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Commodity price monitor

March-22

Prepared for ACMA

Strictly private and confidential

March 2022

pwc

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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	21.13% ▲	
	Domestic low grade		
	Domestic high grade		
Pig Iron	International	30.49% ▲	
	Domestic	14.61% ▲	
Stainless steel	Domestic	5.24% ▲	
	Domestic	4.90% ▲	
Wire rod	International	19.02% ▲	
	Domestic	14.66% ▲	
Steel Billets	International	22.61% ▲	
	Domestic	20.76% ▲	
Hot-rolled coils	International	34.58% ▲	
	Domestic	12.84% ▲	
Cold-rolled coils	International	34.94% ▲	
	Domestic	12.84% ▲	
Steel Scrap	Domestic	8.87% ▲	
EN8	Domestic	8.16% ▲	
20MnCr5	Domestic	8.04% ▲	
Ferro-alloys			
Ferro chrome	International	37.97% ▲	
	Domestic	40.87% ▲	
Ferro silicon	International	17.63% ▲	
	Domestic	20.59% ▲	

ND: Not disclosed by the source

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

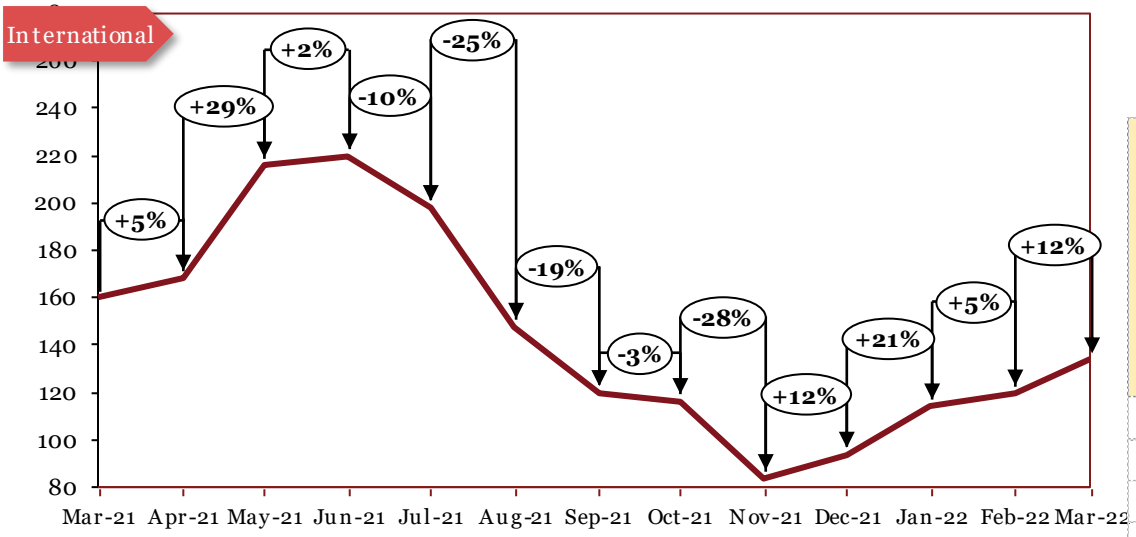
Calendar Year 2022: Q vs. Q update

Commodity	Region	Q-o-Q Up	Q-o-Q Down
Base Metals			
Aluminum	International	9.08% ▲	
	Domestic	7.04% ▲	
Copper	International	18.19% ▲	
	Domestic	17.03% ▲	
Zinc	International	4.42% ▲	
	Domestic	4.23% ▲	
Lead	International	6.15% ▲	
	Domestic	6.86% ▲	
Nickel	International	10.57% ▲	
	Domestic	8.01% ▲	
Tin	International	34.76% ▲	
	Domestic	N/A	
Precious Metals			
Platinum	International	23.61% ▲	
Palladium	International	2.27% ▲	
Rhodium	International	53.43% ▲	
Polymers			
Low density polyethylene (LDPE)	International	7.24% ▲	
	Domestic	15.79% ▲	
Polypropylene (PP)	International	11.76% ▲	
	Domestic	18.65% ▲	
Acrylonitrile Butadiene Styrene (ABS)	International	8.07% ▲	
	Domestic	8.33% ▲	
Polystyrene (PS)	International	15.46% ▲	
	Domestic	12.91% ▲	
Rubber	Domestic	3.87% ▲	
Currency Exchange			
Dollar	International		-1.05% ▼
Pound	International	0.35% ▲	
Euro	International	3.74% ▲	
Yen	International		-1.63% ▼

Iron & Steel

Iron Ore

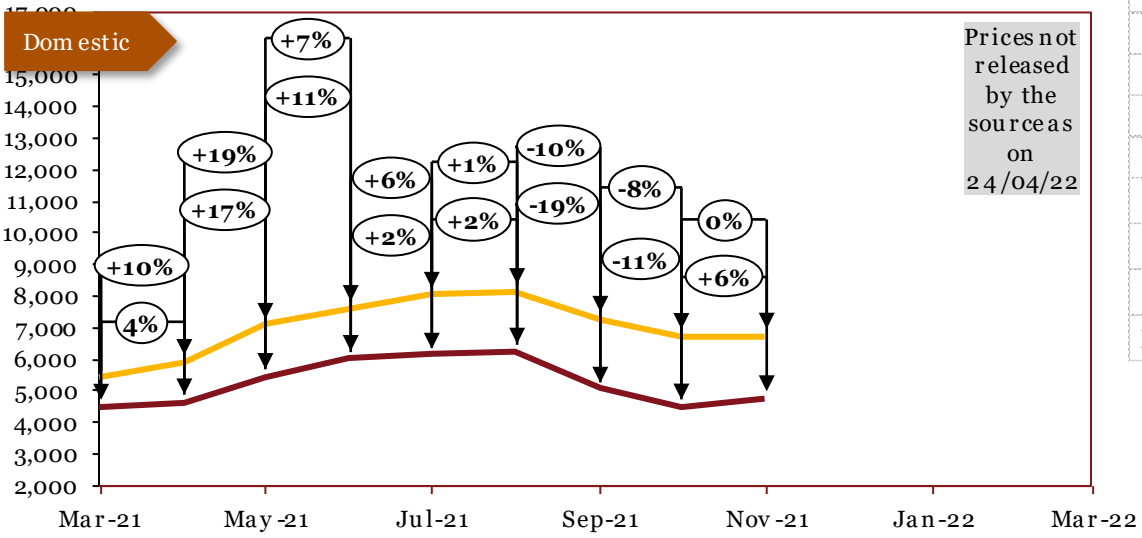
International



Source: Crisil

Period	*Int'l	*Dom	
	$/tonne	Rs/tonne	
		65% & below	65% & above
Mar-21	160	4477	5419
Apr-21	168	4652	5936
May-21	216	5462	7089
Jun-21	220	6040	7589
Jul-21	198	6146	8047
Aug-21	148	6271	8124
Sep-21	120	5070	7286
Oct-21	116	4518	6733
Nov-21	84	4779	6721
Dec-21	94		
Jan-22	114		
Feb-22	120		
Mar-22	134		

Domestic



Source: Crisil

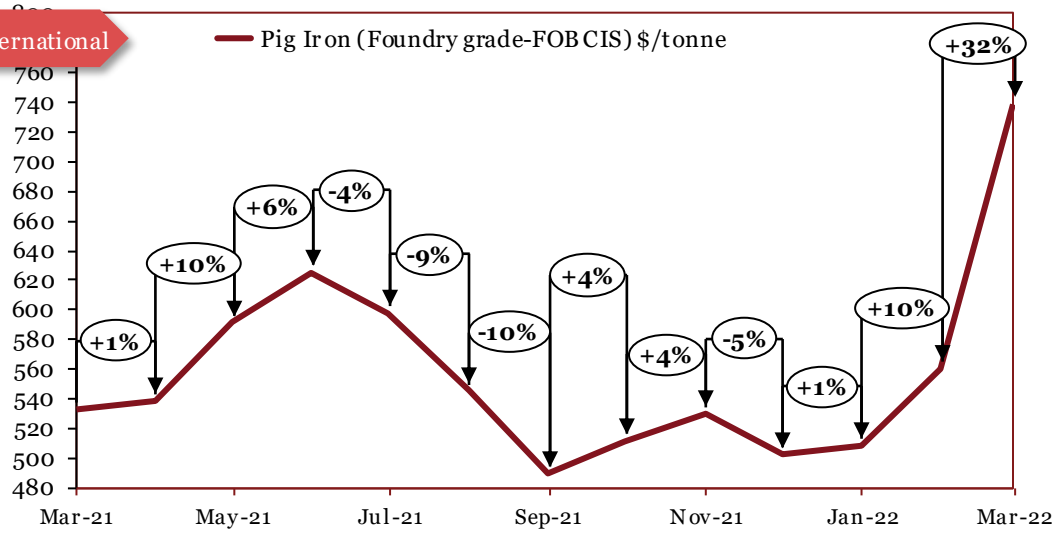
*The actual prices may vary depending on city, player, grade etc.

Outlook

In June, iron ore prices rose marginally on the back of global supply constraints. In August, higher Brazilian shipments along with a decline in Chinese steel indicators drove international prices further down. In September, China's decision to cut steel production by 10% through the months of August-December continued to place the iron ore market in a surplus, and prices declined even more. In October, international prices remained unaffected. In November, international prices fell to their lowest levels in 18 months, after demand outlook for steel products and raw materials in China plummeted, owing to planned production cuts. In December, international prices underwent a correction due to a rise in stell 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.

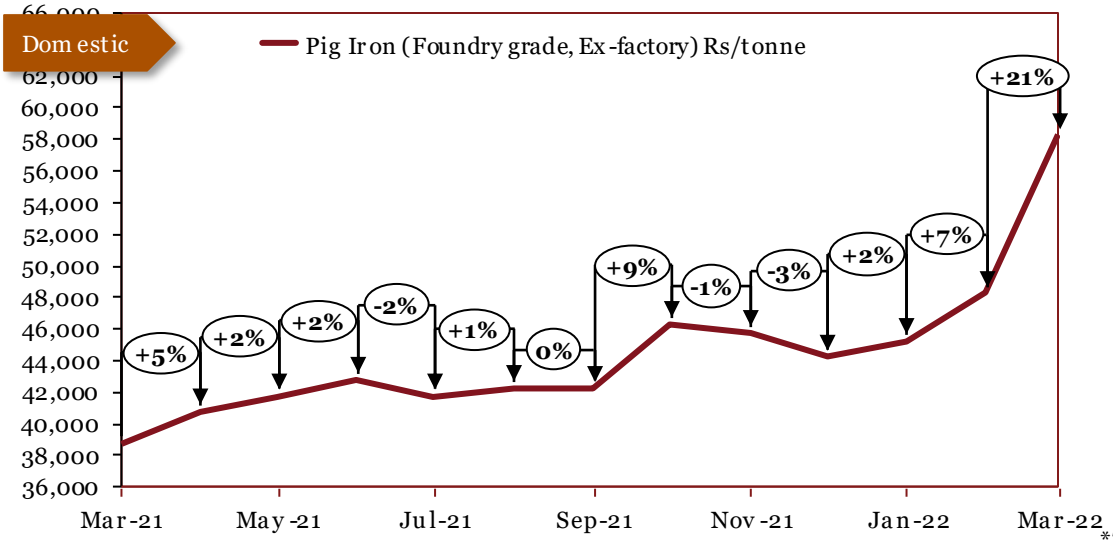
Pig Iron

International



Source: Crisil

Domestic



Source: Crisil

Monthly Average Prices

Period	*Int'l $/tonne	*Dom Rs/tonne
Mar-21	533	38750
Apr-21	539	40750
May-21	591	41750
Jun-21	625	42750
Jul-21	598	41750
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

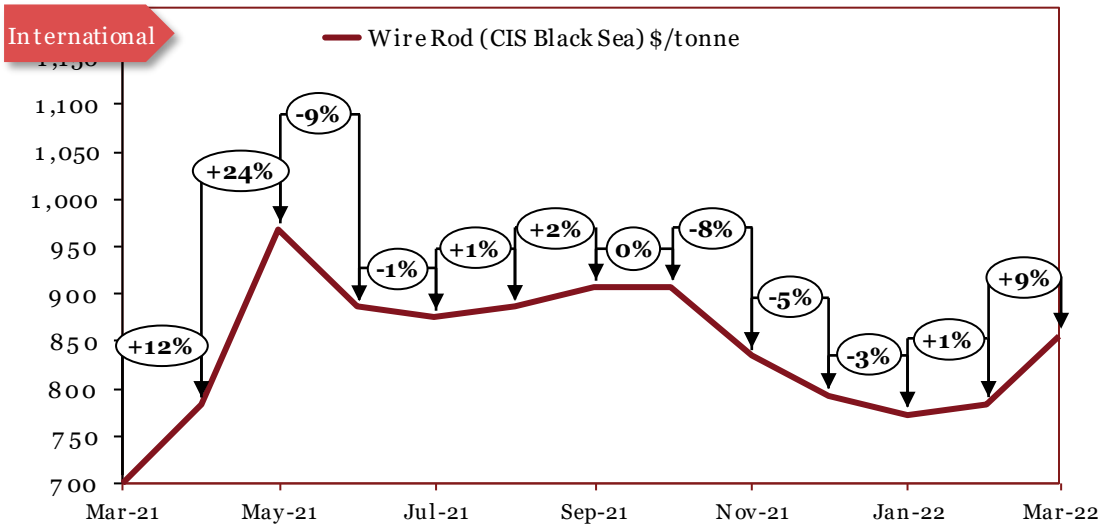
*The actual prices may vary depending on city, player, grade etc.

Outlook

In June, international and domestic prices rose in line with flat steel prices despite weakened demand in India due to the second wave of the pandemic. In August, international prices fell in tandem with iron ore prices. Domestic prices remained comparatively stable. In September, international prices declined due to a decline of iron price indicators caused by a cut in China's steel supply. Domestic prices remained unaffected. In October, both international and domestic prices rose as a result of increasing production costs; prices of coking coal and metallurgical coke – an essential ingredient in blast furnace iron-making – have been soaring. In November, international prices increased amid bullishness from suppliers, primarily in the US. Domestic prices remained relatively unaffected. In December, both international and domestic prices fell as a result of low demand caused by soft markets during the holiday season. In January, domestic prices rose marginally in tandem with iron ore prices. International prices remained stable. 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

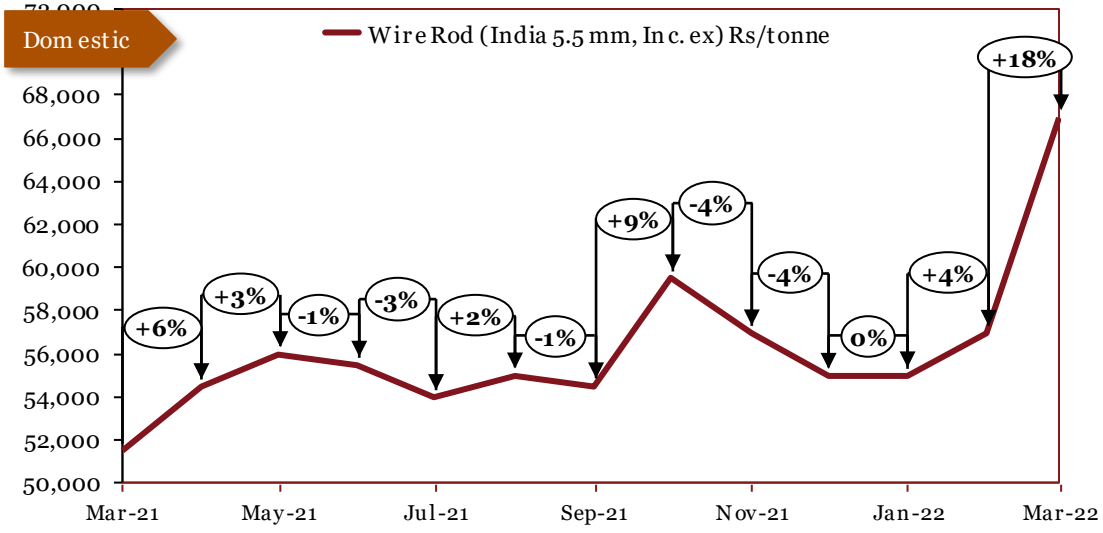
Wire Rod

International



Source: Crisil

Domestic



Source: Crisil

Monthly Average Prices		
Period	^*Int'l ($/tonne)	*Dom (Rs/tonne)
Mar-21	700	51494
Apr-21	782	54494
May-21	967	55994
Jun-21	885	55494
Jul-21	875	53994
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

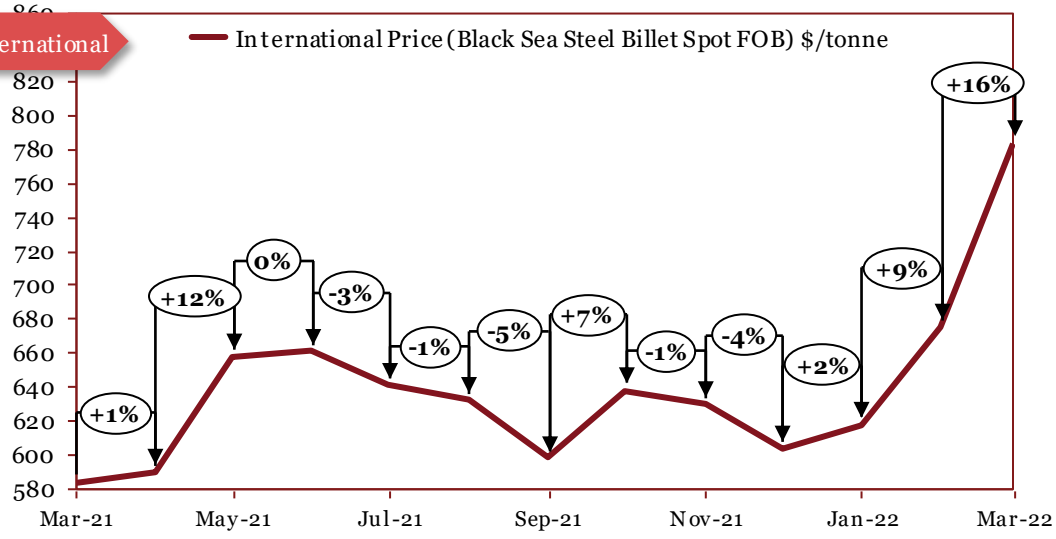
*The actual prices may vary depending on city, player, grade etc.

Outlook

In May, global prices surged on short supply in Europe and Asia. Domestic prices followed suit. In June, international price fell on the back of decreased demand from China and Southern Europe. Domestic prices remained stable. In August, a mid-month increase in transaction prices from various steelmakers drove prices slightly upwards. In September, production cuts in China caused a slight increase in international prices. Domestic prices slightly reduced on account of a market correction. In October, both international and domestic prices rose due to rising scrap and electricity costs, supported by positive market conditions. In November, both international and domestic prices fell in tandem with iron ore prices. In December, prices continued to slump as demand fell amid lower construction activity due to the Omicron variant. In January, domestic prices continued to fall amid an oversupply crisis. International prices remained stable. 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.

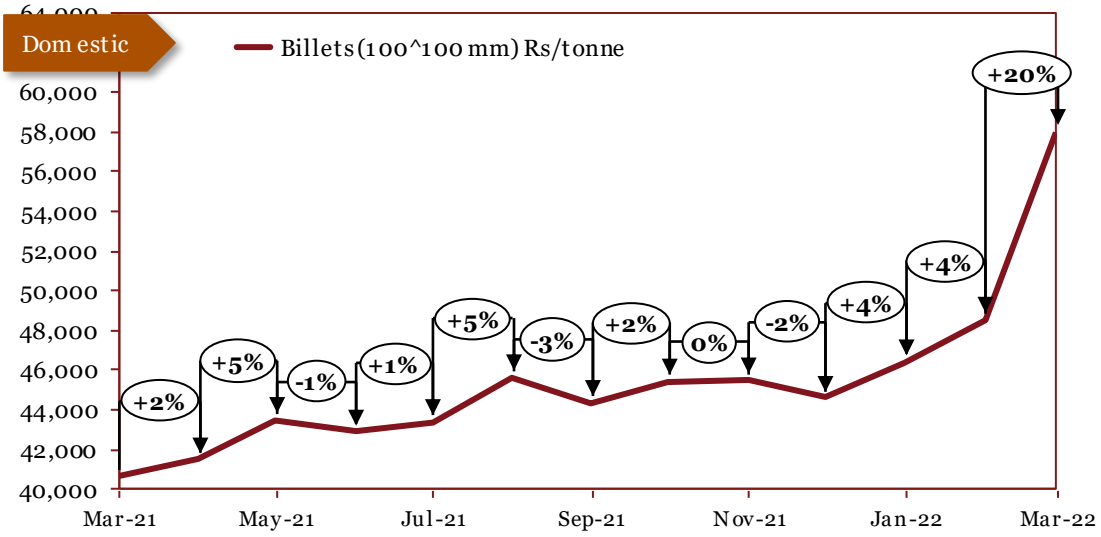
Steel Billets

International



Source: Crisil

Domestic



Source: Crisil

Monthly Average Prices		
Period	**^*Int'l ($/tonne)**	***Dom (Rs/tonne)**
Mar-21	584	40667
Apr-21	590	41500
May-21	658	43500
Jun-21	661	42900
Jul-21	641	43340
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	58000

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

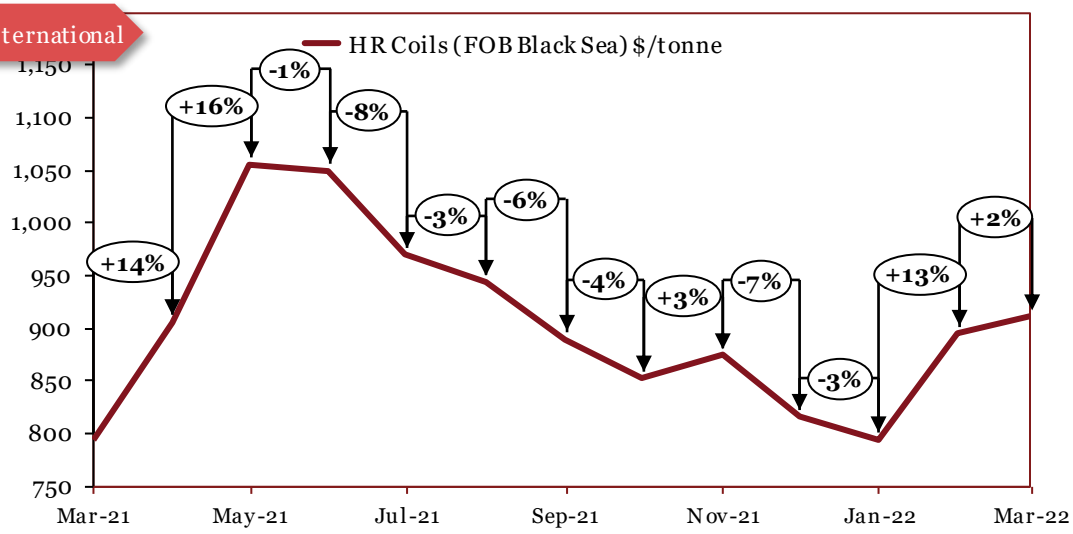
Outlook

In August, international prices remained unaffected, whereas domestic prices rose on account of a surge in raw material costs. In September, international prices dipped due to a softening of demand. Domestic prices fell in tandem with international prices. In October, international prices rose on account of increasing scrap costs and reports of better power supply in China, along with solid performances by ferrous futures. Domestic prices slightly rose in tandem with international prices. In November, both domestic and international prices remained stable. In December, international prices fell due to a softening of demand amid reduced industrial and commercial activity. Domestic prices fell slightly less due to rising prices for directly reduced iron (DRI) and better finished long product demand in the first half of the month. 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.

^International prices changed due to change in the grade

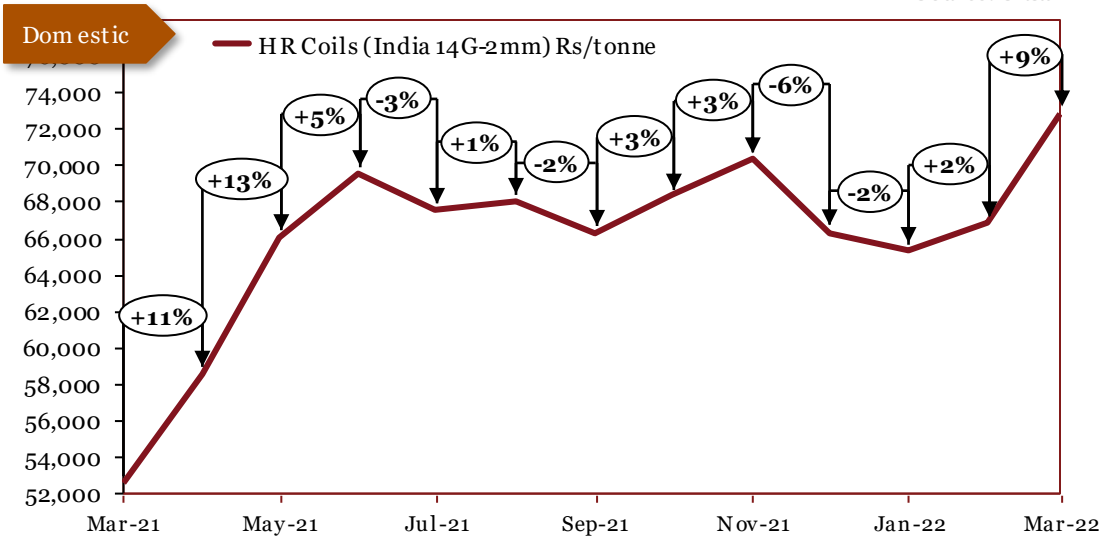
Hot-Rolled (HR) Coils

International



Source: Crisil

Domestic



Source: Crisil

Monthly Average Prices		
Period	***Int'l ($/tonne)**	**^*Dom (Rs/tonne)**
Mar-21	794	52550
Apr-21	906	58550
May-21	1055	66050
Jun-21	1050	69550
Jul-21	970	67550
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

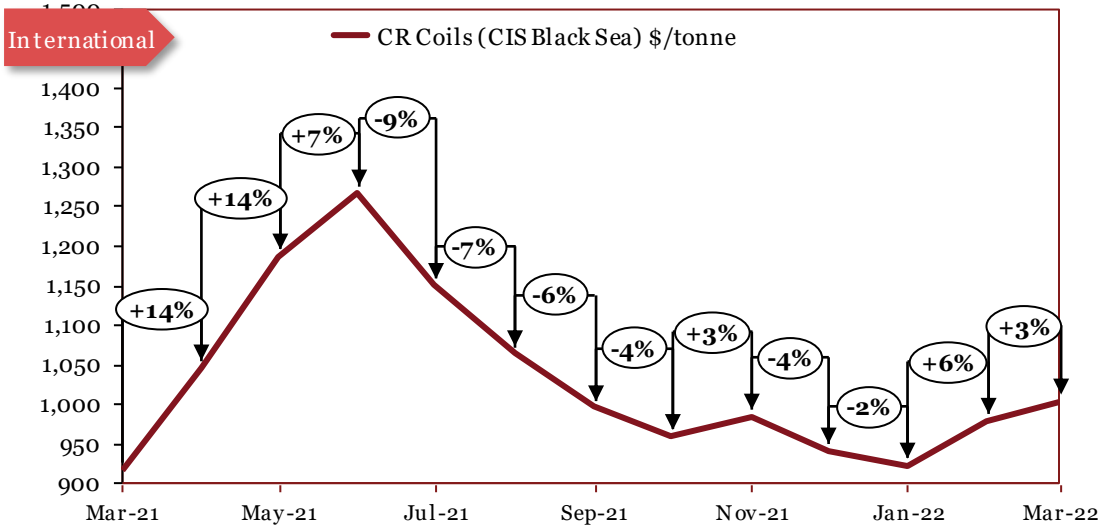
**The actual prices may vary depending on city, player, grade etc.*

Outlook

In July, high volumes of exports of HRC from China weighed down on both domestic and international prices. In August, prices rallied back up marginally due to market forces and supply constraints. In September, international as well as domestic prices fell further as a result of growing automotive demand concerns. In October, international prices declined amid reduced end-user demand. Domestic prices surged as Mills raised their prices with demand increasing on active restocking by traders and a sharp increase in spot prices. In November, both international and domestic prices increased over growing concerns about production cuts in China, ahead of the Winter Olympics that are to be held there. 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.

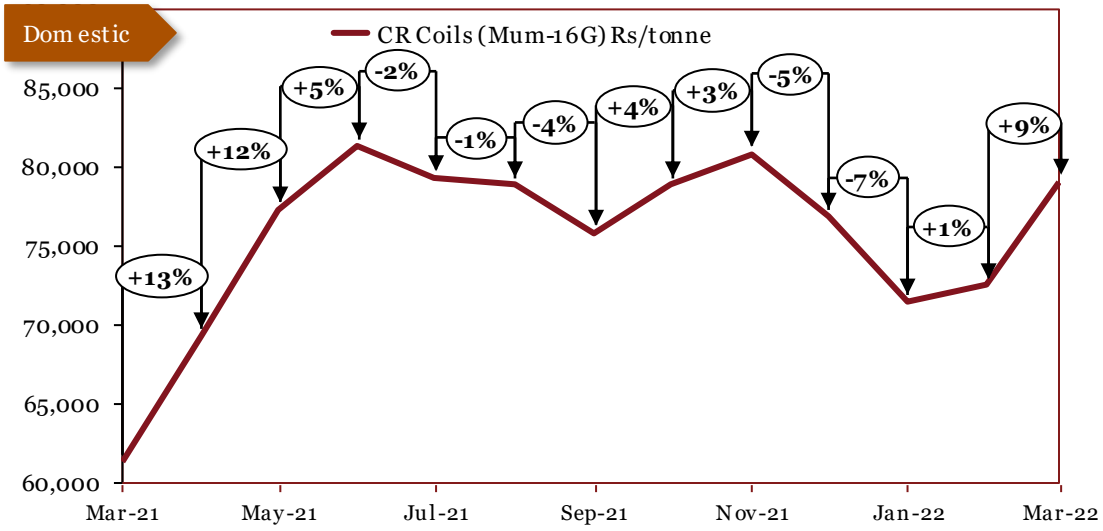
Cold-Rolled (CR) Coils

International



Source: Crisil

Domestic



Source: Crisil

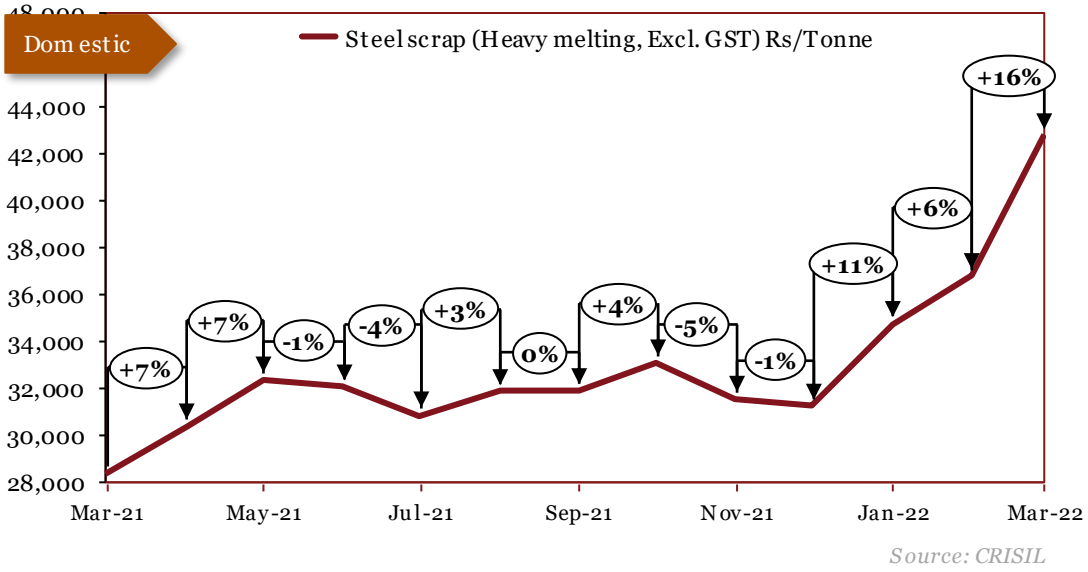
Monthly Average Prices		
Period	***Int'l ($/tonne)**	**^*Dom (Rs/tonne)**
Mar-21	916	61350
Apr-21	1046	69350
May-21	1187	77350
Jun-21	1267	81350
Jul-21	1150	79350
Aug-21	1064	78850
Sep-21	996	75850
Oct-21	959	78850
Nov-21	984	80850
Dec-21	941	76850
Jan-22	923	71500
Feb-22	978	72500
Mar-22	1002	79000

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

Outlook

In May, prices rose mirroring HR coil prices. In June, international as well as domestic prices rose in line with increasing flat steel prices. In July and August, international prices projected downwards due to a combination of correctional market forces and unfavourable Chinese duty rebates which halted South American imports. Domestic prices fell slightly due to lower demand levels. In September, prices fell due to thin trading liquidity amid lower demand. In October, both domestic and international prices fell in line with HRC prices, as international prices fell and domestic prices surged. 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.

Steel Scrap (Heavy Melting)



Source: CRISIL

Monthly Average Prices	
Period	***Dom (Rs/Tonne)**
Mar-21	28400
Apr-21	30400
May-21	32400
Jun-21	32100
Jul-21	30900
Aug-21	31900
Sep-21	31900
Oct-21	33100
Nov-21	31600
Dec-21	31300
Jan-22	34800
Feb-22	36800
Mar-22	42800

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

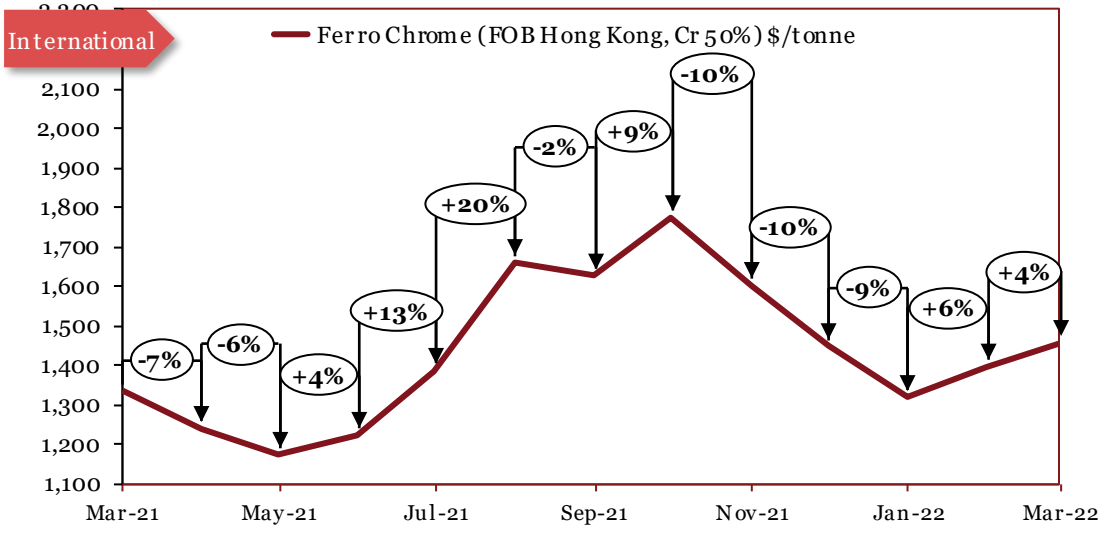
Outlook

In February, prices fell due to plummeting steel prices coupled with weakened demand. In March, prices rose in conjunction with steel prices. In April, domestic scrap prices increased, owing to rise in global steel prices. In May, domestic prices increased in line with global and domestic steel prices. In June, prices fell marginally due to better availability. In August, steel prices rose on account of a decline in China's steel supply. 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 combinations 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.

Ferro-alloys

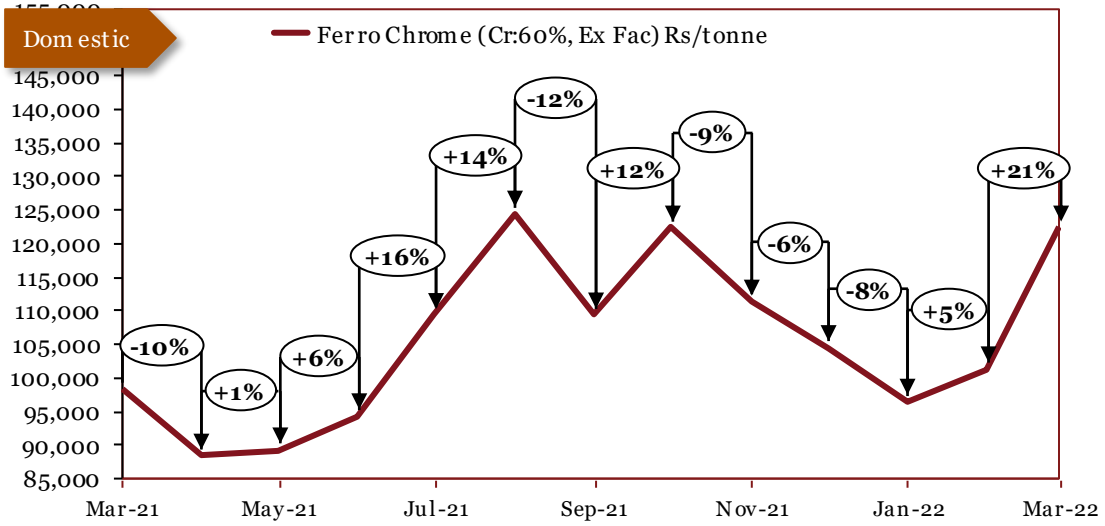
Ferro chrome

International



Source: Crisil

Domestic



Source: Crisil

Monthly Average Prices		
Period	***Int'l ($/tonne)**	***Dom (Rs/tonne)**
Mar-21	1335	98400
Apr-21	1241	88400
May-21	1173	89297
Jun-21	1224	94400
Jul-21	1387	109400
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

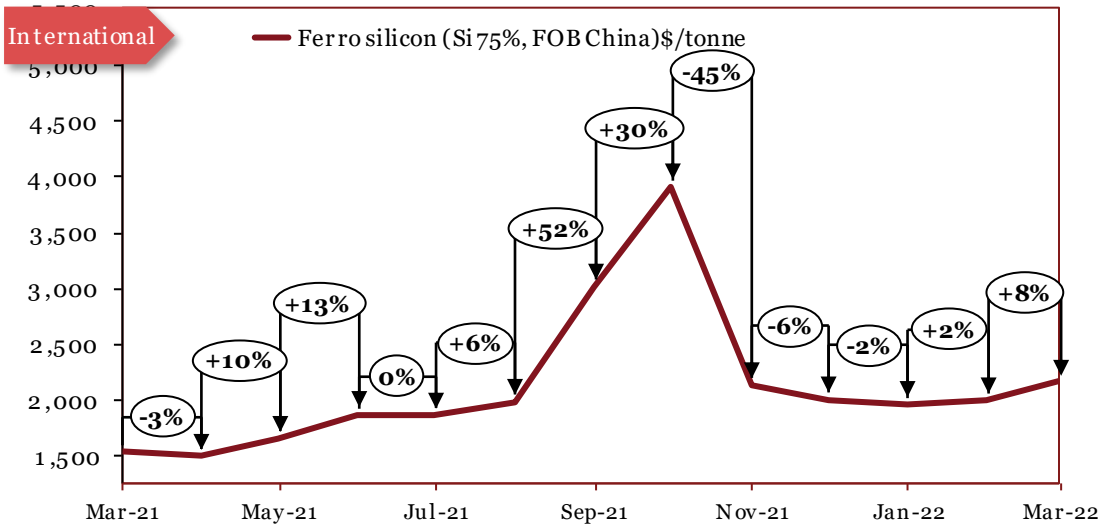
**The actual prices may vary depending on city, player, grade etc.*

Outlook

In June, international prices rose on increasing chrome ore costs. Domestic prices rose on supply issues. In August, prices rose sharply due to higher demand for ferrochrome on the back of increased stainless-steel production. In September, domestic prices fell heavily due to production cuts. International prices weren't impacted as much, as China's electricity constraints caused a leap in prices towards the end of the month. In October, international prices continued to set new highs in response to tight supply and strong demand, along with rising electricity prices. Domestic prices followed suit. In November, both international and domestic prices fell by around 10%, as improved electricity supply in most parts of China forced sellers to cut their offers. In December, prices continued to drop due to a softening of demand, coupled with a persistent rise in supply and ample inventories at steel mills, leading to a slash in tender prices. 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.

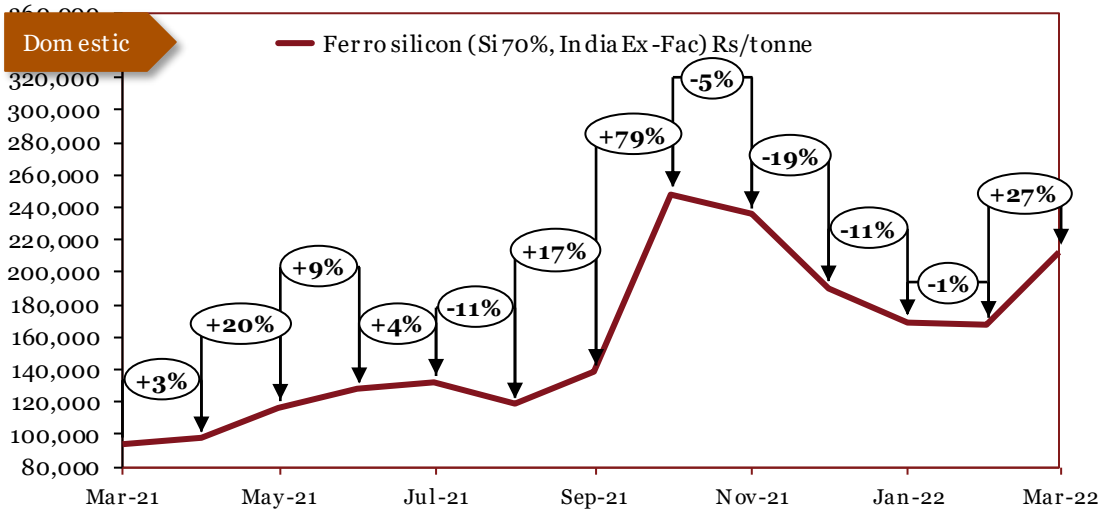
Ferro silicon

International



Source: Crisil

Domestic



Source: Crisil

Monthly Average Prices		
Period	***Int'l ($/tonne)**	***Dom (Rs/tonne)**
Mar-21	1532	94450
Apr-21	1490	97450
May-21	1642	116950
Jun-21	1856	127950
Jul-21	1856	132450
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

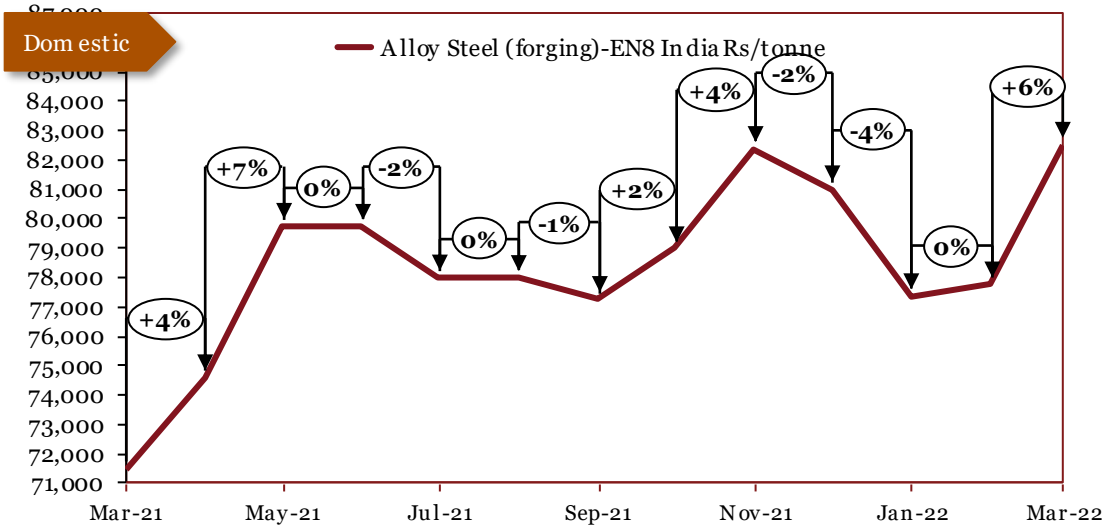
**The actual prices may vary depending on city, player, grade etc.*

Outlook

In August, international prices rose due to increased demand of ferro silicon, which is used as a warming agent in the production of steel scrap. In September, international prices rose by over 50% as spot availability became very tight, caused by production cuts in China in order to met energy consumption targets. Domestic prices rose in tandem with international prices. In October, prices continued to shatter multi-year highs on the back of rising electricity prices – amidst power cuts – along with rising futures prices and increasing Chinese price of Magnesium – the key consumer of 75% ferro-silicon. In November, international prices fell by almost 50%, on account of weakened steel demand coupled with panic selling following the historic rise in previous months. Domestic prices fell in line with international prices. In December, prices continued to decrease sharply as a result of year end sell-offs and an extensive weakening of demand both in the domestic market as well as overseas. 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.

EN8 Alloy Steel (Forging)

Domestic



Source: SIAM

Monthly Average Prices	
Period	*Dom (Rs/tonne)
Mar-21	71500
Apr-21	74600
May-21	79750
Jun-21	79750
Jul-21	78000
Aug-21	78000
Sep-21	77250
Oct-21	79000
Nov-21	82375
Dec-21	81000
Jan-22	77375
Feb-22	77750
Mar-22	82500

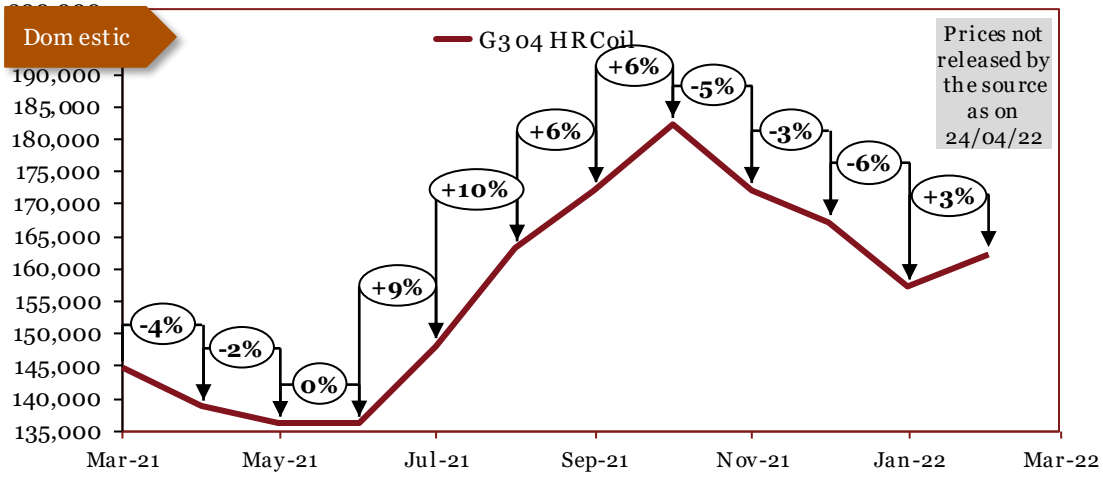
The actual prices may vary depending on city, player, grade etc.

Outlook

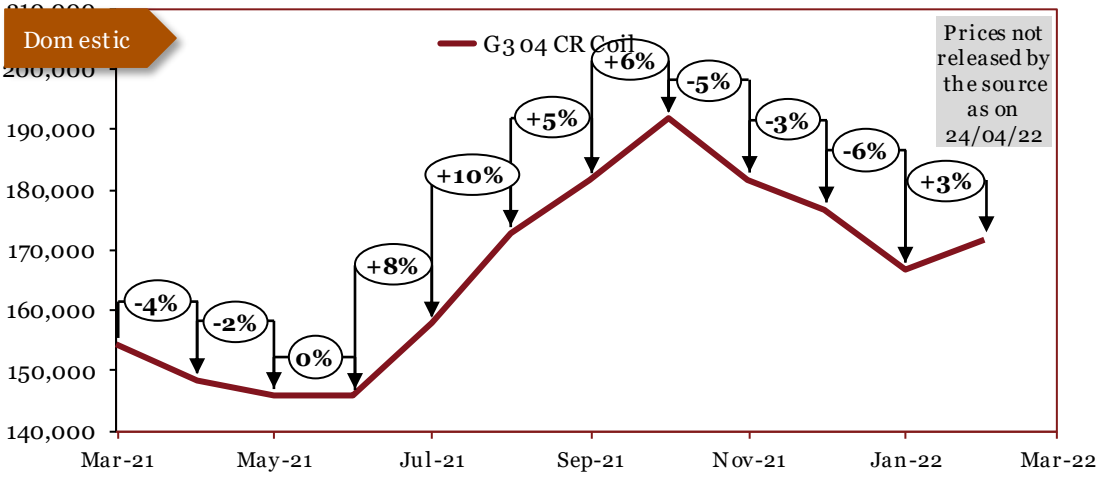
In August, prices rose domestically as part of the trend to higher steel prices. In September, prices rose further as steel prices rose on a tight supply. In October, prices continued to rise due to increased steel demand from industry. In November, prices continued to rise, on account of higher steel demand. In December, prices rose on stronger demand and a global trend of higher steel prices. In January, the trend of rise in prices continued domestically on shortage of demand of demand and increased supply. 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 conjugation with stainless steel prices. In February, prices remained stable. In March, prices increased in tandem with steel prices.

Stainless Steel

Domestic



Domestic



Source: SIAM

Monthly Domestic Average Prices

Period	*G304 HR (Rs/tonne)	*G304 CR (Rs/tonne)
Mar-21	144700	154250
Apr-21	138700	148250
May-21	136200	145750
Jun-21	136200	145750
Jul-21	148200	157750
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		

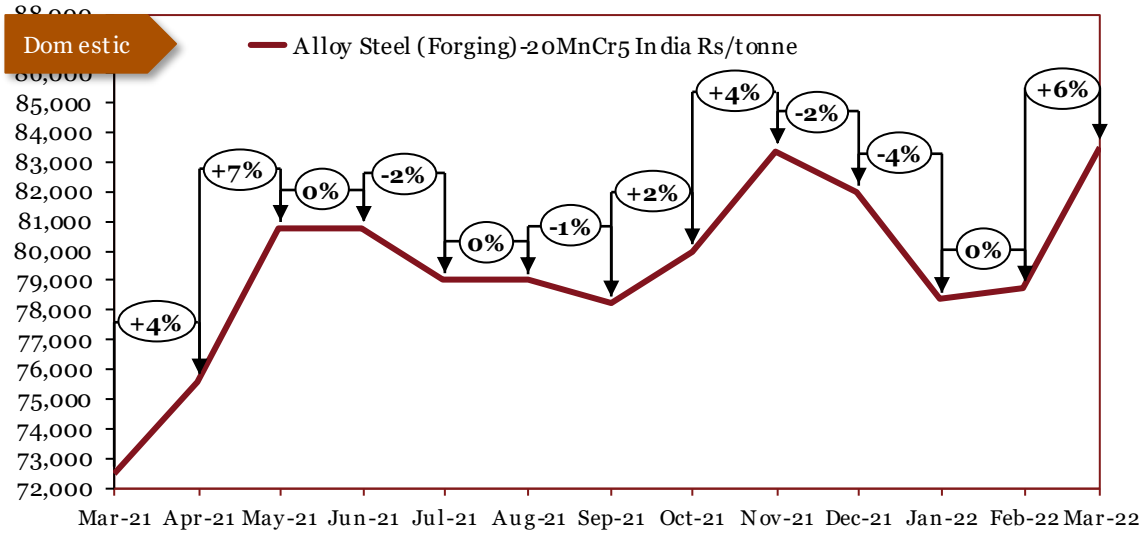
*The actual prices may vary depending on city, player, grade etc.

Outlook

In February, domestic prices saw a negligible dip on the back of weakened supply. In March, domestic prices fell marginally on improved stainless-steel supply in the market. In April, domestic prices fell on the back of improved supply. In May, prices fell owing to weaker demand amidst the second wave of Covid-19. In June, prices remained unaffected. In July, a decrease in China's steel supply resulted in a rise in prices. In August, prices continued to soar due to supply-related inflationary pressures. 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.

20MnCr5 Alloy Steel (Forging)

Domestic



Source: SIAM

Monthly Average Prices	
Period	*Dom (Rs/tonne)
Mar-21	72500
Apr-21	75600
May-21	80750
Jun-21	80750
Jul-21	79000
Aug-21	79000
Sep-21	78250
Oct-21	80000
Nov-21	83375
Dec-21	82000
Jan-22	78375
Feb-22	78750
Mar-22	83500

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

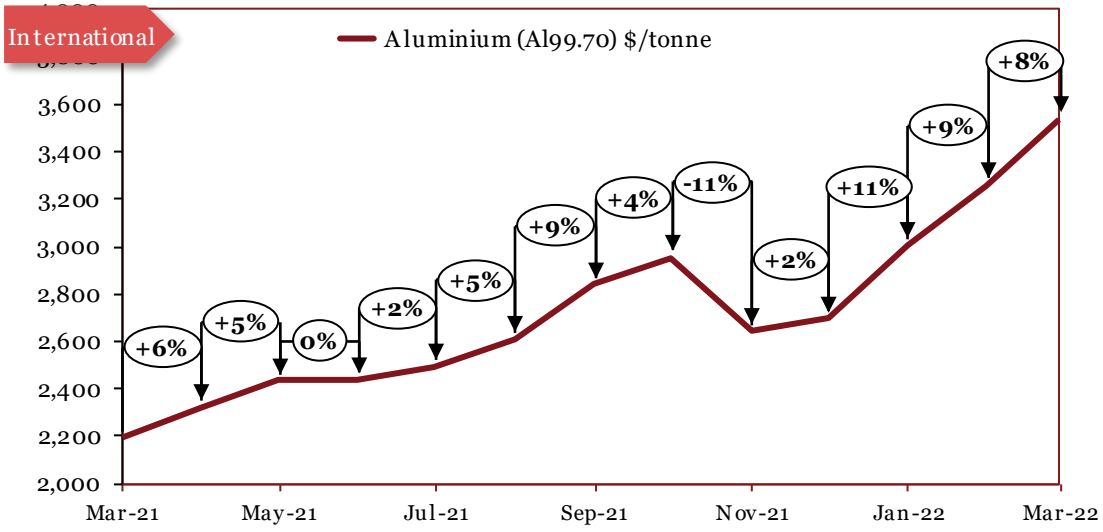
Outlook

In September, prices rose as steel prices continued to trend upwards. In October, price movement continued upwards as industrial demand from segments such as automotive continued to rise. In November, prices rose, following the trend of rising steel prices. In December, prices rose on increased demand and tight supply. In January, surging steel prices globally along with short supply were key drivers to price rise. In February, prices dipped in conjunction with global and domestic steel prices amidst weaker demand. 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.

Base Metals

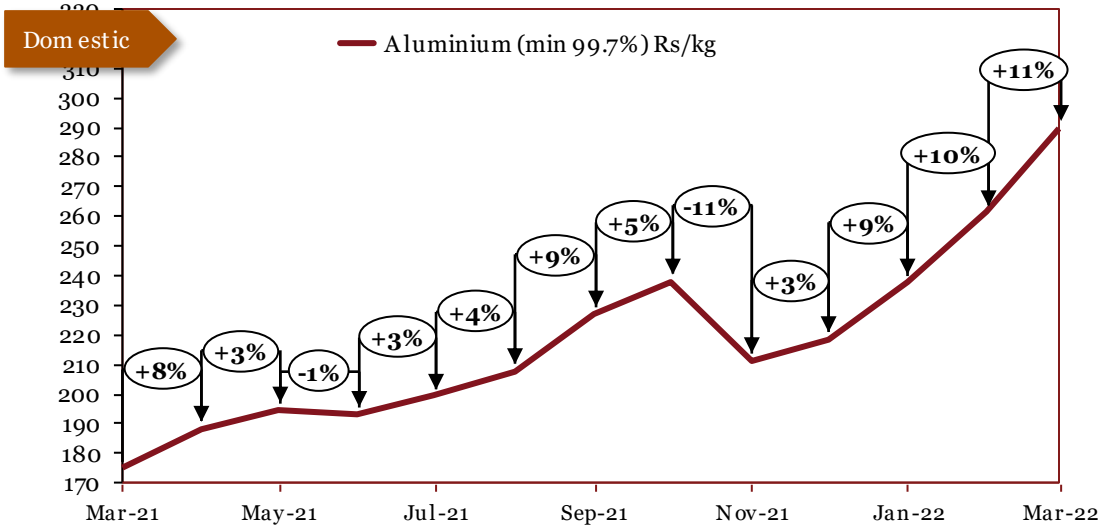
Aluminium

International



Source: LME

Domestic



*Source: MCX**
Source updated in July 2019

Monthly Average Prices

Period	*Int'l ($/tonne)	*Dom (Rs/kg)
Mar-21	2192	175
Apr-21	2324	188
May-21	2434	194
Jun-21	2439	193
Jul-21	2492	199
Aug-21	2611	208
Sep-21	2839	227
Oct-21	2955	238
Nov-21	2641	211
Dec-21	2695	218
Jan-22	3003	238
Feb-22	3260	261
Mar-22	3537	290

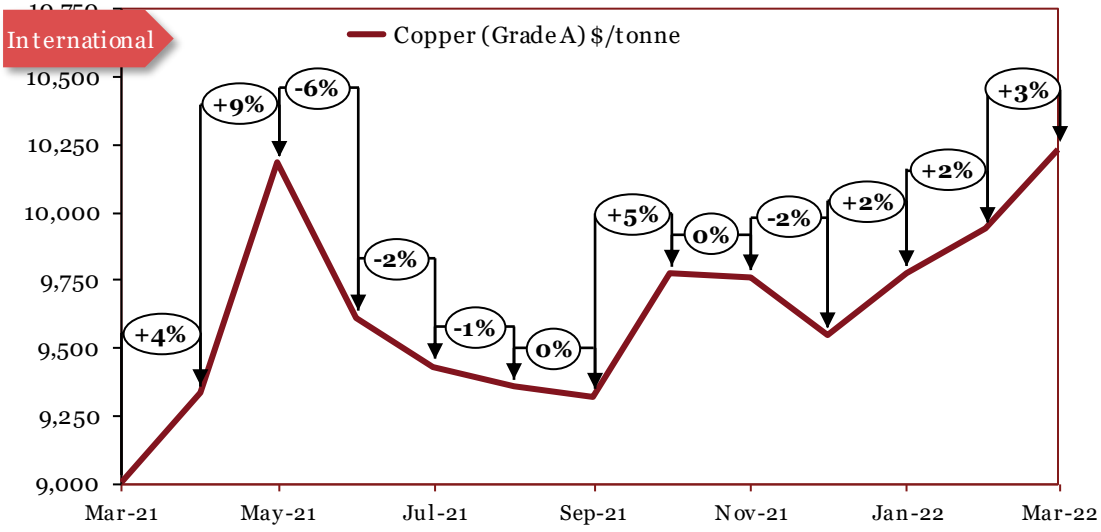
**The actual prices may vary depending on city, player, grade etc.*

Outlook

In June, international as well as domestic prices remained stable. In August, a supply-side bottleneck in China coupled with increasing Chinese imports of Aluminium resulted in a steep rise in prices. In September, both domestic and international prices rose by almost 10%, as soaring energy prices resulted in an increase in production costs. In October, both international and domestic prices continued to increase as LME Aluminium stocks hit their lowest levels since March 2020, provoking highly bullish market sentiment. This was aided by China's power restrictions. In November, both international and domestic prices fell by more than 10% due to year-end sell-offs and a backwardation effect n the London Metal Exchange, further aided by growing concerns over the Omicron variant. 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.

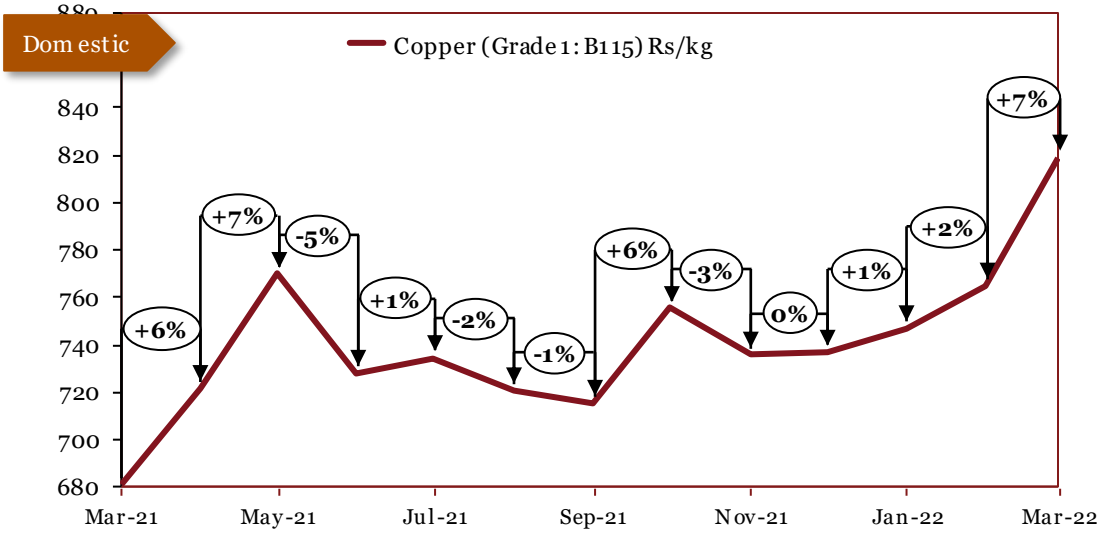
Copper

International



Source: LME

Domestic



Source: MCX

Monthly Average Prices		
Period	*Int'l ($/tonne)	*Dom (Rs/kg)
Mar-21	9005	681
Apr-21	9336	722
May-21	10184	770
Jun-21	9612	728
Jul-21	9434	734
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

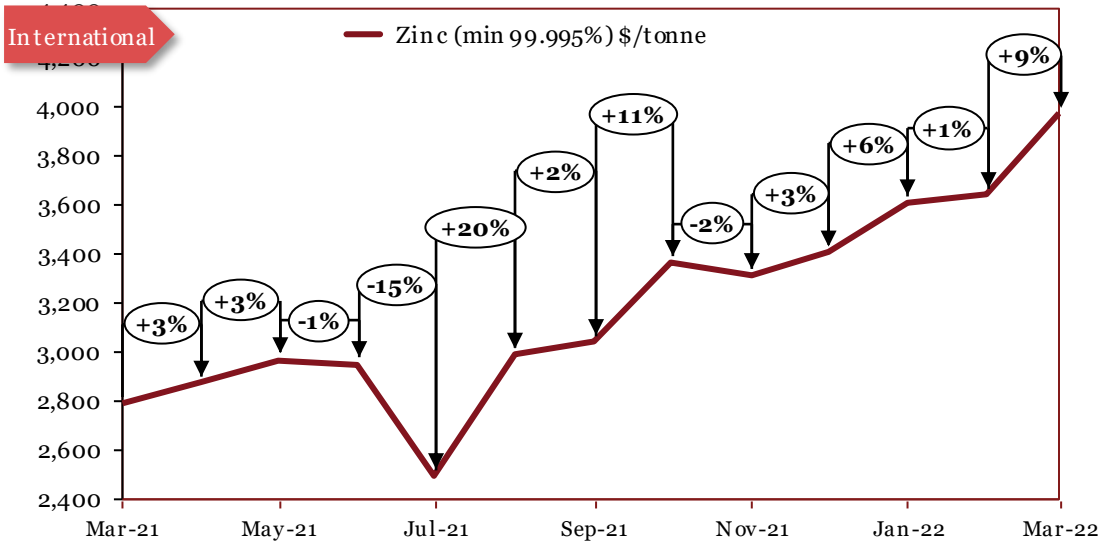
*The actual prices may vary depending on city, player, grade etc.

Outlook

In April, international prices rose as demand from renewable energy sector and electric vehicles picked up pace. Domestic prices rose in accordance. In May, international as well as domestic prices rose, due to supply disruptions in South America. In June, international prices dropped due to excessive stock amidst reduced demand from China. Domestic prices followed suit. In July and August, international prices fell as a result of China selling 30,000 tonnes of Copper from its reserves. In September, both international and domestic prices remained largely unaffected. In October, both domestic and international prices fell as reports indicated copper production fell almost 10% Y-o-Y. In November, domestic prices decreased slightly as a result of a fractional drop in copper concentrate processing charges. International prices remained stable. In December, international prices rose due to a 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.

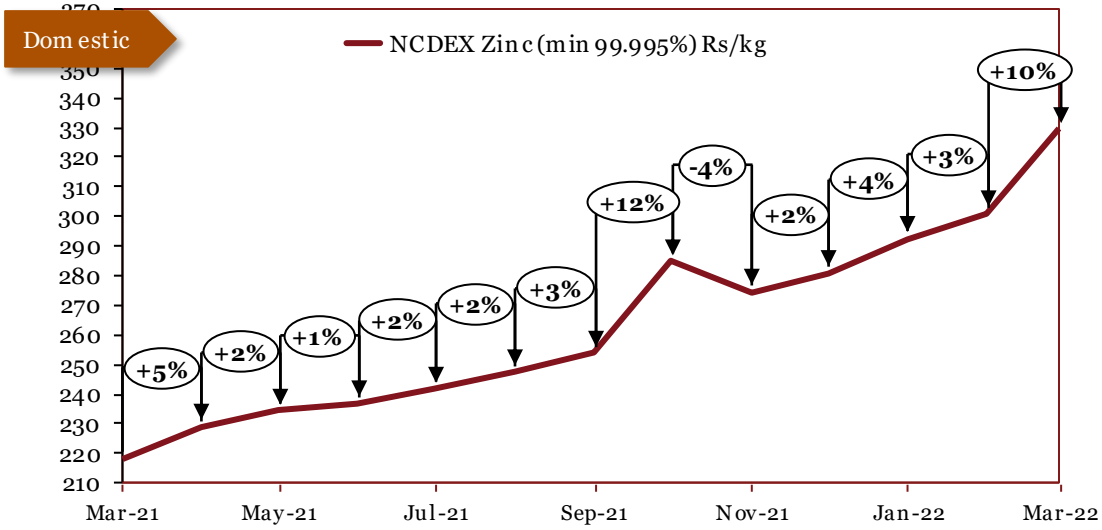
Zinc

International



Source: LME

Domestic



*Source: MCX**

Monthly Average Prices		
Period	*Int'l ($/tonne)	*Dom (Rs/kg)
Mar-21	2792	218
Apr-21	2875	229
May-21	2970	234
Jun-21	2950	237
Jul-21	2493	242
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

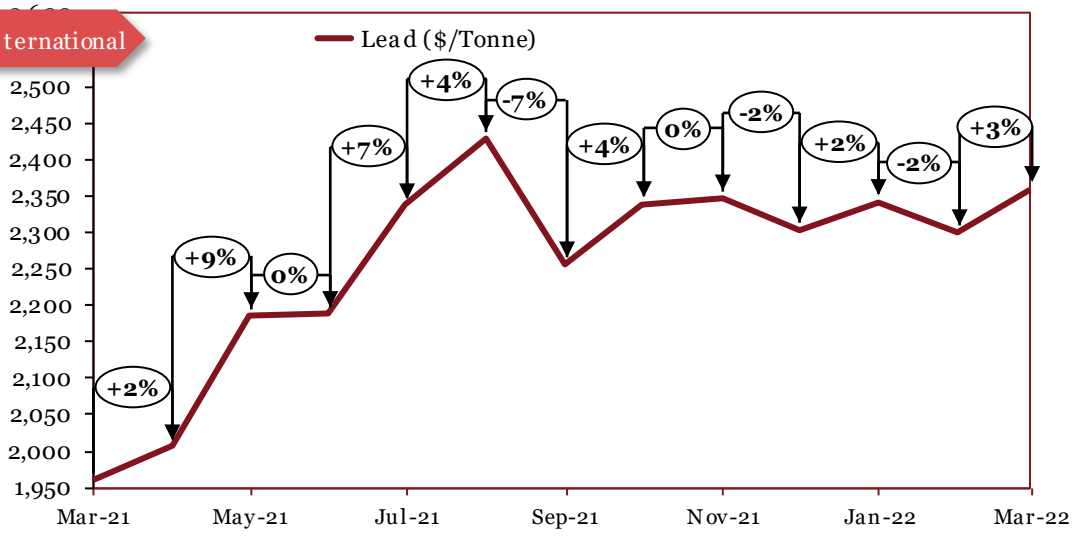
**The actual prices may vary depending on city, player, grade etc.*

Outlook

Domestic prices increased marginally. In July, prices saw a decline on account of supply exceeding demand. In August, prices rose back up due to strong Chinese demand and shrinking global inventories. In September, prices rose slightly on account of rising input costs. In October, both domestic and international prices continued to post massive gains as reports indicate that Nyrstar - one of Europe and the world's major zinc producers - is set to cut production by up to 50% at its three European smelters in response to the surge in energy prices. In November, both international and domestic prices fell amid an uncertain macroeconomic picture, caused by the advent of the 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 their 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 the 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.

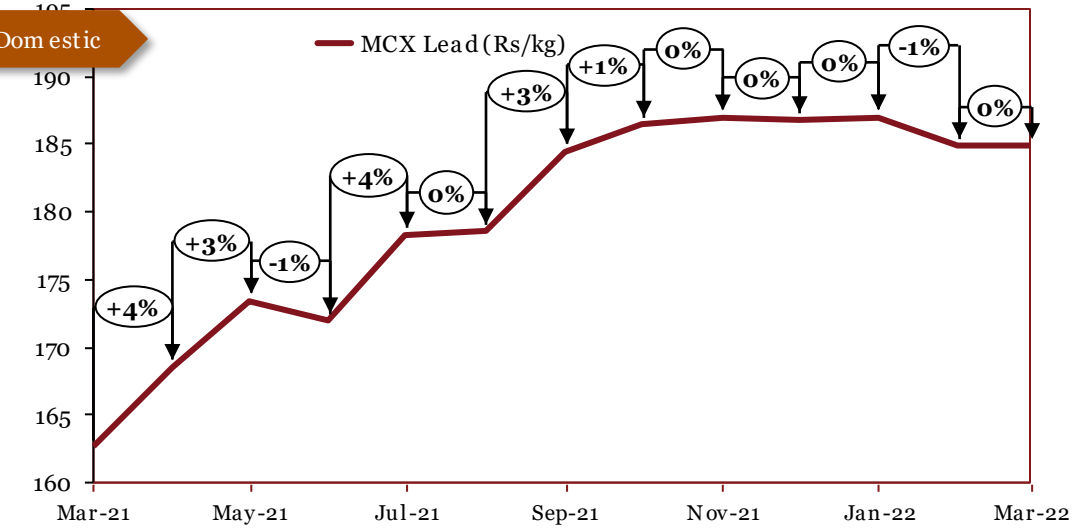
Lead

International



Source: LME

Domestic



Source: MCX

Monthly Average Prices		
Period	*Int'l ($/tonne)	*Dom (Rs/kg)
Mar-21	1961	163
Apr-21	2006	169
May-21	2186	173
Jun-21	2189	172
Jul-21	2337	178
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	2359	185

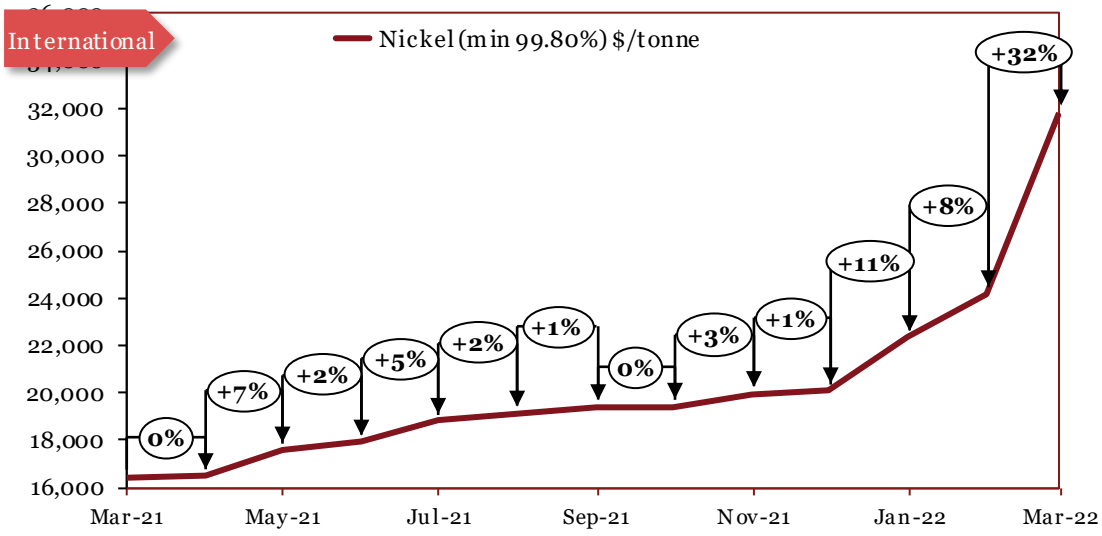
**The actual prices may vary depending on city, player, grade etc.*

Outlook

In March, international and domestic prices fell on weakened demand in spite of supply tightness. In April, international and domestic prices increased, owing to increased demand in batteries. In May, international as well as domestic prices rose on account of continued bullishness from investors and fears of supply disruptions. In June, international prices remained stable. Domestic prices saw a minimal dip due improvement in supply. In August, international prices rose as a result of declining supply. Domestic prices remained stable. 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.

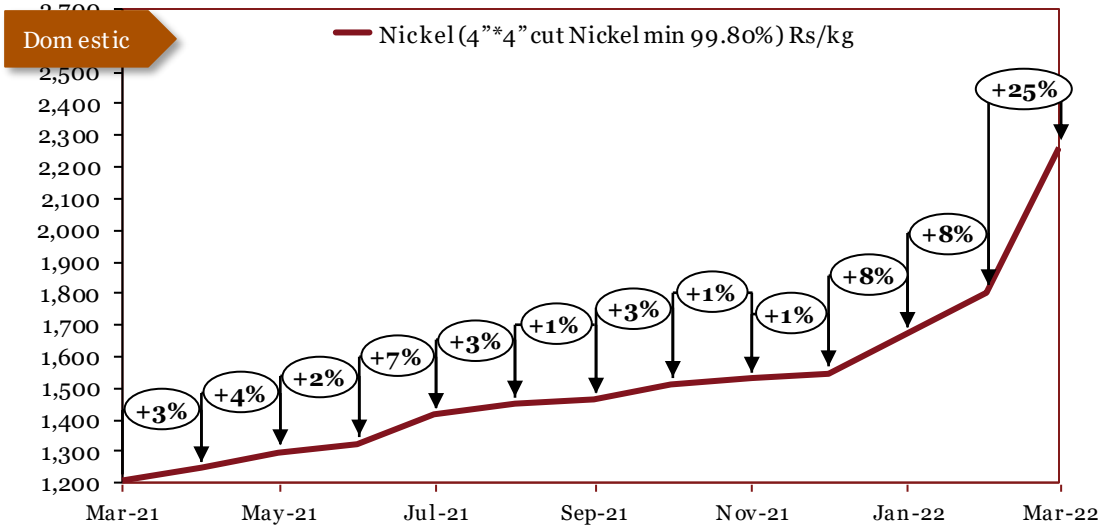
Nickel

International



Source: LME

Domestic



Source: MCX*

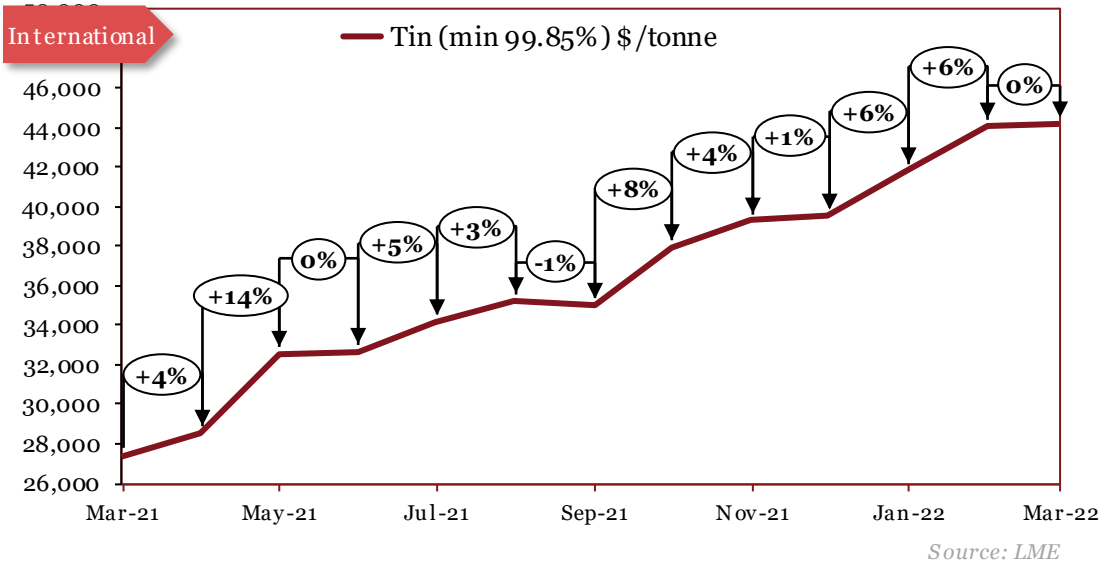
Monthly Average Prices		
Period	*Int'l ($/tonne)	*Dom (Rs/kg)
Mar-21	16461	1207
Apr-21	16481	1245
May-21	17605	1298
Jun-21	17943	1326
Jul-21	18817	1414
Aug-21	19160	1450
Sep-21	19394	1462
Oct-21	19416	1512
Nov-21	19958	1529
Dec-21	20065	1549
Jan-22	22319	1671
Feb-22	24173	1804
Mar-22	31840	2261

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

Outlook

In June, international prices saw a spike due to demand from USA, Europe and China coupled with demand for EV batteries. Domestic prices mirrored global trends. In July and August, persistent supply disruptions coupled with increasing demand continued to drive prices up. In September, both international and domestic prices remained relatively constant under stable market conditions. In October, international prices remained largely unaffected. Domestic prices rose on account of power supply concerns. In November, international prices increased by 4% - despite resistance from uncertainties over the Omicron variant – due to strengthening futures prices and tight supply conditions globally. Domestic prices followed suit. 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.

Tin



Monthly Average Prices	
Period	***Int'l ($/tonne)**
Mar-21	27396
Apr-21	28508
May-21	32524
Jun-21	32678
Jul-21	34183
Aug-21	35253
Sep-21	35034
Oct-21	37942
Nov-21	39307
Dec-21	39551
Jan-22	41790
Feb-22	44104
Mar-22	44221

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

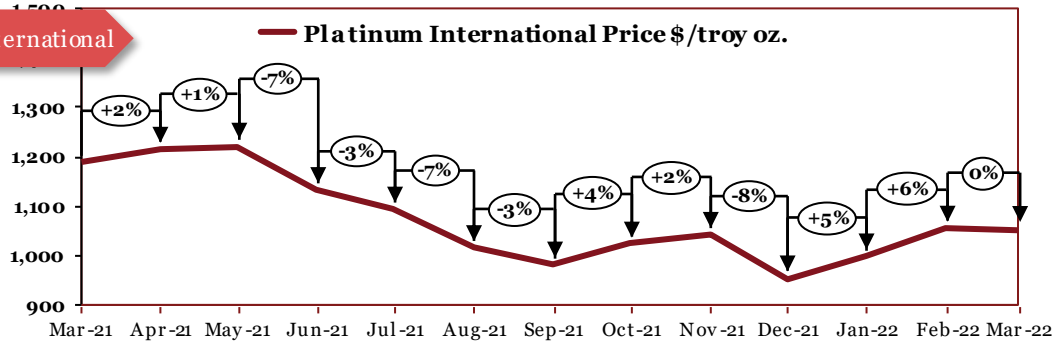
Outlook

In January, international prices surged further as consumers continued to boost global demand for electronics. In February, prices surged on the back of low supply and inventories, coupled with resurgent consumer electronics demand. In March, international tin prices rose due to tight supply and increased demand from China's electronic industry. In April, international prices rose on tight supply amidst reduced supply from Indonesia. In May, international prices surged on increased demand, mainly from the electronics sector. In June, global prices remained steady. 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.

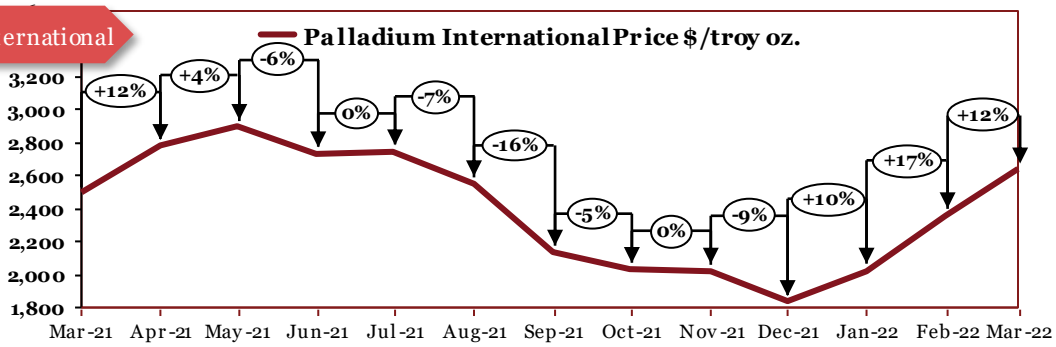
Precious Metals

Precious Metals

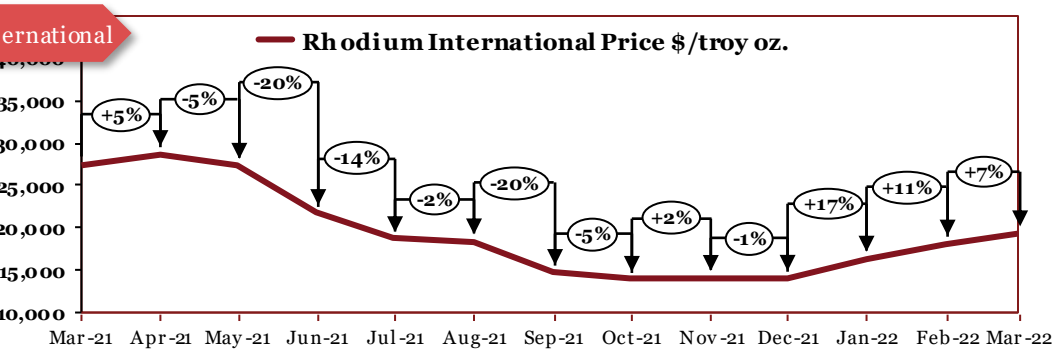
International



International



International



Source: Johnson Matthey

Monthly Average Prices ($/Oz)			
Period	Pt	Pd	Rh
Mar-21	1189	2495	27484
Apr-21	1215	2782	28737
May-21	1221	2896	27325
Jun-21	1133	2736	21752
Jul-21	1094	2744	18781
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

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

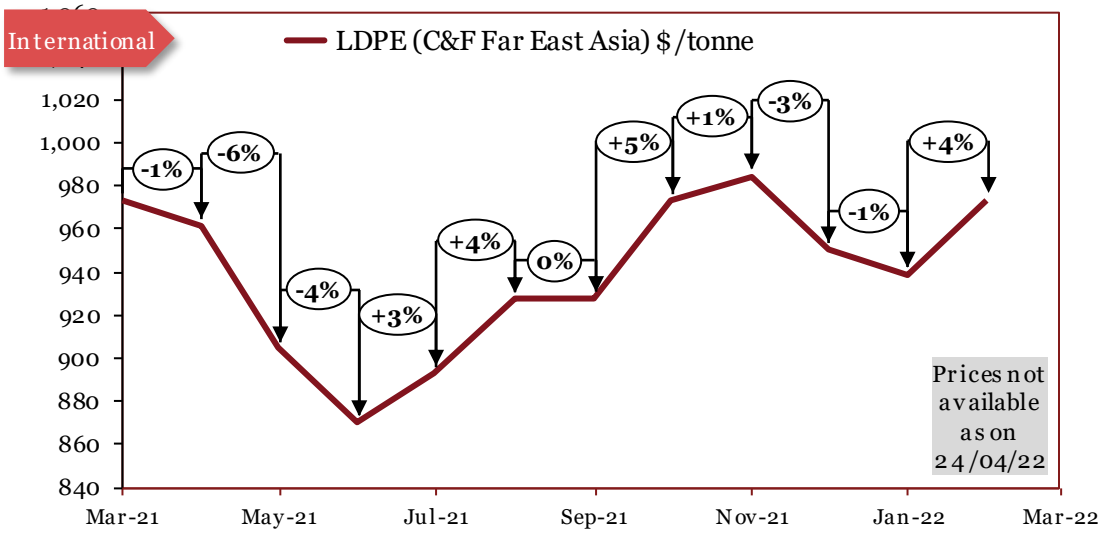
Outlook

In September, the continued lack of demand - caused by the semiconductor shortage – caused a massive decline in the prices of Palladium and Rhodium. Platinum's demand wasn't hit as hard due to its various uses, thus its price dropped only marginally. In October, prices of Palladium and Rhodium continued to fall amid the ongoing semiconductor shortages – which induced a lack of demand. Platinum's price rose slightly due to supply tightness. In November, Platinum and Palladium prices increased marginally as a result of a recent increase in demand for precious metals in smelting circuit boards onto cell phones. Palladium prices remained stable. In December, prices decreased across all 3 precious metals due to a significant drop in demand, as commercial and industrial activity declined following concerns over the Omicron variant. In January, prices rose drastically due to a marginal rise in demand 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.

Polymers & Rubber

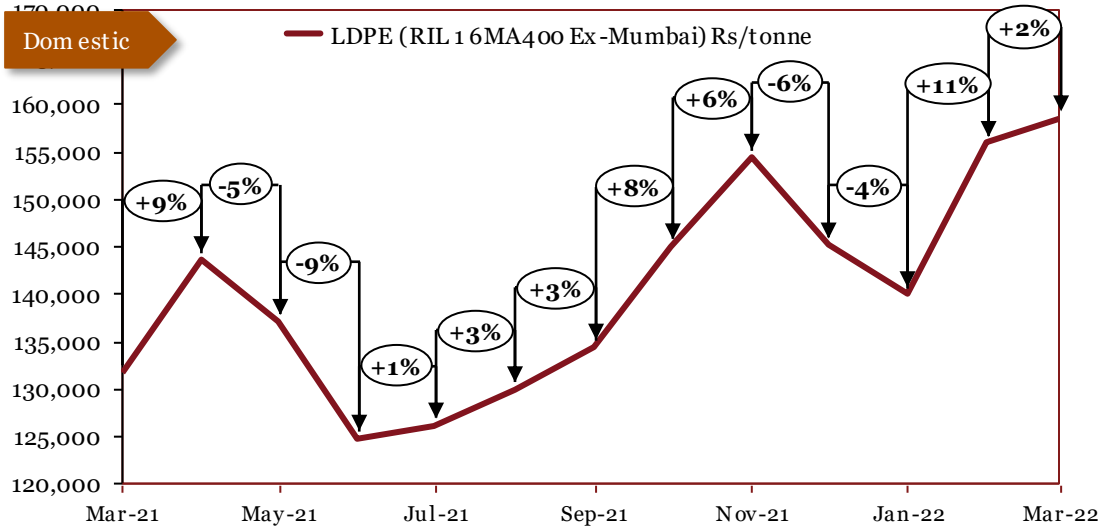
Low density polyethylene (LDPE)

International



Source: Crisil

Domestic



Source: Reliance Industries Ltd.

Monthly Average Prices		
Period	***Int'l ($/tonne)**	***Dom (Rs/tonne)**
Mar-21	973	131732
Apr-21	962	143661
May-21	905	137145
Jun-21	870	124861
Jul-21	893	126218
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		158559

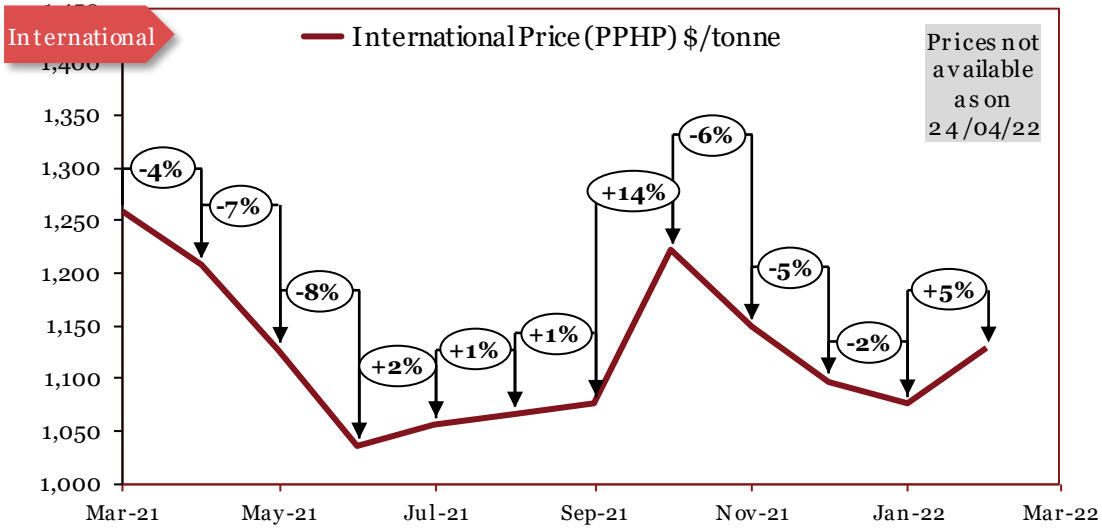
The actual prices may vary depending on city, player, grade etc.

Outlook

In March, domestic prices rose in conjunction with ethylene prices amidst tight supply. In April, domestic prices increased on supply tightness amidst reduced production from US. In May, prices fell on the back of stable movement of raw material and decreased margins. In June, domestic prices fell further due to ease in supply tightness and continued demand from consumer industries. In July, both domestic and international prices rose in tandem with rising crude oil prices. In August, Reliance Industries Limited arbitrarily raised domestic prices, on the back of strong demand. In September, prices rose due to rising oil prices. In October, both domestic and international prices increased due to high energy prices, resulting in tight supply. 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.

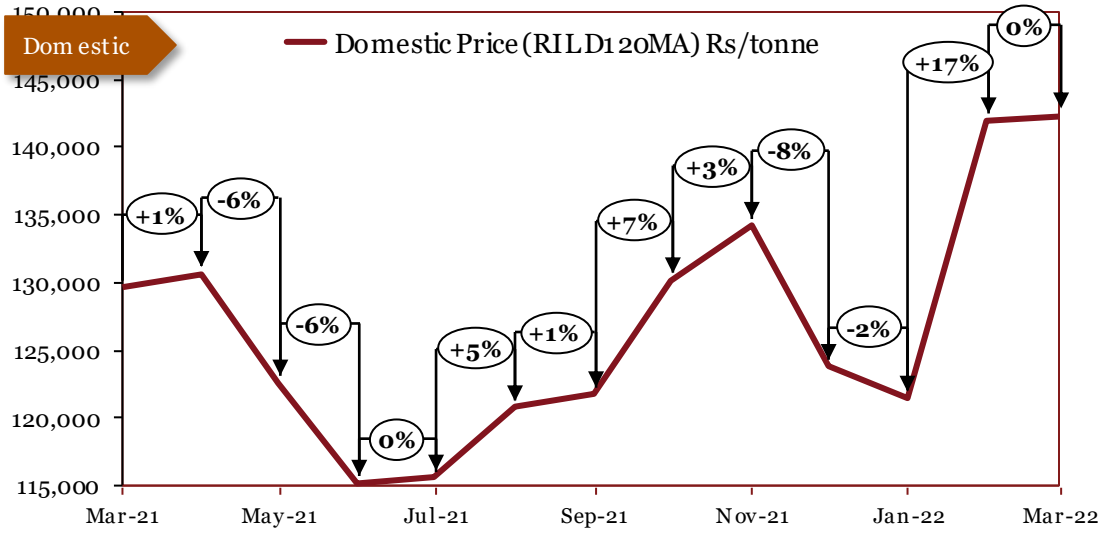
Polypropylene (PP)

International



Source: Crisil

Domestic



Source: Reliance Industries Ltd.

Monthly Average Prices		
Period	*Int'l ($/tonne)	*Dom (Rs/tonne)
Mar-21	1259	129681
Apr-21	1208	130673
May-21	1127	122586
Jun-21	1035	115206
Jul-21	1056	115581
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		142288

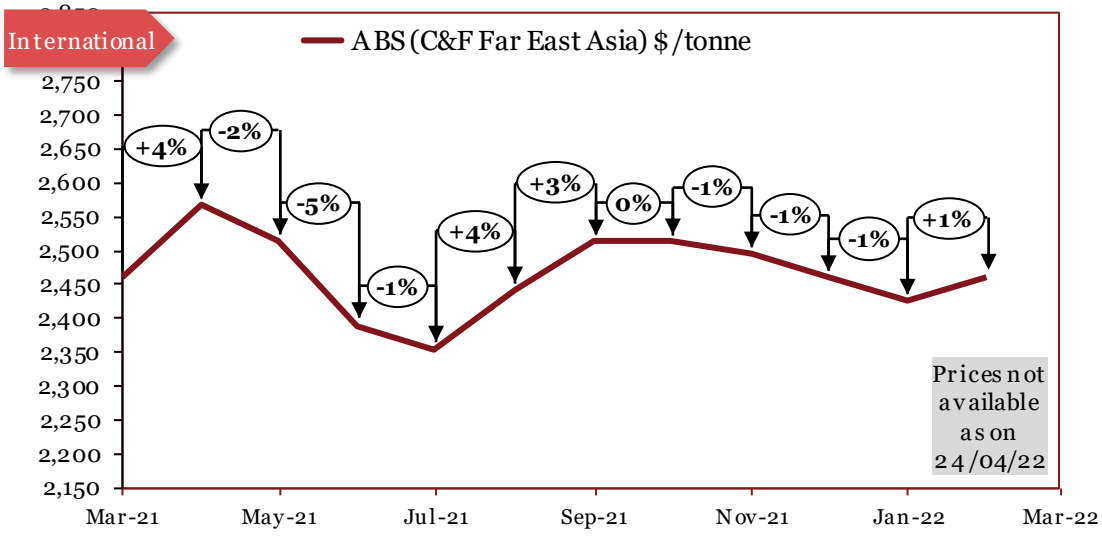
*The actual prices may vary depending on city, player, grade etc.

Outlook

In December, international prices rose alongside the spurt in oil prices. In January, domestic prices rose on the back of increased crude oil prices. In February, international prices rose on demand, while domestic prices remained constant. In March, domestic prices surged on high demand and tight supply. In April, domestic prices increased slightly due to supply tightness. In May, prices dipped due to ease in demand and supply tightness. In June, prices fell in line with LDPE. In July, international prices rose slightly due to higher crude oil prices whereas domestic prices remained stable. In August, domestic prices moved upwards due to increased demand for PP as a raw material in manufacturing Personal Protective Equipment (PPE). 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.

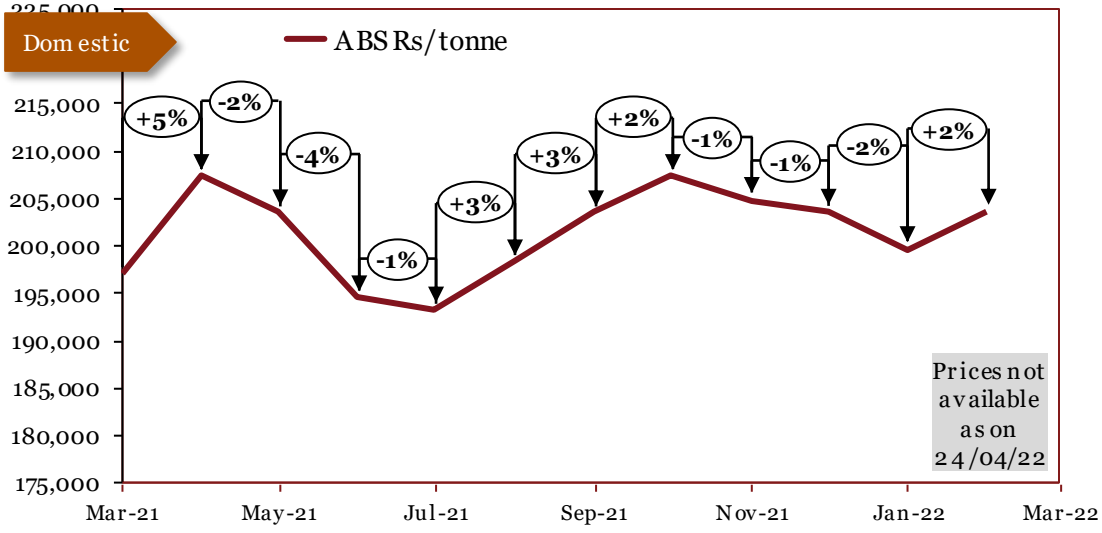
Acrylonitrile Butadiene Styrene *(ABS)*

International



Source: Crisil

Domestic



Source: Crisil

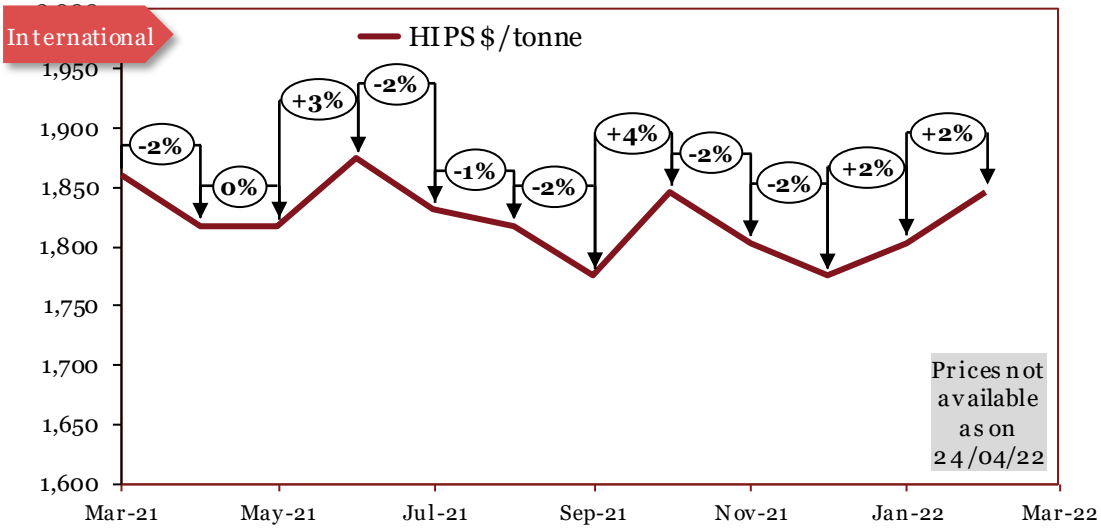
Monthly Average Prices		
Period	*Int'l ($/tonne)	*Dom (Rs/tonne)
Mar-21	2460	197120
Apr-21	2567	207360
May-21	2513	203520
Jun-21	2390	194560
Jul-21	2354	193280
Aug-21	2443	198400
Sep-21	2513	203520
Oct-21	2513	207360
Nov-21	2496	204800
Dec-21	2460	203520
Jan-22	2425	199680
Feb-22	2460	203520
Mar-22		

Outlook

In March and April, international prices rose on the back of increased demand from consumption in appliances and consumer goods. Domestic prices followed suit. In May, international as well as domestic prices dropped due to contracted margins which was a result of increase in raw material prices of styrene. In July, international prices marginally fell due to lower demand. Domestic prices followed suit. 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. Internat ional 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.

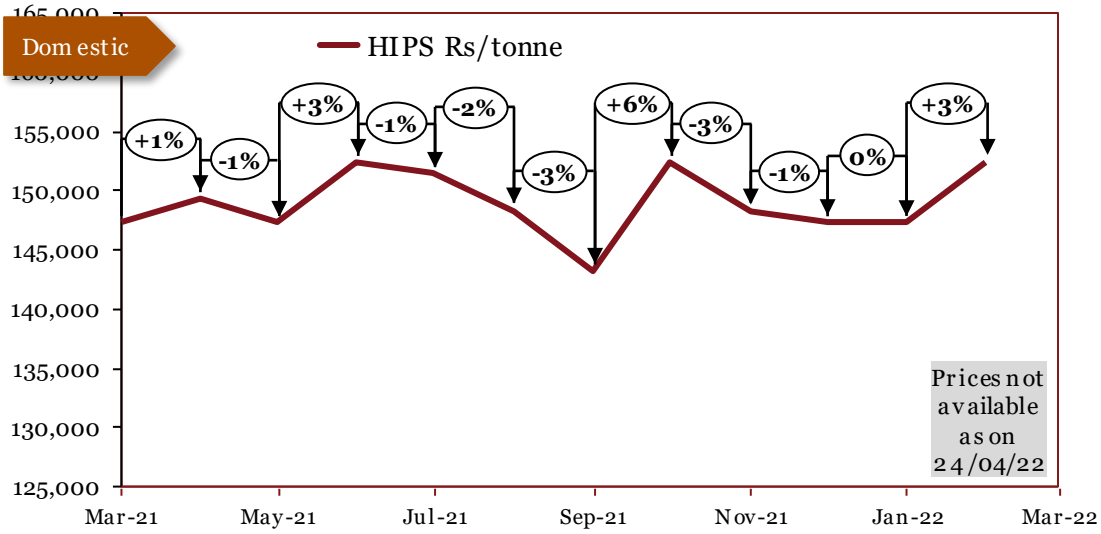
High Impact Polystyrene *(HIPS)*

International



Source: Crisil

Domestic



Source: Crisil

Monthly Average Prices

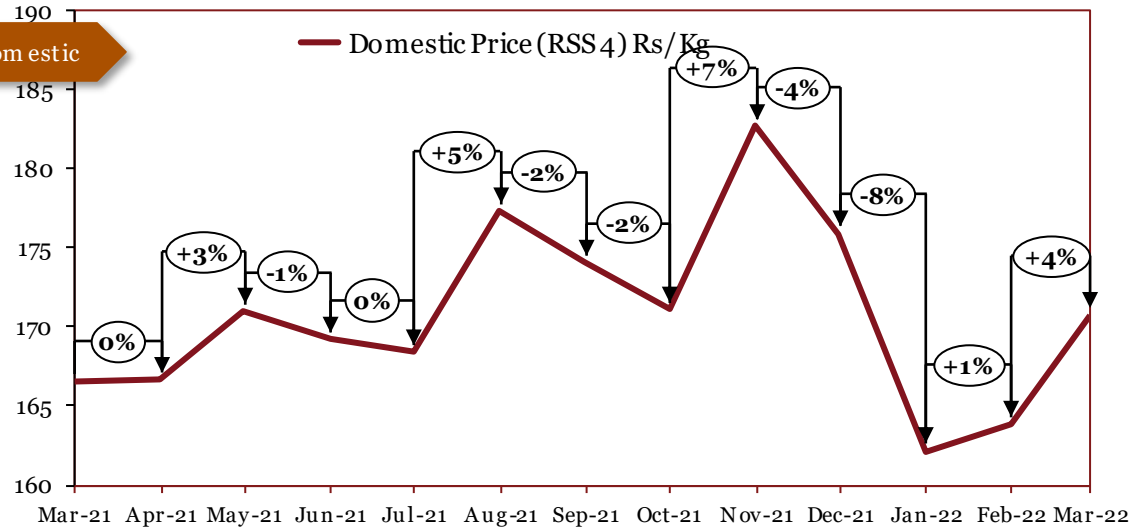
Period	*Int'l ($/tonne)	*Dom (Rs/tonne)
Mar-21	1860	147290
Apr-21	1818	149350
May-21	1818	147290
Jun-21	1874	152440
Jul-21	1832	151410
Aug-21	1818	148320
Sep-21	1775	143170
Oct-21	1846	152440
Nov-21	1803	148320
Dec-21	1775	147290
Jan-22	1803	147290
Feb-22	1846	152440
Mar-22		

Outlook

In March, international as well as domestic prices rose in line with ABS. In April, international prices declined due to subdued demand, while domestic prices rose marginally. In May, international prices remained stable, while domestic prices dipped in line with ABS. In July, both domestic and international prices fell in accordance with raw material and ABS prices. 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.

Rubber

Domestic



Source: Rubber Board

Monthly Average Prices	
Period	***Dom (Rs/kg)**
Mar-21	167
Apr-21	167
May-21	171
Jun-21	169
Jul-21	168
Aug-21	177
Sep-21	174
Oct-21	171
Nov-21	183
Dec-21	176
Jan-22	162
Feb-22	164
Mar-22	171

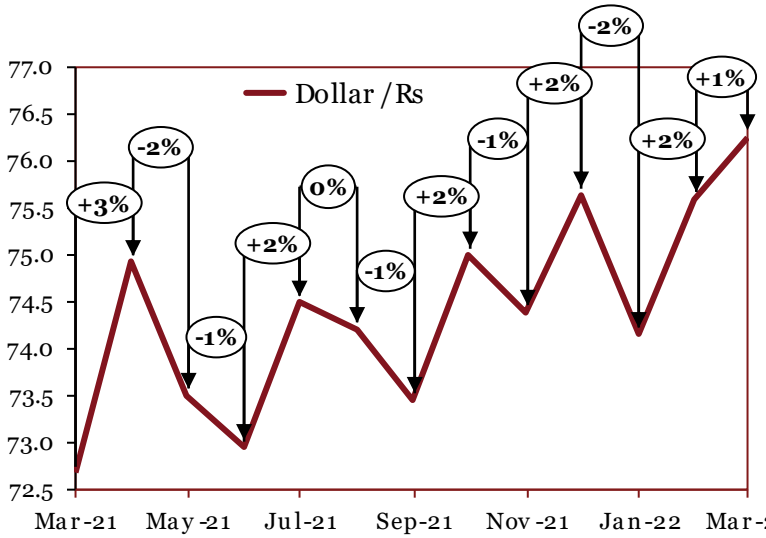
**The actual prices may vary depending on city, player, grade etc.*

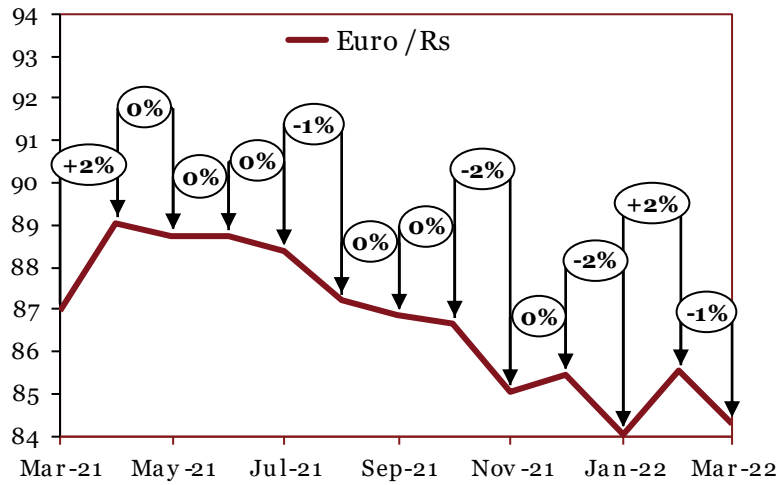
Outlook

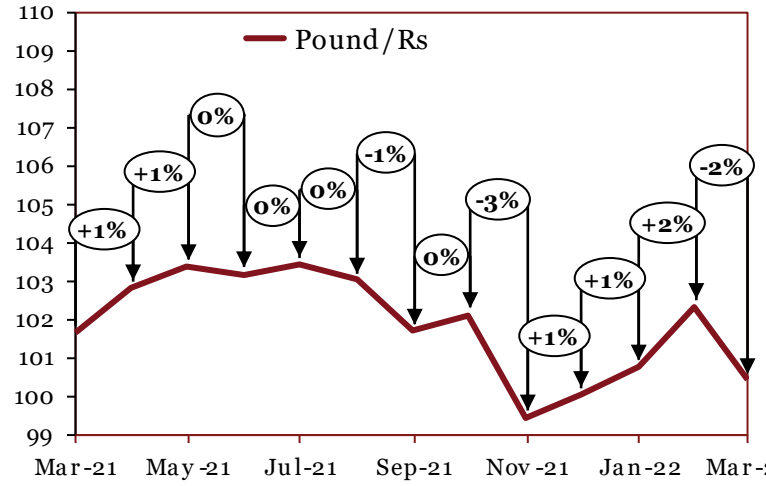
In April, domestic rubber prices remained unchanged. In May, prices rose on the back fall in production in Kerala due to the Covid-19 pandemic. In June, prices dipped marginally due to lower demand from automotive and rubber gloves manufacturing players. In July, prices continued to gradually fall as rubber production started to bounce back to pre-pandemic levels. In August, prices increased due to seasonal supply disruptions. In September, prices fell marginally due to soft demand, caused by lower exports to China. In October, prices continued to slip as demand from the automobile industry slowed down, owing to the semiconductor shortage. 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 tyres. In February, prices remained stable. In March, prices rose due to sluggish production, import hurdles and rising crude oil prices.

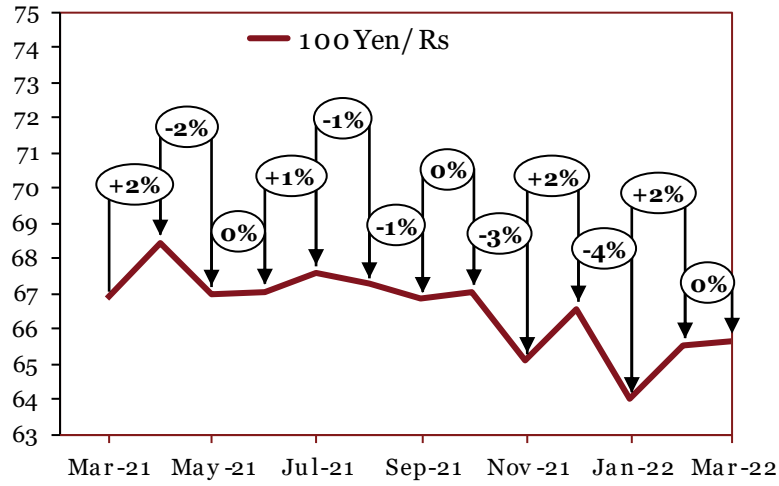
Appendices

Forex Movement









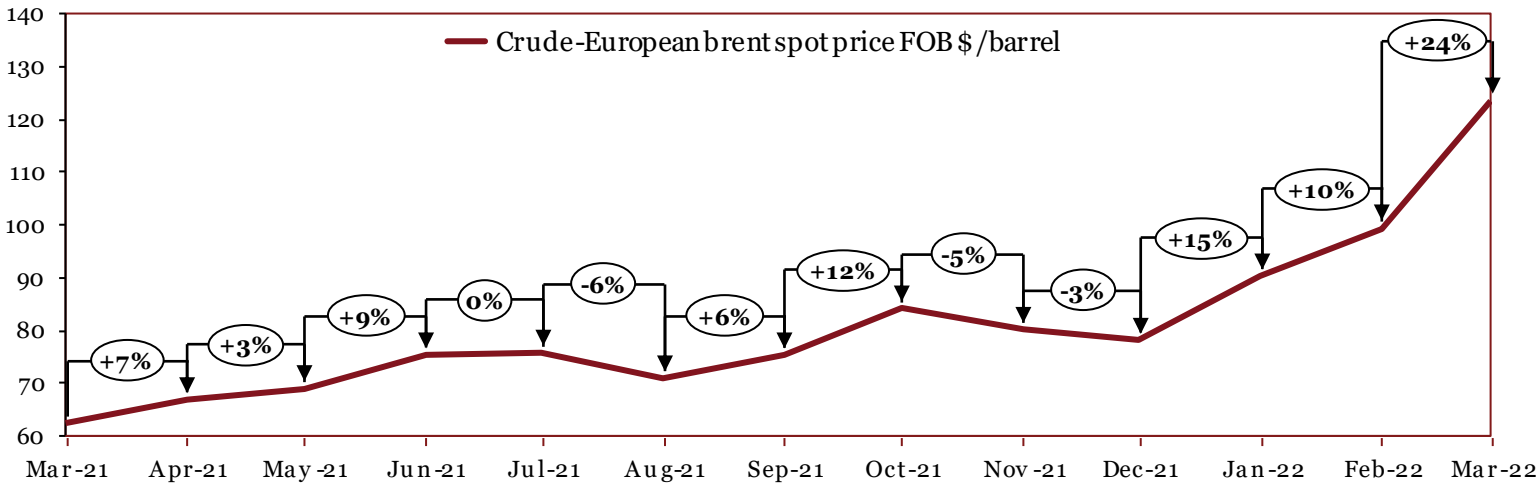
Source: SIAM

Monthly Average Prices (Rs)

	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
$	73	75	73	73	74	74	73	75	74	76	74	76	76
£	102	103	103	103	103	103	102	102	99	100	101	102	100
€	87	89	89	89	88	87	87	87	85	85	84	86	84
¥	67	68	67	67	68	67	67	67	65	67	64	66	66

Crude Oil

Source: SIAM



Monthly Average Prices ($/barrel)													
	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
	63	67	69	75	76	71	75	84	80	78	90	99	124

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 *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 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	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 •ASTM 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
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%

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"*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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