------------------------|-------------------|
| Period | *Int'l (\$/tonne) |
| Aug-21 | 35253 |
| Sep-21 | 35034 |
| Oct-21 | 37942 |
| Nov-21 | 39307 |
| Dec-21 | 39551 |
| Jan-22 | 41790 |
| Feb-22 | 44104 |
| Mar-22 | 44221 |
| Apr-22 | 43100 |
| May-22 | 35913 |
| Jun-22 | 31750 |
| Jul-22 | 25147 |
| Aug-22 | 24495 |

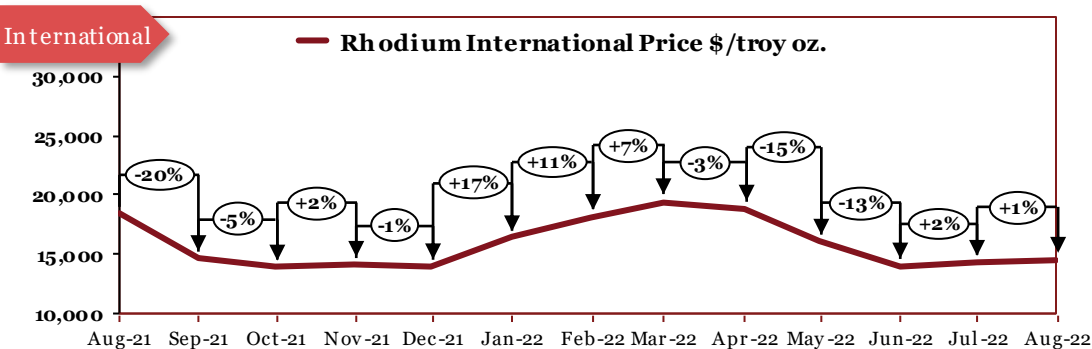
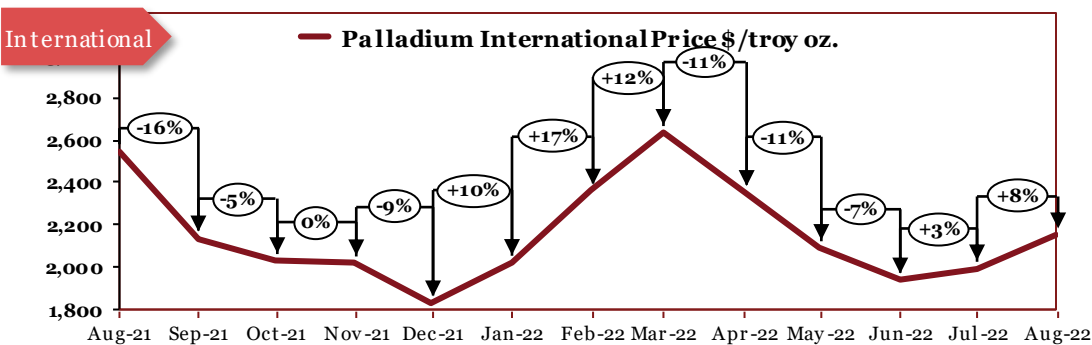
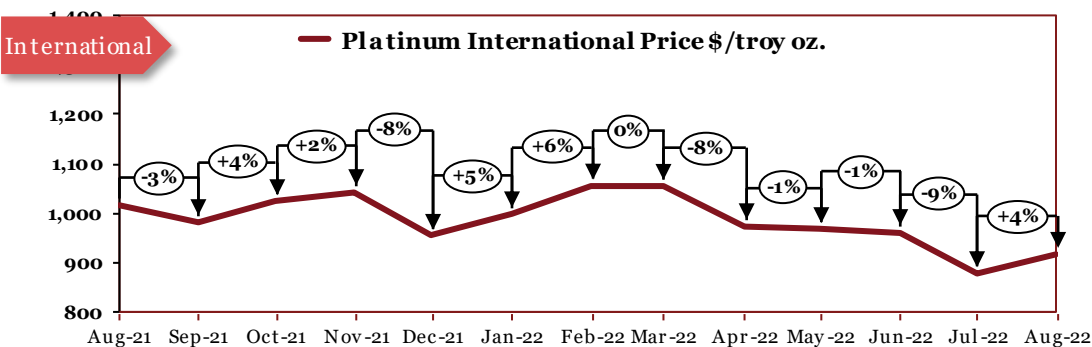
**The actual prices may vary depending on city, player, grade etc.*

Outlook

In July and August, persistent supply disruptions coupled with increasing demand continued to drive prices up. In September, prices remained largely unaffected. In October, prices surged despite low demand due to continued tight supply, caused by power and supply issues. In November, prices continued to trend upwards as a result of year-long supply disruptions and strong economic data towards the end of the month. In December, prices remained stable. In January, prices reached an all-time high as a result of persistent supply shortage and supportive market dynamics all across the spectrum. In February, prices continue to trend upwards as a lack of Indonesian exports led to a supply crunch. In March, prices remained stable. In April, prices fell amid a slowdown in demand caused by the Covid lockdowns in China. In May, international prices fell due to lower physical premium prices across the globe and subdued market sentiment. In June, international prices continued to fall due to supply chain concerns and weak market sentiment in China and London. In July, prices hit their lowest level in 12 months on account of weaker demand for finished products. In August, prices continued to decrease as a result of a sharp increase in supply levels, primarily due to increased production in Chinese smelters.

Precious Metals

Precious Metals



| Monthly Average Prices (\$/Oz) | | | |
|--------------------------------|------|------|-------|
| Period | Pt | Pd | Rh |
| Aug-21 | 1016 | 2550 | 18417 |
| Sep-21 | 982 | 2137 | 14692 |
| Oct-21 | 1025 | 2030 | 13933 |
| Nov-21 | 1043 | 2024 | 14157 |
| Dec-21 | 954 | 1834 | 14031 |
| Jan-22 | 998 | 2025 | 16422 |
| Feb-22 | 1056 | 2360 | 18183 |
| Mar-22 | 1054 | 2636 | 19402 |
| Apr-22 | 973 | 2352 | 18857 |
| May-22 | 967 | 2091 | 16064 |
| Jun-22 | 961 | 1939 | 14046 |
| Jul-22 | 879 | 1996 | 14300 |
| Aug-22 | 916 | 2154 | 14456 |

Source: Johnson Matthey

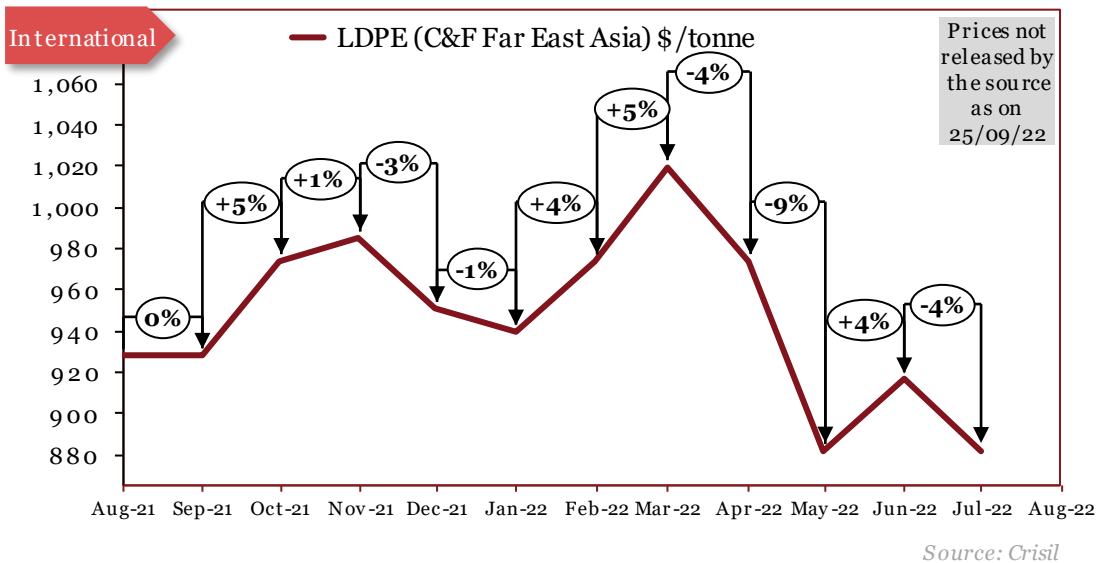
*The actual prices may vary depending on city, player, grade etc.

Outlook

. In January, prices rose drastically due to a marginal rise in demand and post the holiday season, coupled with geo-political tensions globally. In February, prices of all precious metals rose drastically due to supply tightness, caused by geo-political conflicts, and renewed demand. In March, prices of palladium and rhodium increased sharply due to sustained supply tightness caused by the conflict in Ukraine, alongside recent lockdowns in China amid a surge in Covid-19 cases. In April, prices of all 3 precious metals fell sharply due to a steep decrease in demand – amid Covid scares in China – following a period of sustained growth. In May and June, prices of all three precious metal fell owing to a fall in demand caused by Covid-19 imposed lockdowns in China. In July, both Rhodium and Palladium prices rose slightly due to an increase in demand from the automotive sector, particularly from the electric vehicle space. Platinum prices declined due to lower demand and caused by inflationary concerns. In August, Platinum prices rose as a result of a rise in demand from the jewelry and industrial sectors amid the onset of the festive season. Palladium and Rhodium prices increased owing to greater demand and from the automotive industry.

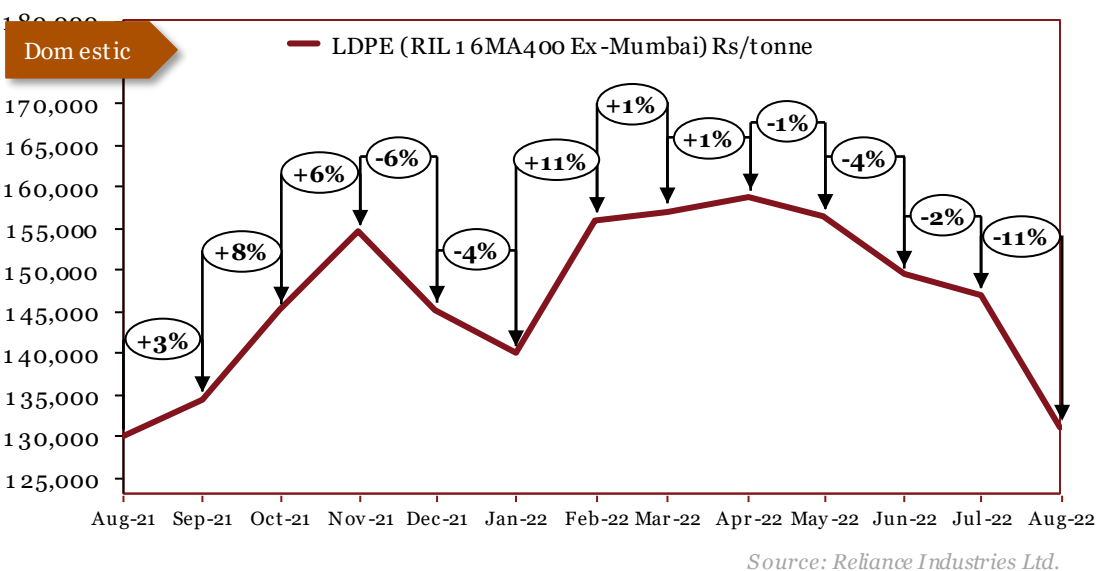
Polymers & Rubber

Low density polyethylene (LDPE)



Monthly Average Prices

| Period | *Int'l (\$/tonne) | *Dom (Rs/tonne) |
|--------|-------------------|-----------------|
| Aug-21 | 927 | 129954 |
| Sep-21 | 927 | 134406 |
| Oct-21 | 973 | 145100 |
| Nov-21 | 985 | 154494 |
| Dec-21 | 950 | 145236 |
| Jan-22 | 939 | 139986 |
| Feb-22 | 973 | 155986 |
| Mar-22 | 1019 | 157028 |
| Apr-22 | 973 | 158692 |
| May-22 | 882 | 156359 |
| Jun-22 | 916 | 149359 |
| Jul-22 | 882 | 146934 |
| Aug-22 | | 130941 |

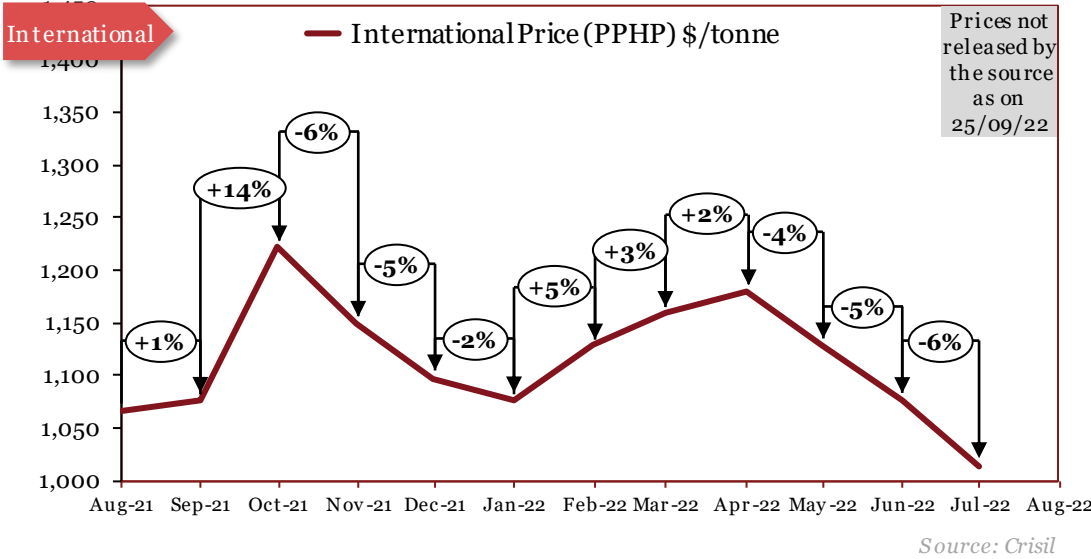


*The actual prices may vary depending on city, player, grade etc.

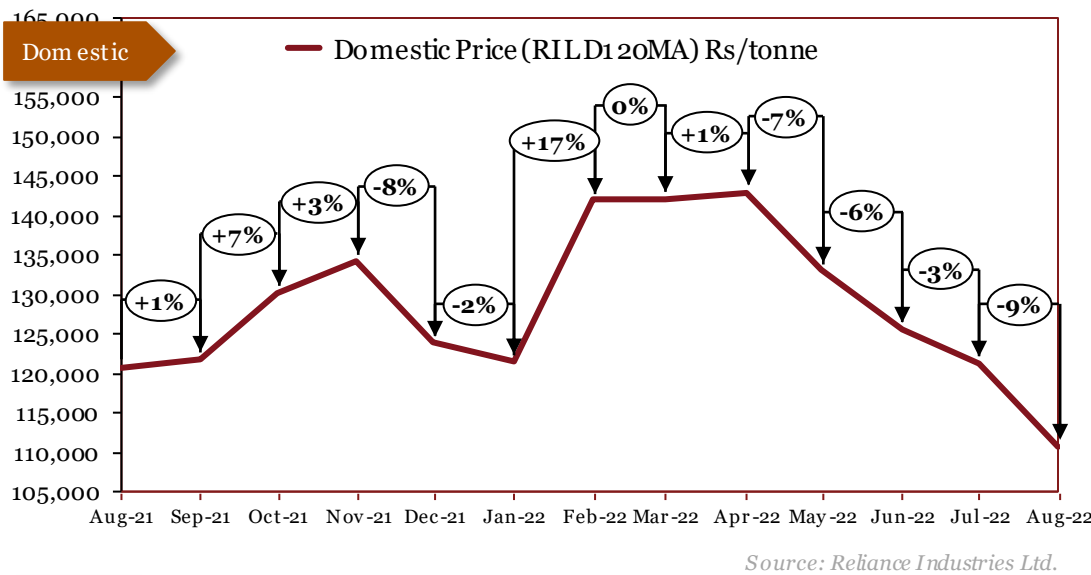
Outlook

In November, domestic prices continued their rise to record-highs amid concerns over a shortage in domestic supply, coupled with import disruptions. In December, domestic prices fell considerably, owing to a fall in demand and lower crude oil prices. In January, domestic prices continued to drop due to supply of ethylene (a key raw material in the synthesis of LDPE) outweighing demand. In February, prices rose by more than 10% due to a rise in crude oil prices coupled with the impact of the ongoing conflict in Ukraine. In March, prices increased slightly, primarily due to a 25% hike in crude oil prices. In April, domestic prices remained relatively stable. In May, international prices decreased due to sluggish demand, higher availability of raw materials and a downtrend in the futures market. In June, domestic prices fell slightly on account of decline in crude oil prices and lower consumer demand. In July, domestic prices fell slightly due to a reduction in crude oil prices and lower demand on account of the off-season. In August, prices fell sharply in tandem with crude oil prices.

Polypropylene (PP)



| Monthly Average Prices | | |
|------------------------|-------------------|-----------------|
| Period | *Int'l (\$/tonne) | *Dom (Rs/tonne) |
| Aug-21 | 1066 | 120813 |
| Sep-21 | 1076 | 121756 |
| Oct-21 | 1221 | 130200 |
| Nov-21 | 1149 | 134236 |
| Dec-21 | 1097 | 123845 |
| Jan-22 | 1076 | 121485 |
| Feb-22 | 1128 | 141919 |
| Mar-22 | 1159 | 142179 |
| Apr-22 | 1180 | 142968 |
| May-22 | 1128 | 142968 |
| Jun-22 | 1076 | 125668 |
| Jul-22 | 1014 | 121279 |
| Aug-22 | | 110698 |

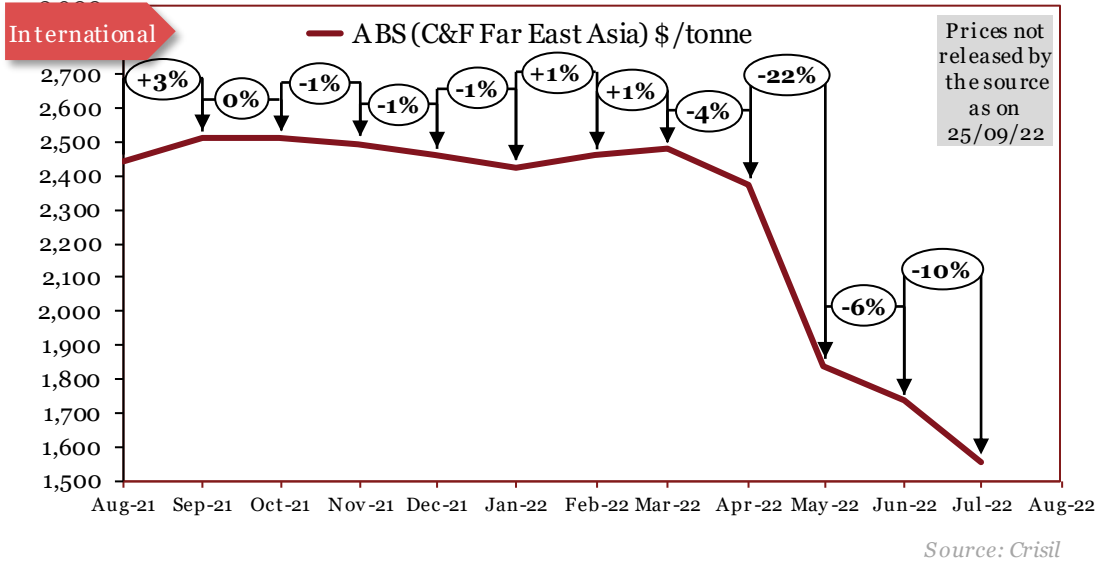


*The actual prices may vary depending on city, player, grade etc.

Outlook

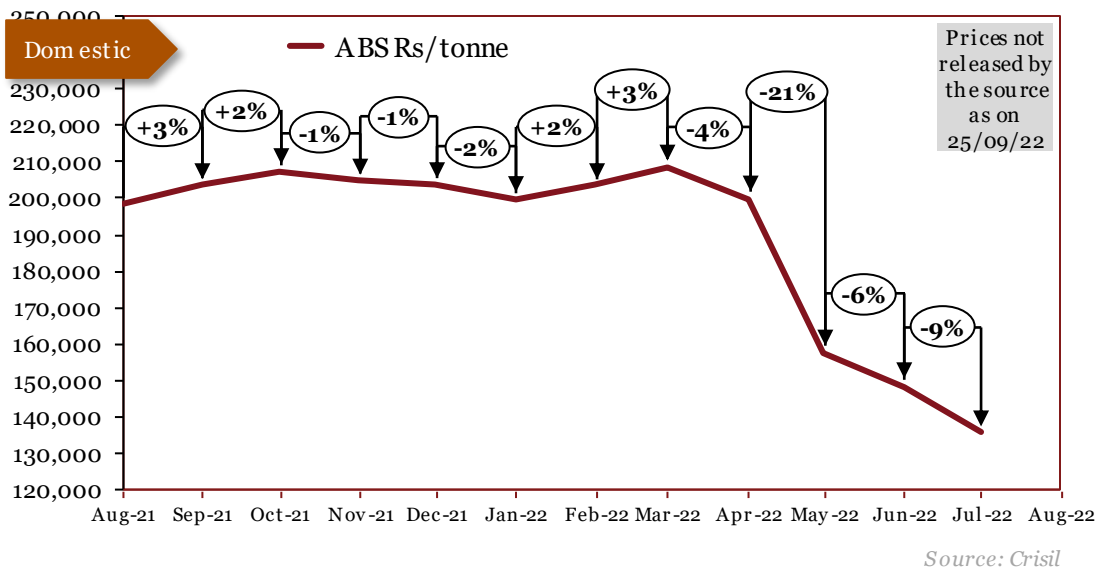
In October, prices rose in tandem with the steep rise in crude oil prices, and sustained levels of high energy prices. In November, domestic prices rose on account of a shortage in domestic supply and import disruptions. In December, prices decreased as demand significantly fell amid concerns over the Omicron variant. This was aided by a fall in crude oil prices. In January, domestic prices dipped marginally due to a supply-demand imbalance of polypropylene resins. In February, prices rose sharply due to a rise in crude oil prices. In March, domestic prices remained stable. In April, domestic prices remained relatively stable. In May, both international and domestic prices decreased due to a subdued demand for imports. In June, domestic prices fell due to lower demand and excess in availability of product. In July, domestic prices fell due to lower crude oil prices and an oversupply in the Chinese market. In August, domestic prices fell due to lower upstream energy costs, lower import offers, a rise in inventory levels, and muted buying sentiment.

Acrylonitrile Butadiene Styrene (ABS)



Monthly Average Prices

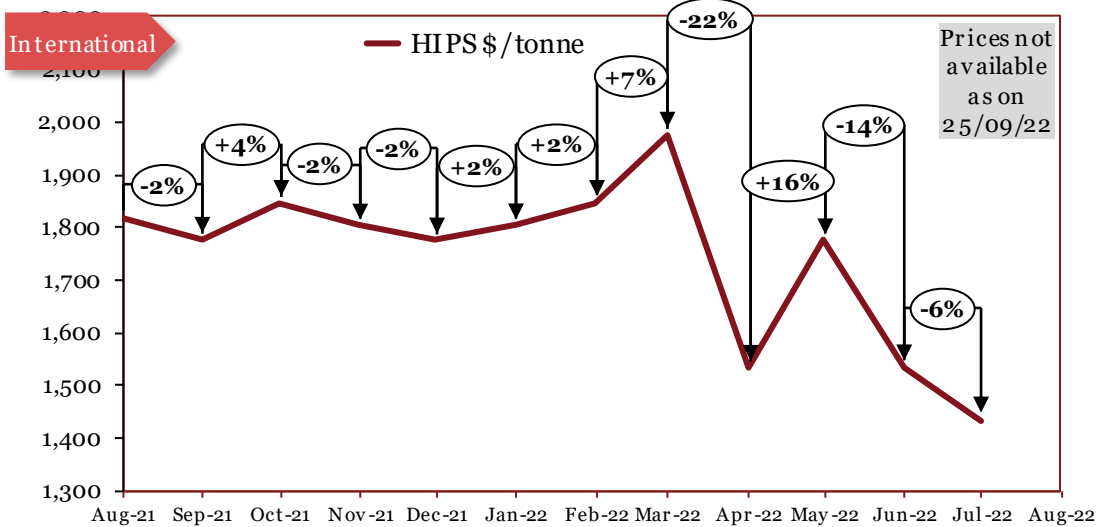
| Period | *Int'l (\$/tonne) | *Dom (Rs/tonne) |
|--------|-------------------|-----------------|
| Aug-21 | 2443 | 198400 |
| Sep-21 | 2513 | 203520 |
| Oct-21 | 2513 | 207360 |
| Nov-21 | 2496 | 204800 |
| Dec-21 | 2460 | 203520 |
| Jan-22 | 2425 | 199680 |
| Feb-22 | 2460 | 203520 |
| Mar-22 | 2478 | 208640 |
| Apr-22 | 2372 | 199680 |
| May-22 | 1841 | 157440 |
| Jun-22 | 1735 | 148480 |
| Jul-22 | 1558 | 135680 |
| Aug-22 | | |



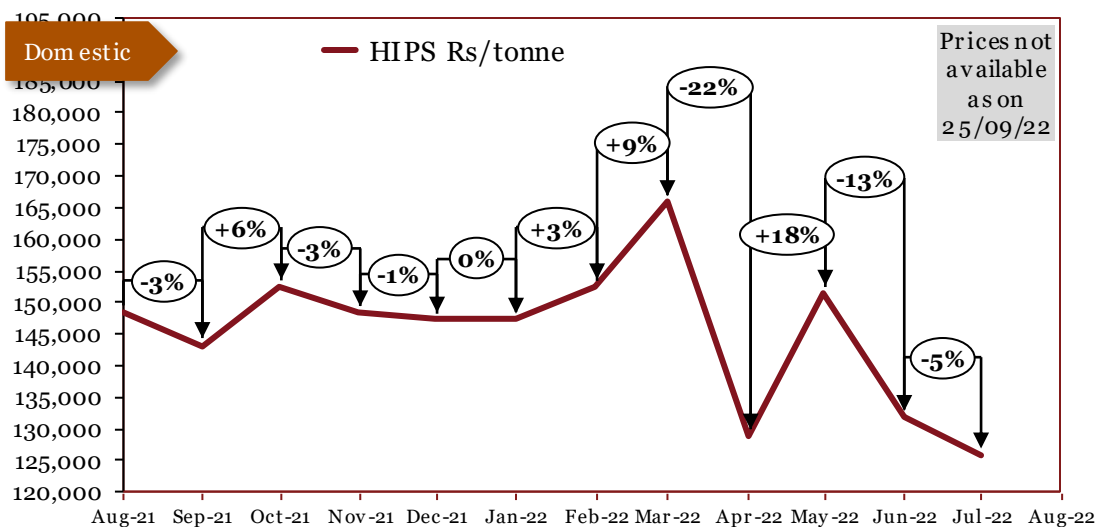
Outlook

In August and September, both international and domestic prices increased due to rising oil prices. In October, domestic prices rose on account of high energy prices and a rise in crude oil prices. International prices remained stable. In November and December, prices remained relatively stable, dipping marginally due to weak demand amid concerns over the Omicron variant. In January, prices dipped marginally due to a seasonal slowdown in demand. In February, prices rose in tandem with crude oil prices. In March, prices continued to rise due to a steep increase in crude oil prices. In April, prices decrease in tandem with crude oil prices. In May, both international and domestic fell sharply due to weakened demand across global markets and prolonged Covid-19 restrictions in China. In June, both international and domestic prices fell to their lowest levels in 18 months due to lower crude oil prices, the ban on single-use plastics in many countries and excess supply. In July, prices fell due to the reduction in crude oil prices, as a result of geo-political tensions.

High Impact Polystyrene (HIPS)



Source: Crisil



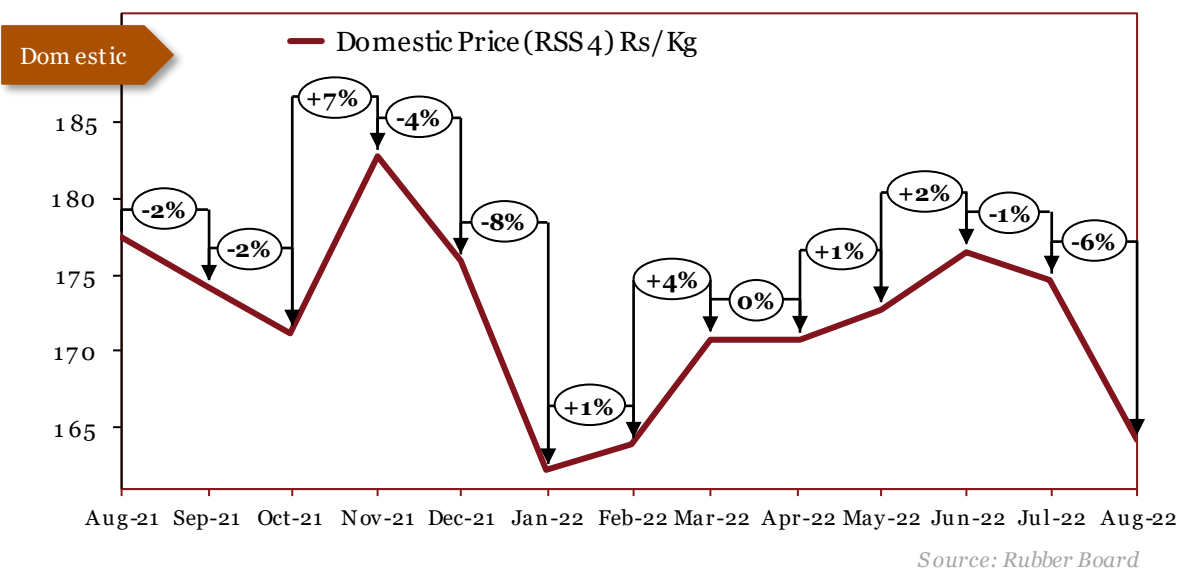
Source: Crisil

| Monthly Average Prices | | |
|------------------------|-------------------|-----------------|
| Period | *Int'l (\$/tonne) | *Dom (Rs/tonne) |
| Aug-21 | 1818 | 148320 |
| Sep-21 | 1775 | 143170 |
| Oct-21 | 1846 | 152440 |
| Nov-21 | 1803 | 148320 |
| Dec-21 | 1775 | 147290 |
| Jan-22 | 1803 | 147290 |
| Feb-22 | 1846 | 152440 |
| Mar-22 | 1974 | 165830 |
| Apr-22 | 1534 | 128750 |
| May-22 | 1775 | 151410 |
| Jun-22 | 1534 | 131840 |
| Jul-22 | 1434 | 125660 |
| Aug-22 | | |

Outlook

In August, domestic prices fell due to a lack of demand. International prices remained relatively stable. In September, both international as well as domestic prices dipped slightly due to a lack of demand. In October, prices increased due to sustained levels of high energy costs and a steep rise in crude oil prices. In November, prices fell slightly due to a softening of demand as well as a decline in crude oil prices. In December, international prices fell marginally due to a drop in demand, caused by a decline in industrial and commercial activity. Domestic prices remained stable. In January, prices continued to dip in tandem with prices of other polymers. In February, prices rose slightly due to an increase in crude oil prices. In March, prices continued to rise steeply along with crude oil prices. In April, prices decrease along with decrease in crude oil prices. In June, both international and domestic prices fell sharply due to decrease in crude oil prices, ban on single use plastics in various countries and excess supply. In July, prices decreased due to sluggish demand in end-user markets, such as the automotive and home appliance sectors.

Rubber



Source: Rubber Board

| Monthly Average Prices | |
|------------------------|--------------|
| Period | *Dom (Rs/kg) |
| Aug-21 | 177 |
| Sep-21 | 174 |
| Oct-21 | 171 |
| Nov-21 | 183 |
| Dec-21 | 176 |
| Jan-22 | 162 |
| Feb-22 | 164 |
| Mar-22 | 171 |
| Apr-22 | 171 |
| May-22 | 173 |
| Jun-22 | 176 |
| Jul-22 | 175 |
| Aug-22 | 164 |

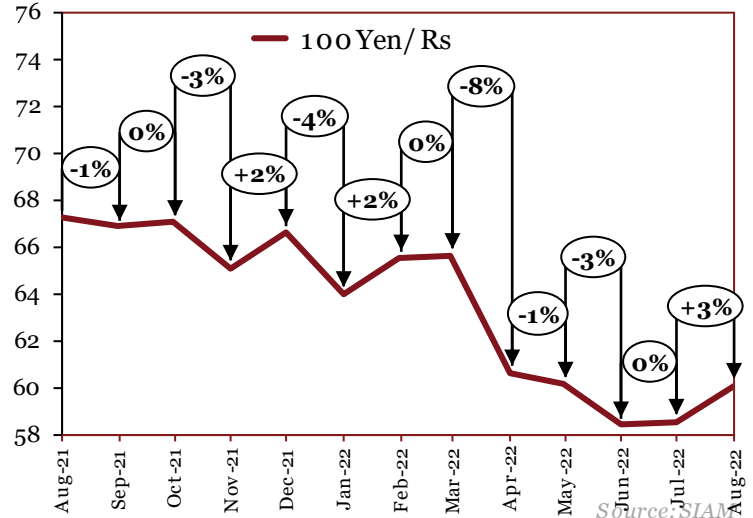
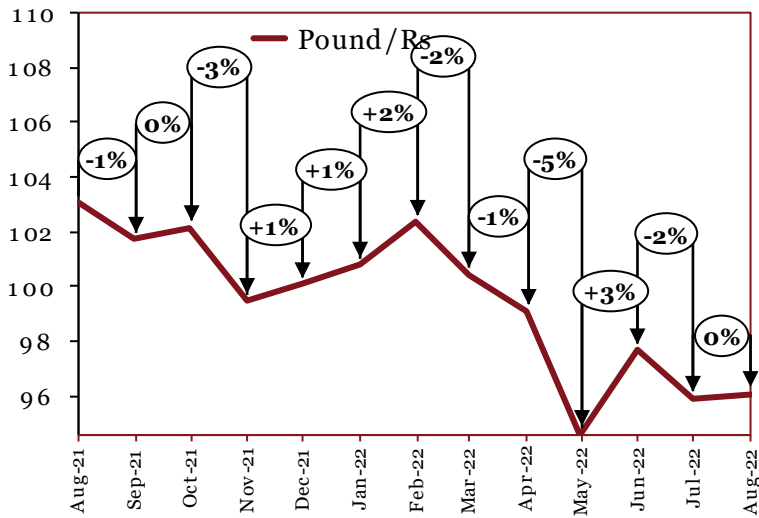
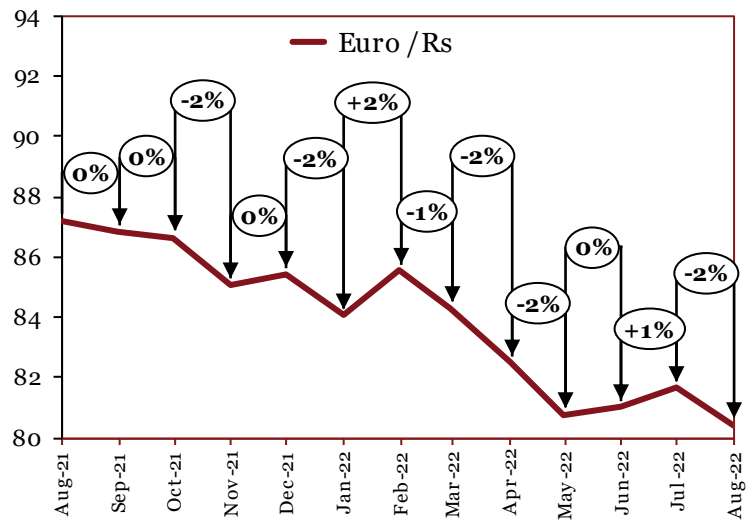
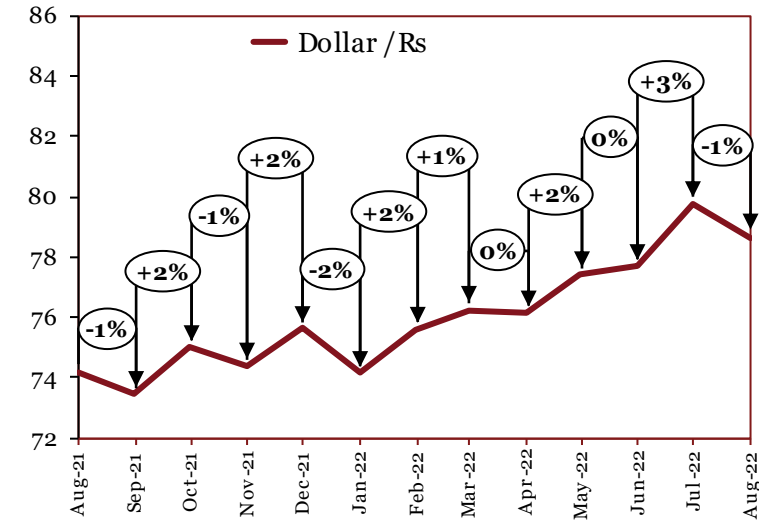
*The actual prices may vary depending on city, player, grade etc.

Outlook

In November, prices continued to trend upwards due to disruptions in the global supply-chain and in imports from other countries, with a shortage of containers – owing to the second wave of COVID-19 – causing an increase in domestic demand. In December, prices decreased due to a seasonal downturn in demand, aided by a slowdown in commercial and industrial activity. In January, prices fell sharply due to lower demand for rubber in the manufacturing of tires. In February, prices remained stable. In March, prices rose due to sluggish production, import hurdles and rising crude oil prices. In April, prices remained stable. In May, prices increased slightly in tandem with crude oil prices. In June, prices rose slightly due to higher input costs. In July, prices decreased slightly due to lower demand on account of the monsoon season. In August, prices decreased sharply as a result of erratic rainfall, subdued industrial demand, and a bearish outlook in international markets.

Appendices

Forex Movement



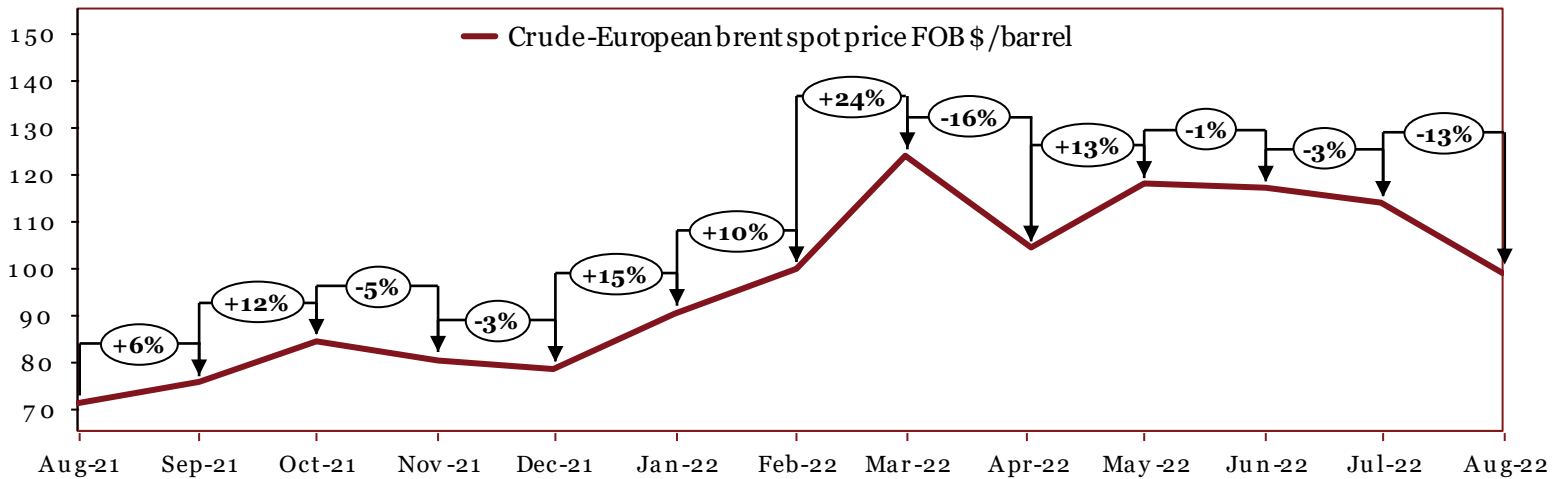
Source: SIAM

Monthly Average Prices (Rs)

| | Aug-21 | Sep-21 | Oct-21 | Nov-21 | Dec-21 | Jan-22 | Feb-22 | Mar-22 | Apr-22 | May-22 | Jun-22 | Jul-22 | Aug-22 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| \$ | 74 | 73 | 75 | 74 | 76 | 74 | 76 | 76 | 76 | 77 | 78 | 80 | 79 |
| £ | 103 | 102 | 102 | 99 | 100 | 101 | 102 | 100 | 99 | 95 | 98 | 96 | 96 |
| € | 87 | 87 | 87 | 85 | 85 | 84 | 86 | 84 | 83 | 81 | 81 | 82 | 80 |
| ¥ | 67 | 67 | 67 | 65 | 67 | 64 | 66 | 66 | 61 | 60 | 58 | 59 | 60 |

Crude Oil

Source: SIAM



| Monthly Average Prices (\$/barrel) | | | | | | | | | | | | | |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Aug-21 | Sep-21 | Oct-21 | Nov-21 | Dec-21 | Jan-22 | Feb-22 | Mar-22 | Apr-22 | May-22 | Jun-22 | Jul-22 | Aug-22 |
| | 71 | 75 | 84 | 80 | 78 | 90 | 99 | 124 | 104 | 118 | 117 | 114 | 99 |

Commodity Specifications

| Commodity | International | Domestic |
|--------------------------|---|---|
| Iron Ore | IOECI635 Index (CIF China) - (Fe63.5%) CIF China | Crisil - Grade 1: 58% to below 60% Fe Fines - Grade 2: 60% to below 62% Fe Fines - Grade 3: 62% to below 65% Fe Fines - Grade 4: 65% and above Fe Fines |
| Pig Iron | Crisil -Foundry grade FOB CIS | Crisil -Foundry grade ex-factory, India |
| Stainless steel | NA | PwC Research -G 304 CR Coil -G 304 HR Coil |
| Wire rod | Crisil -CIS Black Sea (US \$/Tonne) | Crisil - Wire rods: 5.5 mm (Prices are inclusive of excise duty by exclusive of VAT/Sales tax) |
| Steel Billets | Crisil -FOB CIS Black Sea <i>Previously: Bloomberg BlackSea Steel Billet Spot FOB</i> | Crisil - 100^100 mm (Avg. prices collated from 2-3 locations) |
| Hot-rolled coils | Crisil -FOB Black Sea | Crisil - 14G 2mm (Avg. prices collated from 2-3 locations) |
| Cold-rolled coils | Crisil -(CIS) FOB Black Sea | Crisil - Mumbai 16G (Avg. prices collated from 2-3 locations) |
| Steel Scrap | NA | Crisil - Heavy melting (excl. GST) |
| EN 8 | NA | PwC Research -EN8 Alloy forging |
| 20MnCr5 | NA | PwC Research -Alloy forging |
| Ferro chrome | Crisil : FOB Hong Kong Cr 50% | Crisil: Ex-factory Cr 60% |
| Ferro silicon | Crisil - FOB China Si 75% | Crisil - Ex-factory Si 70% |

Commodity Specifications

| Commodity | International | Domestic |
|------------------|--|---|
| Aluminium | <p>LME</p> <p>-Primary aluminium with impurities no greater than the chemical composition of one of the registered designations:</p> <ul style="list-style-type: none"> •P1020A in the North American and International Registration Record entitled “International Designations and Chemical Composition Limits for Unalloyed Aluminium” (revised March 2007) •Al99.70 in the GB/T 1196-2008 Standard entitled “Unalloyed aluminium ingots for remelting” | <p>NCDEX, MCX (July’19 onwards)</p> <p>-Primary aluminium 99.7% purity (minimum) form: ingots, T-bars,</p> |
| Copper | <p>LME</p> <p>-Grade A copper must conform to the chemical composition of one of the following standards:</p> <ul style="list-style-type: none"> •BS EN 1978:1998 - Cu-CATH-1 •GB/T 467-2010 - Cu-CATH-1 •ASTM B115-10 - cathode Grade 1 | <p>MCX</p> <p>- Grade 1 electrolytic copper as per B115 specification</p> |
| Zinc | <p>LME</p> <p>-Special high-grade zinc of 99.995% purity (minimum) must conform to the chemical composition of one of the following standards:</p> <ul style="list-style-type: none"> •BS EN 1179:2003 - 99.995% grade •ISO 752:2004 - ZN-1 grade •ASTM B6-12 - LME grade •GB/T 470-2008 - Zn99.995 grade | <p>NCDEX, MCX (July’19 onwards)</p> <p>- Zinc of 99.995% minimum purity. Zinc must conform with the 99.995% graded chemical composition of BS EN 1179:1996 Standard entitled “Zinc and Zinc alloys primary Zinc” Form: ingots</p> |
| Lead | <p>LME</p> <ul style="list-style-type: none"> - Lead of 99.97% purity (minimum) conforming to BS EN 12659:1999 - GB/T 469/2005 | <p>MCX</p> <ul style="list-style-type: none"> - Lead ingots with minimum purity of 99.97% |

Commodity Specifications

| Commodity | International | Domestic |
|--|--|---|
| Nickel | LME - Nickel of 99.80% purity (minimum) conforming to B39-79 (2013) - GB/T 6516-2010 | NCDEX, MCX (July '19 onwards) - 4" x 4" approved pure cut Nickel of 99.80% purity (minimum) |
| Tin | LME - Tin of 99.85% purity (minimum) conforming to BS EN 610:1996 | Bloomberg - Tin (min 99.85%) \$/tonne |
| Platinum | Metal in sponge form with minimum purities of 99.95% for platinum and palladium, and 99.9% for rhodium | |
| Palladium | | |
| Rhodium | | |
| Low density polyethylene (LDPE) | International price (C&F FEA) \$/tonne | RIL-16MA400 grade |
| Polypropylene (PP) | International Price (PPHP) \$/tonne | RIL-D120MA grade |
| Acrylonitrile Butadiene Styrene (ABS) | International price (C&F FEA) \$/tonne | Landed Cost Rs/tonne |
| High Impact Polystyrene (HIPS) | International price \$/tonne | Landed Cost Rs/tonne |
| Rubber Prices | NA | NCDEX/Rubber board - RSS 4 (Ribbed Smoked Sheet 4) ex-warehouse Kochi exclusive of all taxes |
| Forex Movement | RBI reference rates | |
| Crude | European Brent spot price FOB \$/barrel – Energy Information Administration (EIA) | |



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