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Commodity price monitor September -20

Prepared for ACMA

Strictly private and confidential

October2020





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Commodity trend dashboard

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

Commodity	Region	Q-o-QUp	Q-o-Q Down
Iron & Steel			
Iron Ore	International	22%	
	Domestic low grade		
	Domestic high grade		
Pig Iron	International	14%	
	Domestic	4%	
Stainless steel	Domestic	4%	
	Domestic	3%	
Wire rod	International	7 %	
	Domestic	8%	
Steel Billets	International	12%	
	Domestic	2%	
Hot-rolled coils	International	21%	
	Domestic	4%	
Cold-rolled coils	International	11% 🔺	
	Domestic	5%	
Steel Scrap	Domestic	5%	
EN8	Domestic	4%	
20MnCr5	Domestic	4%	
Ferro-alloys			
Ferro titanium	International	N/A	
Ferro chrome	International	2%	
	Domestic	4% 🔺	
Ferro molybdenum	International	N/A	
Ferro vanadium	International	N/A	
Ferro silicon	International	5% 🔺	
	Domestic		-6%

Calendar Year 19-20: Q vs. Q update

ND: Not disclosed by the source

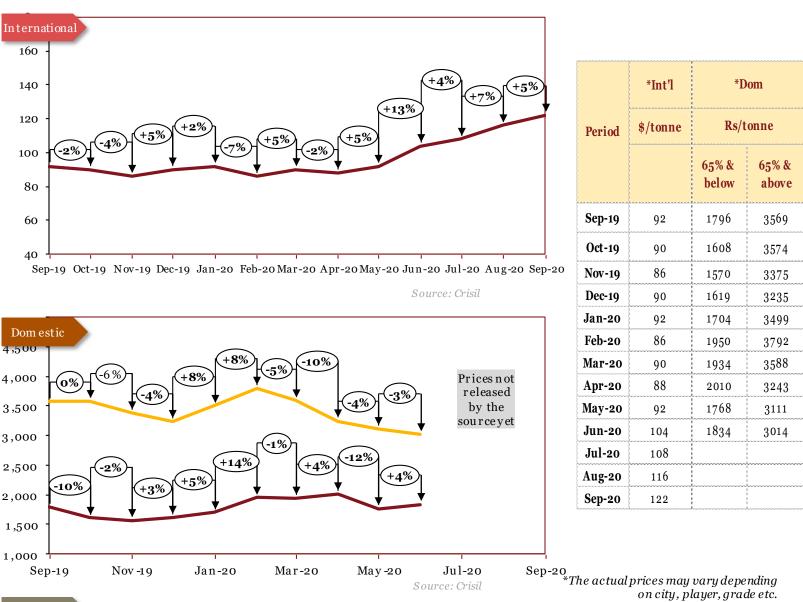
Commodity trend dashboard Quarter-on-Quarter changes (2/2)- Rolling view

Commodity	Region	Q-o-Q Up	Q-o-Q Down
Base Metals			
Aluminum	International	14.2%	
	Domestic	7 %	
Copper	International	22%	:
	Domestic	23%	
Zinc	International	19% 🔺	
	Domestic	20%	<u>.</u>
Lead	International	12%	
	Domestic	11%	
Nickel	International	17%	
	Domestic	9% 🔺	
Tin	International	12.3%	
	Domestic	N/A	
Magnesium	International	N/A	
Precious Metals			
Platinum	International	14%	
Palladium	International	2%	
Rhodium	International	35%	
Polymers			
Low density polyethylene (LDPE)	International	6% 🔺	
	Domestic	8% 🔺	
Polypropylene (PP)	International	12%	:
	Domestic	3% 🔺	
Rubber	Domestic	7%	
Currency Exchange			
Dollar	International		-2%
Pound	International	4%	
Euro	International	1%	
Yen	International		-1% 🔻

Calendar Year 19-20: Q vs. Q update

Iron & Steel

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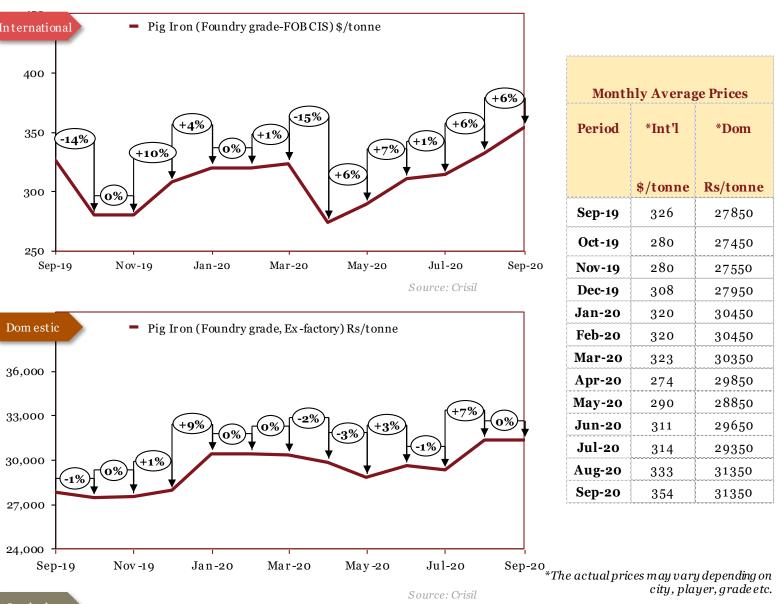


Iron Ore

Outlook

In January, international prices rose slightly thanks to renewed optimism in China, despite the effects of the coronavirus epidemic toward the end of the month. Domestically, price recovery continued. In February, international prices declined thanks to the coronavirus epidemic in China hurting local demand. In March, international prices rose as Chinese factories resumed production in parts of the country unaffected by the COV ID-19 pandemic. In April, international prices declined slightly amid the COV ID-19 pandemic, but were supported by low production in Brazil and Australia, alongside steady Chinese demand. In May, prices rose as production was disrupted in Brazil and the Vale as the spread of COV ID-19 positive cases caused disruptions. Chinese demand continued to boost the segment. In June and July, international prices showed strong recovery due to pent-up demand and supply concerns as economies returned to regular volume levels. In August, international prices rose as Chinese infrastructure spending was aided by a government stimulus, along with supply concerns from Brazil. In September, international prices continued their upturn on account of high demand from China.

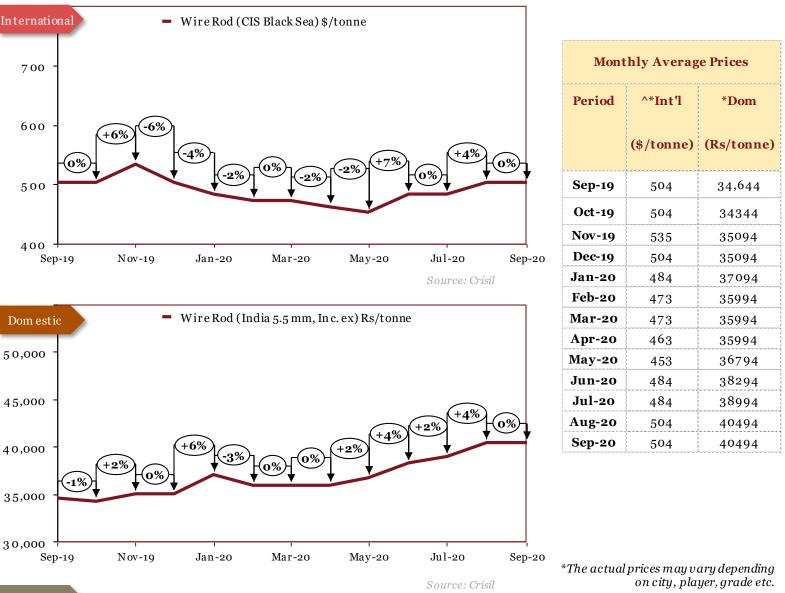
Pig Iron



Outlook

In December, international prices rose owing to higher scrap prices, alongside strong Chinese demand. Domestic prices rose simultaneously. In January, prices continued to rise, with strong demand in China in the early part of the month. Domestic prices rose simultaneously. In February, international as well as domestic prices remained stable. In March, international prices were largely stable as the growth in Chinese demand following the reopening of factories cancelled out the decline in the rest of the world. Domestically prices declined as the COVID-19 pandemic shut down production at factories. In April, international prices fell as lockdown measures caused global industrial demand to fall precipitously. Domestic prices declined on less demand from foundries, partly as a result of the auto industry being shut down. In May, international prices rose as Chinese demand continued to improve, while domestic prices slid further. In June and July, international as well as domestic prices rose due to higher Iron Ore prices. In August, international and domestic prices rose on greater demand from industries, as well as continuing shortage of Iron Ore. In September, international prices rose on account of high Chinese demand, while domestic prices remained stable.

Wire Rod

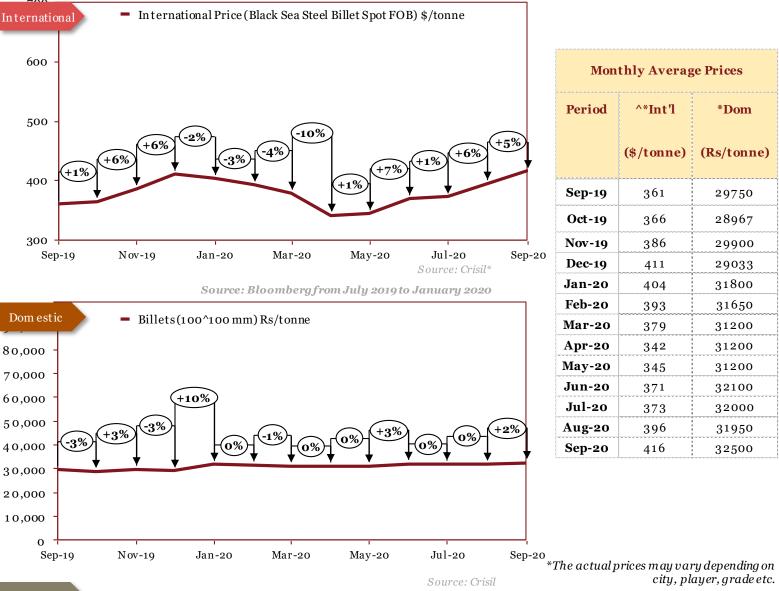


Outlook

In October, international prices remained stable, while domestic prices fell on weak industrial demand. In November, international as well as domestic prices rose due to higher scrap prices. In December, international prices fell due to lower rebar prices and weak demand while domestic prices remained constant due to stable market conditions. In January, international prices fell on an oversupply of steel in the market, while domestic prices rose after the government imposed country-specific duties on specific markets. In February, international prices declined as the coronavirus lockdown decimated Chinese demand. Domestically, prices fell on reduced demand. In March, prices remained unchanged. In April, international prices declined owing to lower demand from factories. Domestically prices rose internationally as well as domestically, owing to higher demand from producers. In July, prices stabilized globally while rising slightly domestically. In August, international as well as domestic prices rose on the backs of growing demand, sh ortage of inventory. In September, international and domestic prices remained stable.

^Prices have been retrospectively revised by the source due to change in base year

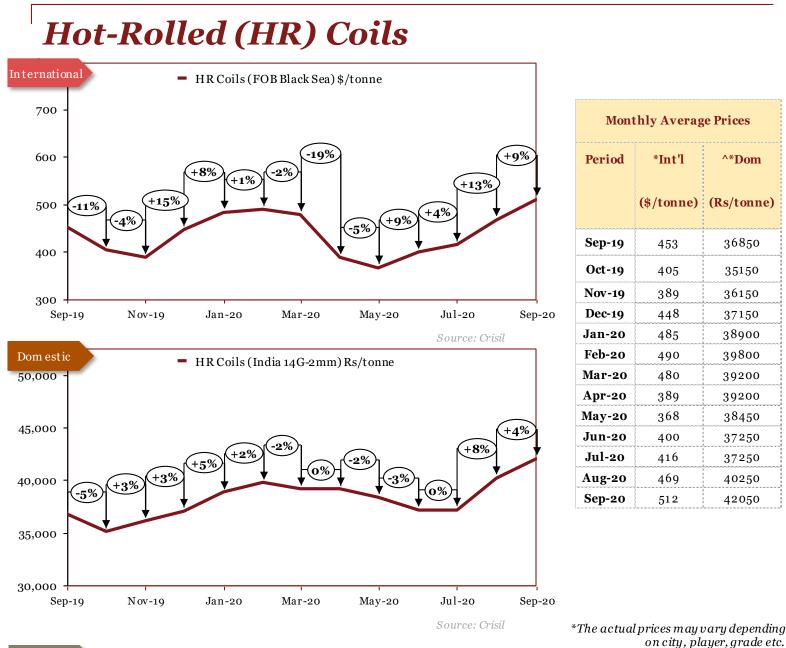
Steel Billets



Outlook

In October, domestic prices fell due to weak demand for rebar. In November, domestic prices rose on account of rising seaborne scrap prices. In December, domestic prices fell due to weak demand for steel products like rebar. In January, international prices fell marginally while domestic prices rose on the back of renewed investment in infrastructure and growth in the automobile industry. In February, domestic prices remained consistent due to stable market conditions. In February, domestic prices remained stable. In March, domestic prices declined owing to a weaker rupee and the impact of the COVID-19 pandemic. In April, international prices fell on account of declining demand on account of lockdown measures, while remaining stable domestically. In May, international prices remained stable following the large decline in April, while domestic prices were unchanged. In June, international as well as domestic prices rose due to higher input costs as well as a rise in demand. In July, international prices rose slightly whilst domestic prices remained constant. In August, international billet prices rose on greater demand and a shortage of scrap. In September, international prices rose, while domestic prices rose on account of higher DRI rates

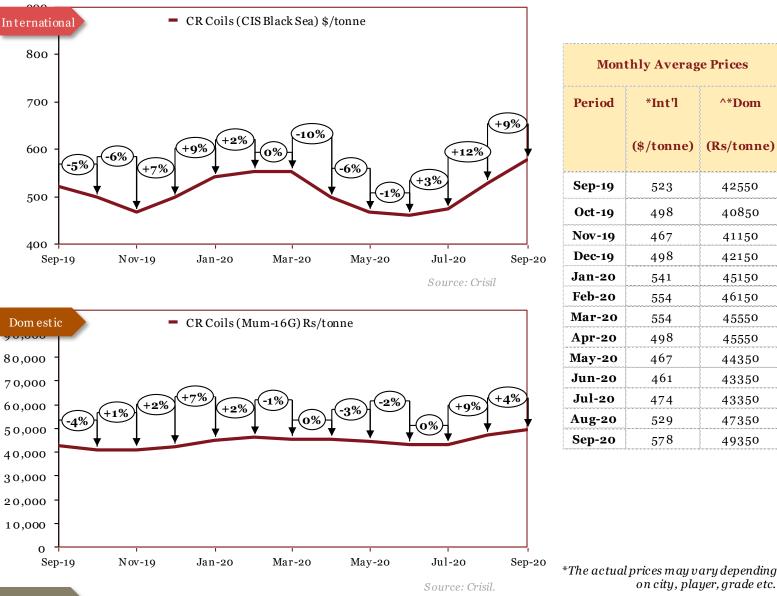
^International prices changed due to change in the grade



Outlook

In February, international prices saw a deceleration due to the impact of the coronavirus. Domestic prices continued to rise as domestic infrastructure spending and production continued to recover. In March, international prices fell due to uncertainty in the market around the COVID-19 pandemic. Domestic prices declined thanks to the national lockdown initiated to contain the COVID-19 pandemic. In April, prices declined as the COVID lockdown shut in dustries around the world, while domestic prices stayed stable. In May, international prices declined considerably while domestic prices continued to correct downwards, as producers faced up to a weak economy, limited industrial demand, with most major projects remaining on hold. In June, international prices rose due to higher demand and higher input costs, whereas domestic prices fell on weak local demand. In July, international prices continued to rise, while domestic prices remained constant. In August, international and domestic prices rose as stronger demand, primarily from China, returned production to pre-COVID levels. In September, international and domestic prices rose on higher iron ore prices.

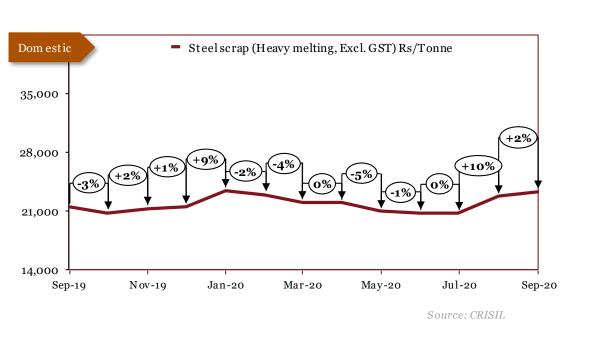
Cold-Rolled (CR) Coils



Outlook

In October, international prices fell, mirroring HR coil price decreases. Domestic prices fell owing to weak demand in the automobile sector. In November, international prices fell in line with the fall in the prices of HR Coils, while domestic prices rose on account of increased infrastructure spending. In December, international prices rose mirroring HR Coil prices, while domestic prices rose on the backs of international rate increases. In January, both international and domestic prices rose in conjunction with hot-rolled coil prices. In February, international and domestic prices rose in accordance with HR Coil prices. In March, international price growth was halted and prices remained unchanged due to uncertainty around the COV ID-19 pandemic, Domestic prices fell concurrently with HR Coil prices. In April, international prices declined on account of COV ID-induced shutdowns. In May, prices declined in line with HR Coil prices. In June, international prices declined slightly on weak demand, while domestic prices remained constant. In August, prices rose in tandem with HR coil prices. In September, international and domestic prices rose in line with HR coil prices. In September, international and domestic prices rose in line with HR coil prices.

Steel Scrap (Heavy Melting)



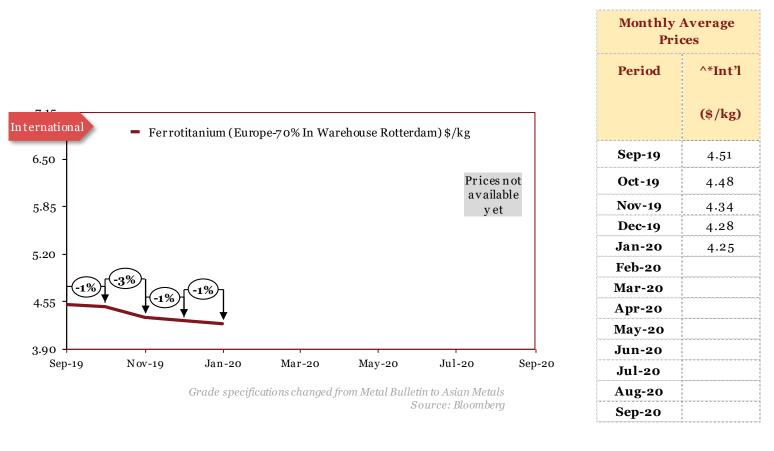
Monthly Average Prices		
Period *Dom		
	(Rs/Tonne)	
Sep-19	21,550	
Oct-19	20,850	
Nov-19 21350		
Dec-19 21550		
Jan-20	23450	
Feb-20	23000	
Mar-20	22000	
Apr-20	22000	
May-20	21000	
Jun-20	20800	
Jul-20	20800	
Aug-20 22800		
Sep-20	23300	

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

Outlook

In August, oversupply in the spot market ensure prices continued to fall. In September, domestic prices began to inch up due to stronger sentiment following the stabilisation of international prices. In October, the prices returned to decreasing, due to weak dem and and uncertainty around the trade war. In November, prices rose on account of increased public spending. In December, prices rose owing to stronger steel dem and in the market. In January, domestic prices rose strongly owing to higher demand for steel, buoyed by the performance of the infrastructure and automotive sectors. In February, prices corrected as sentiments were weakened by the sp read of the coronavirus. In March, prices declined as the national lockdown shut all factory production across the country. In April, dom estic prices remained constant. In May, dom estic prices declined as traders reduced or ders due to logistical concerns during the lockdown. In June, dom estic prices rose as Indian manufacturers had to contend with global price rise. In September, prices continued to rise on the backs of strong Chinese demand.

Ferro-alloys	Ferro-al	loys	16
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Ferro titanium

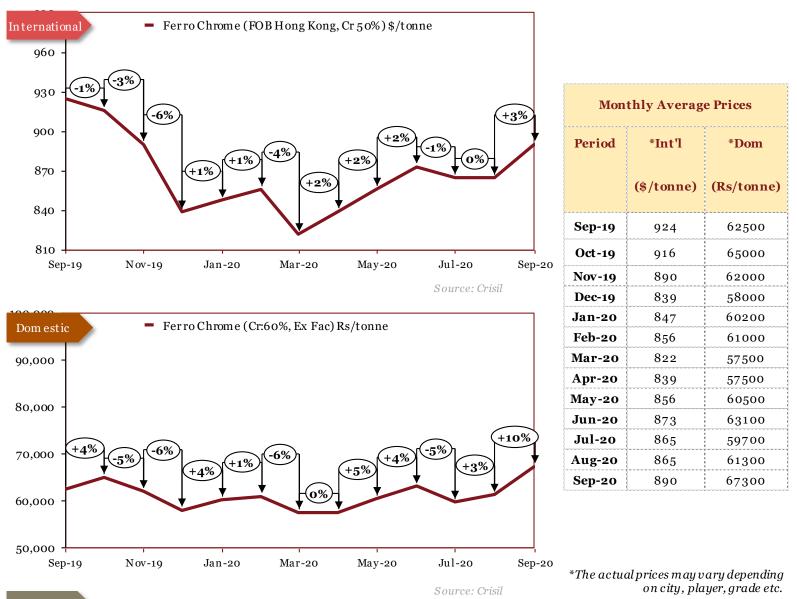
*The actual prices may vary depending on city, player, grade etc.

Outlook

In October 2018, high-volume sales to Europe from Russia dragged down prices. From November 2018, ferrotitanium prices have witnessed consistently declining trend owing to unfavourable market conditions which has continued till February 2019. In March, ferrotitanium prices increased owing to increased demand and potentially reduced supply from one major supplier. In April, increasing trend in prices continued. In May, supply worries from a major producer in UK forced prices to continue an upward trend. In June, prices trended marginally downward due to fears of weakening demand from the European steel market. In July, poor demand from major markets such as Europe pushed prices down significantly. In August, the price rose thanks to growing demand. In September, international prices fell owing to week demand in the European steel market following a weak summer. In October, international prices fell due to weak European demand. In November, international prices kept falling due to unfavourable market conditions. In December, prices remained fairly steady, with a slight decline. In January, the downward trend in prices continued on muted demand.

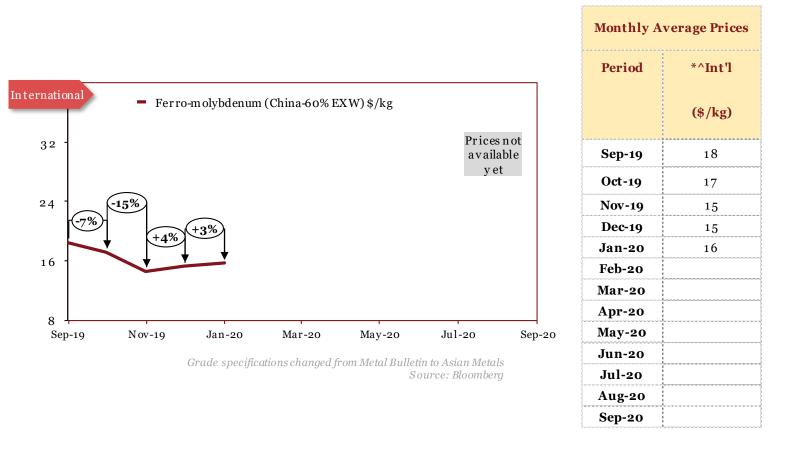
 $^{\Lambda} International \, prices \, changed \, due \, to \, change \, in \, grades \, at \, the \, source$

Ferro chrome



Outlook

In January international prices remained fairly stable following months of decline while domestic prices rose following production cuts. In February, international prices rose marginally after the Chinese New Year holiday and the coronavirus lockdown led to a tightening of supply. Domestic prices decelerated as sentiments were weakened by the coronavirus outbreak. In March, international as well as domestic prices were hurt by bearishness in the stainless steel market caused by the COVID-19 crisis and its containment measures. In April, international prices rose as Chinese factories reopened, while South African mines were shut, reducing supply. Domestic prices remained stable. In May, prices rose globally as South African mines continued to face logistical challenges from lockdown measures, while Chinese demand continued to be strong. In June, international prices rose due to greater demand from China, while domestic prices rose in tandem. In July, international prices declined slightly, while domestic prices fell on weaker demand. In August, international prices stayed stable, while domestic prices rose on shortage of supply. In September, international and domestic prices rose substantially due to a chrome ore shortage in In dia, which depressed volumes but helped raise prices.



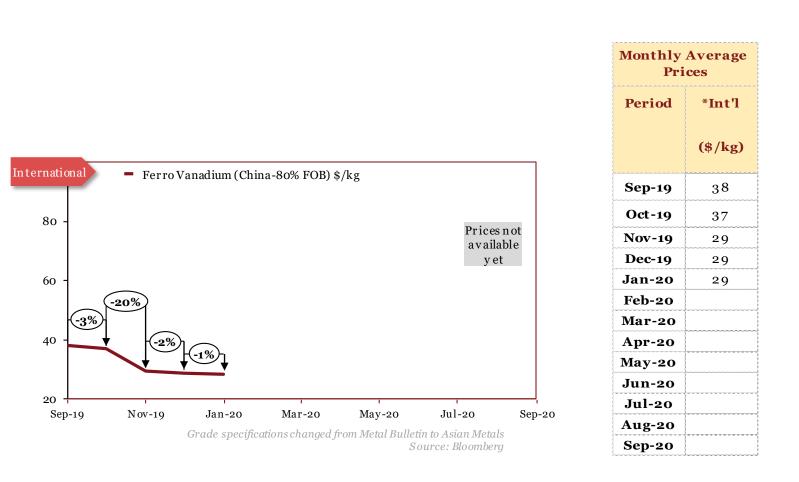
Ferro molybdenum

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

Outlook

In September, prices remained stable. Prices increased in October 2018. Prices witnessed declining trend since November 2018, following the price movements in other ferro-alloys. In February 2019, declining trend was reversed. In March, prices increased owing to demand growth. In April, increasing trend in prices continued. In May, stable market conditions resulted in stable prices. In June, prices decreased due to easing demand from major steel producers such as China. In July, prices increased due to limited availability of raw materials such as molybdenum concentrate. Strong sentiment spilt into the Molybdenum market, with a rise in raw material price raising prices overall. In August, international prices rallied after a shortage of supply in China led to a growth in the Chinese domestic market. In September, international prices fell on the back of rigid demand in the market. In October, prices continued to fall through the quarter due to weak metal demand and weak demand in the ferro-alloys market. In November, prices continued to fall as producers sold their stocks at discounts and demand was affected by weak demand for stainless steel. In December, molybdenum prices slowly began to stabilise after months of decline. In January, prices rose on the backs of strong industrial demand from automotive and other industries.

^International prices changed due to change in grades at the source



Ferro vanadium

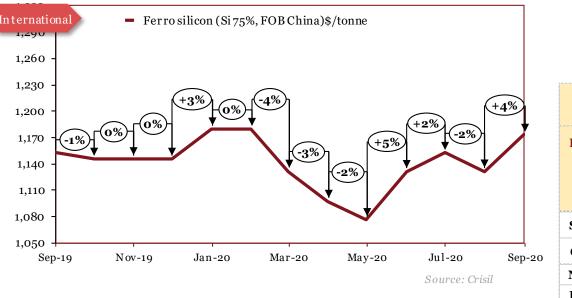
*The actual prices may vary depending on city, player, grade etc.

Outlook

Prices remained unchanged in February 2019 due to stable market conditions. In March, prices remained unchanged due to stable market conditions. In April, prices increased due to strong demand from Chinese market, which in turn can be partly attributed to increase in

demand arising from the implementation of new rebar manufacturing standards in China. In May, prices continued to decline due to sluggish demand from the European automotive sector. In June, prices continued to fall sharply due to weak summer demand in China & Europe. In July, Ferro Vanadium prices decreased marginally due to almost stable market conditions compared to June. In August, there was an increase in price boosted by improving demand. In September, prices internationally fell on account of a strong Chinese market dissuading foreign importers, with a large gap between Chinese and European prices. In October, prices continued to decrease as European producers worked to offload excess inventory in a time of weak demand. In November, international prices fell due to a sudden increase in Chinese production. In December, prices continued to fall due to vanadium being substituted with niobium, along side slow enforcement of new rebar regulations in China. In January prices fell minimally on stable market conditions.

Ferro silicon





Monthly Average Prices			
Period	*Int'l	*Dom	
	(\$/tonne)	(Rs/tonne)	
Sep-19	1,152	66,900	
Oct-19	1,145	65100	
Nov-19	1145	66,100	
Dec-19	1145	72,100	
Jan-20	1180	81600	
Feb-20	1180	90600	
Mar-20	1132	88600	
Apr-20	1097	88600	
May-20	1076	84600	
Jun-20	1132	78300	
Jul-20	1152	73050	
Aug-20	1132	83050	
Sep-20	1173	80050	

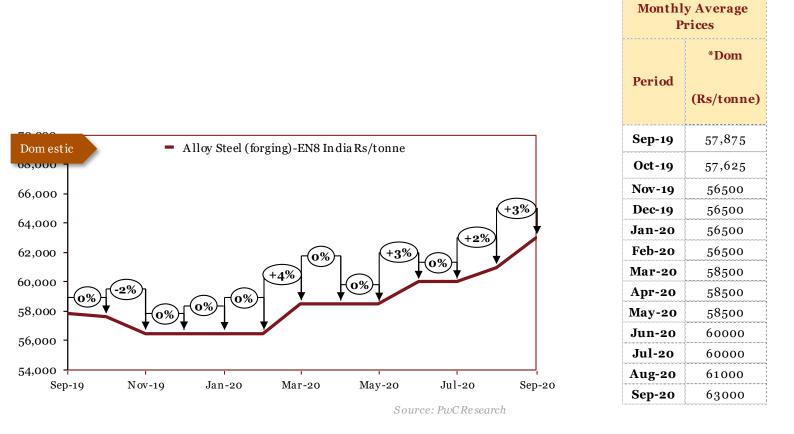
Outlook

In January, international prices rose due to supply constraints in China whilst domestic prices rose on the back of a shortage of charcoal in factories causing production problems. In February, international prices remained stable while domestic prices continued to rise aggressively due to continued raw material shortage in Bhutan. In March, international prices fell as trading activity declined on the back of the COV ID-19 crisis, Domestic demand was similarly hurt by lockdown measures. Domestic prices have been hurt by the lack of in -person trading caused by the COVID-19 lockdown. In April, international prices fell on account of the decline in industrial activity. Domestic prices remained stable. In May, prices declined as demand from steelmakers remained weak, while domestic producers began to cut capacity on poor economic environment. In June and July, international prices picked up as industries reopened across Europe and China, particularly in the solar energy space. In June and July, domestic prices declined on weak demand. In August, prices declined internationally, while domestic prices rose on higher demand. In September, international prices rose due to supply concerns in China's Inner Mongolia region. Dom estically, prices dipped after a heavy jump in August.

Source: Crisil

city, player, grade etc.

EN8 Alloy Steel (Forging)

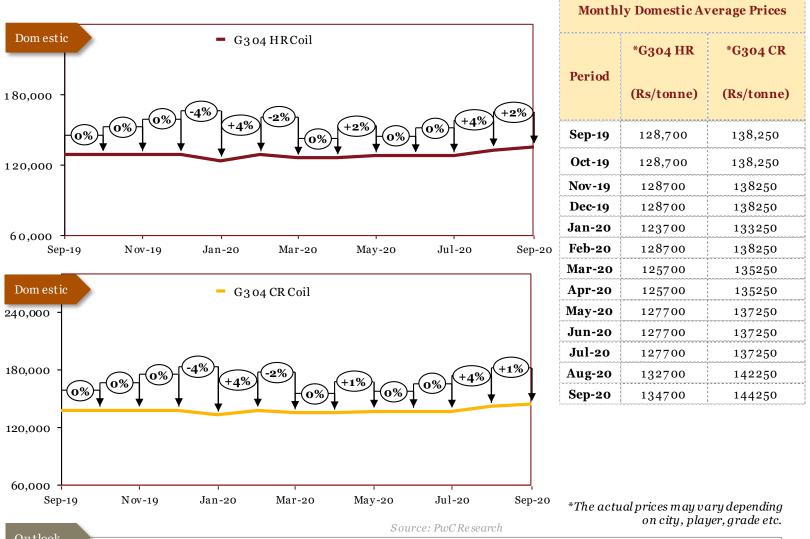


*The actual prices may vary depending on city, player, grade etc.

Outlook

In March, prices remained unchanged due to stable market conditions. In April, market conditions remained unchanged, reflecting in the prices for the month. In May, market conditions continued to remain unchanged resulting in stable prices. In June, prices remain unchanged once again, stemming from stable market conditions. In July, prices declined marginally due to a lower growth for ecast in India. In August, global prices fell due to the fall in the price of Nickel. In September, domestic prices remained unchanged due to stable market conditions. In October, the prices remained constant. In November prices declined due to a difficult demand environment caused by the struggles of the automotive and manufacturing sectors. In December, prices remained constant on stable market conditions. In January,, prices remained unchanged thanks to stable market conditions. In February prices remained stable. In March, domestic prices rose thanks to higher demand and improved industrial activity prior to the national lockdown. In April, prices remained stable. Prices remained stable in May. In June, prices rose as industries reopened across the country. In July, prices were unchanged. In August, prices rose domestically as part of the trend to higher steel prices. In September, prices rose further as steel prices rose on a tight supply.

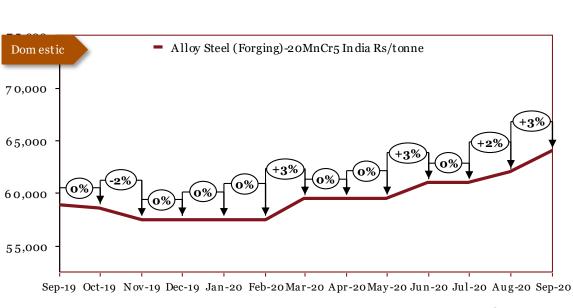




Outlook

In June, prices declined due weak demand scenario and fall in price of inputs such as ferro-alloys. In July, prices increased as producers cut down supply and costs of vital inputs, such as coking coal, increased. In August, global prices fell on weak demand and high inventories. In September, international prices rose owing to skyrocketing Nickel prices. This increase was mirrored by domestic prices. In October, prices remained stable domestically and internationally. In November, domestic as well as international prices continued to remain unchanged. In December, international and domestic prices remained unchanged on stable market conditions. In January, prices fell due to an excess of supply over demand in the market. In February, international as well as domestic prices corrected to their long term December levels. In March, domestic prices fell as the COV ID-19 pandemic rocked industrial activity all around the world. In April, international and domestic prices remained stable. In May, prices rose marginally despite a weak demand environment both in India and globally. In June and July, prices remained stable and unchanged. In August, international and domestic prices rose due to higher demand, partly in China, and lower scrap availability. In September, HR Coil prices rose on the back of continued momentum in steel prices.

20MnCr5 Alloy Steel (Forging)



	*Dom	
Period	(Rs/tonne)	
Sep-19	58,875	
Oct-19	58,625	
Nov-19	57500	
Dec-19	57500	
Jan-20	57500	
Feb-20	57500	
Mar-20	59500	
Apr-20	59500	
May-20	59500	
Jun-20	61000	
Jul-20	61000	
Aug-20	62000	
Sep-20	64000	

Monthly Average Prices

Source: PwCResearch

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

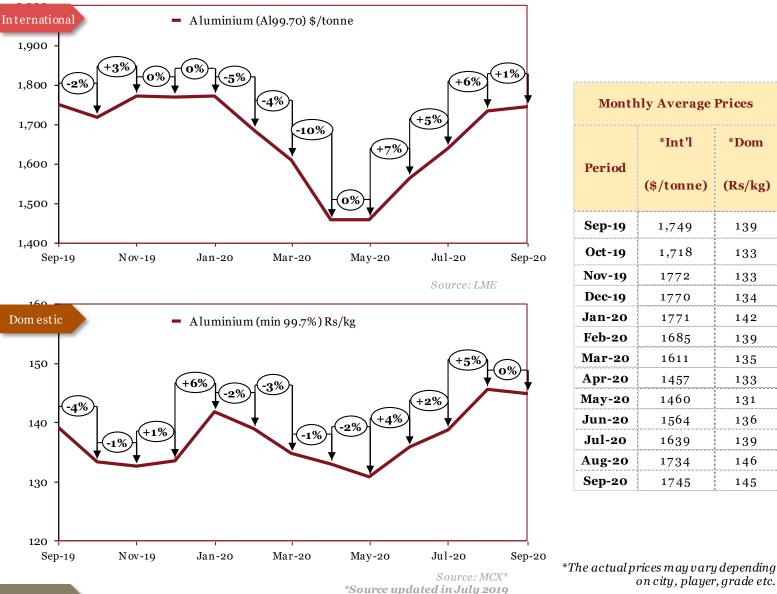
Outlook

In March, prices remained unchanged due to stable market conditions. In April, market conditions remained unchanged, reflecting in the prices for the month. In May, market conditions continued to remain unchanged resulting in stable prices. In June, prices continued to hold stable. In July, prices declined marginally due to a lower growth forecast in India. In August, prices continued to fall, owing to weakening demand and oversupply of inventory. In September, domestic prices managed to stay constant as the auto slowdown was followed by a large decrease in production. In October, prices remained stable. In November, prices fell due to weak demand, partly down to the Auto slowdown. In December, prices remained unchanged. In January, prices remained unchanged thanks to stable market conditions. In April, prices remained stable. In March, prices rose on stronger industrial activity and demand prior to the COVID-19 lockdown. In April, prices remained stable. In May, prices rose on stronger demand. In September, prices rose as steel prices continued to trend upwards.

Base Metals

Base M	etals	25
16	Aluminium	26
17	Copper	27
18	Zinc	28
19	Lead	29
20	Nickel	30
21	Tin	31
22	Magnesium	32

Aluminium



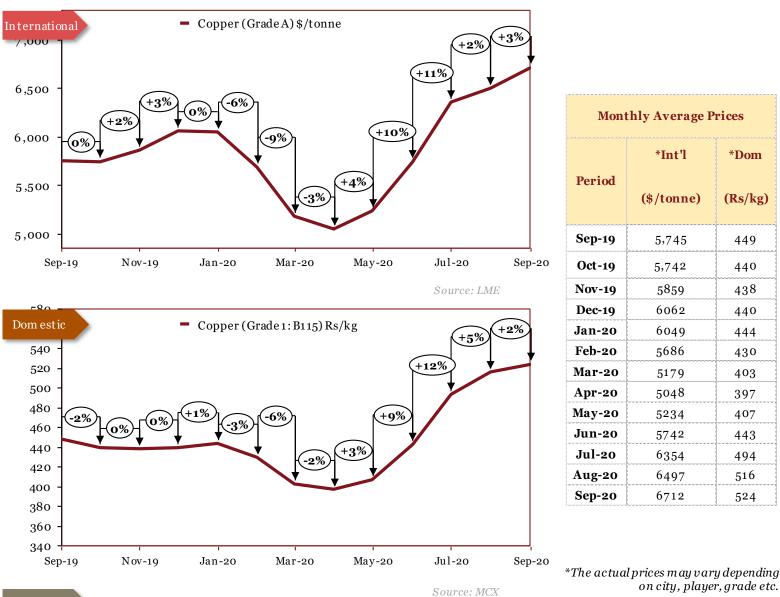
*Int'l *Dom Period *Int'l *Dom (\$/tonne) (Rs/kg) Sep-19 1,749 139 Oct-19 1,718 133 Nov-19 1772 133	Monthly Average Prices			
(\$/tonne) (Rs/kg) Sep-19 1,749 139 Oct-19 1,718 133		*Int'l	*Dom	
Oct-19 1,718 133	Period	(\$/tonne)	(Rs/kg)	
	Sep-19	1,749	139	
Nov-19 1772 133	Oct-19	1,718	133	
	Nov-19	1772	133	
Dec-19 1770 134	Dec-19	1770	134	
Jan-20 1771 142	Jan-20	1771	142	
Feb-20 1685 139	Feb-20	1685	139	
Mar-20 1611 135	Mar-20	1611	135	
Apr-20 1457 133	Apr-20	1457	133	
May-20 1460 131	May-20	1460	131	
Jun-20 1564 136	Jun-20	1564	136	
Jul-20 1639 139	Jul-20	1639	139	
Aug-20 1734 146	Aug-20	1734	146	
Sep-20 1745 145	Sep-20	1745	145	

Outlook

In January, international prices remained unchanged, while domestic prices rose In January, international prices were stable while domestic prices rose thanks to improving macro-economic sentiment. In February, international prices fell sharply as the coronavirus had a major impact on Chinese demand, which was reflected on domestic imported prices as well. In March, international prices declined due to over supply in the market by Chinese producers, while domestic prices fell thanks to weaker local demand. In April, international prices declined on account of declining demand from producers. Domestic prices fell on account of the COVID-19 lockdown. In May, prices remained stable internationally, but continued to decline in the domestic market, as inventories built up and players worked towards lowering the production cost on it. In June and July, international as well as domestic prices began to climb upwards on pent-up demand, after bottoming out for months during lockdown. In August, prices rose on greater demand from construction industries, particularly in Europe. Domestic prices rose in tandem. In September, international prices rose slightly while domestic prices remained stable as while m acroeconomic indicators suggested a global recovery was ongoing, supply and inventories had risen simultaneously.

on city, player, grade etc.

Copper



Outlook

In November, prices rose internationally thanks to hopes of a US-China trade deal, while remaining stable domestically. In December, international prices rose on positive sentiment about a US-China trade deal, while domestic prices remained stable. In January, international prices remained unchanged whereas domestic prices rose mildly thanks to better macro-economic sentiment. In February, international prices fell as markets reacted to the coronavirus outbreak in China, and domestic prices followed suit. In March, international prices declined on account of the COVID-19 pandemic, and domestic prices similarly fell as a result of the national lockdown. In April, international and domestic prices continued their downward trajectory on account of the COVID-19 crisis. In May, prices rose after months of downturn on the hopes of an economic revival and the slow removal of lockdown measures in India and abroad. In June and July, international as well as domestic prices rose aggressively, due to supply disruptions in South America and greater optimism in the global economic recovery. In August, international and domestic prices rose as demand returned to normal around the world. In September, prices rose internationally and domestically as labor issues in Chile caused concerns about future supply.

*Dom

(Rs/kg)

449

440

438

440

444

430

403

397

407

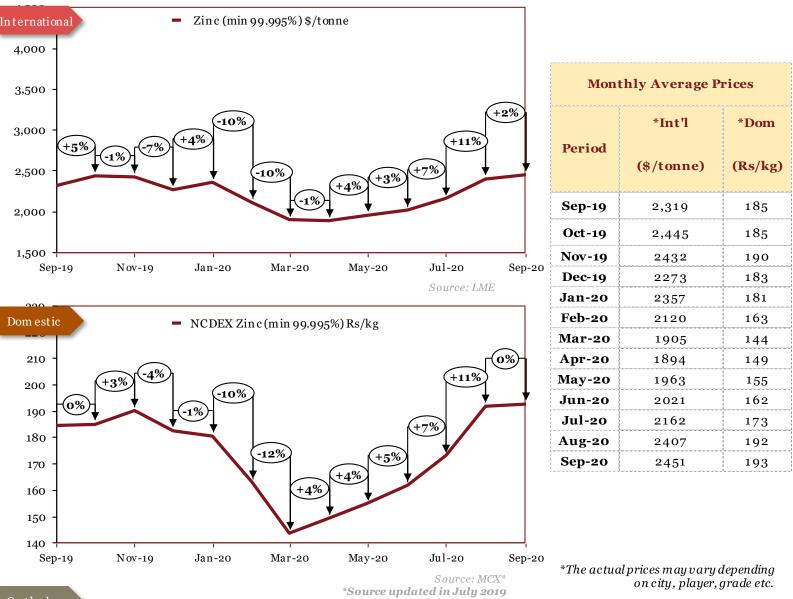
443

494

516

524

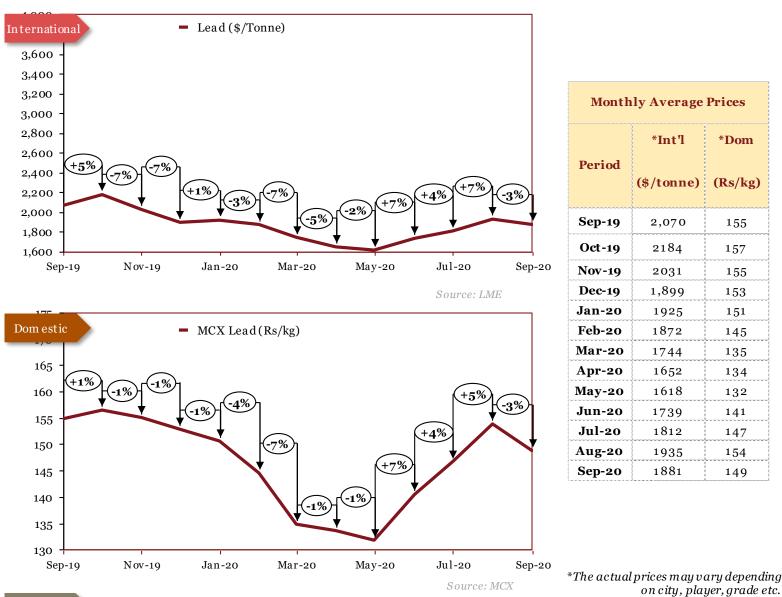
Zinc



Outlook

In December, Zinc prices fell globally owing to oversupply in China stoking demand concerns, while domestic prices fell on the backs of slackened demand. In January, international prices rose on higher demand in preparation for the US-China trade agreement. Domestic prices fell marginally on oversupply in the market. In February, international prices fell as markets reacted to the outbreak of coronavirus in China and around the world, with domestic prices falling simultaneously. In March, global zinc prices saw a marked decline due to pressure from the COVID-19 crisis. Domestic prices were also hurt by the halting of industrial activity. In April, the international price decline stabilised as China reopened factories, while domestic prices rose slightly. In May, international prices rose on greater demand while domestic prices were supported by a decline in output. In June and July, international and domestic prices rose despite growing unsold inventory, as investors continued to be bullish about the global recovery. In August, prices rose internationally as well as domestically as restrictions on mining were eased globally, and supply concerns regarding South America persisted. In September, international prices rose on stronger Chinese demand, while domestic prices remained stable.

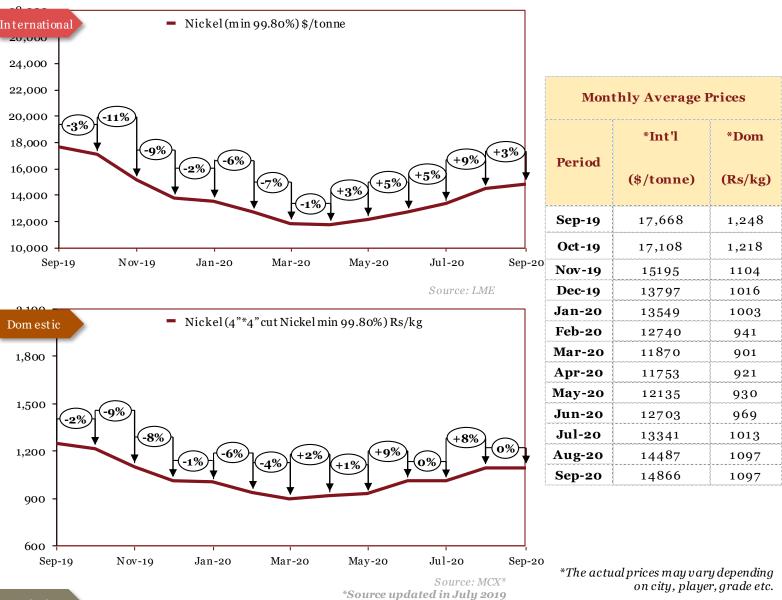
Lead



Outlook

In December, international prices retreated further due to weak demand, particularly in the automobile space. China is the world's largest consumer. Domestically, lead prices were down only slightly thanks to demand from battery producers. In January, international prices remained fairly stable, still affected by poor demand. Domestic prices fell marginally. In February, international as well as domestic prices fell as the coronavirus outbreak impacted industrial demand in China and around the world. In March, international prices fell on account of global uncertainty around the COVID-19 pandemic, and domestic prices fell on account of the halting of production following containment measures. In April, prices declined on account of decreased industrial activity internationally and in India. In May prices declined slightly, continuing their downward trajectory. In June and July, international as well as domestic prices rose on account of continued bullishness from investors and fears of supply disruptions. In August, international and domestic prices rose in tandem to higher demand as industries returned to pre-COV ID normality. In September, international as well as domestic prices declined as inventory levels rose following months of upward price movement.

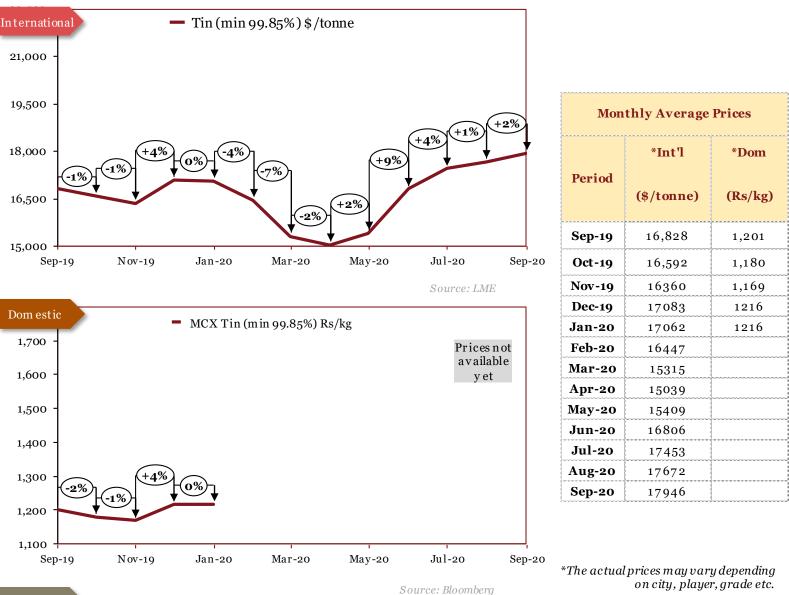




Outlook

In December, Nickel prices continued to correct domestically and internationally on oversupply in the market, particularly large Chinese im ports. In January, international prices were hurt by the trade war as well as fears of the coronavirus epidemic. Domestic prices followed suit in declining. In February, international prices fell harshly as inventories piled up over the Chinese lockdown. Domestic prices were hurt by weakening market sentiment thanks to the coronavirus outbreak in China affecting supply chains. In March, international as well as dom estic prices were hurt by the reduction in stainless steel demand, a swell as lower production of electric vehicles. In April, international prices declined, though supply shocks prevented further fall. Dom estically, prices rose thanks to a supply shock and higher s pot demand. In May, international and domestic prices rose on account of greater demand from alloy makers. In June and July, international prices continued to recover, buoyed by strong Chinese demand. Dom estic prices rose in June, but remained more or less stable in July . In August, Nickel prices rose on strong Chinese demand whilst dom estic prices remained stable.

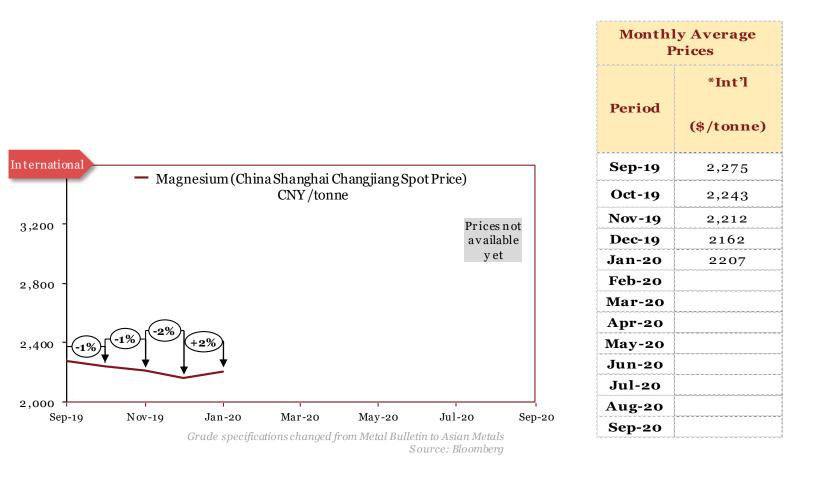
Tin



Outlook

In September, the fall in international prices was stopped by a cut in Chinese production, with domestic prices following suit. In October, international prices fell due to weaker demand from the electronics sector caused by the trade war. Domestic prices decreased due to weaker demand. In November international prices corrected slightly downwards, alongside domestic prices. In December, international prices finally looked to be picking up thanks to positive demand and the hopes of a US-China trade agreement. Domestic prices also rose in tandem with international prices. In January, international and domestic prices both remained unchanged. In February, tin prices fell internationally due to slackened demand. In March, international prices declined as major semiconductor markets Japan and South Korea rapidly curtailed industrial activity to contain COVID-19. In April, prices fell due to lower demand. In June, international prices edged upwards on account of industrial activity resuming globally. In June and July prices rose as supply constraints, particularly in South America, coincided with the reopening of economic activity. In August, international prices rose slightly. In September, prices rose in ternationally on account of stronger demand for electronics, particularly in Mainland China

Magnesium



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

Outlook

In May, June and July, magnesium prices have witnessed increasing trend owing to favourable market conditions. In August, prices continued to rise. In September, prices rose on account of tighter supply. In October, magnesium prices continued with increasing trend. In November and December 2018, magnesium prices rose on account of tight market supply primarily from China and decreased in January 2019 with fall in dem and. In February, magnesium prices continued to fall. In March, price trend was reversed. In April, prices fell owing to subdued demand. In May, the declining trend in prices continued due to low demand across global markets. In June, prices fell due to over supply in the market from Turkey. In July, prices continued to slide due to lower demand from international markets. In August, a surplus of supply in the market led to a continued drop in prices globally. In September, the trend of international prices falling continued due to weak demand from buyers. In October, prices fell further due to weak demand in China and internationally. In November, prices continued on their downward trajectory due to weak market conditions. In December, the downward trend of prices continued. In January, magnesium prices rebounded slightly

 $^{\Lambda}$ International prices changed due to change in grades at the source

Precious Metals

	ous Metals	33
23	Precious Metals	34

Period

Sep-19

Oct-19

Nov-19

Dec-19

Jan-20

Feb-20

Mar-20

Apr-20

May-20

Jun-20

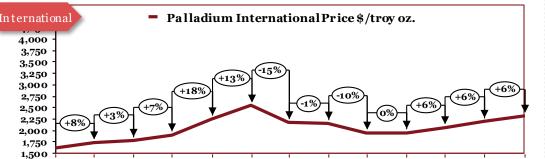
Jul-20

Aug-20

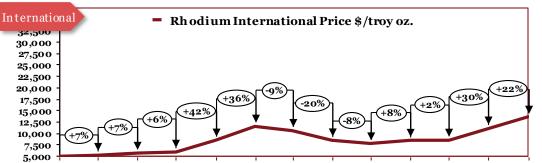
Sep-20

Precious Metals





Sep-19 Oct-19 Nov-19 Dec-19 Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20



Sep-19 Oct-19 Nov-19 Dec-19 Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20

Source: Johnson Matthey

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

Monthly Average Prices (\$/Oz)

Pd

1608

1,733

1777

1909

2258

2544

2170

2156

1949

1952

2062

2191

2314

Rh

5001

5,363

5728

6046

8609

11671

10617

8545

7824

8474

8603

11177

13647

Pt

948

901

907

929

993

968

772

762

805

831

869

949

915

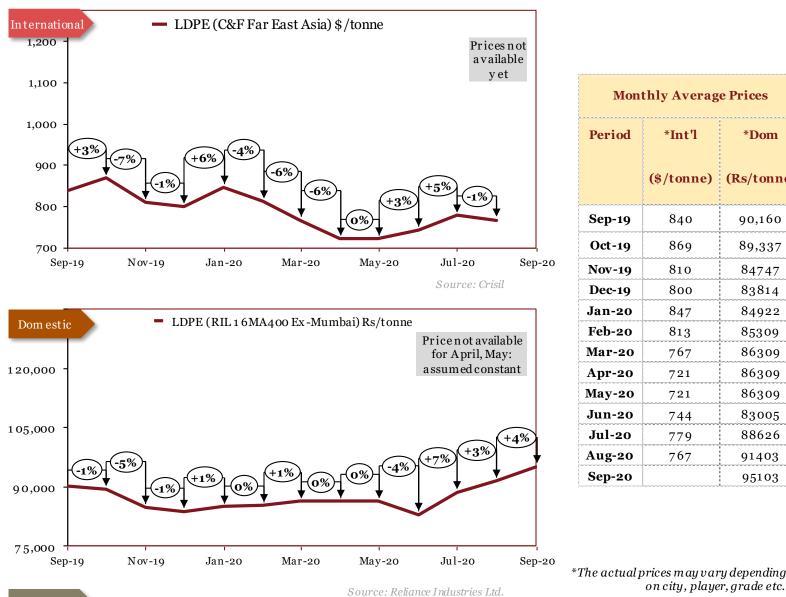
Outlook

In March the record international price growth for palladium, platinum and rhodium was halted as the automotive industry, its primary customer, halted production around the world as part of lockdown measures. In April, lockdown measures continued to cause downward pressure on prices of all three metals, with auto production and other industries shut. In May, prices of Palladium and Rhodium continued to trend downwards from their earlier highs, while platinum prices rose as investors showed interest in it. In June and July, Rhodium and Palladium prices rose rose rose on the backs of growing automotive demand. Platinum prices rose due to interest from investors. In August, Rhodium prices rose rapidly as South African supply chains struggled to keep up with rising demand post-lockdown. Platinum prices rose on the backs of continued demand from automotive manufacturers, with supply still constrained at mines in South Africa. Palladium prices rose on higher economic optimism, while platinum prices declined slightly.

Polymers & Rubber

Polymers & Rubber				
24	Low density polyethylene (LDPE)	36		
25	Polypropylene (PP)	37		
26	Rubber	38		

Low density polyethylene (LDPE)



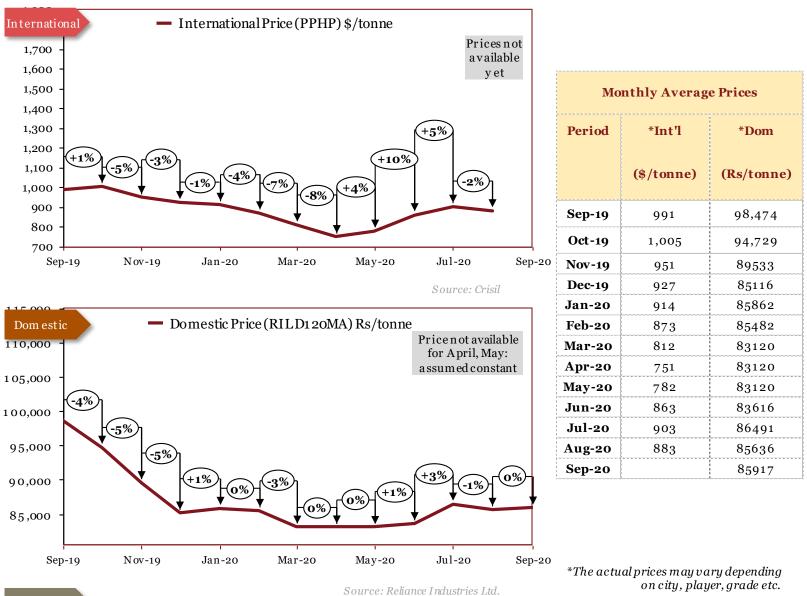
Monthly Average Prices							
*Int'l	*Dom						
(\$/tonne)	(Rs/tonne)						
840	90,160						
869	89,337						
810	84747						
800	83814						
847	84922						
813	85309						
767	86309						
721	86309						
721	86309						
744	83005						
779	88626						
767	91403						
	95103						
	*Int'l (\$/tonne) 840 869 810 800 847 813 767 721 721 721 721 721 721						

Outlook

In September, while international prices continued to slide due to oversupply, domestic prices rose, partly due to supply shocks from Saudi Arabia oilfield attack. In October, international prices rose thanks to tighter spot supply, while domestic prices fell as supply was normalised. In November prices fell internationally and domestically as producers sought to drop their excess inventory, due to overproduction in the United States. In December, prices internationally and domestically continued to decline as oversupply in the market met sluggish dem and. In January, international prices rose due to plant shutdowns in Japan and Thailand, with dom estic prices also rising. In February, domestic prices remained unchanged. In March, international prices declined as a result of the fall in crude oil prices and the COVID-19 lockdown. In April, low crude prices caused further decline in international prices. In June, international prices rose, corresponding with the rise in oil prices. In July, domestic prices continued their upturn. In August, international prices declined slightly, while domestic prices rose on account of higher oil prices. In September, domestic prices rose on the backs of higher consumer goods sales as the festive season approaches.

on city, player, grade etc.

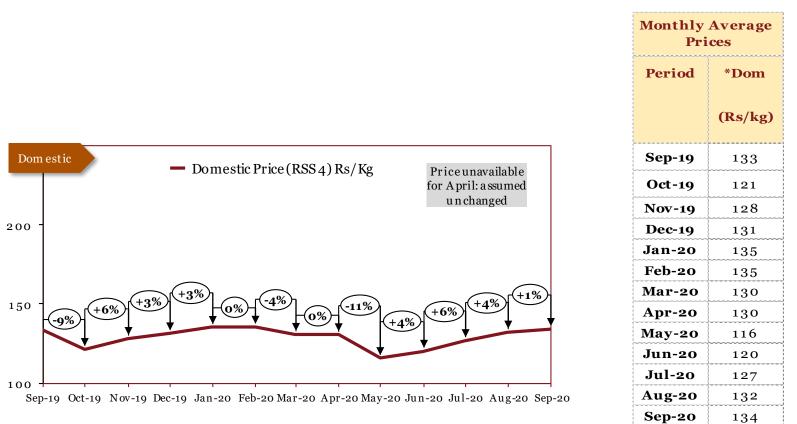
Polypropylene (PP)



Outlook

In September, while prices continued to slide internationally due to weak demand and issues surrounding international tariffs, domestic prices were rose following the rise in crude prices due to the events in Saudi Arabia. In October, international prices rose, while domestic prices were cut to try and incentivize buying. In November, prices fell domestically and internationally on account of oversupply and a period of weak demand from the plastics industry. In December, international and domestic prices continued to decline, with ample inventory in the market as buyers resisted building up stocks. In January, the trend of falling international prices continued thanks to a production surge in China, while domestic prices rose on tighter availability of product in the domestic market. Zin February, domestic prices remained unchanged. In March, the dramatic decrease in crude oil prices led to the fall in Polypropylene prices internationally as well as domestically. In April, prices declined on low crude costs. In June, international prices rose on higher oil prices. Domestic prices rose on account of higher oil prices. In September, domestic prices remained stable.

Rubber



Source: Rubber board

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

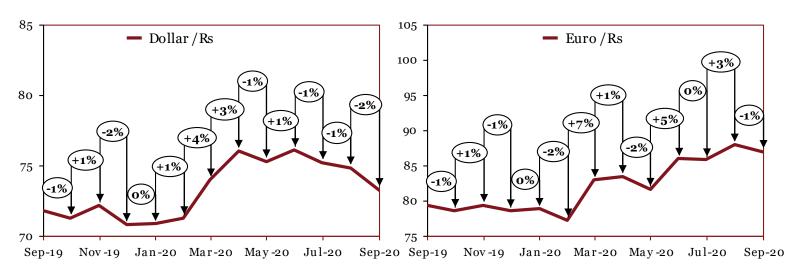
Outlook

In July, rubber prices remained unchanged owing to stable market conditions. In August, Plummeting global prices and muted demand from tyre makers drove down the price of natural rubber in India. In September, domestic prices continued to fall due to weak demand from auto manufacturers as well as large inventories held by rubber manufacturers. In November, prices rose domestically as continuing rains prevented tapping, leading to weak production. In December, rubber prices rose due to the Pestalotiopsis disease on rubber plantations lowering international supply, alongside the higher oil price and the breakthrough in US-China trade relations. In January prices continued to trend upwards due to worsening supply problems. In February, domestic prices remained mostly unchanged despite buyers fears regarding the impact of the coronavirus crisis. In March, domestic prices fell as the COV ID-19 pandemic halted all industrial activity, including in the tyre industry. In June and July, prices of rubber rose on stronger demand and supply disruptions. In August, prices rose mirroring a continued upward trend in global markets. In September, prices rose on strong Chinese demand and supply challenges in South East Asia

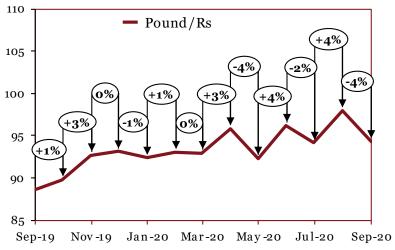


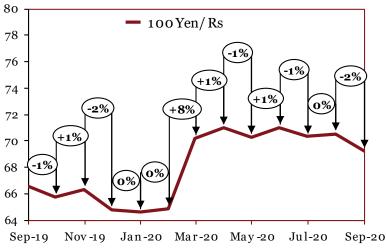
Annondicos

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Forex Movement

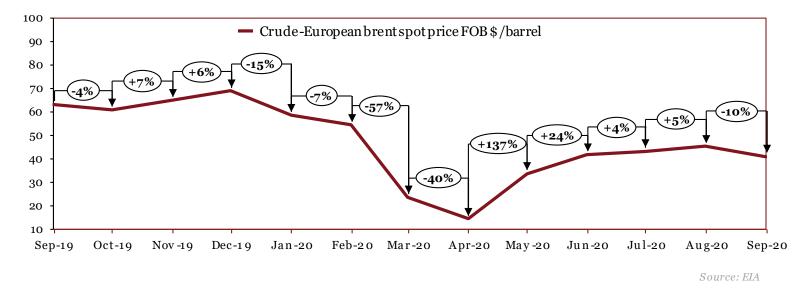




Source: Reserve Bank of India

	Monthly Average Prices (Rs)												
	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Ma y -20	Jun-20	Jul-20	Aug-20	Sep-20
\$	72	71	72	71	71	71	74	76	75	76	75	75	73
£	89	90	93	93	92	93	93	96	92	96	94	98	94
€	79	79	79	79	79	77	83	83	82	86	86	88	87
¥	67	66	66	65	65	65	70	71	70	71	70	71	69

Crude Oil



	Monthly Average Prices (\$/barrel)												
	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
	63	61	65	69	59	54	24	14	34	42	43	45	41

Commodity Specifications

Commodity	International	Domestic			
Iron Ore	IOECI635 Index (CIFChina) - (Fe63.5%) CIFChina	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 Previously: Bloomberg Black Sea Steel Billet Spot FOB	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 titanium	Ferrotitanium (Europe-70% In Warehouse Rotterdam) Previously: Ferrotitanium (min 70% in warehouse Rotterdam, Europe) \$/kg	NA			
Ferro chrome	Crisil : FOB Hong Kong Cr 50%	Crisil: Ex-factory Cr 60%			
Ferro molybdenum	Ferro-molybdenum (China-60% EXW) <i>Previously: Ferro-molybdenum (65%min</i> <i>in warehouse Rotterdam, Europe) \$/kg</i>	NA			

Commodity Specifications

Commodity	International	Domestic		
Ferro vanadium	Ferro Vanadium (China -80% FOB) \$/kg Previously: Ferrovanadium 78-82% V max 1.5% Si FOB North America warehouse USD/lbs	NA		
Ferro silicon	Crisil - FOB China Si 75%	Crisil - Ex-factory Si 70%		
Aluminium	LME -Primary aluminium with impurities no greater than the chemical composition of one of the registered designations: •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"	NCDEX, MCX (July'19 onwards) -Primary aluminium 99.7% purity (minimum) form: ingots, T -bars,		
Copper	LME -Grade A copper must conform to the chemical composition of one of the following standards: •BS EN 1978:1998 - Cu-CATH-1 •GB/T 467-2010 - Cu-CATH-1 •ASTM B115-10 - cathode Grade 1	MCX - Grade 1 electrolytic copper as per B115 specification		
Zinc	LME -Special high-grade zinc of 99.995% purity (minimum) must conform to the chemical composition of one of the following standards: •BS EN 1179:2003 - 99.995% grade •ISO 752:2004 - ZN-1 grade •AST M B6-12 - LME grade •GB/T 470-2008 - Zn99.995 grade	NCDEX, MCX (July'19 onwards) - 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		

Commodity Specifications

Commodity	International	Domestic				
Lead	LME - Lead of 99.97% purity (minimum) conforming to BS EN 12659:1999 - GB/T 469/2005	MCX - Lead ingots with minimum purity of 99.97%				
Nickel	LME - Nickel of 99.80% purity (minimum) conforming to B39-79 (2013) - GB/T 6516-2010	NCDEX, MCX (July'19 onwards) - 4"*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				
Magnesium	Magnesium (China Shanghai Changjiang Spot Price) CNY/tonne Previously: Magnesium (99.8% FOB China Main Ports Spot Price) \$/tonne	NA				
Platinum	Metal in sponge form with minimum purities of 99.95% for platinum and palladium,					
Palladium	and 99.9% for rhodium					
Rhodium						
Low density polyethylene (LDPE)	International price (C&FFEA) \$/tonne	RIL-16MA400 grade				
Polypropylene (PP)	International Price (PPHP) \$/tonne	RIL-D120MA grade				
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						



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